



Baltimore County Efficiency Review

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INTRODUCTION

I. Origin of the Baltimore County Efficiency Review

For the last two years, Baltimore County Government has been undergoing a surge of reinvention and forward progress. With the adoption of its first Enterprise-Wide Strategic Plan in 2019, Baltimore County has embarked on an ambitious path to achieve its goals. Baltimore County has set out not only to modernize county government operations by adopting and leveraging 21st Century technologies and processes, but to “leapfrog” ahead onto the cutting edge of local governance by implementing new practices and policies that are efficient, effective, data-driven, equitable, and connected to Baltimore County communities. These efforts have gained significant momentum. Notable accomplishments in the interim, to name just a few, include:

- The creation of:
 - » A countywide performance management system, known as BCSTAT, that leverages data to drive better decision-making,
 - » An Economic Development Commission,
 - » The County’s first Office of Diversity and Inclusion,
 - » The County’s first Department of Housing and Community Development,
 - » The County’s first Office of Sustainability, and
 - » The Office of Inspector General.
- Launching the Towson Loop pilot public transit option.
- Implementing a landfill-to-gas energy system to expand renewable energy performance, and re-starting glass recycling.
- Securing record funding for road resurfacing and traffic calming measures.
- Securing record investment in Baltimore County Public Schools.
- Passing legislation to modernize and reform policing.
- Initiating an end-to-end Business Process Review of Water and Sewer functions.
- Creating a Solid Waste Work Group to examine the County’s collection and disposal practices.

To build on Baltimore County’s growing momentum, in October 2020, the County issued a Request for Proposals for an Operational Efficiency Review to assess the structure and functions across agencies and departments, including Baltimore County Public Schools (BCPS), to achieve cost savings through operational efficiency. This assessment was intended to:

- Evaluate the current state of executive branch agency organization, service delivery and staffing structures to identify potential ways to achieve cost savings, eliminate operational inefficiencies and enhance service delivery.
- Identify points of service redundancy and recommend process improvements, including streamlining existing processes and operations.
- Look at opportunities to leverage revenues through existing funding streams and build innovative public-private partnerships.
- Identify barriers to solving these issues and lay out a plan for achieving greater operational efficiency and cost savings, in some instances through improving collaboration across departments.
- Build comprehensive recommendations for Baltimore County to achieve greater operational efficiencies and cost savings, including process improvements and opportunities to leverage funding and create opportunities for public-private partnerships. Other potential areas for recommendations included reorganization and technological enhancements.

Public Works LLC was chosen to provide these services. The project, now known as the Baltimore County Efficiency Review, was launched on February 17, 2021. Public Works LLC has already completed and released the first volume of this review, concerning BCPS. This first report contained 197 recommendations for improvement in BCPS operations, presented in a 759-page report including \$39 million in net five-year savings. The BCPS effort is described in more detail in our report separately released on September 14, 2021.

This volume completes the review and addresses the Baltimore County Government. Upon receipt of this report, Baltimore County will determine which of the proposed initiatives to pursue and the timeframe in which to undertake and complete them. Savings estimates, where provided, are based on the information available to the review team during the period of the study; the County will undertake any further analysis needed to determine savings in real-time considering current County priorities, budgets, spending limits, and any other current data that could affect anticipated outcomes. The intent of this document is to serve as a valuable resource and roadmap for future County improvements that will inform the County's decisions in each of the improvement areas addressed, regardless of whether each recommendation is implemented.

II. Methodology of Review

Public Works LLC came to Baltimore County with significant organizational review experience including seven state governments, eighteen other, state agencies, and roughly a dozen other government entities including a bi-state transportation authority, and several of the largest city and county governments in the country. The Public Works review team for Baltimore County included over 40 individuals. Among these were three former county departmental leaders, including a former human services director, public works department director, and assistant budget director/departmental chief of finance; the former mayor of a major city and the former finance director of two large cities; several former gubernatorial chiefs- or deputy chiefs-of-staff and policy directors, and three former state agency heads (in Administration, Aging, and Early Learning); two professional city/regional planners; and the associate director for local government executive education of the national Center for Homeland Defense & Security.

Our model for this project called for the following major activities:

1. Developing a proactive plan for internal communications and decision-making.
2. Collecting the input of department leaders, management, and staff.
3. Analyzing relevant data, legislative or program history and operations – including not only documentation and reports, but also benchmarking, best practices and diagnostic assessments.
4. Identifying opportunities for achieving new efficiencies – including streamlining operations and processes, leveraging appropriate technologies, return on investment, and priorities for future growth and development.
5. Answering questions important for the continued viability of the organizations and their programs by:
 - Rethinking how the agency, program, or activity in question operates
 - Determining whether any agencies, programs or activities are failing to carry out their duties in the most efficient and effective manner possible – and whether some activities no longer serve a useful purpose
 - Identifying any duplication in procedures, programs, or staffing
 - Assessing potential staffing inefficiencies
 - Evaluating the quality of customer service
 - Considering strategic enterprise and programmatic information technology and analytics tool needs and capabilities
 - Assessing effectiveness of communications between staff and management
 - Reviewing any issues that have been subject to public or legislative scrutiny
6. Providing for internal review of draft recommendations by County Government and BCPS officials and staff to “trouble-shoot” our recommendations for feasibility and accuracy.
7. Working closely with departmental budget staff to obtain accurate baseline data from which to calculate conservative, reliable financial projections of savings and efficiency gains.

8. Producing reports that can be used as a record for management, as well as a mechanism to communicate with the public in language that is understandable to the layperson.
9. Soliciting adequate stakeholder engagement.
10. Providing for interactive “tollgate” discussions and decision-making by client leadership on all recommendations.
11. Identifying nationwide and peer county best practices that can be used as models and resources, and against which progress can be benchmarked.
12. Providing implementation guidance that outlines next steps and major tasks involved, legislative changes required, requirements, and/or lessons learned from other jurisdictions.

Below is a schematic of our process:

<p>1 EVALUATION</p> <p>Evaluate departmental performance as a function of its vision, mission, strategic plan, operating policies and procedures, rules, regulations, and standards in all operational areas and provide guidance to overcoming any barriers to the implementation of recommendations.</p>	<p>2 STRUCTURAL ANALYSIS</p> <p>Identify any staffing, span of control, structural, management, or fiscal problems that may hinder the implementation and achievement of the policies and objectives in each department.</p>
<p>3 STAFFING & OPERATIONS</p> <p>Review the methods used by the departments to evaluate workload, staffing requirements, and productivity in all operational areas.</p>	<p>4 TECHNOLOGY</p> <p>Evaluate the departments’ use and optimization of technology to increase efficiency and effectiveness.</p>
<p>5 FISCAL PROJECTION</p> <p>Identify any opportunities for revenue generation, savings, share services and for public-private partnerships.</p>	<p>6 IMPLEMENTATION</p> <p>Include in our approach not only doable recommendations, but also steps for implementation, tips for overcoming barriers, and a five-year fiscal impact.</p>

The County Government review included over 300 interviews, meetings, or group discussions with over 200 County employees, including the County Executive, the Administrative Officer, the top staffs of each, the heads of all the departments covered in this report, and many of their top staffs and division or office chiefs – as well as line employees including inspectors, police officers, nurses, lawyers, technicians, and individuals across a wide range of County job descriptions. Additionally, we interviewed dozens of individuals from outside Baltimore County Government as part of our discovery and benchmarking processes, including officials from external stakeholders, and the leaders of each of the County’s employee unions. We also conducted an electronic survey, “Baltimore County Employee Insights on Efficiency,” to which all County employees were invited to respond,

and to which a total of 1,562 County employees across 23 departments provided feedback. We are grateful to all these individuals for their time, thoughtful input, and valuable insights which have been integral to producing the recommendations contained in this report.

The review team benchmarked Baltimore County Government to comparable operations in peer counties, both in Maryland – predominately Montgomery, Prince George’s, Anne Arundel and Harford counties, as well as Baltimore City – and nationwide, including such counties as St. Louis County (Missouri), Davidson County (Tennessee), Jefferson County (Kentucky), King County (Washington), and San Diego County (California). We also researched best-practices beyond those of these peer counties for virtually all county processes we encountered. This report contains hundreds of best-practice comparisons, examples, suggestions, and model programs from different jurisdictions across the country.

This process resulted in several hundred potential ideas for improving County government operations, all of which were shared with and reviewed by the relevant department director(s) as well as additional County staff where their expertise was relevant. Of those preliminary ideas, the most promising recommendations that showed the potential to be both practical and effective in the context of Baltimore County were presented and discussed in a series of three “Tollgate” meetings to the County Executive, County Administrative Officer, other high-level county staff and officials, and the relevant department directors. The term “Tollgate” is borrowed from the very first comprehensive government efficiency review – the Texas Performance Review, which formed the foundation for the celebrated National Performance Review of the federal government in 1993-94 and is the basis for most of our own methodology and procedures. These sessions are called “Tollgates” because each proposed recommendation or solution to an identified issue or challenge must stop at the tollgate and pay its due. After sufficient scrutiny, it is either allowed to proceed, diverted to the “parking lot,” or required to undergo further research and development and return for further scrutiny before being allowed to pass through to final inclusion in this report. “Tollgates” are, in short, a triage process. Some recommendations underwent further “mini-tollgates” with either the County Executive or County Administrative Officer, or both. Separate interdepartmental discussions also were conducted concerning countywide recreational facilities development, matters involving financing of capital investments, grants management, and County phone and citizen-feedback systems.

III. How this Report is Organized

The culminating product of this extensive process is this report and the 171 distinct recommendations contained herein for how Baltimore County can improve the efficiency of its operations. The recommendations have been organized into four overarching categories which form the four main chapters of this document: **1. Savings Opportunities**, **2. Needed Investments**, **3. Connected Government**, and **4. Management Efficiencies**. Each of the individual recommendation papers contained in these chapters follows a similar format for ease of use as a functional document. Each contains the following sections, as relevant to the recommendation:

- **Recommendation statement.** Each recommendation begins with a succinct summary of the recommended action.
- **Findings.** Findings may include observations, facts, and analysis that leads to the recommendation.
- **Benefit to the County.** Where savings cannot be reliably quantified, will accrue only over the long-term, or in the many cases where there are ancillary, non-monetary benefits that should be considered in addition to cost savings, each paper explicitly states the benefit(s) to County of pursuing the recommendation.
- **Savings Estimates.** For recommendations where near-term savings can be quantified, projected savings are stated for both the first year of full implementation, and for the five-year period considered. Projected savings generally include both a low-end and a high-end estimate. Savings projections also state known costs involved in implementation. These upfront costs are always considered, and such deductions are already reflected in, our savings estimates. Also included in this section is any information necessary to understand the basis for these projections, and the assumptions and baseline data used.
- **Best Practices and Benchmarks.** Pertinent data from peer counties as well as numerous other jurisdictions around the country, is provided for context, comparison, and further investigation. Links to useful resources, or examples from other jurisdictions are also provided in this section, where applicable.

- **Implementation Guidance.** First, or next steps, important considerations, or lessons learned from other jurisdictions are provided here to help ensure that each recommendation is successfully implemented to achieve the projected benefits to the County.

IV. Summary of Findings

This report starts with recommendations to save taxpayer money. This, however, was not the sole aim of this efficiency review. The majority of the recommendations in this report provide analysis and discussion of various additional ways to improve the efficiency and effectiveness of Baltimore County Government operations, including in areas where adequate data to make reliable cost savings projections does not exist or was not available to the review team. Other recommendations focus on efficiencies, time-savings, and systems of communication that do not translate into direct budgetary cost savings but do increase productivity and more effective operations nonetheless – and result in longer-term savings. In fact, it is Public Works LLC’s experience and conviction that the best way to achieve savings is through increased service efficiency and effectiveness, not simply to enact cuts – which may have more costly consequences down the road. Each recommendation presented in this report offers explicit benefits to County government, whether through monetary savings, improved efficiency, effectiveness, health and safety, environmental benefits, or all the above. For example, several recommendations in this report, which were developed with the primary intent of achieving cost savings, are also well-aligned with the County’s established sustainability goals:

- A highway wildflower program along county roads will reduce the need for mowing (a cost savings), which in turn can also reduce greenhouse gas emissions from inefficient gas-powered engines and increase the native plant species that critical for pollinators and ecosystems, in addition to the potential cost savings noted.
- Remote working policies, in this report, are recommended to save money on rented building space, but this is also listed as a strategy with the County’s Greenhouse Gas Inventory and Climate Action Plan to reduce the County’s carbon-based energy footprint. While the County may have a permissive policy on teleworking, it does not appear that a full assessment has been made regarding how to maximize the use of this accommodation to reduce office space needs (at a cost savings), which would also reduce commuting times and resulting emissions (a sustainability goal).
- Police Department Idle Reduction and Electric Vehicles (EVs) are areas in which the County can save fuel and reduce greenhouse gas emissions, as well as reduce costly wear and tear. This recommendation aligns with the County Executive’s recent Executive Order to begin transitioning the County government’s passenger fleet vehicles to EVs and hybrids, with the goal of transitioning at least 10 percent of passenger vehicles to EVs, and over the next eight years replacing existing fleet vehicles with hybrids. We also share here for the County’s consideration strategies used successfully by other jurisdictions.

Public Works LLC therefore encourages the reader to consider the merits of each recommendation and its accompanying analysis, as opposed to focusing primarily on – or simply prioritizing them by their quantifiable savings estimates. In fact, many of the tangible benefits to the County of the proposed changes – including indirect savings – are not included in our conservative savings projections but are discussed in their proper context in each recommendation paper included in this report.

That said, the total savings potential for all the recommendations in this report for which savings could be reliably estimated ranges from \$75.8 million to \$131.8 million for the first full year of implementation, and \$444 to \$732 million for the first five years of implementation. The average annualized projected savings from this report thus come to roughly \$88.6 million to \$145.6 million, or four-to-seven percent of a current County general fund budget of approximately \$2.2 billion.

It is understood that the implementation of these recommendations will be subject to the priorities of the County and may not all be implemented concurrently.

CHAPTER 1

Savings Opportunities

Roughly one quarter of the recommendations in this report produce quantifiable projected savings: for these recommendations the review team was able project quantifiable positive impacts on the County's "bottom line" with the information available—28 through cost savings and 6 through revenue enhancement opportunities. These total approximately \$69.1 to 97.4 million in average annual net cost savings over the first five years and another \$19.4 to 48.3 million per year in average annual net revenue gains over the same five-year period. In addition, numerous other recommendations are expected to produce additional savings that could not be reliably estimated based on the information currently available from the County. Each of these recommendations, however, includes an analysis of the available data, and identifies the information required to calculate more precise savings projections. It is the estimation of the review team that the combined savings potential of efficiency recommendations for which we were unable to project reliable savings due to lack of data is as great as the savings we were able to quantify.

We aim for conservative savings projections. Projected savings are based wherever possible on available operational data from the County and results realized by peer jurisdictions. We believe it is noteworthy, and representative of our conservative approach to savings projections, that the two states that have conducted follow-on studies of the savings achieved from our recommendations both found the actual savings achieved to be higher than we ourselves had projected.

Identifying accurate savings levels can be difficult due to the many variables that impact a county's year-on-year expenditures. Implementation of recommendations is dependent upon the impact of upfront investments, timing, and other related budgetary factors. Several of our recommendations require changes to County Code, which are dependent upon the approval of County Council; all such contingencies, including assumptions made, and upfront costs where necessary, are noted in each recommendation. We similarly state when our assessment is that a recommendation can be implemented with existing staff and resources. Our savings projections include high and low range estimates for both the first year of implementation and the five-year net projected savings.

We look for recurring, not one-time, gains, and believe it is essential to look at a multi-year period to assess the meaningfulness of the savings. Many savings require some time to be implemented or phased in, while others can only be realized through upfront investment, moreover—such as purchasing a particular technology application, for example, to improve future productivity. We thus calculate projected savings—and costs—for the first fiscal year separately, and then for a full five years; these cannot always be easily translated into a single annual figure. All our savings estimates note the assumptions on which the calculation is based, and any upfront costs required to implement the recommendation. Our savings calculations are always net figures—that is any identified upfront costs have already been deducted from the savings projections. It should be noted that, given the timing of the report and the need for implementation planning, it is not anticipated that projected savings would accrue prior to FY2023.

Total Projected Savings in Baltimore County Efficiency Review

	County First Full Year	Average Annual Savings	Five Years
Low End Range	\$75,790,533	\$88,793,572	\$443,967,860
High End Range	\$131,948,449	\$146,314,023	\$731,570,117

Upfront Costs: The majority of recommendations presented in this report for which estimated cost savings have been quantified can be implemented with existing resources. First-year upfront costs identified for implementing cost savings recommendations total \$3.0 million to \$3.4 million; five-year upfront costs total \$8.7 million to \$9.7 million. Such implementation costs have been factored into savings projections.

Savings opportunities fall into two broad categories: cost reductions and revenue gains. The cost reductions fall under three general headings: staffing levels, health care costs attributable to County employees, and savings in programs and non-personnel-related operating costs. The revenue gains contained here do not involve tax increases, but rather fall into two subcategories: improved collection of existing revenue sources (such as parking meter, transit fares, and grants), and raising user fees for services either to levels comparable to those in peer jurisdictions, or for non-County residents and non-County businesses availing themselves of services heavily subsidized by the County. This latter category includes fees related to the County landfill operation, the effects of which will be to save County taxpayers additional monies due to the costs of operating the landfill itself.

These reduced costs and expanded revenue all represent opportunities for saving money for Baltimore County's own taxpayers. A high-level overview of our findings and recommendations is presented below:

Staffing Efficiencies

- We recommend that the County aim to attain at least a ratio of ten staff per supervisory or management position through employee attrition (not layoffs), eliminating or consolidating excess supervisory positions. Pursuing this target span of control could save in the range of \$2.3 million to \$3.5 million per year, on average, over the next five years.
- Similarly, a conservative span of control ratio of 1:6.6 would bring the Fire Department in line with national norms. This would result in average annual savings of \$1.4 million to \$2.8 million over a five-year period.
- Civilianizing Police Department positions that do not require a sworn, armed officer would make it possible for the Police Department to deploy the officers currently holding those positions to fill some of those pressing vacancies and yield savings of \$300,000 to \$600,000 per year.
- We also recommend that the Police Department immediately begin a focused review of its current modified duty policies and their impacts on payroll costs and overall unit readiness.
- The Police Department also could assign additional officers on long-term modified-duty status to serve as court liaison officers to attend court appearances that do not require the arresting officer's presence. This would save roughly \$160,000 to \$350,000 per year, while also increasing the department's overall productivity.
- The Police Department would also be well served to commence a comprehensive relief factor analysis to help ensure optimum staffing levels for its 24-hour, seven-days-per-week, operations, and to use this information to develop strategies to reduce overtime costs.
- The County could adjust the frequency of the Comprehensive Zoning Map Process (CZMP) from every four years to every ten years to reduce staff time dedicated to the process. The Planning Department could then align its CZMP with the County's Master Plan process. While we do not recommend any staff reductions in this department, this change would produce time savings of nearly 50,000 staff hours that could be allocated to currently under-resourced Planning functions.
- The County could reduce branch library assistant manager and assistant circulation service manager positions through attrition (not layoffs). This would result in savings of between roughly \$1 million and \$2 million over five years.
- We also recommend that the County implement formal retirement and succession planning. The costs of an unsuitable hire, or of losing a talented employee – along with costs related to loss of institutional memory and organizational capabilities – argue for a comprehensive succession plan that includes planning for retirements to mitigate their impact on departments, and strategic countywide organizational and professional development.

Operational Efficiencies & Improvements

- The Department of Public Works and Transportation (DPWT) should increase use of proactive anti-icing methods rather than reactive deicing methods for winter weather response – which could yield savings ranging from \$500,000 to \$1.8 million per year and creating overall cost savings of 13 to 45 percent.
- While it currently conducts all street sweeping operations in-house, the County could request competitive bids for street sweeping services and avoid further investments in street sweeping equipment that is costly to maintain.

- Baltimore County could implement a wildflower program to reduce roadside mowing and maintenance needs. Based on findings from other jurisdictions that have implemented roadside wildflower programs, the County could realize roadside maintenance cost savings over the long term, in addition to creating sustainable environmental and safety benefits.
- Adding a “conditionally eligible” category would enable the CountyRide system to better support Baltimore County residents who need the service for a limited period. A similar program in Pittsburgh saves \$450,000 a year.
- We recommend that Baltimore County perform a comprehensive sign retroreflectivity study with the data integrated into its asset management system. This will enable the County to proactively replace aging signs on a cost-efficient schedule before they create hazardous conditions for people driving at night.
- The County could make significant modifications to its existing procurement system for goods and services including best value procurement practices such as spend analysis; we also recommend organizational and operational changes, including enhanced staff training and interagency participation, that would facilitate modern procurement practices and the systematic use of data to inform strategic procurement decisions. Savings on countywide procurement spending could average \$13.6 million annually over the first five years of implementation, with five-year savings totaling up to \$69 million.

Capital Asset Management: Vehicles and Facilities

- We recommend that the County modify its process of selecting vendors to upfit and prepare new police vehicles for service when the work cannot be completed by VOM and Electronic Services on a timely basis.
- Baltimore County also should fully implement a vehicle information system and incorporate telematics data into vehicle operation and management. Savings from reduced fuel and maintenance costs could save \$250,000 per year or more once phased in.
- The Baltimore County Fire and Police Departments should explore the use of idle reduction technology (IRT) and purchase and/or retrofit several vehicles to evaluate the savings potential and other benefits of the technology.
- The County could institutionalize policies equipping knowledge workers to work remotely on a permanent basis and reduce leased office space commensurately. Once phased in, this would result in savings of up to nearly \$700,000 per year in lease costs alone, in addition to potential energy and utility savings.
- The County also should reduce and consolidate the number of data centers, computing facilities and network facilities and initiate an independent, comprehensive assessment of all such County Government and BCPS facilities. The five-year cost savings of such an effort are anticipated to range between at least 5 and 30 percent current of data center and computing/network facility expenditures.

Controlling Health Care Costs

- The County currently spends \$358.9 million on employee health care annually. We recommend that the County undertake a comprehensive health care cost containment program to reduce the costs and rate-of-growth of health care expenditures on County employees. We conservatively project total recurring annual savings of roughly \$40 million to \$50 million once fully implemented. All these recommendations involve improving – not reducing – the quality of care and coverage provided to County employees.
- The County healthcare contract should be rebid upon the contract expiration date to incorporate a new scope of work and services.

Revenue Enhancement

- In many college and university towns, major institutions contribute to or fully subsidize transit use DPWT should use the Towson Loop pilot as an opportunity to seek financial support from partner institutions for future expansion of the system. Local institutional support in the form of sponsorships for the Towson Loop would create a sustainable financial model for operating the system, while effectively establishing a strong customer base to use the service.
- The County could pursue an analysis for the Towson Loop pilot, as well as for future transportation improvements, that leverages the value capture approach to help finance these investments in the form of accessing the future value of the property through tax-increment-financing (TIF) measures, for instance.
- Baltimore County could consolidate all on-street and lot parking operations under one agency to increase efficiency and improve enforcement. This should increase collections in the first year of by roughly \$250,000 to \$500,000.
- The Department of Aging should expand its partnerships with other health care providers and insurers to provide services cited as Social Determinants of Health that identify non-medical factors that may influence a patient's health status. New guidance from the federal government opens the door for Baltimore County to expand its breadth of services through partnerships with these health systems – while being reimbursed to do so.
- The County could enable streamlined procedures for approving external funding opportunities and corresponding budget appropriations for grants awarded to the County. A modest one to three percent total increase in realized grant revenues over current levels of approximately \$270 million would yield \$3-\$8 million in additional annual revenues.
- We recommend that the County establish a multifamily rental inspection program and corresponding fee to address substandard housing issues throughout the County's multifamily rental housing stock. These fees, when fully phased-in, would generate roughly \$1-\$4 million annually, and could enable the County to expand its inspection program to all rental housing.
- We recommend that the County increase fees charged for permits and plan reviews and begin charging fees for certain permitting and inspection services currently provided at the County's expense. This would help to offset costs incurred by the taxpayers for certain services provided to a subset of residents and businesses and would generate nearly \$200,000 per year in additional revenues.
- We recommend a modest adjustment in animal services fees that balances encouraging pet adoption, supporting animal medical services, and ensuring access for lower-income individuals, while helping to offset the costs borne by the County. This will generate roughly \$100,000 per year to ensure the sustainability of its comprehensive animal services operations.
- We recommend that Baltimore County adopt a comprehensive plan to address capacity limitations at Eastern Sanitary Landfill. The plan should take an all-of-the-above approach to addressing immediate needs and planning for the future. Related recommendations include:
 - » Modifying the County Code to permit residential backyard composting within Baltimore County and initiating a pilot composting program.
 - » Continue to analyze trash collection and associated costs of larger multifamily rental properties.
 - » Adjusting the tipping, transfer, and host fees to better reflect the true costs to the County of waste disposal, to extend the lifespan of the Eastern Sanitary Landfill, and to help fund its expansion, or in a new site – one of which will be an essential investment in coming years.
 - » Implementing a Systems Benefit Charge (SBC) on owners of all improved properties in the County. We project that this could generate \$75-\$180 million over five years to support necessary capital investments related to the Eastern Sanitary Landfill.
 - » Developing a public participation plan to give County residents a venue to share their opinions and concerns throughout the site selection or site expansion process.

The above recommendations for improving the Baltimore County Government “bottom line” are discussed in more detail in Chapter 1.

CHAPTER 2

Needed Investments

While saving taxpayer money was one goal of this efficiency review, it was not the only goal.

As Baltimore County moves to today's cutting edge with efficiencies and cost-savings, it can begin to move past even that by investing in the future. And the substantial financial gains made possible by the efficiencies and cost-savings of the prior chapter provide the means for doing so.

Many improvements require an upfront expenditure to improve one's individual work efficiency; other improvements require larger investments over longer periods of time. In the process of our efficiency reviews we identify opportunities for near-term gains, as well as longer-term investments with longer-term potential for returns.

These are presented as costs over the term of the report, but Baltimore County residents will benefit from them in the long-term, and Baltimore County Government will grow more efficient and effective from them and save money in the future. Good examples of this are the capital investments we suggest – such as securing adequate water resources now to avoid extensive fire damage in the future, or inspecting County facilities routinely to avoid more costly repairs or replacement in the future – much like the regular maintenance on a car that we consider to be costs, but which keep the car running for years longer than otherwise.

Besides needed investments of financial capital, future gains also will accrue from human capital investments in needed staff, as well as in human-service programs that represent investments themselves. Virtually every office in County government feels itself to be short-staffed; many are below historical levels due to long-term cuts and COVID-induced attrition. We could be recommending additional staffing almost everywhere; in this report, we focus on three specific places where it can make a significant impact: in various public safety positions, and in looking after the well-being of the County's large aging population (which accounts for one in four Baltimore County residents).

That leads to the issue of programming: Much government spending is properly viewed as "consumption." But the object of some spending on people can be rightly categorized as "human capital investment" – spending today on increasing the well-being and productive capacity of individuals in a way that increases both their own well-being and that of the larger society. Our report offers two examples: expanded workforce development and job training programs that can help their beneficiaries obtain better jobs and help attract new employers and job growth to the County; and launching a Nurse-Family Partnership program, an evidence-based community health program providing home visitation during a woman's pregnancy and the first two years after birth that has been shown to reduce both infant and maternal mortality and improve long-term child health and well-being.

These investments in human capital, capital assets, and programming include:

Staffing

- We recommend that the County increase the part-time Activity Specialist positions at community senior centers to full-time Assistant Director positions and add an Administrative Staff and Fitness/Wellness staff to regional centers.
- We recommend that the County consider new recruitment and retention measures for the Department of Corrections, which we anticipate will produce net savings of approximately \$400,000 per year.
- The County would be well served to increase the number of positions, and to promptly fill vacant positions, in the Fire Department's Administrative Services Office, the Fire and Rescue Academy, and the Fire Marshal's Office.
- The Baltimore County Police Department would be well served to add at least five new analyst positions. Although that number is still lower than ideal, it would represent substantial enhancement of the department's analytical capacity; this would cost roughly \$350,000 to \$500,000.

Capital Assets

- Rural Fire Preparedness: The County would be well served to invest in water storage facilities in strategic areas throughout rural communities of the county. We project the costs of the new water tanks to be between \$150,000 and \$250,000 per year until fully implemented, plus ongoing maintenance costs.
- Baltimore County could draw on multiple sources to fund the renovation, upgrade, and maintenance of its Library buildings.
- The Office of Budget and Finance (OBF) Property Management division should engage an independent vendor to conduct a facility inspection and condition assessment survey for all County-owned buildings. The process of assessing facility condition and estimating deferred maintenance costs provides valuable, often overlooked information that is essential to guiding short-term and long-term facility maintenance and repair decisions.
- The Board of Elections should determine whether the County is able to provide the space needed to safely store its voting equipment within its current properties and, if not, then lease the additional warehouse space required. We estimate the cost of renting the needed space at between \$70,000 and \$100,000 per year.
- The County could do more to prevent homes from becoming sources of blight and, in some cases, transform them into opportunities for creating permanently affordable and stable housing, including funding Community Land Trusts, creating a vacant property registry, requiring owners of vacant residential buildings to register and pay a fee used to fund code enforcement efforts and a vacant property inventory, and using American Rescue Plan funds to plan for distributing foreclosure prevention assistance to homeowners.

Programming

- DEWD Workforce Programming: Baltimore County this year is contributing \$100,000 of County general funds to workforce development, and the original Job Connector program was seeded with funding from County Council. The County would be well served to raise its investments in these activities to levels closer to those of its peer – and competitor – counties.
- Baltimore County could implement the evidenced-based Nurse-Family Partnership® (NFP) program for pregnant first-time moms and their infants. One-time start-up costs for training, data collection platform, and other staff supports in transitioning to the NFP that may not be covered by existing resources would require an upfront County investment of an estimated \$100,000.

Chapter 2 provides more detail on the costs and benefits of nearly a dozen such needed investments.

CHAPTER 3

Connected Government

There is a global trend toward greater transparency and participation in governance, in both the public and private sectors. This has been aided and reflected in the spread of digital technologies – first the Internet and now the block chain – that make the dispersal of information and data-driven decision-making easier. It is becoming increasingly feasible for government to use the data available to them to measure the outcomes of decisions, monitor trends and make predictions, and to use and share that data to continuously improve strategic planning, resource allocation, and other kinds of decision-making.

Improved websites – whereby citizens could more easily obtain information, evaluate options, reach the appropriate government officials, navigate between agencies, fill out forms and submit documents, even post comments and suggestions – were an early manifestation of this more direct and interactive new networked world. But that's not where the changes in today's world end: Many government services now can be provided virtually at greater convenience to residents and less taxpayer expense.

There is also a wide range of options for certain Baltimore County entities to become more entrepreneurial and to seek non-tax means for financing their activities. These range from making government entities themselves behave more like business enterprises – balancing their bottom lines and seeking opportunities to generate revenues– to finding ways to partner with the private-sector, to getting private enterprises to pay for or provide public services for themselves. Examples range from recreation and tourism to legal services.

This chapter also provides a variety of examples of what the County Government of the Future could look like, based on cutting-edge ideas emerging in governments across the country. This starts by thinking ahead to the future, envisioning what it could be, and planning to get there. Strategic planning is as central to arriving at the future as a map is essential to arriving at one's destination. Before Baltimore County can move forward into the future, it must have a plan for how it's getting there. Upon taking office in 2018, County Executive Johnny Olszewski launched the County's first government-wide strategic planning process. During the course of this review, the County held a government-wide retreat to update this plan, and the Office of Information Technology (OIT) completed its own IT strategic plan.

Nonetheless, the County Government still lacks component strategic visions for its various internal units – as well as for Baltimore County itself: the external reality of the quality of life and economy the government's internal functions are intended to serve and advance. Further, strategic analysis is needed to examine whether all of the processes and structures that have served the County in the past are still the most appropriate to achieving today's pressing objectives and realizing the envisioned future; we address here some of those that may need review and updating.

This glimpse into the future concludes with efforts other governments are implementing to move beyond 20th Century conceptions of how bureaucracies and programs ought to function based on such concepts as applying research and accumulated knowledge to design government efforts around what works – insights that won the most recent Nobel prize in Economics – and then structures taxpayer funding around paying for only what works. It also includes new streamlined ways of thinking about the government role in regulating, in ways that maximize effectiveness, minimize cost and economic "drag," and recognize the potentially expanded role of bottom-up processes and citizen and business engagement as discussed earlier in this report.

This new level of "democratization" and engagement is facilitated by ever-widening developments in technology, and so this chapter discusses how those technologies can and will be used in the future to expand opportunities – for involvement and input in governance, for deriving value from program participation, for improving health and wellbeing, and for expanding educational and occupational opportunity. All of these new vistas also will improve both the quality and effectiveness of County government itself and its efficiency – the ultimate goals of this review.

This chapter is entitled "Connected Government" because these recommendations share a common vision of an outward-oriented, responsive county government where:

- All county government operations and investments are clearly connected to their objectives;
- County government's objectives are closely connected to its communities' needs and priorities; and
- County government proactively connects to new opportunities and tools to continuously improve the ways in which it serves residents.

This chapter includes recommendations on aligning strategic planning and analysis at the department level with countywide strategy and objectives, expanding public engagement to connect to its communities' needs and priorities, continuously improving public services and leveraging technology to do so, and adopting more entrepreneurial government that takes a proactive and future-oriented approach to identifying revenue enhancing opportunities.

Strategic Planning

- The Department of Health and Human Services (DHHS) should develop a short-term, integrated DHHS strategic plan that aligns to Baltimore County's 2019-2022 Strategic Plan and develop a longer-term plan that includes a high-level 10-to-20-year investment roadmap.
- In contrast to the need for a comprehensive strategic planning effort for a sprawling agency like DHHS, the Department of Aging would benefit from a strategic planning process that sets forth an innovative course for the vitalization, staffing, capital improvements, and future of each of its individual senior centers through a community

engagement process that involves senior center participants and Department of Aging staff along with senior center stakeholders.

- Our examination of the Department of Economic and Workforce Development (DEWD) highlights the possibility, and necessity, of strategic planning as to not just internal County operations but also an external vision of the County's economy. In recent years, DEWD has commissioned or developed several high-quality and helpful documents that together create an inter-locking picture of economic and workforce development in the County. But they do not constitute a "strategic plan," per se, let alone one that defines a comprehensive vision for the County's future economy and the economic and workforce development efforts to advance it.
- Similarly, the Department of Planning itself could focus on an improved vision of Baltimore County's quality-of-life by developing a Transit-Oriented Development (TOD) Strategic Plan, in coordination with ongoing transportation and transit planning efforts led by the Baltimore Metropolitan Council and DPWT. It would be timely and beneficial for the Department to develop a TOD strategic plan, in consultation with DPWT, that would identify targeted locations and provide a toolkit and strategies (including zoning code adjustments) to advance the goals of the County's Master Plan at the community level.

Strategic Analysis

- Baltimore County should strategically consider its options regarding the development of new and improved high-quality sports recreation facilities. There are also other potential means of providing high-quality facilities to local groups, such as partnering with Baltimore County Public Schools to develop two lighted, turf rectangle fields at each high school, or developing a multi-field facility with priority given to community access.
- Baltimore County provides recreation programming at County parks facilities through a network of 45 non-profit, volunteer-led organizations known as Recreation and Nature Councils. However, a lack of statutory clarity about their roles and responsibilities, oversight, and accounting controls, may leave the County vulnerable to potential financial and legal liabilities. The County would be well served to undertake a review of all County laws, policies, agreements, and legal contracts related to the Recreation and Nature Councils and the Board of Recreation.
- One obstacle to achieving the affordable housing goal to remain in compliance with the Voluntary Conciliation Agreement with HUD is the process of gaining approval for new developments. The County would be well served to review the County Code and the zoning regulations with the intent of making the development review process more accommodating of affordable housing developments.

Community Outreach and Civic Engagement

- While some Baltimore County agencies collect data and some citizen feedback, there is no countywide mechanism for analyzing and using citizen feedback. Baltimore County could adopt a Real-Time Government System that collects citizen feedback for each department. This system will give citizens the ability to evaluate County services and enable the County to become even more responsive to their needs.
- Baltimore County already has a relatively robust culture of stakeholder engagement and public outreach in its planning activities. However, there is not currently a comprehensive citizen planning program at the county level that facilitates meaningful engagement by interested community members to engage in each step of the planning process. We recommend a Citizens Planning Institute – a community education program designed to increase residents' understanding of local government planning, policy, zoning, and development decision-making and processes – to provide a useful vehicle for ongoing community participation and support.
- Baltimore County is legally required to facilitate the creation of 1,000 units of affordable housing by 2027, or by an average of 83 units a year. Both Montgomery and Howard Counties have established forms of inclusionary zoning to increase the production of affordable housing. We suggest that Baltimore County create incentives and requirements for the inclusion of affordable housing in a new residential development.
- We also recommend that the County work collaboratively with local communities and their local council member to develop plans for the siting of new affordable housing developments.

- The new Department of Housing and Community Development also should solicit developer proposals for affordable housing developments.
- The Planning Department should identify appropriate external stakeholders and County agencies to participate in the planning process within each community. As it pursues its 2030 Master Plan process, the Department of Planning should establish a systematic approach to completing community plans for all areas within the County over the course of the following 5-8 years to complete the planning process. A user-friendly web interface that promotes the planning process and highlights adopted plans in a way that is accessible to residents, developers, and County employees is crucial to creating a set of plans that is easy for all to reference and use.
- The County website currently is difficult to navigate and can be challenging to locate specific information, such as who to contact about any kind of issue. We suggest specific changes to the DPWT Bureau of Engineering's web page, as one example, in addition to the currently ongoing alterations.
- During the COVID-19 pandemic, the Department of Planning invested in the tools and technology needed to shift its public meetings to a virtual format. The Department of Planning in particular should leverage recent pandemic-related investments in remote meeting technology to optimize and expand the practice of virtual public meetings.
- And, we suggest that Baltimore County implement changes to enhance the implementation of Executive Order 2017-003 by expanding the staff of the Minority and Women's Business Enterprise (MBE and WBE) Program and by developing operational procedures to enhance outreach to the MBE and WBE local business community and the creation of new County bids and proposals, and compliance efforts.

Efficient and Effective Public Services

- Baltimore County could pursue code enforcement strategies and techniques that emphasize achieving compliance with regulatory objectives rather than simply enforcement of regulatory mandates. Cities and counties across the U.S. are beginning to employ a set of principles that redefines a traditional code enforcement approach to emphasize *compliance* – and the support, education, and outreach that leads to it – as its main strategy and strategically deploy *enforcement* tactics for more serious violations and more frequent offenders.
- Adopting an innovative, cost-saving model of "Volunteer Drivers" that augments the current paratransit system currently operated by the County will help meet the growing demand for mobility among older and/or disabled individuals in the county.
- Bureau of Solid Waste staff view route restructuring (which may entail a new schedule for residents to anticipate waste collection) as crucial to streamline their operations. DPWT should prioritize redesigning residential collection routes, including consolidating operations to structure routes in a systematic way.
- CountyRide should implement a pilot for subscription trips, which would serve as an expansion of the existing short-term standing ride option. An effective subscription trip model can help to optimize routes and reduce the scheduling burden for both CountyRide employees and people who use the service.
- The Baltimore County Public Library should establish policies and systematic processes for developing, approving, and evaluating its library programs.
- The County could enhance the Senior Loan Closet program by creating a space and phone number dedicated to the Loan Closet, forming partnerships with community organizations and an Occupational Therapy (OT) program, purchasing a medical equipment cleaning machine, and delivering equipment closer to seniors with limited travel capabilities.
- The County also could create a Family Loan Closet program that makes tools and equipment needed by families for work around their homes available for County residents' use.
- The Permits, Approvals, and Inspections Department (PAI) should adopt and implement formal quality assurance strategies for inspections such as regular county audits of inspections and more robust professional development programs for inspectors.
- Baltimore County could lower the maximum permissible height of tall grass and weeds from twelve inches to eight inches. There is compelling evidence that reducing the maximum height of tall grass and weed in Baltimore County will improve quality of life for County residents and increase neighborhood safety.

Leveraging IT to Better Serve the Public

- Baltimore County OIT should work with the Baltimore County Public Library to increase the bandwidth of publicly available Wi-Fi at Library locations.
- An online e-Permit center should be created where all information needed for permit applications and links for submitting and tracking applications are located. Establishing an online e-Permit Center will streamline the permit application process, rendering it more accessible to customers – and the time savings for staff are likely to be substantial.
- E-signatures and e-payments should be made an integral part of the County’s digitization process to improve residents’ ease of use and increase efficiency.
- PAI should explore the continued use of virtual inspections in certain instances post-COVID and develop virtual inspection policies regarding methodology, process, and procedures.
- PAI should also develop and formalize strategies for transitioning from paper to online permitting, with particular attention to supporting older and disabled community members.
- Intelligent Transportation Systems (ITS) to alleviate congestion and better monitor existing transportation assets should be evaluated and adopted.
- Finally, the County should encourage the Community College of Baltimore County (CCBC) to build out online-only courses, faculty, and programs that will increase enrollments, reduce costs, and improve student success. An aggressively marketed expansion of online classes could increase CCBC revenues while offering students a reasonably priced, high-quality alternative to for-profit online programs.

Entrepreneurial Government

- We recommend that the Bureau of Solid Waste Management adopt an Enterprise Fund Model, which would allow it to operate more like a business employing full cost accounting, while retaining full control over employees, policies, regulations, and services.
- The County also could create an Enterprise Division within the Department of Recreation and Parks and adopt an entrepreneurial approach to identifying revenue-creating opportunities.
- Economic development generally, tourism promotion specifically, and workforce training programs are supported in many places by the private sector, or specific interests, that benefit from them. Baltimore County therefore should pursue opportunities for private-sector funding of these county government activities.
- The County Attorney could champion a legal fellowship program to enable the Office of Law to afford the staffing it needs – while training a wider pool of attorneys to understand and value public service and the work of the public sector – all at little or no expense to the taxpayers.

Chapter 3 discusses in more detail these multi-faceted proposals for helping Baltimore County become a more “Connected Government.”

CHAPTER 4

Management Efficiencies

The birth of the “Reinventing Government” movement in the 1990s led to new approaches to governance.¹ Nearly thirty years later, numerous local governments of all sizes across the country have implemented these approaches, including the “performance review” – or “efficiency review” – concept closely related to them due to their joint adoption at the federal level.² This report is the result of Baltimore County adopting the efficiency review approach. But further advances in public administration and the world generally are still occurring, and these provide additional lessons that Baltimore County Government can apply to its internal management practices. Large groups of individuals can be “networked” to provide inputs and solutions to problems. Dispersed, and increasingly autonomous, groupings can make governance decisions with less centralized control, using increasingly reliable and transparent data, and established criteria and systematized processes for managers and managing groups to use that data routinely to make operational and strategic decisions.

Finally, to take the lead in data-driven governance, County Government needs to build a new IT management structure that serves not only as a platform for managing efficient government operations in the present day but, even more so, as a springboard to the future. The 21st Century technology upgrades that Baltimore County needs to pursue encompass the areas of technology management, cybersecurity, software and hardware, and specific applications.

Sometimes the fiscal impacts of management efficiencies recommended here are difficult or impossible to calculate because they are lacking in sufficient baseline data to reliably estimate savings; or their impact may be difficult to isolate among other variables to project direct savings with a high degree of confidence. While near-term fiscal impact cannot be reliably estimated for each of the recommendations presented in the report’s final chapter, they all demonstrate clear efficiency benefits over the long term.

Dispersed Decision-Making

- We recommend placing both the County’s Office of Information Technology (OIT) and Baltimore County Public Schools (BCPS) IT Department of Information Technology (DoIT) within a countywide IT governance framework.
- This leads to implementing a formal Data Governance program led by the County’s Chief Data and Performance Officer in the Division of Government Reform and Strategic Initiatives within the Office of the County Executive and creation of a committee, a formal charter, and associated documented policies, procedures, roles, and responsibilities.
- The next logical step in this process is that OIT should negotiate and implement Service Level Agreements with the individual agencies that it serves, detailing roles and responsibilities, terms and level of service, scope, and quality, and specific performance metrics.
- The need for broader involvement in decision making does not pertain to just the IT realm, moreover. We recommend that the County formalize enhanced agency involvement in the Request for Bid and Request for Proposal preparation processes, and in the master agreement and purchase order award processes through a variety of specific processes we propose.
- Interagency communication within Baltimore County Government could be improved through such steps as PAI coordinating a meeting with appropriate departments to reconcile recommendations before formal response to developers, and responsible departments developing a coordinated sign-off policy on developments that could potentially be coordinated through PAI’s new CityWorks.

1 David Osborne & Ted Gaebler, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector* (1992).

2 Schnurer, “The Secret to Cutting Government Waste: Savings by a Thousand Cuts,” *The Atlantic*, <https://www.theatlantic.com/politics/archive/2013/07/the-secret-to-cutting-government-waste-savings-by-a-thousand-cuts/277458/>.

Human Resources

- We recommend a comprehensive restructuring of the County's Human Resources operations, which are inordinately dispersed across county government. This starts with consolidating countywide senior management-level human resources operations under the Office of Human Resources (OHR) and requiring that position incumbents be qualified human resources professionals.
- We recommend designating the OHR Director as "Director and Chief Human Resources Officer" (CHRO), with authority over all HR functions throughout the County to signify that all Human Resource functions countywide will be brought under the direction of the *chief* human resources officer.
- The County should consider establishing an employee full-time equivalent (FTE)-to-HR Professional ratio that comports with industry standards.
- The County would be well served to develop Standard Operating Procedures (SOPs) for updating job descriptions, organizational charts, and other routine policies and procedures.
- Updating policy on the merit and non-merit classification system would help resolve several inconsistencies or inequities in hiring, compensating, and working employees doing similar, if not the same jobs.
- Fragmentation and disjointed operations have made it challenging to develop proposals for optimal staffing that would support the County's strategic plan and improve services. A countywide productivity analysis would address these challenges and identify significant cost-efficient opportunities.
- Redefining and reorganizing the role of HR liaisons as positions under the central direction of the Office of Human Resources, consolidating applications for recruitment and selection, and updating policies and standard operating procedures will streamline the hiring and onboarding process.
- Shifting benefits and retirement services to the Office of Human Resources would improve efficiency and provide better service to County employees and retirees. (This does not include the financial management of the pension investments themselves.)

Streamlining Internal Functions

- The County could combine the management of its two separate vehicle operations into a unified Fleet Management entity. A unified fleet management organization would be better positioned to adopt standard operating practices designed to maximize customer service and minimize vehicle life-cycle cost.
- Property Management:
 - » Roughly a decade ago, the Baltimore County Administration transferred FTEs, equipment, supplies, materials, and maintenance-related facilities from Recreation and Parks to a newly created Division within the Office of Budget and Finance (OBF) entitled Property Management. We present potential options for reorganizing to resolving some of the operational challenges that have arisen in the interim.
 - » We recommend several ways by which Property Management should continue to enhance its management, organizational, and operational competencies.
 - » Property Management should identify metrics and implement a methodology to gauge whether or not productivity improvements result from the use of a seasonal four-ten-hour-day workweek for grounds maintenance personnel.
- PAI should develop an updated Policy Manual and make it publicly available. The manual has not been updated since 1992 and cannot currently be accessed online because of its size and its antiquated typewriter typeface.

IT-Enabled Efficiencies

- We recommend that Baltimore County use Workday to replace systems with redundant capabilities wherever possible and move expeditiously to ensure that all staff are trained and all systems updated and tested as necessary to support the Workday transition.
- In addition to a Workday grants management software, Baltimore County could implement a centralized grants management software system with features that supplement and integrate with Workday's grants management module.
- The County should advance its existing plans to implement a new electronic health record system for the Department of Health and Human Services (DHHS) as expeditiously as possible.
- DHHS should assess its deployment of telehealth during the pandemic to optimize its use in providing health services, care coordination, and human services into the future. A full evaluation of how best to integrate the use of this technology in DHSS services will help ensure it is deployed in a manner that best meets the needs of Baltimore County residents.

IT Management

- Baltimore County's Office of Information Technology (OIT) should create a formal Enterprise Architecture (EA) function with the purpose of documenting and communicating the organization's full IT infrastructure, including hardware, software, processes, and people.
- Baltimore County could right-size and right-skill OIT through professional development and hiring for updated skill sets to better enable the organization to quickly and efficiently to address the current and future IT needs of the County and its constituents.
- During our analysis, several opportunities were identified in which Baltimore County's OIT could improve the technology support it provides to agencies within their purview to assist each departments' specialized functions.
- Baltimore County could consolidate and combine all broadband, network, and communications support services for Baltimore County and BCPS into a single unified system.
- OIT should identify and consolidate software licenses that serve duplicate or similar functions; the County thereby could save considerable money, improve efficiency, and potentially identify gaps in its current software portfolio.

IT Security

- During our initial examinations, the Public Works LLC review team was able to access a detailed geographic information system (GIS) map of the Baltimore County Optical Network. This specific information was publicly available as a part of a grant requirement, but is now offline.
- In addition, OIT should hire an independent security consultant to conduct a thorough evaluation of its cybersecurity infrastructure and policies, and a comprehensive independent assessment of its networking capabilities.
- Baltimore County could greatly reduce the risk of a future data breach/cyberattack by adding highly experienced cybersecurity professionals to County staff and by partnering with an outside vendor focused on vulnerability management.

Modern Technologies and Tools

- Baltimore County OIT should prioritize swift identification, elimination, and replacement of all outdated software currently in use, including Windows 97 and Access 97.

- We recommend that the County develop an appropriate Bring Your Own Device (BYOD) policy and provide a stipend to certain employees for using their own cell phones where feasible, rather than providing them with County-owned cellular devices, which will reduce annual costs in addition to staff time and resources required to administer an inventory of devices.
- Baltimore County's current printing and publishing services are commendable, however, some improvements can be made: OIT could potentially achieve savings by modifying lease agreements where possible to include auto-reorder of supplies. Baltimore County also would save money by reducing the use of small desktop printers and migrating those users to high-capacity copiers.
- PAI should transition its administrative phone setup to a Virtual Call Center (VCC) that screens and relays calls to the appropriate staff. The County then should explore the expansion of the Virtual Call Center phone system to other departments that receive a high call volume.
- PAI also should provide staff with dual monitors at their desktop workspaces to facilitate a more efficient permit review and boost staff productivity and satisfaction.

V. Conclusion

One of the welcomed challenges faced by the review team in evaluating and assessing Baltimore County government's operations has been keeping up with the rapid pace of progress maintained by the County throughout the course of this review; this is an inspirational challenge to have. Baltimore County government is truly a moving target with an upward trajectory. In several cases, we found that the County had, during the course of the efficiency review, already begun to undertake new efforts for which we were developing recommendations, before our recommendations had even been fully formed. From the outset of this project, the project team from Public Works LLC has been struck by the high-caliber talent and dedication of the individuals who make up the Baltimore County Government, from the top officials to department heads and division chiefs, to the budget analysts and inspectors with whom our review team spoke. The challenges and areas for improvement noted in these documents in this report are not in any way criticisms of the dedicated leadership and staff of Baltimore County Government.

Rather, Baltimore County is a dynamic, growing and increasingly diverse County well-positioned to capitalize on the dramatic challenges arising this century while retaining its high quality of life, strong neighborhoods, and natural gifts. It is already moving forward in many of the areas discussed herein, thanks to its long-time dedicated workforce and new leadership. This report is addressed to the Baltimore County Government with the intent of providing practical information and analysis to assist it in making some pivotal decisions and in implementing changes that will improve the efficiency and quality of its operations and services.

The report presents 171 specific recommendations for doing so, spread across four thematic chapters and almost every department of County government. These are designed to help Baltimore County Government to implement efficiencies that will improve service and save money; to invest those savings in further improvements and efficiencies to push County Government to the cutting edge; to spring forward with updated technologies and management practices; to look longer-term and think more strategically, and, finally, to move beyond the cutting edge into a position of the leadership in the 21st Century. There is a lot of work ahead.

But, as President John F. Kennedy said at the start of his tenure as President:

"All this will not be finished in the first 100 days.
Nor will it be finished in the first 1,000 days, nor
in the life of this administration, nor even perhaps
in our lifetime on this planet.

But let us begin."

Baltimore County Efficiency Review - Recommendations

The following includes all 171 recommendations from this report. Baltimore County has already engaged in work and improvements where noted in the Work Underway column below, representing 44% of the total recommendations provided.

COUNTY WORK UNDERWAY		SUBJECT	RECOMMENDATION DESCRIPTION	REPORT ID #
1		Animal Services Fees	The County could increase selected animal services fees including for pet adoption and public spaying/neutering services to offset its costs, while safeguarding subsidies that ensure access for low-income pet owners.	1.7.3
2	✓	Backyard Composting	Baltimore County could implement a pilot residential collection program for food scraps and allow backyard composting within Baltimore County.	1.7.8
3	✓	Baltimore County Public Library Wi-Fi	Ensure adequate bandwidth of publicly available Wi-Fi at Public Library locations.	3.4.1
4	✓	Board of Elections: Warehousing	The Board of Elections should determine the size of warehouse space needed so that the cost of leasing such space can be determined if the county is not able to provide needed space in its current properties.	2.2.5
5		Bring Your Own Device (BYOD) Policy	Develop a Bring Your Own Device (BYOD) policy and provide a stipend to certain employees for using their own cell phones where feasible, rather than providing them with County-owned cellular devices. This will reduce annual costs in addition to staff time and resources required to administer an inventory of devices.	4.6.2
6		Chief Human Resources Officer	The director of the County's Office of Human Resources should hold the title of Chief Human Resources Officer and direct human resources operations countywide.	4.2.2
7		Citizen Feedback System	Baltimore County could adopt a Real-Time Government System that collects citizen feedback for each department. This system will give citizens the ability to evaluate County services and enable the County to become even more responsive to their needs.	3.2.1
8		Citizens Planning Institute	Create a Citizens Planning Institute to engage community members in the planning process and develop a strong cohort of well-informed supporters of Planning Department initiatives.	3.2.2

9	✓	Comprehensive Health Care Cost Containment	Undertake a comprehensive health care cost containment program to reduce the costs and rate of growth of health care expenditures on County employees, while improving – not reducing – the quality of their care and coverage.	1.5.1
10		Comprehensive Health Care Cost Containment: Claims Audit/Payment Integrity	Post-payment medical bill review and recovery programs offer the opportunity to recover monies already expended by identifying medical billing errors and overcharges.	1.5.1.1
11	✓	Comprehensive Health Care Cost Containment: Employee Well-Being Programs	Such programs include prevention, wellness, mental health, behavioral health, safety, workers compensation, and other total worker health resources.	1.5.1.6
12	✓	Comprehensive Health Care Cost Containment: Expand Use of Data Analytics	Data analytics provide functionality to support the tracking and auditing of cost savings; it enables executive decisions as a unique integration of clinical and financial data.	1.5.1.7
13	✓	Comprehensive Health Care Cost Containment: Focus on High-Cost Claimants	Because less than one percent of the population drives 32-40 percent of expenses, when an organization has stop-loss coverage in place, it has more flexibility to manage high-cost claimants, many times identifying and preventing high-cost situations.	1.5.1.8
14		Comprehensive Health Care Cost Containment: Onsite/ Near-site (Shared), Mobile, Pop-Up Clinics and Direct Primary Care	Direct healthcare via onsite/near-site health and wellness centers have become a proven integration tool in an employer's overarching healthcare strategy.	1.5.1.4
15		Comprehensive Health Care Cost Containment: Pharmacy Benefit Manager	Retain an Independent Pharmacy Benefit Manager (PBM).	1.5.1.2
16		Comprehensive Health Care Cost Containment: Reverse Auction for Pharmacy Benefits	A PBM (Pharmacy Benefit Manager) reverse auction is a competitive, transparent bidding process that a jurisdiction uses to select an entity to manage its prescription drug program.	1.5.1.3
17	✓	Comprehensive Health Care Cost Containment: Telemedicine/Digital Care	This strategy would offer County workers and their dependents immediate access to board certified doctors via phone or video conference from any device.	1.5.1.5
18	✓	Comprehensive Landfill Management Plan	Adopt a comprehensive approach and plan to address capacity issues at Eastern Sanitary Landfill.	1.7.4

19	✓	Comprehensive Zoning Map Process (CZMP)	Adjust the frequency of the Comprehensive Zoning Map Process (CZMP) from every four years to every ten years, to reduce staff time dedicated to the process, shift department resources into under-resourced planning activities, and align with the County's Master Plan process.	1.1.9
20	✓	Consolidate Broadband and Network Support	Consolidate and combine all broadband, network, and communications support services for Baltimore County and Baltimore County Public Schools into a single unified system.	4.5.4
21		Consolidate Data Centers	Baltimore County could reduce and consolidate the number of data centers, computing facilities, and network facilities from six to two. Data centers, computing facilities, or network facilities that currently serve the Baltimore County Public Schools, the Library System, as well as other computing facilities now managed by OIT and other County agencies, should be consolidated.	1.4.7
22		Consolidate Human Resources Operations	Consolidate countywide senior management-level human resources operations under the Office of Human Resources and require that position incumbents be qualified human resources professionals.	4.2.1
23	✓	Consolidate Software Licensing	Systematically consolidate software applications by function to reduce licensing, maintenance, and support costs.	4.5.5
24		CountyRide Conditional Eligibility	Expand the "conditionally eligible" category for individuals with disabilities who are registered with the County Ride system.	1.2.7
25		CountyRide Transit Outreach Coordinator	Through collaboration with local partners, the Department of Public Works and Transportation should establish one or more transit outreach coordinator positions to support individuals who currently use CountyRide services to access fixed route options, including the MTA and the Towson Loop.	1.2.6
26	✓	Countywide Span of Control	Baltimore County could increase its non-police and non-fire management ratio/span of control between senior- to mid-level managers and staff from 1:7.68 to 1:10 to realize countywide staffing efficiencies.	1.1.1
27	✓	Create an Information Technology Governance Council	Create an Information Technology Governance Council Across Baltimore County Government and Baltimore County Public Schools.	4.1.1
28		Cybersecurity Assessment	Hire an independent security consultant to conduct a thorough evaluation of the County's cybersecurity infrastructure and policies. In addition, Baltimore County would benefit from a comprehensive independent assessment of its networking capabilities.	4.5.7

29	✓	Cybersecurity Resources	Reduce the risk of a future data breach/cybersecurity by increasing the resources available to the Chief Security Officer, both by adding highly experienced cybersecurity professionals to County staff and by partnering with an outside vendor focused on vulnerability management.	4.5.8
30	✓	Data Governance	Implement a formal Data Governance program led by Chief Data and Performance Officer of BCSTAT in the division of Government Reform & Strategic Initiatives within the Office of the County Executive. A formal Data Governance Program would include the creation of a committee, a formal charter, and associated documented policies, procedures, roles, and responsibilities.	4.1.2
31		Department of Aging Staffing	Increase the part-time Activity Specialist positions at community senior centers to full-time Assistant Director positions and add an Administrative Staff and Fitness/Wellness staff to regional centers.	2.1.1
32		Department of Aging Strategic Planning: Community Engagement	Develop a strategic plan using a highly community-engaged process that sets the course of senior centers for the next three years.	3.1.2.1
33		Department of Aging Strategic Planning: Infrastructure	Conduct an infrastructure assessment of renovation needs and building upgrades of current buildings housing senior centers and consider mobile "senior center" vans.	3.1.2.2
34		Department of Aging Strategic Planning: Senior Center Services	Enhance Senior Center Services through a community engagement strategic planning process that sets forth an innovative course for the vitalization, staffing, capital improvements, and future of senior centers in Baltimore County.	3.1.2
35	✓	Department of Aging Strategic Planning: Virtual Senior Center	Create a "Virtual Senior Center" that offers virtual programs to older residents of Baltimore County serving as a hybrid that complements current programming. This will require hiring a full-time Director and technical support.	3.1.2.3
36	✓	Department of Corrections Alternative Work Schedules	Explore the use of 12-hour work shifts within the Department of Corrections to improve coverage while reducing costs and allowing more scheduled days off for staff.	1.1.7
37	✓	Department of Corrections Recruitment and Retention	The Department of Corrections and Baltimore County should improve recruitment and retention of correctional staff by increasing entry-level salaries and/or offering periodic bonuses and other incentives.	2.1.2
38		Department of Public Works and Transportation Website	The Bureau of Engineering would benefit from making specific changes to its web page in addition to the currently ongoing alterations.	3.2.8

39	✓	Development Review Decision Coordination	To streamline the Development Review process, departments with review responsibility during the Phase 1 Review process should coordinate decisions before responding to developers with requested or recommended changes to a development plan.	4.1.7
40	✓	Development Review for Affordable Housing	Review the County Code and zoning regulations to make the development review process more permissive of affordable housing developments.	3.1.5
41	✓	Distressed Housing	Invest in distressed housing and protect Baltimore County's neighborhoods from blight.	2.2.6
42	✓	Dual Monitors for Permit Review	The Permits, Approvals, and Inspections Department (PAI) should provide staff with dual monitors at their desktop workspaces to facilitate a more efficient permit review and boost staff productivity and satisfaction.	4.6.5
43	✓	Economic and Workforce Development Strategy	Develop comprehensive and coordinated strategic economic and workforce development plans and more strategically define and coordinate target sector strategies for economic and workforce development.	3.1.3
44	✓	Economic and Workforce Development Strategy: Strategic Plan	Develop a comprehensive and coordinated strategic plan for all economic and workforce development.	3.1.3.1
45	✓	Economic and Workforce Development Strategy: Target Sectors	Define and coordinate target sector strategies more strategically.	3.1.3.2
46	✓	Electronic Health Record	Advance its plans to implement a new electronic health record system for DHHS as expeditiously as possible.	4.4.5
47		Engineering Plans Feedback	The Bureau of Engineering and Construction should develop a process to solicit and incorporate timely input from the Bureau of Utilities on its plans.	4.1.6
48		Enhance Developer Resources	Provide enhanced resources for developers of affordable housing.	3.2.7
49		Enterprise Architecture	The Office of Information Technology should create a formal Enterprise Architecture (EA) function.	4.5.1
50		Environmental Health Services Fees	Adjust fees for Environmental Health Services permits, plan reviews, and inspections.	1.7.2

51	✓	E-Permit Center	Baltimore County could create an online ePermit center where all information needed for permit applications and links for submitting and tracking applications are located.	3.4.2
52	✓	E-Signatures and E-Payments	Baltimore County could make e-signatures and e-payments an integral part of its digitization process to improve residents' ease of use and increase efficiency.	3.4.3
53		Expand Online Programming at CCBC	Encourage Community College of Baltimore County (CCBC) to build out online-only courses, faculty, and programs that will increase enrollments, reduce costs, and improve student success.	3.4.7
54	✓	Facilities Inspection and Condition Assessment	The Office of Budget and Finance (OBF) Property Management Division should engage an independent vendor to conduct a facility inspection and condition assessment survey for all County-owned buildings.	2.2.3
55		Fire Department Administrative Staffing	Increase the number of positions and fill vacant positions in the Administrative Services Office, the Fire and Rescue Academy, and the Fire Marshal's Office.	2.1.3
56	✓	Fire Department Rapid Response Vehicles	The Fire Department should evaluate the use of Rapid Response Vehicles for certain medical and non-fire related calls for service.	1.4.3
57	✓	Fire Department Span of Control	Increase the Fire Department's span of control by improving the ratio of supervisors to staff on each engine company.	1.1.2
58	✓	Fire Department: Idle Reduction Technology	The Baltimore County Fire Department, in partnership with the Equipment Maintenance Department (EOM), and the County Vehicles Operations Maintenance (VOM) should explore the use of idle reduction technology (IRT) and purchase and/or retrofit several emergency vehicles to evaluate the savings potential and other benefits of the technology.	1.4.4
59	✓	Grants Approval (Streamline)	The County could enable a streamlined legislative procedure for approving external grant funding opportunities and corresponding budget appropriations, as well as for distributing grant funds. The amended procedures and timelines should be documented in a comprehensive County Grants Handbook designed for practical use by all County staff involved in grant seeking and grant administration.	1.6.5
			In addition to Workday grants management software, Baltimore County could implement a centralized, robust grantee-focused grants management software system with features that supplement and integrate with Workday's grants management module.	

		Grounds Maintenance Services	"Implement changes in the way grounds maintenance services are provided to and on behalf of the Department of Recreation and Parks that improve the Department's ability to meet its mission and goals and provide services to the public. This options paper examines three potential alternative scenarios that could shift the provision of either none, some, or all grounds maintenance services from the Office Property Management to Department of Recreation and Parks."	4.3.4
62		Health and Human Services Evidence-Based Practices	The Department of Health and Human Services (DHHS) should establish and maintain a documented continuum of evidence-based practices for DHHS.	2.3.2
63		Health and Human Services Grants Management	Invest in the human and information technology software resources necessary to consistently identify new public and private philanthropic grant opportunities, manage grant funds more efficiently, and ensure all funds secured are expended.	4.4.3
64		Health and Human Services Strategic Planning	The Department of Health and Human Services (DHHS) should develop integrated health and human services strategic plans.	3.1.1
65		Health and Human Services Strategic Planning: Long-Term	Develop a longer-term plan that includes a high-level 10-to-20-year investment roadmap.	3.1.1.2
66		Health and Human Services Strategic Planning: Short-Term	Develop a short-term, integrated DHHS strategic plan that aligns to Baltimore County's 2019-2022 Strategic Plan.	3.1.1.1
67		Highways Wildflower Program	Implement a wildflower program to reduce roadside mowing and maintenance needs within the Bureau of Highways and Equipment Maintenance.	1.2.3
68	✓	Home and Property Maintenance Tool Loan Closet	Develop a Home and Property Maintenance Tool Loan Closet program that provides home and garden tools to County residents.	3.3.6
69		Human Resources Recruitment and Selection	Restructure the recruitment and selection process to reduce the length of time it takes to fill a vacant position. Restructuring should include redefining and reorganizing the role of HR liaisons, consolidating applications for recruitment and selection, and updating policies and standard operating procedures.	4.2.7
70		Human Resources Staff Ratio	Establish an employee full-time equivalent (FTE)-to-HR Professional ratio that comports with industry standards.	4.2.3

71		Implement the Nurse Family Partnership program	Baltimore County could implement the evidenced-based Nurse-Family Partnership® (NFP) program for pregnant first-time moms and their infants utilizing resources currently devoted to Baltimore County home visitation programs for moms and children at risk.	2.3.3
72		Inclusionary Zoning	Establish an inclusionary zoning policy in Baltimore County that is aligned with the County's affordable housing objectives.	3.1.6
73	✓	Information Technology Steering Committee	Baltimore County should form an Information Technology Steering Committee to provide formal County IT governance.	4.1.3
74		Innovative Road Surfacing	Integrate the use of innovative road surfacing materials, such as terminal blend tire rubber asphalt and high friction surface treatment, into Baltimore County's Road surfacing program.	1.2.4
75		Innovative Subbase Material for Roads and Sidewalks	Repurpose used toilets into subbase material for road or sidewalk bases.	1.2.5
76		Integrate New Data Systems and Program Management	Department of Public Works and Transportation (DPWT) Bureaus should engage in a process to develop interim Program Goals, Cost Analysis, Risk Analysis, and Program Metrics to guide program and policy decisions as the SAMP is implemented through 2025-2026.	4.4.6
77		Intelligent Transportation Systems (ITS)	Evaluate and adopt key Intelligent Transportation Systems (ITS) to alleviate congestion and better monitor existing transportation assets.	3.4.6
78	✓	Job Specifications	Develop Office of Human Resources (OHR) Standard Operating Procedures (SOPs) for updating job descriptions, organizational charts, and other routine policies and procedures.	4.2.4
79	✓	Legal Support Capacity: Code Violations	Engage legal support to specifically address code enforcement violations.	2.1.5.1
80	✓	Legal Support Capacity: Housing Code Enforcement	Explore the creation of a designated court to handle housing code enforcement and tenant-landlord disputes.	2.1.5.2
81	✓	Legal Support Capacity: Specialized Legal Services	Expand the capacity of its Office of Law in order to offer more specialized legal services for both County Government and County residents.	2.1.5
82		Loan Closet Improvements: Dedicated Space	Create a space dedicated to the Loan Closet with a designated phone number.	3.3.5.1

83		Loan Closet Improvements: Delivery	Fill the Courier position so that equipment can be delivered closer to seniors with limited travel capabilities.	3.3.5.4
84		Loan Closet Improvements: Enhance Program	Enhance the Loan Closet program that provides durable medical equipment and assistive devices to older adults.	3.3.5
85		Loan Closet Improvements: Medical Equipment	Invest in purchasing a medical equipment cleaning machine to ensure full sanitization of the durable medical equipment loaned out to seniors.	3.3.5.3
86		Loan Closet Improvements: Partnerships	Form partnerships with community organizations and an Occupational Therapy (OT) program to provide health education support for clients on how to use devices and to ensure that the equipment is in good standing.	3.3.5.2
87		Medicare/Medicaid Reimbursable Partnerships	Identify, enhance, and develop local partnerships that enable the Department of Aging to offer long term social support services that are reimbursable to the County from Medicare, Medicaid, and other third-party insurers.	1.6.4
88		Mercy Health Plan Contract	The Mercy Health Plan contract should not be renewed when it expires in June 2022. A new scope of work should be developed and the necessary services should be rebid; and the savings from discontinuing unnecessary physical exams of all new hires should be applied to the other elements of the recommended health insurance improvements, especially employee wellness and telehealth programs.	1.5.2
89	✓	Merit and Non-Merit Job Classifications	Update the County's Human Resources policies to include a section that thoroughly explains the position classification system regarding full-time (merit) and part-time (non-merit) workers. The updated policy should provide guidelines, including (1) distinguishing merit classification at 40-plus hours and non-merit classification at less than 40 hours, (2) the County's purpose and rationale for the policy, including any differentiated compensation and benefits, and (3) standardized pay scales and benefits for all employee classes.	4.2.5
90	✓	Minority-Owned Business Enterprises and Woman-Owned Business Enterprises (MBE and WBE) Contracting Improvement	Expand efforts to recruit Minority-Owned Business Enterprises and Women-Owned Business Enterprises (MBE and WBE) as County contractors and subcontractors, to ensure their utilization by other general/prime contractors, to improve tracking of compliance with MBE and WBE contracting requirements and commitments, and to provide the staffing necessary to support these efforts.	3.2.9
91	✓	Multifamily Housing Inspections	Expand the Rental Registration License Program to include rental properties with more than six units to address substandard housing issues throughout the County's multi-family rental housing stock.	1.7.1

92		Multifamily Rental Property Trash Collection	Baltimore County should further analyze trash collection costs for larger multifamily rental properties.	1.7.5
93		Office of Law Fellowship Program	Baltimore County could work with the region's legal community to develop a public-private partnership to help staff the Office of Law.	3.5.4
94	✓	Online Services Transition Strategies	Develop and formalize strategies for transitioning from paper to online permitting processes, with particular attention to supporting older and disabled community members.	3.4.5
95		Parking Meter Revenue	Baltimore County could consolidate all street and lot parking operations under one entity.	1.6.3
96		Performance Contracting for Health and Human Services	Pilot test best practices in contracting to assess what human infrastructure, data, and other resources would be needed for the Department of Health and Human Services (DHHS) to transition to a model of results-based payments for certain contracted services.	1.3.5
97		Permits, Approvals, and Inspections Policy Manual	The Permits, Approvals, and Inspections Department (PAI) should develop an updated Policy Manual and make it publicly available.	4.3.5
98	✓	Phone System (Virtual Call Center)	<p>"The Permits and Licensing Division, and the Development Management Division within the Permits, Approvals, and Inspections (PAI) Department, should modify its current availability of phone and email contact information for its senior staff and transition its administrative phone setup to a Virtual Call Center (VCC) that screens and relays calls to the appropriate staff.</p> <p>Baltimore County should explore the expansion of the Virtual Call Center phone system to other departments that receive a high call volume, such as the divisions of the Department of Public Works and Transportation and the Department of Housing and Community Development."</p>	4.6.4
99		Pilot CountyRide Subscription Service	The Department of Public Works and Transportation should implement a CountyRide subscription trip pilot program, which would serve as an expansion of the existing short-term standing ride option.	3.3.3
100		Police Department Analyst Positions	The Baltimore County Police Department should add at least five new analyst positions.	2.1.4
101	✓	Police Department Civilianization Opportunities	Replace certain sworn officer positions within the police department with professional non-sworn (civilian) staff.	1.1.3

102		Police Department Court Liaison Officers	The Baltimore County Police Department should assign officers on long-term modified- duty status to serve as court liaison officers to attend court appearances that do not require the arresting officer's presence.	1.1.4
103	✓	Police Department Idle Reduction & Electric Vehicles	The Police Department, in consultation with VOM, should explore the use of idle reduction technology (IRT). The Department also should conduct a pilot program using electric vehicles (EVs) to evaluate efficacy and potential savings.	1.4.5
104	✓	Police Department Modified Duty	The Baltimore County Police Department should immediately begin a review of modified duty policies and their impacts on payroll costs and unit readiness.	1.1.5
105		Police Department Staffing and Relief Factor Analysis	Baltimore County Police Department should commission a workload-based staffing study, including relief factor analysis, to ascertain optimum staffing levels.	1.1.6
106	✓	Printers and Copiers	The Office of Information Technology (OIT) should improve printer and copier lease agreements where possible to include auto-reorder of supplies. The County also would save money by reducing the use of small desktop printers by staff across departments and migrating those users to high-capacity copiers.	4.6.3
107	✓	Procurement Organizational and Operational Changes	The Purchasing Division and its operations could be better organized to support enhanced procurement practices and organizational responsibilities.	1.3.2
108		Procurement Organizational and Operational Changes: Credentials and Certifications	Require applicants for the position of "Procurement Officer" to hold an appropriate college degree, professional experience and/or certifications (e.g., NIGP or UPPCC certification).	1.3.2.4
109		Procurement Organizational and Operational Changes: Elevate the Office of Procurement within OMB	Within the Office of Budget and Finance, elevate the Office of Procurement to the same organizational level as the Property Management Division and Central Communications to reflect its centrality to County operations.	1.3.2.2
110		Procurement Organizational and Operational Changes: Increase Training Budget	Increase the annual training budget to support internal training curriculum and opportunities for purchasing staff to obtain and maintain external procurement certification.	1.3.2.5
111		Procurement Organizational and Operational Changes: Reclassify Purchasing Staff	Reclassify Purchasing staff to reflect procurement job duties and requirements and modern terminology and rename buyer positions as Procurement Officers.	1.3.2.3

112	✓	Procurement Organizational and Operational Changes: Separate Non-Procurement Functions	Consider separating non-procurement accounting or accounts payable functions such as disbursements, P-card monitoring, and inventory control from the Purchasing or Procurement Office, but retain these functions within the Office of Budget and Finance.	1.3.2.7
113		Procurement Organizational and Operational Changes: Transform and Rename Purchasing Division	Transform and rename the Purchasing Division into an Office of Procurement better to reflect its organizational practices, goals, and responsibilities.	1.3.2.1
114		Procurement Organizational and Operational Practices: Agency Personnel Training	Develop a program to identify, select, train, and certify agency personnel in the use of Master Agreements, contract management, dispute resolution, specification development, and the creation of non-complex, agency-specific requests for bids and proposals.	1.3.2.6
115	✓	Procurement Savings (Countywide)	Baltimore County could achieve significant savings by instituting current and well-established procurement best practices in three overarching areas: 1) organizational and operational best practices 2) best value procurement practices, and 3) more robust systems for facilitating enhanced agency participation in all phases of the procurement process.	1.3.1
116		Procurement: Approval of Master Agreements and Purchase Orders of up to \$100,000	Amend the County Code and the Purchasing Manual to enable the County's Chief Administrative Officer, Purchasing Agent, and Deputy Purchasing Agent to approve and award Master Agreements and Purchase Orders of up to \$100,000.	1.3.4.5
117		Procurement: Enhance Interagency Participation Through Formal Processes	Formalize enhanced agency involvement in the Request for Bid and Request for Proposal preparation processes, and in the Master Agreement and Purchase Order award processes:	1.3.4
118		Procurement: Institutionalize Best-Value Procurement Practices	Baltimore County could institutionalize and expand best value procurement practices to consistently practice spend analysis, aggregate demand, consolidate purchasing volumes, negotiate many Requests for Bids (RFBs), and use reverse auctions, where appropriate.	1.3.3
119		Procurement: Interagency Participation in Administering Master Agreement Delivery Orders	Shift responsibility for the creation and administration of Master Agreement Delivery Orders to the purchasing agencies with trained personnel.	1.3.4.4
120		Procurement: Interagency Participation Through Permanent User Groups	Create and sustain permanent agency user groups consisting of knowledgeable representatives and subject matter experts from all agencies to assist the Purchasing Division with the development and bidding of RFPs and RFBs, and the award of Master Agreements and Purchase Orders.	1.3.4.1

121		Procurement: Interagency Participation Through Training Programs	Develop and implement specified training programs for selected agency personnel.	1.3.4.3
122		Procurement: Interagency Participation Using Contract Performance Data	Devise a systematic methodology to solicit and select vendor and contract performance data and incorporate the information into new RFP and RFB specifications and development, and the award and renewal of Master Agreements and Purchase Orders.	1.3.4.2
123		Procurement: P-Cards	Minimize P-Card usage when goods and services are available through Master Agreements.	1.3.4.8
124		Procurement: Small Purchase Acquisition Procedures	Create small purchase acquisition procedures to supplant the currently mandated need to invoke the RFP or RFB process for all acquisitions above \$25,000.	1.3.4.6
125		Procurement: Vendor Rating System and Performance Metrics	Create a goods, services, and vendor rating system that requires agencies and User Groups routinely to report performance metrics during all phases of the acquisition process.	1.3.4.7
126		Productivity and Staffing Analysis	Conduct a countywide productivity assessment and staffing analysis to establish appropriate staffing tables and plans for County agencies and departments.	4.2.6
127		Property Management Seasonal Workweek	The Office of Budget and Finance, Property Management, should identify metrics and implement a methodology to gauge whether or not productivity improvements result from the use of a seasonal four-ten-hour-day workweek for grounds maintenance personnel.	4.3.3
128	✓	Property Management Service Delivery	The Property Management Division should continue to enhance its management, organizational, and operational competencies on the basis of objective evaluations of services, spend, work order data, asset condition, and customer feedback to further improve service delivery and strengthen the value of information it brings to Baltimore County's annual budgeting process.	4.3.2
129		Public Engagement on Affordable Housing	Engage local communities and County Councilmembers in identifying sites and forming plans for affordable housing development.	3.2.5
130	✓	Public Information Act Responses	Baltimore County could modernize its ability to respond to Public Information Act requests by automating and decentralizing these processes as much as possible.	2.1.6

131		Public Library Branch Staffing	Reduce branch library assistant manager and assistant circulation service manager positions through attrition.	1.1.8
132		Public Library Facilities Funding	Baltimore County could identify and use multiple sources to fund the renovation, upgrade, and maintenance of its Public Library buildings.	2.2.2
133		Public Library Programs	The Baltimore County Public Library should establish policies and systematic processes for developing, approving, and evaluating its library programs.	3.3.7
134		Quality Assurance for Permits, Approvals, and Inspections	Permits, Approvals, and Inspections should adopt and implement formal quality assurance strategies for inspections.	3.3.8
135	✓	Recreation & Parks: Best-In-Class Sports Facilities	Baltimore County could plan for the development of new and improved high-quality sports recreation facilities by selecting one of three models that best suits the needs of County residents.	3.1.8
136		Recreation and Nature Councils	Baltimore County would be well served to undertake a review of all County laws, policies, agreements, and legal contracts related to the Recreation and Nature Councils and the Board of Recreation.	3.1.7
137		Recreation and Parks Revenue Generation	Establish an Enterprise Division within the Department of Recreation and Parks to capitalize on opportunities to generate and collect revenues.	3.5.2
138		Reimagining Economic and Workforce Development	Baltimore County could rethink economic and workforce development structures that would enable the County to pursue opportunities to leverage private-sector funding for economic and workforce development activities	3.5.3
139		Remote Work	Equip all knowledge workers with the resources to work remotely on a permanent basis and reduce leased office space commensurately with the proportion of knowledge workers working remotely at any given time.	1.4.6
140	✓	Rethinking Code Enforcement	Baltimore County could more actively pursue code enforcement strategies and techniques that emphasize achieving compliance with regulatory objectives rather than simply enforcement of regulatory mandates.	3.3.1
141		Retirement and Benefits Services	Consolidate retirement and benefits services under the direction of the Office of Human Resources.	4.2.9

142	✓	Rightsizing and Right-skilling OIT	Baltimore County would benefit from rightsizing/right-skilling the Office of Information Technology (OIT) to ensure the department has the right number of staff with the right mix of knowledge and skills needed to efficiently address all of the County's IT needs. Employees should be encouraged or incentivized to take advantage of current training opportunities. Where relevant training opportunities are not available, OIT should investigate additional options.	4.5.2
143		Rural Fire Preparedness	Increase the number of water storage tanks/facilities in rural Baltimore County.	2.2.1
144	✓	Sensitive Network Information	The Office of Information Technology (OIT) should conduct a thorough review of all publicly available and accessible information about its information network and component systems and should move swiftly to remove sensitive information from public view.	4.5.6
145	✓	Service Level Agreement for Public Library Technology Support	The Baltimore County Public Library and the Office of Information Technology (OIT) should use a Service Level Agreement to formally and clearly define the responsibilities of each department and the scope of technology services the Library may perform for itself.	4.1.5
146	✓	Service Level Agreements for Technology Support	The Office of Information Technology (OIT) should enter negotiations with the individual agencies that they serve to draft and implement Service Level Agreements that detail roles and responsibilities for each party; the terms and level of service, scope, quality; and specific performance metrics.	4.1.4
147		Small Area Community Plans	The Department of Planning should develop and implement a systematic approach to completing small area community plans countywide as a follow up to the 2030 Master Plan process.	3.2.3
148	✓	Snow Removal Efficiencies	Increase use of proactive anti-icing methods rather than reactive deicing methods for winter weather response.	1.2.1
149		Solicit Developer Proposals for Affordable Housing	Identify sites appropriate for affordable housing development and solicit developer proposals for their development.	3.2.6
150		Solid Waste Enterprise Fund	Restructure the Department of Public Works and Transportation Bureau of Solid Waste as an Enterprise Fund.	3.5.1
151	✓	Solid Waste Routes Reallocation	Prioritize redesigning residential collection routes, including consolidating operations to structure routes in a systematic way with a targeted baseline of 10,000 units per route.	3.3.2

152	✓	Solid Waste System Benefit Charge	Baltimore County should explore implementing a Systems Benefit Charge (SBC) to owners of all improved properties in the County to fund capital investments needed to address landfill capacity issues.	1.7.7
153	✓	Solid Waste: Tipping, Transfer, and Host Fees	Assess the true cost of solid waste disposal and transfer at the Eastern Sanitary Landfill, CAF, and WAF facilities, and make appropriate adjustments to the tipping, transfer, and host fees, with the goal of extending the lifespan of the County's active landfill.	1.7.6
154		Street Sign Retroreflectivity	The Department of Public Works and Transportation should conduct a countywide study of street sign retroreflectivity.	2.2.4
155		Street Sweeping Efficiencies	Request competitive bids for street sweeping services.	1.2.2
156	✓	Succession Planning	Implement a formal retirement and succession planning analysis directed by the Office of Human Resources (OHR), and involving relevant agencies and departments, such as the Office of Budget and Finance (OBF) and the Office of Information Technology (OIT).	4.2.8
157	✓	Tall Grass Code	Baltimore County could enact a change in code to lower the maximum height of tall grass and weeds from twelve inches to eight inches.	3.3.9
158	✓	Technology Support	Baltimore County should investigate and pursue ways to better serve the specific IT needs of County agencies and expand technology and IT support resources to assist departments' specialized functions.	4.5.3
159	✓	Telehealth	DHHS should assess its deployment of telehealth during the pandemic to optimize its use in providing health services, care coordination, and social services into the future.	4.4.4
160	✓	Telematics	Baltimore County could fully implement a vehicle information system and incorporate telematics data into the operation and management of vehicles owned and managed by Vehicle Operations Maintenance (VOM) and Equipment Operations Maintenance (EOM).	1.4.2
161	✓	Towson Loop Institutional Support	The Department of Public Works and Transportation should use the Towson Loop pilot as an opportunity to seek financial support from partner institutions for future expansion of the system.	1.6.1
162		Towson Loop Value Capture Analysis	Pursue a feasibility study of the potential for using land value capture to fund the Towson Loop and future public transportation investments.	1.6.2

163		Transit-Oriented Development	The Department of Planning should develop a Transit-Oriented Development (TOD) Strategic Plan, in coordination with ongoing transportation and transit planning efforts led by the Baltimore Metropolitan Council and the Department of Public Works.	3.1.4
164		Unify Fleet Management Functions	Combine the management of the Office of Budget and Finance's Vehicle Operations and Maintenance (VOM) and the Department of Public Works and Transportation's Equipment Maintenance (commonly referred to as EOM) into a unified Fleet Management entity.	4.3.1
165	✓	Updating Outdated Software	The Office of Information Technology (OIT) should prioritize the swift identification, elimination, and replacement of any remaining outdated software currently in use, including Windows 97 and Access 97.	4.6.1
166	✓	Upfitting Police Vehicles	The Office of Budget and Finance, Purchasing Office, Vehicle Operations and Maintenance, and the Office of Information Technology, Electronic Services should modify their process of selecting vendors to upfit and prepare new police vehicles for service when the work cannot be completed by VOM and Electronic Services on a timely basis.	1.4.1
167	✓	Virtual Inspections	The Permits, Approvals, and Inspections Department (PAI) should explore continuing and expanding the use of virtual inspections as appropriate into the post-COVID era, and develop a virtual inspection methodology, process, and procedures.	3.4.4
168	✓	Virtual Public Meetings	The Department of Planning should leverage recent pandemic-related investments in remote meeting technology to optimize and expand the practice of virtual public meetings, even as COVID-19 public gathering restrictions are lifted.	3.2.4
169		Volunteer Drivers for Senior Citizens	Develop and operate a Volunteer Driver Program for older residents of Baltimore County.	3.3.4
170	✓	Workday Implementation	Use Workday to replace systems with redundant capabilities wherever possible and expeditiously ensure that all staff are trained in the use and application of each functionality that pertains to their role, and that all systems are updated and tested as necessary to support the Workday transition.	4.4.1
171		Workforce Development Programming	Baltimore County could raise its investment level in workforce programming activities closer to those of its peer counties and seek opportunities for additional funding.	2.3.1

CHAPTER 1

Savings Opportunities

The primary aim of this efficiency review was to improve the functioning of Baltimore County Government – not necessarily to produce monetary savings. Nonetheless, when operations are improved, they will generally provide savings. In fact, it is Public Works LLC’s conviction that the best way to achieve savings is to improve service, not simply to enact cuts.

Roughly one quarter of the recommendations in this report produce projected savings that are quantifiable with available data: 39 through cost savings and 7 through revenue enhancement opportunities. These total approximately \$75.2 to 119.5 million in average annual net cost savings over the first five years and another \$15.1 to 38.6 million per year in average annual net revenue gains over the same five-year period. In addition, numerous other recommendations are expected to produce additional savings that could not be reliably estimated based on the information currently available from the County.

The savings opportunities presented in this chapter can be broken into two broad categories – cost reductions and revenue gains. The cost reductions themselves fall under five general headings:

- Staffing levels that should be adjusted to improve efficiency throughout County government, and in particular departments, thereby saving money.
- Improvements in operations that will reduce or eliminate unnecessary expenses.
- Improvements in the procurement process, whereby the County purchases the goods and services it needs – a large component of County government expenses.
- The management of capital assets, such as vehicles and facilities, which can be a considerable cost center. And, finally,
- Health care costs attributable to County employees – one of the largest and fastest-growing costs in any operation today.

This chapter also addresses other hard-dollar improvements in the County’s bottom line through revenue gains. None of these, however, represent increases in taxes, but rather fall into two subcategories:

- Improved collection of existing revenue sources (such as parking meter, transit fares, and grants).
- Raising user fees either to levels comparable to those in peer jurisdictions or where the increased fees fall on non-County residents and non-County businesses.

This latter category well illustrates the proposition that revenue gains do not necessarily mean shifting a cost from the government to its citizens: Instead, fees related to the County landfill operation actually will save County taxpayer additional monies overall by reducing the costs to them of the landfill itself.

Thus, these reduced costs and expanded revenue all represent opportunities for saving money for Baltimore County’s own taxpayers.

1.1 Staffing Efficiencies

Baltimore County Government is overstaffed in some ways and understaffed in others. For instance, the current overall span-of-control ratio in Baltimore County government is nearly 1:12 – in other words, 12 direct-reports for each supervisor – which is the recommended level nationwide. However, adjusted to exclude police and fire services, the ratio is only 1:7.68. Increasing the management ratio could result in significant savings to the County.

Higher ratios are not ideal for public safety agencies, in contrast since supervisors typically also perform front line duties. However, the Baltimore County Fire Department's current practice of staffing leaves ample room for efficiency gains. A conservative ratio of 1:6.6 would bring the Fire Department in line with national norms. This chapter discusses how to do that.

The situation is somewhat the opposite in the Baltimore County Police Department. A number of sworn positions could be filled by non-sworn (civilian) staff or left vacant without negatively impacting operations. The Department also currently has more than 130 staff on modified work assignments due to on-the-job injuries and non-duty related injuries and illnesses. These vacancies drive overtime costs and raise the risk of staff burnout; developing new policies to address the budgetary and operational impacts of modified-duty assignments will reduce overtime costs, lessen the risk of staff burnout, and increase the numbers of police officers on regular duty. Some of these officers on long-term modified-duty status can be assigned to serve as court liaison officers to attend court appearances that do not require the arresting officer's presence: Reducing the time regular-duty officers spend in routine court appearances in this way would reduce the Department's overtime costs and lessen the need for mandatory overtime that can diminish morale and lead to staff burnout. Finally, periodic studies of department staffing are needed to make sure staffing levels reflect the current workload in this 24/7 operation.

Staff savings can be achieved by proper attention to non-public safety departments, as well. For example, the Department of Planning currently completes a Comprehensive Zoning Map Process (CZMP) every four years; the most recent CZMP took 17 months to complete. Typically, county and municipal zoning maps are revised on a ten-year cycle, as in Anne Arundel and Montgomery counties. Adjusting the frequency of the CZMP from every four years to every ten years would reduce staff time dedicated to the process, shift department resources into under-resourced planning activities, and better align with the County's Master Plan process.

1.1.1 COUNTYWIDE SPAN OF CONTROL

Baltimore County could increase its non-police and non-fire management ratio/span of control between senior- to mid-level managers and staff from 1:7.68 to 1:10 to realize countywide staffing efficiencies.

Findings

According to data provided by the County, the current span-of-control ratio in Baltimore County government is nearly 1:12, which is the recommended level nationwide. However, adjusted to exclude police and fire services, the ratio is only 1:7.68.

Determining the precise span of control (SOC) is difficult given the limitations of Baltimore County's personnel data. Baltimore County's 2019 Office of Government Reform and Strategic Initiatives report noted: "There is no current process or policy for capturing organization change, as it occurs, after the start of a budget cycle. As such, discrepancies exist between organizational structure information approved and published by the Office of Budget and Finance and actual working structures within County Departments." Staffing tables provided to Public Works LLC are not consistent with tables found in the annual budget. Further, yearly budget tables do not identify which positions are management or supervisory. These ambiguities make it difficult to determine the number of management or supervisory personnel working in agencies and units throughout the County and thus to compute the actual span-of-control ratios for each agency and unit countywide.

The review team calculated span-of-control ratios using information provided by the County. Calculations are derived from a report of filled positions provided by Baltimore County Human Resource Information Systems, April 1, 2021. The report showed 7,772 filled positions. After adjusting for Police (1,007) and Fire (2,970) positions, the remaining filled positions were 4,802; 4,249 staff and 553 line management and supervisory. Public Works LLC adjusted for Police and Fire due the skew they represent because of the specific circumstances associated with the professions. We calculated those ratios to be 1:55.09 and 1:58.24, respectively. Including them in a countywide calculation would produce a ratio of 1:11.85. This produces a current span-of-control ratio of $4,249/553 = 7.68:1$.

Benefit to the County

Increasing the management ratio could result in significant savings to the County.

Best Practices and Benchmarks

There is no one-size-fits all standard for ideal span of control within an organization. Different types of work will demand greater or lesser amounts of supervision and management. However, the number of supervisory positions tends to increase over time in both private and public sector organizations, and there are opportunities for increased organizational effectiveness and efficiency by reducing supervisory positions to increase average SOC ratios.

In fact, the opinion of organizational design experts has changed over time: early in the 20th Century, there was a consensus that six-to-one was an optimum ratio of frontline workers to managers. Today, that number is placed closer to ten- or fifteen-to-one, based on trends toward flattening organizational structures and the use of improved technology available to manage work and people. For purposes of this report, we recommend that the County aim to attain at least the lower limit of this range, ten staff per supervisory or management position.³

Five-Year Savings Estimate

	County First Full Year	Average Annual Savings	Five Years
Low End Range	\$ 784,466	\$ 2,353,398	\$ 11,766,989
High End Range	\$ 1,176,699	\$ 3,530,097	\$ 17,650,483

Upfront Costs: There are no upfront costs associated with this recommendation; proposed staffing changes are through attrition.

Moving from one manager, on average, for every 7.68 employees, as is the case now, to one manager for every 10 employees, as recommended, would represent an increase in employees-per-manager of almost one-third, or put another way, a reduction in managers-to-staff by roughly one-quarter. In short, this could represent up to a nearly one-quarter savings in the costs of management to the County (or, more precisely, 23.2% $[(10-7.68)/10]$).

The average annualized salary for all supervisory and management personnel (excluding fire and police), is \$80,640; computing other employment costs (FICA, unemployment, health insurance, etc.) at 52 percent of average salary (or \$41,933), the total cost of the average supervisory or management employee in Baltimore County is \$122,573. In theory, a reduction of 128 supervisory positions would be needed to reach the preferred span of control ratio. Reducing the 553 current such employees by 128 would thus save a total of $128 \times \$122,572 = \$15,689,318$. However, to be conservative, we assume that some percentage of management/supervisory employees also do non-management/supervisory work, and therefore these positions would be retained, reducing the total savings amount; our high-end savings assumption is that only 25 percent of

³ <https://www.economist.com/news/2009/11/09/span-of-control>.

management/supervisory employees also do non-management/supervisory work, so that 75 percent of the full position-reductions ($\$15,689,318 \times 0.75 = \$11,766,699$) could be achieved, while our low-end savings assumption is that half of management/supervisory employees also do non-management/supervisory work, so that only 50% of the full position-reductions ($\$15,689,318 \times 0.50 = \$7,844,659$) could be achieved.

Finally, we assume that these reductions-in-force would be achieved gradually through natural attrition rather than laying off any current managers and supervisors. Assuming a 10 percent annual attrition rate in such positions, an additional incremental 10 percent savings below the current baseline (i.e., 10% in Year I, 20% in Year II, etc.) will be achieved each year over a ten-year period. Thus, first-year savings would come to \$784,466 (10% of \$7,844,659) under our low-end estimate, and \$1,176,670 (10% of \$11,766,699) at the high-end; cumulative savings over five years thus would come to between \$11,766,989 (low end: \$784,466 in Year 1 + $(2 \times \$784,466 = \$1,568,932)$ in Year 2, etc.) and \$17,650,483 (high end). See table below.

SAVINGS PROJECTIONS BY IMPLEMENTATION YEAR

Implementation Year	Low-End Savings Projection	High-End Savings Projection
Year 1	\$ 784,466	\$ 1,176,699
Year 2	\$ 1,568,932	\$ 2,353,398
Year 3	\$ 2,353,398	\$ 3,530,097
Year 4	\$ 3,137,864	\$ 4,706,796
Year 5	\$ 3,922,330	\$ 5,883,494
Five-Year Total Savings	\$ 11,766,989	\$ 17,650,483
Average Annual Savings (First 5 Years)	\$ 2,353,398	\$ 3,530,097

Implementation Guidance

The County should implement the new ratio strategy through employment attrition, eliminating or consolidating excess supervisory positions. This recommendation can be most effectively implemented if its planning is undertaken in close coordination with and informed by the results of the countywide **Productivity and Staffing Analysis** recommended elsewhere in this report. This analysis will provide data that can be used to achieve a more optimal span of control by appropriately shifting human resources to where they are most needed. This recommendation should be implemented through attrition and assumes an attrition rate of 10 percent per year for the next five years.

1.1.2 FIRE DEPARTMENT SPAN OF CONTROL

Increase the Fire Department's span of control by improving the ratio of supervisors to staff on each engine company.

Findings

The Baltimore County Fire Department assigns one Captain and one Lieutenant to each four-person Engine Company. Staffing each engine company with two managers and two line-employees yields a one-to-one reporting relationship (chain of command.) This uncommon staffing practice results in a very narrow "span of control" – the ratio of supervisors to staff – throughout the Department.

A review of all the County's Fire Department organizational staffing charts and Detailed Personnel Schedules, for all divisions, found approximately 400 management/supervisory staff and 1,400-line employees. This yields an extremely inefficient supervisor-to-staff ratio of 1:3.5.

The recommended span of control for government organizations overall ranges from 1:6 to 1:15. Higher ratios are not ideal for public safety agencies, because lieutenants and captains also perform line-staff duties. However, the Department's current ratio of 1:3 leaves ample room for efficiency gains. A conservative ratio of 1:6.6 would bring the Fire Department in line with national norms. This goal could be achieved by replacing manager/supervisor positions with line positions, resulting in an overall increase in line staff and reduction of higher-paid supervisors.

One engine company officer should serve as Captain at each station, consolidating management responsibilities in a single position and bringing the Department in line with most fire departments nationwide. This staffing policy should be implemented by natural attrition through retirement as described above.

Over time, reducing officer positions and increasing line staff will create substantial payroll savings. Replacing half of the officer positions (captains and lieutenants) on engines and trucks with fire specialists or firefighters will result in average net salary and benefit savings of \$92,400 per position. Replacement of 101 positions, once fully implemented, would result in annual savings of \$9.3 million (\$9,332,411).

The Fire Department could further benefit by redirecting some of those savings to hiring needed additional administrative staff, as described elsewhere in this report (see **Fire Department Administrative Staffing**).

Five-Year Savings Estimate

	County One Full Year	Avg Annual Savings	Five Years
Low End Range	\$ 466,621	\$ 1,399,862	\$ 6,999,308
High End Range	\$ 933,241	\$ 2,799,723	\$ 13,998,617

Upfront Costs: No upfront costs are involved in the implementation of this recommendation; span of control to be achieved through attrition by retirement, estimated to be between 5 and 10 percent per year. High end range savings estimates are based on an average attrition rate of 10 percent; low end range estimates assume 5 percent.

The savings estimates assume the replacement, through natural attrition by retirement, of 72 Captain positions and 29 Lieutenant positions with 101 Firefighters and Fire Specialist positions. The low- and high-end ranges are based on current annual retirement rates for officer positions of five-to-ten percent. Savings compound each year as the target span of control is approached. Salary estimates on which the above savings projections are based include benefits and are presented in the table below.

Position	Salary (including benefits)
Captain (1 FTE)	\$ 213,642
Lieutenant (1 FTE)	\$ 168,087
Firefighter and Fire Specialist (Average, 2 FTEs)	\$ 108,161

SAVINGS PROJECTIONS BY YEAR OF IMPLEMENTATION		
Implementation	Low-End Attrition (5%)	High-End Attrition (10%)
Year 1	466,621	933,241
Year 2	933,241	1,866,482
Year 3	1,399,862	2,799,723
Year 4	1,866,482	3,732,965
Year 5	2,333,103	4,666,206
Five Year Total Savings	6,999,308	13,998,617

The calculations above are based on full annual savings potential of \$9,332,411. Savings will continue to increase with each year of implementation until the target span of control is reached and full potential savings of \$9.3 million annually are achieved.

Best Practices and Benchmarks

This recommendation follows a common model for many government jurisdictions. The National Fire Protection Association (NFPA) Standard 1710 recommends that "each company be staffed with four firefighters, including a company officer, and that the company officer must remain as part of the company."

Implementation Guidance

Implementation of the recommended realignment, replacing an officer position on each apparatus with a firefighter position, would increase the span of control from 1:3 to nearly 1:7 in Field Operations.

To avoid layoffs while correcting a suboptimal span of control, it is recommended that the County make these changes incrementally through attrition as officer-classification staff retire or otherwise leave the ranks. The review team estimates conservatively that this will take fewer than 20 years based on attrition rates of five to ten percent.

1.1.3 POLICE DEPARTMENT CIVILIANIZATION OPPORTUNITIES

Replace certain sworn officer positions within the Police Department with professional non-sworn (civilian) staff.

Findings

A review of the Baltimore County Police Department's organizational chart and discussions with department leadership indicate that a number of sworn positions in the Administrative Support Bureau, the Training Academy, the Range, and other divisions could be filled by non-sworn (civilian) staff or left vacant without negatively impacting operations.

According to the 2021 Detailed Personnel Schedule, the Department includes 1,926 authorized sworn staff positions and 329 non-sworn positions (not including school traffic guards); non-sworn staff make up about 15 percent of total positions.

Sworn officers make up 96 of 339 total employees in the Administrative and Technical Services Bureau (28.3 percent); 109 of 116 total positions in Operations Support Services Division (94 percent), and 22 of 41 in the Office of the Chief (46.3 percent).

Non-sworn (civilian) personnel make up 18 of 265 total positions (6.7 percent) in Criminal investigations Division, 58 of 1,364 positions in Operations (4.3 percent), and only two of 83 total positions (2.4 percent) in Vice/Narcotics Section.

According to interviews with senior staff, the 911 call center is assigned a cadre of sworn police staff to help support the police dispatch function. However, this group of sworn officer positions does not appear in budget documents provided to the Public Works LLC review team by the County. Senior staff reported that many officers assigned to the call center are sworn staff on modified duty. As noted in another recommendation in this report, as of June 11, 2021, there were 137 Police Department staff on modified duty status. The number of modified duty sworn staff assigned to the 911 call center skews the ratio of sworn to non-sworn staff, as many officers on modified duty are filling positions that could be held by civilians.

Of 175 current vacancies, 114 are sworn positions. When the number of staff relieved of their regular positions due to modified duty is added to the 175 unfilled positions, the impact is considerable. The combined number is 312, or nearly 13 percent of 2,420 total budgeted positions that are not presently filled. Civilianizing positions that do not require a sworn, armed officer would make it possible for the Police Department to deploy the officers currently holding those positions to fill some of those pressing vacancies.

Best Practices and Benchmarks

The following chart presents a comparison of sworn and civilian staff percentages in the five largest county police departments in Maryland in 2018.

County Police Department	Estimated Population 2019	Number of Sworn Officers 2019	Sworn Officer per 1,000 population	Area in Square Miles	Sworn officers per Sq. Mile
Howard County PD	328,200	476	1.45	254	1.85
Anne Arundel County PD	579,234	773	1.33	588	1.21
Baltimore County PD	827,370	1869	2.26	682	2.73
Prince George's County	909,327	1551	1.71	498	3.28
Montgomery County PD	1,050,685	1406	1.34	507	2.55

Source: 2018 Crime in the United States, the U.S. Department of Justice, Federal Bureau of Investigation Criminal Justice Information Services Division.⁴

It should be noted that comparisons of civilian and sworn staff utilization in other jurisdictions are not always directly comparable and thus may be misleading. In some communities, for example, the 911 communications/dispatch service is maintained within a public safety agency that includes both Police and Fire. Some police departments include crossing guards, while others place those positions within the BCPS budget.

In Baltimore County, the 911 Communications Center is organized within the Office of Budget and Finance, while school traffic guards are part of the Police Department.

When the numbers of civilian communications center staff are included and school crossing guards are removed from the analysis, the Police Department's percentage of civilian staff rises to 25 percent.

Benefit to the County

Deploying sworn staff in positions that could be held by professional non-sworn staff reduces the number of officers who could be out on the streets patrolling, investigating, and working to prevent crime and improve safety.

Baltimore County has recognized the need to replace sworn officers with civilian staff in administrative posts whenever possible. This recommendation supports the 2021-2025 Police Department Strategic Plan Goal 5: Create a More Efficient, Effective, and Safe Workforce, Initiative 5: Identify and Eliminate Inefficiencies. This initiative includes the following action items:

- Civilianize administrative positions to maximize sworn efficiency.
 - » 2021: Identify current sworn administrative positions potentially eligible for non-sworn staffing.
 - » 2022: Obtain independent audits of identified positions to make final determination of which positions should be converted.
 - » 2023: Begin conversion process for confirmed positions.
 - » 2024: Audit positions currently staffed by police assistants for potential permanent staffing or efficiency reorganization.
 - » 2025: Complete conversion process for all confirmed positions.
- Progress reported by the Police Human Resources Section.

⁴ <https://ucr.fbi.gov/crime-in-the-u.s/2018/crime-in-the-u.s.-2018/tables/table-80/table-80-state-cuts/maryland.xls>

Five-Year Savings Estimate

	County One Full Year	Five Years
Low End Range	\$300,000	\$1,500,000
High End Range	\$600,000	\$3,000,000

Upfront Costs: This recommendation can be implemented with existing resources.

It is difficult to precisely project the long-term cost savings related to reclassification of sworn positions, given that it is a priority of the County to keep sworn officers who are on modified work status on the force and to redeploy them in other roles. Some immediate savings could be realized by allowing some non-essential administrative positions to remain unfilled. Over time, reclassifying 15 to 20 sworn staff positions as lower-cost civilian positions could drive annual savings of \$20,000 to \$30,000 in personnel costs per position, for recurring annual savings of \$300,000 to \$600,000.

There are no upfront costs associated with the recommended reclassifications.

Implementation Guidance

To speed the process of civilianization, the Department should evaluate all sworn positions to determine which require armed officers with arrest powers; any positions that do not require this level of staffing should be reclassified. For example, several administrative and technical support positions could be ably filled by civilians. Other possibilities include hiring or contracting with retired law enforcement officers to serve as police academy instructors and rangemasters.

Following analysis and reclassification, the Department can move to transfer incumbent sworn staff from civilian-appropriate jobs to existing vacant positions that require sworn officers. Moving to put sworn officers “back on the street” is especially important given that more than 170 sworn positions are currently unfilled and another 130-plus sworn officers are on modified duty status. If it is not possible to transfer sworn staff to new positions immediately, the Department can make plans to fill those positions with civilian staff when incumbents retire or resign.

1.1.4 POLICE DEPARTMENT COURT LIAISON OFFICERS

The Baltimore County Police Department could assign officers on long-term modified-duty status to serve as court liaison officers to attend court appearances that do not require the arresting officer’s presence.

Findings

Police officers are often summoned to court hearings and then dismissed upon arrival, without ever appearing before the court. They may also be summoned to court for procedural reasons that do not necessarily require the presence of the arresting officer, or another officer involved in the case. These appearances prevent officers from fulfilling their regular duties, potentially for the entire day, and may require additional officers to backfill their roles.

These time-consuming appearances contribute to increased overtime expenses, both for the officers summoned to court and for other officers working overtime to maintain minimum staffing levels while those officers are away from their regular duties. Officers also can be called in on their days off or placed on standby status pending a possible court appearance, which incurs further overtime expense.

Based on overtime reports, between 15 and 26 percent of all overtime and standby pay is attributable to court appearances. In 2019, court appearances accounted for 26 percent of all overtime in the Police Department Criminal Investigations Bureau, Vice/Narcotics Section, and Operations Bureaus; in 2020 they accounted for 21 percent. An estimated 20 to 25 percent of those court appearances do not require the presence of the arresting officer and could be handled by sworn officers on modified-duty status.

Assigning staff on modified duty to serve as court liaison officers and cover routine court appearances would reduce overtime spending and enable regular-duty officers to devote more time to their normal assignments. According to staff interviews, the Police Department sometimes assigns modified-duty staff to court appearances, but expanding this practice could increase efficiency and save money.

Benefit to the County

Overtime is often incurred when calling officers in on their days or hours off duty or when having to back-fill officer positions when their appearance is necessary while they are on-duty and other officers work overtime to maintain optimum or required staffing levels. Reducing the time regular-duty officers spend in routine court appearances would reduce the Department's overtime costs and, also, lessen the need for mandatory overtime that can diminish morale and lead to staff burnout. Assigning officers on modified-duty status to serve as court liaison officers also would give them an opportunity to make a valuable contribution to the Police Department and the community while they are unable to perform their normal duties.

Five-Year Savings Estimate

	County One Full Year	Five Years
Low End Range	\$163,323	\$816,615
High End Range	\$353,866	\$1,769,332

Upfront Costs: This recommendation can be implemented with existing resources.

In 2019, overtime pay for court appearances accounted for \$1,415,456, or 26 percent of all overtime in the Criminal Investigations, Vice/Narcotics and Operations Bureaus combined. In the Operations Bureau alone, court-related overtime accounted for more than 40 percent of overtime. Savings associated with this recommendation would be from the avoidance of overtime or standby pay for certain court appearances. The Public Works LLC review team's analysis of overtime expenditures estimates that 15 to 26 percent of Police Department overtime and standby costs are due to court appearance requirements. If 25 percent of those hours could be covered by sworn officers on modified duty status, direct savings in the avoidance of overtime and/or standby pay could be as much as \$350,000 per year (high end range estimate assumes 26 percent of overtime is attributable to court appearances). If 20 percent of those hours could be covered, direct savings could be \$163,323 (low range estimate assumes only 15 percent of overtime is attributable to court appearances). These direct savings are in addition to increased department-wide productivity resulting from utilizing officers on modified-duty status.

Implementation Guidance

Officers on modified duty status should be designated to serve as court liaison officers, assigned to handle routine court appearances that do not require police witness testimony, such as arraignments and pre-trial hearings where the designated court liaison officers could read reports into the record and answer questions from the judge or magistrate about policy and procedures. As necessary, these court liaison officers could contact the arresting officers or other officers involved in the case for additional information requested by the court.

1.1.5 POLICE DEPARTMENT MODIFIED DUTY

The Baltimore County Police Department should immediately begin a review of modified duty policies and their impacts on payroll costs and unit readiness.

Findings

Public safety agencies, including those in Baltimore County, experience a higher level of on-the-job injuries than most other government departments. As a result, Workers' Compensation costs for Baltimore County public safety agencies are three-to-almost-nine times higher than those of other Baltimore County agencies.⁵

Return-to-work programs enable employees to continue working while they rehabilitate from injury or illness. These programs include work assignments that accommodate medical limitations with modified duty (also called light duty) positions that are within the employee's physical capability and will not cause further injury. Modified duty roles may be short- or long-term.

Baltimore County Personnel Policies and Procedures, Section 9.13.2 allows for correctional officers and sworn employees of the Police and Fire Departments to work modified duty jobs, subject to availability, if the employee's medical provider and/or the County's medical provider(s) determine that the employee is unable to perform the essential functions of their regular job due to injury or illness. The policy also states that, when the County's medical provider determines that an employee cannot work modified duty, the employee will be granted accident leave.

The Baltimore County Police Department currently has more than 130 staff on modified work assignments due to on-the-job injuries and non-duty related injuries and illnesses. Staff may be placed on short-term or long-term modified duty status or on maximum medical improvement (MMI) status.

A concern expressed by officials in all Public Safety agencies is that staff on modified-duty status remain on the rosters of their regularly assigned units, even though they may be working elsewhere. Over time, these arrangements can create serious budgetary and operational strains. For example, a division or a unit may have nine assigned police officers; if three of them are on modified-duty in some other unit, the unit is functionally short one-third of its positions. However, those positions are not listed as vacant, which means that no new staff may be transferred in to take the place of the modified-duty officers.

According to Police staff interviewed, modified duty status was once limited to no more than 251 days. At present, however, this policy does not seem to be in effect; one agency reported that some staff have been on modified-duty status for more than three years.

The long-term detrimental impacts of the excessive number of effectively unfilled positions cannot be overstated. Staff who are on long-term modified duty or who have reached maximum medical improvement (MMI) status can create severe challenges for unit supervisors. These vacancies drive overtime costs and raise the risk of staff burnout.

The following chart shows the current number of sworn (police and fire) and uniformed (corrections) employees on modified duty status, according to information obtained from the three public safety agencies.

⁵ Benefit rates for agencies provided by Baltimore County.

MODIFIED DUTY STATUS OFFICERS BY PUBLIC SAFETY DEPARTMENT

	Long-term	Short-term	MMI	Total
Police Department	64	62	11	137
Fire Department	6	15	9	30
Department of Corrections	13	10	Data Not Available	>23
Public Safety Agency Total	83	87	20+	190+

As of June 11, 2021, there were 137 police department staff on modified duty. The Department reports another 175 officially vacant positions (114 sworn and 61 non-sworn) for a combined number of 312 effectively unfilled positions, or nearly 13 percent of the Department's 2,420 total budgeted positions. Reportedly, there are currently more police officers on modified-duty status than can be accommodated in positions for which they are qualified. Although some of these officers could work in vacant civilian positions, this is not a cost-effective solution over the long term.

Benefit to the County

Developing new policies to address the budgetary and operational impacts of modified-duty assignments will reduce overtime costs, lessen the risk of staff burnout, and increase the numbers of police officers on regular duty.

Best Practices and Benchmarks

San Francisco, California, has developed policies for modified-duty police assignments that set time limitations on these assignments and provide guidelines for long-term accommodations for injured personnel.⁶ The Board of Supervisors estimated that implementing these modified-duty policies would drive annual savings of over \$4 million without reducing the level of police services.

Implementation Guidance

The Police Department and the County Department of Human Resources should immediately begin a review of modified-duty policies and their impacts on payroll costs and unit readiness. This review should include in-depth analysis of the impacts on units with higher numbers of staff assigned to modified duty. As further discussed in a separate recommendation, the Department also should commence a comprehensive relief factor analysis to identify high-need units that are most affected by the proportion of modified-duty staff and develop strategies to reduce overtime costs.

⁶ <https://sfbos.org/section-21-required-staffing-temporary-disability-and-modified-duty>.

1.1.6 POLICE DEPARTMENT STAFFING AND RELIEF FACTOR ANALYSIS

Baltimore County Police Department should commission a workload-based staffing study, including relief factor analysis, to ascertain optimum staffing levels.

Findings

Police department staffing requires complex calculations. Scheduling must account for regular shifts, plus anticipated absences due to vacation, sick leave, Family and Medical Leave Act (FMLA) leave, and military leave. In addition, staffing schedules must include time that officers spend away from normal assignments to appear in court, undergo additional training, or complete on-duty requirements, such as range time. For example, basic 24-hour, seven-days-per-week staffing for a single police patrol vehicle requires 4.2 full-time equivalents (FTEs), based on a 40-hour work week. When sick and vacation leave and other time away is factored in, the actual staffing requirement for that patrol vehicle rises to 5 or 6 FTEs; that number increases in departments with more generous leave benefits.

Department staffing needs also evolve over time. Periodic studies of department staffing are needed to make sure staffing levels reflect the current workload, as measured by calls for service, criminal case investigations, task force requirements, records processed, community policing activities and community outreach initiatives, time spent in roll call, shift preparation, training requirements, and other duties.

In the United States, police department staffing levels may be based on population size, “minimum-manning,” crime trends, or simply the limitations of departmental budgets. The recognized best-practice staffing model is workload-based, although it is less commonly adhered to.⁷ Many U.S. police departments base staffing on a per capita model, although the International Association of Chiefs of Police recommends against this approach.

The following table shows how Baltimore County Police Department’s per capita staffing compares to the five largest county police departments in Maryland.

**COMPARISON OF SWORN OFFICERS IN SELECT COUNTY POLICE DEPARTMENTS
BY TOTAL AREA AND POPULATION**

County Police Department	Estimated Population 2019	Number of Sworn Officers 2019	Sworn Officer per 1,000 population	Area in Square Miles	Sworn officers per Sq. Mile
Howard County PD	328,200	476	1.45	254	1.85
Anne Arundel County PD	579,234	773	1.33	588	1.21
Baltimore County PD	827,370	1869	2.26	682	2.73
Prince George’s County	909,327	1551	1.71	498	3.28
Montgomery County PD	1,050,685	1406	1.34	507	2.55

Source: 2018 Crime in the United States, the U.S. Department of Justice, FBI, Criminal Justice Information Services Division.⁸

⁷ An analysis of police department staffing: How many officers do you really need? ICMA Center for Public Safety Management, p.5.

⁸ <https://ucr.fbi.gov/crime-in-the-u.s/2018/crime-in-the-u.s.-2018/tables/table-80/table-80-state-cuts/maryland.xls>

Compared with the average officer-to-resident ratio of the other four largest county police departments in Maryland – Montgomery, Howard, Prince George’s and Anne Arundel counties – Baltimore County has 54 percent more sworn officer positions per resident. When the geographic size of the county is considered, however, the County has only slightly more sworn positions than average per square mile. It should be noted that the table shows budgeted positions; at present, the Police Department reports more than 170 vacancies and another 130-plus sworn staff on modified-duty status. These unfilled positions artificially inflate Baltimore County Police Department’s staffing levels relative to its peer counties.

The Department’s relatively high number of sworn staff positions could be indicative of over-assignment of sworn officers in administrative positions, overstaffing in some departments, high numbers of officers on modified-duty status, or intentionally expanded staffing in rural areas to meet response time goals. Staffing levels also could reflect overestimation of the number of officers needed to cover days off and other absences from normal duty - or compensation for the high percentage of vacancies.

It appears that no relief factor analysis has been conducted for the Department in recent years, although a consultant has been engaged to study staffing practices. Formal, comprehensive relief factor analysis is essential for police and other public safety departments that provide around-the-clock services. It is necessary to understand how many officers must be employed to cover all shifts, plus additional coverage for officers who are absent while on vacation or sick leave, FMLA leave, military leave, etc. or away from their normal assignment for training, court appearances, or other on-duty business. Given the frequency of on-the-job injuries, relief factor analyses for public safety agencies also must consider the average number of staff on modified duty assignments.

Benefit to the County

For a law enforcement department of its size, the cost of a comprehensive staffing study for Baltimore County Police Department, including relief factor analysis, would likely range from \$40,000 to \$80,000. A complete analysis is required to determine exactly how much the Department could save by better matching its staffing to its actual workload needs. However, the County’s relatively high staffing numbers, based on proxy indicators, suggest that substantial savings might be achieved by right-sizing the number of department positions and making sure that sworn officers are deployed only in jobs that require their skills and training.

Best Practices and Benchmarks

Police departments across the country are using staffing studies and relief factor analysis to improve efficiency, reduce costs, and assure full unit strength. The Police Department of San Francisco, California, which employs a force of 1,971 sworn personnel, last year published a highly detailed staffing study that included recommendations for adequate relief factor staffing.² Albuquerque, New Mexico, underwent a 2015 staffing study that included relief factor analysis and recommendations to improve efficiency and ease officers’ workload by optimizing the use of non-sworn staff.³ In 2018 Miami Dade County (Florida) completed a relief factor analysis for its Corrections, Police, Fire, and Transportation Departments, which included the development of a tool to enable the departments to periodically calculate their own relief factors into the future using a specific set of updated data points.⁹

The U.S. Department of Justice has issued A Performance-Based Approach to Police Staffing and Allocation, which gives detailed guidance on conducting a staffing study.⁴

Implementation Guidance

The Baltimore County Police Department should commission a comprehensive workload-based staffing study that includes shift relief factor analysis. Although workload-based staffing is less frequently used than per capita models, it is recommended by the International City/County Management Association (ICMA) as the best practice because instead of using population as a proxy, it focuses on determining actual demand for services and calculating the staffing resources needed to effectively meet that demand.

9 <https://www.miamidade.gov/budget/library/fy2018-19/span-of-control-information.pdf>

1.1.7 DEPARTMENT OF CORRECTIONS ALTERNATIVE WORK SCHEDULES

Explore the use of 12-hour work shifts within the Department of Corrections to improve coverage while reducing costs and allowing more scheduled days off for staff.

Findings

The Department of Correction's work schedules call for three -hour shifts per day to staff Baltimore County Detention Center on a 24-hour, seven-days-per-week basis. Staffing is based on a 40-hour work week. Because the department is so short-staffed, however, correctional officers and supervisors usually work an additional shift or two each week on overtime beyond their 40 hours. Overtime costs are extremely high, and staff are at risk of burnout from too few days off and too many consecutive days worked; this contributes to a vicious cycle of sick leave overutilization, which in turn requires additional overtime shifts from already overworked staff.

Transitioning from 8-hour to 12-hour daily shifts could simultaneously reduce overtime and ease burnout. With the use of 12-hour shifts, correctional officers and supervisors would be scheduled to work seven shifts in a 14-day work period, versus the 10 shifts currently scheduled. Working 84 hours in a 14-day period is permissible without overtime compensation under the Fair Labor Standards Act (FLSA).

The Baltimore County Department of Corrections Director previously surveyed staff about their preference for 8-hour or 12-hour shifts; there was no broad consensus or strong interest expressed, so the status quo (8-hour shifts) was maintained. In the experience of the review team, correctional staff in systems across the country that have moved to 12-hour shifts generally prefer them. Many correctional experts believe 12-hour shifts help to reduce sick calls and are appropriate in a 24-hour, seven-days-per-week, work environment.

The increased number of hours worked in each pay period (84 hours versus 80, or 85.75 versus 82.50 with roll call time) would require an increased salary commensurate with the additional hours worked.

The memorandum of understanding between the Baltimore County administration and the Baltimore County Federation of Public Employees includes language that allows, on an optional basis, Alternative Work Schedules as authorized by the County Administrative Officer.

Benefit to the County

Implementing this recommendation would save the County money, while also improving morale and retention by providing staff with slightly higher salaries and 78 additional scheduled days off per year.

Five-Year Savings Estimate

	County One Year	County Five Years
Low End Range	\$400,000	\$2,000,000
High End Range	\$433,000	\$2,165,000

Upfront Costs: This recommendation can be implemented with existing resources.

The savings associated with this recommendation include reduced costs for healthcare and overtime. The savings estimate assumes the continuation of 12-hour shifts beyond a proposed initial pilot test period of one-to-two years.

Shifting to 12-hour schedules would enable the Department to cover the same number of work hours with 17 fewer FTEs. Salaries for correctional staff would be increased by five percent to reflect the additional hours worked each work period; however, by eliminating 17 positions, the County would save an estimated \$16,000 in health benefit costs per employee, for an annual savings of \$237,000. An expected five percent reduction of overtime would yield additional savings of \$196,000, for total annual estimated savings exceeding \$400,000.

Best Practices and Benchmarks

Twelve-hour shifts are becoming increasingly common at corrections facilities nationwide. The combination of higher pay and increased days off has been welcomed by many corrections staff; in fact, a recent move by the Florida Department of Corrections to reduce daily shifts from 12 hours to 8½ hours has been bitterly opposed by the union representing correctional officers.

Implementation Guidance

The Department should implement 12-hour shifts for a pilot one- or two-year test period to evaluate resulting reduction in overtime, reduction in sick leave usage, improved staff satisfaction, and reduced staff turnover. Implementation planning should be pursued in close collaboration with the Baltimore County Federation of Public Employees, so that appropriate modifications to the bargaining agreement can be made as necessary.

1.1.8 PUBLIC LIBRARY BRANCH STAFFING

Reduce branch library assistant manager and assistant circulation service manager positions through attrition.

Findings

The Baltimore County Public Library has a high staffing ratio and high staffing expenditures as compared with public libraries of similar size. The Baltimore County Public Library comprised 11 departments and 19 branch libraries. Two Associate Directors oversee the 19 branch libraries.

Baltimore County Public Library has a total staff of 467.6 FTEs, composed of 302 full-time staff and 273 part-time staff. The 19 branch libraries have 244 full-time staff and 219 part-time staff. As shown in the table below, individual branch staffing ranges from four to 20 full-time positions and four to 26 part-time positions.

Branch staff are organized into two departments, Librarians and Circulation, although their duties have become less distinct, according to Baltimore County Public Library staff. Typically, a branch's full-time staff consists of a Branch Manager, Assistant Manager, Circulation Manager, Assistant Circulation Service Manager, Librarians, and Circulation Assistants. Part-time staff include Circulation Assistants and Professional Assistants.

**BALTIMORE COUNTY PUBLIC LIBRARY TYPE AND NUMBER
OF FULL-TIME AND PART-TIME POSITIONS BY LIBRARY BRANCH**

Branch *	Number of Staff	Position and Number of Full-Time Staff		Position and Number of Part-Time Staff
Cockeysville	21 Full-time 26 Part-time	Branch Manager II Asst. Branch Mgr. - 1 Circ. Serv. Mgr. - 1 Librarian III - 3	Librarian II - 5 Asst. Circ. Serv. Mgr. II - 1 Circ. Asst. IV - 2 Circ. Asst. III - 7	Circ. Assts. (p/t) - 20 Professional Assts. (p/t) - 6
Hereford	9 Full-time 9 Part-time	Branch Manager II Circ. Serv. Mgr. - 1 Librarian III - 2	Librarian II - 2 Circ. Asst. IV - 1 Circ. Asst. III - 2	Circ. Assts. (p/t) - 6 Professional Assts. (p/t) - 3
Loch Rave	4 Full-time 5 Part-time	Branch Manager I Librarian II - 2 Circ. Asst. III - 1		Circ. Assts. (p/t) - 3 Professional Asst (p/t) - 2
Owings Mills	19 Full-time 13 Part-time	Branch Manager II Asst. Branch Mgr. - 1 Circ. Serv. Mgr. - 1 Librarian III - 4	Librarian II - 4 Asst. Circ. Serv. Mgr. II - 1 Circ. Asst. IV - 1 Circ. Asst. III - 6	Circ. Assts. (p/t) - 7 Professional Assts. (p/t) - 6
Pikesville	20 Full-time 17 Part-time	Branch Manager II Asst. Branch Mgr. - 1 Circ. Serv. Mgr. - 1 Librarian III - 4	Librarian II - 4 Asst. Circ. Serv. Mgr. II - 1 Circ. Asst. IV - 2 Circ. Asst. III - 6	Circ. Assts. (p/t) - 13 Professional Assts. (p/t) - 4
Randallstown	14 Full-time 10 Part-time	Branch Manager II Asst. Branch Mgr. - 1 Circ. Serv. Mgr. - 1 Librarian III - 2	Librarian II - 4 Asst. Circ. Serv. Mgr. I - 1 Asst. Circ. Serv. Mgr. II - 1 Circ. Asst. III - 3	Circ. Assts. (p/t) - 7 Professional Assts. (p/t) - 3
Reisterstown	12 Full-time 5 Part-time	Branch Manager II Asst. Branch Mgr. - 1 Circ. Serv. Mgr. - 1 Librarian III - 3	Librarian II - 1 Asst. Circ. Serv. Mgr. I - 1 Asst. Circ. Serv. Mgr. II - 1 Circ. Asst. III - 3	Circ. Assts. (p/t) - 1 Professional Assts. (p/t) - 4
Rosedale	14 Full-time 10 Part-time	Branch Manager II Asst. Branch Mgr. - 1 Circ. Serv. Mgr. - 1 Librarian III - 3 Librarian II - 2	Storyville Coord. - 1 Asst. Circ. Serv. Mgr. II - 1 Circ. Asst. IV - 1 Circ. Asst. III - 3	Circ. Assts. (p/t) - 9 Professional Assts. (p/t) - 1

Branch *	Number of Staff	Position and Number of Full-Time Staff		Position and Number of Part-Time Staff
White Marsh	11 Full-time 16 Part-time	Branch Manager II Asst. Branch Mgr. - 1 Circ. Serv. Mgr.- 1 Librarian III - 3	Librarian II - 1 Asst. Circ. Serv. Mgr. II - 1 Circ. Asst. IV - 1 Circ. Asst. III – 3	Circ. Assts. (p/t) - 10 Professional Assts. (p/t) - 6
Arbutus	13 Full-time 12 Part-time	Branch Manager II Asst. Branch Mgr. - 1 Circ. Serv. Mgr. - 1 Librarian III - 3	Librarian II - 2 Asst. Circ. Serv. Mgr. II - 1 Circ. Asst. IV - 1 Circ. Asst. III – 3	Circ. Assts. (p/t) - 9 Professional Assts. (p/t) - 3
Catonsville	15 Full-time 11 Part-time	Branch Manager II Asst. Branch Mgr.-1 Circ. Serv. Mgr. - 1 Librarian III - 3	Librarian II - 3 Asst. Circ. Serv. Mgr. II - 1 Circ. Asst. IV - 1 Circ. Asst. III – 4	Circ. Assts. (p/t) - 9 Professional Assts. (p/t) - 2
Essex	12 Full-time 10 Part-time	Branch Manager II Asst. Branch Mgr. - 1 Circ. Serv. Mgr. - 1 Librarian III - 3	Librarian II - 2 Asst. Circ. Serv. Mgr. II - 1 Circ. Asst. III – 3	Circ. Assts. (p/t) - 7 Professional Assts. (p/t) - 3
Lansdowne	4 Full-time 6 Part-time	Branch Manager I Librarian II - 2 Circ. Asst. III – 1		Circ. Assts. (p/t) - 6
North Point	13 Full-time 7 Part-time	Branch Manager II Asst. Branch Mgr. - 1 Circ. Serv. Mgr. - 1 Librarian III - 3	Librarian II - 2 Asst. Circ. Serv. Mgr. II - 1 Circ. Asst. IV - 1 Circ. Asst. III – 3	Circ. Assts. (p/t) - 6 Professional Assts. (p/t) - 1
Parkville	13 Full-time 12 Part-time	Branch Manager II Asst. Branch Mgr. - 1 Circ. Serv. Mgr. - 1 Librarian III - 3	Librarian II - 2 Asst. Circ. Serv. Mgr. II - 1 Circ. Asst. IV - 1 Circ. Asst. III – 3	Circ. Assts. (p/t) - 9 Professional Assts. (p/t) -3

Branch *	Number of Staff	Position and Number of Full-Time Staff		Position and Number of Part-Time Staff
Perry Hall	13 Full-time 14 Part-time	Branch Manager II Asst. Branch Mgr. - 1 Circ. Serv. Mgr. - 1 Librarian III - 3	Librarian II - 2 Asst. Circ. Serv. Mgr. II - 1 Circ. Asst. IV - 1 Circ. Asst. III - 3	Circ. Assts. (p/t) - 11 Professional Assts. (p/t) - 3
Sollers Point	4 Full-time 4 Part-time	Branch Manager I Librarian II - 2 Circ. Asst. III - 1		Circ. Assts. (p/t) - 3 Professional Assts. (p/t) - 1
Towson	19 Full-time 20-Part-time	Branch Manager II Asst. Branch Mgr. - 1 Circ. Serv. Mgr. - 1 Librarian III - 3	Librarian II - 5 Asst. Circ. Serv. Mgr. II - 1 Circ. Asst. IV - 2 Circ. Asst. III - 5	Circ. Assts. (p/t) - 14 Professional Assts. (p/t) - 6
Woodlawn	14 Full-time 12 part-time	Branch Manager II Asst. Branch Mgr. - 1 Circ. Serv. Mgr. - 1 Librarian III - 3	Librarian II - 3 Storyville Coord. - 1 Asst. Circ. Serv. Mgr. - 1 Circ. Asst. III - 3	Circ. Assts. (p/t) - 10 Professional Assts. (p/t) - 2

Source: Baltimore County Public Library Organization Chart, February 2021.

*The branches are listed in the order they appear on the Organization Chart.

In comparison to peer libraries that Baltimore County Public Library identified, Baltimore County Public Library has the highest ratio of staff per 25,000 county residents in the table below. Baltimore County Public Library's staffing ratio exceeds those of its peer libraries, even though the peers serve slightly larger populations and have a slightly larger number of branches. Baltimore County Public Library's staffing ratio is 23 percent higher than St. Louis County Library, 21 percent higher than the Indianapolis-Marion County Public Library, and 67 percent higher than the Montgomery County Public Library. The percentage of operating expenditures devoted to staffing in Baltimore County Public Library is 11.9 to 17.1 percentage points higher than those of its peer libraries.

BALTIMORE COUNTY PUBLIC LIBRARY AND PEERS

Library	Population	Number of Branches	Staffing (FTE) per 25,000 People	Operating Expenditures – % Staffing
Baltimore County Public Library, MD	832,468	19	15.29	71.4%
Montgomery County Public Library, MD	1,058,810	22	9.14	59.5%
Indianapolis- Marion County Public Library, IN	937,942	24	12.68	54.3%
St. Louis County Library, MO	996,726	20	12.39	58.3%

Source: Baltimore County Public Library, Trending & Benchmarking Report 2019.

Baltimore County Public Library also has the highest operating expenditures and highest staffing ratios among Maryland public libraries with a similar number of branches in the table below. Baltimore County Public Library's operating expenditures are 7.9 percent higher than those of the Montgomery County Public Library, although the latter has more branches and a larger service population. Baltimore County public Library's operating expenditures are 56.4 percent higher than the operating expenditures of Prince George's County Memorial Library, a system with a larger service population but the same number of branches.

BALTIMORE COUNTY PUBLIC LIBRARY AND MARYLAND PEER LIBRARY SYSTEMS

Library	Population	Number of Branches	Staffing (FTE) per 25,000 People	Operating Expenditures
Baltimore County Public Library, MD	832,468	19	15.29	\$42,544,735
Prince George County Memorial Library	912,756	19	9.37	\$27,204,918
Montgomery County Public Library, MD	1,058,810	22	9.14	\$39,433,631

Source: Baltimore County Public Library, Trending & Benchmarking Report 2019.

Baltimore County Public Library Assistant Directors, Department Managers, and Branch Managers consistently agreed that the branch libraries are "rigidly structured" and "top-heavy." Most branches have a four-person management team, consisting of the Manager, Assistant Manager, Circulation Manager, and Assistant Circulation Service Manager. Some branches have two Assistant Circulation Managers. Fifteen of the 19 branches have Assistant Managers, three branches have Assistant Circulation Services Manager I positions, and 14 branches have Assistant Circulation Service Manager II positions. With an average of library branch full-time staff at 13, a four-person management team constitutes 31 percent of staff.

Best practice library staffing models provide a high degree of flexibility that allow the library to tailor its staff resources to meet the requirements of its core activities and match them as they change. Best practice staffing also allows each branch to determine its staffing mix based on branch size, circulation, customer mix, and proximity to other branches, schools, and community facilities.

Decreasing branch library management layers by reducing and eventually eliminating the Assistant Manager and Assistant Circulation Service Manager positions through attrition will bring the Baltimore County Public Library more in line with its peers regarding staffing ratios and staffing expenditures. Flattening their hierarchical structure will increase their flexibility in developing a more efficient mix of staff that is aligned with best practice.

Baltimore County Public Library had a 14 percent attrition rate in FY2020 and 9.9 percent in FY2021. Based on these attrition rates, between three positions (low estimate) and five positions (high estimate) can be anticipated to be vacated due to attrition each year.

The Baltimore County Public Library Director, the two Associate Directors overseeing the branch libraries, and the respective Branch Managers should monitor annual attrition of Assistant Branch Managers and Assistant Circulation Services Managers.

Although the reduction through attrition of Assistant Manager and Assistant Circulation Service Manager positions over a five-year period is not likely to affect service, the Branch Managers jointly with the Associate Directors should develop a set of guidelines addressing redefinition of duties, updating of job descriptions, or reorganization of staff. Branches should have the flexibility to adapt the guidelines to their specific circumstances.

The Baltimore County Public Library Director and the two Associate Directors should determine how to use the attrition-related savings.

Five-Year Savings Estimate

	County First Full Year	County Five Years
Low End Range	\$220,230	\$1,266,130
High End Range	\$382,828	\$2,079,120

Upfront Costs: There are no upfront costs associated with this recommendation; position elimination is through attrition and savings will compound each year until fully implemented.

This recommendation is expected to result in savings of between \$220,230 and \$382,828 during the first full year of implementation and between \$1,266,130 and \$2,079,120 over a five-year period. These estimates are based on salary and benefits of the respective positions identified below:

- Assistant Branch Manager II: salary midpoint of \$65,059 + \$33,818 in benefits (52% of annual salary) for a total of \$98,877 per assistant branch manager II.
- Assistant Circulation Services Manager I: salary midpoint of \$37,921 + \$19,711 in benefits (52% of annual salary) for a total of \$57,632 per position.
- Assistant Circulation Services Manager II: salary midpoint of \$41,934 + \$21,787 benefits (52% of annual salary) for a total of \$63,721 per position.
- The average salary plus OECs of all salaries for the 32 redundant positions is \$79,630, and the average salary for one position is \$48,305.

In the first year of implementation the low-end range estimate of three attritions assumes these will include one Assistant Branch Managers II, one Assistant Circulation Services Manager I, and one Assistant Circulation Services Manager II. The high-end range estimate of five attritions assumes that these will include two Assistant Branch Managers II, one Assistant Circulation Services Manager I, and two Assistant Circulation Services Managers II.

For the first five years of implementation, the low-end range of three attritions a year assumes that it will include in the first year one Assistant Branch Managers II, one Assistant Circulation Services Manager I, and one Assistant Circulation Services Manager II positions. During the four years that follow, the three attritions a year are assumed for purposes of savings projections to include two Assistant Branch Managers II and one Assistant Circulation Services Manager II positions. The high-end range of five attritions a year will include in the first year two Assistant Branch Managers II, one Assistant Circulation Services Manager I, and two Assistant Circulation Services Managers II positions; and in the following four years three Assistant Branch Managers II and two Assistant Circulation Services Managers II positions.

By the end of the five-year implementation period, under the low-end range estimate of three attritions per year, nine of the 15 Assistant Branch Managers II positions, one out of three Assistant Circulation Services Manager I positions, and five out of 14 Assistant Circulation Services Manager II positions would be eliminated.

By the end of the five-year implementation period, under the high-end range estimate of five attritions a year, 14 out of the 15 Assistant Branch Managers II positions, one out of three Assistant Circulation Services Manager I positions and 10 out of 14 Assistant Circulation Services Manager II positions would be eliminated.

Implementation Guidance

This recommendation should be implemented through attrition over five years.

1.1.9 COMPREHENSIVE ZONING MAP PROCESS

Adjust the frequency of the Comprehensive Zoning Map Process (CZMP) from every four years to every ten years, to reduce staff time dedicated to the process, shift department resources into under-resourced planning activities, and align with the County’s Master Plan process.

Findings

The Baltimore County Department of Planning implements programs and projects that strengthen existing communities, improve housing opportunities, revitalize older commercial centers, and preserve rural resources. The Department formulates policies, plans and regulations to guide the County’s growth and development for future generations. It serves a wide range of entities, including the Baltimore County Executive, County Council, County agencies, boards and commissions, state government, and federal government, as well as external stakeholders such as property and business owners, renters, persons experiencing homelessness, persons with disabilities, developers/builders, non-profits, special focus groups, land use attorneys, farm owners and operators, historic preservation groups, and bike & pedestrian groups.

The Department of Planning has 39 authorized staff members and an annual budget of \$3.2 million. It has traditionally included four divisions: Development Review, Community Planning, Policy, Planning & Administration, and Housing/Finance. The prior Housing/Finance Division recently transitioned into a new Department of Housing and Community Development. In addition, the Planning Board, Landmarks Preservation Commission, Design Review Panel, Agricultural Land Preservation Advisory Board, and Commission on Disabilities are housed within the Planning Department. These bodies provide Baltimore County residents with opportunities to influence decision-making in these areas.

Baltimore County first adopted its zoning regulations on March 30, 1955. The Comprehensive Zoning Map Process (CZMP) was established by Bill 72-69 and added to Baltimore County Code in 1969. The first quadrennial CZMP was conducted in 1976 as a means of comprehensively changing the zoning map on a regular, prescribed basis. The required frequency of the CZMP is set forth in Baltimore County Code (§ 32-3-214).

The Department of Planning currently completes a CZMP every four years. The last CZMP, in 2020, took 17 months to complete (August 2019 through January 2021). During the years between the CZMP, the zoning map can be changed through the “cycle” process. This opportunity arises twice a year, on a specified schedule, with the ultimate decisions made by the Baltimore County Board of Appeals instead of the County Council. Only the property owner or contract purchaser is entitled to petition for a change in the zoning map in the cycle process.

In addition, there are “out-of-cycle” opportunities for zoning adjustments, which are allowed if the Planning Board and County Council agree that a quicker decision is in the public interest.

The cycle process for zoning map changes differs from the CZMP in some important ways:

- The Board of Appeals decision requires proof that the previous zoning was erroneous or that the neighborhood has changed substantially since the last CZMP.
- The cycle process zoning allows the zoning change contingent upon the provided site plan and does not allow alternative development concepts to be substituted for what was presented to the Board of Appeals.

Typically, county and municipal zoning maps are revised on a ten-year cycle, as in Anne Arundel and Montgomery counties. The rationale for Baltimore County’s shorter four-year CZMP frequency is to provide an earlier opportunity for rezoning applicants who missed the previous cycle or were previously denied rezoning.

However, land use patterns do not typically change so frequently that revising zoning maps at four-year intervals is necessary. In addition, frequent re-zoning cycles mean that the zoning maps and the County Master Plan may not align. The short cycle also may result in spot zoning, in which a specific parcel within a larger zoned area is rezoned, usually at odds with a municipality’s master plan and current zoning restrictions.

Based on interviews with the Department of Planning leadership, the each CZMP requires the efforts of the following staff from the Department of Planning: ¹⁰

- Chief of Community Planning
- Director of Planning
- Deputy Director of Planning
- Community Planners (7)
- GIS Planners (4)
- Historic Preservation Planners (2)

It is estimated that the time spent on each process cycle amounts to 33,264 planning staff hours. The table below shows staff utilization and approximate staffing cost per CZMP process.^{11 12}

STAFF HOURS ALLOCATION AND COST PER CZMP CYCLE

Job Title	FTE Allocation per Cycle (Over 2-year Period)	Hours	Average Annual Salary	Cost Per Cycle
Chief of Community Planning	1.8	2,772	\$88,465	\$159,237
Director	0.5	770	\$180,000	\$90,000
Deputy Director	1.5	2,310	\$121,268	\$181,902
Community Planners (7)	10.5	16,170	\$58,255	\$611,679
Gis Planners(4)	6.3	9,702	\$44,224	\$278,609
Historic Preservation Planners (2)	1	1,540	\$44,224	\$44,224
Total	21.6	33,264		\$1,365,651

¹⁰ Staffing information was provided by the Chief of Research, Analysis and Design, Baltimore County Department of Planning

¹¹ Salary data for Chief of Community Planning is based on data from Open Payrolls for a similar job title (Chief – Development Review and Strategic Planning); salaries for the other categories is based on the Excel file. The Community Planner salary is the average salary of all staff with the title Planner I – Planner IV with the Department of Planning. The GIS and Historic Preservation salaries are the average of the GIS salaries (and hourly wages, annualized) in the Excel file. Because the Historic Preservation title does not appear in their exact form in the excel file, it is assumed to have the same average salary as that of the GIS positions.

¹² Staff salaries are available by name through Open Payrolls. <https://openpayrolls.com/county/baltimore-county-md/2019/> (last accessed 4/20/2021)

In addition, there are seven Planning Board hearings each cycle, which are staffed by 15 planning employees. Each hearing takes about five hours, which includes set up, breakdown, and the hearings themselves. Because some of these hearings take place outside of the process cycles, the estimated 560 staff hours required for these hearings is excluded from the analysis.

As shown above, the current staffing cost associated with one cycle of the process, excluding Planning Board time, is \$1,365,651. This amounts to \$3,414,128 every ten years (two-and-a-half cycles per ten years). Extending the cycle to 10 years would not require a significant increase in staff time per process.

Benefit to the County

By adjusting the frequency of the process to every ten years, the County could anticipate a time savings of 49,896 staff hours over a ten -year period and a cost saving of \$2,048,477 over ten years, or \$204,848 annually.

We do not recommend staff reductions as an outcome of this change. Instead, reducing the CZMP frequency would enable the Department to redeploy additional staff to mission-essential planning functions that are currently under-resourced, such as Community Planning and Development Review. Further, the review team has recommended two new Planning Department initiatives (described elsewhere in this report) that involve more closely engaging with local constituents: the creation of a systematic approach to Small Area Community Planning, and the Development of a Citizens Planning Institute. If implemented, these would benefit from a reallocation of staff time resources from the CZMP. A commensurate shift in the Department of Planning's resources to these other activities would enable broader engagement with all constituents within a Council district during the localized planning cycle and ensure residents and stakeholders are thoroughly engaged and heard during their planning processes. The review team's recommendation on Small Area Community Plans offers more details on how a community planning process at the Council district level could provide tangible actions and implementation guidance for plans that are crafted to specific community need across Baltimore County.

Given that the most recent CZMP was just completed last year, a shift to a ten-year cycle now would enable alignment with the County's Master Plan 2030 process. Going forward, a ten-year CZMP cycle would ensure that the Master Plan and subsequent Community Plans would rely on consistent zoning documents.

Best Practices and Benchmarks

Comprehensive zoning presents an opportunity to evaluate alignment or potential inconsistencies between a county's existing zoning and its Comprehensive Plan. Many counties in the Mid-Atlantic region including Montgomery¹³ and Anne Arundel¹⁴ Counties (Maryland) and New Castle County¹⁵ (Delaware) undertake comprehensive zoning reviews in tandem with comprehensive planning – both on the same ten-year cycle. The State of Maryland also has transitioned to comprehensive planning on a ten-year cycle, promoting efficient alignment with comprehensive planning efforts.¹⁶

Implementation Guidance

This recommendation would require an amendment to the Baltimore County Code through the approval of a Baltimore County Council resolution. Building support for this resolution among the Council may be challenging since the CZMP represents an opportunity every four years to support requests for zoning challenges from their constituents. However, there is a clear tradeoff to be made: Restructuring Department of Planning's allocation of time and resources to allow and to prioritize more systematic and inclusive community-planning exercises and initiatives as part of the Department's core activities would engender more opportunities to strengthen working relationships between the Department, Council, and their constituents, and could be undertaken at Council-level jurisdictions.

¹³ <https://montgomeryplanning.org/development/zoning/>

¹⁴ Anne Arundel County, MD Department of Planning and Zoning (2021) *Comprehensive Zoning*. <https://www.aacounty.org/departments/planning-and-zoning/long-range-planning/comprehensive-zoning/>

¹⁵ New Castle County, DE Department of Land Use (2021) *Zoning*. <https://www.nccde.org/403/Zoning>

¹⁶ Maryland Department of Planning (2015) *Managing Maryland's Growth: Transitioning to Comprehensive Plan 10-Year Review Cycle*. <https://planning.maryland.gov/Documents/OurWork/transitioning-to-comp-plan10-year-cycle2015.pdf>. PDF

1.2 Roadway Efficiencies and Improvements

Roads and highways may not be what most people think of when they think of saving money. But these are operations on which County government expends large sums of money, and therefore on which it can save large sums, as well. Simple improvements in the simplest structures often can produce the greatest efficiency gains.

For instance, while Baltimore County has made significant effort in recent years to optimize its snow removal resources, it continues to spend too much on snow removal efforts – 30 percent higher on average than surrounding jurisdictions. By increasing the frequency of proactive anti-icing tactics, Baltimore County can decrease its rock salt usage levels, creating overall cost savings of 13 to 45 percent – as well as generating environmental benefits and mitigating damage and degradation of personal and public property due to salt spreading. Similarly, while the Bureau of Highways and Equipment Maintenance is preparing to begin purchasing air generated sweepers as opposed to the mechanical sweepers it currently uses – which would pull sediment more effectively from the roadway – the procurement and maintenance of such equipment is extremely expensive and contributes to overall equipment backlogs in the County; privately contracting for some services can be a more cost-effective way to provide such services.

As another example, in the past five years the Bureau has attempted to cut roadside mowing costs and improve upon safety concerns by decreasing the surface area of roadside that is mowed. A roadside wildflower program could reduce roadside mowing and maintenance needs cost over the long term, while also creating environmental, health, and safety benefits. Similarly, innovative methods for road surfacing and treatment could result in near-term annual savings, as well as safety benefits, noise reduction, decreases in energy output and greenhouse gas emissions, and improvements in environmental sustainability. The same is true as to innovative subbase material in roadways: The porcelain from which American toilets are made is extremely hard, nonporous, and nontoxic, making the material ideal for construction uses such as subbase for roadways or sidewalks. Utilizing recycled toilets as subbase material recycles toilets that otherwise would have ended up in landfills or illegal dumping areas, reduces the mining of quarries and riverbeds to obtain rock and gravel, and saves limited landfill space.

Finally, redirecting a portion of CountyRide users to fixed route transit options would reduce demand on the CountyRide system (thus making rides available to individuals who may sometimes be unable to access the service due to high demand), while offering increased independence to the individuals receiving the support provided by transit outreach coordinators. Given that CountyRide currently is not able to meet demand (and therefore supplements its trips through Uber), reduced demand on the system would mean that the County may be able to realize savings by decreasing the number of supplemental rides offered through Uber. Similarly, creating a “conditionally eligible” category for individuals who currently do not qualify for CountyRide services would enable the system better to support Baltimore County residents who need the service for a limited period; a similar program in Pittsburgh saves \$450,000 a year.

1.2.1 SNOW REMOVAL EFFICIENCIES

Increase use of proactive anti-icing methods rather than reactive deicing methods for winter weather response.

Findings

The Department of Public Works and Transportation’s Bureau of Highways and Equipment Maintenance is responsible for snow and ice removal from nearly 6,800 lane miles of roadway. To carry out this task, the Bureau has 164 routes for snow removal, each consisting of 50 to 60 roads, as well as over 400 trucks and pieces of equipment. Currently, Baltimore County has capacity for 91,600 tons of salt storage spread over 17 sites, with current salt costs of \$49 per ton. The County spent just under \$9 million

on snow removal in FY2021.¹⁷ The predominant method in Baltimore County for snow removal is deicing, or the spreading of pre-wetted rock salt onto roadways to clear lanes for travel.

Baltimore County has made significant effort in recent years to optimize its snow removal resources, having replaced 24 percent of its medium-duty trucks for the most vital areas, with plans to continue replacing equipment into FY2023. Additionally, the bureau now calibrates its salt distribution equipment every year, an important step in ensuring best practices for storm response.¹⁸

Due to these efforts, Baltimore County has realized a decrease in salt expenses over recent years. However, the Acting Director of the Department of Public Works and Transportation asserted that Baltimore County continues to spend more than expected on snow removal efforts: Baltimore County budgeted approximately \$1,457 per lane mile for snow removal in its FY2021 budget, which is 30 percent higher on average than surrounding jurisdictions (see table below).

SNOW REMOVAL COST PER LANE MILE BY PEER COUNTY

Jurisdiction	Lane Miles (2016)	Budget (FY2021)	Est. Cost per Lane Mile
Howard	2,153	\$1,080,000	\$502
Montgomery	4,898	\$2,884,990	\$589
Prince George's	3,911	\$3,600,000	\$920
Carroll	1,980	\$2,167,160	\$1,095
Harford	2,126	\$2,559,498	\$1,204
Baltimore County	5,579	\$8,130,862	\$1,457
Baltimore City	3,208	\$6,726,609	\$2,097
Average			\$1,123

Source: MDOT SHA (2016), individual jurisdictions' budget documents

Increasingly, jurisdictions are finding that proactive treatment of roads with brine in advance of snow and ice events saves on salt expenditures and has less environmental impact than relying primarily on the spread of rock salt after the winter weather event has occurred. Mitigating the environmental impact of rock salt deicing may be of particular interest in Maryland counties whose runoff can affect Chesapeake Bay water systems. Notably, if salt used for deicing is not properly wet prior to distribution, a third of the material can bounce directly off the roadway and into ditches and gutters, and thus enter the stormwater system.¹⁹

The Baltimore County Commission on Environmental Quality has discussed the use of rock salt extensively, having received two reports on its use for deicing in recent years. The commission has found that salt corrodes infrastructure such as roads, bridges, and motor vehicles, requiring additional tax funds for associated costs of repair and maintenance. The commission concluded that Baltimore County must reduce the amount of salt entering its reservoirs to prevent these problems and protect public health from the negative environmental effects to which rock salt contributes.²⁰

Anti-icing, as opposed to deicing, is the placement of a layer of salt brine on road surfaces prior to winter storms to prevent precipitation from freezing on the roadway. According to the American Public Works Association, anti-icing delivers the same level of service as deicing, but with one-quarter to one-fifth of the amount of salt.²¹ Further, the Minnesota Department of Transportation realized reductions in salt usage of 40 to 70 percent.²²

¹⁷ Correspondence with Bureau of Highways and Equipment Maintenance, August 12, 2021.

¹⁸ Interview with Bureau of Highways and Equipment Maintenance, July 14, 2021.

¹⁹ <https://resourcecenter.apwa.net/1ie6ur1/1>

²⁰ <https://www.baltimorecountymd.gov/boards-commissions/environmental-quality-commission>

²¹ <https://resourcecenter.apwa.net/1ie6ur1/1>

²² <https://www.minnpost.com/environment/2017/12/brining-icy-roads-can-save-cities-serious-money-and-could-help-save-minnesota-s/>

As anti-icing methods and the use of brine has increased, agencies have begun utilizing varying blends of brines to best serve their needs and remain environmentally conscious. For example, organics materials are often mixed in with brine, such as by-products from cheese whey and sugar beet. The use of organics increases the longevity of brine on roadways and may reduce corrosion damage of traditional salt. A typical brine mixture might contain 85 percent salt brine, five percent magnesium chloride brine, and ten percent organic material.²³

Baltimore County has recently begun anti-icing with brine on its busiest roads, but the primary tactic for snow removal remains salting roads after snowfall. In FY2021, the County spent \$4.1 million on labor, equipment, and materials for salting, compared to just \$61,000 on brine and brine mixing.

Notably, the hourly cost for labor and equipment are similar for salting and brine, but the material cost for salting is 24 times higher than the cost for brine per hour unit.

COMPARATIVE COSTS OF ROAD SALTING, BRINE, AND BRINE MIXING

	Total Labor Cost/hours	Total Equip Cost/hours	Total Material Cost/hours	Total Hours	Total Labor Cost	Total Equipment Cost	Total Material Cost	Total Cost
Salting	\$32	\$82	\$200	12,913	\$416,941	\$1,053,058	\$2,588,439	\$4,058,438
Brine	\$31	\$72	\$8	505	\$15,668	\$36,378	\$4,244	\$56,290
Brine mixing	\$35	\$7	\$0	111	\$3,857	\$780	\$0	\$4,637
Brine + Mixing	\$32	\$60	\$7	616	\$19,525	\$37,158	\$4,244	\$60,927

Source: Baltimore County Department of Public Works and Transportation (2021)

Benefit to the County

By increasing the frequency with which proactive anti-icing tactics are used, Baltimore County can decrease its rock salt usage levels, which can be expected to yield budgetary savings and environmental benefits, as well as mitigate damage and degradation of personal and public property due to salt spreading. Best practices research indicates that jurisdictions can reduce salt usage by 20 percent to as much as 70 percent when using brine while maintaining effectiveness. Baltimore County could realize overall cost savings of 13 to 45 percent, or \$518,000 to \$1.8 million.

	Overall Costs	Material Cost	Savings	% Savings
Baseline (FY2021)	4,058,438	\$2,588,439		
20% reduction	3,540,750	\$2,070,751	\$517,688	13%
70% reduction	2,246,531	\$776,532	\$1,811,907	45%

23 <https://resourcecenter.apwa.net/lie6ur1/1>

Five-Year Savings Estimate

	County One Full Year	Five Years
Low End Range	\$517,688	\$2,590,000
High End Range	\$1,811,907	\$9,060,000

Upfront Costs: This recommendation can be implemented with existing resources.

There are no new upfront costs assumed to implement this recommendation. Notably, the hourly cost for labor and equipment are similar for salting and brine, but the material cost for salting is 24 times higher than the cost for brine per hour unit. Savings projections are rounded and based on FY2021 costs; each year's demands for snow removal will vary.

Best Practices and Benchmarks

Several years ago, MDOT State Highway Administration conducted a review of its snow removal operations and ultimately adopted Opportunities for Improvement (OFIs), one of which was to increase the use of sprayed brine on highways prior to winter weather events. The agency now uses proactive anti-icing on most interstates and major roads under its jurisdiction.²⁴

Implementation Guidance

To implement this recommendation, Baltimore County would need to reevaluate its plans to replace existing salt spreading technology and instead assess what additional equipment would need to be procured to produce more salt brine. Additionally, Baltimore County would need to examine its snow removal contracts to determine what changes would be necessary to enable a transition to increased use of anti-icing tactics.

1.2.2 STREET SWEEPING EFFICIENCIES

Request competitive bids for street sweeping services.

Findings

Street sweeping is an important function for the Department of Public Works and Transportation Bureau of Highways and Equipment Maintenance, as it assists in keeping litter and debris out of the county's stormwater system and the Chesapeake Bay. Currently, these services are performed by county personnel with county-owned equipment. The County sweeps major roadways, as well as commercial and industrial areas, on a regular basis, while residential neighborhoods are swept by request up to once per year.²⁵

In FY2021, Baltimore County spent a total of \$827,000 on street sweeping services, removing more than 2,700 tons of debris over 44,000 miles of roadway. Equipment costs made up nearly 80 percent (\$648,000) of the total expenditures, with labor costs accounting for just over 20 percent (\$179,000).²⁶

²⁴ <https://www.roads.maryland.gov/mdotsha/pages/index.aspx?PagelId=352>

²⁵ Bureau of Highways and Equipment Maintenance, July 14, 2021.

²⁶ Maintenance Management Activity Cost Accounting Totals, Bureau of Highways and Equipment Maintenance.

FY2021 BALTIMORE COUNTY STREET SWEEPING BENCHMARKS

Total Miles Covered	Activity Units (tons)	Total Hours	Total Labor Cost	Total Equipment Cost	Total Cost	Total Labor Cost/Hours	Total Equip Cost/Hours
44,093	2,738	7,349	\$178,812	\$648,199	\$827,011	\$24.33	\$88.21

Source: Baltimore County Department of Public Works and Transportation (2021)

While the County currently conducts all street sweeping operations in-house, it previously retained a contractor to provide services in the eastern portion of the county in the Chesapeake Bay area for approximately three years. The contract was not extended, however, after the terms were altered from a mileage basis to an hourly basis.

The Bureau of Highways and Equipment Maintenance is preparing to begin purchasing air generated sweepers as opposed to the mechanical sweepers it currently uses, which would pull sediment more effectively from the roadway. This change would provide the County more best management practice (BMP) credits towards its municipal separate storm sewer system (MS4) permit. However, the procurement and maintenance of such equipment is extremely expensive and contributes to overall equipment backlogs in the County.

Due to the high expenses associated with the purchase of street sweeping equipment for the County to provide these services in-house, privately contracting for some services could be a more cost-effective way to provide such services. Private firms may serve multiple customers and can potentially leverage economies of scale to provide them at a lower cost than possible for a single governmental entity. Additionally, private contractors often experience less downtime for repair and maintenance of equipment because the vehicles are not competing against other equipment in need of services as is typical in a municipal government shop.

Privately contracted street sweeping services can improve efficiencies in several ways. First, the total mileage covered per shift can be increased by 12.5 to 50 percent; second, costs per mile covered can be reduced by up to 50 or even 60 percent.²⁷ As a result, private street sweepers can potentially collect higher volumes of debris than in-house sweepers.

Baltimore has 6,635.7 lane miles and covered 44,093 lane miles in 2021 (or about 6.6 total rounds of street sweeping). Baltimore County notes the 2020 quoted rate of one local contractor was \$42 per lane mile. At that flat rate, the cost for sweeping all roads one time would be \$278,699 and the costs for sweeping all roads seven times per year would be \$1,950,896 – higher than current in-house costs. However, a competitively solicited bid could potentially yield a much lower rate.

Benefit to the County

Many jurisdictions have realized cost savings by contracting out street sweeping services as opposed to maintaining the service and equipment in-house. Baltimore County could achieve significant savings on equipment purchase and maintenance, as well as improve efficiencies with its street sweeping service provision, as detailed below.

Baltimore County spent approximately \$19 per mile covered in FY2021; however, by privately contracting street sweeping services, this cost could potentially be reduced by up to 50 or 60 percent. Savings estimates are not presented here since actual achievable savings would be dependent upon competitive bids received.

²⁷ <https://www.worldsweeper.com/Street/Operations/v3n1controut.html>

SAVINGS POTENTIAL OF CONTRACTED STREET SWEEPING SERVICES

Total Miles Covered	Total Cost	Total Cost per Mile Covered	-50% (Low end)	-60% (High end)
44,100	\$827,000	\$19	\$9	\$8

Source: Baltimore County Dept. of Public Works and Transportation (2021), WorldSweeper.com (2021)

Currently, in-house street sweepers operate at six miles per hour, meaning an average eight-hour shift covers 48 miles. However, based on the best practices and benchmarks cited below, Baltimore County could increase its mileage covered per shift by 12.5 to 50 percent (54 to 72 miles per shift). This could result in significant labor savings and increase the tons of debris collected.

INCREASED PRODUCTIVITY POTENTIAL OF CONTRACTED STREET SWEEPING SERVICES

In-house speed (mph)	Hours per shift	Miles per shift	+ 12.5% (Low end)	+ 50% (High end)
6	\$827,000	\$19	\$9	\$8

Source: Baltimore County Dept. of Public Works and Transportation (2021), WorldSweeper.com (2021)

Baltimore County could potentially decrease its labor and equipment costs significantly, while increasing productivity by increasing the distance covered and debris collected each year, furthering its goal of keeping its stormwater system and the Chesapeake Bay clean of debris.

Best Practices and Benchmarks

A study of cities in Southern California found that the cost of street sweeping in-house was 60 percent higher than that of enlisting private contractors. Additionally, private contractors covered six more curb miles per shift than city sweepers.

The City of Newark, New Jersey, released its street sweeping services for competitive bid and ultimately awarded a contract to a private company in an extremely cost-effective switch for the city, with the following outcomes realized:

- Cost per curb mile covered by the private company was less than half that of the city;
- The private contractor collected twice as many tons of material per piece of equipment; and
- Private sweepers moved more quickly than in-house sweepers, covering six miles for every city sweeper's four miles.

Implementation Guidance

To implement this recommendation, the Department of Public Works and Transportation (DPWT) should work closely with the Division of Purchasing to examine the best options available for competitively bidding out street sweeping work. Baltimore County would likely retain at least one of its street sweepers for backup, especially in the beginning of the contracting phase, but ultimately could sell this equipment to free itself of the labor and maintenance required to keep these trucks operating. DPWT could also survey residents to gauge current levels of service for street sweeping, as there may be room for optimization in the frequency of sweeping that could be incorporated into private contracts. For example, the Bureau of Highways and Equipment Maintenance website states that street sweepers collect 6,000 tons of debris per year; however, that amount was much less in FY2021, indicating more room for improvement with private contractors.²⁸

²⁸ <https://www.baltimorecountymd.gov/departments/publicworks/highways/streetsweep.html>

1.2.3 HIGHWAYS WILDFLOWER PROGRAM

Implement a wildflower program to reduce roadside mowing and maintenance needs within the Bureau of Highways and Equipment Maintenance.

Findings

The Department of Public Works and Transportation Bureau of Highways and Equipment Maintenance is responsible for mowing over 16,000 miles of grass per year.²⁹ The County spent \$535,000 on roadside mowing in Fiscal Year 2021, a total of approximately \$33 per mile of mowing.³⁰

In the past five years, the Bureau has attempted to cut roadside mowing costs and improve upon safety concerns by decreasing the surface area of roadside that is mowed. Such attempts have included cutting back mowing to one foot off the roadside. According to the Bureau Chief, Baltimore County previously considered implementing a wildflower program to reduce roadside maintenance costs; however, there was not sufficient support for such a program to move forward with the initiative.

Nationwide, wildflower programs have been implemented at the local level to decrease roadside maintenance requirements and beautify roadways, as well as restore native habitats and plant life, reduce use of toxic herbicides, and promote public education about, and local pride in, flower species native to a particular area.

In addition to decreasing maintenance costs, increasing environmental sustainability, and beautifying roadside areas, wildflower programs can also increase safety for drivers. Studies have shown that flowers help to improve drivers' moods and keep them alert, breaking up the monotony of long stretches of highway. Additionally, drivers were less likely to speed when driving through visually pleasing surroundings.³¹

Benefit to the County

Based on findings from other jurisdictions that have implemented roadside wildflower programs, Baltimore County could realize cost savings of 25 to 85 percent on its total mowing spend, with savings compounding over time as perennial wildflowers become well established and require increasingly less maintenance.³²

SAVINGS POTENTIAL OF ROADSIDE WILDFLOWERS BASED ON REDUCED MOWING

	One Year	Five Years
Mowing Cost (Current)	\$535,000	\$2,675,000
Low-end savings (25%)	\$133,750	\$668,750
High-end savings (85%)	\$454,750	\$2,273,750

²⁹ Information provided by Baltimore County Bureau of Highways and Equipment Maintenance, July 14, 2021.

³⁰ Information provided by Baltimore County Bureau of Highways and Equipment Maintenance, August 12, 2021.

³¹ <https://www.baltimoresun.com/news/bs-xpm-2003-05-26-0305260070-story.html>

³² <https://flawildflowers.org/resources/pdfs/Publications/EconomicEcolBenefits-RoadsideNatWFPlantings9-9-03.pdf>

Baltimore County could consider engaging public support for and involvement in the program's implementation, whether by promoting of funding the upfront costs of the initiative through items branded with the wildflower program, or by soliciting individual or corporate sponsorships (potentially in exchange for signage recognition), and like other jurisdictions, leverage them as an economic development feature by promoting the roadside wildflowers as touristic highlights for travelers to and through Baltimore County. In addition to cost savings, wildflower programs benefit native habitats and ecosystems. Wildflowers (especially native species) over time reduce invasions of noxious weeds, and toxic herbicide and/or pesticides can be reduced or eliminated in these areas; this reduces the negative ecological impact of runoff and safety issues around worker and community exposure. Reduced mowing also reduces emissions and supports the County's sustainability goals. Finally, but not least, the wildflowers improve visual aesthetics for residents and travelers, which evidence suggests improves safety for drivers and reduces accidents.³³

Five-Year Savings Estimates

	County Year One (Net Cost)	Five-Year Savings (Net Cost)
Low End Range	\$(562,250)	\$(27,250)
High End Range	\$(241,250)	\$1,577,750

Upfront Costs: Savings calculations assume upfront costs of \$696,000 for wildflower seeding of 11,000 lane miles (see discussion of assumptions below). Actual costs and savings will be dependent upon decision factors including lane miles selected for planting, type and variety of species selected for planting.

Net savings from mowing would not be expected to accrue in the first year as the initial costs of seed would be expected to be greater than the one-year mowing reduction savings. Savings will increase each year following the initial seeding and will be maximized if appropriate perennials are selected that do not require continuous re-seeding.

Assuming 8,000 lane miles ($\times 1.45 = 11,600$ acres) were seeded, upfront costs for seeding would be approximately \$696,000. For this estimate we assume that wildflower seeds are selected that cost approximately \$20 per pound, that 3 pounds of seed would be required per acre planted, and that half of Baltimore County's 16,000 lane-miles of mowed roadside right-of-way would be seeded. Actual upfront costs may be higher or lower with the number of road-miles (or total acres) determined to be desirable for seeding and the species of wildflowers selected. Additionally, lower-than-estimated costs for seed may be available through joint procurement in cooperation with the Maryland State Department of Highways (See further discussion below in Best Practices and Benchmarks and Implementation Guidance).

The costs and savings of implementing a wildflower highway program will depend on the size of the program envisioned, and the species of wildflowers selected for planting. The conservative cost and savings estimates here are based strictly on reduced mowing costs (see Table above: Savings Potential of Roadside Wildflowers based on Reduced Mowing), although additional cost savings would be expected to accrue (e.g., on herbicides and pesticides as discussed below). Costs and savings projections can vary dramatically based on multiple decision factors to be considered by the county; however, the estimates presented here demonstrate that the reduced mowing benefits alone of roadside wildflowers can offer a net savings to the County over the long term, and that net savings will compound beyond the five-year period while creating other monetary and non-monetary (health, safety, and environmental) benefits.

33 <https://www.baltimoresun.com/news/bs-xpm-2003-05-26-0305260070-story.html>

Best Practices and Benchmarks

While Texas is viewed as the pioneer of roadside wildflower programs (having first implemented such a program in the 1940s), the State of Maryland was a relatively early adopter, with Maryland Department of Transportation State Highway Administration (SHA) overseeing its program since 1986.³⁴ MDOT SHA has planted more than 300 acres of various species of wildflowers along state highways.

While the review team was unable to identify specific cost-saving benchmarks from the state of Maryland's program, information on savings is available for numerous jurisdictions. For example, a trial in Calgary (Canada) resulted in the city's ability to completely stop mowing and save 100 percent of mowing costs and 17 percent of all budgeted maintenance costs. Trials in Texas have revealed savings of approximately 25 percent on overall maintenance, while Indiana realized maintenance savings of 29 to 51 percent on maintenance including the cost of mowing and herbicide application for grass along roadways.³⁵

Beyond saving on roadside maintenance costs, Baltimore County could consider engaging public support for and involvement in the program, whether by promoting the initiative through items branded with the wildflower program, or by soliciting individual or corporate sponsorships. The State of North Carolina's Wildflower Program covers 2,000 acres at a cost of \$1.5 million annually (or about \$750 per acre), with the bulk of the direct funding coming from the sale of personalized license plates; costs of seeding

are further offset by the fact that these areas do not need to be mowed or maintained as do other highway medians.³⁶ In addition to cost savings, wildflower programs benefit native habitats and ecosystems and improve visual aesthetics for residents and travelers, which evidence suggests can improve safety for drivers and reduce accidents.³⁷

Implementation Guidance

The State of Maryland provides wildflower program and vegetation guides that can serve as valuable resources for Baltimore County in identifying the most appropriate types of wildflowers to begin planting, as the species vary widely based on geographic location and climate. Integrated Vegetation Manual for Maryland Highways is a resource that has a chapter on wildflowers (See Part 5).³⁸ Given the state's leadership in this area, Baltimore County may be able to partner with the to achieve additional cost savings on the purchase of seeds, or any other materials and equipment needed.

The blend of wildflower seeds selected should consider several factors, which the County must prioritize: cost per unit, whether the species are native to the region – which is preferable for ecological sustainability, whether the species are perennial (perennials, for example, will bloom for multiple years and require less further seeding investment), method of seeding (some seeds can be planted directly onto grass with little to no preparation, while others may require tilling or other labor efforts) and aesthetic preferences. In prioritizing ecological benefits, the County may wish to consult a resource such as Roadside Best Management Practices that Benefit Pollinators published by the U.S. Department of Transportation Federal Highway Administration.³⁹

Baltimore County previously considered a wildflower program to reduce roadside maintenance needs; however, the idea lacked the backing or mandate to implement the program. It will be useful to assign leadership of the new initiative to an agency, whether the Department of Public Works and Transportation or the Department of Environmental Protection and Sustainability. The program should track ongoing roadside maintenance cost metrics against baseline costs so that actual cost saving benefits can be measured. Other program metrics should be identified and tracked to quantify the program's safety and environmental benefits as well.

34 <https://www.washingtonpost.com/archive/local/1990/08/23/a-touch-of-color-on-the-highway/f9a94440-a29c-4803-a66e-87964eb6567c/>

35 <https://flawildflowers.org/resources/pdfs/Publications/EconomicEcolBenefits-RoadsideNatWFPlantings9-9-03.pdf>

36 <https://www.the-dispatch.com/article/NC/20100511/News/605118104/LD>

37 <https://www.baltimoresun.com/news/bs-xpm-2003-05-26-0305260070-story.html>

38 <https://apps.roads.maryland.gov/epd.qatoolkit/ViewStdDocs.aspx?id=181>

39 https://www.environment.fhwa.dot.gov/env_topics/ecosystems/Pollinators_Roadsides/BMPs_pollinators_landscapes_hi-rez.pdf

1.2.4 INNOVATIVE ROAD SURFACING

Integrate the use of innovative road surfacing materials, such as terminal blend tire rubber asphalt and high friction surface treatment, into Baltimore County's Road surfacing program.

Findings

The Department of Public Works and Transportation (DPWT) Bureau of Highways and Equipment Maintenance is responsible for surfacing nearly 7,000 lane miles of roadways within the County. Currently, the lifespan of these paved surfaces is between 15 and 20 years, according to the Bureau's website. The County repairs roadways continually based on level of need, weather conditions, and available funds.

To determine the level of need for roadway repairs, the County grades each street on an annual basis on a scale of 100 to 400, with streets scoring 270 or above eligible for repair. Once the roads to be repaired are identified, they are scheduled around recent and future construction or other roadway disruptions to avoid damage being done to newly resurfaced roads. The Bureau repairs streets year-round, except for during the winter season.

BITUMINOUS ROAD PATCHING AND RESURFACING EXPENDITURES FY2021

	Activity Units (tons)	Unit Cost	Total Cost	Total Labor Cost	Total Equipment Cost	Total Material Cost
Patching	3,670	\$327	\$1,199,388	\$343,834	\$700,866	\$154,688
Resurfacing	164	\$366	\$59,790	\$15,197	\$36,263	\$8,330
Total	3,834	\$328	\$1,259,178	\$359,031	\$737,129	\$163,018

Source: Baltimore County Department of Public Works and Transportation (2021)

Baltimore County is seeking innovative methods for road surfacing and treatment.⁴⁰ The review team recommends further exploration of two such methods:

1. Utilize terminal blend tire rubber asphalt for roadway surfacing; and
2. Apply high-friction surface treatment to roadways.

Terminal Blend Tire Rubber Asphalt

Terminal blend tire rubber asphalt is made by blending tire rubber into the asphalt binder, which acts as the glue to hold asphalt together. The final product can be used in lieu of conventional asphalt mixes or where asphalt surface treatments are needed. The rubber content of the material can range from 5 percent to as high as 25 percent.⁴¹

⁴⁰ Bureau of Highways and Equipment Maintenance, July 14, 2021.

⁴¹ <http://asphaltmagazine.com/terminal-blended-rubberized-asphalt-goes-mainstream-now-pg-graded/>

Binder makes up a small portion of the entire asphalt mixture, but it has the most significant environmental impact in the process. Acquiring and refining binder emits greenhouse gases; further, asphalt material and binder are mixed at extremely high temperatures, increasing greenhouse gas emissions and pollutants through increased energy use. Integrating tire rubber into asphalt binder requires even high temperatures for mixing than conventional binders; however, the lifespan of asphalt mixed with rubberized binder is more resistant to cracking, thereby increasing its lifespan and reducing the need for additional binder for maintenance and repair.⁴²

The materials needed to create rubberized asphalt cost more than conventional asphalt mixes; however, the thinner layer of asphalt needed to cover equally sized areas generally offsets the increased unit cost.⁴³ In California, depending on the requirements for the specific resurfacing project, using rubberized asphalt can cost from 19 to 80 percent less per lane mile for materials and preparation than using conventional asphalt mix.⁴⁴ While numerous studies have demonstrated the efficacy of rubberized asphalt in warmer climates, the results of a pilot study in Ontario, Canada also demonstrated that the rubber-modified asphalt was able to withstand even colder temperatures than the conventional asphalt⁴⁵ (as reported in Recycling Tire Rubber in Asphalt Pavements: State of the Art in MDPI October, 2020).

High-Friction Surface Treatment

High-friction surface treatment (HFST) increases roadway friction, which provides greater vehicle traction on pavement surfaces, particularly on wet surfaces. From 2015 through 2020, there were 20,000 crashes per year, on average, in Baltimore County, of which 40 percent occurred on county routes. Of the crashes that occurred on county routes, 15 percent occurred on roadways with wet surface conditions.⁴⁶

HFSTs are best implemented in the following types of roadway applications:⁴⁷

- Locations with high crash rates related to friction deficiencies
- Rural, horizontal curves
- Tight freeway loop ramps
- Downhill traffic signal approaches
- Concrete pavement and bridges to preserve surfaces

HFSTs also tend to be more expensive to utilize than standard pavement maintenance techniques; however, the cost savings associated with HFSTs lie in preventing crashes and fatalities. Therefore, the only comparable alternative to applying HFSTs would be to reconfigure roadways – an undertaking which would be more costly and take significantly longer to complete.

Benefit to the County

Baltimore County can realize benefits associated with cost, safety, and environmental sustainability by implementing these practices.

42 <https://cen.acs.org/environment/sustainability/road-sustainable-asphalt-paved-tires/99/i7>

43 <https://www.calrecycle.ca.gov/tires/rac/benefits>

44 <https://www.calrecycle.ca.gov/tires/rac/benefits>

45 <https://www.mdpi.com/2071-1050/12/21/9076/pdf>

46 Maryland State Police, 2021. <https://opendata.maryland.gov/Public-Safety/Maryland-Statewide-Vehicle-Crashes/65du-s3qu>

47 <https://www.fdot.gov/docs/default-source/materials/pavement/performance/ndt/documents/hfstguidelines.pdf>

Cost Savings

First, terminal blend tire rubber asphalt is used at a reduced thickness as compared to conventional asphalt mixes, leading to the potential for significant material use reduction and cost savings.

Based on data from California, the total amount of material needed could decrease by 41 to 52 percent, while the cost per unit would increase by 25 percent if utilizing rubberized asphalt. Therefore, Baltimore County could realize near-term annual savings of 25 to 40 percent, or \$311,000 to \$516,000.⁴⁸ In addition to short-term annual savings, Baltimore County could realize even more significant savings in the long-term, as the lifespan of terminal blend tire rubber asphalt is approximately 50 percent longer than conventional asphalt mixes, requiring less maintenance and repair over time.⁴⁹ (See Table Below.)

POTENTIAL SAVINGS BY TONS OF TERMINAL BLEND TIRE RUBBER ASPHALT USED (VERSUS CONVENTIONAL ASPHALT)

	Total Tons	Total Cost per Ton	Total Cost	Total Savings
Baseline	3,800	\$330	\$1,254,000	
Low End	2,300	\$410	\$943,000	\$311,000
High End	1,800	\$410	\$738,000	\$516,000

Safety

In addition to cost savings, the County would also realize safety benefits with the implementation of terminal blend tire rubber asphalt, as the material improves traction and is more skid-resistant than traditional asphalt mixes.⁵⁰ Beyond increased skid-resistance, the material may reduce vibrations and noise, as well.⁵¹ As previously noted, a driving purpose behind the application of HFSTs has been safety and car accident prevention. The increased roadway friction provides increased vehicle traction, thereby decreasing risk and occurrence of crashes, particularly in wet road surface conditions.

Environmental Sustainability

Finally, because rubberized binders have a longer lifespan than conventional binders, Baltimore County would need less binder overall for maintenance and repairs, thus decreasing its energy output and greenhouse gas emissions.⁵² Additionally, using terminal blend tire rubber asphalt yields positive environmental impacts by promoting the recycling of tires that would otherwise have ended up in landfills or illegal dumping areas. While the tire material can be sourced from a variety of places, the Bureau of Highways and Equipment Maintenance could also work with the Bureau of Solid Waste Management and the Department of Environmental Protection and Sustainability to source tire rubber from local waste tire collections. This practice could help Baltimore County improve its environmental sustainability record and achieve cost savings through landfill diversion as well; road surfacing projects with a thickness of two inches utilize approximately 2,000 waste tires per lane mile.⁵³

48 <https://www.calrecycle.ca.gov/tires/rac/benefits>

49 <http://asphaltmagazine.com/terminal-blended-rubberized-asphalt-goes-mainstream-now-pg-graded/>

50 Ibid.

51 <https://cen.acs.org/environment/sustainability/road-sustainable-asphalt-paved-tires/99/i7>

52 <https://cen.acs.org/environment/sustainability/road-sustainable-asphalt-paved-tires/99/i7>

53 <https://www.calrecycle.ca.gov/tires/rac>

Five-Year Savings Estimate

	County One Full Year	Five Years
Low End Range	\$311,000	\$1,555,000
High End Range	\$516,000	\$2,580,000

Upfront Costs: This recommendation can be implemented with existing resources; costs of new materials are assumed to be diverted from costs of materials currently used.

Savings calculations provided in the section above (Potential Savings by Tons of Terminal Blend Tire Rubber Asphalt Used Versus Conventional Asphalt).

Best Practices and Benchmarks

In the state of Florida, HFSTs applied to portions of roadways with tight curves decreased wet weather crash rates by 75 percent.⁵⁴ Further, Pennsylvania, Kentucky, and South Carolina transportation departments used HFSTs and reduced crashes by 100, 90, and 57 percent, respectively, during trial periods.⁵⁵ In 2017, MDOT SHA began a pilot HFST program on specific interchanges in Anne Arundel and Frederick Counties.⁵⁶ In 2021, the agency expanded its application of HFST to the Outer Loop of the Capital Beltway, citing “observed friction and drainage improvements of about 70%.”⁵⁷

Implementation Guidance

A first step in advancing this recommendation is to gain a more comprehensive understanding of all road assets that the Bureau manages and the anticipated schedule for repaving of existing roads (or paving new roads).

To maximize positive local environmental benefits, the Bureau should coordinate with both the Bureau of Solid Waste Management and the Department of Environmental Protection and Sustainability to understand current sources and impacts of disposed and recycled tires in Baltimore County, and to disseminate information to the public and encourage the practice of recycling tires.

1.2.5 INNOVATIVE SUBBASE MATERIAL FOR ROADS AND SIDEWALKS

Repurpose used toilets into subbase material for road or sidewalk bases.

Findings

The Bureau of Highways and Equipment Maintenance is responsible for nearly 7,000 lane miles of roadways, as well as sidewalks, within Baltimore County. The County seeks innovative practices for roadway maintenance and repair.

⁵⁴ <https://www.fdot.gov/docs/default-source/materials/pavement/performance/ndt/documents/hfstguidelines.pdf>

⁵⁵ https://www.fhwa.dot.gov/innovation/everydaycounts/edc-2/pdfs/fhwa-cai-14-019_faqs_hfst_mar2014_508.pdf

⁵⁶ <https://roads.maryland.gov/mdotsha/pages/pressreleasedetails.aspx?newsId=3024&PageId=818>

⁵⁷ <https://www.roads.maryland.gov/mdotsha/pages/pressreleasedetails.aspx?PageId=818&newsId=3816>

As an initiative to reduce water consumption and increase environmental sustainability, the use of low-flow toilets has been encouraged in different parts of the country in recent years, resulting in a large number of older toilets being discarded. The porcelain from which American toilets are made is extremely hard, nonporous, and nontoxic, making the material ideal for construction uses such as subbase for roadways or sidewalks. In fact, it has been discovered that the material is stronger than subbase created from rocks and gravel.⁵⁸

Colorado Springs implemented this type of program and realized a cost savings of 75 percent of material costs, with startup hard costs of approximately \$3,000 and annual inspection costs to inspect material for DOT compliance for crushed aggregate.⁵⁹

Utilizing recycled toilets as subbase material is environmentally sustainable in more ways than one: first, it recycles toilets that otherwise would have ended up in landfills or illegal dumping areas; and second, it reduces the amount of mining from quarries or riverbeds needed to obtain the traditional subbase material of rock and gravel.⁶⁰

Benefit to the County

Given that the toilets used to create this subbase are recycled, costs are far lower than typical subbase materials. In addition to financial benefits, there are multiple environmental benefits to using recycled toilets as subbase material. Primarily, recycling toilets creates significant savings of landfill space – an issue that is also of concern for the county at this time and is addressed in recommendations regarding the Bureau of Solid Waste.⁶¹

Best Practices and Benchmarks

The practice of utilizing recycled toilets as subbase material is extremely innovative, and based on outreach and research, it is only being implemented in a few places around the United States, mostly concentrated in the western side of the country.

California began this practice in the early 1990s in Santa Barbara during a years-long drought that led to residents being encouraged to purchase new, low-flow toilets. The widespread take-up of this initiative led to another problem, which was an abundance of waste toilets taking up space in landfills. As a result, Santa Barbara – followed by numerous other California cities – began to recycle the toilets and use the crushed material for subbase for roadways and sidewalks.⁶² The City of Escondido began using recycled toilets as subbase following the County Water Authority's program to offer residents a \$100 rebate to replace high-flow toilets with more environmentally friendly, low-flow models in the early 1990s. As a result of the rebate program, the authority was able to reduce its water purchase from the Metropolitan Water District by nearly \$2 million, a savings of approximately \$100 per customer over five years. Escondido collected the recycled toilets after they were crushed and prepared for construction at a local facility.⁶³

The City of Bellingham, Washington created a specification using recycled aggregate material to allow for the integration of multiple types of material, including toilets, to be mixed into its concrete. The city realized an optimal mix including 20 percent porcelain by volume. The innovation allowed the city to work with local businesses and nonprofits to create more environmentally sustainable public works projects than was previously possible.⁶⁴

Another local example of recycling toilets for subbase is the city of Colorado Springs, which began its program in 2012 and has diverted 2.8 million pounds of material from landfills.⁶⁵ In addition to these significant environmental benefits, the city has also realized savings of 75 percent of material cost.⁶⁶ Colorado Springs also realized multiple benefits on the consumer side, such as reduced cost to replace fixtures for water conservation and providing a means of disposing of porcelain material. The city offered residents rebates of up to \$75 for new toilets in exchange for their donations.

58 <https://www.latimes.com/archives/la-xpm-1991-06-18-mn-937-story.html>

59 Correspondence with Colorado Springs Commodes to Roads program launch partner, August 11, 2021.

60 <https://www.latimes.com/archives/la-xpm-1991-06-18-mn-937-story.html>

61 [Final Report of the Baltimore County Solid Waste Work Group, June 17, 2021](#)

62 <https://www.latimes.com/archives/la-xpm-1991-06-18-mn-937-story.html>

63 <https://www.latimes.com/archives/la-xpm-1992-05-09-me-1503-story.html>

64 <https://www.equipmentworld.com/better-roads/article/14950282/toilets-being-used-in-recycled-aggregate-spec-potcrete>

65 https://gazette.com/cheyenneedition/trashed-toilets-helping-in-the-rebuild-of-colorado-springs-roads/article_fb9e9e12-5fff-11ea-b0c0-cb5cb65cab2b.html

66 Correspondence with Colorado Springs Commodes to Roads program launch partner, August 11, 2021.

Implementation Guidance

Approval of materials for all DPWT projects must first be obtained from the Maryland Department of Transportation.

Other jurisdictions that have used crushed, recycled toilets as subbase material have partnered with multiple entities to coordinate the programs. For example, Baltimore County could partner with local nonprofits and community organizations that build or remodel homes to salvage old toilets instead of throwing them away. Colorado Springs partners with El Paso County's household hazardous waste facility, Habitat for Humanity Restore, and a local plumber to allow residents and commercial builders to recycle toilets and other porcelain waste at no cost.⁶⁷ Additionally, the Bureau of Highways and Equipment Maintenance would need to partner with a local aggregate-producing facility to process the recycled materials once collected to prepare them for integration into subbase material.

In Colorado Springs, the same crew that handled the previous subbase material was able to continue in the same capacity with the new program, so no new costs or labor needs arose. The city used the same equipment for annual processing that was used for processing asphalt and concrete, again incurring no new expenditures.⁶⁸

The Bureau of Highways and Equipment Maintenance should also work closely with the Bureau of Solid Waste Management and the Department of Environmental Protection and Sustainability to encourage recycling of porcelain materials and streamline the process of salvaged materials being crushed and prepared as subbase material. These entities could develop a communications strategy for residents to understand the resources available for recycling these materials to expand awareness and adoption.

1.2.6 COUNTYRIDE TRANSIT OUTREACH COORDINATOR

Through collaboration with local partners, the Department of Public Works and Transportation (DPWT) should establish one or more transit outreach coordinator positions to support individuals who currently use CountyRide services to access fixed route options, including the MTA and the Towson Loop.

Findings

Baltimore County's CountyRide system is a transit service that provides transportation for older adults, people with disabilities (ages 18-59), and rural residents. Data provided by the Bureau shows pre-COVID annual ridership at 32,641 (FY2020) and post-COVID annual ridership at 24,398 (FY2021). The average trip is 37 minutes, or 6.66 miles.

The decrease in ridership is likely tied in part to current restrictions that rides can only be used for medical appointments, grocery shopping, and pharmacy visits. Riders can request medical trips up to two weeks in advance, or other trips up to one week in advance. If there are no openings at the time of booking, riders may choose to be placed on stand-by (dependent upon cancellations or other factors). CountyRide also uses Uber to supplement its service during periods of high demand. From May through July 2021, 200 trips (at a total cost of \$3,864.03) have been offered through this partnership. In addition to CountyRide, the MTA runs a paratransit service called Mobility Link, which ties eligibility to transit stop proximity. Although the CountyRide program can transport clients to the light rail or bus lines in Baltimore County upon request, if service is available, conversations with the Bureau of Transportation staff indicate that the majority of riders request trips directly to their final destinations. Due to current ride limitations, links to fixed route transit might not currently be possible.

⁶⁷ <https://www.csu.org/Documents/ToiletRecycling.pdf>

⁶⁸ Correspondence with Colorado Springs Commodes to Roads program launch partner, August 11, 2021.

One-way CountyRide fares within Baltimore County are \$3.00 if paid in cash, or \$2.50 using pre-purchased tickets (making it slightly more expensive to use CountyRide compared to MTA routes). The Towson Loop pilot program, which will be free of charge, will include stops at medical facilities and shopping centers, among other destinations. Although service for the Towson Loop is limited to Towson, there are three senior residences located within the Towson Loop area.

A 2002 national study of Americans with Disabilities Act complimentary paratransit practices revealed that outreach coordinators can help train individuals in how to use alternative transportation options to paratransit. This study, which incorporated surveys and site visits, collected extensive data on innovative practices being used in the delivery of ADA complimentary paratransit throughout the country.

Benefit to the County

Redirecting a portion of CountyRide users to fixed route transit options would reduce demand on the CountyRide system (thus making rides available to individuals who may sometimes be unable to access the service due to high demand), while offering increased independence to the individuals receiving the support provided by transit outreach coordinators. Given that CountyRide currently is not able to meet demand (and therefore supplements its trips through Uber), reduced demand on the system would mean that the County may be able to realize savings by decreasing the number of supplemental rides offered through Uber.

Best Practices and Benchmarks

The 2002 study presents several types of support that transit outreach coordinator programs can offer. For example:

- Customer service staff can travel with individuals on one or two initial trips and provide individual instruction for planning trips and understanding route and schedule information.
- Group instruction can offer baseline support to familiarize people with transit options and accessibility. They can be followed with planned outings using fixed-route buses. Schools, senior centers, and local community agencies sometimes provide these general transit orientation sessions.
- For individuals with cognitive disabilities, some transit systems contract with agencies to provide more extensive one-on-one instruction.
- For people with vision disabilities, transit systems may contract with local agencies for expanded orientation and mobility training.⁶⁹

Because of the high costs associated with paratransit service (and even for a service like CountyRide, which charges riders), reallocating potential riders to other services can result in substantial cost savings. For example, Seattle Metro estimated that an annual expenditure of \$161,580 on travel training saved \$417,000 in paratransit. Cincinnati's Southwestern Ohio Regional Transit Authority (SORTA) reported similar savings, with \$84,000 in training costs translating to \$250,000–\$300,000 in savings.⁷⁰

Some systems offer financial incentives for riders who take a service to a transit stop rather than their final destination. For example, Dallas' DART Paratransit Service offers a fare of \$0.75 to riders traveling to another transit mode, compared to a \$3.00 fare otherwise. Free travel training is offered to support riders who may be able to make this transition.⁷¹

69 Easter Seals Project ACTION, "Innovative Practices in Paratransit Services," https://www.nadtc.org/wp-content/uploads/634712807643425585_Innovative_Practices_in_.pdf, p. 3.

70 Easter Seals Project ACTION, "Innovative Practices in Paratransit Services," https://www.nadtc.org/wp-content/uploads/634712807643425585_Innovative_Practices_in_.pdf, p. 3.

71 DART Mobility Management Services, "A Guide to Paratransit Services," <https://www.dart.org/paratransit/ParatransitGuideEnglish2017.pdf>.

Implementation Guidance

Baltimore County could reach out to local institutions and potential partners, including hospitals, retirement homes, senior centers, and educational institutions with the goal of establishing one or more transit outreach coordinator positions. These positions could potentially be paid, part-time staff positions through a local social service agency or institution, or could be created as a part of a relevant local degree program's practical training through an unpaid volunteer or stipend internship position eligible for college or certification credit. The work would involve minimal training on transit routes and could be performed flexibly and remotely via mobile phone.

To begin implementation, the County could develop a pilot program with partners that serve the Towson area (with the goal of using the Loop to replace or supplement CountyRide for some individuals). The pilot would include an evaluation of current users to understand residents with barriers to access, such as those with disabilities and individuals for whom English is a second language. Assessing current user needs will help the County understand the types of support that would be most helpful to offer.

Five-Year Savings Estimate

	County One Full Year	County Five Years
Low End Range	\$9,456	\$47,280
High End Range	\$20,000	\$100,000

Upfront Costs: Low-end savings estimates take into consideration upfront costs of \$6,000 per year based on the assumption the volunteer or internship position would be arranged through a partnership with a local institution for college/certification credit and paid a stipend of \$500 per month by the County. High-end savings estimates assume that such position would be sponsored through an institutional partner at no upfront cost to the County.

Potential savings come from reduced demand in CountyRide services. If enough trips are shortened, the program may be able to eliminate the partnership with Uber and instead meet demand for rides through CountyRide. Given \$3,864 in costs over the first three months of the Uber program, annual costs are expected to be at least \$15,456 (if costs remain stable year-round). However, the annual cost may be higher, as the program is in its early phases and demand for CountyRide is expected to be higher in winter months (when temperatures are colder and there are fewer daylight hours). High end range savings calculations assume annual costs of up to 25 percent higher than incurred during the first three months of the program.

1.2.7 COUNTYRIDE CONDITIONAL ELIGIBILITY

Expand the “conditionally eligible” category for individuals with disabilities who are registered with the CountyRide system.

Findings

Three groups of Baltimore County residents can use CountyRide services: older adults (ages 60+), people with disabilities ages 18-59, and rural residents. To use CountyRide, People with disabilities are required to provide documentation that certifies that they are unable to use any other form of public transportation. The application is completed by clients and their physicians. Some clients with temporary disabilities may receive conditional-time or limited access to CountyRide services.

Other jurisdictions allow for conditional eligibility to be tied to specific circumstances rather than a time-limited eligibility. For example, some riders may be able to use fixed-route transit options if the distance from the nearest transit stop to their destination is less than (for example) ¼ mile, only during daylight hours, when temperatures are within a certain range, or if falls are a concern.

Riders with these types of concerns are given a “conditionally eligible” designation that is recorded in the scheduling system and tied to the specific conditions. As individual trips are requested over time, it could be determined whether they meet an individual’s eligibility criteria and could be saved to the system.

Benefit to the County

Adding a “conditionally eligible” category would enable the CountyRide system to better support Baltimore County residents who need the service for a limited period. Currently, individuals either do or do not qualify for the program. Some people who would qualify as conditionally eligible are currently not certified as eligible. Conversely, other individuals may be fully certified, even if they could use fixed route transit in some circumstances. In this case, individuals are likely using the service even when it is not strictly needed, and other viable options are available. This stresses the system and makes it more challenging for riders who need the service to access it. Additionally, it means that CountyRide is currently providing more rides than are necessary.

Best Practices and Benchmarks

Pittsburgh, Pennsylvania, uses conditional eligibility and trip screening to reduce the staff time needed to schedule trips. About 32 percent of Pittsburgh’s 4,200 eligible paratransit riders are considered conditionally eligible, and these riders only request about 18 percent of all trips. Roughly 40 percent of rides taken by conditionally eligible individuals are subscription trips. Because many paratransit riders (both conditionally eligible and eligible) repeat the same routes regularly, this also reduces screening time. Trip screening saves Pittsburgh \$450,000 a year.

Implementation Guidance

Baltimore County’s Department of Public Works and Transportation should survey current users about their needs and increase the level of detail required for newly eligible CountyRide users when they provide their documentation of eligibility. This recommendation would also benefit from coordination with a new CountyRide Outreach Coordinator to support riders who may be able to transition into using fixed-route transit options. This creation of this new position is discussed elsewhere in this report (see **CountyRide Transit Outreach Coordinator**).

1.3 Procurement Improvements

Baltimore County has not made significant improvements to its procurement practices or processes in many years. The County could make significant modifications to its existing procurement system for goods and services by instituting state-of-the art procurement practices, including organizational and operational best practices; best value procurement practices; and systems for facilitating enhanced agency participation in procurement. These include:

- Instituting spend analysis.
- Optimizing Workday implementation to make best use of procurement and analytical tools provided by the County’s new enterprise resource planning (ERP) system.

- Routinely engaging consultants or independent subject matter experts to assist in the development, bidding, and award of complex procurement for goods and services.
- Systematically aggregating demand among County agencies and leveraging economies of scale through purchasing consortia and master agreements from other jurisdictions. And
- Amending the County Code to enable routine negotiation with bidders, including for those solicitations that are structured as Requests for Bids.

Potential savings are estimated to average \$13 to \$26 million annually over the ensuing five years.

The County also should pilot best practices in health and human services contracting specifically to assess what human infrastructure, data, and other resources would be needed for the Department of Health and Human Services (DHHS) to transition to a model of results-based payments for certain contracted services. Basing certain types of contract payments on measurable results, where appropriate, can provide County contractors with strong financial incentives to focus on desired outcomes. And results-based payments demonstrate accountability for the County's investments of taxpayer dollars in public health and social services.

1.3.1 COUNTYWIDE PROCUREMENT SAVINGS

Baltimore County could achieve significant savings by instituting current and well-established procurement best practices in three overarching areas: 1) organizational and operational best practices 2) best value procurement practices, and 3) more robust systems for facilitating enhanced agency participation in all phases of the procurement process.

Overview

Baltimore County has not made significant improvements to its procurement practices or processes in many years. The review team recommends that countywide improvements be made to procurement practices and procedures, the organization and operations of the Office of Budget and Finance Purchasing Division, and how agencies are engaged to determine and coordinate their procurement needs. The three overarching recommendation areas are developed in more detail in each recommendation area that follows:

1. Organizational and operational practices
2. Institutionalizing best-value procurement practices
3. Enhancing interagency participation

The recommended enhancements are interdependent and, as such, individual savings estimates for each proposed change cannot be meaningfully derived. For instance, spend analysis is a best-value procurement practice that continually incorporates year-on-year spend data into procurement planning and decision-making; it requires skilled analysts who are trained to access this data using appropriate information technology, to identify trends and to apply data insights to make predictions and strategic procurement decisions. Spend analysis is demonstrated to yield substantial savings in year-on-year contract spend; however, in order to effectively practice spend analysis, staff must have the appropriate skill sets and access to current and relevant data. Therefore, we present best value procurement practices that yield direct savings including spend analysis, increased demand aggregation, and bid negotiation among others, in conjunction with recommended organizational and operational changes or enhancements needed to enable them, such as enhanced training. These include changes to the organization's structure and orientation, and to its systems for continuously engaging the feedback and participation of the County's agencies in procurement planning and evaluation. Finally, we also recommend enhancements to the processes by which agencies participate in procurement, and generate data that should continuously inform procurement decisions – including contract performance and vendor feedback. These recommendations are presented in the table below and are described in more detail in the three sections on procurement that follow in this report.

COUNTYWIDE PROCUREMENT RECOMMENDATIONS

Operational and Organizational Improvements	
Transform and rename the Purchasing Division into an Office of Procurement better to reflect its organizational practices, goals, and responsibilities.	
Within the Office of Budget and Finance, elevate the Office of Procurement to the same organizational level as the Property Management Division and Central Communications to reflect its centrality to County operations.	
Reclassify Purchasing staff to reflect procurement job duties and requirements and modern terminology and rename buyer positions as Procurement Officers.	
Require applicants for the position of "Procurement Officer" to hold an appropriate college degree, professional experience and/or certifications (e.g., NIGP or UPPCC certification).	
Increase the annual training budget to support internal training curriculum and opportunities for purchasing staff to obtain and maintain external procurement certification.	
Develop a program to identify, select, train, and certify agency personnel in the use of master agreements, contract management, dispute resolution, specification development, and the creation of non-complex, agency-specific requests for bids and proposals.	
Consider separating non-procurement accounting or accounts payable functions such as disbursements, P-card monitoring, and inventory control from the Purchasing or Procurement Office, but retain these functions within the Office of Budget and Finance.	
Institutionalizing Best-Value Procurement Practices (Direct Cost Savings)	
Institutionalize and expand best value procurement practices to consistently practice spend analysis, aggregate demand, consolidate purchasing volumes, negotiate many Requests for Bids (RFBs), and use reverse auctions, where appropriate.	
Enhancing Interagency Participation	
Create and sustain permanent agency user groups consisting of knowledgeable representatives and subject matter experts from all agencies to assist the Purchasing Division with the development and bidding of RFPs and RFBs, and the award of master agreements and purchase orders.	
Devise a systematic methodology to solicit and collect vendor and contract performance data and incorporate the information into new RFP and RFB specifications and development, and the award and renewal of master agreements and purchase orders.	
Develop and implement specified training programs for selected agency personnel.	
Shift responsibility for the creation and administration of master agreement delivery orders to the purchasing agencies with trained personnel.	
Amend the County Code and the Purchasing Manual to enable the County's Chief Administrative Officer, Purchasing Agent, and Deputy Purchasing Agent to approve and award master agreements and purchase orders of up to \$100,000. Create a mechanism by which approval thresholds can be updated periodically without amending the County Code.	
Create small purchase acquisition procedures to supplant the currently mandated need to invoke the RFP or RFB process for all acquisitions above \$25,000.	
Create a goods, services, and vendor rating system that requires agencies and user groups routinely to report performance metrics during all phases of the acquisition process.	
The information provided to the Purchasing Division should be incorporated systematically into the creation, management, award, and renewal of RFPs, RFBs, master agreements, and purchase orders.	
Minimize P-Card usage when goods and services are available through master agreements.	

Implemented with fidelity, the recommendations listed above, and described in more detail in the three sections on procurement that follow in this report, can be expected to save Baltimore County at least five percent of its current total spend on goods and services, based on management studies of other procurement entities as described below. In addition, new efficiencies will be achieved by streamlining approval processes with up-to-date thresholds appropriate for a jurisdiction of Baltimore County's size.

Benefit to the County

In addition to the projected savings described in this section, the proposed changes will improve current procurement practices by enhancing procurement, efficiency, transparency, equity, and competitiveness. The recommendations related to procurement that are presented in the following sections are based on well-established and documented best practices widely accepted by procurement professionals, organizational management leaders, and industry groups including the National Association of State Procurement Officials (NASPO). The recommendations have been demonstrated to be effective in serving the enterprise-wide procurement needs of complex state and local governments.

According to the Pew Center on the States, systemwide reforms of procurement practices like those recommended in this report have been demonstrated to save enterprises and governments, conservatively, five to ten percent of total procurement spending.⁷² According to the Pew Center, this is a conservative estimate based on a range of analyses of private sector and government entities, some of which found much higher realized savings, and particularly among public sector procurement entities.⁷³ This finding is replicated in more recent publications by global management consulting group McKinsey & Company (2018), whose analysis reveals that, across 25 industry sectors, public sector procurement entities have the highest potential for achieving procurement savings (28 percent on average) by implementing "well-established" best procurement practices.⁷⁴

Further, the recommendations will create a procurement system that more effectively coordinates County requirements for goods and services with its master agreements and drives a better-defined and more efficient bid and proposal process for vendors.

The estimated savings associated with this overarching recommendation presented below are derived from reduced contract spend. The savings estimates are based on the countywide implementation of the improvements described in the suite of procurement recommendations that follow. **(See Procurement Improvement Area 1: Purchasing Division Organizational and Operational Changes; Procurement Improvement Area 2: Best Value Procurement Practices; Procurement Improvement Area 3: Enhance Interagency Participation in Procurement.)**

These recommendations are synergistic – they build upon and interact with each other, and while they conceivably could be implemented separately or in part, the goal is and should be to implement this complete suite of reforms fully to benefit from the comprehensive improvement they will bring to County procurement and the savings that will produce. The savings from all three areas of improvement and their sub-recommendations and thus presented here as a comprehensive estimate of what can be achieved through these efforts, rather than trying to attribute a savings figure to each individual element of improvement.

Fortunately, such comprehensive reforms have been undertaken elsewhere and thus provide a way to make a general, overall estimate of their impact. In this case, we take the savings level demonstrated in other similar efforts, and then conservatively project the lowest levels of savings achieved elsewhere – to provide an estimate of the level of savings that Baltimore County might be confident of achieving by undertaking the same reforms.

Thus, we project that Baltimore County could realize savings of at least 5 percent of its current procurement spend. (Since the County's current annual spend is \$403,135,000, this equates to conservative savings of \$20,157,000 annually when fully phased in.) Based on the experience of other jurisdictions, however, actual savings could exceed that by double or more. According to the Pew Center on the States, systemwide reforms of procurement practices like those recommended in this report have been demonstrated to save enterprises and governments, conservatively, five to ten percent of total procurement spending.⁷⁵ According to Pew, this is a conservative estimate based on a range of analyses of private sector and government

⁷² https://www.pewtrusts.org/~media/legacy/uploadedfiles/pes_assets/2010/statesbuyingsmarterfullreportpdf.pdf

⁷³ The Pew Center's report *States Buying Smarter* (2010) https://www.pewtrusts.org/~media/legacy/uploadedfiles/pes_assets/2010/statesbuyingsmarterfullreportpdf.pdf, https://www.pewtrusts.org/~media/legacy/uploadedfiles/pes_assets/2010/statesbuyingsmarter20briefpdf.pdf cites research on public and private sector organizations that have produced a wide range of estimated cost savings and cost avoidance (5 to 20 percent, and greater) by implementing systemwide procurement reforms; studies also found the highest potential savings to be found in public sector procurement entities.

⁷⁴ <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/how-smarter-purchasing-can-improve-public-sector-performance>

⁷⁵ The Pew Center's report *States Buying Smarter* (2010), https://www.pewtrusts.org/~media/legacy/uploadedfiles/pes_assets/2010/statesbuyingsmarterfullreportpdf.pdf

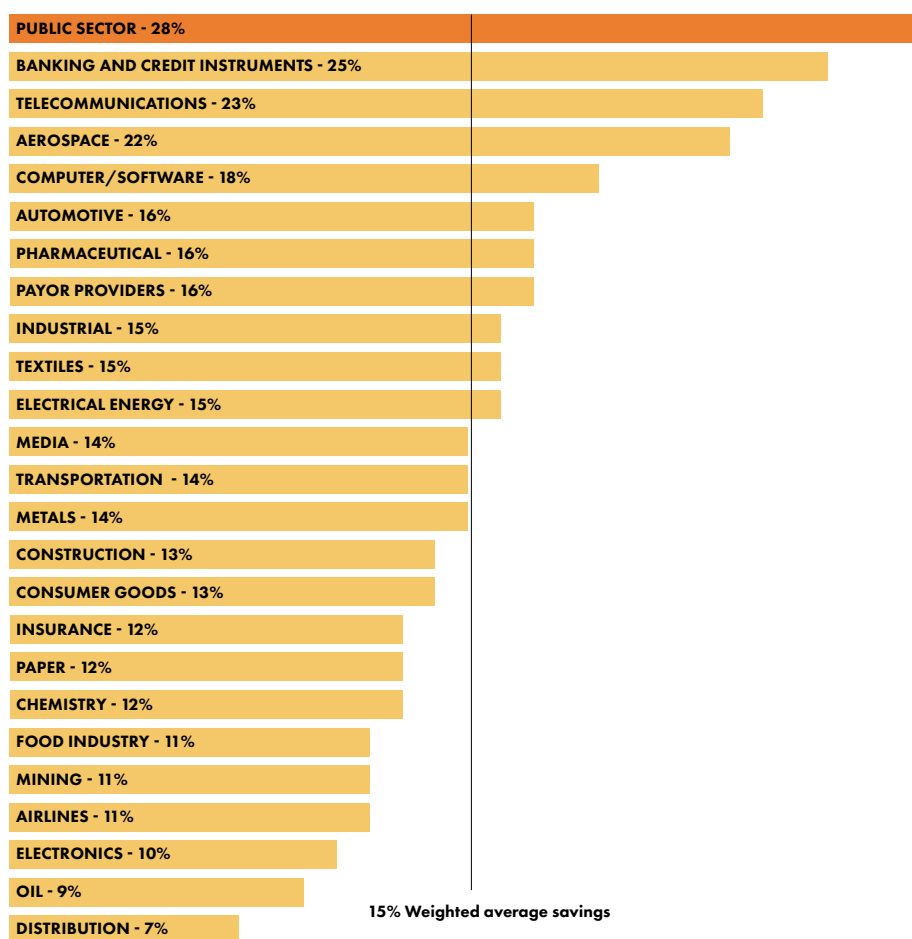
entities, some of which found much higher realized savings, and particularly among public sector procurement entities.⁷⁶ In fact, Pew cites research on public and private sector organizations that have produced a wide range of estimated cost savings and cost avoidance up to nearly 30 percent by implementing systemwide procurement reforms, with the highest potential savings to be found in public sector procurement entities:

Research on public and private sector organizations produces a wide range of estimated cost savings or cost avoidance resulting from improved procurement practices. Bartolini and Dwyer (2008) found that “enterprises have been able to achieve a 5 percent to 20 percent cost savings for each new dollar of spend brought under management,” while Husted and Reinecke (2009) observed that “improved purchasing yields an average of 15 percent savings, with projects in the public sector delivering the highest savings—an average of 28 percent.” Because the amounts that states are able to save will vary depending on the maturity and type of reforms implemented, as well as the spend categories targeted, this analysis focuses on the more conservative five to 10 percent savings range.

As noted, global management consulting group McKinsey & Company (2018) found that, across 25 industry sectors, public sector procurement entities have the highest potential for achieving procurement savings – 28 percent on average – by implementing “well-established” best procurement practices.⁷⁷

The Public Sector has the highest potential for procurement savings.

Savings Potential from Purchasing Optimization, % of total procurement expenditure



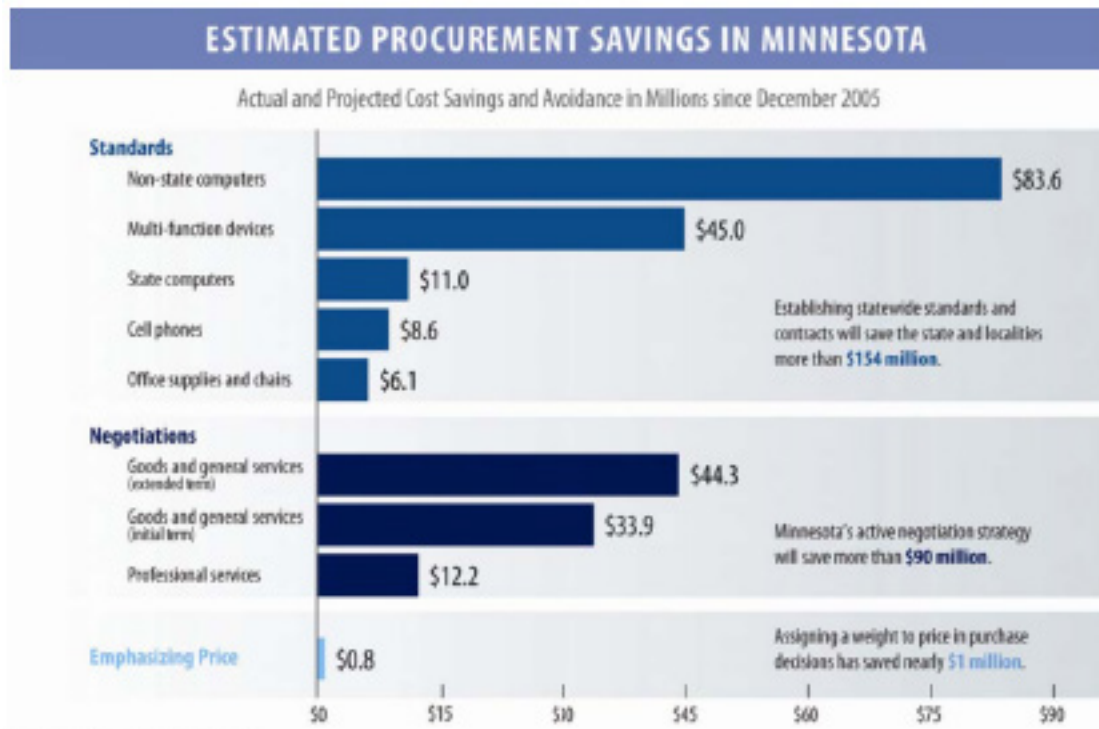
Source: Article: How smarter purchasing can improve public-sector performance; McKinsey & Company, 2018.

⁷⁶ See also: https://www.pewtrusts.org/~media/legacy/uploadedfiles/pes_assets/2010/statesbuyingsmarter20briefpdf.pdf

⁷⁷ <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/how-smarter-purchasing-can-improve-public-sector-performance>

McKinsey concludes: “Worldwide, we estimate that the public sector could reduce its current purchasing bill by 15 percent, or nearly \$1.5 trillion, if its organizations were to adopt best-practice procurement disciplines.” A five-percent savings estimate, then, places the projection here at the lowest range of savings achieved by similar comprehensive procurement reform efforts elsewhere.

While it is difficult, as noted, to put “price tags” on individual component reforms, Minnesota put the following savings figures on a few of the specific components we propose after a little more than four years of implementation:



Source: Issue Brief: States Buying Smarter, Lessons Learned from Minnesota and Virginia, The Pew Center on the States.

In Minnesota’s case, the wider use of standard-setting in purchasing – which is one aspect of one of the eight reform sub-recommendations touched on in **Procurement Improvement Area 3: Enhance Interagency Participation in Procurement**, below – produced savings on total state and local spend of roughly two percent, while more aggressive negotiation – one of five aspects of **Procurement Improvement Area 2: Best Value Procurement Practices** (practice spend analysis, aggregate demand, consolidate purchasing volumes, negotiate many Requests for Bids (RFBs), and use reverse auctions) – yielded savings of another more than one percent of total spend. The three Procurement Improvement Areas presented in this report contain roughly two dozen specific recommendations for improving the overall procurement process; that just two of these have been shown to produce together savings of 3.5 percent off total procurement spend substantiates the estimates from other studies of potential savings from comprehensive procurement reforms in the 20-28 percent range and validates our conservative projection of five percent savings on annual spend from the complete package of over two dozen recommended improvements.

Five-Year Savings Estimate

	County First Full Year	Avg Annual Savings	Five Years
Low End Range	\$4,845,270	\$12,908,770	\$64,543,852
High End Range	\$9,955,000	\$13,877,824	\$69,389,121

Upfront Costs: Savings estimates include annual costs of salary increases totaling \$93,000 and an annual training budget increase of \$100,000, or \$193,000 per year.

The estimates above assume that 50 percent of potential savings can be realized by the second and third implementation years and that full potential savings would be achieved in the fourth and fifth implementation years. Low end range estimates assume that 25 percent of the projected savings can be achieved in the first year of implementation and high-end range estimates assume that 50 percent can be achieved. While these savings estimates include the costs of recommended additional personnel training, they do not include ongoing increases in the training budget to maintain staff procurement certifications; such increases should be established by the County with consideration to the certification program selected.

Savings estimates assume the following upfront investments (which are reflected in the calculations below and described in further detail in each recommendation that follows in this section (Section 1.3 **Procurement Improvements**): an annual salary increase of ten percent for nine employees, which amounts to \$93,000 annually including OECs; and an annual training budget increase of \$100,000 for the Purchasing Division. In general, a ten percent increase in Baltimore County's upper-end salary schedules for purchasing staff would make its salary schedules competitive with Anne Arundel and Prince George's Counties. FY2021 salaries = \$611,300: Chief of Purchasing Services (1), Senior Buyer (1), Staff Buyer (6), Assistant Buyer (1). Total cost of salary increases for a full year with 52 percent OECs = \$61,130 x .1.52 = \$93,918.

ESTIMATED SAVINGS (5 PERCENT PROCUREMENT SPEND)	
Year One	\$4,845,270
Year Two	\$9,885,000
Year Three	\$9,885,000
Year Four	\$19,964,000
Year Five	\$19,964,000
Total	\$64,544,000

The above numbers are rounded; calculations are presented in the table below.

	1.25% Savings Year One	2.5% Savings Year Two & Year Three	5% Savings Year Four & Year Five	Total Low-End Savings Five Years
Annual Purchasing Division-Managed County Spend = \$403,135,000	\$5,039,188	\$20,156,750	\$40,313,500	\$65,509,438
Salary Increases	(\$93,918)	(\$185,834)	(\$185,834)	(465,586) (Upfront Costs)
Training Budget	(\$100,000)	(\$200,000)	(\$200,000)	(\$500,000) (Upfront Costs)
Total Savings	\$4,845,270	\$19,770,916	\$39,927,666	\$64,543,852

Implementation Guidance

It will be a substantial undertaking to reorganizing the Purchasing Division and its processes as they exist to facilitate procurement practices that are oriented toward generating and using data and feedback to drive countywide procurement planning and decision making. As discussed here and in the specific recommendations that follow, several interdependent steps must be taken in a coordinated way to implement effectively the best practices described in this report. The major, overarching countywide implementation initiatives that encompass the three sets of recommendations that follow are:

- Amend the County Code and the County Charter as needed to enable the operationalization of recommendations. (These instances are highlighted in the implementation guidance for applicable recommendations.)
- Prioritize the implementation of recommendations that do not require changes to County Code or the County Charter and can be undertaken immediately while concurrently pursuing the needed code and statutory changes.
- Update the Purchasing Manual to reflect new policies and procedures described in the recommendations above.
- Reclassify Purchasing Division positions to reflect modern industry standard terminology and job descriptions and update educational and experience requirements and compensation.
- Retrain and provide external certification opportunities for current Purchasing Division personnel.
- Increase the Purchasing Division training budget to meaningful levels as recommended.
- Determine whether additional, qualified personnel are necessary to fulfill the responsibilities of a state-of-the-art Procurement Office and hire accordingly.
- Train and internally certify select personnel from client agencies to perform defined agency-specific procurement tasks.
- Establish robust procurement performance metrics.

1.3.2 PROCUREMENT IMPROVEMENT AREA 1: PURCHASING DIVISION ORGANIZATIONAL AND OPERATIONAL CHANGES

The Purchasing Division and its operations could be better organized to support enhanced procurement practices and organizational responsibilities.

Recommendations

1.3.2.1 Transform and rename the Purchasing Division into an Office of Procurement better to reflect its organizational practices, goals, and responsibilities.

1.3.2.2 Within the Office of Budget and Finance, elevate the Office of Procurement to the same organizational level as the Property Management Division and Central Communications to reflect its centrality to County operations.

1.3.2.3 Reclassify Purchasing staff to reflect procurement job duties and requirements and modern terminology and rename buyer positions as Procurement Officers.

1.3.2.4 Require applicants for the position of “Procurement Officer” to hold an appropriate college degree, professional experience and/or certifications (e.g., NIGP or UPPCC certification).

1.3.2.5 Increase the annual training budget to support internal training curriculum and opportunities for purchasing staff to obtain and maintain external procurement certification.

1.3.2.6 Develop a program to identify, select, train, and certify agency personnel in the use of master agreements, contract management, dispute resolution, specification development, and the creation of non-complex, agency-specific requests for bids and proposals.

1.3.2.7 Consider separating non-procurement accounting or accounts payable functions such as disbursements, P-card monitoring, and inventory control from the Purchasing or Procurement Office, but retain these functions within the Office of Budget and Finance.

Findings

The Purchasing Division's Chief of Purchasing and Disbursements is a high-performing leader who is familiar with and appreciates procurement best practices, with knowledge and skills to develop and lead a best-in-class government procurement organization. However, due to organizational, Code, Charter, and personnel limitations, which have not been updated under prior administrations, the Purchasing Division has not been able to modernize its procedures and practices. These findings outline the major organizational and operational changes that must be implemented to improve County and agency satisfaction with procurement outcomes, and to realize the efficiency savings potential of systemwide procurement improvements.

State-of-the-art public procurement organizations are increasingly recognized as principal agents in attaining and sustaining efficient and responsive governmental operations. Traditionally known as "Purchasing Divisions," which emphasizes the transactional function of the office, they are today more commonly referred to as "Procurement Offices," to more accurately reflect the multi-faceted and strategic nature of their organizational roles.⁷⁸ As those transactional functions of purchasing offices are increasingly automated with now business-standard ERP applications, high performing Procurement Offices increasingly employ highly skilled professionals who are trained to translate organizational requirements for goods and services into concise, accurate specifications; develop suitable and equitable, contractual terms and conditions; and adhere to concise, logical business process to deliver robust, balanced contracts for client agencies, bidders, and contractors. As such, these entities facilitate an integral and essential governmental function that enables agencies to efficiently fulfill their responsibilities to the public. It is in this spirit and context that the review team recommends that the organization and name of the Baltimore County Purchasing Division be transformed to be consistent with that of a strategically oriented Procurement Office.

To implement its strategic goals effectively, the new Procurement Office should be elevated to the same level within the Office of Budget and Finance (OBF) now held by the Property Management Division and the Central Communication Center. The head of Procurement should remain the County's Deputy Purchasing Agent, and should be organizationally closer to the County's Purchasing Agent – that is, the Director of the Office of Budget and Finance (OBF).⁷⁹

⁷⁸ See NIGP: The Institute for Public Procurement, "The Strategic Value of Procurement in Public Entities," (2015)

<https://www.nigp.org/resource/position-papers/The%20Strategic%20Value%20of%20Procurement%20in%20Public%20Entities%20Position%20Paper.pdf?dl=true>

⁷⁹ Sec. 902. - County purchasing policies and practices.

Unless changed pursuant to section 502 of this Charter, the director of budget and finance shall be the county purchasing agent and shall have the following purchasing functions which he may delegate to a deputy purchasing agent in his office and under his supervision or to another county official if authorized by legislative act of the county council:

(a) The making of all purchases and contracting for all public work and services, and for all supplies, material and equipment for all offices, departments, institutions, boards, commissions and other agencies of the county government for which payment is to be made out of county funds.

(b) If recommended by the county administrative officer and approved by legislative act of the county council, the establishment and operation of a county warehouse for county supplies, material and equipment and the maintenance of a sufficient stock of stable commodities to meet the requirements of the county government.

(c) The development and operation of a uniform and modern system of property accounting and stores control based upon perpetual inventory.

(d) The establishment, after consultation with the appropriate county officials, of suitable specifications and standards for all supplies, materials and equipment to be purchased, and the inspection of all deliveries to determine compliance with such specifications and standards.

(e) The establishment and maintenance of a system of requisitions and receipts covering the furnishing of supplies, materials and equipment to the various offices, departments, institutions, boards, commissions and other agencies of the county.

(f) The establishment, with the approval of the county administrative officer and by legislative act of the county council, of reasonable rules and regulations governing the circumstances under which the use of competitive bidding is not appropriate or feasible. When such bidding is not appropriate, a contract shall be awarded only by competitive negotiations, unless such negotiations are not feasible. When neither competitive bidding nor competitive negotiations are feasible, contracts may be awarded by noncompetitive negotiations. Whenever a contract is awarded by a process other than competitive bidding, a copy of the contract shall be given to the county council and, at the next legislation session-day following the award of the contract, the secretary to the county council shall formally announce to the council the nature of the contract and the parties to the contract. The announcement shall be recorded in the minutes of the County Council, a permanent record, which shall be available for inspection by the public.

The Purchasing Division currently classifies its staff as buyers. Because agency personnel (end-users) typically are, or ought to be, considered the “buyers” of good and services, albeit using procurement tools (e.g., master agreements) provided by the Procurement Office, buyer positions should be reclassified and renamed “Procurement Officers” (or similar equivalent) to reflect the nature and requirements of work performed. Education and professional experience requirements for Procurement Officers should require applicants to hold an appropriate degree and/or procurement certification. Procurement Officer salary levels should be set to ensure that the County can attract and retain qualified personnel.

Currently, the Purchasing Division allocates only \$5,700 in its annual budget for training. The WBE and MBE Program uses \$3,000 of the total for its training purposes (recruitment of women-owned and minority-owned businesses enterprises). The remaining amount, \$2,700, is inadequate for the training needs of the remainder of the Purchasing Division, eleven staff members. The training budget should be increased to enable Procurement Officers to achieve certification by the Universal Public Procurement Certification Council and or the NIGP, the Institute for Public Procurement.

The new Procurement Office should develop a countywide program to identify, select, train, and certify agency personnel in the appropriate use of master agreements, purchase orders, contract management, dispute resolution, and specification development, and the creation of non-complex, limited-scope bids and proposals. This will allow Procurement Officers to concentrate on high-value, complex, enterprise-wide contracts that may require market analysis, market research, and complex negotiations, and it will enable Procurement Officers to dedicate their time and effort to areas where savings and risk potential to the County is highest.

As set forth in County Code, the Purchasing Division has responsibility for disbursements, P-card monitoring, and inventory – but a new Procurement Office should be organized around procurement-related activities. Therefore, these non-procurement responsibilities should remain within OBF, but be transferred to the Accounting Office as they relate to expenditures rather than the methodology supporting the procurement of goods and services.

Benefit to the County

In addition to enhancing the office’s ability to add strategic value to Baltimore County’s governmentwide operations, A Procurement Office initiative to develop a countywide training and certification program and to re-orient purchasing staff to a procurement mindset, will become even more invaluable when the planned Workday procurement module goes live. Purchasing and procurement terminology have changed, and “to-be” agency business processes and workflow under the new enterprise resource planning (ERP) tool will likely be much different than current “as-is” processes. For example, the “as-is” business process refers to “Master Agreements and “Purchase Orders” for term and single-use contracts. “To-be” terminology will likely include “vendor portal,” “on-line catalogs,” “contracts,” “purchase orders,” “PO change orders,” “pre-encumbrance,” and “two- and three-way invoice matching.” Also, significant business processes are likely to shift buying tasks to using agencies, which will have new access to the contracts and tools managed by the Purchasing Division.

Best Practices and Benchmarks

The Baltimore County Council should be engaged by Baltimore County Government in order to amend the County Code to reflect the recommended scope of responsibilities and authority of the office and to empower the Procurement Office to implement the best practices of a state-of-the-art procurement system.⁸⁰ Each element of this recommendation represents a well-documented best practice as identified by NASPO and/or NIGP: The Institute for Public Procurement.

- Rename the Purchasing Division the “Office of Procurement,”⁸¹ and designate the head of the new “Office of Procurement” as Deputy Purchasing Agent, as defined in the County Code.⁸² The most current edition of NASPO’s State and Local Government Procurement: A Practical Guide (2019) states that, “A central procurement officer cannot offer expertise at the critical decision-making point without being a part of executive-level decisions.”⁸³ The strategic

⁸⁰ Charter of Baltimore County, Article IX, Section 902 – County purchasing policies and practices.

⁸¹ Arbuzova, Lora. Procurement vs. Purchasing: Similar but Different. Aug. 26, 2021.

⁸² Baltimore County Code § 10-2-104. - POWERS AND DUTIES OF THE PURCHASING AGENT.

⁸³ <https://www.naspo.org/procurement-u/order-practical-guide/>

role of the procurement office as an organization within local government, and of its leadership, is addressed at length in Chapter 2 and Chapter 4 of this publication.

- Hire trained, certified expert procurement staff and adequately train existing staff so they can be reclassified as procurement officers.
- Train and internally certify select agency procurement staff, who will then have limited buying and procurement duties under the auspices of the Procurement Office. Implementation metrics should include: percentage of Procurement Officers who meet the new classification and percentage of Procurement Officers who are trained and certified.⁸⁴
- Reclassify Buyer positions as Procurement Officers with commensurate salary.
- Devote Procurement Officer time and resources to contracts with potential to achieve significant savings and improved quality; delegate low-value, uncomplicated, agency-specific contracts to using-agency staff who are trained in procurement practices.
- Consider moving non-procurement duties such as disbursement, inventory, and P-card monitoring from the Purchasing Division to Accounting.

Implementation Guidance

This recommendation will require the amendment of the Baltimore County Code, with the approval of the Baltimore County Council, to reflect the change in name from the Purchasing Division to the Procurement Office and its new organizational status within the Office of Budget and Finance.

A concurrent implementation plan to reclassify buyers to Procurement Officers will be required for budgeting purposes. The plan should benchmark the number of buyers who are and will be trained and certified to move into the new Procurement Officers positions and should establish milestone targets for achieving a 100 percent reclassification goal.

1.3.3 PROCUREMENT IMPROVEMENT AREA 2: INSTITUTIONALIZE BEST VALUE PROCUREMENT PRACTICES

Baltimore County could institutionalize and expand best value procurement practices to consistently practice spend analysis, aggregate demand, consolidate purchasing volumes, negotiate many Requests for Bids (RFBs), and use reverse auctions, where appropriate.

Findings

State-of-the-art procurement practices require procurement personnel to have a depth of understanding of their organization's goods and services requirements along with a knowledge of current market conditions, technological developments, code requirements, and the data and tools needed to analyze previous procurement outcomes. Most importantly, procurement personnel must have the skills, experience, and abilities to seek out further information when needed, and to apply this knowledge to all phases of the procurement process: solicitation development, analysis of bids and proposals, negotiation, contract award (master agreement or purchase order), contract management and dispute resolution.

The Purchasing Division and its personnel now have many of these prerequisites to implement contemporary best procurement practices, however, the Office does not have practical access to the information and tools needed adequately to gather and analyze critical data that can be used to optimize procurement decisions. Purchasing relies on Baltimore County's Advantage

84 Quinn, Robert E. and Anjan V. Thakor. *Creating a Purpose-Driven Organization*. *Harvard Business Review*, Jul.-Aug 2018.

system which does not have sufficiently robust tools to easily aggregate spend, commodity, or service level data. This results in the acquisition and management of goods and services without adequate information to implement best-value procurement methodologies or sufficient vendor performance data to manage the County's business partners to optimal efficiency. Reportedly, the Advantage system's informational and analytical shortcomings will be resolved when the new Workday system goes live – which is now expected to occur in July 2022. In order for OBF and the Purchasing Division to make the best use of the new Workday implementation to increase efficiency and use of actionable data, it should adapt its business processes, workflow, and post-implementation training program to best leverage procurement and analytical tools provided by the County's new enterprise resource planning (ERP) system.

An effective ERP system will enable procurement personnel easily and effectively to aggregate and analyze detailed information that shows the "what," "who," "price," and "from whom" spend data. This data should always be used to inform the creation of RFPs and RFBs and to provide prospective bidders and vendors with available demand and delivery data – information essential for potential bidders to provide best pricing. For example, if a bidder or proposer knows the County is likely to buy 10,000 pencils, rather than 1,000, during the term of an agreement, that potential vendor is more likely to offer a lower unit price.

Demand aggregation is a critical technique to achieve best-value procurement. Demand can be aggregated among agencies, but it also can be aggregated among governmental entities by using other jurisdictions' contracts and by participating in purchasing consortiums as specified in County Code. Although the Purchasing Division currently procures some goods and services using consortiums or previously awarded, cross-jurisdictional contracts (e.g., electricity and police patrol vehicle upfitting services), and although Purchasing Division procedures specify the use of this methodology⁸⁵, it is not apparent that they are used systematically or proactively.

The County should continuously encourage other entities to participate in the development and use of its master agreements, since additional jurisdictional participation results in increased buying power and lower prices due to economies of scale. Currently, Baltimore County participates in the Baltimore Regional Cooperative Purchasing Committee (BRCPC). The County could initiate new contract development with this organization to take advantage of aggregated demand and increased purchase volume.

The Purchasing Division should actively recruit more Baltimore County entities to participate in the County's master agreements. Baltimore County Public Schools (BCPS), the Baltimore County Community College, Recreations Councils, and Baltimore County Volunteer Fire Associations should be encouraged (and, where possible, required) to join County RFPs and RPBs at the beginning of the procurement process so that bidders and proposers can provide lowest pricing based on the County's aggregated demand.

Currently, Baltimore County does not consolidate all agency master agreements and purchase orders, reducing the potential advantages of economies of scale. Although consolidating agency master agreements and purchase orders is not always possible, vendors who are given an incentive to offer procurement flexibility can often mitigate issues that may initially be seen as an impediment to consolidation. For example, Baltimore County has at least three uniform contracts; the County would almost certainly obtain lower prices and best value by consolidating the three master agreements into one. Therefore, we recommend that the Purchasing Division undertake a focused evaluation existing master agreements, purchase orders, and delivery orders with the objective of consolidating similar commodities and services.

Baltimore County Code does not explicitly permit negotiated Requests for Bid. The Code currently limits negotiations to the acquisition of services obtained through Requests for Proposal. Because negotiations consistently result in lower prices and best value, it is now common practice among public-sector entities to negotiate almost all high-value acquisitions.

Reverse auctions are now an accepted public sector best practice procurement strategy to achieve best-value for some goods and services. Reverse auctions are, as the name implies, the inverse of standard auctions: Instead of purchasers bidding up the price in a reverse auction, potential vendors bid the price down. Reverse auctions can be conducted by the procuring agency or by an independent agent who provides the online auction platform and transactional resources. Reverse auction methodology was implemented in Delaware to acquire electricity following deregulation. The state engaged an independent third-party vendor to conduct the real-time auctions; terms of payment to the vendor did not require an initial outlay but was rather based on a portion of savings achieved through the use of the methodology. However, depending upon the commodity, service, or value of the acquisition, other payment methods can be negotiated. Generally, reverse auctions work best when goods and services

85 PP 180: Cooperative Purchasing and; PP 375 Piggybacking Contracts

have an aggregate high dollar value and are supplied by multiple vendors. The process requires detailed specifications and terms and conditions that bidders accept pre-auction. The review team recommends that the most effective way to begin using reverse auctions as a procurement strategy is through the engagement of a third-party service provider.

Finally, if County personnel lack extensive knowledge, experience, or subject matter expertise for an acquisition, the procurement of complex goods and services may require the engagement of an external expert or consultant to guide the development of specifications and contractual terms and conditions. Baltimore County has, and currently does engage independent subject matter expert to assist with complex procurements, such as RFP No. 233-Solar Panels and RFP No. 250- Water/Sewer Services Comprehensive Business Process Review. Engagement of an independent consultant or unpaid subject matter expert to provide technical expertise in coordination with the user agency or group to develop appropriate specifications and contractual terms and conditions is a best practice used by the County that can be expanded on. (Such experts, of course, are excluded from participating in any bids they were involved with preparing.)

Best Practices

- Practice spend analysis by always using prior spend information, and market and vendor research to determine or inform acquisition volume and contractual terms and conditions.⁸⁶ NASPO provides Procurement Toolbox: Market Research and Procurement Toolbox: Strategic Sourcing as relevant and publicly available resources.^{87 88}
- Consistently aggregate demand by appropriately and proactively using cooperative, consortium, and external jurisdictional contracts, encourage agencies to use existing master agreements, and market existing and planned RFPs and RFBs to external entities.⁸⁹
- Consolidate purchasing volumes proactively, wherever possible, to take advantage of economies of scale.
- Use negotiation as a part of the RFB process.⁹⁰ For example, Prince George's County's Contract Administration and Procurement Office has discretionary authority to negotiate best value.⁹¹ In Delaware, state procurement officers use the RFP process for most goods and all services so that all aspects of a contract can be negotiated, including price, specifications, delivery options, subcontractors, etc.⁹² Typically, entities that negotiate enter negotiations with the final three-to-five potential vendors to discuss all aspects of a Request for Bid or Request for Proposal. This affords proposers and the buying entity an opportunity to clarify specifications and agency requirement and allows prospective vendors to resubmit proposals and adjust prices. Based on the negotiations, RFP/RFB specifications may be modified and communicated to other vendors so that they can compete fairly. These steps reduce prices overall and enhance the quality or utility of goods and services acquired by the County. NASPO provides a publicly available resource at: Procurement Toolbox: The Value of Negotiations.⁹³
- Implement the use of reverse auction methodology.
- Routine and expanded use of both internal and external technical expertise helps to eliminate contractual ambiguity and reduce risk for both bidders and the County and facilitates detailed, accurate specifications and terms and conditions. Enhanced specificity also serves to increase competition, lower prices, and result in the acquisition of goods or services that most precisely meet the needs of the County and its agencies.

86 Principles and Practice of Public Procurement, CIPS and NIGP, 2012. Public Procurement Practice Spend Analysis

87 <https://www.naspo.org/Toolbox%20Issue%203.pdf>

88 https://www.naspo.org/wp-content/uploads/2021/07/2021_ToolBox_Issue_9_Final.pdf

89 Principles and Practice of Public Procurement, CIPS and NIGP, 2012. Use of Cooperative Contracts for Procurement

90 NIGP Global Best Practice: Negotiation

91 Prince George's County Procurement Directive/Advisory – No. 93-01 (Rev. 10/07)

92 State of Delaware: Doing Business with the State

93 https://www.naspo.org/wp-content/uploads/2020/10/2020_ToolBox_Issue_6D.pdf

Implementation Guidance

The Office of Budget and Finance, Purchasing Division – or new Procurement Office – should adopt policies and standard operating procedures to implement, and where they currently exist, to systematize and expand on the following best practices:

1. Implement spend analysis as a standard practice by utilizing data from prior master agreements, purchase orders, delivery orders, and open market purchases to revise previous solicitations and create new, and sometimes unforeseen solicitations for goods and services.
2. Optimize the Workday implementation as the means to analyze and adapt its business processes and workflows to make best use of procurement and analytical tools that will be provided by the County's new enterprise resource planning (ERP) system.
3. Aggregate demand among Baltimore County agencies, consolidate master agreements and, when appropriate, maximize and leverage economies of scale through the routine use of contracts awarded by purchasing consortiums and external jurisdictions.
4. In support of demand aggregation, conduct an analysis or audit of all existing agency master agreements, purchase orders and delivery orders with the objective of consolidating agreements and achieving best value.
5. Encourage members of the Baltimore Regional Cooperative Purchasing Committee (BRCPC) to continue and expand the practice of jointly developing new RFBs and RFPs for good and services now procured on an individual basis.
6. Amend the County Code to explicitly enable routine negotiation with bidders, including for those solicitations that are structured as Requests for Bids.
7. Continue and expand the best practice of engaging independent consultants or unpaid, civic-minded subject matter experts to assist in the development, bidding, and award of all complex or highly technical procurements for goods and services.
8. Continue and expand the best practice of seeking out agency subject matter experts across departmental lines to inform the development, bid, and award of all master agreements and purchase orders. County Subject matter experts should be identified and proactively engaged in developing solicitations across agency organizational boundaries.

Links to several publicly available implementation resources including relevant [NASPO Procurement Toolbox](#) issues are provided in Benchmarks and Best Practices above.⁹⁴

1.3.4 PROCUREMENT IMPROVEMENT AREA 3: ENHANCE INTERAGENCY PARTICIPATION IN PROCUREMENT

Formalize enhanced agency involvement in the Request for Bid and Request for Proposal preparation processes, and in the master agreement and purchase order award processes:

1.3.4.1 Create and sustain permanent agency user groups consisting of knowledgeable representatives and subject matter experts from all agencies to assist the Purchasing Division with the development and bidding of RFPs and RFBs, and the award of master agreements and purchase orders.

1.3.4.2 Devise a systematic methodology to solicit and collect vendor and contract performance data and incorporate the information into new RFP and RFB specifications and development, and the award and renewal of master agreements and purchase orders.

⁹⁴ <https://www.naspo.org/ProcurementToolbox/>

1.3.4.3 Develop and implement specified training programs for selected agency personnel.

1. Train selected agency personnel to develop, advertise, and open RFPs and RFBs for relatively small, agency-specific master agreements. Negotiations and awards should be conducted under the auspices of the Purchasing Division.
2. Train agency personnel in the techniques of contract and vendor management, including procedures to elevate higher-level disputes to the Purchasing Division for cooperative resolution.

1.3.4.4 Shift responsibility for the creation and administration of master agreement delivery orders to the purchasing agencies with trained personnel.

1.3.4.5 Amend the County Code and the Purchasing Manual to enable the County's Chief Administrative Officer, Purchasing Agent, and Deputy Purchasing Agent to approve and award master agreements and purchase orders of up to \$100,000 and create a mechanism by which approval thresholds can be updated periodically without amending the County Code.

1.3.4.6 Create small purchase acquisition procedures to supplant the currently mandated need to invoke the RFP or RFB process for all acquisitions above \$25,000.

1.3.4.7 Create a goods, services, and vendor rating system that requires agencies and user groups routinely to report performance metrics during all phases of the acquisition process.

The information provided to the Purchasing Division should be incorporated systematically into the creation, management, award, and renewal of RFPs, RFBs, master agreements, and purchase orders.

1.3.4.8 Minimize P-Card usage when goods and services are available through master agreements.

Findings

State-of-the-art procurement practices will require user agencies to participate actively in the County's procurement process. Although the Baltimore County Purchasing Division solicits and incorporates agency participation for many RFPs and RFBs, the Purchasing Division does not foster permanent agency user groups that would be effective repositories for the subject matter expertise required to execute complex or highly technical procurement and contracting endeavors. It is a generally accepted best practice for public procurement entities to create, foster, and routinely solicit input from client agencies via permanent user groups.

User Groups

At the beginning of the RFP and RFB contracting process, engaged user groups ensure that the right products and services are specified. During the post-award acquisition period, agencies must have a mechanism to rate vendors' performance and the overall adequacy of the master agreement and its goods or services. Currently, the Purchasing Division responds to agency complaints only after an agency has been unable to resolve performance, supply, or quality issues on its own. The lack of a systematic, cooperative process with user agencies to gather valuable quality and performance data ultimately puts the County at a disadvantage when creating, bidding, and awarding RFPs and RFBs, or extending master agreements. Under the current process, even when an agency complaint has risen to the level of the Purchasing Division, the Office does not have a systematic way to integrate that feedback into decisions regarding awards or renewals. Best practice, as recommended here, is to create a system under which agencies routinely communicate goods, services, and vendor ratings to the Purchasing Division so that the information can be factored into future decisions.

Approval Thresholds

The Baltimore County Code specifies the following approval thresholds:

Baltimore County Council	All master agreements and purchase orders for services of two years duration or more regardless of dollar value. All master agreements and purchase orders for services with a dollar value greater than \$25,000.
Baltimore County Executive (Approval Authority Delegated to Chief Administrator Officer):	All master agreements and purchase orders for commodities equal to or greater than \$25,000.
Purchasing Division Head:	All delivery orders over \$2,500

These approval thresholds require the Purchasing Division to seek approval for the purchase of goods and services for which an efficient, high-functioning, public procurement office should have approval authority. Additionally, purchasing agencies must seek approval for relatively small purchases that use master agreements previously awarded by the Purchasing Division. The current approval process adds significant time to the acquisition process and reduces overall efficiency. The review team recommends that approval thresholds for master agreements and purchase orders be increased; peer county comparisons are presented in the Best Practices and Benchmarks section that follows.

Goods and services valued at up to \$1,000	No specific requirement; the use of a P-Card is encouraged.
Goods and services valued between \$1,000 and \$5,000	The buying agency must obtain one written quote; the quote must be approved by the Purchasing Division.
Goods and Services valued between \$5,000 and \$25,000	The buying agency must obtain three written quotes; the selected quote must be approved by the Purchasing Division.
Goods and Services over \$25,000	The buying agency requests, and the Purchasing Division initiates the RFP or RFB process. The requirement to use the RFP or RFB process for all acquisitions above \$25,000 is a time-consuming endeavor that requires an inordinate amount of Purchasing Division staff resources and does not provide a commensurate level of benefit; peer county comparisons are presented in the Best Practices and Benchmarks section that follows.

P-Cards

The use of P-cards, instead of master agreements, should be limited as much as possible. Although the County receives a two-percent discount on all P-card purchases, this saving is likely far less than that from using a negotiated master agreement. Also, P-Card purchases cannot currently be tracked or aggregated easily into total demand. Underreporting historical purchases reduces the County's buying power and leverage, and typically results in higher prices.

Best Practices and Benchmarks

Other surrounding counties have more streamlined approval processes and more broadly empower their procurement leaders to approve purchases at higher values. See Table below.

	Purchase Approval	Acquisition Limits
Prince George's County	The head of Contract Administration and Procurement is authorized to approve purchases and contracts between \$10,000 and \$100,000. Approval of purchases of less than \$10,000 is delegated to the buying agency.	Purchases of less than \$5,000 can be made at the buying agency's discretion. Acquisitions valued at between \$5,000 and \$100,000 are conducted using "small purchase" methodology. Acquisitions above \$100,000 are required to use the competitive bid or proposal process.
Anne Arundel County	The head of the Purchasing Division is authorized to approve all purchases and contracts greater than \$5,000. The approval of purchases of less than \$5,000 is delegated to the buying agency.	

Increasing County Council and County Executive (Chief Administrator Officer) approval thresholds will reduce the time and administrative cost required to create, bid, award, and use master agreements and purchase orders. Also, and importantly, agencies will have less incentive to bifurcate purchases to circumvent the County's lengthy acquisition process.

We recommend that Baltimore County adopt goods and services acquisition limits in line with neighboring Anne Arundel and Prince George's Counties.

Implementation Guidance

The following best practices should be adopted by Baltimore to implement the recommendations described above:

- Systematically gather agency feedback on vendor performance and quality for each contract and solicit agency feedback on their satisfaction with the scope and terms of each contract. Incorporate vendor performance data – and other feedback about how the contract functioned – into the development of new RFPs and RFBs.
- Develop a program to train and certify select agency personnel in the development of low-value, agency-specific RFPs and RFBs.
- Increase acquisition dollar value approval thresholds to be commensurate with those of neighboring counties.

The following initiatives should be planned, documented, and implemented under the direction of the Purchasing Director:

- The Standards and Specifications Committee should be expanded to include permanent representatives of all agencies that use, operate, and maintain vehicles.
- Because the acquisition of office supplies represents a significant annual spend and can be surprisingly complex and controversial, the Purchasing Division should form a permanent user group devoted to developing the subject matter expertise necessary to navigate a changing marketplace and developing technologies.
- Create a permanent user group, in collaboration with Office of Information Technology (OIT), devoted to cultivating the expertise needed to represent the agency IT user community. Although OIT provides subject-matter expertise for the development of IT hardware, software, and service contracts, user group members would likely consist of agency "power users," whose expertise may or may not be in technology, but it in how specific technology applications are used within their agency. Ideal user group members will be able to appreciate and evaluate changing technologies and methodologies, and voice informed opinions on the effect new technologies may have on the specific operations and functions of their agencies.

1.3.5 PERFORMANCE CONTRACTING FOR HEALTH AND HUMAN SERVICES

Pilot test best practices in contracting to assess what human infrastructure, data, and other resources would be needed for the Department of Health and Human Services (DHHS) to transition to a model of results-based payments for certain contracted services.

Findings

Shelter contracts for Baltimore County's unhoused population were transitioned from DHHS/Housing to DHHS/Social Services, and new contracts must be developed to reflect this change. This shift creates an opportunity to evaluate the effectiveness of prior contracts and potentially adopt new, improved practices for contracting. These may include results-based contracting in payment structures are designed to incentivize and reward specific and measurable performance outcomes.

Harvard Kennedy School's Government Performance Lab (GPL) ⁹⁵ describes the common contracting challenges in government:

*"Unfortunately, governments often treat procurement as a back office administrative function, rather than as a core part of their strategy for delivering better performance. Governments adopt inappropriate procurement strategies and contract types that are not aligned with their goals. Procurements can be overly prescriptive and regulated, stifling innovation, and reducing competition. Contractor performance is rarely tracked in a meaningful manner. Contract management tends to focus on compliance instead of performance improvement, with contractors held accountable for inputs and activities rather than outcomes and impacts (if performance is measured at all). Governments make insufficient use of data on past performance in making future procurement decisions and tend not to incorporate performance incentives into contracts."*⁹⁶

Benefits to the County

This recommendation is consistent with County Goal 5: Government Accountability.

- Pilot testing better/best practices in performance contracting will support DHHS' goals of achieving improved outcomes for County residents.
- Basing contract payments on results will provide County contractors with strong financial incentives to focus on desired outcomes.
- Results-based payments demonstrate accountability for the County's investments of taxpayer dollars in public health and social services.

⁹⁵ Harvard Kennedy School's Government Performance Lab (GPL)

⁹⁶ [Results-Driven Contracting | Government Performance Lab \(harvard.edu\)](#)

Best Practices and Benchmarks

Results-Driven Contracting (RDC)

As part of Bloomberg Philanthropies' What Works Cities initiative,⁹⁷ Harvard's Kennedy School's Government Performance Lab (GPL) developed results-driven contracting strategies to help state and local governments improve the quality and cost-effectiveness of contracted services and encourage better alignment of contracted spending with government needs and priorities.

Potential models for results-based contracting include⁹⁸:

- **Seattle Homelessness:** The City of Seattle's Human Services Department consolidated contracts and focused on key performance metrics as the City prepared its first comprehensive competitive procurement for homelessness services in over a decade. Scoring of RFPs was revised to consider past performance of service providers. The homeless services system was transformed to become person-centered, evidence-based, and racially equitable. Since that successful project, the City has expanded its use of results-driven contracting to other departments.
- **City of New Haven, Connecting Youth:** To help young adults who had become disconnected from both school and work, the City of New Haven sought GPL technical assistance to set up a performance management system for Youth Stat, the City's youth services program. The GPL collaborated with staff from Youth Stat, the Board of Education, and affiliated service providers to develop performance management tools that could flag and troubleshoot operational challenges in real time to improve outcomes for high-risk youth. Part of this RDC project involved designing and piloting the qualitative performance management tool called "Stories," which uses random interviews with program participants. The qualitative information provided in these interviews is reviewed immediately and used to complement the analysis of performance data.

Performance-Based Contracting (PBC) in Health & Human Services

Performance-based contracting (PBC) explicitly includes three characteristics:

1. Clear definition of a series of objectives and indicators by which to measure contractor performance.
2. Collection of data on performance indicators to assess the extent to which the contractors are successfully implementing the defined services.
3. Performance leading to consequences for the contractor, such as provision of rewards or imposition of sanctions. Rewards typically include provision of performance bonuses for achieving desired human outcomes.⁹⁹

PBCs have been used in the health and human services arena since 1997, when the State of Illinois transitioned child welfare case management to the private sector, as part of a broader set of reforms.¹⁰⁰ Illinois' PBCs included providing bonus payments for increasing adoptions and guardianships, to secure permanent homes and families for children in state custody.

While PBCs provide many benefits to government health and human services agencies, such as budgeting flexibility and alignment with intended outcomes, they also carry risks. New York City's 2019 guide to PBCs in Human Services outlines a framework for agencies to make a benefit-risk analysis to inform their decisions about contract structure.¹⁰¹ The Guide highlights design considerations, such as establishing performance deliverables, rates, contract terms, data reporting, and auditing criteria.

⁹⁷ [What Works Cities initiative](#)

⁹⁸ [results_driven_contracting_brief.pdf \(harvard.edu\)](#)

⁹⁹ [http://siteresources.worldbank.org/35459918/ContractingEbook.pdf \(who.int\)](#)

¹⁰⁰ McCullough, C. and Lee, E (2007). Program and Fiscal Design Elements of Child Welfare Privatization Initiatives, Topical Paper #2. Available at [http://aspe.hhs.gov/hsp/07/CWPI/models/index.shtml#2G](#).

¹⁰¹ [Guide to Performance Based Contracting PDF.pdf \(nyc.gov\)](#)

Pay for Success: Outcomes Rate Cards to Invest in Results

Outcomes Rate Cards are a procurement and contracting tool that defines a menu of outcomes the government wishes to “purchase” — for example, reduced low-birth rate or increased caregiver employment — and the amount it will pay when an outcome is achieved. Local governments are using Outcomes Rate Cards to promote transparency and accountability.

Jurisdictions that have implemented Outcomes Rate Cards include:

- **Maternal Child Health Home Visiting Outcomes Rate Card.** The State of Connecticut’s Office of Early Childhood developed and piloted a statewide Outcomes Rate Card for Two-Generation home visiting programs.¹⁰² The rate card involves bonuses for home visit providers who helped produce results such as healthy births or parent employment, with specified amounts that providers receive every time a family achieves a desired outcome. This model rewards outcome achievement but does not penalize providers or put them at financial risk if families do not achieve specified outcomes. Potential bonus payments are capped at 3 percent of the total contract value for each provider.
- **Workforce Outcomes Rate Card in Austin and Travis County, Texas.** This public/private partnership between local government, the Michael & Susan Dell Foundation, and a workforce development nonprofit is designed to improve job placements, increase wages, and support economic mobility in Central Texas. The project targets specific educational and employment outcomes for residents of low-to-moderate income, creating incentives for improved education and language skills, credential completion, job placement and retention, and higher earnings.

Implementation Guidance

Baltimore County will need to clarify the roles and responsibilities of the Office of Finance and Budget Purchasing Division and the subject matter experts at DHHS prior to implementing a pilot test of best practices in contracting.

- DHHS should determine the feasibility of collaboration and coordination with the Office of Finance and Budget.
- DHHS should begin discussions internally to assess the level of knowledge of better/best practices in contracting within the department and determine leadership interest in a pilot test of at least one outcomes-based contract.
- DHHS should review existing contracts and develop a plan of action that includes collaborative discussions with providers, with the goal of creating a timeline for shifting to a better/best practices contract for a specific service or set of services.
- Identify the data infrastructure necessary to provide real-time feedback for performance/results-driven contracts to support determination of go/no-go pilot testing.

¹⁰² <https://www.astho.org/Maternal-and-Child-Health/Early-Brain-Development/Contracting-for-Change-Incorporating-Payment-Incentives-for-Early-Childhood-Outcomes-in-Maternal-Infant-and-Early-Childhood-Home-Visiting-Contracts-in-Connecticut/>

1.4 Capital Asset Management: Vehicles and Facilities

Capital assets such as vehicles and facilities generate value but cost money both to obtain and to maintain and operate. Significant savings are available through lowering these operating costs. This report contains several suggestions for the County to do so.

For instance, the County could modify its process of selecting vendors to upfit and prepare new police vehicles for service when the work cannot be completed in-house on a timely basis: The bidder with the lowest hourly labor rate is not necessarily able to upfit vehicles at the lowest overall cost to the County; it is also possible that a bidder with a higher hourly labor rate could do the work more quickly and at a lower overall cost. Vendor selection should include considerations relevant to total actual cost, not just hourly rate.

Meanwhile, telematics tools combine real-time transmission of GPS location information and vehicle-generated operational and performance data with a fleet management information system. Baltimore County would be well served to fully implement a vehicle information system and incorporate telematics data into the operation and management of its vehicles. Use of such tools fleetwide have been demonstrated to help local governments better manage fleet operations and to reduce overall life cycle costs, fuel consumption and maintenance costs.

Frequent dispatches of heavy-duty fire-fighting equipment to low-acuity calls are expensive and take a physical toll on these vehicles, accelerating their depreciation and increasing their maintenance costs. Their frequent deployment takes a toll on roads

as well. In many cases, SUV-style emergency vehicles equipped with appropriate life-support equipment and a two-person crew could be dispatched to non-fire events at lower cost with no negative impact on public safety. Fire departments nationwide are now adding these Rapid Response Vehicles (RRVs) to their fleets. While buying and upfitting these vehicles requires an upfront investment, their use can improve response time and save money in the long term.

Emergency service vehicles spend a substantial portion of their working life in idle mode. Fire engines and trucks may idle on-scene from 30 minutes to several hours. Ambulances stay in idle mode to provide the power necessary to run onboard equipment. Technologies exist to reduce vehicle idling and its costs.

Vehicular assets are not the only ones where savings can be achieved. As a result of the COVID-19 pandemic, Baltimore County has reportedly equipped 60 percent of its knowledge workers – staff whose primary role is to handle, use, or process information – with the resources to work remotely; equipping all knowledge workers with the resources to work remotely on a permanent basis will reduce leased office space commensurately. The County also should reduce and consolidate the number of data centers, computing facilities and network facilities from six to two and define a comprehensive and efficient set of application, data and data center requirements that could reduce data center expenditures by as much as 30 percent.

1.4.1 UPFITTING POLICE VEHICLES

The Office of Budget and Finance, Purchasing Division, Vehicle Operations and Maintenance, and the Office of Information Technology, Electronic Services should modify their process of selecting vendors to upfit and prepare new police vehicles for service when the work cannot be completed by VOM and Electronic Services on a timely basis.

Findings

Prior to October 2018, and until the vendor Global Public Safety was contracted to upfit new police vehicles, the Office of Budget and Finance's Vehicle Operations and Maintenance (VOM) and the Office of Information Technology's Electronic Services were jointly responsible for the installation and upfitting of new police patrol vehicles with equipment required for police duty. VOM and Electronic Services divided responsibility for the installation of interior and exterior lighting, equipment mounting hardware, radios, antennas, computers, printers, and vehicle wiring.

Due to the number of new Police vehicles purchased between FY2017 and FY2020, the backlog of pending vehicle upfits reportedly resulted in deployment delays of up to one year. Therefore, to enable more timely deployment of new police patrol vehicles and the retirement of older, maintenance-prone vehicles, the County investigated and subsequently entered into a master agreement with Global Public Safety for the contractual upfitting of new police vehicles.

VEHICLE PURCHASES BY FISCAL YEAR

Fiscal Year	Total New Vehicles Purchased by Fiscal Year	Police Vehicles Purchased by Fiscal Year
FY2021 (After 12/02/2020)	N/A	N/A
Partial FY202 * (*through 12/01/2020 only)	27	9
FY2020	181	119
FY2019	76	50
FY2018	207	63
FY2017	173	97

The Global Public Safety Master Agreement was originally bid and awarded by Howard County, Maryland, in September 2018, and was adopted for use as a Baltimore County Master Agreement on October 1, 2018. The adopted use of Howard County's contract is supported by County code and the Baltimore County Purchasing Manual. Using an existing contract enabled VOM quickly to shift upfitting work to a contract vendor and to reduce the police patrol vehicle backlog much sooner than if a new master agreement had to be created and bid.

Although the decision to shift upfitting work to Global Public Safety was appropriate, an investigation into Howard County's award criteria highlights contractual deficiencies that should be addressed if Baltimore County cannot begin upfitting new police vehicles on a timely basis. Specifically, Howard County allowed bidders to specify a percent off undefined equipment "list prices" and awarded its contract on the basis of dollars per labor hour. The original request for bid did not include a representative upfitting specification or a bill of materials specifying equipment to be included in the upfitting process. Therefore, bidder responses did not include specific upfitting time requirements or the cost of specified equipment. It cannot be assumed that the bidder with the lowest hourly labor rate is necessarily able to upfit vehicles at the lowest overall cost; it is also possible that a bidder with a higher hourly labor rate could do the work more quickly and at a lower overall cost.

Implementation Guidance

1. Although the Global Public Safety Master Agreement does not end until September 2022, as soon as practicable the Purchasing Division, VOM and ES should issue a request for proposals and enter into multiple police patrol vehicle upfitting master agreements. The request for proposals should include the following:
 - A representative vehicle upfit specification and equipment bill-of-materials.
 - A method to identify specific manufactures' "list prices" (e.g., how and where published and effective date) and contractual terms and conditions governing when and how updated list prices may be used to calculate post-award upfitting costs.
 - The specific number and cost of labor-hours required to upfit a vehicle on the basis of the representative specification provided as part of the bid document. Bidders/proposers should be required to divide labor hours and cost among various categories (e.g., electrician, metal fabrication, mechanic, etc.).
 - Vehicle upfitting lead-time: The time interval between vehicle delivery to the upfitter and its availability for post-upfit inspection and acceptance by VOM and Electronic Services.
 - A post-award mechanism to request then-current vehicle upfitting cost from multiple, master agreement contractors on the basis of specific vehicles, specifications, and an equipment bill of materials.
 - The ability to direct upfitting work to the master agreement contractor that provides the best combination of price and lead-time.
2. VOM and Electronic Services should monitor the ongoing backlog of police patrol vehicles awaiting upfitting and projected vehicle deliveries to determine whether upfitting work should be directed to a contractor.
3. VOM and Electronic Services should periodically calculate and update the internal cost of upfitting police patrol vehicles. Being cognizant of internal cost may prompt VOM and Electronic Services to direct all upfitting work to a contractor, or the information may be used to demonstrate potential savings associated with adding additional FTEs.

1.4.2 TELEMATICS

Baltimore County could fully implement a vehicle information system and incorporate telematics data into the operation and management of vehicles owned and managed by Vehicle Operations Maintenance (VOM) and Equipment Operations Maintenance (EOM).

Findings

VOM, which is an agency under the auspices of the Office of Budget and Finance (OBF), owns, manages, and maintains approximately 1,400 vehicles consisting of sedans, SUVs, police vehicles, pickup trucks (light duty to heavy duty), passenger and cargo vans, and minibuses. EOM, which is an agency under the auspices of the Department of Public Works and Transportation (DPWT), owns, manages, and maintains approximately 3,500 units of equipment of which 450 are heavy-duty vehicles, including fire trucks, construction vehicles, refuse collection vehicles, bookmobiles, and highway maintenance vehicles.

VOM has been using a commercial vehicle information system entitled "FASTER," which has the potential to provide the robust functionality needed to operate and manage large fleets. FASTER has the potential to integrate telematics data into fleet management practices but VOM-owned vehicles are not currently equipped with the equipment required to collect, record, and transmit data. However, many VOM vehicles are equipped with GPS devices, and client agencies have access to NexTraq, an application that enables managers to track vehicle location, speed, and travel history. EOM itself developed an impressive Microsoft Access database application to manage its equipment, including vehicles, but the application does not integrate telematics data into vehicle management practices.

Telematics are data which combine real-time transmission of GPS location information and vehicle-generated operational and performance data with a fleet management information system. Telematics as it relates to fleet management combines the real-time transmission of GPS location information and vehicle-generated operational and performance data with a fleet management information system (e.g., FASTER, or other functionally similar system) for immediate, and after-the-fact, analysis. Telematics data may include location, route information, speed, rate of acceleration (including braking), engine idle time, engine and transmission operating temperature, tire pressure, and onboard diagnostic fault codes generated by the engine management system. This information can be used to identify and locate currently disabled vehicles, identify developing maintenance issues (predictive maintenance), identify unsafe driving habits that may result in accidents or excessive vehicle wear, and identify individual or groups of vehicles that are over- or underutilized.

Fleet managers typically find the use of telematics data to be very valuable. However, drivers of telematic-equipped vehicles, particularly those providing public safety services, criticize undue monitoring and dislike management's ability to covertly "look over drivers' shoulders" to monitor driving habits and work performance. Therefore, discussions with fleet users and driver education must precede implementation. Additionally, a phased implementation approach may enhance overall implementation and employee acceptance.

Benefit to the County

Baltimore County can reduce vehicle lifecycle cost and improve the operation and deployment of its vehicles by taking full advantage of FASTER, VOM's current vehicle information system, or by implementing a new, yet-to-be-determined system in both VOM and EOM, and integrating telematic data into the management of vehicles and drivers. Reportedly, the Office of Information Technology were planning to begin the SaaS (software as a service) implementation of FASTER for both VOM and EOM in Fall, 2021. However, the specifics of the implementation project are not known at the time of writing.

Best Practices and Benchmarks

The use of telematics data in conjunction with a robust vehicle information system enables a fleet operator to control vehicle operating and maintenance costs, maximize vehicle utilization, and reduce vehicle lifecycle cost. Implementing the above recommendations will reduce vehicle operating costs in the following ways:

1. Reduce fuel consumption by minimizing the time vehicles are allowed to idle:
2. Reduce fuel consumption by improving driving habits and reducing aggressive driving
3. Reduce unnecessarily rapid acceleration and aggressive braking
4. Reduce speeding
5. Reduce the number of accidents by improving driving habits.
6. Reduce the cost of repairs through predictive maintenance.
7. Reduce wear and tear to extend useful life and improve residual vehicle value.

Private and public-sector fleet operators report significant operational and lifecycle cost savings directly attributable to the implementation of management-system-integrated telematics. Savings are typically reported by telematics vendors (e.g., Geotab, TomTom, Verizon, etc.) as ranging from 10 percent to 15 percent for fuel and maintenance costs, and a 25 percent to 45 percent reduction in accidents and insurance costs.

Geotab, a dominant vendor in the telematics marketplace, published what it labeled as a "Whitepaper" describing the 2017-2018 pilot implementation of telematics functionality by the State of Utah Division of Fleet Operations (UDFO). Public Works LLC reached out to UDFO to assess the validity of the White Paper and discuss telematic progress since 2018; the Division reported that the pilot program developed into a strategic initiative to install telematics devices in the majority of its 7,500 vehicles, of which 1,500 have now been equipped. The Division also confirmed that the pilot implementation accurately predicted beneficial lifecycle cost outcomes for the expanding group of telematics-equipped vehicles.

The UDFO reports the following reductions in fuel consumption attributable to telematics functionality¹⁰³:

Between January 2016 and July 2019, Geotab telematics-equipped vehicles reduced fuel consumption according to the following increases in average miles per gallon (MPG):

- Department of Administrative Services: 16.5mpg to 19.9mpg, an increase of 20.6%
- Alcoholic Beverage Control: 22mpg to 40mpg, an increase of 81.8%
- Department of Corrections: 17.5 mpg to 21 mpg, and increase of 20%
- Department of Heritage and Arts: 13mpg to 22 mpg, an increase of 69.2%
- Department of Health and Human Services: 27mpg to 32mpg, an increase of 18.5%
- Utah Schools for the Deaf and Blind: 28.5mpg to 38mpg, an increase of 33.3%

Although the number of vehicles enrolled in the Utah pilot telematics implementation program was small, the ongoing Utah strategic initiative validates the savings potential enabled by a robust fleet management system with integrated telematics functionality. Therefore, the following low and high savings estimates, which incorporate very conservative percentage reductions in various vehicle operational spend categories, can be made with a high degree of confidence; actual operational cost savings are likely to be significantly higher.

Five-Year Savings Estimate

	County One Full Year	Five Years
Low End Range	\$20,015	\$340,266
High End Range	\$257,090	\$2,313,814

Upfront Costs include monitoring costs of \$288,600 annually plus an estimated \$100,000 annual software licensing fee (for a total of \$388,600). Note that one-time costs of hardware installation for 1400 VOM vehicles and 450 EOM vehicles are included in the GSA contract.

The chart on the following page provides additional detail for the above low- and high-end savings calculations and upfront costs.

103 DAS Utah Division of Fleet Operations Cost Efficiency Report 2019: https://fleet.utah.gov/wp-content/uploads/2018_Cost_Efficiency_Report.pdf

ESTIMATED TELEMATICS SAVINGS DETAIL

Savings Category	Pre-Implementation Annual Expenditure	Low Estimate Percent Savings	Low Estimate Annual Savings	High Estimate Percent Savings	High Estimate Annual Savings
Reduced Fuel Consumption by Reducing Aggressive Driving					
Gasoline	\$2,914,790.36	2%	\$58,295.81	5%	\$145,739.52
Diesel	\$3,828,722.64	2%	\$76,574.45	5%	\$191,436.13
Reduce Fuel Consumption by Reducing Unnecessary Idling					
Gasoline	\$2,914,790.36	2%	\$58,295.81	3%	\$87,443.71
Diesel	\$3,828,722.64	5%	\$191,436.13	7%	\$268,010.58
Reduce the Cost of Maintenance and Repairs by Implementing Predictive Maintenance					
VOM	\$2,125,539	2%	\$42,510.78	5%	\$106,276.95
EOM	\$2,077,484	2%	\$41,549.68	5%	\$103,874.20
Annual Gross Savings			\$468,662.66		\$902,781.10
Cost To Install Telematics Hardware (One Time Cost, GSA Contract)					
VOM, 1400 Vehicles @ \$0 per Vehicle (Included in Contract)			\$0		
EOM 450 Vehicles @ \$0 per Vehicle (Included in Contract)			\$0		
Monthly Monitoring: Annual costs of 1850 Vehicles @ \$13 per month (GSA Contract)			\$288,600		
Fleet Management System Software Estimated Annual FASTER Licensing Fee			\$100,000		
Total Annual Net Savings (after Costs)			\$80,062.66		\$514,181.10
Year One			\$20,015.66		\$257,090.55
Five Years			\$340,266.30		\$2,313,814.93

Implementation Guidance

Specific recommendations to better manage fleet operations and reduce life cycle costs:

1. VOM and EOM, with assistance from the Office of Information Technology (OIT) should select and fully implement a single vehicle information system. Furthermore, as a strategy to control implementation and licensing costs, EOM should consider adopting a separate asset management system for lawn maintenance equipment, salt spreaders, generators, and other non-rolling stock that do not require the full functionality of a vehicle information system.
2. VOM and EOM should equip vehicles with telematics equipment.
3. VOM and EOM should integrate telematics information into fleet operating procedures and decisions affecting driver management, preventive maintenance, vehicle repairs, and vehicle replacement strategies.
4. VOM should identify and maintain the “home” location of vehicles that may be likely candidates for centralized, multi-agency pools (“home” location is defined as the location of a vehicle during other than usual working hours, when the vehicle is not in use). Although potential pool vehicles comprise less than 30 percent of VOM’s total fleet, since VOM cannot currently identify home location it cannot evaluate vehicle usage patterns and identify methodologies to improve vehicle utilization.

1.4.3 FIRE DEPARTMENT RAPID RESPONSE VEHICLES

The Fire Department should evaluate the use of Rapid Response Vehicles for certain medical and non-fire related calls for service.

Findings

Of the nearly 100,000 calls for service received by the Baltimore County Fire Department each year, more than 80 percent are related to medical emergencies. Even though most 911 calls are for medical emergencies and not fire-related events, fire apparatuses along with EMS vehicles are deployed to the scene. Very few of those events require the heavy-duty equipment on a four-person fire engine, which may arrive almost simultaneously with an EMS vehicle and its two-person crew. Therefore, many of these calls result in the fire apparatus leaving the scene soon after arrival.

These frequent dispatches of heavy-duty fire-fighting equipment to low-acuity calls are expensive and take a physical toll on these vehicles, accelerating their depreciation and increasing their maintenance costs. Their frequent deployment takes a toll on roads as well.

Benefit to the County

In many cases, SUV-style emergency vehicles equipped with appropriate life-support equipment and a two-person crew could be dispatched to non-fire events at lower cost with no negative impact on public safety. Fire departments nationwide are now adding these Rapid Response Vehicles (RRVs) to their fleets. While buying and upfitting these vehicles requires an upfront investment, their use can improve response time and save money in the long term by extending the life of fire apparatuses, lowering fuel and maintenance costs, and reducing wear on County roads. Use of these vehicles also keeps fire suppression units available to respond to fire emergencies.

Best Practices and Benchmarks

Cities including Portland (Oregon), Plano (Texas), Tucson (Arizona), and Memphis (Tennessee) have added RRVs to their fire response fleets. In Memphis, where the company commander decides which Fire Department vehicle to dispatch to an emergency, the RRV was deployed on 90 percent of the calls. The Portland Fire Department is instituting a Street Response Program that sends RRVs crewed with a firefighter and a mental health specialist to respond to calls from repeat incident addresses.

Implementation Guidance

The review team recommends implementing a pilot program by purchasing or leasing four to six RRVs to evaluate their effectiveness and performance and to assess the savings potential and practical effectiveness-of-use benefits for the Fire Department and the County.

1.4.4 FIRE DEPARTMENT: IDLE REDUCTION TECHNOLOGY

The Baltimore County Fire Department, in partnership with the Equipment Maintenance Department (EOM), and the County Vehicles Operations Maintenance (VOM) should explore the use of idle reduction technology (IRT) and purchase and/or retrofit several emergency vehicles to evaluate the savings potential and other benefits of the technology.

Findings

Emergency service vehicles spend a substantial portion of their working life in idle mode. Fire engines and trucks may idle on-scene from 30 minutes to several hours. Medical units (ambulances) stay in idle mode to provide the power necessary to run onboard equipment, such as lighting, communications and life-support equipment, computers, refrigeration for medicine, and vehicle heating and air conditioning systems.

These idling vehicles waste fuel and produce air-polluting exhausts that are unhealthy for those nearby, including first responders, accident victims and patients, and other employees; these exhausts are especially dangerous for people with respiratory and cardiovascular issues.

Technologies exist to reduce vehicle idling and its costs. Idling could be substantially reduced by the use of alternative electric power sources for Baltimore County emergency vehicles while in stationary mode. Fire engines can be equipped with battery-powered and diesel auxiliary power units (APUs) to run their lights and other necessary equipment (apart from pumping) while responding to calls instead of leaving the engine idling. APU's can meet emergency vehicles' power needs and can be charged while the vehicle is in motion or plugged in while parked at a hospital or fire station. (Ambulance fleets' onboard equipment also can be powered by Electrified Parking Spaces (EPS) outside hospital emergency room entrances.)

Benefit to the County

According to the U.S. Department of Energy's Argonne National Laboratory, reducing vehicle idling for emergency vehicles can dramatically reduce fuel costs, emissions, and noise, in addition to extending the life of the vehicle.¹⁰⁴ Savings can be substantial: The Argonne study found that emergency vehicle fleets equipped with battery APUs saved more than \$5,000 in annual fuel costs per vehicle and reduced oil changes by 50 percent or more.

¹⁰⁴ Idling Reduction for Emergency Vehicles, A Case Study, Argonne National Laboratory, U.S. Department of Energy. www.ani.gov/energy-systems

Diesel APUs, which draw fuel from the main tank to generate power when the engine is not running, reduced on-scene fuel consumption by 80 percent and saved \$1,750 to \$2,500 per year per vehicle. Reduced maintenance and oil change costs were estimated to save an additional \$400 per year. The estimated payback on the initial APU investment was under three years, and one department in the study estimated the cost of purchasing and installing the APUs was recouped within 1.3 years.

Two years after the New York City Fire Department installed idle reduction technology in more than 300 ambulances, the department found that eliminating 10 hours of idling time per ambulance prevented 330 pounds of carbon dioxide emissions and saved 15 gallons of fuel each day.¹⁰⁵

Implementation Guidance

While the evidence of IRT's cost savings benefits is promising, savings estimates cannot be reliably projected for Baltimore County based on the experiences of other jurisdictions. BCFD, EOM, and VOM should launch a pilot program to install idle reduction technologies in ten percent of its emergency vehicle fleet over the next two years, to assess the potential savings on fuel and other operating costs that could be achieved in Baltimore County. When the benefits have been proven, Baltimore County could expand their use throughout the fleet.

1.4.5 POLICE DEPARTMENT IDLE REDUCTION AND ELECTRIC VEHICLES

The Police Department, in consultation with Vehicle Operations Maintenance (VOM), should explore the use of idle reduction technology (IRT). The Department also should conduct a pilot program using electric vehicles (EVs) to evaluate efficacy and potential savings.

Findings

Vehicles used by law enforcement agencies are normally left in idle mode while officers are at emergency scenes or traffic stops. Keeping the engine running provides power for lights, radios, computers, radar, and video cameras. One study by the U. S. Department of Energy found that a police cruiser uses 12 percent of its total fuel consumption while stopped.¹⁰⁶ Reducing vehicle idling can cut fuel costs, emissions, noise, and extend maintenance intervals and vehicle life.¹⁰⁷

Engine idling can be reduced substantially by the use of alternative electric power sources, known as idle reduction technologies (IRTs) for emergency vehicles while in a stationary mode. These include power management systems, heat recovery systems and battery auxiliary units. Although equipping vehicles with these technologies requires some upfront costs, that expense is recouped within a few years through lower fuel expenses. (The precise payback period varies with gasoline prices.)

Another, more comprehensive option would be to convert part, or all, of the fleet to electric vehicles (EVs). Although their initial cost is somewhat higher than gasoline-fueled vehicles, over time they achieve significant savings in fuel and maintenance costs.

EVs do present some issues, for police departments generally, and for the Baltimore County Police Department specifically. EVs require regular recharging, which is more time-consuming than gasoline refueling. Under current practices, the Department's patrol vehicles are used nearly continuously, with vehicles being changed out at shift changes. This practice is not recommended, because it significantly reduces the useful life of vehicles. A shift to EVs would require expansion of the fleet, although the cost of purchasing additional vehicles would be offset over time by the reduced need for replacements.

105 Stealth Power, "IoT solution helps keep emergency vehicles rolling...", June 2019.

106 Idling Reduction for Emergency Vehicles, U.S. Department of Energy Vehicles Technologies Office, citing Argonne National Laboratory, *Final Report: Police Cruiser Consumption Characterization*, for the Illinois Toll Highway Authority, February 2013.

107 Idling Reduction for Emergency Vehicles, A Case Study, Argonne National Laboratory, U.S. Department of Energy, www.ani.gov/energy-systems.

EV range presents an additional concern, especially for police departments (such as Baltimore County) that include rural enforcement areas. However, recent technology improvements that make batteries more efficient and offer longer range may make EVs viable alternatives even in more rural patrol areas. The current generation of EVs offers ranges of more than 300 miles per charge, which should be sufficient for most patrol needs.

There are other obstacles to using EVs for law enforcement services that also need to be considered. EVs are generally smaller-sized vehicles, which can present challenges for installing onboard electronics and other equipment required in patrol vehicles. A shift to EVs also would require installation of a charging infrastructure.

Benefit to the County

Based on the current charge to the department by VOM of \$0.68 per mile, EV fuel savings alone could total as much as \$2,500 per year per vehicle, based on 20,000 miles driven per year. In addition, a survey by Samsara, an analytics company, also found that electric vehicle owners save thousands of dollars per year on maintenance costs. In fact, electric car owners report spending one third of the cost to maintain their EVs than traditional vehicles.

In addition to cost savings and maintenance benefits, idle reduction and EVs are areas in which the County can save fuel and reduce greenhouse gas emissions. This recommendation aligns with the County Executive's recent Executive Order to begin transitioning the County government's passenger fleet vehicles to EVs and hybrids, with the goal of transitioning at least 10 percent of passenger vehicles to EVs, and over the next eight years replacing existing fleet vehicles with hybrids.

Best Practices and Benchmarks

The following table shows the results of Hyattsville, Maryland, Police Department study of EVs and the estimated savings in fuel costs:

Gas Powered 2017 Ford Interceptor	Electric Powered 2017 Chevrolet Bolt
Based on 100 miles per shift	Based on 100 miles per shift
EPA Rating – 17 Mpg	Baseline rating – 4 mi/kWh
5.89 gals. @ \$2.75/gal. = \$16.22	25 kWh @ .12/kWh. = \$3.00
<ul style="list-style-type: none"> \$16.22 Per Day \$324.40 Per Month (20 working days) \$3,892.80 Per Year 	<ul style="list-style-type: none"> \$3.00 Per Day (\$13.22 savings) \$60.00 Per Month (\$264.40 savings) \$720.00 Per Year (\$3,172.80 savings)*
Oil changes every 3,000 miles, replacement of belts, filters, spark plugs, etc.	Much reduced maintenance schedule. Regenerative braking increases range
	*The EV will save over \$15,864 in gasoline costs alone over five years.

Source: Hyattsville City Police Department, Electric Police Vehicle Project 108

Implementation Guidance

At time of writing the County reports that idle reduction technology is currently being incorporated into the fleet (current Sheriff Hybrid vehicles have this technology and the Police Hybrid Interceptors currently on order will as well) and it will continue with ongoing fleet replacement in keeping with the County's new policy to replace internal combustion vehicles with hybrid and EV vehicles to the extent possible based on available technology and prudent use of County resources.¹⁰⁹

As these technologies are incorporated into the fleet, it will be advisable to track detailed metrics on fuel savings and to conduct surveys of officers using IRT-equipped vehicles in order to evaluate their cost savings benefits, and particularly their practicality and effectiveness in Baltimore County Police vehicles as used in the field.

At time of writing the County also reports that it is in the early stages of developing the infrastructure necessary to support electric vehicles initiated earlier this year¹¹⁰; and that as this develops and grows, so will the number and type of electric vehicles in the fleet. This will also be dependent upon technology and prudent fiscal considerations to ensure use of County resources is sound and service levels to County residents are maintained.

The County may also wish to consider a pilot EV leasing program to replace and supplement vehicles that are reaching the end of their useful life. The lease agreement should include installation of charging stations at appropriate sites, which would enable the County to evaluate the real cost savings and other benefits of increasing the use of EV's prior to making significant investments in countywide infrastructure. A two-year pilot program of up to 30 vehicles would allow for a reasonable assessment of fuel and maintenance cost savings.

1.4.6 REMOTE WORK

Equip all knowledge workers with the resources to work remotely on a permanent basis and reduce leased office space commensurately with the proportion of knowledge workers working remotely at any given time.

Findings

As a result of the COVID-19 pandemic, Baltimore County has reportedly equipped 60 percent of its knowledge workers—staff whose primary role is to handle, use, or process information—with the resources to work remotely.

Many employees and employers nationwide have reported satisfaction with a widespread shift to remote work over the past year and a half. Offering knowledge workers a permanent option for remote work, or hybrid remote and onsite work could improve staff retention and create recruiting advantages, in addition to maximizing space utilization.

Baltimore County currently leases approximately 199,000 square feet of office space, at an annual cost of \$2,796,869. A shift that would enable 20-to-25 percent of County employees to work remotely would drive significant savings as current office leases expire.

Although equipping staff who are not already assigned dedicated laptop computers or other needed technology will may drive some upfront expenses, these costs will be more than offset by improved employee retention, potentially saving thousands of dollars in recruitment and training costs for new employees. This paper examines savings driven by a reduction in leased space only, although there are other potential savings and benefits to this recommendation.

¹⁰⁹ <https://www.baltimorecountymd.gov/county-news/2021/10/21/olszewski-issues-order-to-begin-electrifying-county-vehicles>

¹¹⁰ <https://www.baltimorecountymd.gov/county-news/2021/03/01/olszewski-bge-announce-28-new-electric-vehicle-charging-stations-across-baltimore-county>

Benefit to the County

Reducing the numbers knowledge workers working full-time on-site could enable significant reduction in office space leasing costs. In addition, higher staff morale is positively correlated with having the option of working remotely for at least part of the time.¹¹¹

Remote working policies are recommended here in the context of efficiency savings on rented building space, but this is also listed as a strategy with the County's Greenhouse Gas Inventory and Climate Action Plan to reduce the County's carbon-based energy footprint. While the County may have a permissive policy on teleworking, it does not appear that a full assessment has been made regarding how to maximize the use of this accommodation to reduce office space needs (at a cost savings), which would also reduce commuting times and resulting emissions (a sustainability goal).

Five-Year Savings Estimate

	County One Full Year	Five Years
Low End Range	\$111,875	\$1,678,121
High End Range	\$139,843	\$4,195,304

Upfront Costs: It is anticipated that this recommendation can be implemented with existing resources, given that 60 percent of the County's knowledge workforce has already been equipped with tools to work remotely.

Low-end range savings estimates assume a 20 percent reduction in leased office space, as leases expire, with full potential savings achieved in five years. High-end range savings estimates assume a 25 percent reduction in leased office space. Precise savings and timing of savings would depend on the locations and types of space vacated, and specific lease terms of those properties. Given Baltimore County's interest in maintaining service locations throughout the County, it may not be possible or desirable to achieve maximum savings.

SAVINGS POTENTIAL BY YEAR OF REDUCING LEASED OFFICE SPACE

	Low Range (20%)	High Range (25%)
Year 1	\$111,875	\$279,687
Year 2	\$223,750	\$559,374
Year 3	\$335,624	\$839,061
Year 4	\$447,499	\$1,118,748
Year 5	\$559,374	\$1,398,435
5-Year Total	\$1,678,121	\$4,195,304
5-Yr Avg Annual Savings	\$335,624	\$839,061

Note the savings above pertain to savings on leased office space only. Further space utilization analysis is required to calculate any savings that could be achieved from increasing remote working for staff assigned to county-owned offices, in addition to potential net savings on energy, supplies, and other ancillary costs; these could present significant additional savings.

¹¹¹ <https://www.forbes.com/sites/laurelfarrer/2020/02/12/top-5-benefits-of-remote-work-for-companies/?sh=2faf648016c8>

Best Practices and Benchmarks

A national survey of county information officers conducted by the Center for Digital Government found that as of July 2021, 62 percent of counties still have more than 30 percent of their staff members working remotely; 78 percent of counties reported that they could allow at least 30 percent of their workforces to work completely remotely.¹¹²

The National Association of State Chief Information Officers (NASCIO) recently issued a report, “Yesterday, Today, and Tomorrow: A Resilient and Adaptable State IT Workforce,” which stated: “Remote work is here to stay – how, where, when work is done will be fundamentally different after the pandemic ends, and employers that don’t embrace remote work will struggle to compete for talent.”¹¹³

In *StateScoop*, a publication focused on news and events impacting technology decisions in state and local government, Technology Editor Benjamin Freed wrote that, “just as at the state level, where many governments are recognizing that the remote-work policies adopted during the pandemic will not fade entirely, counties are bracing for some permanent changes to their workforces.”¹¹⁴

Washoe County, Nevada, has issued a guide, “Washoe County: Effectively Managing a Remote Workforce”¹¹⁵ on successful management of a remote or virtually based team. Their best practices for effective management of a remote team include: Correctly identifying suitable jobs for remote work; clarifying expectation for remote workers; scheduling regular calls and meetings; keeping communication lines open; ensuring everyone has access to all necessary remote work technologies; promoting a positive work environment; and encouraging collaboration between remote team members and in-office team members.

Neighboring Montgomery County’s Telework Policy document details official policies for telework, provides guidance to employees on successfully navigating remote working, and includes a list of tools for common tasks.^{116 117} Further sources for best practices in management of government staff working remotely can be found in the County of Alameda, California’s Telework Guidelines¹¹⁸ and Salt Lake County’s Human Resources Policies.¹¹⁹

Implementation Guidance

Shifting to remote work will require significant buy-in from staff. Public Works LLC recommends conducting a brief survey of employees to assess their preference on a full or partial shift to remote work.

Leadership from the County’s Office of Human Resources, OIT, and representatives from other agencies should work together to develop remote work policies that include instruction on timekeeping, cybersecurity, and other related issues. Trainings will be necessary for supervisory personnel and staff, to ensure clear communication and compliance with these new guidelines.

Policies should delineate which positions are eligible for remote work and which assignments must be done on-site. As the NASCIO report noted, “not every employee or job is adaptable to remote work, and states should offer both remote and in-person options. States should also train supervisors and teams on how to navigate and succeed in both settings.”¹²⁰

No employees who currently work on-site and prefer to do so should be compelled to work remotely. Furthermore, part-time remote work schedules can be offered using a “hoteling” option, which will allow them to reserve a desk as needed, or to share a workspace in a rotating schedule with other part-time remote staff.

112 <https://statescoop.com/county-it-pandemic-phil-bertolini/>

113 https://www.nascio.org/wp-content/uploads/2021/04/NASCIO_ResilientWorkforce_3.2021.pdf

114 <https://statescoop.com/county-it-pandemic-phil-bertolini/>

115 https://www.washoecounty.us/humanresources/files/hrfiles/Washoe%20County%20Guide%20for%20Supervisor%20-%20How%20to%20Manage%20a%20Remote%20Team_.pdf

116 https://www.montgomerycountymd.gov/HR/Resources/Files/Telework/Telework_Policy.pdf

117 https://www.montgomerycountymd.gov/HR/Resources/Files/Telework/TeleworkGuidance_Distribution.pdf

118 <https://gsa.acgov.org/?document-download=VGvSzxXdcmsgR3VpZGVsaW5lcy5wZGYjY2NjZTA1LTg0OTU0NDg1OC05NGJkLTNhMTgyMGJmZGJjNA>

119 <https://slco.org/globalassets/1-site-files/human-resources/policies/employment/2-600.pdf>

120 https://www.nascio.org/wp-content/uploads/2021/04/NASCIO_ResilientWorkforce_3.2021.pdf

1.4.7 CONSOLIDATE DATA CENTERS

Baltimore County could reduce and consolidate the number of data centers, computing facilities, and network facilities from six to two. Data centers, computing facilities or network facilities that currently serve the Baltimore County Public Schools, the Library System, as well as other computing facilities now managed by OIT and other County agencies, should be consolidated.

Baltimore County and the Baltimore County Public Schools (BCPS) should jointly initiate an independent, comprehensive assessment of all County government and BCPS application, data, communication, security, disaster recovery, resiliency, redundancy, and future expansion needs. The goal of this effort should be to define a comprehensive and efficient set of application, data and data center requirements that can be incorporated into a strategic plan, capital investment, and a data center solution that will improve operational efficiency, reliability, security, and substantially reduce total cost.

Findings

Data Centers are buildings, or dedicated spaces, in which computer systems and associated components are stored. Since continuity of IT operations is critical to organizations and entities such as Baltimore County, which must provide round the clock operations and services, data centers generally include redundant or backup components and infrastructure for power supply, data connections, environmental/climate controls, and security.

Reliability and resiliency measures for the current County government and schools data centers, computing facilities or network facilities are not clearly defined. Baltimore County's mission-essential and mission-critical data and applications require facilities that meet the Tier 3 level of the ANSI/TIA-942 datacenter standard.^{121 122} From our analysis, Baltimore County's data centers can be classified, at best, as Tier 2.

Consequently, County government and BCPS data centers, computing facilities or network facilities are at risk for downtime in excess of more than two hours per year. While two hours of system downtime per year may not be significant for some agencies or applications, public safety agencies such as Police, Fire, and Emergency Services may find downtime that exceeds two hours poses unacceptable risks.

Benefit to the County

Although more than one data center is absolutely necessary to support critical applications, continuity of operations, disaster recovery, surge capacity, and security requirements, the number of dispersed data centers, computing facilities or network facilities that have been established over the years do not provide an operational or cost advantage over two well implemented facilities. Baltimore County's data and computing needs would likely be better served by two well designed and skillfully implemented data centers, computing facilities or network facilities instead of the four or more facilities that now support County business and information processes.

¹²¹ A summary of TIA-942 can be found on the Telecommunications Industry Association website at: <https://tiaonline.org/>

¹²² A summary of the Tiers of TIA-942 can be found at: <https://www.accu-tech.com/hs-fs/hub/54495/file-15894024-pdf/docs/102264ae.pdf>

Best Practices and Benchmarks

According to Gartner, a well-known global technology research firm, “by 2025 85 percent of infrastructure strategies will integrate on-premise, colocation, cloud and edge delivery options, compared with 20 percent today.”¹²³ They estimate that there will be a 30 percent or greater operational cost savings over this period and an 80 percent reduction in data center footprint.

Los Angeles County, working with Gartner, performed a county-wide assessment of the data center facilities of the county. Although Los Angeles is a significantly larger county than Baltimore County, the report they published can be used as a model for how the County could proceed in implementing this recommendation.¹²⁴

Five-Year Savings Estimate

Savings projections cannot be calculated by the review team without reference to the actual operational costs of data centers, computing facilities or network facilities. The following documentation was requested, but not made available to the review team:

- For each Computing Facility (CF): Current racks in place, planned rack locations not currently occupied; Overview of power and network distribution within racks, CF and DC; Current rack elevations; Detailed power configuration (W/sq ft), Detailed cooling configuration; Detailed technology equipment (network, server, storage, support) currently installed.
- Inventory of each instance of county-hosted applications with functional category, business continuity category, DR/BC implementation support; Application hosting location, what virtual environment, computing facility/data center; Applications resilience model (Active/Active, Automatic Failover, Manual Failover, RPO, RTO); Confidentiality, integrity, availability designation. Any specific requirements, such as law enforcement sensitive, health records, etc.
- Dedicated bandwidth available between each data center and every other data center; Actual uplink/downlink capacity; Divergent paths. Divergent entry points.
- Current data center expenditures

In general, it is anticipated that future savings will accrue as follows:

- Low-End Range: The five-year cost savings is anticipated to be 5 to 15 percent of current data center expenditures.
- High-End Range: The five-year cost savings is anticipated to be 30 percent or greater of current data center expenditures.

Implementation Guidance

A formal assessment of business continuity requirements and how the current environments meet or fail to meet those requirements is needed to determine if immediate remedies are needed.

Formal testing of data center level fail-over and emergency power off should be performed to assess the issues that would arise during a critical emergency or disaster situation.

It will be essential to examine options available to support critical systems in the event of a regional/countywide power emergency or disaster; for instance, having all four locations in close proximity to each other could place the critical systems at risk in the event of a large-scale emergency.

¹²³ CapGemini - The CIO guide to Data Center Freedom - <https://www.capgemini.com/us-en/2020/11/art-of-the-possible-the-cio-guide-to-data-center-freedom/>

¹²⁴ http://file.lacounty.gov/SDSInter/bos/bc/226601_BOSMemo-DataCtrConsolidation_3-31-15Attachments.pdf

1.5 Controlling Health Care Costs

Health care coverage is one of the largest expenses for any employer and, as a result, for almost all governments. The County currently spends \$358.9 million on employee health care annually. On top of that, the costs of health insurance are among the fastest-growing everywhere. Baltimore County has taken a number of steps to try to rein in these spiraling costs, however, while maintaining high quality health care for its own workforce. A wide range of strategies offer further promising opportunities to build upon the efforts that Baltimore County has already undertaken. We recommend that the County undertake a comprehensive health care cost containment program to reduce the costs and rate-of-growth of health care expenditures on County employees. Our proposed approach is, basically, to:

- Break the health care plan into its component parts – as technology and other 21st Century advances are allowing in virtually every area of commerce and government, but incumbent dinosaurs are fighting – and thereby allow the County to “rent” an insurance carrier’s network,
- Enhance other newly developing direct contracts and other medical provider relationships.
- Place entities other than the insurer itself in charge of “third-party” evaluation of its own prices and services.
- Implement new, proactive approaches such as onsite/near-site clinics, telemedicine, employee wellbeing, and more advanced use of data analytics – including focusing on high-cost claimants

Total savings in overall health care costs of as much as 20 percent are achievable through the recommended approach; we conservatively project total recurring annual savings of only half of that – or roughly \$40 million to \$60 million. All these recommendations involve improving – not reducing – the quality of care and coverage provided to County employees, which will further improve morale and thus County services, and will contribute to a healthier and more successful Baltimore County overall.

The County health care contract should be rebid upon the contract expiration date to incorporate a new scope of work and services. The savings from discontinuing unnecessary physical exams of all new hires should be applied to the other elements of the recommended health insurance improvements, especially employee wellness and telehealth programs. There have been widespread complaints about all aspects of these services. Besides the modest savings from eliminating the new-hire physical exam requirement and reducing unnecessary CDL- and workers compensation-related services, a new, competitively-bid contract would provide higher quality care to County employees. Just as importantly, the County hiring process would be accelerated, allowing the County to fill positions more quickly and avoid losing desirable employees due to the excessive wait for a physical exam appointment.

1.5.1 COMPREHENSIVE HEALTH CARE COST CONTAINMENT

Undertake a comprehensive health care cost containment program to reduce the costs and rate of growth of health care expenditures on County employees, while improving – not reducing – the quality of their care and coverage.

Findings

Health care coverage is one of the largest expenses for any employer and, as a result, for almost all governments. The County currently spends \$358.9 million on employee health care annually, roughly 15 percent of total General Fund annual County operating costs – \$144.2 million on County employees, \$197.8 million for employees of the Baltimore County Public Schools, and \$16.9 million for Community College of Baltimore County employees.

On top of that, the costs of health insurance are among the fastest-growing everywhere. Nationally, health insurance coverage is generally experiencing cost increases of 33 percent up to 50 percent annually. Baltimore County has taken several steps to try to rein in these spiraling costs, however, while maintaining high-quality health care for its own workforce; as a result, the County has experienced rate increases of only 2.7 percent last year and 5.2 percent the current year, with no change at all in 2022. The annual expense for active employees actually fell from \$316 million in FY2019 to \$305 million in FY2020, although they partially rebounded in FY2021 to \$311.5 million. The County's cost-containment efforts have included:

1. Moving the specific stop-loss level from \$500,000 to \$1,000,000 for 2020 (estimated a annual savings of \$1 million over all employees, including BCPS and CCBC).
2. Implementing a prescription formulary and opioid management program in January 2019 (\$3.8 million).
3. Implementing SaveOn program to take advantage of manufacturers' "coupons" on specialty drugs (estimated \$5.5 million per year starting 2022).
4. Pressuring CIGNA to improve prescription pricing through guaranteed rebates and discounts each year (\$6.225 million in discounts, \$8.3 million in rebates over 2019-2022).
5. Evolving employee wellness programs year over year to improve engagement, lower costs and deliver positive patient experiences utilizing various means of technology, a local Engagement Consultant team, and an annual Health Improvement Fund.

In addition, Maryland state laws already limit health insurance costs more than most states. That means that two approaches we normally consider – implementing a combination of Reference-Based Pricing and Direct Contracting – are not available to Baltimore County because of their effects are already achieved through state law.

The Road Not Taken: Pooling

Maryland also has acted to encourage insurance pooling amongst the State and 23 county governments.¹²⁵ As Baltimore County's former Delegate Dan K. Morhaim, author of this legislation, has written:

The state of Maryland provides health insurance for its 81,000 employees. Maryland's 23 counties and Baltimore City provide insurance for their 42,000 employees. And Maryland's 24 school systems provide health insurance for another 120,000 employees. Each of these entities obtains health insurance on its own, but, directly or indirectly, all these expenses are paid for by Maryland taxpayers.

*The concept of insurance pooling is straightforward. The more people in the pool, the more the costs are spread, and the less the risk to any one entity. When that happens, there is greater bargaining strength leading to financial efficiencies and reductions in administrative expenses.*¹²⁶

As Del. Morhaim has pointed out, "Currently, more than a dozen states pool health insurance purchases for their governmental employees (state and local), allowing them to leverage their large population size to advocate for modern health programs that aim to contain costs and boost well-being."¹²⁷ Maryland's legislation, in contrast, does not affirmatively pool all these purchases, but allows individual county government employees to "buy in" to the larger state pool if they and their employer agree – an option Public Works LLC has long advocated.¹²⁸ Since this law's enactment in 2013, however, no Maryland county has elected to do so.

In fact, as Del. Morhaim asserts, "Clearly this would be a complicated task that would need to address many different aspects including timing, benefit packages and the interests of the employees. Getting this done would take time and effort."¹²⁹

¹²⁵ MD State Pers & Pens Code § 2-513 (2013).

¹²⁶ Morhaim, "Pooling insurance makes sense for Maryland," <https://www.baltimoresun.com/opinion/op-ed/bs-ed-op-0111-insurance-pool-20180110-story.html> (Baltimore Sun, Jan 10, 2018).

¹²⁷ Id.

¹²⁸ See, e.g., Schnurer, "A Health-Care Plan Most of Us Could Buy," *The Washington Monthly*, April 1998, pp. 20-23, <https://www.unz.com/print/WashingtonMonthly-1998apr-00020/>.

¹²⁹ Morhaim, *supra*.

In practice, it in fact has proven prohibitive, particularly from a timing and employee-interest perspectives: Any such change would need for individual participating counties to negotiate this as part of its multi-year collective bargaining agreement; these expire at different times for different counties. This is thus in many ways a classic example of the “collective action” problem, in that it is highly unlikely that individual counties will be able to come to a coordinated result – meaning that the solution (if this is the desired objective) lies at the state level, with a state law requiring pooling, as in other states, rather than simply permitting it. Such action is clearly beyond the scope of this report.

Moreover, while this may make sense as statewide policy, at the county level it is unlikely, statistically speaking, that the approximately 90,000 member lives covered by the current of the County/BCPS/CCBC plan would receive much added benefit by adding (or being added to) more population to further diversify their risks. In fact, joining the State pool as currently contemplated under the State law is more likely to prove deleterious to the County and the coverage it provides County employees.

- State law appears to contemplate allowing only current employees, not retirees, into the pool. The current County and BCPS rates (which in fact are self-insured rate equivalents) are based on the combined healthcare usage of active employees and retirees; in other words, the rates for pre-Medicare retirees are identical to those for active employees. If the retirees were to be removed from the plan, the rates would reduce approximately 12 percent. This would require the County/BCPS to renegotiate administrative fees and, most importantly, stop-loss reinsurance for the retiree group only; those costs would be much higher for a retiree-only group compared to the current blended costs for actives and retirees combined, and would introduce a much higher level of administrative complexity.
- Conversely, this would mean that the separate rates for County employees would be commensurately lower – but only because of jettisoning the retirees, not from any benefit of joining the State plan. It is unlikely that pooling with the State would produce any additionally lower rates. It is hard to see the gain to the County from this, therefore.
- On the other hand, the State legislation appears to allow the State to charge the County if its employees incur higher utilization rates or costs – in other words, if the State plan does turn out to be cheaper, the State can claw back those savings from the County. The State law thus appears to say that the County/BCPS would have no control over the rates set by the State and that the County/BCPS would be required to pay an unknown administrative fee. In addition, the County/BCPS would lose control over the benefits provided to employees. This would likely cause additional issues with bargaining units, making this a practical impossibility even if it somehow were advantageous.

Instead, the County could more immediately and directly affect its risk levels (and thus lower overall costs) by focusing on the high-cost claimants within the County/BCPS/CCBC existing population, which is what drives significant costs. We will discuss potential strategies for addressing this below.

In fact, a wide range of strategies offer even more promising opportunities to build upon the efforts that Baltimore County has already undertaken. These can be grouped together under an overall strategic approach to health care costs that we recommend the County pursue.

Summary of Recommended Approach

Our proposed approach is to:

- separate the health care plan into its component parts – as technology and other 21st Century advances are allowing in virtually every area of commerce and government, but incumbent dinosaurs are fighting,
- thereby allow the County to access (“rent”) an insurance carrier’s network,
- enhance other newly developing direct contracts and other medical provider relationships, and
- place entities other than the insurer itself in charge of “third-party” evaluation of its own prices and services.

This stands in contrast to continuing to spend a significant portion of the County's budget on a single approach overseen from top to bottom by a single private provider in a market that, as a result, routinely sees 33%-50% markups.

This approach then falls into four main substantive areas:

- Backward audit of claims
- Third-party oversight/competition (TPA/PBM) – including reverse auction
- New proactive approaches:
 - » onsite/near-site clinics
 - » telemedicine
 - » employee wellbeing
- More advanced use of data analytics – including focusing on high-cost claimants

Benefit to the County

With a large annual health care spend approaching \$350 million, the County could drive improvements in the quality of its health care plan while significantly reducing costs, by implementing several or all the following interlocking Healthcare Cost Containment strategies. Total savings in overall health care costs of as much as 20 percent are achievable through the recommended approach; we conservatively project total recurring annual savings of only half of that – roughly \$36 million to \$43 million.

In addition, each the following recommendations involve improving – not reducing – the quality of care and coverage provided to County employees, which will further improve morale and thus County services, and will contribute to a healthier and more successful Baltimore County overall. These recommendations are:

- Obtaining a one-time benefit from conduction a backward-looking claims audit to investigate payment integrity over the last several years,
- Engaging an independent, non-insurance carrier based Third Party Administrator (TPA) which enables greater plan flexibility and data
- Implementing a new, more efficient strategy aligned with work locations and evaluating existing onsite or near-site clinics and Direct Primary Care relationships,
- Instituting a PBM reverse-auction process,
- Engaging an independent, non-insurance carrier, Pharmacy Benefit Manager (PBM),
- Replacing insurance carrier-based, low utilization-rate telemedicine programs with a guarantee-savings alternative,
- Creating a new integrated wellness and safety strategy,
- Ensuring that data analytics support the new data-tracking and executive decision-making required to manage all the foregoing,
- Focusing on improving management of high-cost claims, and
- Launching a digital care solution for both chronic disease management and lifestyle related conditions.

Savings Estimates

Each strategy and its respective projected savings potential will be described in the following sections.

HCC Strategy	Estimated Savings	
	Year One	Five Years
Medical Review/Claims Audit	\$1,800,000	\$1,800,000
Self-Insured Engaging Third-Party Administrator (TPA)	Nominal	Nominal
Retain an Independent Pharmacy Benefit Manager (PBM)	\$14,000,000–\$19,000,000	\$70,000,000–\$95,000,000
Reverse Auction for Pharmacy Benefits	\$5,000,000–\$6,000,000	\$25,000,000–\$30,000,000
Onsite/Near-site Clinics	\$13,000,000–\$14,000,000	\$65,000,000–\$70,000,000
Telemedicine/Digital Care	\$4,100,000	\$20,500,000
Employee Well-Being	Not Quantified	Not Quantified
Data Analytics	\$4,000,000	\$20,000,000
Focusing on High-Cost Claimants	\$1,000,000–\$10,000,00	\$5,000,000–\$50,000,000
TOTALS	\$42,900,000–\$58,900,000	\$207,300,000–\$287,000,000

Best Practices and Benchmarks

The City of Marion, Indiana – a municipality with roughly three percent of Baltimore County’s population and thus a fraction of its bargaining power – highlights the kind of results of that the independent approach to management of healthcare cost containment efforts can achieve.

As a result of high healthcare costs in 2013, Standard & Poor’s (S&P) downgraded the City’s long-term rating to BBB-, more commonly known as “junk bond” status. Mayor Wayne Seybold and his team devised a multi-layered plan, which entailed several changes to the City’s healthcare plan. The first impediment, however, was that the City’s health insurance broker, who was compensated by a major insurance carrier and did not support the proposed changes, needed to be replaced.

Mayor Seybold worked with the City’s unions to gain their support. Understanding the unions’ four major concerns – wage increases, training, equipment, and healthcare – Seybold worked closely with them to illustrate the long list of benefits of the proposed healthcare plan. Despite initial concerns over the prospective healthcare savings translating into reduced care, Seybold’s plan offered multiple improvements in care and applied a portion of the savings to wages, training and equipment. The City’s workforce accepted the new plan, and many realized improvements in their care, while the City’s entire 360-person workforce benefited from salary increases during a real estate crisis even as other Indiana-based municipal workers suffered wage freezes.

The new plan entailed separating from the major insurance carrier and engaging an independent (not insurance carrier-based) third party administrator (TPA), an independent pharmacy benefit manager (PBM), a market leading Referenced Based Pricing solution provider, and several of the other modifications we recommend. As a result of the City’s new strategy, healthcare costs fell \$2.7 million – or 45 percent – and in 2015, S&P increased the City’s long-term rating to A+: five levels above its junk bond status.

1.5.1.1 Claims Audit/Payment Integrity

Post-payment medical bill review and recovery programs offer the opportunity to recover monies already expended by identifying medical billing errors and overcharges. We were not able to obtain individualized data that would allow a more definitive projection of savings; but we can conservatively estimate that Baltimore County savings are roughly 40 percent of the amounts we projected last year for the City of Chicago, which would put the one-time savings for this exercise at roughly \$12-15 million. Since our Chicago estimate was based on only an additional one-year look-back (because the City was reportedly already conducting a one-year look-back), and Baltimore County could undertake at least a two-year look-back, the actual figure easily could be double this amount.

We are proposing a medical bill compliance review, which is quite different from a claims audit. Such a review focuses on whether medical facilities are billing the plan appropriately, as opposed to how the plan administers a claim, such as identifying billing errors and overcharges on medical bills such as upcoding, unbundling of services, or diagnostic procedure code errors. Such a process would generate cash or credits applied to FY2021's insurance premiums. In addition, our recommendation would entail a similar backward-looking medical bill compliance review for FY2020, 2019, and 2018. This strategy is not tied to the benefits year or cycle and can be launched at any time.

Savings Estimate

Based on the experience of compliance review experts elsewhere, the review team generally would estimate the savings for a medical bill compliance review at approximately seven percent of the County's total annual healthcare spend for 2020, 2019, and 2018, less the costs of the review. The review team was not provided access to more detailed claims required for us to make a more precise estimate.

The review team was unable to obtain all the data necessary to project savings from a full claims audit. Based upon the provided inpatient spend for 2020, our team members estimate a conservative \$1.8 million. This estimate could be more accurately calculated, and would likely increase, if the following information were available for consideration:

- A two-year look back that includes 2019 inpatient spend.
- Outpatient claims: There may be an opportunity for recovery on outpatient claims, however, additional data is required to determine the amount of the outpatient spend that is ASC ("a distinct entity, operating exclusively to furnish outpatient surgical services,"¹³⁰) and that which is not.

1.5.1.2 Retain an Independent Pharmacy Benefit Manager (PBM)

With the cost of prescription medications always rising, state, municipalities, and businesses, often pay more than necessary in a flawed marketplace controlled by PBMs that also determine which medicines will be covered by health insurance plans, and how much patients will have to pay for their prescriptions. Government agencies select PBMs without any real understanding of prescription drug costs or any way to compare them. This absence of transparent price-based competition allows PBMs to make high profits. Also, PBMs set the reimbursement rates paid to pharmacies.

The PBM industry was launched as a way of lowering prescription drug prices, so patients could afford as a health plan benefit. But the reality is that PBMs are taking savings to a high rate of profit. The three major PBM companies make up over 75 percent of the market.

PBMs currently drive costs by:

- calculating the price patients will pay for the medicine leveraging the lower charge they negotiated with the pharmaceutical company. Greater spread equals greater profit.
- reimbursing a very low rate to independent, local pharmacies forcing local pharmacies to operate with much thinner profit margins as compared to larger chains, some of which are affiliated with PBMs.

130 Medicare Carriers Manual, section 10.1.

- keeping hidden from employers the prices and savings PBMs negotiate with the pharmaceutical companies. Most employers don't receive the full manufacturer rebates that PBMs realize based upon the employers' utilization.

Engaging an independent, non-insurance carrier based PBM offers multiple opportunities at lower costs. An independent PBM offers a fully customizable solution, a significantly lower cost than CIGNA/ESI, the ability to manage medical provider-related drug spend more effectively (which is virtually unlimited in the County's current plan), opportunity to create a more effective specialty drug spend strategy, take advantage of manufacturer foundation support for lower income members, among other benefits.

Incorporation of an independent, non-insurance carrier based PBM would generate immediate reductions in drug prices, closer access to major drug manufacturers, which will improve plan design, and more effective drug utilization. All these benefits could yield positive impacts almost immediately upon implementation. For example, one employer that replaced Caremark as its PBM realized 67 percent savings over its previous year's prescription spend. The savings above accrue almost immediately (i.e., within 90 days) and become the new baseline moving forward.

Five-Year Savings Estimate

	County One Full Year	Five Years
Low End Range	\$14,000,000	\$70,000,000
High End Range	\$19,000,000	\$95,000,000

1.5.1.3 Reverse Auction for Pharmacy Benefits

A PBM (Pharmacy Benefit Manager) reverse auction is a competitive, transparent bidding process that a jurisdiction uses to select an entity to manage its prescription drug program. This usually starts with an opening price and allows qualified PBM bidders to counteroffer a lower price for as many "rounds" of bidding, as determined by the authorized representative until a bid is accepted. Bidding is usually managed through a technology platform, and it allows for the PBM to see how their bid compares, anonymously. This process is generally known for the potential to generate significant savings.

A major challenge is the inability to reveal pricing during the procurement process. While reverse auctions have been used historically to procure goods other than healthcare related services, New Jersey enacted legislation in 2016 directing the state to conduct a PBM reverse auction. The first PBM Reverse Auction was implemented in 2017. NJ was first state in the nation with the PBM model and represents a new way that states can procure services and save millions on prescription drug spending. The state anticipates saving over \$2.5 billion between 2017-2022 in pharmacy program savings. These savings were achieved without reducing drug benefits for the state's 800,000 employees.

Simply put, New Jersey's PBM Reverse Auction process took weeks not months. The process entailed the following six steps:

1. Seller Agrees to Contract Terms (lengthy, detailed Contract; Bidders must agree 100 percent to move to Bidding process)
2. Sellers Submit Bids (massive data requiring sophisticated technology platform)
3. Buyer Compares Round One Bids (detailed side-by-side drug pricing comparison)
4. Sellers Improve Their Bids Based Upon Blinded Results (using portal, Bidders may adjust any pricing as frequently as necessary until submit final bid; Bidders can see best pricing via Round One, but can't see changes by other Bidders)
5. Buyer Compares Round Two Bids
6. Buyer Awards Contract

Today, eight states have passed reverse auction-enabling legislation. New Hampshire has proposed a bill in 2020 legislation for the Department of Administrative Services to conduct a PBM reverse auction for the state employee health plan. Connecticut has proposals of reverse auction process for not only PBM but also RFP not only on pricing but also on technical responses. A recent study shows the State of New Hampshire can expect to save up to \$22.2 million annually.

Maryland passed a similar law in 2020 that requires the state Department of Budget and Management to conduct a reverse auction to select a PBM for the state's prescription drug program. The law became effective June 1, 2020. The health plans may use this process individually or collectively as a joint purchasing group with the State Employee and Retiree Health and Welfare Benefits Program: state funded health plans; self-funded county, municipal, or other local government employee health plans, public school employee health plans, and public institution of higher education health plans.

The Maryland statute mandates conduct of a PBM reverse auction, and ongoing electronic review of PBM bills projected to capture significant savings for the state without reducing public employee prescription benefits.

Most states' PBM procurement process involves complex proposals containing pricing and terms. The reverse auction procurement model requires all participating PBMs to offer the same contract terms, and they are competing on price only, and they are agreeing to the terms of the proposed state drug benefit plan, plan design, and member cost sharing.

Under the reverse auction model, the government or business gives details of medicines that may be prescribed and other coverage details and the PBM companies bid online. They bid openly and the process goes through a series of competitive bids, in hopes that companies will lower their bids to undercut each other.

There are many PBM Vendors with many more entering the marketplace.

Ensuring reverse auction services reach the right eyes will be crucial in maintaining lasting relationships with suppliers and vendors. There are four key steps or phases help execute and implement.

1. Preparation: be mindful that some vendors may be hesitant to partake, if the entity employs the auction as a "price weapon" instead of a "process of improvement tool." Ideally, you want to target new suppliers, but as well you want to ensure that current or previous suppliers have the chance to participate. PBM reverse auction is an innovative, forward-thinking approach. Create detailed specification documentation is crucial for the success, variables and value points should be clearly defined, so suppliers can be sure they are able to meet the criteria. Terminology and definitions are set and agreed to upfront.
2. Software: Having reliable, easy to use, cloud-hosted, preferably reverse auction software centralized system, a good system will enable to access bids, and speed the delivery, and quality of goods to be delivered. Helps the state conduct side-by-side contractual comparisons. Granular analysis of claims. The classification of drugs shown, PBMs input on proposed discounts. This can be analyzed on a claim-by-claim basis to give more accurate proposal.
3. Execution: Keeping in mind some bidders may have never taken part in a reverse auction before, a robust user-friendly system is essential. Communication as always is key, internally, and externally. The process begins with the seller agreeing to contract terms. Then the sellers submit bids and the buyer compares round one of bids; then sellers improve bids based on blinded results. The buyer compares round two bids and awards contract.
4. Post Execution: Following through on your commitments, once an outcome has been achieved, make decisions as soon as practicable. Start by communicating the effective start date to participating suppliers, and the timelines for periodic monitoring. A two-year contract is often ideal; three years may be preferred if there is aggressive pricing for a longer term. Avoid a situation whereby the PBM has aggressive pricing in year one, and then pauses, at future savings, in future years. The entire process does not need to take long. The state of New Jersey had the legislation passed in June 2017 and the state was onboarding the new vendor by January 2018.

Baltimore County may find it advantageous to utilize the State of Maryland's PBM reverse auction, rather than launching its own, for the following reasons:

1. Numbers of participants really do matter (i.e., volume). For Baltimore County's situation, it is better to join the State of Maryland PBM reverse auction.
2. Piggybacking on the State's winning PBM should absorb the cost of the technology vendor, potentially eliminating an out-of-pocket cost if Baltimore County were to launch its own PBM Reverse Auction.

Importantly, the County PBM contract should be short in duration, i.e., no more than two years, as the PBM may attempt to claw back initial-year savings in future periods.

Savings Estimates

We were unable to obtain the necessary information to calculate precise savings projections of this strategy for Baltimore County. But the experience in New Jersey indicates tremendous potential.

Total savings to that state for the total five-year period under PBM contracts awarded through its two reverse auction processes are projected at \$2.5 billion – an average annual reduction in prescription drug spending of \$500 million per year (i.e. 16-17 percent). As of this year, they are on track to meeting their five-year \$2.5 billion drug savings projection. It is noteworthy that the savings realized by New Jersey in its first two years of experience actually exceeded the State's initial projections. This resulted, in the first year-in:

- Premium decrease (-25.4%) for active State employees
- Premium decrease (17.9%) for early retirees
- Premium decrease (18%) for Medicare retirees

After a second year, further reductions to pharmacy benefits last year totaled:

- Premium decrease (-4.5%) for active State employees
- Premium increase (+0.2%) for early retirees
- Further premium decrease (-13.7%) for Medicare retirees

Assuming a 17 percent premium reduction in total, this would represent 4-5 percent in additional savings beyond those that would be achieved by our proposed changes in PBM process discussed above.

Five-Year Savings Estimate

	County One Full Year	Five Years
Low End Range	\$5,000,000	\$25,000,000
High End Range	\$6,000,000	\$30,000,000

Upfront Costs: Upfront costs may be negligible or avoided altogether by piggybacking on the state's PBM.

1.5.1.4 Onsite/Near-site (Shared), Mobile, Pop-Up Clinics and Direct Primary Care

Direct healthcare via onsite/near-site health and wellness centers have become a proven integration tool in an employer's overarching healthcare strategy. This allows you to optimize healthcare spend, benefits plan design, and more. As barriers to healthcare are removed, it becomes easy to access and simple to use. The result is healthcare that raises the bar and delivers financial return for the payor, the County.

Near-site Health Centers, which offer both in-person and virtual care to all eligible members, can be effective for large populations of employees and their dependents and spouses, while direct primary care could offer complimentary solutions for dispersed populations. The health centers would be owned and operated by the direct healthcare vendor partner, who would assume all liability associated with the operations and would detail the insurance coverage and indemnity language that protect the County from any third-party risks.

Near-site health centers represent a cost-containment strategy that has gained significant traction and continues to grow in prevalence as more and more organizations are realizing substantial savings and the ability to better control and manage their health care spend:

- 61 percent of employers with 5,000+ employees will have an onsite center in place to be available for 2021.
- 45 percent of employers in 2020 view investing in health and wellness as an integral part of their workforce strategy.
- 51 percent of employers will offer at least one advanced primary care strategy including an onsite center in 2021.[1]

The build-out and implementation of the near-site health centers would be coordinated and financed by the health center vendor partner. There is no implementation or start-up costs associated with the near-site health center to the County. Near-site Health Centers are scaled to size based on the member population and operate with one or more medical professionals.

The direct healthcare model has been heavily adopted with public sector entities, including the State of Montana, the Commonwealth of Kentucky, State of New Jersey, State of Nebraska, the cities of Huntsville (Alabama), Montgomery (Alabama), Galveston (Texas), Knoxville (Tennessee), and El Paso County (Colorado).

Direct Primary Care (DPC), simply put, is a contractual relationship with a primary care physician and his/her offices' resources. Primary care physicians within a DPC are held accountable for their performance against key performance measures. These two methodologies can achieve similar benefits. The DPC model is an important wraparound program for the onsite/near-site clinics providing access for employees and family members that may not live or work in close proximity to an onsite/near-site clinic. Technology can assimilate the onsite/near-site and DPC clinics onto a singular platform, providing a seamless member experience.

Savings Estimates

Below are results from the largest claims-based study in the industry that compiled normative data from multiple employers representing approximately 48,000 lives and specifically examined the savings achieved by employers with an onsite/near-site health center in place¹³¹:

- 50% reduction in inpatient admissions.
- 35% reduction in specialist visits.
- 11% reduction in outpatient services.
- 29% overall gross savings or \$2,238 average savings per member per year.

DPC would engage independent primary care physicians in and around Baltimore County. This strategy could operate in conjunction with the aforementioned onsite/near-site clinic strategy and benefit employees and their dependents who might not be conveniently located near the clinics.

131 (See <https://www.premisehealth.com/success-stories/workplace-health-centers-reduce-member-costs>.)

Five-Year Savings Estimate

	County One Full Year	Five Years
Low End Range	\$13,000,000	\$65,000,000
High End Range	\$14,000,000	\$70,000,000

Upfront Costs: This recommendation can be implemented with existing resources.

These savings are almost immediate (i.e., within 90 days) and become the new baseline moving forward.

1.5.1.5 Telemedicine/Digital Care

This strategy would offer County workers and their dependents immediate access to board certified doctors via phone or video conference from any device. This not only offers members the opportunity to engage a medical professional in real-time, secure access from anywhere, but also redirects or avoids the plan member from using more costly resources such as emergency rooms.

Five-Year Savings Estimate

	County One Full Year	Five Years
Low End Range	\$4,100,000	\$20,500,000
High End Range	\$4,100,000	\$20,500,000

Upfront Costs: This recommendation can be implemented with existing resources.

At least one provider offers national utilization over 50 percent and a savings guarantee. These savings accrue almost immediately (i.e., within 90 days) and become the new baseline moving forward.

According to the CDC, 52 percent of the population has a chronic condition, which would translate to 19,490 employees in Baltimore County (including BCPS and CCBC). Chronic Disease Management addresses conditions including diabetes, hypertension, copd, congestive heart failure, hyperlipidemia, asthma. Lifestyle-related conditions consist of issues with exercise, nutrition, weight loss, sleep, tobacco cessation, obesity. Launching a digital care solution for both chronic disease management and lifestyle related conditions can be integrated with the telemedicine program to produce additional savings that we estimate at \$4.1 million per year.

1.5.1.6 Employee Well-Being Programs

Such programs Include prevention, wellness, mental health, behavioral health, safety, workers compensation, and other total worker health resources. The savings opportunity here comes from evaluating the effectiveness of the city's current employee well-being program and its compatibility with effective tracking (see below) and population health management.

As noted above, the County already makes employee wellness programs available through its current health plan. As discussed in the following recommendation, however, (see **Mercy Health Plan Contract**) the County has an opportunity to expand the availability of such programs – and it should act on that.

Savings Estimates

The benefits of this approach are primarily soft benefits, such as improving member culture and avoiding future costs. While they are expected to yield long-term savings, they are not quantified for this estimate.

1.5.1.7 Expand Use of Data Analytics

Data analytics provide functionality to support the tracking and auditing of the aforementioned cost savings; it enables executive C-Suite decisions as a unique integration of clinical and financial data. Baltimore County, however, currently is not receiving enough meaningful data in this area.

The proper data tools can multiply the cost savings by enhancing other unaffiliated initiatives and leveraging robust data integration, analytics, and reporting, along with collaborative care management. This is achieved through data mining and electronic referral, identifying members who have rising risk, rising costs, gaps in care, and poor performance related to medication adherence and more.

The following are additional benefits that could be derived from expanded use of this approach:

- Tracking and managing initiatives like those we propose *during the benefit term*, pushing vendors to take corrective action, which has proven effective at reducing costs in a variety of states, counties, and cities.
- More effective, data-driven decision-making with respect to potential new initiatives.
- Identifying cost-drivers, key performance measures, risk reduction, gaps in care compliance, best practice compliance, medication adherence, cohort trending, reduction in medical events like ER utilization for avoidable visits, referral optimization, and more – and using this information to document the impact of initiatives to address these on financial and healthcare outcomes.
- Integrating robust healthcare data for a consolidated approach to health care, Workers' Comp, Disability, and other programs.
- Identifying members who could benefit from intervention but are not currently engaged with/enrolled in managed population health and well-being programs, and electronically referring them to vendors of population health management.
- Integrating clinical and financial data with action.

Governments of various sizes have employed these approaches, from the State of New Jersey's Employee Benefit Plan in respect to its Direct to Primary Care offering (over six years), to Oconee County (twelve years) and the Charleston Water System (ten years) in South Carolina.

Five-Year Savings Estimate

	County One Full Year	Five Years
Low End Range	\$4,000,000	\$20,000,000
High End Range	\$4,000,000	\$20,000,000

Upfront Costs: This recommendation can be implemented with existing resources.

These savings are almost immediate (i.e., they begin to accrue within 90 days) and become the new baseline moving forward.

1.5.1.8 Focus on High-Cost Claimants

Implementing a High Cost (Complex) Claimant strategy would not involve much effort by the County as it can be “bolted” onto the existing plan and doesn’t disrupt their current broker. This involves not just the purchase of Stop-loss insurance but also engaging a consultant to review high-cost claimants to implement preventative measures. High-cost claimants, defined as those whose total claims are \$50,000 or greater, represent a small population (1.8 percent of plan members, on average) but generate significant costs (46 percent of total spend, drug and medical combined). Stop-Loss insurance caps the upside exposure, and a high-cost claimant consultant works to identify and prevent claims. Because less than one percent of the population drives 32-40 percent (35 percent on average) of expenses, when an organization has Stop-loss coverage in place, it has more flexibility to manage high-cost claimants, many times identifying and preventing high-cost situations.

Five-Year Savings Estimate

	County One Full Year	Five Years
Low End Range	\$1,000,000	\$5,000,000
High End Range	\$10,000,000	\$50,000,000

Upfront Costs: This recommendation can be implemented with existing resources.

While it is impossible to provide precise savings estimates for Baltimore County without County data, experience by providers in other jurisdictions provides a basis for projecting savings in Baltimore County – with 50,000 members – of \$1,000,000 to \$10,000,000 per year.

1.5.2 MERCY HEALTH PLAN CONTRACT

The Mercy Health Plan contract should not be renewed when it expires in June 2022. A new scope of work should be developed, and the necessary services rebid; and the savings from discontinuing unnecessary physical exams of all new hires should be applied to the other elements of the recommended health insurance improvements, especially employee wellness and telehealth programs.

Findings

Baltimore County contracted with St. Paul Place Specialists, Inc., operating as Mercy Health, to serve as the County’s Medical Provider. This contract retains Mercy as an independent contractor to provide services to the County including:

- conducting physical examinations and administering treatments related to Workers’ Compensation, ADA, Rehabilitation Pension Disability Claims, Workability Assessments, and Human Resources/Health department related issues.
- conducting examinations of employees who hold Commercial Driver’s Licenses (CDL). And, most significantly,
- conducting pre-employment physicals of all new County hires.

There have been widespread complaints about virtually all aspects of these services.

- **Commercial Driver's Licenses.** The County has over 464 commercially licensed (CDL) drivers who are mandated by law to receive pre-employment and re-certification clearances and drug and alcohol screening. All licensed CDL drivers are required to follow County policy as well as U.S. Department of Transportation (DOT) and the Federal Motor Carrier Safety Administration (FMCSA) rules to maintain and renew their licenses. Mercy conducts medical physicals and evaluations inconsistent with evaluations from outside physicians. These results often require employees to obtain further, costly evaluations and tests from other medical practices. Such delays and refusal to pass employee result in lost CDL licenses, negatively affecting the County's operations and the ability to hire staff. The additional testing in which Mercy's process often results also imposes medical costs on the employees that may need to be assumed by the County, costing the County additional money. Finally – in a recurring theme with this contract – extreme wait times for pre-scheduled physicals have a negative impact upon County operations as employees lose significant work hour time for physicals and repeat testing.
- **Pre-Employment Physicals.** Every new Baltimore County employee is currently required to obtain a pre-employment physical before they can begin the job. This is the primary source of revenue for Mercy – and the largest cost to the County – under the contract. Physical exams are generally required for public safety personnel, and often for some others with strenuous job requirements. Public Works LLC knows of no other government, however, that requires that *all* new employees undergo a physical examination, not could we identify any valid rationale for this requirement; the only one offered speculatively, by some officials with knowledge of prior administrations' thinking, was that this was seen as a way to establish a baseline to protect the County against later health insurance claims by employees – but, if so, this clearly would be neither plausible nor permissible under current federal law concerning discrimination in coverage against individuals with pre-existing conditions. As such, the requirement of a physical, to be conducted solely by Mercy Health, exists only as an unneeded County expense.

Unfortunately, this exercise also imposes additional, downstream expenses on the County. The wait for an appointment for these physicals can stretch for many weeks or months – on top of what is already a slow employment pipeline (see Recommendation HR: Recruitment and Selection) – causing many potential County hires to give up, to take jobs elsewhere, or not even to apply for County service. For those who do obtain an appointment and receive an examination, the physicals are near-universally derided as a joke and a waste of their time, creating some degree of employee cynicism.

The contract contains performance measures and guarantees that appear to be observed only in the breach. Attachment A, Section III.10 provides that these exams must be provided within one week of a request, and in case of law enforcement hires or "other circumstances," as soon as one day. Section VI provides that this standard must be met at least 80 percent of the time. It is clear both that these metrics are not being met and that the County has not subjected Mercy to an audit of its performance as called for in Attachment A, Section 2.1.

- **Statutory/Regulatory Compliance.** The County is required by various laws to conduct physical exams of individuals to determine their eligibility for continued benefits or employment. The most frequent of these is workers' compensation. This is probably an expense that the County cannot avoid, although there are arguably other providers who could compete adequately on both quality and cost of service.

The Mercy Health contract took effect on July 1, 2013, for a five-year term. The contract provided for up to five two-year renewals; the County exercised its option to renew the contract in 2018 and 2020. The current term expires June 20, 2022. We recommend that it not be renewed.

In addition, while Public Works LLC does not purport to provide legal advice, the contract appears straightforward. Mercy Health is paid on a free-for-service, or piece-rate, basis: If no exams are administered, for example, there would be no charges. Attachment A of the contract provides that there is no guaranteed minimum or maximum level of service or payment. (Section 1.3) It also provides that ongoing injury management and monitoring – the essence of workers compensation services – "may be provided by designees of the County" (Section 2.6), which on its face would seem to allow the County to send this business elsewhere even as the contract remains in effect. In sum, there would seem to be no reason why the County could not simply stop using Mercy's services immediately, even without waiting for the contract's current term to expire.

In sum, the Mercy Health Plan contract should not be renewed when it expires in June 2022. The necessary services should be rebid. The savings from discontinuing physical exams of all new hires should be applied to the other elements of the recommended health insurance improvements, especially employee wellness and telehealth programs.

Benefit to the County

Besides the savings from eliminating the new-hire physical exam requirement and reducing unnecessary CDL- and workers compensation-related services, a new, competitively-bid contract would provide higher quality care to County employees. Just as importantly, the County hiring process would be accelerated, allowing the County to fill positions more quickly and avoid losing desirable employees due to the excessive wait for a physical exam appointment.

Five-Year Savings Estimate

	County One Full Year	Five Years
Low End Range	\$40,000	\$200,000
High End Range	\$75,000	\$375,000

Upfront Costs: This recommendation can be implemented with existing resources.

In FY2020, the County expended \$72,582.50 on pre-employment physical for non-public Safety personnel. In FY2021, the total cost was only \$40,547.75. This drop-off was most likely due largely to the onset of the COVID-19 pandemic: until March 2020, these billings ranged between roughly \$5,600 and \$11,000 per month, averaging approximately \$8,000; from March 2020 through July 2020, this fell to an average of roughly \$2,000 per month. Over the next eight months, this rate rose to approximately \$3,000 per month, in the last four months of FY2021 (March-June 2021), this rose to an average of \$4,000 per month. We therefore believe it is safe to assume that the use of this service will continue to return to pre-pandemic levels; the low-end savings estimate, however, is based on continued pandemic-era levels of approximately \$40,000 per year, while the high-end estimate represents a return to prior levels, with both amounts rounded conservatively downward.

Implementation Guidance

- The pre-employment physicals especially should be ended. There is no justification for requiring them – or paying for them – and their only observable effect, other than costing the County several million dollars per year, has been to slow down County hiring, discourage jobseekers, and negatively affect morale. They simply should be ceased. These costs will be saved immediate upon their discontinuation.
- The County will continue to require the conduct of exams for CDL, workers compensation, and other statutorily mandated purposes, as well as pre-employment drug screening of potential new hires. After nine years with one vendor, however, it would not hurt to open these services to competitive bid, on both cost and quality.
- In the absence of such a bid process, it is difficult to know what savings may accrue on these mandatory services – although an improvement in service quality would no doubt result, based on anecdotal evidence as to current services. In the months remaining before the contract's expiration, the County could exercise its option under the contract to audit Mercy's provision of services, to shape a more precise description of the services to be sought in a forthcoming RFP, and then issue a new RFP as soon as practicable to begin provision of these services July 1, 2022.
- Savings generated through this recommendation could be applied to contracting for other health care services, such as employee wellness programs and telehealth, that are being pursued by the County – efforts that then will produce further savings of their own. (See also in this report **Comprehensive Health Care Cost Containment**.)

1.6 Revenue Enhancement: Improved Realization

This report has thus far discussed ways that Baltimore County can money. The review team was also tasked with seeking efficiencies in revenue realization or enhancement, without increasing taxes. Several such opportunities exist in Baltimore County.

One place to start is with the significant investments that the County has already made in transit – a known generator of economic value. In many college or university towns, major institutions contribute to or fully subsidize transit use for their students, employees, and staff. Towson University currently provides some subsidy to its students, faculty, and staff for the use of Maryland Transit Administration (MTA) bus, light rail, Metro Subway, and MARC Train. The Towson Loop is going to be used by many of Towson’s major anchor institutions – major stops include the Shepard Pratt Health System, St. Joseph Medical Center, Towson University, Towson Town Center, and Goucher College – so their sponsorship or support for the Loop’s operation could decrease costs to the County while ensuring that the County can provide fare-free rides to its residents during and after the pilot program. Local institutional support in the form of sponsorships for the Towson Loop would create a sustainable financial model for operating the system, while effectively establishing a strong customer base to use the service.

In addition, because of the potential benefits to a region’s economic development, many jurisdictions leverage “land value capture” to support capital and operational expenses. Land value capture is based on the well-researched economic principle that transportation investments increase the desirability of a place either as a destination or a place to live, which in turn increases the land prices for properties within proximity of these investments. Land value capture mechanisms include Tax Increment Financing (TIF), land value tax, and special assessment area tax. These methods apply the additional, of the growth generated to fund the investment. The County could pursue an analysis for the Towson Loop pilot, as well as for future transportation improvements, that leverages the value capture approach to help finance these investments in the form of accessing the future value of the property.

Meanwhile, consolidating all on-street and lot parking operations under one agency, would increase efficiency and improve enforcement, increasing collections by up to \$1 million per year.

The Baltimore County Department of Aging formed a partnership with Northwest Hospital to address Social Determinants of Health (SDOH) through its “Hospital to Home” program. New guidance from the federal government opens the door to provide and coordinate SDOH services to qualify for reimbursement from Medicare, Medicaid and other insurers. Thus, Baltimore County can expand its breadth of services through similar partnerships with other health systems – and get reimbursed to do so.

The County’s approval process for accepting grant funding and for distributing most grants is unnecessarily protracted; in some cases, this delay impacts the ability for the funds to be used as intended. Streamlined procedures – both for approving external funding opportunities and corresponding budget appropriations and increasing grants-dedicated staff for grants to the County, and for the award and distribution of grants by the County – could yield several million dollars in additional annual revenues.

1.6.1 TOWSON LOOP INSTITUTIONAL SUPPORT

The Department of Public Works and Transportation should use the Towson Loop pilot as an opportunity to seek financial support from partner institutions for future expansion of the system.

Findings

The Towson Loop is a free bus service pilot project that will serve residents around the Towson area (in and out of downtown Towson) beginning in the fall of 2021. The three-year pilot will help residents commute to school and travel to amenities in downtown Towson. Major stops include the Shepard Pratt Health System, St. Joseph Medical Center, Towson University, Towson Town Center, and Goucher College.

The 12-bus service, which will hold 25 passengers at a time, aims to reduce congestion and greenhouse gas pollution in the region. Service hours for the Loop will run Monday through Friday from 6a.m. to midnight and Saturday from 10a.m. to midnight.

In addition to the upfront capital investments in the County Loop, the Baltimore County FY2022 budget anticipates an operating budget of approximately \$1.6 million for annual costs and maintenance. According to the 2020 Pilot Feasibility Study, ridership is projected to be between 200,000 and 300,000 riders a year. The service will be free to all riders.

Based on Public Works LLC's interview with members of the Department of Public Works (DPW), it is our understanding that the County is considering, but has not yet leveraged, institutional support to sponsor the service. In many college- or university towns major institutions contribute to or fully subsidize transit use for their students, employees, and staff. One major anchor in Towson, Towson University, currently provides some subsidy to its students, faculty, and staff for the use of Maryland Transit Administration (MTA) bus, light rail, Metro Subway, and MARC Train.¹³² It is likely that other anchor institutions do similarly.

The Towson Loop is going to be used by many of Towson's major anchor institutions (as described above), their sponsorship or support for the Loop's operation could decrease costs to the County while ensuring that the County can provide fare-free rides to its residents during and after the pilot program.

Benefit to the County

Local institutional support in the form of sponsorships for the Towson Loop would create a sustainable financial model for operating the system, while effectively establishing a strong customer base to use the service. Acquiring broad institutional support for the Loop will help advertise the service to residents and visitors, as local employers that are contributing to the service will be more likely to promote the service to their staff, students, and customers.

Approximately 200 cities globally have some form of free transit and nearly 100 cities and towns have entirely free transit systems. Studies show that free transit is a highly effective way to promote new usage among residents and can help communities achieve other goals such as decreased congestion and the reduction of greenhouse gases. Other benefits include increasing economic vitality of districts and corridors with the help of enhanced transportation options for residents and visitors, as well as increased economic mobility and access to jobs.¹³³

Best Practices and Benchmarks

One key best practice for Baltimore County to consider is Philadelphia's LUCY (Loop through University City) circulator. This route is managed by the Southeastern Philadelphia Transportation Authority (SEPTA) through a Route Guarantee Subsidy. Such agreements are made between SEPTA and local entities to fully fund the deficits generated by services provided by specific request. In the example of the LUCY bus, the Route Guarantee Subsidy is an agreement with a consortium of University City institutions (the University of Pennsylvania, Penn Medicine, the University of the Sciences, and Children's Hospital).¹³⁴

Other comparable counties that support free transit systems include the following:

- Charlotte-Mecklenburg County, NC: The Charlotte Area Transit System (CATS) has the CityLYNX Gold Line. The CityLYNX Gold Line is a 10-mile streetcar system with 1.5 operating miles. The Streetcar service is free of charge and funded by a local sales tax dedicated to public transit.¹³⁵
- Dekalb County, GA: Atlanta is working on developing a pilot program in conjunction with local partners to provide free electric vehicle rides on specific routes. One example is The Buckhead Uptown Connection (buc) bus program. The buc connects MARTA riders with Buckhead destinations including office buildings and is the direct result of a partnership between the Buckhead Community Improvement District and Livable Buckhead, which provide funding and operation oversight.¹³⁶

¹³² <https://www.towson.edu/parking/sustainable-transportation/mtatransit.html>

¹³³ <https://nextcity.org/daily/entry/whos-afraid-of-fare-free-public-transit>

¹³⁴ <https://planning.septa.org/wp-content/uploads/2021/02/Operating-Budget-FY2021.pdf>

¹³⁵ https://charlottenc.gov/cats/transit-planning/2030-plan/Documents/2030_Transit_Corridor_System_Plan.pdf

¹³⁶ <https://livablebuckhead.com/programs/mobility/last-mile-connectivity/the-buc/>

Implementation Guidance

Based on interviews with high-level Department officials, Baltimore County is considering this approach to leverage funds to support the Towson Loop. To implement this recommendation the County needs to negotiate sponsorship agreements with one or more anchor institutions, such as Towson University and Goucher College. The County may need to enter into an agreement, such as the Route Guarantee Subsidy (described above) to solidify the arrangement and ensure consistent support from the institutions. It is recommended that institutional “anchor” sponsors would contribute at levels no less than \$1 to \$2 million per year.

1.6.2 TOWSON LOOP VALUE CAPTURE ANALYSIS

Pursue a feasibility study of the potential for using land value capture to fund the Towson Loop and future public transportation investments.

Findings

The Towson Loop is a pilot free bus service pilot project that will serve residents around the Towson area, in and out of downtown Towson, in fall 2021. The three-year pilot will provide service to residents to commute, get to school, and enjoy Towson downtown amenities. Major stops include the Shepard Pratt Health System, St. Joseph Medical Center, Towson University, Towson Town Center, and Goucher College.

The 12-bus pilot service, which will hold 25 passengers at a time, aims to reduce congestion and greenhouse gas pollution in the region. Service hours for the Loop will be Monday through Friday from 6AM to midnight and Saturday from 10AM to midnight.

In addition to the upfront capital investments in the Towson Loop, the Baltimore County FY2022 budget anticipates an operating budget of approximately \$1.6 million for annual costs and maintenance. According to the 2020 Pilot Feasibility Study, ridership is projected to be between 200,000 and 300,000 riders a year. The service will be free to all riders. Ultimately, the pilot will serve as a starting point to expand to other communities across the County.¹³⁷

Approximately 200 cities globally have some form of free transit and nearly 100 cities and towns have entirely free transit systems. Free transit ensures usage among residents and can help communities achieve goals such as decreased congestion and reduced emissions/improved air quality. It additionally improves the economic vitality of their commercial districts and corridors with the help of enhanced transportation options for residents and visitors. Because of the potential benefits to a region’s economic development, many jurisdictions leverage a funding mechanism called land value capture to support capital and operational expenses.¹³⁸

Land value capture is based on the well-researched economic principle that transportation investments increase the desirability of a place either as a destination or a place to live, which in turn increases the land prices for properties within proximity (0.5 to 1 mile) of these investments. Land value capture mechanisms include the following methods: Tax Increment Financing (TIF), land value tax, and special assessment area tax. These methods focus on applying the additional, incremental tax value within an identified area to pay for certain expenditures—either capital or operational. The approach assumes that the anticipated investments will generate growth in the area and the added value’s tax liability funds the investment.

¹³⁷ https://resources.baltimorecountymd.gov/Documents/Public_Works/traffic/circulator-final-report.pdf

¹³⁸ <https://nextcity.org/daily/entry/whos-afraid-of-fare-free-public-transit>

According to the Federal Transit Administration (FTA), numerous studies have found that transit projects increase nearby property values by 30 to 40 percent. In some cases, as much as 150 percent.¹³⁹ While Baltimore County's future investments in transportation infrastructure would likely be in the form of bus or Bus Rapid Transit (BRT) service, these systems would result in a property value uplift throughout the community.

The County could pursue an analysis for the Towson Loop pilot, as well as for future transportation improvements, which leverages the value capture approach to help finance these investments in the form of accessing the future value of the property.

Benefit to the County

Evaluating the potential of value capture for the Towson Loop and future transportation investments in the County would do provide a potentially sustainable revenue source for capital or operations and maintenance (by leveraging increased tax revenues within a designated area to fund).

Best Practices and Benchmarks

Over the past 25 years, at least 130 studies in more than 60 jurisdictions have evaluated the potential for value capture through studying the increase in property values near transit systems.

Peer communities which have considered value capture approaches to supporting transportation investments include the following:

- Montgomery County, Maryland: The County's Department of Transportation (MCDOT) evaluated the potential property value impacts and value capture implications during its 2019 evaluation of the MD 355 BRT alignment study.¹⁴⁰ The study found along the corridor that the BRT could anticipate an additional 10 million square feet of residential development, which could be leveraged in a value capture mechanism.
- Prince George's County, Maryland: The county has used tax increment financing (TIF) to fund some transportation-related infrastructure. Primarily, it has funded parking facilities and roads. To do so, TIF districts were created. In the past, using TIF has been legally restricted; however, changes to the law have ensured that certain areas of the county are eligible to become TIF districts and can get approved by the county to receive a TIF bond.¹⁴¹ Currently, "New Carrollton Metro Development District, Largo Town Center Metro Development, Prince George's Plaza Metro Development District, and Suitland-Naylor Road Development District" are the TIF districts in the county.¹⁴²
- Howard County, Maryland: A 2014 study by the Howard County Transportation Board cites value capture as a potential mechanism to support transportation improvements in the future. Howard County Maryland uses tax increment financing to pay for transportation improvements. While the deal to allow TIF was almost repealed in 2017, the county has used TIF to pay back funds previously allocated to road improvements.¹⁴³
- Charlotte-Mecklenburg County, North Carolina: The Charlotte Area Transit System (CATS) has the CityLYNX Gold Line. The CityLYNX Gold Line is a 10-mile streetcar system with 1.5 operating miles. The Streetcar service is free of charge and funded by the value capture of local sales tax dedicated to public transit.

139 <https://www.transit.dot.gov/valuecapture>

140 <https://montgomeryplanningboard.org/wp-content/uploads/2019/06/Attachment-A-DRAFT-MD-355-BRT-Corridor-Summary-Report.pdf>

141 <https://www.princegeorgescountymd.gov/858/Tax-Increment-Financing-TIF-Districts>

142 <https://www.pgcedc.com/additional-tax-incentives>

143 <https://www.baltimoresun.com/maryland/howard/columbia/ph-ho-cf-tif-bond-closing-1026-story.html>

Implementation Guidance

States successfully using value capture include the following: California, Colorado, Florida, Georgia, Massachusetts, Missouri, Ohio, Oregon, Pennsylvania, Texas, and Virginia, as well as the District of Columbia. In 2013, the Maryland General Assembly passed legislation that enabled Tax Increment Financing (TIF) to be used for Transit-Oriented Development (TOD). This legislation enables Baltimore County to leverage some of the potential benefits from transit investments, although the value capture in this law is limited to bond re-payment.¹⁴⁴ Any implementation of this recommendation would require the County to work within the parameters of the existing TIF-specific mechanism or seek new legislation at the state level.

A first step to advancing this recommendation is to complete a study of the potential for value capture in the County. This funding source requires the following for successful implementation:

- A regular re-assessment process for all properties throughout the County.
- A base of properties within ½ to 1 mile of transportation assets which, with potential property value uplift associated with transit assets, can help fund anticipated capital or operational costs. This assessment could be done first to anticipate the potential of value capture for the Towson Loop. During future feasibility studies for new routes, this analysis could be completed as a part of the route alignment/selection process to choose routes that optimize for property value improvements and direct density to desired locations.
- Zoning that encourages increased densities of residential and commercial properties near transit.

Any evaluation of the viability of value capture would need to be done in collaboration with the Department of Planning, as the mechanism relies on consistent implementation of zoning regulations for a model that will realistically estimate future value of property in the targeted districts in the County.

1.6.3 PARKING METER REVENUE

Baltimore County could consolidate all street and lot parking operations under one entity.

Findings

The Baltimore County Office of Budget and Finance (OBF) is responsible for street parking meter enforcement, while the Baltimore County Revenue Authority receives revenues from street parking meters. OBF provides parking meter enforcement and other administrative activities, such as accounting and adjudication. Currently, the Revenue Authority receives revenues from parking meters and provides meter maintenance. While the County may have established this arrangement to support the Revenue Authority's operations, today, the Authority operates in the black with a strong fund balance.

A decade-old study of the issue found significant inefficiencies in enforcement, technology, and capturing potential revenues by maximizing meter usage fees. The study noted, "[The Revenue Authority] is responsible for the parking meter program, within parameters set by Baltimore County and the Traffic Engineer, parking enforcement activities are housed with the County Office of Budget and Finance. This hinders the necessary relationships between parking meter analysis, regulations, problem identification, and enforcement."¹⁴⁵ The report notes "that both on-street and off-street observations by CMA revealed an unusually high degree of violations. This observed situation could be a result of the public being conditioned to not pay the meters (a situation resulting from a lower-than-normal degree of enforcement) and, depending on the district, could lead to a perception of inadequate parking [due to reduced parking turnover]." The Chance Management report further notes that the County's enforcement effort

¹⁴⁴ https://mgaleg.maryland.gov/2009rs/chapters_noln/Ch_182_hb0300T.pdf

¹⁴⁵ Chance Management Advisors, Inc. 2011

had then remained inadequate for more than a decade, arguably because of the lack of investment in enforcement personnel and technology resources. The parking public in some of the County's smaller commercial districts does not "feed" the meters since there is little likelihood of being ticketed. Their disregard of regulations results in smaller supply of spaces available for the customers and visitors to the area due to reduced vehicle turnover. Consolidation of the operation under one entity is likely to result in predictable enforcement made possible through investment in staffing and state-of-the-art technology that will increase payment compliance for metered parking spaces. Greater and more consistent enforcement will have a corresponding effect on revenue generation to support the cost of enforcement and system maintenance.

As the Chance Management Advisors report suggests, bifurcated responsibility for operating parking meters produces needless revenue loss to both the County and area businesses. Our interviews with the Revenue Authority and the OBF lead the review team to conclude that the Revenue Authority is best suited to run the centralized operations. It has the technical know-how and knowledge-based investment capability in equipment and organization to provide the most revenue efficient and cost-effective outcomes. These resource investments would also provide the Revenue Authority with the incentive to monitor and enforce parking at the meters, thus eliminating longstanding inefficiencies in enforcement. They include producing appropriate revenues from enforcement and parking turnover to increase traffic flow to adjacent retail and commercial businesses.

Benefit to the County

Consolidation would provide more efficient and cost-effective operation of on-street parking, including service to the public and realization of revenues from parking fees and fines. Current annual parking meter revenue is \$1.1 million. Centralizing the operation would result in a significant net revenue increase. These revenues are likely to increase incrementally to improved capture rates on meters, improvements due to new technologies such as ParkMobile, the pay-by-phone parking management system, License Plate Recognition (LPR), and other more effective enforcement practices.

Best Practices and Benchmarks

Parking management organizations that consolidate in a single authority include Prince George's County Revenue Authority; Washington, DC; Philadelphia, PA; and Louisville, Kentucky.

Five-Year Revenue Estimate

	County One Full Year	Five Years
Low End Range	\$240,000	\$1,200,000
High End Range	\$560,000	\$2,800,000

Upfront Costs: The recommendation will require staff time and leadership to implement, however it can be implemented with existing resources.

Information provided by the Revenue Authority indicates parking meter annual revenues of \$1.6 million dollars. They further indicate potential revenue increases of as much as from 25 percent to 50 percent annually. We have used a more conservative growth rate with a low range of 15 percent and a high range of 35 percent to calculate these revenue projections (\$1.6 million x 0.15 = \$240,000; \$1.6 million x 0.35 = \$560,000.) The accretive rate remains constant over five years.

Implementation Guidelines

An orderly transfer of parking operations from OBF to the Revenue Authority will require the two agencies to jointly develop an implementation plan that addresses considerations of budget, personnel, and operating procedures that will foster a smooth transition of operation from OBF to the Revenue Authority.

1.6.4 MEDICARE/MEDICAID REIMBURSABLE PARTNERSHIPS

Identify, enhance, and develop local partnerships that enable the Department of Aging to offer long-term social support services that are reimbursable to the County from Medicare, Medicaid, and other third-party insurers.

Findings

Research and practice have shown that linking social services offered by Area Agencies on Aging to the health care of community dwelling elderly generates better outcomes in compliance, chronic care management, preventable acute care episodes and premature entry into long term care facilities. It also results in lower health care utilization and lower levels of spending within Medicare and Medicaid programs as well as with other third-party insurers.¹⁴⁶

The Centers for Medicare and Medicaid Services (CMS) and the National Center for Health Statistics (NCHS) within the federal Department of Health and Human Services (DHHS) issues guidelines for coding and reporting, using the International Classification of Diseases (ICD). These codes are used to classify and record a patient's diagnosis and symptoms, and the procedures provided to treat them by clinicians and other health care providers.¹⁴⁷ Basically, the ICD-10-CM "is a morbidity classification published by the United States for classifying diagnoses and reason for visits in all health care settings."¹⁴⁸

These codes also lay the groundwork for authorizing reimbursement by insurers such as CMS on behalf of Medicare and Medicaid beneficiaries and private sector insurers such as United Health Care.

Over the last decade, there has been a great deal of attention given to the Social Determinants of Health (SDOH), defined as "conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks."¹⁴⁹ Social Determinants of Health have a major impact on people's health, well-being, and quality of life. Examples of SDOH include:¹⁵⁰

- Safe housing, transportation, and neighborhoods.
- Racism, discrimination, and violence contributing to health disparities.
- Education, job opportunities, and income.
- Access to nutritious foods and physical activity opportunities.
- Polluted air and water.
- Language and literacy skills.
- Social and Caregiver Supports.

Recognizing that Social Determinants of Health play a major role in achieving positive patient outcomes, hospitals and health systems now factor in the barriers and impact these social determinants have on a patient's quality of life and ability to manage their health. Many of these health systems have turned to community-based programs that serve vulnerable populations by forging partnerships with them to render services that address SDOH, such as providing nutritious meals, safe housing, transportation, caregiver support, and financial assistance to pay utility bills and prescriptions.

¹⁴⁶ Chance Management Advisors, Inc. 2011587-594.

¹⁴⁷ <https://www.cms.gov/files/document/2021-coding-guidelines-updated-12162020.pdf>.

¹⁴⁸ Ibid.

¹⁴⁹ <https://health.gov/healthypeople/objectives-and-data/social-determinants-health>.

¹⁵⁰ Ibid.

Area Agencies on Aging serving a largely Medicare/Medicaid eligible population have a long history in addressing the needs arising out of social and environmental determinants, and hence, have become a lead partner and provider of such services to address them.

The Baltimore County Department of Aging formed a partnership with Northwest Hospital to address these issues through its “Hospital to Home” program, whereby patients being discharged who are considered at-risk for readmission based on Social Determinants of Health are connected through BCDA to services to remedy this situation. A service coordinator works on-site at Northwest Hospital to meet with patients and their caregivers to determine their needs for social and health services following discharge back to their homes and community. The program was launched in 2019 and yielded the following results:¹⁵¹

- A 71 percent reduction in inpatient stays.
- A 43 percent decrease in Emergency Department visits.
- A 75 percent reduction in 30-day readmissions.

These positive quality of life outcomes are not only beneficial to the patient/consumer receiving the services, they also are beneficial the community in reducing costs and maximizing resources.

Benefit to the County

The Baltimore County Department of Aging would like to expand its partnerships with other health care providers and insurers to provide services cited as Social Determinants of Health within ICD-10-CM codes that identify non-medical factors that may influence a patient’s health status. New guidance from CMS allows coding professionals to “utilize documentation of social needs from clinicians including, but not limited to social workers, community health workers, case managers, nurses and other providers.”¹⁵² This opens the door for case managers and social service clinicians within BCDA to cite need and provide and coordinate SDOH services that thereby will qualify for reimbursement from Medicare, Medicaid and other insurers.

Thus, Baltimore County will be able to expand its breadth of services through partnerships with health systems in addressing SDOH for patients within the community – while being reimbursed to do so. Overall, the quality of life among vulnerable seniors and their families struggling with these social determinants of health – often otherwise resulting in health disparities – can be significantly improved, as substantiated by the current Northwest Hospital Partnership.

Best Practices

There is a wealth of programs being offered nationwide showcasing partnerships between Area Agencies on Aging and health care systems. Two examples are:

- **Pennsylvania Counties: Decreasing Rehospitalizations.** Aligning Forces for Quality of South Central Pennsylvania, in partnership with the York County Area Agency on Aging, the Adams County Office for Aging, and other regional organizations provide care transition services to Medicare patients discharged from York, Hanover, and Gettysburg Acute Care Hospitals. The local area agencies on aging estimated Medicare cost savings of \$2.7 million a year. The process with each patient begins with an assessment by a lead care transition coach, who monitors admitted patients and flags higher-risk patients based on a history of hospitalizations, types of conditions, and quantity and type of medications prescribed. Health coaches work closely with hospital social workers and case managers.

¹⁵¹ Baltimore County Area Plan FY2020 to 2023, page 6.

¹⁵² American Hospital Association, “ICD-10-CM Coding for Social Determinants of Health Brief,” November 2019. <https://www.aha.org/system/files/2018-04/value-initiative-icd-10-code-social-determinants-of-health.pdf>

- **Allegheny County (Pennsylvania): Decreasing Rehospitalizations.**¹⁵³ The Community-based Care Transitions Program (CCTP) started as a grant-funded program launched in Allegheny County in late 2012 designed to work with adults who are considered to be at high risk for 30-day hospital readmissions and has since expanded to other payers. The program's goal is to reduce readmissions rates across each hospital, improve transitional care services among the community and healthcare providers, ensure the community understands how to effectively navigate the health system, and educate the community about the various community and social supports and services that are available to them.

A certified "coach" (employed by DHS/AAADH) is provided to every Medicaid fee-for-service patient who is discharged from a partnering hospital. The coaching is centered around teaching medication self-management, personal health record keeping, follow ups with primary care doctors or specialists, and knowledge of red flags. The coaching intervention consists of an in-hospital visit at least 24 hours prior to discharge, a home visit within 72 hours of discharge, and three follow-up phone calls within 30 days of discharge.

Implementation Guidance

We recommend that three steps be taken to expand BCDA partnerships with health systems and hospitals and direct service provision in providing reimbursable SDOH services:

1. Secure the consulting services of a coding and reimbursement specialist who can work with BCDA staff in identifying ICD-10 Codes that are relevant to their long term support services and identify additional areas to offer services (e.g. Occupational Therapy).
2. Create an internal working group that can identify partnerships with health care systems that could use BCDA long term social support services to address SDOH of patient care.
3. Monitor the progress of the Maryland State Department of Health's work in developing a "Return on Investment Calculator," that will provide evidenced based outcomes of savings achieved in addressing Social Determinants of Health.

1.6.5 STREAMLINE GRANT APPROVALS

The County could enable a streamlined legislative procedure for approving external grant funding opportunities and corresponding budget appropriations, as well as for distributing grant funds. The amended procedures and timelines should be documented in a comprehensive County Grants Handbook designed for practical use by all County staff involved in grant seeking and grant administration.

Findings

The Baltimore County Council approval process for accepting grant funding and for creating or increasing a budget appropriation to accommodate a grant award to the County is a multi-layered, multi-month process, requiring significant direct involvement and time investment by agency leadership and high-level staff. The process includes prior notice 14 days in advance of scheduled hearings, and testimony of an agency representative before the Council can approve the acceptance of the grant by voice vote; further hearings with similar prior notice and testimony are required if acceptance of grant funds requires a new or modified budget appropriation. In certain circumstances, this may create difficulty in or prevent the County from accepting funds prior to their expiration, or in implementing time-bound grant-funded programs in a timely manner. It also causes agencies

¹⁵³ <https://pittsburghseniornews.com/2017/08/29/older-adults-transition-successfully-hospital-home-community-based-care-transitions-program/>

to forgo potential opportunities to seek available grant funding for current or new programs when it would be unlikely or impossible to meet required legislative deadlines. It is not possible to quantify the revenue lost because of this protracted process with available data since forgone opportunities are not tracked; however anecdotal evidence suggests they may be significant. Finally, the staff time and resources consumed by the legislative approval process, while not tracked by the County, are substantive (conservatively in the range of \$1 million per year) and in most cases likely outweigh the benefits of a lengthy deliberation period.

This legislative process is set forth in the Baltimore County Charter. The County's Legal Office should be consulted for an opinion on whether the process for approving grants only could be modified through a change to the County Code, or whether the Charter would need to be amended through a ballot measure. A streamlined approval process would involve 14-day prior notification of the Council during which period any Council member may object or request additional information or testimony; if no objection or inquiry were made, the grant would be subject to the approval of the County Executive.

Similarly, the County's process for distributing most grants is unnecessarily protracted. The 14-day notification period during which the County Council may review and approve grants awarded is only one step in a multi-layered process, in addition to review by a Grants Review Team, and a Grants Review Committee. As a result, the average time from grant award to receipt of funding is two months; in some cases, this delay impacts the ability for the funds to be used as intended. These include grants funding vital programs supporting homeless, domestic violence, continuum of care, and other services.

The County does not have a centralized office that handles grant administration, nor published countywide guidance for grant seeking activities. Grant seeking and administration activities are handled at the agency level; agencies vary widely in their departmental knowledge of the grants process and available resources for this purpose. A new position of Grants Coordinator has been added within the past year in the Office of Government Reform and Strategic Initiatives within the Office of the County Executive to begin to the work of coordinating grant seeking and administration activities; to identify potential efficiencies in coordinating resources and collaborating across agencies where opportunities or required efforts may overlap; and to implement such processes. We recommend increasing grants-dedicated staff in this office by one FTE to provide support to the Grants Coordinator in developing and documenting new, best practice policies and creating countywide guidance around these new processes; this staff would also support the implementation of other grants-related recommendations presented elsewhere in this report (see **Countywide Grants Management Solution** and **Health and Human Services Grants Management**).

Baltimore County received \$300 million in Gifts and Grants revenue (Special Funds) in FY2020 or about nine percent of total operating budget. (This figure does not include grants or revenue categorized as Intergovernmental Aid.) In FY2021 the adopted budget included \$235.8 million in Gifts and Grants (about seven percent of the operating budget).

Benefit to the County

Adoption of this recommendation would both save significant staff time involved in accepting these grants and increase agencies' abilities to secure more grant revenue. New grant awards that would be made possible by a faster approval process cannot be reliably projected in the absence of data about grant opportunities forgone due to time constraints; however, we expect that a streamlined approval process, supported by clear County guidance, would increase grant revenues by a minimum of one to three percent. Actual revenues may be higher and likely to increase over time as coordination and collaboration efforts are institutionalized under a streamlined process (see **Countywide Grants Management Solution** elsewhere in this report for further discussion.) There are no savings estimated to reflect the value of staff time since no position reductions are recommended, however the review team would anticipate approximately \$1 million in additional annual efficiency gains.

Furthermore, streamlining the County's process of grant distribution will improve the efficiency and effectiveness with which public funds are used by enabling awardees, including local organizations and providers of essential services to the public, to utilize County funds in timely service to the community as intended, reducing lag and waste.

Five-Year Savings Estimate

	County One Full Year	Five Years
Low End Range	\$2,589,000	\$12,945,000
High End Range	\$8,037,000	\$40,185,000

Upfront Costs: The above estimates include \$90,000 in of one additional FTE, including OEC's

Savings estimates are based on one to three percent total increase in realized grant revenues (excluding intergovernmental aid revenues). The average of the FY2020 actual and FY2021 adopted budgets are used as baseline data (\$267,900,000).

Best Practices and Benchmarks

Given the significance of state and federal grant funding to counties in general, many counties nationwide publish Grants Administration Handbooks, which outline uniform guidance for identifying and seeking grants, including specific criteria for pursuing grants that are aligned with the County's strategic plan and add measurable value to the County's programs. They also outline the required procedures and timelines for grant approvals and corresponding appropriations. This kind of guidance increases agencies' capacity to efficiently identify and pursue appropriate external funding – and especially useful for helping County agencies to secure newly available grants and/or non-recurring opportunities for which there is no institutional knowledge or process in place.

Various County governments across the country have Grants Administration Manuals. Both Charlotte County¹⁵⁴ and Hillsborough County¹⁵⁵ (Florida) have publicly available manuals that outline and distinguish between federal, state, and county laws and regulations. Providing clear detail on standardized procedures for each step in the grants approval and corresponding appropriations processes increases accessibility, clarity, and timeliness with which the County approves and benefits from external grant funding opportunities.

The Maryland Governors Grants Office has a Grants Manual that also provides guidance on how to navigate, manage, and report federal grants. Baltimore County could incorporate into its handbook the guidance in the Manual's Local Government Grants Management and Coordination section, which outlines "tasks, duties, knowledge, skills, and abilities applicable to local government." ¹⁵⁶

154 <https://www.charlottecountyfl.gov/core/fileparse.php/340/urlt/grants-administration-manual.pdf>

155 <https://www.hillsboroughcounty.org/library/hillsborough/media-center/documents/grants/grantsadminhandbook.pdf>

156 https://grants.maryland.gov/Documents/maryland%20grants%20manual_updated%201.23.15.pdf

1.7 Revenue Enhancement: Offsetting Costs

None of the opportunities to increase revenue gains contained in this efficiency report involve tax increases. However, County government provides some services at low-or no cost that benefit not the population generally but a more specific subset of businesses or individuals that utilize those services; these are properly supported by user fees, just as they would be if privately provided. In many cases, however, these fees are lower than may be justified given the cost of providing the service and/or comparable fees in other jurisdictions – and this has the effect of shifting a greater proportion of these costs from the actual users to the taxpayers generally. In many cases, the County has a valid public policy interest in subsidizing these costs to residents (such as reduced-fee animal spaying and neutering programs). However, the County should be cognizant of the actual costs of these services, and periodically update such fees to appropriate levels – not only improve the County’s bottom line, but also to ensure that the taxpayer burden of subsidizing these services is warranted.

For instance, Baltimore County fees for environmental health permits and plan reviews are lower than in surrounding counties; we recommend that the County increase fees charged for permits and plan reviews and begin charging fees for certain permitting and inspection services currently provided at no cost. Likewise, while its programs are more comprehensive, the fees charged by the Division of Animal Services are generally the lowest among neighboring counties, for fees that do not approach the actual costs of services. We recommend an adjustment in animal fees that balances the public good of encouraging pet adoption and supporting the responsible provision of animal medical services (spaying/neutering, rabies vaccinations), while covering a greater portion of the costs of these services, and at the same time ensuring low- or no-cost access for lower-income individuals.

Perhaps most urgently, however, the County needs a plan to offset the foreseeable future costs of the Eastern Sanitary Landfill Solid Waste Management Facility (ESL), which is the only operating sanitary landfill in Baltimore County. With fewer than ten years of remaining useful life, the County would be well served to immediately pursue steps to expand the ESL’s capacity and begin to actively plan for a new location – but also reduce the volume of solid waste entering the landfill, extending the ESL’s lifespan. The best way to divert this waste stream is through targeted fees and charges that are appropriately associated with use of this essential County resource. Properly assigned and calibrated fees will both generate revenues needed to expand capacity and forestall other costs. Elements of comprehensive approach to address capacity issues at ESL could include:

- A pilot residential compost collection program and allowing residential backyard composting.
- Further analyzing the trash collection costs for larger multifamily rental properties.
- Studying the true cost of solid waste disposal and transfer at the ESL facility, with the goal of adjusting the tipping, transfer, and host fees to reflect these expenses and to extend the lifespan of the ESL.
- Implementing a Systems Benefit Charge to be used for future capital investments related to existing capacity issues and needs at the ESL.

1.7.1 MULTIFAMILY HOUSING INSPECTIONS

Expand the Baltimore County Rental Registration License Program to include rental properties with more than six units to address substandard housing issues throughout the County’s multifamily rental housing stock.

Findings

The Census Bureau’s American Community Survey estimates that half of all rental units in Baltimore County have at least one condition that qualifies that unit as substandard housing. Currently, buildings with seven or more units are not required to undergo regular inspections; code enforcement and compliance for these larger buildings is driven primarily by response to complaints.

Baltimore County assesses an inspection fee on all rental buildings with six or fewer units; this fee funds the administration of the Rental Registration License Program. Property owners who wish to rent units must register their units with the County. To register, property owners must have their buildings inspected by a state-licensed building inspector, who completes an inspection sheet. The property owner submits the sheet and pays the fee for a three-year license, which ranges from \$48 to \$60 per unit depending on the number of units and whether the property is owner-occupied.

In October 2020, Baltimore County's Code Enforcement Work Group recommended implementation of an annual fee of \$25 per unit on the estimated 78,000 units in buildings with seven or more residential units. These fees would pay for the hiring of seven additional code enforcement inspectors and would cover additional administrative costs, enabling the County to extend regular inspections to all rental housing.

After the Work Group made its recommendation, legislation was introduced to the County Council to establish a multifamily registration fee; the fee was strongly opposed by landlords, and the proposed legislation was rescinded.

Best Practices and Benchmarks

Registration fees for larger multifamily properties are common among neighboring jurisdictions. In Anne Arundel County, property owners are assessed an annual fee of \$25 per unit, plus a flat fee ranging up to \$1,370, depending on the number of units in the building. In Montgomery County, annual fees range from \$47 to \$64 per unit. In Prince George's and Howard Counties, the fees are biennial and are \$75 and \$93, respectively.

The average fee per unit among neighboring jurisdictions for larger buildings (seven or more units) is between \$44 and \$48 (see table below.) Baltimore County does not currently inspect or charge licensing fees for buildings with seven or more units.

MULTIFAMILY PROPERTY LICENSING FEES IN SELECTED COUNTIES* BY NUMBER OF UNITS

Units	Anne Arundel	Montgomery	Prince George's	Howard	Average per unit*
7	\$295	\$448	\$263	\$327	\$48
10	\$370	\$640	\$375	\$468	\$46
15	\$495	\$960	\$563	\$701	\$45
20	\$620	\$1,280	\$750	\$935	\$45
30	\$870	\$1,920	\$1,125	\$1,403	\$44
50	\$1,370	\$3,200	\$1,875	2,338	\$44
75	\$3,245	\$4,800	\$2,813	3,506	\$48

Five-Year Revenue Estimate

	County One Full Year	Five Years
Low End Range	\$1,392,000	\$6,960,000
High End Range	\$3,000,000	\$15,000,000

Upfront Costs: Revenue estimates take into consideration implementation costs of \$558,000 annually (see discussion and calculations below).

According to the Code Enforcement Work Group, there are approximately 78,000 rental housing units in buildings with seven or more units. The low-end savings/revenue estimate is based on a new fee for buildings with seven or more units, with a fee structure that averages \$25 per unit, as recommended by the Code Enforcement Work Group; this would generate \$1,950,000 annually (\$25 x 78,000). The high-end estimate is based on a fee of \$46 per unit, the highest charged by a neighboring jurisdiction. This fee would generate \$3,558,000 annually (\$46 x 78,000).

A County Code Inspection & Enforcement Officer I is salary grade 23 (salary of just over \$49,000), and a County Code Inspection & Enforcement Officer II is salary grade 26 (just under \$57,000). If four new hires at salary grade 23 and three new hires at salary grade 26, the salaries for the new positions would total \$367,000, plus \$191,000 in OEC's, for a total of \$558,000 annually (see table below for detail). This recommendation assumes seven new hires recommended by the Code Enforcement Work Group as the costs of implementation; however, continuing the use of third party contracted inspectors as is done for multifamily rentals of six and fewer units would likely reduce expenses further, and create consistency across inspection regimes.

PROJECTED REVENUE CALCULATIONS

	Low-end estimate	High-end estimate
Revenue (Gross)	\$1,950,000	\$3,558,000
Expense	\$558,000	\$558,000
Net Revenue/Year	\$1,392,000	\$3,000,000
Net Revenue 5 Years (60 months)	\$6,960,000	\$15,000,000

Implementation Guidance

Establishing a new rental registration fee and inspections for units in buildings with seven or more units would require a change to the County Code; authorizing legislation would need to be passed by the County Council. Once the fee is established, the County Administrative Officer has the authority to set fees at their discretion.

1.7.2 ENVIRONMENTAL HEALTH SERVICES FEES

Adjust fees for Environmental Health Services permits, plan reviews, and inspections.

Findings

Environmental Health Services (EHS) represents approximately one-eighth of the Department of Health and Human Services (DHHS) General Fund budget and is one of the few areas in the agency that does not depend heavily on state/federal grant funding. The Division is responsible for providing surveillance, inspection, investigative and educational services to food facilities and related establishments, health care facilities and swimming pools, among other facilities, as well as plan reviews for new or remodeled facilities.

Through fees for food permits and plan reviews and swimming pool and health facility inspections, EHS covered more than two-thirds of its \$2.7 million expenditures in 2019 – roughly \$1.9 million. In 2020-2021, the County/Department understandably has not been pursuing these fees in light of the COVID pandemic.

A review of benchmark county fees for environmental health permits and plan reviews (Anne Arundel, Howard, Montgomery, and Prince George’s counties) indicates that Baltimore County fees are generally lower than the surrounding counties. In addition to existing disparities in fee levels, other counties assess fees for services that Baltimore County does not. For example, all four jurisdictions charge for pool plan review prior to permitting; Baltimore County does not charge for this work performed by EHS staff. Baltimore County last adjusted its fee schedule in November 2018.

Based on a review of comparable peer county fees, it would be appropriate to increase fees charged for permits and plan reviews, and to begin charging fees for certain permitting and inspection services currently provided at no cost. While each fee should be considered individually in order to ensure an “apples to apples” comparison with other Counties, an overall fee schedule increase of 10 percent would offset more of the Baltimore County’s costs of providing these services, and place the County’s fee schedule in closer alignment with the fee schedules of neighboring counties. Specifically, the review team has selected this recommended percentage increase to position Baltimore County fees generally equal to or lower than those in Anne Arundel County, which has the second highest (and second lowest) fees, generally, of the four benchmark counties surveyed. This percentage change also would roughly approximate increases in inflation anticipated between 2018 and 2022, based on actual inflation rates in 2018-2020 and estimates of inflation in 2021-2022 by the Congressional Budget Office.¹⁵⁷

In addition to an overall increase in the fee schedule rates, we would recommend the addition of selected fees, such as a pool plan review fee, to offset the costs to the taxpayer of providing these services, as do benchmark counties.

Benefit to County

This recommendation would increase revenues to the County by approximately \$190,000 on an annualized basis and support a larger share of the General Fund costs of EHS programs. These recommended fee changes would be more comparable with fees charged in surrounding counties, while remaining competitive, and offset a greater portion of the costs to the County (that is, the taxpayer) of providing these services.

Five-Year Revenue Estimate

	County One Full Year	Five Years
Low End Range	\$190,000	\$950,000
High End Range	\$190,000	\$950,000

Upfront Costs: There are no upfront costs associated with this recommendation beyond updating materials and standard outreach to affected customers; this can be accomplished with existing resources.

Both low and high estimates are based on overall fee rates increases of 10 percent, and are based on baseline FY2019 revenues of \$1.9 million.

Best Practices and Benchmarks

A review of fees charged for these services in surrounding benchmark counties indicates that Baltimore County fees are generally lower than those charged in Prince George’s, Anne Arundel, and Montgomery counties. In some cases – such as plan reviews, for instance – these differences are significant. In at least one instance – such as for pool plan review – all benchmark counties charge a fee for a service that Baltimore County provides at no charge (that is, at the taxpayer’s expense).

¹⁵⁷ See Historical Data and Economic Projections, CBO Budget and Economic Data

A COMPARISON OF SELECTED EHS FEES ACROSS SELECTED MARYLAND COUNTIES

Permit Fee Types	Baltimore County	Anne Arundel County	Howard County	Montgomery County	Prince George's County
High Priority Food Facility Permit	\$540	\$590	\$415	\$525	\$640 + 5% Tech Fee
Medium Priority Food Facility Permit	\$340	\$395	\$325	\$375	\$500 + 5% Tech Fee
Low Priority Food Facility Permit	\$135	\$195	\$100	\$200	\$340 + 5% Tech Fee
New High Priority Food Facility Plan Review	\$350	\$750	\$385	\$600	\$450 for New Facility + 5% Tech Fee \$300 for Remodeled Facility + 5% Tech Fee
New Medium Priority Food Facility Plan Review	\$245	\$750	\$220	\$330	\$450 for New Facility + 5% Tech Fee \$300 for Remodeled Facility + 5% Tech Fee
New Low Priority Food Facility Plan Review	\$140	\$500	\$77	\$240	\$450 for New Facility + 5% Tech Fee \$300 for remodeled Facility + 5% Tech Fee
Pool Permits	\$200-\$760 Depending on Size of Pool	\$725 for Pools in Operation > 6 Months; \$350 in Operation < 6 Months in a Year	\$330 per Facility with Pool(s)	\$650-\$760 Depending on Size of the Pool	\$900 for Year-round Pool + 5% Tech Fee \$600 for Outdoor/Seasonal + 5% Tech Fee
Pool Plan Review	Free	\$500 for Public or Semi-public Pool; \$750 for Public or Semi-public Pool with Spa	\$220 for New Pools; \$110 for Renovations	\$480	\$750 for New Pools + 5% Tech Fee \$200 for Remodeled + 5% Tech Fee

Note that Prince George's County adds a five percent Tech Surcharge to its fees to offset its costs of updating and maintaining its data management system. Howard County fees include a ten percent surcharge for its data management systems built into the fee schedule.

Implementation Guidance

The County Administrative Officer has the authority to set fees for Environmental Health Services. Increases to any EHS fees should not be implemented during a COVID public health emergency or until local businesses have otherwise returned to pre-pandemic levels of activity.

1.7.3 ANIMAL SERVICES FEES

The County could increase selected animal services fees including for pet adoption and public spaying/neutering services to offset its costs, while safeguarding subsidies that ensure access for low-income pet owners.

Findings

In Fiscal Year 2021, the Division of Animal Services within the Department of Health and Human Services (DHHS) had an annual budget of \$3.4 million, representing roughly 14 percent of the Department's general fund budget. It is one of the few units within the DHHS that does not rely heavily on grant funding – although it does receive a small grant from the state Department of Agriculture – and generates some income (\$300,000) from the fees it collects to offset the costs of its services.

In comparison to the surrounding Maryland jurisdictions surveyed (Anne Arundel, Harford, Howard, Montgomery, Prince George's, and Baltimore City) the services provided directly by the Baltimore County Division of Animal Services are among the most comprehensive, and include animal control, operation of an open admission animal shelter, and the full range of veterinary medical services – spay and neuter surgery, vaccinations, microchipping, euthanasia, and others.

While its programs are more comprehensive than neighboring counties, the fees charged by the Division of Animal Services for services provided are generally the lowest among neighboring counties, for fees that do not approach the actual costs of services. To an extent, this is justifiable given the public benefit of providing these services, particularly to residents who might not otherwise be able to afford the necessary expenditures involved in responsible pet ownership, including spay and neuter fees and vaccinations. However, given the disparity in fee structures, a re-examination and adjustment of these fees is recommended.

Baltimore County fees for adoption services, which include spaying/neutering of the animals, general vaccinations (including rabies), license and microchipping, are \$50 for dogs and \$40 for cats. Except for Anne Arundel County, which maintains a \$17 fee for dogs and a \$14 fee for cats, all other jurisdictions surveyed had a significantly higher fee for roughly the same package of adoption/medical services, with cost depending on animal age, size, and sex (spay or neuter).

Further, Baltimore County only charges \$20 for its public spaying and neutering program. This service is generally not provided directly by other counties, and it is offered by the Division of Animal Services at significantly below market rates. Baltimore County also receives a grant from the state (\$27,000) that will provide no-cost spaying and neutering services for 678 residents in specific lower-income zip codes in 2021.

Based on these findings, the review team recommends an adjustment in animal fees that balances the public good of encouraging pet adoption and supporting the responsible provision of animal medical services (spaying/neutering, rabies vaccinations), while covering a greater portion of the costs of these services, and at the same time ensuring access for lower-income individuals. Specifically, we recommend an adjustment in the adoption fee by \$25 which aligns with the fee charged by the Baltimore Animal Rescue and Care Shelter (BARCs), and the lowest fee for dogs charged by Montgomery County, but is still significantly below adoption fees charged in surrounding counties (with the exception of Anne Arundel). We also recommend increasing the spay/neuter fee to the public to \$50, which is still a significant discount from the market rate cost of this procedure. At the same time, to address affordability concerns and achieve DHHS' public health goals, we recommend expansion of free/low-cost spay and neutering services to additional low-income households in the county beyond what is currently funded by state grant dollars.

In the longer term, Baltimore County may wish to explore the outsourcing of its Animal Shelter/Medical Services. As noted above, the provision of such a comprehensive range of services directly by County staff is a somewhat unique arrangement compared to most other Maryland counties. Through partnering with a non-profit entity or community-based providers for shelter and/or medical services, the County may be able to expand fundraising possibilities, reduce operating expenses, and streamline procurement processes, among other potential advantages. However, this approach is not recommended without closer study, as there are also potential drawbacks, such as increased competition for limited donation dollars by area animal services non-profits.

Benefit to the County

This recommendation will provide additional revenues to support animal services operations and help sustain the budget for these programs into the future. These revenues can be raised by increasing fees to levels more comparable to those of neighboring counties, while safeguarding subsidy programs that ensure continued access to low-income residents by providing no-cost services for up to 1,500 low-income residents.

Five-Year Revenue Estimate

	County One Full Year	Five Years
Low End Range	\$102,500	\$512,500
High End Range	\$132,500	\$662,500

Upfront Costs: There are no upfront costs associated with this recommendation; it is expected that updating materials and standard outreach to affected customers can be conducted with existing resources.

Low- and high-end revenue estimates are based on 500 adoptions of dogs and 1200 cat adoptions, roughly the number of adoptions in 2019, multiplied by the recommended \$25 increase. Adoptions dipped slightly in 2020, but this calculation assumes a return to pre-COVID adoption rates.

Spaying/neutering numbers dropped by roughly half during the pandemic from 4,500 in 2019 to 2,300 in 2020. The low-end revenue estimate assumes only a partial return to pre-COVID numbers (3,500 procedures) whereas the high-end estimate assumes a return to pre-COVID levels of 4,500 procedures. Both numbers are multiplied by the \$30 proposed increase in spaying/neutering charges. Both estimates assume 1,500 no-cost slots will be reserved for low-income residents, including the 678 procedures funded by state grant funding.

Best Practices and Benchmarks

Compared with the surrounding counties surveyed, the animal services provided by Baltimore County are the most comprehensive. Some counties rely on non-profit organizations to provide their animal shelter and medical services (Harford and Baltimore City); others outsource their medical services (Anne Arundel, Howard, and Prince George's). Although Montgomery County is similar to Baltimore County in terms of the services provided directly by County staff, it does not operate a low-cost spay and neutering program available to the general public, like Baltimore County does.

Baltimore County pet adoption fees are also generally lower than in neighboring counties. For example, Montgomery County fees for pet adoption range from \$75-150 based on age of the animal; Howard County lists its fees as ranging from \$163-178 for dogs and \$121-141 for cats; Prince George's fees are \$230 for dogs and \$180 for cats; Harford County Humane Society fees are \$95-250 for dogs and \$95-125 for cats. Only Anne Arundel County has lower adoption fees than Baltimore County.

A comparison of adoption fees by county is presented in the chart below.

PET ADOPTION FEES IN SELECTED MARYLAND COUNTIES

County/Organization	Adoption Fee (Dog)	Adoption Fee (Cat)	Service Package/Other Comments
Baltimore County	\$50	\$40	Includes: Spay/neutering, vaccinations, animal license, microchip
Anne Arundel County	\$17	\$14	Includes: Spay/neutering, vaccinations, deworming, license
Howard County	\$163–\$178	\$121–\$141	Fees range based on neutering (low-end) vs. spaying (high-end). Fee also includes vaccinations, flea treatment, heartworm test, microchip, license
Montgomery County	\$150 (<6 mos.) \$100 (7 mos.–7 years) \$75 (>7 years)	\$100 (<6 mos.) \$50 (>7 mos.) \$0 (>8 years)	Includes: Spay/neutering, vaccinations, microchip, flea treatment, heartworm, deworming
Prince George’s County	\$230	\$180	Includes: Spay/neutering, vaccinations, microchip, license, heartworm
Harford County Humane Society	\$250 (<1 yr.) \$160 (1–5 yrs.) \$95 (6–9 yrs.) \$35 (>10 yrs.)	\$125 (<6 mos.) \$95 (7 mos.–5 yrs.) \$45 (>6 yrs.)	Includes: Spay/neutering, vaccinations, microchip, flea treatment, heartworm, deworming
Baltimore Humane Society	\$135 (>26 lbs.) \$235 small dogs \$235 puppies	\$110 (<7 mos.) \$70 (>7 mos.)	Includes: Spay/neutering, vaccinations, microchip, heartworm. One month free pet insurance \$50 Senior Discount \$50 Discount pets > 7 yrs

Source: Animal Adoption Fee County and Non-Profit Websites accessed on May 17, 2021.

Other counties do not operate a public spaying/neutering program, and the fees charged for these services are much less in Baltimore County. For example, the \$20 fee in Baltimore County is well below the \$110-125 charged by Howard County and the \$125 in Prince George’s County for the neutering/spaying of dogs, which both outsource these procedures and pass the cost on to residents. Again, the recommended fee continues to represent a subsidy, and remains well below the actual cost to the County of providing these surgeries based on the 2019 Baltimore County Operations Excellence Report on Animal Care Operations.

Implementation Guidance

The County Administrative Officer has the discretionary authority to set fees for animal services.

1.7.4 COMPREHENSIVE LANDFILL MANAGEMENT PLAN

Adopt a comprehensive approach and plan to address capacity issues at Eastern Sanitary Landfill.

Findings

Eastern Sanitary Landfill Solid Waste Management Facility (ESL) is the only operating sanitary landfill in Baltimore County. The facility has a total capacity of 17.3 million cubic yards. The Baltimore County Solid Waste Management Plan, 2019-2028 reports an anticipated service life extending to 2052, but this has since been updated to 2029 in Baltimore County's Five-Year Tactical Plan for Solid Waste.¹⁵⁸ This change is partly driven by a large increase in waste being disposed of in this facility. According to Bureau staff, landfill input increased from approximately 300 tons to 1,456 as the County shifted from transferring approximately half of its residential solid waste out-of-county about three years ago to save on disposal and transfer fees to other facilities. This decision does not account for the substantial capital costs that will be needed to expand landfill capacity within the county as the ESL landfill approaches full capacity.

The recently convened Solid Waste Working Group explored several potential recommendations related to waste disposal and related infrastructure in Baltimore County. Among these are a recommendation to transfer waste outside of the county (215,000 tons annually) and a recommendation for the ESL landfill's vertical expansion. The landfill expansion recommendation offers four scenarios that would extend the landfill's useful life by an additional 11 to 27 years (without out-of-county transfers of solid waste to supplement operations) or 19 to 48 years (with out-of-county transfers).

Benefit to the County

The ESL is expected to reach capacity as soon as 2029. The Bureau of Solid Waste Management is aware of potential resistance both to expanding the ESL and to the siting of a new landfill in the County. However, if the County runs out of capacity at the ESL landfill, it will be forced to enter into agreements to transfer waste out of the County. Out-of-county transfer offers substantial benefits, as it reduces the volume of waste going to the ESL landfill. However, transferring 100 percent of the county's residential waste is not a feasible long-term plan given the substantial costs the County would incur (approximately \$25.8 million annually, based on current volumes and the average tipping fee in Maryland).

With fewer than ten years of remaining useful life at the landfill, it is essential that the County immediately pursue steps to expand the ESL's capacity and begin to actively plan for a new location. Given that the planning timeframe for a new landfill, including site selection, design, and permitting, requires several years, this process needs to begin now. Proceeding with a vertical expansion in the meantime will assist with extending the lifespan of the ESL and give Baltimore County more time for this process.

This will lessen the likelihood of the ESL landfill reaching full capacity without a plan in place to meet ongoing waste disposal needs. This is particularly important given the amount of time that it takes to plan for the expansion of an existing landfill or the construction of a new one.

¹⁵⁸ Baltimore County Solid Waste Management Plan, 2019-2028 (October 2018), https://resources.baltimorecountymd.gov/Documents/Public_Works/tenyearplan.pdf, p. III-21 and Tactical Five-Year Plan: Baltimore County's Recycling & Solid Waste System (Draft) (April 13, 2021), p. 39.

Best Practices and Benchmarks

Vertical expansion is a common approach to expanding capacity of existing landfills. An article by SCS Engineers describes vertical expansion as “an excellent and innovative waste management solution to solve the capacity problems.” It goes on to describe vertical expansion as follows:

The vertical expansion, or the piggyback approach, is basically constructing a new landfill on top of one that is either closed or scheduled to be closed at an already-permitted site. By placing the expansion landfill on top of another landfill, it gains immediate airspace, increasing landfill lifespan, and fully maximizing utilization of the area that has already been disturbed for waste disposal.¹⁵⁹

derick, Maryland can serve as a case study for technical considerations that are relevant to determining whether vertical expansion is feasible at a site. Population growth in late 1990s caused a rapid decline in local landfill capacity there, with the Reichs Ford Road Landfill’s projected life significantly reduced: Site B (a portion of that facility had an anticipated lifespan of 21 years as of 1998. By 2000, its remaining projected life had been reduced to eight years.¹⁶⁰

In May 2008, the Maryland Department of the Environment (MDE) approved the vertical expansion and side slope remediation of the Reichs Ford Road Landfill’s Site B, more than doubling its capacity from 3.77 million cubic yards to 7.72 million cubic yards.¹⁶¹ A number of technical studies, including those of global slope stability under static and seismic loading conditions, of landfill base settlement, and of the integrity of the bottom liner system, were used to determine the final grade change and other specifications of the expansion.

In addition, the Honeygo Run Landfill (located near the ESL facility) was permitted for a vertical expansion in 2009 to raise the top landfill elevation from 202 to 276 feet.

Beyond technical considerations, MDE’s 2019 Maryland Solid Waste Management and Diversion Report lists the economic benefits that individual landfills offer to their communities. While some of these are general benefits like local job creation, some facilities offer additional host community benefits. For example, the Annapolis Junction Recycling and Transfer Station (which is privately owned and located in Anne Arundel County) pays a host fee to Anne Arundel County, and charges a lower tipping fee for in-county waste. St. Andrew’s Municipal Landfill in St. Mary’s County waives its tipping fees during emergency/storm damage situations and provides mulch made from yard and wood waste free to county residents.¹⁶² These more targeted benefits can help reduce opposition to a proposed landfill.

Implementation Guidance

It is important to move forward with the infrastructure and disposal-related recommendations in Baltimore County’s Tactical Five-Year Plan, and to establish a plan for how the individual recommendations, including vertical expansion of the ESL landfill, the siting of a new landfill, and out-of-county transfers, will interact with each other and be phased. In addition, other recommendations (see Recommendations DPWT Solid Waste: Tipping, Transfer, and Host Fees; and Systems Benefit Charge) focus on waste reduction approaches that will further reduce the volume of solid waste entering the landfill, which will extend the ESL’s lifespan.

159 H. Law, Michael Goudreau, A. Fawole, and M. Trivedi (2008), “Maximizing Landfill Capacity by Vertical Expansion-A Case Study for an Innovative Waste Management Solution,” https://www.scsengineers.com/wp-content/uploads/2015/03/Law-Goudreau-Fawole-Maximizing_Landfill_Capacity_by_Vertical_Expansion.pdf.

160 H. Law, Michael Goudreau, A. Fawole, and M. Trivedi (2008), “Maximizing Landfill Capacity by Vertical Expansion-A Case Study for an Innovative Waste Management Solution,” https://www.scsengineers.com/wp-content/uploads/2015/03/Law-Goudreau-Fawole-Maximizing_Landfill_Capacity_by_Vertical_Expansion.pdf and “SOLIDWASTE MANAGEMENT PLAN 2018-2037, Frederick County, Maryland, Division of Utilities and Solid Waste Management,” https://frederickcountymd.gov/DocumentCenter/View/330456/SWMP_Senate-Bill-370_2020-11-25_Final_MDE-approved

161 “SOLIDWASTE MANAGEMENT PLAN 2018-2037, Frederick County, Maryland, Division of Utilities and Solid Waste Management,” https://frederickcountymd.gov/DocumentCenter/View/330456/SWMP_Senate-Bill-370_2020-11-25_Final_MDE-approved

162 Maryland Department of Environmental Protection, Maryland Solid Waste Management and Diversion Report (2019), <https://mde.maryland.gov/programs/LAND/AnalyticsReports/MSWMDR-%202019.pdf>, Appendix A

As noted in the Five-Year Tactical Plan, an expansion of the ESL will require a modification to the facility's Refuse Disposal Permit. According to this document, planning, permitting, and design may require up to three years or more to complete before the expansion is complete and the capacity is increased. Beginning the planning process now for new landfill capacity is critical. Baltimore County ought to assess the full range of options and costs associated with expanding capacity at the ESL site, creating new capacity at a new landfill site, or diverting more waste to private disposal landfills. Beginning the planning, public engagement, and landfill application process now will ensure that the County will be able to select from the best combination of cost and level of service options without the pressure or risk of losing the remaining capacity at the ESL landfill.

In the short term, Baltimore County could also consider resuming and/or reactivating its contracts with private companies (Waste Management of Maryland and Republic Services) to transfer solid waste to out-of-county facilities. Given the average disposal fee for landfills in Maryland of \$68.28 per ton, it would cost the County approximately \$14.7 million annually to transfer 215,000 tons out-of-county.¹⁶³ This volume, which is the amount recommended for annual transfer in the Five-Year Tactical Plan, would extend the landfill life by eight years if it were diverted to other locations.¹⁶⁴ While this would be a substantial cost, the County's solid waste must go somewhere, and the costs to create a new landfill or expand the ESL landfill are much higher: the Five-Year Tactical Plan estimates the cost of the ESL landfill's expansion as ranging from \$63.5 to \$162.9 million.¹⁶⁵ The mounting capacity issues at the ESL require a comprehensive strategy to address how Baltimore County will handle municipal waste in the coming years. Two major components of that strategy are pursuing vertical expansion of the ESL and beginning site selection for a new landfill in anticipation of the ESL reaching capacity.

As the County begins to plan for a potential new landfill, it should develop a public participation plan early in the process to give County residents a venue to share their opinions and concerns throughout the site selection process. A siting committee made up of County staff, public officials, business leaders, hauler companies, residents, and environmental groups should be tasked with discrete responsibilities, although it will be important to ensure that a small group of residents is not able to block a site from ultimately being selected if it is otherwise appropriate. Host community benefits may help combat opposition to a new landfill in certain communities.

There are multiple critical factors in determining where to site a municipal landfill:

- Environmental constraints, including groundwater and air quality issues;
- Economic considerations, including the property values of sites under consideration;
- Equity and environmental justice considerations, including where communities of color and low-income residents live within an area;
- Logistical considerations, including available land and convenience for waste disposal; and
- Political and legal considerations.

Alongside these planning processes, the County should consider implementing a Systems Benefit Charge (SBC) to all improved properties within the County to finance this investment (see **Solid Waste Systems Benefit Charge** elsewhere in this report). The revenue generated should be earmarked for costs associated with the expansion of ESL's landfill and/or the creation of a new landfill.

163 The New School Tishman Environment and Design Center, "U.S. Municipal Solid Waste Incinerators: An Industry in Decline" (May 2019) https://static1.squarespace.com/static/5d14dab43967cc000179f3d2/t/5d5c4bea0d59ad00012d220e/1566329840732/CR_GaiaReportFinal_05.21.pdf. Note that this rate is specifically for landfills. Note that the Five-Year Tactical Plan calculates the cost using a \$60 per ton fee.

164 Tactical Five-Year Plan: Baltimore County's Recycling & Solid Waste System (Draft) (April 13, 2021), p. 39.

165 Tactical Five-Year Plan: Baltimore County's Recycling & Solid Waste System (Draft) (April 13, 2021), p. 47.

1.7.5 MULTIFAMILY RENTAL PROPERTY TRASH COLLECTION RECLASSIFICATION

At the end of the current agreement, Baltimore County should explore reclassifying larger multifamily rental properties from residential to commercial for purposes of trash collection to shift the expense of trash and recycling collection to property owners, and improve recycling efforts.

Findings

As described in the preceding recommendation (**Comprehensive Landfill Management Plan**), Baltimore County's landfill capacity is increasingly constrained.

The County currently differs from peer counties and industry standards in classifying multifamily rental properties within the County as residential rather than commercial for purposes of trash collection. Elsewhere, multifamily residential rental properties with more than four units are typically considered commercial properties (condominiums are generally classified as residential), and therefore responsible for trash collection expenses.

Bureau of Solid Waste staff estimate that 26 percent of the residential units (86,117) collected in Baltimore County are apartments in multifamily (four-plus unit) buildings. If Baltimore County re-classified larger rental properties with more than 10 units from residential to commercial property for purposes of trash collection, as do many other jurisdictions, these rental property owners would be required to arrange for their own trash collection as do other businesses.

It would not be feasible to re-classify all multifamily rental buildings with more than four units as commercial properties; however, it is reasonable and common to re-classify larger properties with more than ten units (see Best Practices and Benchmarks, below, for reference).

Benefit to the County

According to the 2019 US Census American Community Survey, which is the most recent available, roughly 73 percent of Baltimore County's multifamily properties have 10 or more units.

Beyond potential cost savings, Baltimore County could anticipate additional ancillary benefits:

- A reduction of approximately 26 percent to the overall waste entering the Eastern Sanitary Landfill, which is currently anticipated to reach capacity in 2029. Note that without internal cost accounting, the precise savings associated with this reduction cannot be calculated. However, it is understood that time is limited to resolve Eastern Sanitary Landfill capacity issues without incurring significant costs; therefore, such a reduction would help to alleviate this increasing pressure.
- A reduction in total stops on collection routes, providing additional incentive to reorganize the routes across the County. Elsewhere in this report we recommend that the Bureau of Solid Waste re-organize and streamlining the existing route network (see **Route Reallocation** elsewhere in this report).
- A reduction in the amount of recycling going into the Material Recovery Facility, providing additional capacity for recycling from single family homes.

Best Practices and Benchmarks

Howard County (Maryland) requires apartments and condominiums with 10 or more units to provide their own waste and recycling services. Property managers are required to submit recycling plans to the County's Recycling Division.¹⁶⁶

Montgomery County (Maryland) requires all multifamily properties with more than seven units to participate in a recycling program. All properties with more than 100 units must develop an annual recycling and waste reduction plan, with a target of reducing waste each year.

In Jefferson County (Kentucky) which is similar in size to Baltimore County, the Solid Waste Management Services Division collects garbage from residential buildings with eight or fewer units, condominiums, and small businesses generating less than six containers of garbage per week within the Urban Services District. Other properties must contract their own service.

Implementation Guidance

This change should be explored for potential implementation at the end of the existing five-year service agreement period as part of the contract renewal and bidding of services. Implementation of a reclassification would require the engagement of the County Council to modify the Baltimore County Code. Another related adjustment to the County Code would require multifamily property managers of a certain size to develop regular recycling plans and would extend the regulatory frameworks around enforcing recycling in those properties. The Bureau of Solid Waste Management should be prepared to provide proactive communications and outreach materials and guidance to multifamily property owners affected by the reclassification.

1.7.6 SOLID WASTE: TIPPING, TRANSFER, AND HOST FEES

Assess the true cost of solid waste disposal and transfer at the Eastern Sanitary Landfill, CAF, and WAF facilities, and make appropriate adjustments to the tipping, transfer, and host fees, with the goal of extending the lifespan of the County's active landfill.

Findings

The current commercial tipping fee (also called a disposal fee) at Baltimore County's only operating sanitary landfill, the Eastern Sanitary Landfill (ESL) facility, is \$100 per ton. Private collectors can either pay the \$100 disposal fee at the landfill, or they can bring solid waste to another location that may have a lower fee. ESL's tipping fee is higher than that of other facilities nearby (the average tipping fee in Maryland is \$68.28 per ton¹⁶⁷) but is still lower than the true cost of disposal, as nearly all municipalities subsidize solid waste-related costs through General Funds.¹⁶⁸

While the County's tipping fee is higher than that of neighboring counties, the fee premium for the ESL facility is meant to discourage private companies from disposing of solid waste at that landfill where capacity is limited, rather than taking it elsewhere for disposal. Generally, tipping fees are influenced by several factors, including:

- A facility's remaining capacity and future lifespan
- Future capital expenses related to new facilities and/or the design of new remediation measures at existing facilities
- Environmental regulations

¹⁶⁶ <https://www.howardcountymd.gov/public-works/apartment-condo-recycling>.

¹⁶⁷ The New School Tishman Environment and Design Center, "U.S. Municipal Solid Waste Incinerators: An Industry in Decline," (May 2019), https://static1.squarespace.com/static/5d14dab43967cc000179f3d2/t/5d5c4bea0d59ad00012d220e/1566329840732/CR_GaiaReportFinal_05.21.pdf. Note that this rate is specifically for landfills.

¹⁶⁸ James G. Strathman, Anthony M. Rufolo and Gerard C. S. Mildner, "The Demand for Solid Waste Disposal," *Land Economics* 71, No. 1 (February 1995), pp. 57-64.

According to department personnel, approximately 13,000 tons of solid waste enter the ESL from commercial sources that use the landfill. That represents a small portion of the total waste entering the landfill annually; however, given the ESL's overall capacity constraints, disincentivizing its use by commercial operators could slightly extend the working lifespan of ESL at no cost to the County, and potentially provide additional revenue to support the development of a new landfill strategy before ESL reaches its maximum capacity. This is expected to happen as soon as 2029. (See **Comprehensive Landfill Strategy**).

Baltimore County charges an \$8 per ton transfer fee to transferring solid waste from the ESL's transfer station to another facility. In 2016, 189,193 tons of material were transferred out-of-county through this transfer station. A 2013 agreement with Harford County authorizes the transport of waste material from Harford County through Baltimore County transfer stations, before being transferred to out-of-state disposal sites by a private company, Waste Management, Inc.¹⁶⁹ This agreement lasts through June 2036, with two additional opportunities for renewal. As of 2016, approximately 135,400 tons of residential trash from Harford County passed through the ESL transfer station under this agreement. In addition, Baltimore County charges a host fee of \$1.40 per ton for solid waste originating outside of Baltimore County.

Currently, Baltimore County receives approximately \$16 million in revenue from ESL landfill fees, including \$10.2 million from the long-term agreement with Harford County and \$5.7 million from other sources, including tipping fees, transfer fees, host fees, and other sources.

Benefit to the County

By raising the tipping, transfer, and host fees to reflect more closely actual costs to the County of waste disposal and transfer through the ESL, the Bureau of Solid Waste Management will be better positioned to continue its facilities-related operations moving forward. Depending on the fee increases selected, some of the private haulers that currently pay to dispose of solid waste at the ESL landfill would select lower-cost landfills go elsewhere instead, reducing the increasing capacity pressure on ESL, and buying the county additional time to plan for a new strategy (see Recommendation DPWT Solid Waste: Comprehensive landfill strategy). The higher fees from incoming private hauler waste could also support the implementation of the selected strategy. Although the transfer and host fee for the Harford County's volume cannot be altered at this time based on the current agreement, any other solid waste moving through ESL's transfer station could be charged a higher tipping fee that reflects the true cost of transferring this material.

A study of the true costs of solid waste disposal at the ESL landfill is an important step in establishing full cost accounting for the Bureau of Solid Waste Management and developing a revenues-based model for supporting operations. This is also essential to establishing an enterprise fund model (See Recommendation DPWT Solid Waste: Systems Benefit Charge) that would support more efficient operations and longer-term planning (for example, for landfill expansion and creation), among other benefits. A study of these costs, broken out by type, would allow solid waste-related operations to appropriately increase the premiums charged for out-of-county generated waste that is disposed of in Baltimore County, as opposed to across-the-board fee increases for Baltimore County residents and businesses.

Best Practices and Benchmarks

Tipping fees are almost universally lower than actual costs (meaning that counties frequently subsidize waste disposal for private companies and even out-of-county sources), and the tipping fees among peer counties are currently lower than those at the ESL. For example, the tipping fees for Anne Arundel, Frederick, and Montgomery Counties are \$75, \$76, and \$70 per ton, respectively.

However, some peer counties do not accept any out-of-county solid waste at county facilities because of capacity limitations. For example, neither Howard County nor Montgomery County accepts any imported (out-of-county) solid waste from other jurisdictions to county-operated facilities.¹⁷⁰

¹⁶⁹ Baltimore County Department of Public Works - Bureau of Solid Waste Management, "Ten Year Solid Waste Management Plan, 2019-2028." (2018), https://resources.baltimorecountymd.gov/Documents/Public_Works/tenyearplan.pdf

¹⁷⁰ Howard County, Maryland, "Solid Waste Management Plan 2014-2024," <https://www.howardcountymd.gov/sites/default/files/2021-03/solid%20waste%20management%20plan%202014-2024.pdf> and Montgomery County, Maryland, "Comprehensive Solid Waste Management 10 Year Plan, 2012-2023," <https://www.montgomerycountymd.gov/council/Resources/Files/REPORTS/Comprehensive10yrPlan.pdf>

Implementation Guidance

Baltimore County would be well served to conduct a study to determine the true costs of solid waste disposal at the ESL landfill. Any proposed increases to the tipping, transfer, and host fees should be informed by a data-driven understanding of the County's actual and foreseeable solid waste disposal expenses. The County may elect to adjust these fees annually, in line with the Consumer Price Index (CPI), until a comprehensive landfill strategy has been operationalized. In addition, the County would be well served to conduct a survey of what other regional transfer stations charge to determine the "market rate" for the region as compared to the true cost, as this data is less readily available than data on disposal rates.

1.7.7 SOLID WASTE SYSTEMS BENEFIT CHARGE

Baltimore County should explore implementing a Systems Benefit Charge to owners of all improved properties in the County to fund capital investments needed to address landfill capacity issues.

Findings

Systems Benefit Charges are general fees associated with solid waste services as well as with utility (gas or electric) companies. Revenue generated for SBCs is used to fund previously determined authorized programs. While SBCs are often used in the context of enterprise funds, the review team is not aware of any restriction that would prevent one from being used in this context.

An SBC may be particularly appropriate in this case because the Eastern Sanitary Landfill has a life expectancy of eight years remaining.¹⁷¹ Due to the Eastern Sanitary Landfill's capacity limitations, the County will need to develop a comprehensive landfill strategy (with plans for expansion of the existing Eastern Sanitary Landfill, the creation of a new landfill, or some other feasible solid waste management solution) as soon as possible. (See **Comprehensive Landfill Management Strategy**.)

This recommendation does not relate to implementing a collection fee for residential trash, but rather relates to a Systems Benefit Charge that would apply to all improved properties (including residential as well as other property types) within the County and would be used to fund capital investments related to existing capacity issues and needs at the Eastern Sanitary Landfill.

Benefit to the County

A Systems Benefit Charge would generate revenue that could support necessary capital investments related to the Eastern Sanitary Landfill, whether that will include a future expansion of the facility, the creation of a new facility, or another solid waste management investment.

Best Practices and Benchmarks

Montgomery and Frederick Counties both collect a Systems Benefit Charge for solid waste that is assessed on improved properties (residential and nonresidential) within the counties.¹⁷² Property owners are required to pay the Systems Benefit Charge on improved residential properties and non-residential properties with improvements valued over \$5,000. This effectively means that owners of any built property are required to pay this charge.

¹⁷¹ Howard County, Maryland, "Solid Waste Management Plan 2014-2024," <https://www.howardcountymd.gov/sites/default/files/2021-03/solid%20waste%20management%20plan%202014-2024.pdf> and Montgomery County, Maryland, "Comprehensive Solid Waste Management 10 Year Plan, 2012-2023," <https://www.montgomerycountymd.gov/council/Resources/Files/REPORTS/Comprehensive10yrPlan.pdf>

¹⁷² Tactical Five-Year Plan: Baltimore County's Recycling & Solid Waste System (Draft) (April 13, 2021), p. 39.

Revenue generated from Systems Benefits Charges is used to cover basic solid waste expenses that are not included in collection and disposal fees, including solid waste program administration, master planning, staffing, debt service, capital costs, and the development of waste reduction programs.

In Montgomery County's Sub-District A, the cost for residential property owners is \$38.07, and for multifamily owners the cost is \$6.68 per dwelling. In Frederick County, the cost to single family residential property owners is \$88, and the cost to multifamily residence owners is \$49 per dwelling.

Nonresidential rates in Montgomery County include five rate categories ranging from \$88.43 to \$795.87 per 2,000 square feet of enclosed square footage (with the range determined by estimates of waste production by property type), while nonresidential rates in Frederick County include five groupings ranging from \$42 to \$372 per 2,000 square feet of enclosed square footage, based on the same considerations. For example, because fast food restaurants generate more waste (per square foot) than a bank, they would pay a higher rate.¹⁷³

Five-Year Revenue Estimate

	County One Full Year	Five Years
Low End Range	\$14,930,000	\$74,650,000
High End Range	\$36,340,000	\$181,700,000

Upfront Costs: While implementation of a Systems Benefit Charge would require authorizing legislation to be passed by the County Council and necessary changes to the County Code, no direct costs are assumed in the establishment of this fee.

While Baltimore County would need to determine appropriate charges by property type, the above revenue estimates are based on the low- and high-end ranges from Frederick and Montgomery Counties. They assume an annual Systems Benefit Charge that would range from \$38 (the amount charged in Montgomery County) to \$88 (Frederick County) for single-family residential properties, and \$7 (Montgomery County) to \$49 (Frederick County) per unit for multifamily units.

Commercial estimates are more complex to project since they depend on building square footage and specific type of use. In this analysis, only offices, industrial buildings, and retail spaces are included in the estimate, with other nonresidential types, including schools, airports, hospitals, and private institutions excluded.¹⁷⁴ The cost per 2,000 square feet is based on the lowest waste generator categories: \$42 per 2,000 square feet at the low end (charged by Frederick County) to \$88.42 per 2,000 square feet (charged by Montgomery County). Calculations are presented in the chart below:

			Avg. Charge per Property		Annual Total	
Type of Property	Count	Avg. SF	Low-End	High-End	Low-End	High-End
Single-Family	237,000	NA	\$38.07	\$88.00	\$9.0M	\$20.9M
Multifamily	86,117	NA	\$6.68	\$49.00	\$0.6M	\$4.2M
Offices	2,645	45,900	\$966.00	\$2,033.89	\$2.6M	\$5.4M
Industrial	1,861	25,600	\$546.00	\$1,149.59	\$1.0M	\$2.1M
Retail	8,452	10,800	\$210.00	\$442.15	\$1.8M	\$3.7M
Totals					\$14.9M	\$36.3M

¹⁷³ State of Maryland uses the five Generator Classifications, <https://www.montgomerycountymd.gov/SWS/Resources/Files/swc/land-use-codes.pdf>

¹⁷⁴ Land use categories from the Baltimore County land use shape file that are included in this count include commercial, industrial, mixed office/industrial, mixed office/retail, and similar categories. This shapefile is available on the County's open data website. The Baltimore County Department of Planning compiled the average square footage by property type (office, industrial, retail) data in late April 2021 from other available sources.

While these calculations are based on actual SBC rates in comparable counties, the Bureau of Solid Waste Management would need to establish its own rates based on its long-term planning needs, particularly with consideration given to increasing landfill capacity within the County to meet foreseeable needs.

Implementation Guidance

Implementation of this recommendation would first require a change in County Code to authorize this new fee, with the County Council approving authorizing legislation. The County could begin to identify future capital expenses related to the Eastern Sanitary Landfill scenarios. While the SBC does not have to be tied to an anticipated dollar amount, this information will be useful in justifying the basis for this charge, and clarifying how and to what extent the associated revenue will fund the development of new solutions that are adequate to meet the County's foreseeable landfill capacity needs.

To apply the fee, DPWT could leverage information from the assessment of properties based on the Maryland State Department of Assessments and Taxation's (SDAT) records. Residential rates are applied per dwelling unit for both single family and multi-family properties. To estimate the range of nonresidential rates, the Department could apply the same waste generation categories as used by Frederick and Montgomery Counties along with property records that report building area and land use codes.

1.7.8 BACKYARD COMPOSTING

Baltimore County could implement a pilot residential collection program for food scraps and allow backyard composting within Baltimore County.

Findings

A waste characterization study undertaken by Baltimore County in 2016 found that food waste made up approximately 24 percent of solid waste sampled, by weight. This was the largest single category of material, with yard waste and compostable paper making up an additional 12 percent of waste by weight.¹⁷⁵ With per capita residential solid waste production at approximately 860 pounds (0.43 tons) annually, the average Baltimore County resident throws away more than 200 pounds of food waste and more than 100 pounds of yard waste and compostable paper each year.

Given an average household size for owner-occupied units (which are more likely to be single-family houses) of approximately 2.67 people, it can be assumed that the weight of food scraps thrown away averages to approximately 550 pounds per household per year.¹⁷⁶

However, due to the potential for problems with rodents and other animals, the Baltimore County Code prohibits composting food scraps in compost piles or bins. However, such issues can be mitigated or eliminated when basic guidelines are followed.¹⁷⁷ Residents are currently permitted to use vermicomposting (worm composting) and soil incorporation as alternative ways to handle food scraps within the County, although these types of composting require a higher level of commitment than other approaches.

¹⁷⁵ Sacyr Rooney Recovery Team, "Waste Characterization Study" (October 28, 2016).

¹⁷⁶ The average household size is based on the U.S. Census Bureau's ACS 2015-2019 five-year estimate.

¹⁷⁷ <https://www.calrecycle.ca.gov/organics/homecompost>

Benefit to the County

Changing County code to permit backyard composting of food scraps and a pilot program with composting sites at county waste facilities, such as Eastern Sanitary Landfill (ESL), Western Acceptance Facility, Central Acceptance Facility, and other public locations such as recreation centers, has the potential to divert up to 24 percent of total landfill weight. An educational program for composting would educate homeowners about how to compost, including tips to minimize odors. (Examples are provided below in **Implementation Guidance**.) While full participation is unlikely to be achieved, even incremental diversion could substantially reduce the strain on the existing landfill facility and extend its future lifespan.

Best Practices and Benchmarks

Prince George's County (Maryland) has a pilot curbside food scrap collection program that began in December 2016. The County contracts with a private hauler that takes material to a County-run organics processing facility. In addition, businesses may ask their haulers about the possibility of having their food scraps collected separately, to be brought to the County facility.¹⁷⁸ Montgomery County (Maryland) recently implemented a Commercial Food Scraps Recycling Partnership Program. Eleven commercial partners have 100 tons of food scraps through the program so far, and the program is planned to expand.¹⁷⁹

Food scraps are permitted in backyard composting in neighboring Anne Arundel County, unlike in Baltimore County, and Anne Arundel County provides residents with free compost bins for backyard composting.¹⁸⁰ Anne Arundel County also provides residents with a one-page flyer that offers user-friendly guidance on how backyard composting works, including a list of items not to compost and how to tell when compost has fully matured into usable soil.

A 2014 study by the Massachusetts Institute of Technology's Department of Urban Studies and Planning included fourteen case studies, including three counties: Alameda County (California), King County, (Washington), and Hennepin County, (Minnesota). In Alameda County, more than fifty percent of organic waste (including food scraps and yard material) was diverted from landfills using a curbside composting program.¹⁸¹

Pilot curbside collection program: A pilot collection program would involve partnering with one or more of the existing haulers who work with the County to expand their service to include food waste collection; haulers would need to modify their routes and schedules to accommodate separate collection of food waste.

When it implemented curbside collection of compostables, the government of Minnetonka, Minnesota (Hennepin County) offered haulers a one-time payment of \$25 for each customer who opted into the program.¹⁸² Assuming that a pilot program in Baltimore County would begin with a single route serving approximately 10,000 households, and assuming a 10 to 60 percent participation rate, it would cost the County \$25,000 to \$150,000 to implement this type of program, if it follows this same approach.

If the County were to implement a "pay-to-throw model" (charging for waste disposal based on volume, which is common in solid waste enterprise funds – see **Solid Waste Enterprise Fund** elsewhere in this report), this cost to the County could be eliminated. Instead, to incentivize composting of compostable materials, the County could charge accept compostable materials from residents at no charge and subsidize this service through a higher tipping fee for other solid waste to achieve the public good of landfill diversion (extending the limited lifespan of the ESL). Revenue generated through a pay-to-throw model could fund costs associated with such a service.

178 Prince George's County, "Curbside Organics Collection," <https://www.princegeorgescountymd.gov/2856/Curbside-Organics-Collection-Composting>

179 Montgomery County, Maryland, "Food Scraps (Food Waste)," <https://www.montgomerycountymd.gov/SWS/foodwaste/index.html>

180 Anne Arundel County, "Backyard Composting: The Eco-Friendly Solution for Yard Waste and Kitchen Scraps," <https://www.aacounty.org/departments/public-works/waste-management/forms-and-publications/WhyCompost.pdf>

181 Judith Layzer and Alexis Schulman "Municipal Curbside Collection Programs: What Works and Why?," Urban Sustainability Assessment Project, MIT (2014), <https://dusp.mit.edu/sites/dusp.mit.edu/files/attachments/project/Municipal%20Curbside%20Compostables%20Collection%20What%20Works%20and%20Why.pdf>

182 Layzer and Schulman "Municipal Curbside Collection Programs: What Works and Why?," p. 23.

Five-Year Savings Estimate

	County One Full Year	Five Years
Low End Range	\$325,875	\$1,504,375
High End Range	\$1,805,250	\$7,221,000

Upfront Costs: \$25,000 - \$50,000 materials, \$25,000 - \$150,000 hauling

This recommendation proposes an initial pilot demonstration program to establish a successful foundation for a larger program and to garner public attention and support for an expanded program. The above savings estimates are based on full program implementation.

Assumptions and Calculations

The average household in Baltimore County disposes of approximately 550 pounds of food scraps each year. According to a 2019 article published in *Sustainable Cities and Society*, participation in backyard composting programs nationwide range dramatically, from two-to-sixty percent, with higher rates in communities that provide subsidized or free composting units, training, and long-term communication related to the program.¹⁸³ Because the methodology section of this report suggests assuming ten percent participation as a baseline, we use that level as the low-end estimate and sixty percent participation as the high-end estimate. Upfront costs considered in this estimate range from \$0 – which assumes that standard educational outreach for a backyard composting program can be provided with existing staff and outreach resources – to up to \$150,000 for a pilot compost collection service, which will achieve higher and wider participation rates. It is understood that a pilot program on its own may involve a relatively small number of participating households, but it can also serve as a valuable demonstration of the program's benefits, engage public investment and support, and provide a sustainable foundation for the program as it expands to scale.

Based on a ten percent participation rate and a fifty percent diversion rate (the percentage of compostable scraps that each participating household actually composts) the County could expect to divert between 3,259 and 19,553 tons of food scraps from the landfill annually, if it permits backyard composting and/or establishes a curbside collection program.

Upfront costs to implement a backyard composting program could be limited to costs associated with educational outreach campaign and instructional materials about backyard composting. Because the Bureau of Solid Waste has recently added one or more related positions, it is assumed that the County could implement a backyard composting pilot program with existing staff and budgeted outreach resources. However, participation in the program would be higher and more inclusive if a pilot curbside collection program were to be implemented. Upfront costs for a pilot curbside compost collection program would range from to \$25,000 to \$150,000 for a pilot program serving an initial 10,000 households. Low-end range savings estimates above (associated with lower participation) assume no new upfront costs; High-end range savings estimates (associated with highest participation) assume \$150,000 in upfront costs.

Without knowing the true costs to the County of waste disposal in Baltimore County (see **Solid Waste Enterprise Fund** elsewhere in this report for further discussion), associated cost savings cannot be calculated precisely. The cost savings presented above are based on the current \$100 tipping fee for commercial waste at the ESL landfill, which we understand to be significantly lower than the County's actual incurred disposal costs. Therefore, these estimates are highly conservative; actual savings can reasonably be expected to be much higher but cannot be accurately calculated with available data.

¹⁸³ Shantanu Pai, Ning Ai, and Junjun Zheng, "Decentralized community composting feasibility analysis for residential food waste: A Chicago case study," *Sustainable Cities and Society* 50 (2019), p. 3.

POTENTIAL IMPACT OF A BALTIMORE COUNTY COMPOSTING PROGRAM

550 lbs.	Food scraps thrown away per household per year in Baltimore County
237,000	Single family homes in Baltimore County
10-60%	Participation rate in compost program
50%	Diversion rate (percent of food scraps diverted per participating household)
3,259 - 19,553	Tons diverted, annually
\$325,875-\$1,955,250	Associated cost savings, based on a low estimate of \$100/ton cost of disposal

Implementation Guidance

In order to proceed with this recommendation, the Bureau of Solid Waste and Baltimore County Government must first engage the County Council to amend the County Code to permit residential backyard composting. Following this change, the County would need to develop or acquire educational outreach materials for residents about how to compost in a way that mitigates

the potential for rodent and odor issues. Educational campaigns should clearly distinguish between the types of food scraps that can be broken down through backyard composting, as compared to industrial scale processing, so that the initiative will be successful.

Examples of Backyard Composting guidance and program details are available below:

[Backyard Composting: It's Only Natural](#) (U.S. Environmental Protection Agency)

[Backyard Composting](#) (Howard County, Maryland)

[Backyard Composting](#) (City of Bowie, Maryland)

[Regional Recycling Backyard Composting Guide](#) (Sacramento County, California)

A pilot curbside collection program would expand participation to Baltimore County residents who may not have access to an appropriate composting site on their own property. A pilot collection program would involve partnering with one or more of the existing haulers who work with the County to expand their service to include food waste collection; haulers would need to modify their routes and schedules to accommodate separation or separate collection of food waste. If this option is pursued, the Bureau of Solid Waste should identify potential routes that could be served by a pilot residential food scraps collection program. Factors to be considered include the number of households served by a route; street conditions and characteristics; whether a route is primarily urban, suburban, or rural (or inside/outside of the URDL); and hauler capacity or interest. The Bureau would also need to identify a facility where this material could be processed.

In addition, local institutions may be interested in participating in a pilot commercial food scraps program, similar to the one in Montgomery County. Commercial partners would need to work with their own private haulers, but Baltimore County could offer technical support and coordinate the use of the same facility, either with, or without a charge for processing.

CHAPTER 2

Needed Investments

As Baltimore County moves to today's cutting edge with efficiencies and cost-savings, it can begin to prioritize investments in the future. And the improvements to this point – especially the substantial financial gains made possible by the efficiencies and cost-savings of the prior chapter – provide the means for doing so.

Many improvements require an upfront expenditure. But other improvements require larger investments over longer periods of time – think of a college education, say, which requires four years of expenditure with no monetary gain, but will double your average lifetime earnings and so pay even higher dividends. In the process of our efficiency reviews we uncover opportunities for investments with longer-term returns.

These represent costs over the term of the report, but Baltimore County Government and its residents will benefit from them in the long-term, and save money in the future. Good examples of this are the capital investments we suggest – such as securing adequate water facilities in rural areas now to avoid extensive fire damage in the future, or assessing deferred maintenance in County facilities now to avoid more costly repairs, replacement, or safety hazards in the future.

Besides needed investments of financial capital, future gains also will accrue from human capital investments, as well as in human-service programs. Virtually every office in County government feels itself to be short-staffed; many are below historical levels due to long-term cuts and COVID-induced attrition. We could be recommending additional staffing almost everywhere; in this report, we focus in particular on human capital investment in various public-safety positions, and in looking after the well-being of the County's large aging population (which accounts for one in four Baltimore County residents).

That leads to the issue of programming: Much government spending is properly viewed as "consumption," of course. But the object of some spending on people can be rightly categorized as "human capital investment" – spending today on increasing the well-being and productive capacity of individuals in a way that increases both their own well-being and that of the larger society. Our report offers four examples: expanded workforce development and job training programs that can help their beneficiaries obtain better jobs and help attract new employers and job growth to the County; evidence-based human services programs practices that are proven to achieve the desired outcomes; launching a Nurse-Family Partnership program, an evidence-based community health program providing home visitation during a woman's pregnancy and the first two years after birth that has been shown to reduce both infant and maternal mortality and improve long-term child health and well-being; and library-based programming that expands educational and professional opportunities.

2.1 Staffing

In this report, we focus in particular on areas of concern with regard to staffing of senior programs and within public safety departments including the Department of Corrections, the Fire Department, and the Police Department.

The County's Senior Centers have a long history of being under-resourced, with lack of staff to handle the growing demand of seniors attending the centers and the numerous, varied activities provided to promote their health and well-being. We recommend that the County increase the part-time Activity Specialist positions at community senior centers to full-time Assistant Director positions and add an Administrative Staff and Fitness/Wellness staff to regional centers.

Employee retention and turnover are major problems for the Baltimore County Department of Corrections. The vacancy rate for this department is nearing critical levels, with nearly 15 percent vacancies. Baltimore County's relatively low starting salary combined with the excessive overtime demands are likely contributing to high turnover among recently hired staff. Better pay

and limited amounts of overtime could help to improve the department's higher-than-average turnover rate. To increase staffing, we recommend that the County consider multiple new recruitment and retention measures, such as increasing starting salaries, offering bonuses to employees in the first few years of employment, offering referral bonuses to County employees (including Corrections staff) whose referrals result in successful hires, and offering signing bonuses to experienced correctional staff hired from other jurisdictions.

The Baltimore County Fire Department has an unusually low number of administrative, training, and senior programmatic staff in the Administrative Services Office, the Fire and Rescue Academy, and the Fire Marshal's Office. By increasing the numbers of staff in non-frontline positions to adequate levels in these offices, the Fire Department will have the capacity to increase its training capacity, deploy new recruits, and ameliorate the currently unsustainable vacancy rate in critical frontline positions. Improved staffing in senior positions also will enable the Fire Department to provide more robust public outreach and fire prevention efforts expected of fire departments of this size, and to increase the number of staff able to fill the of fire safety officer role. The County would be well served to increase the number of positions and fill vacant positions in the Fire Department's Administrative Services Office, the Fire and Rescue Academy, and the Fire Marshal's Office.

Finally, policing is evolving from response-oriented practices to proactive services. Analysts play a pivotal role in shaping a proactive approach to policing, looking at crime trends, identifying patterns, and analyzing geo-location and other data to determine why, where and when problems are occurring. Yet, a report by the U.S. Department of Justice notes that the absence of analytical capacity in most police departments limits their ability to recognize crime patterns and identify high-risk situations. There are currently only 11 analyst positions at the Baltimore County Police Department, which appears insufficient given the size of the Department and the size of the community it serves. The Baltimore County Police Department should add at least five new analyst positions. Although that number is still lower than best practice recommendations, it would represent a substantial improvement.

2.1.1 DEPARTMENT OF AGING STAFFING

Increase the part-time Activity Specialist positions at community senior centers to full-time Assistant Director positions and add an Administrative Staff and Fitness/Wellness staff to regional centers.

Findings

The County's Senior Centers have a long history of being under-resourced, with lack of staff to handle the growing demand of seniors attending the centers and the numerous, varied activities provided to promote their health and well-being. Of the twenty centers in operation, about half are considered large (regional) centers that draw people from multiple neighborhoods.

These centers are especially in need of more full-time administrative staff to input data concerning membership, program registration, and health and social determinants of health – a time-consuming task currently carried out by the Director and/or Assistant Director. Beyond a full-time Director and administrative staff, other FTE positions needed for a well-functioning regional senior center are: an Assistant Director to focus on program development and operations, a Center Connection Specialist, and Fitness/Wellness Specialist.

The smaller centers need a full-time Assistant Director. Currently, the director is supported by a part-time Activity Specialist whose main responsibility is the Eating Together congregate meal program. As a result, all other duties related to programming, facility management, membership recruitment, community partnerships, volunteer operations and data entry fall upon the Director. The review team recommends that the Activity Specialist position becomes a full-time Assistant Director at all other senior centers.

Best Practices and Benchmarks

Two centers that were identified by BCDA staff as examples of high-performing centers with adequate staffing levels are: Rockville Senior Center¹⁸⁴ and the Edward A. Meyerberg Senior Center.¹⁸⁵ Each center offers similar kinds of programs and services as provided by Baltimore County Department of Aging senior centers, however, these centers benefit from greater staffing levels that meet the programmatic demands of serving older populations.

Implementation Guidance

Prepare an analysis that validates the request for increasing the staffing level of the part-time Activity Specialists to full-time Assistant Director positions in senior centers. The analysis would identify the tasks performed by this position, projections of continued and increased demand for services to be covered by this part-time position resulting in an additional workload being shifted onto the Director which, in turn, impinges on their ability to perform the leadership, community partnerships, management and operational tasks required of them. The analysis would show cost-inefficiencies of using the Director's skillset and pay-grade in performing administrative/data-entry duties that could be performed by the Assistant Director position.

The position of a Virtual Senior Center Director with technical programming support should also be explored. Centers throughout the country and those of Baltimore County discovered during the pandemic that online programming and virtual visits were effective in helping to stave off the social isolation of sheltering in place and in providing services to those seniors with online access. Virtual programming has taken the form of offering support groups, live fitness classes, health and wellness sessions, counseling and caregiving coaching, book clubs, continuing education classes and learning how to visit with family and friends through social media platforms. Nine out of ten area agency on aging survey respondents (N4A) contend that COVID-19 will continue to have a significant impact on how senior centers function throughout 2021 and now given the spread of the Delta variant to COVID-19 as this report is being submitted, the impact is even more apparent.

One respondent to the national senior center survey captured the sentiment of many center directors, "As we move forward, we will be adding hybrid programming (in-person and live feeds), we will focus on smaller cohorts, and make it special to be a part of smaller discussion groups. As long as we focus on the purpose—to bring people together to grow, learn, and live life to the fullest—how we do it isn't as important."¹⁸⁶

The Myerberg Senior Center now offers a Virtual Center offering live fitness programs, cooking and art classes, lectures, and a line of technology programs on how to use Facebook, iPad, smart phones, use of the internet, and how to use Facetime or other apps to connect with friends and family that serve as a Best Practice example as to what a virtual center can offer.¹⁸⁷

184 <https://www.rockvillemd.gov/736/Senior-Center>

185 <https://www.myerberg.org/>

186 <https://www.ncoa.org/article/virtual-classes-for-older-adults-here-to-stay>

187 <https://www.myerberg.org/>

2.1.2 DEPARTMENT OF CORRECTIONS RECRUITMENT AND RETENTION

The Baltimore County Department of Corrections should improve recruitment and retention of correctional staff by increasing entry level salaries and offering periodic bonuses or other incentives.

Findings

Employee retention and turnover are major problems for the Baltimore County Department of Corrections. The vacancy rate for this department of 480 authorized positions is nearing critical levels, with more than 70 current vacancies (nearly 15 percent). According to senior management, correctional officers are working two or three overtime shifts every two weeks. Overtime assignments are often mandatory because fewer correctional staff are volunteering for extra shifts or hours. According to senior department officials, staff are worn out from working so many extra hours each month. It is believed that these long hours contribute to increased sick calls, which require even more overtime to covered unscheduled absences. This staffing situation is not sustainable.

Department of Corrections entry-level salaries are low compared to its peers in neighboring counties, although salaries become more competitive after personnel have been on staff for a few years. However, the relatively low starting salary combined with the excessive overtime demands are likely contributing to high turnover among recently hired staff. Although some management staff say, “the job is just not meant for everyone,” the review team’s experience suggests that better pay and reasonable limits on the use of overtime could help to improve the department’s higher-than-average turnover rate.

The review team analyzed the weekly Overtime/Leave Synopsis report for the week of April 10-16, 2021. According to that report, minimum staffing requires coverage of 1,180 8-hour shifts, for a weekly total of 9,940 hours (8 x 1,180). That week’s totals included 2,173.25 hours of overtime – the equivalent of more than 38 shifts per day, or more than 22 percent of minimum staffing. Given that staff receive 150 percent of base rates for overtime worked, the increased personnel costs are significant.

The Department’s costs incurred by employee turnover include recruitment, staff time spent on interviews, background investigations, academy training, field training and certification. In addition, overtime costs to backfill vacant positions of jail posts add 50 percent to baseline full-time salary costs while a position remains open. Given these expenses, the cost of filling each vacancy can be estimated as equal to that position’s annual salary.

The critical need to increase staffing requires consideration of multiple new recruitment and retention measures, such as increasing starting salaries, offering bonuses to employees in the first few years of employment, offering referral bonuses to County employees (including Corrections staff) whose referrals result in successful hires, and offering signing bonuses to experienced correctional staff hired from other jurisdictions.

Benefit to the County

While this recommendation can be considered an investment, the review team projects net savings in the near term: the upfront costs of relatively minor salary increases and/or periodic bonuses are projected to be more than offset by savings that accrue from improved recruiting and staff retention, and reduction in the need for costly overtime to backfill vacant positions. Cutting down on mandatory overtime will support staff work-life balance and reduce burnout, further reducing the employee turnover rate.

Five-Year Savings Estimate

	First Year Savings	Avg Annual Savings (5-Yr Avg)	Five Years
Low End Range	\$387,000	\$326,000	\$1,630,000
High End Range	\$792,000	\$761,000	\$3,805,000

Upfront Costs: Savings estimates consider the costs of retention bonuses of \$6,000 over three years for 150 new hires (that is, 30 annual hires over a five-year period who remain employed for at least three years). The first-year costs would be \$45,000; the costs of retention bonuses would compound annually to a maximum of \$180,000 per year in the third, fourth, and fifth years. After the fifth year, the incentive program could be ended, or scaled back based on the department's needs. Total costs of bonuses over the five-year period would be \$690,000.

This estimate assumes savings of one-half of the estimated overtime currently necessary to cover vacant shifts, as well as reduced hiring costs, estimated to range between 25 percent and 50 percent of first-year salary (or approximately \$14,400 to \$27,000 per position). Savings assumptions are offset by the cost of bonuses of \$6,000 over three years (\$1,500, \$2,000, and \$2,500 per year) for 150 staff (30 annual hires over a five-year period who stay at least three years).

Best Practices and Benchmarks

The problem of recruiting and retaining corrections staff is endemic across the country. In July 2021, Racine County (Wisconsin) responded to a 112 percent turnover rate by passing an emergency resolution to increase officers' pay from an average of \$44,643 to \$60,243 per year.¹⁸⁸ The Florida legislature has responded to high turnover and recruiting challenges in the state's correctional system by approving hiring bonuses, pay increases and retention bonuses for corrections officers who stay on the job for a year or two years.¹⁸⁹

Implementation Guidance

Senior department managers should meet with representatives of the Baltimore County Federation of Public Employees to set up a bonus schedule, recommended at \$1,500 after the first full year, \$2,000 at two years, and \$2,500 after three years. Bonuses should be contingent on attendance and other performance metrics. Entry-level salaries also should be increased to improve recruitment.

¹⁸⁸ <https://www.corrections1.com/corrections-jobs-careers/articles/wis-jail-has-seen-112-staffing-turnover-since-2019-lh9mRuu7HHIfYuB/>

¹⁸⁹ <https://www.tampabay.com/news/florida-politics/2021/02/22/system-in-crisis-florida-struggles-to-retain-prison-guards/>

2.1.3 FIRE DEPARTMENT ADMINISTRATIVE STAFFING

Increase the number of positions and fill vacant positions in the Administrative Services Office, the Fire and Rescue Academy, and the Fire Marshal's Office.

Findings

The Baltimore County Fire Department has an unusually low number of administrative, training, and senior programmatic staff in the Administrative Services Office, the Fire and Rescue Academy, and the Fire Marshal's Office.

The Baltimore County Fire Department's high rate of employee turnover creates the need to recruit hire and train a significant number of new staff each year. Currently, the Fire Department has two 26-week Fire Academy classes per year, with 30 to 40 cadets per class. Even with this regular influx of newly trained firefighters, the Department reports about 70 vacancies at any given time. This number of vacant positions will not likely be significantly reduced unless classes can be added or enlarged. At present, however, three of the Academy's 12 trainer positions are vacant, and expansion of cadet classes would require hiring of additional trainers.

Similarly, the entire Baltimore County Fire Department, with more than 1,100 employees, has only 20 chief officer (Battalion Chief and above) positions. These officers oversee all County fire and medical emergency responses. By comparison, the Montgomery County Fire Department employs 48 staff as Battalion Chiefs and above.

The Baltimore County Fire Department's chief officers' duties include incident responses, such as incident safety officer duties, and they are not eligible for overtime or compensatory time off. Because their ranks are so narrow, these 20 dedicated professionals work 50 to 60 hours each week and are on-call for nights and weekends. This is an unsustainable staffing situation that is likely to compromise the well-being of staff, diminish their effectiveness on the job, and contribute to costly high turnover rates. Additional chief officer level staff are clearly needed in this large department.

The Fire Marshal's Office is similarly understaffed given the nature of its work, which currently involves special pandemic-related roles and other demands that are growing with the population of the County. Because the Fire Marshal's Office spearheads fire prevention efforts and public outreach programs, the short staffing means the Fire Department offers little in the way of preventive initiatives. Staffing limitations in this unit also result in delays in building permit inspections and other duties that Fire Marshal's Office staff provide to the community.

Emergency Medical Services (EMS), which responds to the vast majority of 911 calls, is by far the busiest component of the Department. Yet there are only four EMS captains, and no battalion-level officers.

Benefit to the County

By increasing the numbers of staff in non-frontline positions to adequate levels in the Administrative Services Office, Fire Academy, and Fire Marshal's Office, the Fire Department will have the capacity to increase its training capacity, deploy new recruits, and ameliorate the currently unsustainable vacancy rate in critical frontline positions. Improved staffing in senior positions also will enable the Fire Department to provide more robust public outreach and fire prevention efforts expected of fire departments of this size.

Best Practices and Benchmarks

The Montgomery County Fire Department has 48 staff in chief officer classifications and above.

Based on reviews of recent Prince George County's and Anne Arundel County's budgets for fire departments of similar size, we estimate these counties have at least 32 and 37 similar chief officer/senior administrative services positions respectively, compared to the 20 staff in that role in Baltimore County. (Prince George's County Fire Department has 1,068 employees and Anne Arundel County Fire Department has 1,009 employees.)

Implementation Guidance

We recommend that cost savings achieved through increasing the Fire Department's span of control (see **Fire Department Span of Control**) be utilized to increase the number of administrative chief officers and to expand staff and public initiatives in the Fire Marshal's Office. Net costs and savings will depend on the number of additional staff assigned to Administration and to the Fire Marshal's Office.

2.1.4 POLICE DEPARTMENT ANALYST POSITIONS

The Baltimore County Police Department should add at least five new analyst positions.

Findings

Policing is evolving from response-oriented practices to proactive services. Analysts play a pivotal role in shaping a proactive approach to policing, looking at crime trends, identifying patterns, and analyzing geo-location and other data to determine why, where and when problems are occurring. Their insights are invaluable in helping department and division leadership develop effective strategies to engage communities and provide services that can proactively improve public safety.

Yet, a report by the U.S. Department of Justice notes that the absence of analytical capacity in most police departments limits their ability to recognize crime patterns and identify high-risk situations. The report notes that "one analyst, properly trained and used, has the potential to increase many times the productivity and effectiveness of perhaps hundreds of police officers. Understood in this way, an investment in crime analysts can be a smart way to increase the return on the substantial investment that communities make in sworn police personnel."¹⁹⁰

Intelligence-led policing (ILP) and data-driven policing (DDP) use data and data analysis to enable departments to maximize their limited resources, address crime proactively, and meet community needs. According to the U.S. Department of Justice, ILP is a "collaborative law enforcement approach combining problem-solving policing, information sharing, and police accountability with enhanced intelligence operations."¹⁹¹ "Intelligence-led policing attempts to identify potential victims and potential repeat offenders, then works in partnership with the community to provide offenders with an opportunity to change their behavior before being arrested for a more severe crime."¹⁹² Data-driven policing is defined as "use of a wide variety of digitized data sources to inform decision making, improve processes, and increase actionable intelligence for all personnel within a police service, whether they be operating at the front-line or in positions of strategic leadership."¹⁹³

¹⁹⁰ U.S. DOJ Office of Community Oriented Policing Services, *Crime Analysis for Problem Solvers in 60 Small Steps*, August 2005.

¹⁹¹ U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Assistance, *Navigating Your Agency's Path to Intelligence-Led Policing* (Washington, DC: Global Justice Information Sharing Initiative, 2009), 4.

¹⁹² *Intelligence-led Policing: Changing the Face of Crime Prevention*, Police Chief Magazine, **Rich LeCates, Director, Product Management, Public Safety Analytics, Central Square Technologies**

¹⁹³ "Data Driven Policing and Public Value" by Dr. Ian Kearns, The Police Foundation, found at <http://www.police-foundation.org.uk/project/data-driven-policing-and-public-value-new/>

Because data-driven policing and intelligence-led policing are widely considered best practices for modern law enforcement, they are being implemented in many departments. The use of DDP and ILP offer the opportunity to increase the effectiveness of crime-fighting efforts while also leveraging the efficiency of existing law enforcement resources. DDP and ILP represent powerful advanced crime fighting tools and force multipliers, but they require skilled and trained staff, supervision and technology to assure that intelligence gathering, analysis, training, and technology are properly implemented. Additionally, these tools must be used with proper controls and accountability to ensure they do not support or promote discriminatory policing actions.

There are currently 11 analyst positions at the Baltimore County Police Department: a manager, a supervisor, and nine analysts. This number appears to be insufficient given the size of the Department, and the size of the community it serves.

Best Practice and Benchmarks

The U.S. Department of Justice cites an “industry standard” of one analyst for every 100 police officers,¹⁹⁴ which would suggest the need for at least 19 to 20 analysts in the Baltimore County Police Department. International Association of Chief of Police (IACP) metrics recommend a staff of 25 to 30 analysts would be more appropriate for a police department of this size.

Implementation Guidance

The number of police department analyst positions should be increased by at least five employees, for a total of 16 analysts. Although that number is still lower than best practice recommendations, it would represent a substantial improvement.

The cost of salaries and benefits for five non-sworn analyst positions is estimated to be between \$350,000 and \$490,000. The low-end estimate is based on salary and benefits of Management Analyst II positions; the high-end estimate is based on a mix of Management Analyst II and Management Analyst IV positions. These estimates also include \$50,000 per year for technology and training.

The new staffing plan should include a manager and two analyst/supervisors; four analysts assigned to strategic research and analysis; three assigned to investigations; and five focused on precinct-level tactical analysis (with one assigned to every two precincts), and one generalist tasked with review and more routine analyses, such as examination of calls for service.

The Police Department may wish to pursue Department of Justice Byrne Grant funds and funding from other sources intended to help local governments develop proactive law enforcement initiatives.

194 U.S. Department of Justice, Community Oriented Policing Services (COPS), A Police Organizational Model for Crime Reduction, 2011, p42. Citing the International Association of Crime Analysts.

2.1.5 LEGAL SUPPORT CAPACITY

Expand the capacity of the Office of Law to offer more specialized legal services for Baltimore County Government and County residents.

The County's Office of Law is currently a small operation encompassing only roughly a dozen attorneys. Because of its limited size, the Office cannot afford to specialize in many areas of law, with all attorneys required to function largely as generalists. Growing the Office sufficiently to allow full specialization will require that it roughly double in size over the coming years; this would require the hiring of another dozen attorneys, which would cost over \$1 million per year.

This is an investment worth making, however. Many County functions could be more efficiently carried out with specialized legal support, for instance; one example is housing code enforcement, which requires significant investment of legal resources to pursue the worst offenders. Making such an investment would pay several collateral benefits: allowing more effective targeting of resources as part of a shift to more modern conceptions of enforcement and compliance – as discussed in detail elsewhere in this report (see **Rethinking Code Enforcement**), as well as creating the capability for a separate “housing court” track in conjunction with the County judiciary. Such a specialized housing process would afford greater rights and equity to renters and low-income families.

There also are ways to ameliorate the cost of such investments. A coherent plan for addressing Public Information Act requests (see **Public Information Act Responses**) in conjunction with other departments throughout County government, would reduce staffing pressures on the Office of Law and allow it better to focus on its core function of providing legal advice. And additional attorneys can be added to the Office at virtually no cost through a legal fellowship program (see **Office of Law Fellowship Program**), that would both improve the quality of legal representation in County government and provide benefits in terms of training and experience to the region's private bar.

Taken together, these recommendations represent a significant investment in the Office of Law that can yield a wide range of benefits to a broad cross-section of County residents over time. This paper discusses in more detail the specific example of investing in code enforcement capacity and creation of a “housing court” track in the County's legal system.

2.1.5.1 Engage legal support to specifically address code enforcement violations.

Findings

Currently, the County Office of Law does not employ an attorney dedicated specifically to code enforcement and does not prioritize code enforcement responsibilities within the various types of cases in its purview, making effective code enforcement increasingly challenging.

Initially, departments like PAI enforce code through citations and hearings before County hearing officers, but more formal legal action may be warranted in cases of consistent noncompliance. In particularly egregious cases, for example, where a violator has repeatedly not complied with citation instructions, PAI may refer the case to the County Office of Law. The Office of Law must file cases against violators on behalf of the County if methods beyond PAI notice and administrative law proceedings are necessary; this step is not needed in most cases.¹⁹⁵

¹⁹⁵ Interview, June 21, 2021.

Benefit to the County

Dedicating an attorney to code enforcement cases will improve the efficiency of legal recourse for PAI code enforcement. Code enforcement will not compete with other responsibilities for attention from multiple attorneys, and the most serious incidents of code violation will receive appropriate attention and action. The attorney designated as the point person for code enforcement litigation will also have the opportunity to gain facility and comfort with this process rather than various legal staff rotating in their participation in this process. Housing law is complex, and it is not uncommon for legal professionals, such as judges, who do not specialize in this area not to be familiar with many issues that appear in housing cases.¹⁹⁶

Best Practices and Benchmarks

Most peer counties have code enforcement processes broadly similar to those of Baltimore County. Prince George's County streamlined its operations in permitting, business licensing, and code enforcement to create a Department of Permitting, Inspections and Enforcement; inspections are conducted as part of an ongoing 'cleanup' strategy in communities or in response to complaints; a code official issues notices of violation and/or a civil citation; and a follow-up inspection is conducted to ensure compliance.¹⁹⁷ Any further corrective action for enforcement is coordinated with other departments and agencies.¹⁹⁸

Howard County always aims to abate complaints submitted to the Department of Planning and Zoning; if a violation is abated during the inspection and notice process, the case is closed. If not, then the Department can present the case to the District Court for Howard County and seek abatement and/or penalties through a court order.¹⁹⁹ Anne Arundel County follows a similar procedure and, like Baltimore County's referral process, may have the County's Office of Law file civil or criminal charges in cases of egregious violations.²⁰⁰

In Harford County, Zoning Enforcement provides initial enforcement of zoning regulations, but the Director of Planning or any person who would be damaged by a code violation, including a neighboring property owner, may file a suit for injunction, mandamus, abatement, or other action to correct ongoing unlawful activity.

Baltimore City and Somerville, Massachusetts engage legal support for code enforcement violations.

Baltimore City's Department of Housing and Community Development, Permits & Litigation Legal Section, is responsible for prosecuting housing code violations when matters of non-compliance are referred by the Housing Inspections Services Division.²⁰¹ Attorneys are each assigned to a Housing Inspection District, which corresponds with one of the nine planning districts in Baltimore City.

Somerville is unique in how it handles code enforcement litigation. Most cities do not deputize attorneys, specifically city solicitors, to prosecute both civil and criminal litigation. Prior to this arrangement, Somerville would bring code enforcement cases through application for a criminal complaint or through application for a civil court injunction. As in other jurisdictions, these suits would occur after other enforcement methods (ticketing, lawyer demand letters for fine payments, liens) failed, after which a criminal complaint or a civil process would be initiated. Criminal cases were handled by the District Attorney (DA), where attorneys do not deal with inspectors on a daily basis like city attorneys and are more concerned with violent crime. Somerville then deputized the City Attorney to handle these criminal complaints and attend court with housing inspectors. This allowed DAs to focus on the rest of their caseloads and ensured continuity among cases through the deputized City Attorney following each throughout its lifecycle, instead of a rotating cast of DA-office attorneys covering the case.²⁰²

196 <https://sherwinlawfirm.com/what-is-housing-court>

197 <https://www.princegeorgescountymd.gov/1221/Code-Enforcement-Property-Maintenance>

198 https://library.municode.com/md/prince_george's_county/codes/code_of_ordinances?nodeId=PTIITI17PULQIAPRGECOMA_SUBTITLE_13HOPRST_DIV1HOCO

199 <https://www.howardcountymd.gov/sites/default/files/media/2018-06/Code%20enforcement%20process.pdf>

200 <https://www.aacounty.org/departments/inspections-and-permits/code-compliance/>

201 <https://dhcd.baltimorecity.gov/ce/code-enforcement-legal-section>

202 Interview with City of Somerville Assistant City Solicitor

Implementation Guidance

The County could hire an attorney specifically to focus on code enforcement violations, or, more cost-efficiently, could deputize an existing Office of Law attorney to focus on code enforcement cases. The PAI Director, PAI's Code Enforcement Chief and staff, and the Office of Law/County Attorney should collaborate to determine the most suitable approach for the County. The most cost-effective option would likely be designating a specific staff member in the Office of Law dedicated to code enforcement (presumably taking on a smaller number of the other cases, like civil rights or forfeitures, that the Office of Law handles, but not only pursuing code enforcement matters since violations egregious enough to require legal suits are relatively rare). This could be accomplished with existing County resources and staff.

2.1.5.2 Explore the creation of a designated court to handle housing code enforcement and tenant-landlord disputes.

Findings

The District Court of Maryland has jurisdiction over all landlord-tenant cases, replevin actions (recovery of wrongfully taken property), motor vehicle violations, misdemeanors, and some felonies.²⁰³ Although cases of housing-tenant disputes, including rent escrow (where tenants can seek relief for landlords' failure to repair substandard housing conditions), are collectively and colloquially referred to as "Rent Court,"²⁰⁴ the District Court of Maryland for Baltimore County does not have a specially designated portion of the Court dedicated to housing cases, which is considered a best practice given the complexity of housing law and the opportunity to provide more effective and efficient services (e.g., mediation) for resolving disputes and enforcing compliance with housing code.

Benefit to the County

Housing Courts often possess features that resolve housing disputes more efficiently and effectively, including mediators who can attempt to resolve disputes in lieu of trial, as well as experienced judges with deep knowledge and understanding of housing law, which is highly complex.²⁰⁵ Evidence also exists that housing courts can motivate landlords to repair housing code violations.²⁰⁶

Best Practices

Most peer counties have code enforcement processes broadly paralleling those of Baltimore County, and housing cases are brought in the Maryland District "Rent Court" for neighboring counties (e.g., Prince George's,²⁰⁷ Howard,²⁰⁸ and Montgomery²⁰⁹) as well.

Montgomery County offers an alternative housing-specific route for landlord-tenant disputes, which offers an opportunity for dispute resolution before a matter ever goes before a court. Landlords, tenants, or tenant organizations may file complaints with the County's Office of Landlord-Tenant Affairs (OLTA) alleging the facts of the case and identifying the relief sought; the complaint form is available online. The complainant is first to fill out and send a copy to the responding party. After a week, if the other party has not resolved the issues, complainants can send the complaint form to OLTA with documentation supporting the allegations. OLTA processes all complaints and assigns each a Landlord-Tenant Investigator, who acts as a neutral fact finder and attempts to help the complainant and respondent reach conciliation. A formal agreement may be signed and drafted should both parties reach a resolution. If the Investigator cannot resolve the dispute, OLTA refers the complaint to the Commission on Landlord-Tenant

203 <https://www.baltimorecountymd.gov/courtsmega.html>

204 <https://mdcourts.gov/legalhelp/housing>

205 <https://sherwinlawfirm.com/what-is-housing-court>

206 https://scholarship.law.gwu.edu/cgi/viewcontent.cgi?article=2427&context=faculty_publications

207 <https://www.courts.state.md.us/district/efile/efilemain>

208 <https://www.howardcountymd.gov/sheriffs-office/landlord-tenant-section>

209 <https://www.courts.state.md.us/district/directories/montgomeryROCKVILLE>

Affairs (COLTA), which will either accept the case for adjudication or dismiss it.²¹⁰ COLTA is a quasi-judicial body that issues decisions with the force of law; a group of administrative judges representing landlords, tenants, and the public decide whether a violation occurred and, if so, conduct a hearing under three Commissioners, one from each category. The Commission can order various remedies if they find that a landlord has created a defective tenancy, or can order lease termination or monetary awards if a tenant has caused damage or loss to a landlord. If a party disagrees with a Commission decision, they must appeal it to the Maryland courts. This process yields efficiency gains, as it is typically faster to have a case heard before the commission rather than going through the District Court, and the option is free for residents.²¹¹

Baltimore City is also a key example of Housing Court. The City's Department of Housing and Community Development, Permits & Litigation Legal Section, is responsible for prosecuting housing code violations when matters of non-compliance are referred by the Housing Inspections Services Division.²¹² All these legal matters are heard in the Housing Court, a specifically designated section of the District Court of Maryland for Baltimore City. The Housing Court meets regularly on Wednesdays, is open to the public, and is the only division of the District Court that hears both civil and criminal actions interchangeably.²¹³ Baltimore City's designated staff, time, and locations for housing code enforcement improved the efficiency of the process. Colloquially, tenant-landlord cases—largely nonpayment of rent—in the District Court for Baltimore City are referred to as "Rent Court," while many inside the District Court use "Housing Court" to refer to habitability-related cases—criminal cases brought by Baltimore Housing against landlords or affirmative rent escrow actions brought by tenants against landlords.²¹⁴

Baltimore City created the nation's first Housing Court in the mid-1900s, making minimum housing standards a legal requirement enforceable under the criminal code; previously, legal cases dealing with violations of hygiene ordinances were commonly put off as judges prioritized violent crimes.²¹⁵ Today, the City's Housing Court has been critiqued for insufficiently protecting tenants against evictions,²¹⁶ but a designated space where landlords and tenants can expect fair, thorough hearings, with landlords held accountable to health standards and tenants held accountable for damaging property or failing to pay rent, is a valuable paradigm.²¹⁷

Another municipal example comes from Somerville, MA, where the Housing Court has jurisdiction over civil and criminal matters involving the use of residential property.²¹⁸ The housing court is useful for its focus on housing issues; the presiding judge is an expert in housing, and code enforcement is prioritized and afforded appropriate expertise.²¹⁹ The state of Massachusetts has five Housing Court divisions (Boston, Northeast, Worcester, and Western), with some cities falling outside the jurisdiction.²²⁰

Best practices for housing courts include protecting tenant rights, maintaining centralized information on housing violations that judges can consult, and streamlining the experience to both be accessible and preserve housing.

- **Tenant rights:** The disparity in legal representation between landlords and tenants is one of the most pressing challenges in housing court. Landlords are substantially more likely than tenants to have legal representation and to know their rights; when tenants are represented, they are far more likely to successfully resolve the matter without disruptive displacement from their homes.^{221, 222} The outcomes of eviction cases typically depend less on the merits of the case and more on whether tenants have access to legal help.²²³ New York City, the first municipality in the country to guarantee legal representation to low-income tenants facing eviction in housing court, has become a national model for reducing evictions, lowering eviction rates by 15 percent from 2018 to 2019.²²⁴ Baltimore City also enacted a bill providing all tenants a right to counsel in 2020, becoming the 7th U.S. city to do so.²²⁵ This move was projected by the advisory firm and investment bank Stout to save the City at least three dollars for each dollar invested, as well as over \$6 in city and state savings, by averting disruptive displacement that otherwise drains social safety net

210 https://montgomerycountymd.gov/DHCA/housing/landlordtenant/complaint_process.html

211 <https://montgomerycountymd.gov/DHCA/housing/landlordtenant/colta/>

212 <https://dhcd.baltimorecity.gov/ce/code-enforcement-legal-section>

213 <https://dhcd.baltimorecity.gov/ce/cels-more-about-us>

214 http://www.publicjustice.org/wp-content/uploads/2019/09/JUSTICE_DIVERTED_PIC_DEC15.pdf (page 4, footnote 6).

215 <https://www.cambridge.org/core/journals/urban-history/article/baltimore-plan-casestudy-from-the-prehistory-of-urban-rehabilitation/BB4280653DDE7FC101BE615D98E6C247>

216 <https://www.publicjustice.org/en/news/dual-reports-show-the-effectiveness-of-providing-a-right-to-counsel-to-challenge-baltimores-high-rate-of-evictions-and-its-disparate-racial-and-gender-impact/>

217 <https://nextcity.org/features/view/rent-court-baltimore-tenant-rights-cities>

218 <https://www.mass.gov/info-details/courts-serving-somerville>

219 Interview with City of Somerville Assistant City Solicitor

220 <https://sherwinlawfirm.com/what-is-housing-court>

221 <https://www.american.edu/spa/jpo/toolkit/upload/housing-7-30-19.pdf>

222 <https://www.americanprogress.org/issues/poverty/reports/2019/10/02/475263/right-counsel-right-fighting-chance/>

223 <http://www.americanbarfoundation.org/research/summary/29>

224 <https://www.jsonline.com/in-depth/news/special-reports/2020/10/16/new-york-citys-right-to-counsel-provides-free-lawyers-for-poor-people-in-housing-court/3490555001/>

225 http://civilrighttocounsel.org/major_developments/1467

services.²²⁶ Trained, volunteer non-lawyer ‘navigators’ have also had success in helping tenants successfully interact with the court and obtain orders that landlords make repairs.²²⁷

- **Information databases:** New York City’s Housing Court, which processes an average of 250,000 summary eviction proceedings annually and thousands of other housing-related cases,²²⁸ has been commended for building into the system coordinated effort between the courts and housing inspectors; for example, the New York City Department of Housing Preservation and Development’s system for recording housing violations offers a streamlined registry judges can consult to understand a landlord’s record of compliance or noncompliance with housing code standards.²²⁹
- **Procedural reforms:** To make the court a more streamlined, efficient experience, scheduling should allow staggered appearance times (rather than forcing litigants to wait in long lines to be seen), and potentially reserve post-judgment applications or hearings to show cause for the afternoon.²³⁰
- **Preserving housing:** Several jurisdictions offer policy models for preserving housing while adjudicating disputes fairly. For example, Ramsey County, Minnesota, launched a Housing Clinic at the County Courthouse in 2018, aiming to reduce evictions by fifty percent in five years. After 18 months, eviction judgments as a percentage of court filings were down by eight percent, reaching the lowest eviction rate in ten years; the portion of cases resulting in settlements had increased; and expungements of eviction filings (after settlement terms were fulfilled) had doubled. Tenants were reported to be better prepared for proceedings, and landlords reported appreciation for having financial assistance workers at court, who act as sources of tenant assistance to which landlords can reach out before pursuing an eviction the next time nonpayment of rent occurs. The policies that evoked these impacts were (1) amending court-issued summons to include information about legal, mediation, and financial-aid resources; (2) improving coordination between the court and county administration, including locating a county financial worker at the twice-weekly Housing Court sessions to help tenants access emergency assistance; and (3) expanding access to legal representation and mediation at the court and before eviction filings, staffing Housing Court calendars with attorneys and mediators.²³¹

In the District of Columbia, an alternative procedure exists. The Housing Conditions Civil Calendar acts as a ‘problem solving’ court, aiming to achieve compliance quickly and efficiently with DC Housing Code Regulations and Property Maintenance Code. Litigants who wish to have a complaint heard must submit and serve a complaint, summons to appear in court, and a notice of hearing. The calendar is expedited; an initial hearing is scheduled for the next available date no sooner than 21 days after the date of filing. The Calendar focuses solely on achieving compliance with housing code regulations and does not conduct trials or (except in rare circumstances) evidentiary hearings.²³² Inspections are scheduled to investigate tenant complaints against landlords, and judges hold episodic hearings to understand the facets of the case, often monitoring the case until repairs are complete instead of closing the matter once liability is established. Observational research of the court suggests that its features may motivate landlords to repair substantiated housing code violations and yield more successful outcomes in terms of favorably resolving meritorious claims.²³³

226 <https://bmorentersunited.org/rtc/stoutreport/>

227 <http://www.americanbarfoundation.org/news/765>

228 http://ww2.nycourts.gov/sites/default/files/document/files/2019-02/19_Housing_Court-Report_Update.pdf

229 <https://www.rutgerslawreview.com/wp-content/uploads/2017/07/Franzese-Gorin-Guzik-The-Implied-Warranty-of-Habitability-Lives-69-Rutgers-UL-Rev-1-2016.pdf>

230 http://ww2.nycourts.gov/sites/default/files/document/files/2019-02/19_Housing_Court-Report_Update.pdf

231 <https://open.mitchellhamline.edu/cgi/viewcontent.cgi?article=1043&context=policypractice>

232 <https://www.dccourts.gov/sites/default/files/Housing-Conditions-Case-Management-Plan.pdf>

233 https://scholarship.law.gwu.edu/cgi/viewcontent.cgi?article=2427&context=faculty_publications

Implementation Guidance

Implementing this recommendation will require the agreement and cooperation of the District Court of Maryland for Baltimore County.

The Baltimore County Executive, Office of Law, Department of Housing and Community Development, and Department of Permits, Approvals and Inspections should explore with the judges of the District Court the prospects for establishing a County “Housing Court” with dedicated docket and County attorneys, likely drawing lessons from Baltimore City’s experience.

New York City’s Housing Court is in many aspects a nationwide model and is one of the largest housing courts by volume in the country; it is therefore a useful reference for benchmarking the operating budget of such a court. The Housing Court program requested \$34,461,864 dollars for the 2019-20 budget,²³⁴ which very roughly corresponds with the population of approximately 8.34 million people.²³⁵ Given Baltimore County’s population of approximately 847,000 in 2020,²³⁶ a Housing Court serving this pool of clients might cost \$3,499,900, or approximately \$3.5 million, in operating expenses each year.

2.1.6 PUBLIC INFORMATION ACT RESPONSES

Baltimore County could modernize its ability to respond to Public Information Act requests by automating and decentralizing these processes as much as possible.

Findings

As discussed elsewhere in this report, the County’s Office of Law is overtaxed and needs to be augmented both in technological support and staff capacity. This is particularly crucial when it comes to County response to the Maryland Public Information Act (PIA), Md. Code Ann., Gen. Prov. (“GP”) § 4-101 et seq.

The Office of Law has anticipated a significant and ongoing increase PIA requests after October 1, 2021, when a new state law took effect making almost all police department personnel records public. PIA requests already consist predominantly of requests for the personnel and disciplinary records of police officers; the new law is expected to unleash blanket requests for all officer information from a range of civil rights groups and defense counsel. A conservative estimate is that this will require the collection, review, redaction, and production of at least 25,000 pages of information.

Requested information must be carefully reviewed, first to ensure that it is fully responsive to the request, and then to ensure that confidential or legally protected information is properly redacted. This is extremely labor intensive and often requires subtle legal decisions. In addition, particularly in the police context, PIA requests often duplicate previous requests for information. Once one such request has been processed, there is no need to repeat the process when a duplicate request is made – that is, if previous requests are tracked, archived and easily retrievable.

All the foregoing clearly would be more easily accomplished with digitization rather than by-hand processes – which would require several full-time staff devoted to the task by both the Police Department and Office of Law (neither of which currently have sufficient personnel to carry out the task). Not-insignificant PIA requests also are made by the media generally, as well as from citizens concerning interactions with the Planning, Permits/Appeals/Inspections (PAI), and Health departments.

234 <http://ww2.nycourts.gov/sites/default/files/document/files/2018-11/2019-20-JUDICIARY-Budget.pdf>

235 <https://www1.nyc.gov/site/planning/planning-level/nyc-population/nyc-population.page>

236 <https://www.baltimorecountymd.gov/departments/economicdev/meet-baltimore-county/stats-and-figures/county-demographics.html>

The main consumer of Office of Law resources in the PIA process, however, is the lack of clarity over the respective roles in the process of County attorneys and other, departmental actors. The Office of Law plans to devote more of its attorney time to the task of reviewing increased PIA requests. But the Office also believes that more of the review work can and should be carried out by other County departments involved, in two respects: (1) The departments should act as the “custodian of records” and carry out the initial collection, sorting, and review of relevant records, and (2) the department should make the final decision on what is to be released or withheld, with the Office of law providing advice rather than making determinations.

Benefit to the County

While digitization would cost more in the short-term than handling the material in a pre-computer age fashion, it would allow such PIA responses to go forward on a once-and-done basis. In fact, the results of such production could then be placed online. None of this is possible today with the lack of technology and software support. Meanwhile, lack of a clearly-defined process for responding to PIA requests subjects the County to numerous legal risks that could be easily avoided, including (1) exposing Office of Law attorneys to possible conflict or waiver of attorney-client privilege as to their advice, (2) a resulting need to hire outside counsel, at additional expense, to provide representation in such instances, and (3) delay in completing the process and making requested information available, which could result in violating the state law’s tight deadlines, thereby subjecting the County to liability and penalties.

A modernized process that automates and decentralizes these efforts, while requiring investments in staff time and technology, would save money over time, reduce exposure to additional potential costs, increase legal compliance, improve public access to information, and further greater transparency in County government.

Best Practices and Benchmarks

The Baltimore City Law Department, for example, provides an online searchable database of all claims or lawsuits alleging police misconduct against members or former members of the Baltimore Police Department, <https://law.bcitscripts.com/>, allowing all future requests for police records simply to be referred to the existing public site with no further effort or cost.

Similarly, Montgomery County provides an easily searchable and highly functional website containing all prior records requests: <https://data.montgomerycountymd.gov/Government/Maryland-Public-Information-Act-MPIA-Request-Respo/99ya-kjir>.

Five-Year Savings Estimate

	Five Years
Low End Range	\$1,000,000
High End Range	\$2,000,000

Upfront Costs: Savings estimates above include upfront costs of approximately \$1,000,000.

The County’s Office of Law estimates that the long-term cost of producing such records by hand will run in the neighborhood of \$2-\$3 million, while digitizing all the records for future search and production would cost about \$1 million – clearly cheaper in the long-run but requiring an upfront investment of that magnitude.

Implementation Guidance

The Maryland Attorney General states that “[t]he keys to compliance with the PIA are: (1) a clear process for handling requests for records; (2) quality training about the law for frontline personnel; and (3) the same attitude of professionalism and customer service expected for other agency functions.”²³⁷

In establishing such a needed “clear process,” the law and the state Attorney General are equally clear as to where primary responsibility lies:

- Central to the structure of the PIA are the roles played by the “custodian” and “official custodian” of the agency records. They are the public officials who must take actions under the statute.
- A custodian is any “authorized” person who has physical custody and control of the agency’s public records. GP § 4-101 (d). The “custodian” is the person who has the responsibility to allow inspection of a record and to determine, in the first instance, whether inspection can or should be denied. GP § 4-201. The custodian is also responsible for preparing written denials when inspection is not allowed. GP § 4-203(c).
- The “official custodian” is the officer or employee of the agency who has the overall legal responsibility for the care and keeping of public records. GP § 4-101 (f); see also *Glass v. Anne Arundel County*, 453 Md. 201, 211 (2017) (explaining the roles of the “official custodian”). Often, the “official custodian” will be the head of the agency.
- The official custodian is to consider designating specific types of public records of the unit that can be made available immediately on request and maintaining a list of such records. GP § 4-201 (c).
- The official custodian is authorized to decide whether to seek court action to protect records from disclosure. GP § 4-358. The official custodian is also the person who must establish “reasonable fee” schedules under GP § 4-206. The official custodian can also be the “custodian” of the records, depending upon who has physical custody and control of the records. GP § 4-101 (d), (f).²³⁸

Thus, Baltimore County’s own PIA regulations specify, “Unless otherwise provided by law, the Director is the official custodian of the public records of the Department.”²³⁹ In short, it is clear that responsibility for gathering information and responding to PIA requests rests with the department heads, not the County Attorney and his subordinates.

Besides, placing primary responsibility on the departments as custodians of the documents in question, the law was amended this past summer to encourage proactive identification and disclosure of the type the Office of Law contemplates: As the state Attorney General notes, “During the 2021 legislative session, the General Assembly passed House Bill 183, which will require official custodians to ‘adopt a policy of proactive disclosure of public records that are available for inspection.’ The policy may ‘vary as appropriate to the type of public record and to reflect . . . staff and budgetary resources’ and may also— but is not required to— ‘include publication of public records on [a] website . . . or publication of prior responses to requests for inspection.’ See 2021 Md. Laws, ch. 658.”

When PIA requests are received, they must be recorded and tracked – both in order to facilitate reduction in duplicate responses, as noted above, and to ensure compliance with the time requirements of the state statute. The County reportedly utilizes Next Request software, <https://www.nextrequest.com/>, for tracking such requests, but it appears that this procedure is observed as much in the breach as in reality.

While all of this means that the Office of Law appears to be correct that its role in the process is, and should be, primarily advisory – and active in neither gathering, maintaining and processing agency records nor making the final decision as to redaction or release of information – in practice, such a fine line between the role of lawyer and “client” in this process is difficult to draw, especially as to the latter function. While staffing and legal impediments mean that the bulk of the work in this process should lie with the departmental custodians of any requested records, the Office of Law needs to take the lead in developing the “clear process for handling requests for records” called for by the state Attorney General, in conjunction with department heads.

237 Maryland Public Information Act Manual (16th ed., September 2021) Appendix H-2 RESPONDING TO REQUESTS UNDER THE MARYLAND PUBLIC INFORMATION ACT: A SUGGESTED PROCESS, https://www.marylandattorneygeneral.gov/OpenGov%20Documents/Appendix_H.pdf.

238 C. Role of the Custodian and Official Custodian, <https://www.marylandattorneygeneral.gov/OpenGov%20Documents/Chapter1.pdf>

239 Title 08 Office of Information Technology Subtitle 01 Records Management Chapter 01 Public Information Act Requests, Sec.04 Director as Official Custodian, <https://resources.baltimorecountymd.gov/Documents/IT/piareg110926.pdf>

The Office therefore should establish and convene a working group to develop such an agreed process with the major departments involved, such as OIT, the public information office, Permits, Approvals and Inspections, and Health and Human Services, but especially the Police Department. The Office also should work with OIT to develop the necessary budget and staffing requests to obtain the necessary PIA tracking, digitization, and public-access processes.

2.2 Capital Assets

The capital investments suggested in this report – such as securing adequate water resources facilities now to avoid extensive fire damage in the future, or routinely inspecting facilities to avoid more costly repairs or incurring excessive deferred maintenance liabilities – will save Baltimore County money in the future, much like the regular repairs on your car that may seem to incur bill after bill but, perhaps unnoticed, keep the car running for years longer than otherwise.

For instance, unlike cities and suburbs, where water for firefighting is readily available from fire hydrants, rural areas of Baltimore County are sparsely served by emergency water supplies. Firefighters often must transport water from a distant source to the scene of a fire. By creating additional sources of water for fire suppression needs in rural areas, Baltimore County could enhance the safety of human life and property in rural areas. These actions may also increase safety, avoid fire losses, and potentially reduce insurance rates for the County and its residents. The County would be well served to invest in water storage facilities in strategic areas throughout its rural communities. The review team estimates the costs of the new water tanks to be between \$150,000 and \$250,000 per year until fully implemented, plus ongoing maintenance costs.

Capital investments can be quite large – like public buildings: Baltimore County Public Library has been unable to maintain, renovate, expand, and replace its buildings in a timely manner because its capital budget allocation from the County has not been sufficient to meet library needs and provide modern, attractive facilities for patrons. Available funds fall far short of meeting the system's goal of renovating two library branches each year. The County should consider increasing the Library's capital budget, appropriating the Baltimore County General Fund dollars to library facilities, or initiating a capital campaign through its Library Foundation. In fact, a facility condition assessment survey for all County-owned buildings is needed to accurately and objectively to assess facility condition and estimate the cost of renewal and replacement. The process of assessing facility condition and estimating deferred maintenance costs provides valuable, often overlooked information that is essential to guiding short-term and long-term facility maintenance and repair decisions.

Capital assets can also be as small as a street sign: "Retroreflectivity" is a measure of how much light a street sign reflects back to drivers at night – and it degrades over time. The County would be well served to perform a comprehensive sign retroreflectivity study, to plan proactively for the timely replacement of aging signs before they create hazardous conditions for people driving at night – and to ensure they remain compliant with the Americans with Disabilities Act (ADA).

With all the talk today of election integrity, an important responsibility of the Board of Elections involves the storing and upkeep of election-related equipment. The Board's warehouse space is severely inadequate to its essential storage needs, affecting the ability of warehouse staff to operate efficiently and safely. Expected redistricting in Maryland is likely to result in an increase in the number of precincts and, with it, the need for even more equipment; this is likely to further aggravate the lack of warehouse space. The Board of Elections should determine whether the County is able to provide needed space in its current properties and, if not, the amount of additional warehouse space needed that might be required.

Finally, many Baltimore County neighborhoods had never recovered from the destabilizing effects of the 2008 housing crash when the COVID-19 pandemic hit. Even before the pandemic, the greater Baltimore area had the most distressed home sales in the nation, including in Baltimore County communities like Towson. Some distressed properties remain vacant and contribute to blight on the neighborhood, characterized by unmaintained properties, higher crime rates, and lower property values. The high rate of foreclosures also affects the availability of affordable housing units. The County could do more to prevent homes from becoming sources of blight and, in some cases, transform them into opportunities for creating permanently affordable and stable housing.

2.2.1 RURAL FIRE PREPAREDNESS

Increase the number of water storage tanks/facilities in rural Baltimore County.

Findings

Unlike cities and suburbs, where water for firefighting is readily available from fire hydrants, rural areas of Baltimore County are sparsely served by emergency water supplies. Fire trucks and other firefighting apparatus have very limited onboard water capacity, and Baltimore County Fire Department and volunteer fire departments in rural parts of the county must rely on distant hydrants and water storage tanks. Consequently, firefighters often must transport water from a distant source to the scene of a fire. Sending and re-sending fire apparatus to the closest water source and refilling the vehicles' water tanks can consume precious minutes, limiting firefighters' ability to suppress fires quickly and minimize losses.

The Insurance Service Office (ISO) is a for-profit organization that collects information on local fire protection services and sells it to insurance companies for use in setting insurance rates. Although the use of ISO's Public Protection Classifications (PPCs) has become less common, and has even been abandoned entirely in some states, the PPC is still a useful metric for insurance companies, communities, and government officials to assess risk.

The ISO rating uses a scale of one to 10, where Class 1 is the highest and best rating. The rating, which is an indicator of overall community fire preparedness and safety, considers several factors, including the emergency communications system, the number and location of fire stations, the number and location of hydrants, access to water in rural areas, firefighter training, and training aids. Under the ISO's Fire Suppression Rating Schedule, 40 percent of the rating is based on the availability of water supply, including the prevalence of fire hydrants and how much water is available to put out fires. Urban areas in Baltimore County are currently rated as Class 3, while rural areas are rated as Class 6.²⁴⁰

Benefit to the County

By creating additional sources of water for fire suppression needs in rural areas, Baltimore County could enhance the safety of human life and property in rural areas. These actions may also improve County's ISO rating, increasing safety, avoiding fire losses, and potentially reducing insurance rates for the County and its residents.

Best Practices and Benchmarks

Under Chapter 18 of the Baltimore County Fire Prevention Code, which was revised in 2019, all developments of 10 or more lots not served by a municipal water supply must have a year-round water supply (which can include ponds or streams, cisterns, underground tanks) capable of providing 400 gallons per minute (gpm) for 30 minutes for firefighting operations.²⁴¹

The ISO's standards for a PPC of Class 8 or better calls for a water supply system that can deliver at least 250 gpm for a period of 2 hours.²⁴² That flow is in addition to the community's maximum daily rate of consumption for purposes other than firefighting.

Annapolis, Maryland, was rated at Class 1 in 2017, becoming the 242nd community in the nation to achieve that rating.

²⁴⁰ <https://www.fireengineering.com/leadership/prepare-to-ensure-a-sufficient-water-supply-2/#gref>

²⁴¹ <https://www.baltimorecountymd.gov/departments/fire/firemarshal/firelanes.html>

²⁴² <https://www.baltimorecountymd.gov/departments/fire/firemarshal/firelanes.html>

Implementation Guidance

The County would be well served to invest in water storage facilities in strategic areas throughout its rural communities. Long-term capital planning might include, for instance, a commitment to install at least one water storage tank/facility every year for the next 10 years to help improve water supply capacity needed to fight fires in rural parts of the County.

The costs of placing the new water tanks at the rate described above are projected to be between \$150,000 and \$250,000 per year, until fully implemented. In addition, there are ongoing maintenance costs associated with these water sources, which would need to be considered in annual budget requests.

2.2.2 PUBLIC LIBRARY FACILITIES FUNDING

Baltimore County could identify and use multiple sources to fund the renovation, upgrade, and maintenance of its Public Library buildings.

Findings

Baltimore County Public Library has been unable to maintain, renovate, expand, and replace its buildings in a timely manner because its capital budget allocation from the County has not been sufficient to meet library needs and provide modern, attractive facilities for patrons.

Public libraries play an increasingly important role making significant contribution to a community's quality of life. Public libraries are the heart and hub for diverse populations; they are considered "the most important place in town by building community and supporting local culture." They offer free educational resources to everyone. They serve as shelters, learning centers, and employment centers for the most underserved population. They play an important role in English language learning. They support and strengthen the public education system. They improve the health and wellness of the community by providing public health programming, fitness classes, and basic internet access to health information and services. They connect the people in the communities they serve by pooling local resources under one welcoming roof for everyone to share.

Library standards give equal weight to the adequacy and quality of facilities as to size of collection, qualifications of staff, and hours of operations. Space and design are critical for offering and accommodating programming, technology resources, digital labs, and educational services for children and youth, families, and adults, as well as print, audio and visual collections and spaces to read aloud or silently, and play. Libraries are public buildings, and their appearance, facilities, and furnishings play important roles in attracting patrons, making them feel comfortable, and meeting their needs for reading, study, work, and social interaction. When public libraries seem cramped, outdated, or badly maintained, patrons can feel unwelcome or out of place. Given the increasingly pivotal role that 21st century libraries play in providing services and fostering community, it is crucial that they provide inviting spaces and up-to-date technology and connectivity for the people they serve.

In 2011, the State of Maryland's Library Capital Grant Program set forth planning guidelines suggesting standards for public library square footage based on the number of residents served. The standards range from Essential, a minimum standard of at least 1 square foot per capita; Enhanced, which requires at least 1.1 square feet per capita; to Exemplary, which requires at least 1.25 square feet per capita. None of the Baltimore County Public Library branches meets even the minimum standard; on average, the library branches are at 55 percent of the minimum standard.

Many of the 19 Baltimore County Public Library branch buildings are aging and in need of refurbishment and extensive repair. While two branch facilities are less than 10 years old, eight are more than 50 years old. On average, the library buildings are 40.2 years old, with a median age of 45.5 years. One library has not been renovated since 1968, and three other libraries have gone more than 20 years without renovation. (See the table below.)

BALTIMORE COUNTY PUBLIC LIBRARY FACILITIES

Library Facility	Age of Building (2018)	Last Renovated	Rank*	Recommended Scope	SF Current	SF/Capita	SF New	Cost Estimate (\$M)
Reisterstown	57	1995	1	Renovation/Expansion	14,000	0.36	15,000	3.6
Loch Raven	50	1968	1	New	2,500	0.10	15,000	7.5
Towson	44	1991	1	Major Renovation	33,000	0.60	47,000	12.5
Catonsville	55	1999	1.5	Renovation/Expansion	25,500	0.55	27,500	7.4
Lansdowne	52	2006	1.5	New	5,400	0.33	15,000	7.5
Rosedale	44	2008	1.5	Renovation	20,000	0.72	20,000	5.3
Parkville-Carney	47	2014	2	New	13,000	0.31	15,000	7.7
North Point	53	2001	2	Renovation	25,000	0.41	25,000	6.7
Pikesville	36	2007	2	Renovation/Expansion	21,500	0.50	26,500	3.9
Essex	49	2014	2.5	Renovation	20,000	0.25	20,000	4.4
Woodlawn	41	2005	2.5	Renovation	25,900	0.53	25,900	5.7
Cockeysville	36	2009	3	Renovation/Expansion	25,500	0.34	30,500	9.5
White Marsh	30	2002	3	Renovation/Expansion	15,000	0.33	20,500	4.8
Arbutus	8	2010	3.5	Reconfiguring	25,000	0.97	25,000	2.6
Owings Mills	5	2013	3.5	Reconfiguring	54,000	0.91	54,000	2.4
Perry Hall	9	2009	3.5	Reconfiguring	25,000	0.71	25,000	2.7
Hereford	30	2016	4	Updating	15,000	0.54	15,000	0.7
Randallstown	51	2017	4	Refresh	29,000	0.48	29,000	0.2
Sollers Point	7	2011	4	Reconfiguring	5,000	0.51	5,000	0.2
Towson	44	1991	1	Major Renovation	33,000	0.60	47,000	12.5
Towson Administration	44		1	Major Renovation	52,315		47,315	13.5
TOTAL/AVG					451,615	0.55	503,215	108.8

Source: Baltimore County Public Library Facilities Priorities: 2018-2030.

*Rank = Condition and Functionality priority groupings. The architects looked at condition and functionality of each branch and assigned them a number ranking from 1-4. A rank of 1 refers to a branch with poorest condition and lowest functionality, most in need of renovation or replacement. A rank of 4 would represent a branch with highest level of functionality and best condition.

UPDATED PRELIMINARY CONSTRUCTION BUDGET, MAY 2021

Branch	Square Feet - Current	Square Feet - Planned	Scope	Preliminary Estimated Project Budget
Cockeysville	25,713	30,713	Update and Reconfiguration	\$10,400,084 - \$11,494,828
Essex	20,000	30,000	New Construction	\$16,672,500 - \$18,427,500
Lansdowne	5,400	15,000	New Construction	\$8,336,250 - \$9,213,750
North Point	25,000	25,000	Renovation	\$7,255,625 - \$8,019,375
Pikesville	21,500	21,500	Renovation	\$6,239,838 - \$6,896,662
Lock Raven/ Parkville *	15,500 **	30,000	New Construction	\$16,672,500 - \$18,427,500
Rosedale	20,000	20,000	Renovation	\$5,804,500 - \$6,415,500
Townson ***	85,315 ****	100,000	New Building	\$55,575,000 - \$61,425,000
White Marsh	15,000	20,000	Reconfiguration (15,000) and Expansion (5,000)	\$7,224,750 - \$7,985,250
Woodlawn	25,900	29,990	Renovation and Expansion	\$8,703,848 - \$9,620,042
Total	259,328	322,203		\$142,884,895 - \$157,925,407

Source: Facilities Master Plan, Appendix E – Revised 5-12-2021.

*Lock Raven/Parkville is a new single building replaces both branches.

** Combined square footage of Loch Raven (2,500) and Parkville (13,000).

*** Townson includes both a branch library and BCPL administrative offices.

**** Combined square footage of Townson library (33,000) and BCPL administrative offices (52,315).

Branch staff report frequent patron complaints about the worn and dilapidated condition of library facilities. According to branch managers, the buildings' basic upkeep is simply inadequate. Many library spaces are outdated and no longer functional. For example, large built-in central service desks in Cockeysville and Perry Hall are no longer being used. Catonsville and Lansdowne lack adequate open seating and do not provide sufficient electrical outlets and workspaces for customers using laptops and other electronic devices. Lansdowne's doors are not ADA-compliant. In one branch, the security system does not work. Leaking roofs and plumbing problems are common. Commonly reported maintenance needs include HVAC replacement, bathroom updates, meeting room refurbishing, and improved lighting and redesign of parking lots. When renovations do take place, they are limited in scope. For example, one branch renovation included substantial interior work but did not touch the building's rundown exterior.

In addition, staff report that Baltimore County Public Library facilities fail to provide basic necessities for 21st Century library use, such as:

- Electrical outlets and charging stations for customer devices;
- Audio-visual, technology connections, and motorized dividing walls in meeting rooms;
- Technology labs;
- Quiet study rooms;
- Smaller, more mobile service desks;
- Space for services such as after-school meals, summer lunches, and passport services;
- Adequate and varied seating, for patrons to read, study, and work comfortably;

- Spaces for early learning, including enclosed rooms for story time;
- Appropriate space for pre-teen and teen activities (in branches that are close to schools);
- Learning and Collaboration Centers for Excellence with specialized staff and resources

In the Baltimore County Employee Insights on Efficiency Survey conducted in June and July 2021, Baltimore County Public Library staff made multiple comments about the state of library facilities and the need for new or renovated buildings. Library staff comments in response to an open-ended question about ways to improve efficiency or quality of services provided included:

"Valuing our aging infrastructure and making improvements to show our customers that we care about our buildings."

"The library needs better buildings that can meet the needs of our customers. Expanded teen areas. Study and private meeting areas."

"Up-to-date buildings would be the most helpful for the safety of our customers and staff!"

"Up-to-date buildings, updated furniture."

"Consider some new buildings."

"Better facilities, investing more in the Capital Projects to more quickly update all Library Facilities."

Baltimore County Public Library's Facilities and Operations Department is not authorized to make building repairs. All repair requests are sent to the county's Property Management Department, and Library staff say the communication process is complicated and often difficult. The library is not allowed access to Property Management's IT system, due to cybersecurity concerns, so all work orders must be submitted on paper to Property Management and then typed into the IT system by Property Management staff. This multi-step process is slow, inefficient, and error prone.

Library staff report a lack of coordinated response from the Property Management Division. For example, multiple people may be sent to assess the same problem, with each one unaware of the others' visits. Branch managers also say Property Management is "woefully understaffed. There are three plumbers for the entire county."

The Baltimore County Public Library receives \$1.95 million from the County for its capital budget every two years. This amount has not changed in the past decade, and it has no relation to the actual costs of needed renovations. To put that amount in context, Library staff say the typical cost for a relatively limited branch renovation is \$4 million.

Baltimore County Public Library updated its Facilities Master Plan in 2021, focusing on the 10 branches and the Public Library's administrative offices that have not had any renovations. The estimates are preliminary and do not include technology; furniture, fixtures, and equipment; design fees, and other costs. Of the 10 projects, three are new construction; one of these is a consolidation of two small branches (Lock Raven and Parkville) and one is a new building. The remaining six involve renovation, renovation and expansion, and reconfiguration, updating, and expansion. The projects expand library and office space by 62,875 square feet. A previous estimate for these projects, presented in the table above, totaled \$89.1 million. May 2021 preliminary construction estimates for these projects range between \$143 and \$158 million, exceeding previous estimated by 60.5 to 77.3 percent.

To fill the funding gap, Baltimore County Public Library applies for external grants and conducts capital campaigns. However, the funds available fall far short of meeting the system's goal of renovating two library branches each year. Of the four libraries identified in the 2017 Master Plan as needing complete renovation and expansion, three are receiving only partial renovations. One library designated for replacement with a new building under the Master Plan instead received only a minor renovation in 2020.

Clearly, the Baltimore County Public Library is in urgent need of reliable, accessible, and adequate funding sources to make sufficient funding available to bring its facilities into the 21st century. If reliance on a Library Facilities General Obligation Bond program is not feasible, Baltimore County could consider alternative sources such as increasing the library's capital budget, appropriating the Baltimore County General Fund dollars to library facilities, or initiating a capital campaign through its Library Foundation.

Benefit to County

Updating Baltimore County Public Library facilities to 21st public library standards will strengthen the library's ability to meet the needs of patrons and communities it serves and thereby strengthen its communities. It will increase the number of patrons and lengthen their retention, expand use of library resources and services, and make the libraries an even more visible and unifying force.

Best Practice

The Prince George's County Memorial Library System represents the gold standard in library facility renovation and maintenance. It serves a population of 912,756 people through 19 branches and a library facility housed in a correctional center. On average, the library's facilities are 25 years old – a testament to Prince George's County's continuous investment in facility replacement, upkeep and maintenance.

Although Prince George's County Memorial Library FY2020 budget of \$32,860,748 is nearly \$10 million lower than Baltimore County Public Library's operating budget of \$42,768,414, Prince George's County has assigned more than \$30 million in its FY2021 and FY2022 proposed capital budgets for renovation of two branch libraries and replacement of two more.

Prince George's County Memorial Library is funding its library renovation and construction projects through library-specific General Obligation (GO) Bonds. GO Bonds are municipal bonds used to fund public works projects and backed by the full faith and credit of the issuing municipality. When GO bonds are issued, municipalities pledge to use all available resources and funding streams to repay bondholders as scheduled.

Although most public libraries in Maryland rely on GO bonds to provide funding for all capital improvements, Prince George's County is unusual in carving out specific "Library Bonds" in its GO issuances to provide funds that are available only to the county library system.

The Library Bond requests must be approved by the library's system's Chief Operating Officer; the Office of Management and Budget, acting for the County Executive; and the County Council, who also must approve the projects to be funded by the bonds. After the County Council authorizes the program, a bond referendum is placed on the ballot.

PURPOSE OF THE PRINCE GEORGE'S COUNTY GENERAL OBLIGATION BOND PROGRAM TO FINANCE CAPITAL PROJECTS FOR LIBRARY FACILITIES

BILL

AN ACT concerning

Borrowing to Finance Capital Projects for Library Facilities

For the purpose of authorizing Prince George's County, Maryland, to borrow money upon its full faith and credit at any time and from time to time, in an aggregate principal amount not exceeding \$28,829,000 to finance the design, construction, reconstruction, extension, acquisition, improvement, enlargement, alteration, renovation, relocation, rehabilitation, or repair of Library Facilities including the acquisition and development of sites therefore, the architectural and engineering services incident thereto, and the acquisition and installation of necessary fixed permanent equipment therefor; prescribing terms and conditions upon which bonds issued pursuant to this Act shall be issued and sold and other incidental details with respect thereto; providing generally for the issuance of such bonds and providing for such borrowing to be submitted to a referendum of the legal voters of the County.

Source: Excerpts from County Council of Prince George's County, Maryland; 2020 Legislative Session; Bill No. CB-44-2020; introduced June 23, 2020.

Historically, the Library Bond referenda have been solidly supported by voters; a measure on the November 2020 ballot to approve \$29 million in Library Facilities bonds passed 86.6 percent to 13.4 percent.

Implementation Guidance

1. Conduct a public awareness campaign to educate voters about the library's critical need for adequate capital funds and the benefits a well-maintained library system will provide for the community.
2. For the implementation of a General Obligation Bond program, the Baltimore County Public library should:
 - Review the Prince George's County Memorial Library System Library Bond program and use it as a model for development of a BCPL bond program.
 - Communicate with appropriate Baltimore County offices/departments and elected officials that would be involved in establishing a library bond program.
 - Develop a five-year list of capital projects and estimate the costs associated with design, construction, enlargement, renovation, rehabilitation, or repair of the selected facilities.
 - Prepare a draft referendum question for the Baltimore County Council to approve for placement on the 2022 general election ballot.
 - Upon voters' approval of the program, implement the projects, review progress, and prepare annual reports.
3. If a library-specific General Obligations Bond program is not feasible:
 - The Baltimore County Public Library director should explore with county officials an increase in the capital budget for the library.
 - The Baltimore County Public Library director and senior management should develop a Library Facilities Funding plan that goes beyond the existing capital budget by identifying additional funding options and sources.
 - The Baltimore County Public Library director should discuss with county finance officials the allocation of dollars for library facilities' upgrade and renovation from the General Fund. Currently, Baltimore County's General Fund has \$69 million, up from \$60 million in FY2020 and FY2021.
 - The Baltimore County Public Library director should initiate a capital campaign through the Library Foundation. The goal of a \$25 million campaign has been specified by the director as feasible.

2.2.3 FACILITIES INSPECTION AND CONDITION ASSESSMENT

The Office of Budget and Finance (OBF) Property Management Division should engage an independent vendor to conduct a facility inspection and condition assessment survey for all County-owned buildings.

Findings

The Office of Budget and Finance (OBF) Property Management Division operates, maintains, repairs, and renovates facilities with a combined total of 5,814,592 square feet. The facilities include courthouses, office buildings, the County Detention Center, maintenance facilities, libraries, senior centers, precincts, fire stations, pump stations, and other structures. Although Property Management maintains adequate, basic facility information, the agency has not conducted a comprehensive facility condition assessment, nor do they maintain a dollar estimate of the aggregate value of deferred maintenance costs.

Property Management does an effective job of maintaining and repairing its facilities within the constraints of its budget, but a facility condition assessment is needed accurately and objectively to assess facility condition and estimate the cost of renewal and replacement. The process of assessing facility condition and estimating deferred maintenance costs provides valuable, often overlooked information that is essential to guiding short-term and long-term facility maintenance and repair decisions.

While awareness of the present-dollar value of deferred maintenance may not directly impact Property Management’s day-to-day spending, maintenance, or repair decisions, it would provide OBF and Baltimore County Government with actionable information essential to long-range planning and asset life-cycle management. It also would enhance understanding of future revenue requirements and capital expenditures that may affect near-term and long-term budgetary decisions. The facility assessment survey that underpins deferred maintenance dollar estimates serves to identify critical issues that may have a deleterious effect on public safety, operating costs, liability, or the ability to provide vital public services.

These vital data points will enable Property Management to better prioritize current maintenance, repair, and capital improvement strategies while enabling the County to better prepare for the necessary future allocation of resources.

Benefit to the County

A facility assessment survey will provide both immediate and long-term benefit to Baltimore County. In the short term, the County can initiate immediate maintenance or repairs to avoid preventable hazards and additional expense later. Over the long term, the County will be better able to plan future expenditures and infrastructure investments with minimal budgetary uncertainty. In both the short and long terms, the information generated by a facility assessment survey will enable the County to make sound capital investment decisions based on data-informed priorities.

Best Practices and Benchmarks

A comprehensive facility assessment survey will include inspection data and will enable calculation of a “facility condition index” (FCI), a standard cost-based benchmark commonly used to gauge current facility condition, compare facility condition and organizational performance, and measure changes in condition and performance over time. The FCI is calculated based on the ratio of the current cost to bring a facility into excellent condition compared to the facility’s replacement value. The lower the FCI, the better the facility condition. Typically, the following FCI scale is used to gauge facility condition:

Current Cost to Renew a Facility / Facility Replacement Cost = Facility Condition Index (%)

Facility Condition	Low Facility Condition Index	High Facility Condition Index
Good	0%	5%
Fair	5%	10%
Poor	10%	30%
Critical	30%	Above 30%

The following is a representative list of public sector entities that conduct regular facility assessment surveys:

- University of Maryland, College Park
- Anne Arundel County
- Harford County
- Baltimore City Public Schools
- Montgomery County Public Schools
- City of Chicago
- GSA – National Capital Region
- Pennsylvania State University

Implementation Guidance

- Define scope of facilities to be included in the facility condition assessment survey. For example, the survey could include all facilities of 25,000 square feet and larger, all libraries, all office buildings, all buildings at least 20 years old, all facilities with a replacement cost of over \$2,000,000, etc.
- Research and select facility attributes to be included in survey, such as life safety, maintenance, building envelope, structural, plumbing, electrical, environmental, ADA, etc.
- Research typical software options that accompany the completed survey: Are they adequate to manage facility condition and budgets? Can the database be updated by other vendors?
- Research the breadth and depth of firms that conduct facility assessment surveys.
- Prepare bid specifications, requirements, and contract award criteria.
- Bid and award a contract to conduct a countywide facility condition assessment survey.
- Going forward, facility condition assessment surveys should be conducted at five-year intervals.

2.2.4 STREET SIGN RETROREFLECTIVITY

The Department of Public Works and Transportation (DPWT) should conduct a countywide study of street sign retroreflectivity.

Findings

“Retroreflectivity” describes how light is reflected from a surface and returned to its original source (“retro”-reflector); in the context of street signs, it is a measure of how much light a sign reflects back to drivers at night. Traffic signs are made with retroreflective materials to increase their visibility to drivers’ eyes at night. The quality of signs’ retroreflectivity degrades over time, so it is important for transportation agencies to actively manage and maintain traffic sign retroreflectivity in order to ensure nighttime traffic safety.²⁴³

Data provided by the DPWT Bureau of Transportation indicates that there are approximately 125,000 signs throughout the County. According to interviews with the Bureau, there is no process for evaluating these assets for retroreflectivity on a regular basis. Instead, the Bureau relies on visual assessments by staff or input from Baltimore County residents about issues that they have encountered. As these assets are integrated into the CityWorks platform, Baltimore County would be well served by a comprehensive sign retroreflectivity study, with the resulting data integrated into its asset management system.

²⁴³ https://safety.fhwa.dot.gov/roadway_dept/night_visib/

Benefit to the County

A review of Baltimore County's street sign retroreflectivity will provide important benefits:

- It will provide a baseline report of sign conditions that can help the Bureau anticipate how many and which street signs may need to be replaced each year. This knowledge can help the Bureau budget for needed improvements and plan for subsequent years.
- It will enable the County to proactively replace aging signs before they create hazardous conditions for people driving at night. It will help to ensure that Baltimore County's Street networks and signs are ADA (American Disabilities Act) compliant. The ADA requires street signs to be readable at night.

Best Practices and Benchmarks

The Mendocino County (California) Public Works Department is responsible for managing and maintaining approximately 1,000 street centerlines. Over a three-year period, the county completed a demonstration project that surveyed and replaced less reflective signs with upgraded options. This intervention, along with adjustments to placements where necessary, resulted in a 42 percent reduction in car accidents in those locations. The overall survey and replacement program cost the county \$79,000, while the savings from crash reductions ranged from \$13 million to \$23 million.²⁴⁴

Most guidance for these studies can be found at the state level, so it is advisable for Baltimore County to work with Maryland Department of Transportation (MDOT) on implementation, especially since some county jurisdictions have been able to serve as pilot programs for larger statewide studies.

Implementation Guidance

Before a retroreflectivity study is undertaken, it will be necessary to consolidate the existing GIS and asset datasets managed by DPWT into a single database (i.e., City Works) that is accessible to all appropriate personnel. The Department should then develop a project plan in coordination with MDOT to complete a retroreflectivity study of Baltimore County signs. It may be possible to find local partners (local university engineering programs, for example) to support the completion of a countywide study to save staff and time resources.

2.2.5 BOARD OF ELECTIONS: WAREHOUSING

The Board of Elections should determine the size of warehouse space needed so that the cost of leasing such space can be determined if the county is not able to provide needed space in its current properties.

Findings

The Board of Elections warehouse space is severely inadequate to its essential storage needs, impacting the ability of warehouse staff to operate efficiently and safely. An important responsibility of the Board of Elections involves the storing and upkeep of election-related equipment. This equipment consists of:

244 <https://localroads.vermont.gov/sites/localroads/files/files/resources/materials/NCHRP-Practices.pdf>

- Transfer carts – Used for transporting the election equipment to polling locations.
- Ds200's (scanners) – Used for tabulating results at the polling locations.
- Expressvote (BMD- Ballot Marking Device) - Used for marking a ballot electronically.
- ADA leg kit – a set of legs that drops the voting booth down for accessibility.
- Electronic Pollbook – Used for checking-in voters at the polling locations.
- Pollbook printer – thermal printer used with pollbooks
- Blue tote bins – Used for ballots that are scanned through the DS200's. Only holds about 1,500 sheets of paper.
- Booths – are set up at the polling locations so individuals can mark their ballot.
- A-Frame "Vote Here" sign.
- ADA table – Used to sit the BMD on for accessibility.
- Cradlepoint (Router).
- SDR (Same Day Registration) barcode scanner – connects to the pollbook.

The volume of equipment used for elections is presented in the table below.

BOARD OF ELECTIONS EQUIPMENT

Equipment Type	Volume
Ballot Bins	784
Booth Inside Cart 1	851
Booth inside Cart 2	1,006
Booth Inside Cart 3	9
Booth Outside	1,065
Total Booths	2,931
Privacy Sleeves (5/Booth)	14,655
SD200 Scanners	343
BMDs	241
Electronic Pollbook Printers	749
Electronic Pollbooks	749
Cradlepoint	230
SDR Barcode Scanners	230

Source: Baltimore County Board of Elections, April 2021.

The Baltimore County Board of Elections currently has about 13,000 square feet of space in three warehouses: two warehouses are in the building where they office and the third is 27 miles away. When the Board of Elections moved in 2015 to their current office building, their space originally included a single warehouse. This warehouse space was supplemented with a second small warehouse, in the same building, and more recently with a third warehouse. The third warehouse space is in a building the Police use to house their canines. This building is run down, dirty, smells of the dogs, and not very secure. Board of Elections staff have to call the police every time they need to access this facility to inform them about their visit so that the police can restrain the animals. The first warehouse is used to store most of the transfer carts that hold the election equipment, extra equipment, voting booths, ballot bins, voting ballots, and pollbooks. The second warehouse stores transfer carts filled with equipment for early voting and some extra equipment. The third warehouse is used to store transfer carts that are used to move election equipment to precincts.

Board of Elections staff consider the current amount of space to be severely limited. To make optimum use of the current space it has become necessary to store all election equipment that a polling station requires in transfer carts. A transfer cart weighs about 700 pounds. Each transfer cart has an ID tag identifying the polling station. The warehouse is tightly packed with transfer carts and, according to Board of Elections warehouse staff, “is full from top to bottom and wall to wall.”

Accessing and moving stored equipment is frequent in off-election years. Following an election, staff has to take inventory and do maintenance by checking the software and the battery levels to ensure that the equipment functions properly. In addition, batteries have to be charged every three months. To check and charge the batteries they have to be taken out of the carts. Staff estimated that inventory takes a month, maintenance takes about a month and a half, and charging the batteries takes about a month because only a certain number of units can be charged at a time.

The current space limitation and space configuration and the multiple warehouse locations make storing equipment difficult and accessing and moving equipment challenging and unsafe. Moving carts is often required in order to get access to certain other carts in order to take out the stored equipment from the carts. This involves a great amount of physical work because the warehouse is packed, leaving very small space for handling carts. This, in turn, slows down and lengthens the time to perform tasks. Having to move 700-pound carts under crowded conditions also poses a risk of serious injury. Lifting the heavy scanners out of the cart and putting it back in also presents a risk of injury. The poor lighting in the warehouse and the small and insufficient number of electrical outlets limit where work can be done.

The forklift the county provided to assist with cart moving has not been adequate. The forklift has stationary legs and is not designed for maneuvering in small and tight spaces. The Board of Elections did not ask for another forklift because of the severe lack of space. In order to use a forklift, all the carts must be moved away from the overhead shelving units; this cannot be done because of lack of storage for these carts.

Lack of space also affects the Board of Elections’ ability to train staff in the use of voting equipment. The current warehouse space has no room for training election staff in the use of the equipment, like best practice warehouses have. This is further aggravated by the lack of sufficient office space to accommodate both the people and the equipment in training sessions.

Expected redistricting in Maryland is likely to result in an increase in the number of precincts and with it in need for more equipment. This is likely to further aggravate the lack of warehouse space. According to Board of Elections staff, the county has not offered any solutions or developed a contingency plan.

Benefit to the County

According to warehouse staff, the amount of time it currently takes to do a specific job, would be cut significantly if more space was available. A larger warehouse will allow more efficient placement of equipment, ensure safer conditions, provide faster and easier access to individual carts, and require less time spent on charging batteries.

Best Practices and Benchmarks

Anne Arundel County represents a best practice in the warehousing organization of election equipment. Anne Arundel County has 195 precincts. Its warehouse, leased from a private property management company because the county did not have adequate warehouse space, has 27,610 square feet of temperature-controlled space. The warehouse also includes a 2,838 square feet multipurpose room that is used for training election workers in the use of equipment, a 1,581 square feet ballot storage room, and 1,349 square feet of a canvassing room. The warehouse has loading docks, roll-up doors, a room for training and canvassing, and a parking lot for about 100 cars.

Instead of storing equipment in carts as is done in Baltimore County, Anne Arundel County’s Board of Elections warehouse separates all election equipment items by type and places them in rows on tables or directly on the floor. The warehouse has equipment set on 136 tables, 68 tables that are 24 inches wide and 68 that are 48 inches wide, arranged in rows which eliminates the need to move carts and to take the equipment out and put it back in the carts. This is especially efficient during an election year under tight time constraints. Each table is equipped with an electric outlet and surge protector, these make charging take less time and be highly efficient. The warehouse also has nine rows of scanning units that are placed on the floor because

of their size and weight and rows of carts. This arrangement of equipment reduces labor costs as maintenance, logic checks and charging the scanners done every three months can be done more quickly. The supplies and bags are placed on shelves. The different equipment items are arranged in the order of their precinct number and are each tagged. The ballots are stored in a special ballot room in blue ballot bins in a temperature- controlled environment. According to the Anne Arundel County Board of Elections Warehouse Operations Manager, the current space is fully used and may be insufficient if the county’s number of precincts increase, as expected. As a contingency plan the Board of Elections found an adjacent warehouse they may lease, if needed.

Implementation Guidance

The urgent and increasing need of the Board of Elections for more warehouse space and the inability of Baltimore County to allocate additional space in a county property, leaves the Board of Elections with two options: moving the entire office to a new location with sufficient office and warehouse space or staying in the current location and leasing additional warehouse space that includes space for training.

Moving the office to a new location in a county property has several advantages: it will allow the Board of Elections to consolidate its warehouse needs in a single location, addressing security as well as both operational efficiency and safety concerns. This option will also be most cost efficient.

However, if this option cannot be implemented, then leasing additional space is imperative.

Five-Year Cost Estimate

	County One Full Year	Five Years
Low End Range	\$68,000	\$340,000
High End Range	\$102,000	\$510,000

Board of Elections warehouse staff estimated the need for a total of 30,000 square feet of warehouse, or an additional 17,000 square feet to its current space. The review team’s communications with commercial brokers in the Baltimore County area indicate that warehouse space rents for \$4 to \$6 a per square foot per year. These figures may not include insurance, tax, or utilities.

It is estimated that rental costs per year, for an additional 17,000 square feet of space, will range from \$68,000 to \$102,000. Over a five-year period, rental costs will range from \$340,000 to \$510,000.

Additional space may be needed if the number of Baltimore County precincts increases.

2.2.6 DISTRESSED HOUSING

Invest in distressed housing and protect Baltimore County's neighborhoods from blight.

Findings

Many Baltimore County neighborhoods had never recovered from the destabilizing effects of the 2008 housing crash when the COVID-19 pandemic hit. The pandemic and its aftereffects have the potential to further destabilize neighborhoods and homeowners. However, the County can do more to intervene and prevent homes from becoming sources of blight and, in some cases, transform them into opportunities for creating permanently affordable and stable housing.

The impact of the COVID-19 pandemic on Baltimore County's housing and neighborhoods is still uncertain. The nationwide foreclosure moratorium and the ability for most homeowners to forbear mortgage payments have provided a tremendous lifeline for impacted families. But it is unclear how many will be unable to keep up with mortgage payments and taxes once the moratorium expires. It should be reasonably expected that the long-term economic fallout of the pandemic will be as uneven as that of the virus itself, with low-income families and communities faring the worst.

One indicator of how Baltimore County's housing and neighborhoods will likely fare is the rate of homes in forbearance, with higher rates generally indicating that more homeowners will have trouble making mortgage payments once forbearance ends. In February 2021, the national forbearance rate was 4.4 percent according to Black Knight, a firm providing data, technology, and analytics to home loan providers. Data from the Federal Reserve Bank of Atlanta showed the forbearance rate in Baltimore County was 6.5 percent in February, the fourth highest among Maryland's counties, and that some Baltimore County ZIP codes had forbearance rates over 10 percent, going as high as 11.5 percent in two ZIP codes.²⁴⁵

The ZIP codes with elevated forbearance rates (above 10 percent) in February 2021 were:

ZIP Code	Forbearance Rate (February 2021)
21206	11.5%
21215	11.5%
21239	11.3%
21244	10.8%
21207	10.5%
21133	10.1%

Even before the pandemic led to massive job losses and an upending of the economy, there were some troubling indicators of distress in Baltimore County neighborhoods. In 2019 Maryland had one of the highest rates of mortgage foreclosure in the nation, coming in third behind New Jersey and Delaware. In 2017, the Baltimore Sun reported that the greater Baltimore area had the most distressed home sales in the nation, including in Baltimore County communities like Towson.

As in many areas of the country, well-capitalized investors are at the ready to find distressed homes in Baltimore County, to coerce homeowners in financial distress to sell at prices below market value, make modest improvements, and either flip the property at a profit, or keep the property and generate rental income. In March 2021, Baltimore County was ranked by ATTOM

245 Federal Reserve Bank of Atlanta, Mortgage Analytics and Performance Dashboard, <https://www.atlantafed.org/center-for-housing-and-policy/data-and-tools/mortgage-analytics-and-performance-dashboard.aspx>

Data Solutions, a firm providing foreclosure and other housing data to investors, as among the most lucrative for single-family rental investors because it has among “the highest potential annual gross rental yields,” meaning investors can buy cheap and demand high rents. These tactics drain the wealth and equity of Baltimore County homeowners and divert local wealth and rental income to property speculators.

On the other hand, some distressed properties remain vacant and contribute to blight on the neighborhood, characterized by unmaintained properties, higher crime rates, and lower property values. The Baltimore County Consolidated Plan, 2016 – 2019 recognizes that: “the high rate of foreclosures of private properties in Baltimore County continues to impact the availability of affordable housing units. Foreclosed units remain vacant in many of the county’s low- and moderate-income communities. Banks continue not to take title to foreclosed properties for a delayed period of time, leaving the availability of potential family housing units with three or more bedrooms limited for many large households.”

Distressed properties also often end up in property tax delinquency. Each year Baltimore County holds an auction to sell property tax liens on tax delinquent properties. The purchasers of the liens then attempt to collect on the tax debt, plus interest. If payments are not made within six months, the holder of the lien may initiate foreclosure proceedings. During this time, many property owners are able to pay their arrears and redeem the property, but some cannot. Beside foreclosure, other negative outcomes include the sale of the property to an investor (often a “short sale”) or the loss of considerable equity before a property is redeemed. To mitigate the community impacts of the tax sale— that is, the impact of residential foreclosure and distressed homes—the Office of Budget and Finance reports that it shares a list of delinquent tax accounts with DHCD, the Department of Aging, and other agencies, to determine if they can assist, at which point the property is pulled from the list.

Baltimore County currently provides several programs, primarily funded through the federal Community Development Block Grant (CDBG), to assist and support homeowners. Baltimore County gives grants to a network of community-based organizations that provide pre-purchase homeowner counseling. There are funds for programs that provide down payment assistance for first-time homebuyers and loans to cover closing costs, weatherization grants for homeowners, rehabilitation loans, and emergency repair grants or loans. There are also funds for local community development organizations for the acquisition and/or rehabilitation of homes. Federal CDBG funds cover the County’s administrative costs for the above program activities. Altogether, the County steered approximately \$6 million in CDBG funds toward housing and community development programs in FY2021.

Baltimore County does not collect certain data points that would allow the County to track trends related to distressed housing, anticipate where the most severe impacts of foreclosure and blight are likely to be felt, and to target available resources or interventions to those areas. It does not track pre-foreclosure filings, or utility data to see if a home may have become vacant. Nor does Baltimore County have a vacant properties registry law that would require owners of vacant property to register with the County.

Benefit to the County

By establishing community land trusts, providing robust foreclosure prevention services, and creating a vacant property registry, the County will be better positioned to prevent neighborhood blight, abandoned homes, and property speculation that would destabilize neighborhoods and result in homeowners losing their homes.

Best Practices and Benchmarks

Foreclosure Prevention Services

With the expiration of the foreclosure moratorium, it will be very important that homeowners know where and how to get help and how to avoid common scams for those facing foreclosure, such as loan modification scams.

While Baltimore County has programs that provide homeowner services, most of these programs consist of pre-purchase counseling and workshops. These are helpful and necessary services. However, it is less clear how a Baltimore County homeowner can access housing services related to foreclosure and scam prevention. At least one of Baltimore County’s community-based housing services providers lists foreclosure counseling on its website. But it is surprisingly difficult for a

homeowner to find information about foreclosure and scam prevention. There is no reference or prioritization of a phone number that connects homeowners with housing counselors.

The Los Angeles County Department of Consumer and Business Affairs offers a good example of a website that provides helpful information to homeowners about what to do if they are faced with foreclosure, how to identify and avoid scams, and how to get help.²⁴⁶

The screenshot shows a webpage titled "Foreclosure Prevention" in red. The page is divided into two main columns. The left column contains a vertical list of links: "Disabilities", "rtunities", "stration", "d Ending", "revention", "anning", "evitalization", "ation", "rvation", "and Land Use", "nd Adopted", "ans", "nd Maps", and "TED SERVICES". The right column contains text explaining that home mortgage foreclosures began in 2006 and continue to occur in Baltimore County. It mentions that foreclosed properties create a stock of vacant and abandoned properties that diminish the value of nearby properties, cause negative equity, elevate crimes, deteriorate neighborhood conditions, and erode governmental fiscal capacity. The page also states that the Neighborhood Development Division of the Department of Planning works with the following partners to help homeowners deal with the crisis of mortgage foreclosure and to prevent home mortgage foreclosures. This effort will help keep neighborhoods healthy and prosperous for existing and future residents. The page lists three partners: Eastside Community Development Corporation, Diversified Housing Development, and St. Ambrose Housing Aid Center, each with their address, phone, fax, and website.

Foreclosure Prevention

Home mortgage foreclosures began in 2006 and continue to occur in Baltimore County in several areas of concentration. Foreclosed properties create a stock of vacant and abandoned properties that diminish the value of nearby properties, cause negative equity, elevate crimes, deteriorate neighborhood conditions, and erode governmental fiscal capacity to conquer these problems.

The Neighborhood Development Division of the Department of Planning works with the following partners to help homeowners deal with the crisis of mortgage foreclosure and to prevent home mortgage foreclosures. This effort will help keep neighborhoods healthy and prosperous for existing and future residents. The [Foreclosure Prevention](#) (PDF) brochure will inform you of the steps you can take in the ever changing rules of foreclosure and how it relates to your specific situation.

Eastside Community Development Corporation
7835 Eastern Avenue
Eastpoint Mall, Suite 302
Baltimore, Maryland 21224
Phone: 410-284-9861
Fax: 410-284-9864
www.eastsidecdc.org

Diversified Housing Development
8025 Liberty Road
Randallstown, Maryland 21244
Phone: 410-496-1214
Fax: 410-496-9352
www.diversifiedhousing.org

St. Ambrose Housing Aid Center
321 E. 25th Street
Baltimore, MD 21218
Phone: 410-366-8550
www.stambros.org

Source: Baltimore County Website (2021)

L.A. County Community Land Trusts

As a means to support community development and stabilize neighborhoods, some local jurisdictions have funded networks of Community Land Trusts (CLTs). Maryland's first CLT was launched in 2013 as a partnership between the local Habitat for Humanity nonprofit and Frederick County. In March, the Baltimore City Department of Housing & Community Development it was awarding the City's initial \$2.25-million investment in three new CLTs for single family homeownership opportunities. The City estimates that the funds will help to develop 26 units in total with an average cost of \$53,571 per unit.

The screenshot shows the homepage of the Los Angeles County Consumer & Business Affairs website. The header features the county logo and the text "LOS ANGELES COUNTY CONSUMER & BUSINESS AFFAIRS". Below the header is a navigation bar with links: "CONSUMERS", "SMALL BUSINESS", "TENANTS & LANDLORDS", "FINANCIAL EMPOWERMENT", "MINIMUM WAGE", "SMALL CLAIMS", and "MEDIATION". The main content area has a large blue banner with the text "Foreclosure Prevention for Property Owners". Below the banner are several buttons: "Owning Your Home", "Saving Your Home", "Rent Stabilization", "Disaster Help Center", "CA Rent Relief", and "LA County Mortgage Relief". There is a section for "Call us for free help: (833) 238-4450" with the text "You can reach a counselor Monday through Friday, 8 a.m. to 4:30 p.m.". At the bottom, there is a section for "Free Webinars: Help for Homeowners" with the text "This free Help for Homeowners series of webinars, hosted by the Los Angeles County Department of Consumer and Business Affairs' Foreclosure Prevention Unit and other subject-matter experts, will provide L.A. County homeowners with the information and resources they need to manage through this difficult time." and a button for "FREE WEBINARS".

LOS ANGELES COUNTY CONSUMER & BUSINESS AFFAIRS

CONSUMERS SMALL BUSINESS TENANTS & LANDLORDS FINANCIAL EMPOWERMENT MINIMUM WAGE SMALL CLAIMS MEDIATION

Foreclosure Prevention for Property Owners

Owning Your Home Saving Your Home Rent Stabilization Disaster Help Center

CA Rent Relief LA County Mortgage Relief

Call us for free help: (833) 238-4450
You can reach a counselor Monday through Friday, 8 a.m. to 4:30 p.m.

Free Webinars: Help for Homeowners
This free **Help for Homeowners** series of webinars, hosted by the Los Angeles County Department of Consumer and Business Affairs' Foreclosure Prevention Unit and other subject-matter experts, will provide L.A. County homeowners with the information and resources they need to manage through this difficult time.

FREE WEBINARS

Source: Los Angeles County Consumer & Business Affairs Web Page (2021)

²⁴⁶ <https://lacounty.gov/residents/consumers/departments-of-consumer-business-affairs/>

CLTs represent a community ownership model, in which the CLT retains ownership of the land, and a qualifying homebuyer purchases the home that sits on the land at an affordable price. This way, the property remains a community asset and remains affordable in perpetuity. A CLT may also develop vacant land that it acquires, often in partnership with local programs and incentives. CLTs can do more than develop and manage land, however. They can become a nexus for community preservation efforts, organizing community members around the goal of creating and preserving affordable housing, and mobilizing in support of affordable housing proposals.

Addressing Vacant and Abandoned Homes

Some localities have created systems to track neighborhood housing conditions by creating vacant property inventories. By pairing field observations by code enforcement with data indicators such as utility shut-offs, foreclosure filings, or tax delinquency, localities may map vacant and abandoned buildings to inform community development efforts.

Cities and counties have also passed laws establishing vacant property registries. Owners of vacant residential buildings are required to register and pay a fee, which localities use to fund code enforcement efforts and to fund the creation of a vacant property inventory. Registry laws also often set minimum standards for property maintenance, such as grass cutting. Owners who fail to pay the fee or fail to meet maintenance standards will be issued a fine, and the fines if left unpaid can become a lien on the property.

Implementation Guidance

Foreclosure Prevention Services

The 2021 American Rescue Plan will make available nearly \$10 billion to states for foreclosure prevention services. To the extent that the State of Maryland subgrants these funds to counties, Baltimore County could draft a plan for distributing assistance to homeowners, including a vigorous outreach and education campaign, counseling services, and legal services. Local community partners receiving county funds should be expected to canvass neighborhoods to distribute literature, conduct wellness checks, and connect homeowners with services. The County could also consider issuing an RFP for a non-profit organization to coordinate with the local community partners, provide administrative support, and shift resources as needs demand. And rather than direct homeowners in need of assistance to the webpages of the community organizations with which it partners to provide services, the County could develop a standalone website with clear information about what to do if a homeowner is falling behind on mortgage or tax payments, how to avoid scams, and where to get help.

Community Land Trusts

The State of Maryland passed the Affordable Housing Land Trust Act (AHLT Act) in 2010, authorizing CLTs to acquire property. With this authorization, Baltimore County could provide seed funding for a network of CLTs, using federal HOME funding, and seek opportunities to transfer vacant land and homes or buildings in need of rehabilitation to them for development or rehabilitation. By designating a CLT as a Community Housing Development Organization, a type of non-profit organization recognized by HUD, Baltimore County may provide the CLTs with HOME funding for both their projects and their operations. CLTs are also eligible to receive HUD-funded technical assistance for organizational development and project development.

Once the County has established one or more CLTs, it should look for opportunities to transfer properties that are appropriate for affordable housing development to the CLTs for development or redevelopment. The County may look to transfer properties in receivership or those eligible for the tax sale (see **Solicit Developer Proposals** elsewhere in this report for further discussion).

Addressing Vacant and Abandoned Homes

Baltimore County could begin collecting data indicators to track vacant and abandoned homes and other neighborhood indicators. Pre-foreclosure data is held by the state Office of the Commissioner of Financial Regulation. The County could request water usage data from Baltimore City, or electric and gas shut off from BGE. This data should be combined with tax delinquency data and indicators from code enforcement. The Circuit Court and Sheriff's Office collect notice-to-file as well as certain outcome-tracking data, which they previously have indicated to County housing officials that they are willing to share. If it is found that vacant and abandoned buildings are a sufficiently serious issue, Baltimore County could choose to enact a vacant property registry law.

2.3 Programming

Much government spending consists of "human capital investment" – spending today on increasing the well-being and productive capacity of individuals in a way that increases both their own well-being and that of the larger society. Our report offers four examples where the County could profit from investing more:

Workforce development is an area largely dominated by federal funding under the Workforce Innovation and Opportunities Act (WIOA). A limited number of states supplement this federal funding; Maryland is one of these. Given the nature of such spending as an investment – increasing future economic prospects for individuals and their families, for the county as a whole, and for the County government's coffers – Baltimore County could provide County money for expanded workforce development efforts. Over the past decade, since the creation of DEWD, County staffing of these functions has declined. That appears to be changing, however: Baltimore County this year is contributing \$100,000 of County general funds to workforce, and the original Job Connector program was seeded with funding from County Council. The County could raise its investment in these activities closer to the levels of its peer – and competitor – counties.

The Department of Health and Human Services (DHHS) should establish and maintain a documented continuum of evidence-based practices for DHHS. Evidence-Based Practices (EBPs) are the objective, balanced, and responsible use of current research and the best available data to guide policy and practice decisions, such that outcomes for residents are improved. EBPs are grounded upon empirical research rather than through anecdote or professional experience alone. In contrast to the term "best practices," EBPs are programs shown in well-conducted random control trials, carried out in typical community settings, to produce sizable, sustained effects on important outcomes. When programs are replicated with fidelity to EBP models, both human outcomes and the return on investment to taxpayers will be significant. Baltimore County DHHS uses a variety of EBPs now, but there is no central hub or clearinghouse that captures EBPs used across DHHS, nor has there been a gap analysis of what EBPs are currently funded versus what EBPs may be implemented to better meet the needs of County residents and to demonstrate a return on the taxpayers' investment through measurable positive outcomes.

One EBP Baltimore County could implement is the Nurse-Family Partnership® (NFP) program for pregnant first-time moms and their infants. Baltimore County suffers from infant mortality rates higher than the national average, both overall and specifically among African-Americans. Other relevant measures are headed in the wrong direction, as well. Transitioning to the NFP would require one-time start-up costs for training, data collection platform, and other staff supports.

2.3.1 WORKFORCE DEVELOPMENT PROGRAMMING

Baltimore County could raise its investment in workforce development programming activities closer to the levels of its peer counties and seek opportunities for additional funding.

Findings

Workforce development is an area largely dominated by federal funding under the Workforce Innovation and Opportunities Act (WIOA). A limited number of states supplement this federal funding; Maryland is one of these.

Given the nature of such spending as an investment – increasing future economic prospects for individuals and their families, for the county as a whole, and for the County government’s coffers – Baltimore County could provide County money for expanded workforce development efforts. Over the past decade, since the creation of DEWD, County staffing of these functions has declined. The County’s economic development director provided the following comparisons:

Place	Population	Full Time Dedicated Econ Staff	Econ Dev Staff per 100,000 residents
Howard County, MD	321,000	18	5.607
Baltimore City, MD	614,000	30	4.886
Anne Arundel County, MD	564,000	22	3.901
Jefferson County, Kentucky	771,158	21	2.723
Hamilton County, Ohio	813,822	22	2.703
Austin, Texas	950,000	25	2.632
Oklahoma County, Oklahoma	787,958	17	2.157
Montgomery County, MD	1,040,000	19	1.831
Baltimore County, Maryland	832,468	8	0.721

Both the tourism and workforce offices are similarly understaffed. Baltimore County should consider expanding its budget to effectively advance its workforce development efforts.

Benefit to the County

Greater funding of economic development, tourism promotion, and job training positions would allow for needed expansion of these activities, which in turn generate increased employment, lower unemployment, higher incomes, and expanded government revenues – making this an area of true investment, not just added expense. Replicating programs in other jurisdictions that allow for funding by the private sector would enable the County to make these investments at no taxpayer cost.

Best Practices

Cuyahoga County, Ohio – essentially, the Cleveland metropolitan area – has a population of approximately 1.2 million, of which less than one-third resides in the City of Cleveland (i.e., its suburban population is roughly the same as Baltimore County's). But Cuyahoga County's total annual budget is only roughly \$700 million (including both its General Fund and Health & Human Services Levy Fund), while Baltimore County's totals roughly \$1.2 billion for comparable services (excluding funding for BCPS and CCBC). Cuyahoga County nevertheless provides \$1 million in County funds for Workforce Development – roughly 2 percent of total spending in the county on workforce.²⁴⁷

Both Seattle/King County, Washington, and Austin along with surrounding Travis County, Texas, have long-standing fiscal commitments to funding job training. The City of Austin and Travis County fund the local Workforce Education and Readiness Continuum (WERC) program using nonfederal city and county funds from the State General Revenue to provide SNAP E&T (Supplemental Nutrition Assistance Program's Employment and Training) services. The Austin Workforce Development Board contracts with C2 GPS LLC, the manager of 35 career centers located throughout Texas, to provide recruitment, job search, education, training, and work experience service.²⁴⁸ Seattle and King County have their own Workforce Development Council, but the county and city governments design, fund, and oversee separate workforce programs as well.²⁴⁹

The following chart compiled by the Montgomery County government compares the funding provided to workforce programs by Baltimore County as well as all its peer Maryland counties, from both grants the counties obtain from elsewhere for this purpose and their own general funds. The numbers speak for themselves.²⁵⁰

FY19 FUNDING LEVELS FOR OTHER MARYLAND COUNTIES

Jurisdiction	Type	Direct Funding	Grant Funding	Total Funding
Anne Arundel	Public-Private	\$429,000	\$2,400,000	\$2,828,200
Baltimore Co.	Public	\$0	\$6,077,586	\$6,077,586
Frederick	Public	\$586,091	\$2,222,769	\$2,808,860
Howard	Public	\$248,791	\$2,847,157	\$3,095,948
Montgomery	Public-Private	\$1,489,634	\$4,362,366	\$5,852,000
Prince George's	Public-Private	\$760,000	—	—

Source: Respective County/Organization budget publications

Baltimore County this year is contributing \$100,000 of County general funds to workforce, and the original Job Connector program was seeded with funding from County Council. But there is ultimately little that government can do of more significance than helping its citizen obtain the training and education they need to succeed – a classic “public good.” This has wide spillover effects from raising revenue levels due to economic growth, to reducing government expenses on welfare, other social services, corrections, and public safety. There are few truer “investments” that governments can make; yet, it is clear from looking at comparative funding, staffing, planning, and policy, that economic development and workforce development have – strangely – not been priorities for Baltimore County government in the past.

That appears to be changing. The County could consider raising its investment in these activities to a level closer to those of its peer – and competitor – counties.

247 <https://www.communitysolutions.com/research/funding-workforce-development-cuyahoga-county/>

248 https://www.urban.org/sites/default/files/publication/98625/public_funding_for_job_training_at_the_state_and_local_level.pdf

249 Additional information about King County's efforts to align local and federal funding can be found at <https://kingcounty.gov/elected/executive/constantine/news/release/2019/May/22-transforming-workforce-system.aspx>.

250 https://www.montgomerycountymd.gov/council/Resources/Files/agenda/col/2019/20190305/20190305_7.pdf

2.3.2 HEALTH AND HUMAN SERVICES EVIDENCE-BASED PRACTICES

The Department of Health and Human Services (DHHS) should establish and maintain a documented continuum of evidence-based practices for the Department.

Findings

Evidence-Based Practices (EBPs) are the objective, balanced, and responsible use of current research and the best available data to guide policy and practice decisions, such that outcomes for residents are improved. EBPs are grounded upon empirical research rather than through anecdote or professional experience alone. In contrast to the term best practices, EBPs are programs shown in well-conducted random control trials, carried out in typical community settings, to produce sizable, sustained effects on important outcomes. When programs are replicated with fidelity to EBP models, both human outcomes and the return on investment to taxpayers will be significant.

The review team found that DHHS uses a variety of EBPs now. An example is contracted programs administered by the Local Management Board. The Local Management Board (LMB) is established by state statute and receives state funds through a grant application process managed by the State of Maryland Governor's Office of Crime Prevention, Youth and Victim's Services. The State Council sets funding priorities tied to state-selected needs. The Department of Social Services (DSS), under the consolidated administrative umbrella of DHHS, manages all aspects of the LMB: DSS writes the grant, coordinates the LMB meetings, administers the EBPs that contracted vendors provide in the County, reports to the State, and provides two State FTEs for DHHS' Office of Quality Improvement, as well as 2 FTEs within DSS. Current EBP's implemented through the LMB include, but are not limited to, Multi-Systemic Therapy and Cognitive Behavioral Therapy.

Currently, there is no central hub or clearinghouse that captures EBPs used across DHHS, nor has there been a gap analysis of what EBPs are currently funded versus what EBPs may be implemented to better meet the needs of County residents and to demonstrate a return on the taxpayers' investment through measurable positive outcomes.

Benefit to the County

This recommendation is consistent with Baltimore County Goal 5: Government Accountability and will empower DHHS to lead Baltimore County in systematically investing in practices that are proven to achieve the desired outcomes. Over the past several decades, local governments have been becoming smarter and better at investing in what is proven to work. EBPs are funded at all levels of government, and especially in the areas of health, education, criminal justice, and children's and adult services.

With the increasing pressure on local governments to demonstrate effectiveness, establishing and maintaining a written continuum of EBPs will support DHHS' capacity to:

- Communicate that DHHS is investing taxpayer dollars in what has been proven to work based on rigorous evaluations and benefit-cost analyses;
- Strategically plan to increase the number of EBPs implemented to better meet County residents' needs, and achieve positive health and well-being outcomes;
- Attract public and private grant funders who focus their funding on what is proven to work; and
- Set the stage for policymakers to establish a target percentage of EBPs for use in Baltimore County across all departments.

Additional benefits include progress toward building and strengthening a government culture of continuous learning and improvement.²⁵¹

²⁵¹ A Checklist for Evidence-Based Government (governing.com)

Last, The Pew Charitable Trusts report that governments using evidence-based policymaking are best positioned to:

- Strengthen accountability. Focusing on outcomes makes it easier to hold agencies, managers, and providers accountable for results.”
- Expand successful programs. Comparing programs allows policymakers to direct funding to those that deliver the highest return on investment.
- Reduce wasteful spending. Targeting funding based on evidence of effectiveness enables policymakers to identify and eliminate programs that have failed to deliver expected results, freeing dollars for other uses.²⁵²

Best Practices and Benchmarks

In 2018, Results for America launched an annual publication of the best practices and benchmarks for using evidence-based policies and practices.²⁵³ This established a “north star” for how state governments can consistently and effectively use data and evidence in budget, policy, and management decisions to achieve better outcomes for their residents. These best practices and benchmarks are valuable at the local government level too.

In this inaugural publication, the State of Oregon rose to the top in terms of use of EBPs:

*A 2003 Oregon law States that the Oregon Department of Corrections, the Oregon Youth Authority, the Oregon Youth Development Division, and “the part of the Oregon Health Authority that deals with mental health and addiction issues” shall (1) “spend at least 75 percent of State moneys that the agency receives for programs on evidence-based programs” by 2011, (2) perform cost-benefit analyses, and (3) compile a biennial program inventory with results from funded programs.*²⁵⁴

Meanwhile Washington State topped the nation in conducting benefit-cost analysis of EBPs so that the public could be informed about the returns on taxpayer investments:

A 2013 Washington State law directed the Department of Corrections, in consultation with the Washington State Institute of Public Policy (WSIPP),²⁵⁵ to (1) compile an inventory of existing programs; (2) determine whether its programs were evidence-based; (3) assess the effectiveness, including a cost-benefit analysis, of its programs; and (4) phase out ineffective programs and implement evidence-based programs. As a result of this and similar laws, WSIPP has published hundreds of cost-benefit analysis reports over the years.

Per the “2020 State Standard of Excellence” from Results for America, seven leading states that use evidence and data were reported as best practices States: Colorado, Connecticut, Minnesota, **Oregon, Tennessee, Utah, and Washington. Of specific relevance to Baltimore County’s DHHS, one benchmark is Georgia’s Division of Family and Children’s Services which requires that:**

*All service plans must include evidence-based programs, practices, and/or strategies proven effective in meeting the needs of children and their families. The evidence-based requirement in the request for proposal²⁵⁶ includes the following components: a description of the evidence-based model, practice, or strategies for service delivery; the evidence-based rating from the California Evidence-Based Clearinghouse for Child Welfare²⁵⁷ or comparable rating from a relevant clearinghouse; a description of how the evidence-based model, practice, or strategy will be effective in meeting the grant’s objectives; and a description of how the model will be implemented.*²⁵⁸

252 [Legislating Evidence-Based Policymaking \(pewtrusts.org\)](#), An issue brief from the Pew-MacArthur Results First Initiative March 2015, accessed April 4, 2021.

253 [2018 Invest In What Works State Standard of Excellence.pdf \(results4america.org\)](#)

254 [2018 Invest In What Works State Standard of Excellence.pdf \(results4america.org\)](#)

255 [Washington State Institute for Public Policy](#)

256 [PSSFNet](#)

257 [The California Evidence-Based Clearinghouse for Child Welfare \(cebc4cw.org\)](#)

258 [2020 Invest in What Works State Standard of Excellence Leading States Snapshots: The Who and The What | by Results for America | Medium](#)

Additionally, pertinent to Baltimore County's DHHS, Washington State has the most robust information technology infrastructure to assess how well EBPs and other programs are producing:

The Washington State Department of Social and Health Services maintains an Integrated Client Database that includes 40 separate data systems from 10 State agencies and covers millions of individuals. This database has allowed the State to conduct rapid-cycle policy analyses, program evaluations, and predictive modeling. These efforts have generated tens of millions in dollars in performance payments from the U.S. Centers for Medicare and Medicaid Services and led to improved care management for persons dually enrolled in Medicare and Medicaid.²⁵⁹

At the federal level, EBPs are now embedded into legislation and corresponding funding. For example, the U.S. Department of Education Non-Regulatory Guidance²⁶⁰ outlines four tiers of evidence and provides additional support in the selection of appropriate interventions. Moving from education to criminal justice, the National Institute Corrections²⁶¹ offers a thorough guidance from EBP implementation to how to engage community support in reducing recidivism.

Finally, The Pew Charitable Trust's Results First Clearinghouse Database²⁶² is an online resource that brings together information on the effectiveness of social policy programs from nine national clearinghouses. This database can help users easily access and understand the evidence base for a variety of programs. The database includes information on 3,127 programs as of May 12, 2021.

Implementation Guidance

DHHS should initiate the establishment of a documented EBP continuum by:

1. Defining (or adopting existing definitions of) levels of evidence;
2. Requiring the agency to inventory evidence-based practices and programs currently funded/utilized;
3. Conducting a gap analysis between EBPs utilized and residents' needs identified through community health needs assessment, accreditation processes, and other relevant processes;
4. Identifying EBPs that have been analyzed for benefit-cost in other jurisdictions which may be most needed in the County based on needs' data; and,
5. Targeting a percentage increase in the funding and implementation of DHHS' evidence-based practices and programs that are proven to save taxpayers money and improve human outcomes.

²⁵⁹ Id.

²⁶⁰ ESSA Guidance Using Evidence to Strengthen Education Investments September 16, 2016 (PDF)

²⁶¹ Evidence-based Practices (EBP) | National Institute of Corrections (nicic.gov)

²⁶² Results First Clearinghouse Database | The Pew Charitable Trusts (pewtrusts.org)

2.3.3 IMPLEMENT THE NURSE FAMILY PARTNERSHIP PROGRAM

Baltimore County could implement the evidenced-based Nurse-Family Partnership® (NFP) program for pregnant first-time moms and their infants utilizing resources currently devoted to Baltimore County home visitation programs for moms and children at risk.

Findings

Baltimore County infant mortality increased from 6.1 to 7.1 per 1,000 live births between 2018 and 2019, with this increase driven primarily by a significant rise among the black, non-Hispanic population to 12 deaths per 1,000 in 2019. These rates put Baltimore County above the national average for infant mortality overall, and among African-Americans. The rate of pre-term births is likewise increasing. The percentage of women with hypertension – which can increase risk for preeclampsia, C-section, pre-term, and low-birth-weight babies – has also increased from 7.1 to 11.6 percent between 2010 and 2018.

In Maryland, five prevailing evidence-based home visiting program models are in operation for maternal and child home visiting, one of which is NFP.²⁶³ Baltimore County's Department of Health and Human Services (DHHS) currently operates several prenatal and early childhood programs employing home visiting nurses, including the Prenatal Enrichment Program, Bright Beginnings, Babies Born Healthy, and the Infant and Toddler Program. Given the rise in infant mortality rates, DHHS should invest in programming that rely on the best research and evidence available to improve outcomes.

The various maternal and child health programs within the DHHS Department of Health (DOH) are funded by several federal and state grants – Title V Maternal and Child Health Services Block Grant, the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) Grant, and the MD Babies Born Healthy Grant – as well as County General Fund. DOH could absorb the ongoing personnel costs required to implement the NFP model through use of existing staff and reprogramming of existing grant dollars.

While NFP serves only first-time pregnant moms, DOH's existing Babies Born Healthy program can be used to supplement NFP and serve other mothers. However, there will also be one-time start-up costs for training, data collection platform, and other staff supports in transitioning to the NFP that may not be covered by existing resources and would require an upfront County investment of an estimated \$100,000.

Although NFP is not a Medicaid reimbursable program in Maryland because it is not recognized as a Medicaid service under the State's 1115 waiver, many other states have included NFP as a reimbursable service under their Medicaid programs. For example, in Pennsylvania the Commonwealth's Physical Health Managed Care Organization (PH-MCO) contracts require adoption of an evidenced-based model for first time Mothers:

"The PH-MCO maternity program must provide a maternal continuum of care by instituting a community-based maternal home visiting program. An in-person maternal home visiting program must be an extension of the PH-MCO's traditional case management program that transitions maternal family care to an evidence-informed or evidence-based home visiting program. The PH-MCO's must provide a full description of its community-based maternal home visiting program that fulfills the Department's HBP (Healthy Beginnings Plus) Program Description objectives for review and approval by the Department. Home Visiting Program."²⁶⁴

Notably, in Pennsylvania the NFP program has continued during the covid pandemic through the use of text messaging, telephone calls, and telehealth. The efficacy of transitioning from in-person home visits to other mechanisms has not yet been studied but could hold promise for Baltimore County's planning and implementation.

263 HU-§-8-507c-GOC-2019-Report-on-the-Implementation-and-Outcomes-of-State-Funded-Home-Visiting-Programs-in-Maryland-MSAR-9107.pdf

264 PA MCO Agreement, p. 57; http://www.healthchoices.pa.gov/cs/groups/webcontent/documents/document/p_040149.pdf

Public Works LLC advised DHHS in advance of the hearings on the waiver held in May 2021 that the State of Maryland's Medicaid 1115 waiver expires at the end of this calendar year (2021). The current waiver includes a very small home visitation pilot serving a small number of families in two counties and the state website indicates it plans to "modify" this pilot program in its Medicaid renewal application. If Baltimore County were unable to advocate to expand this pilot statewide through the waiver program, it is recommended that such advocacy be pursued prior the next renewal cycle to provide an additional resource to help defray the costs of implementing NFP.

It should also be noted that under Maryland's federally-approved plan²⁶⁵ for the Title IV-E prevention program, known as the Family First Prevention Services Act (FFPSA), NFP is an allowable (reimbursable) program. However, Title IV-E is the payer of last resort for services allowable under the Title IV-E prevention program. This means that if Baltimore County NFP is covered under the Medicaid 1115 waiver, DHHS/DOH will have the responsibility to pay for NFP through Medicaid before the Title IV-E agency (Social Services) is required to pay.

Benefit to the County

NFP is an evidence-based community health program that provides intensive visitation by nurses specially trained in the model of care during a woman's pregnancy and the first two years after birth. It is a thoroughly researched and proven evidence-based practice that can be expected to improve distressing trends in infant mortality in a cost-effective manner, with measurable ancillary public health benefits. NFP has also demonstrated a positive impact on maternal mortality rates and demonstrated other long-term benefits on indicators of child health and well-being of the child and of participating parents/mothers.

Best Practices and Benchmarks

NFP is used extensively across the U.S. and internationally. There have been three separate "gold standard" randomized control trials and longitudinal studies which prove the effectiveness of NFP. Results include:

- Reduction in child abuse and neglect
- Reduction in emergency room visits for accidents and poisonings
- Reduction in language delays of child at age 21 months
- Less behavioral/intellectual problems at age 6
- Reduction in preterm delivery for women who smoke
- Fewer unplanned pregnancies
- Increase in months employed by parent
- Fewer arrests of mother
- Reduction in child arrest at age 15

Further, a 2020 study confirmed that educational and employment outcomes among NFP parents/clients are higher than for mothers/parents not participating in NFP:

- NFP mothers in the younger age group (15-24 years old) showed a statistically significant ten percent (ten percent) greater increase in obtaining their high school diploma/GED – one year after enrolling in NFP.
- NFP mothers who did not have a job when they enrolled in NFP showed a statistically significant eight percent increase in gained employment one year later.

²⁶⁵ February 4, 2020, approval letter from U.S. Administration for Children and Families to State of Maryland Social Services Administration, Maryland Department of Human Services, regarding Title IV-E prevention program five-year plan for FY2020-FY2024.

In terms of the benefit-cost “return on investment” that Baltimore County could realize, the State of Washington conducted a benefit-cost analysis which found:

- Total program cost per participant of \$12,437
- A \$1.37 benefit-to-cost ratio, or a \$4,556 benefit to taxpayers per “participant” (mother/child) benefit

Detailed benefit-cost analysis regarding NFP (and many other evidence-based practices) is available at the Washington State Institute for Public Policy website.²⁶⁶

Implementation Guidance

- DOH personnel have studied NFP for implementation in Baltimore County. Implementation plans should leverage their knowledge as a valuable resource.
- Baltimore City implemented NFP in 2012 and should be accessed for suggestions and lessons learned for NFP in the State of Maryland.
- Adopt a budget that takes into account the need for training, data collection and potential partnerships desired, and reporting requirements under Maryland’s Home Visiting Accountability Act of 2012.

²⁶⁶ Washington State Institute for Public Policy (wsippweb-prod.us-west-2.elasticbeanstalk.com)

Connected Government

County Executive Johnny Olszewski has introduced a new focus on building a more “connected government,” in Baltimore County – a government whose activities, operations and investments are connected to its goals and objectives; one that is more connected to the communities it serves, their needs, and priorities; and one connected through the tools and technologies needed continuously to improve the ways in which it serves residents. In this Chapter, we present recommendations primarily related to:

- Strategically connecting Baltimore County Government agencies’ investments and activities with their clearly defined goals for the future, in alignment with Baltimore County Government’s strategic plan.
- Engaging the public in creating a vision for their communities and empowering citizens to create the Baltimore of the future.
- Facilitating public feedback on government services.

This starts by thinking ahead to the future of Baltimore County, envisioning what it could be, and planning to get there. Strategic planning is as central to arriving at the desired outcomes as a map is essential to arriving at one’s destination. Upon taking office in 2019, County Executive Johnny Olszewski launched the County’s first government-wide strategic planning process. During the course of this efficiency review, the County held a government-wide retreat to update this plan, and the Office of Information Technology (OIT) completed its own IT strategic plan. Nonetheless, the County Government still lacks component strategic visions for its various internal units – as well as for Baltimore County itself: the external reality of the quality of life and economy the government’s internal functions are intended to serve and advance. Further, strategic analysis is needed to examine whether all the processes and structures that have served the County in the past are still the most appropriate to achieving today’s pressing objectives and realizing the envisioned future; we address here some of those that may need review and updating.

There is a global trend toward greater transparency and participation in governance, in both the public and private sectors. This has been aided and reflected in the spread of digital technologies – first the Internet and now the block chain – that make the dispersal of information and data-driven decision-making easier. It is becoming increasingly feasible for governments to use the data available to them to measure the outcomes of decisions, monitor trends and make predictions, and to use and share that data to continuously improve strategic planning, resource allocation, and other kinds of decision-making.

Improved websites – whereby citizens could more easily obtain information, evaluate options, reach the appropriate government officials, navigate between agencies, fill out forms and submit documents, even post comments and suggestions – were an early manifestation of this more direct and interactive new networked world. But that’s not where the changes in today’s world end: Many government services now can be provided virtually at greater convenience to residents and less taxpayer expense.

This new level of “democratization” and engagement is facilitated by ever-widening developments in technology, and so this chapter discusses how those technologies can and will be used in the future to expand opportunities – for involvement and input in governance, for deriving value from program participation, for improving health and wellbeing, and for expanding educational and occupational opportunity. All of these new vistas also will improve both the quality and effectiveness of County government itself and its efficiency – the ultimate goals of this review.

There is also a wide range of options for certain Baltimore County entities to become more entrepreneurial and to seek non-tax means for financing their activities. These range from making government entities themselves behave more like business enterprises – balancing their bottom lines, seeking opportunities to generate revenues by providing services people want more of– to finding new ways to partner with the private-sector, to getting private enterprises to help support public services that benefit them as well. Examples range from recreation and tourism to legal services.

This glimpse into the future concludes with efforts other governments are implementing to move beyond 20th Century conceptions of how bureaucracies and programs ought to function based on such concepts as applying research and accumulated knowledge to design government efforts around what works – insights that won the most recent Nobel prize in Economics – and then structures taxpayer funding around paying for only what works. It also includes new streamlined ways of thinking about the government role in regulating, in ways that maximize effectiveness, minimize cost and economic “drag,” and recognize the potentially expanded role of bottom-up processes and citizen and business engagement as discussed earlier in this report.

3.1 Strategic Planning and Analysis

This new version of Connected Government starts with aligning strategic objectives with operations and resource allocation. Upon taking office in 2019, County Executive Olszewski instituted a strategic plan for county government. In Summer 2021, the County Executive and Cabinet held a planning retreat to update this strategic plan for county government as a whole; notably, staff below the department-head level were included in the process, and in the meeting itself. Directors and employees across several departments later commented to the review team spontaneously as to how excited staff were at both the substance of, and involvement in, this planning effort. Early in this review process, the Office of Information Technology reported to the review team that it was in the process of developing an IT strategic plan, which was provided to us after the review phase of this effort, at the end of August. It represents a much-needed step forward for the County and would benefit further from a process for continuous planning efforts and routine updates.

Meanwhile, Baltimore County Government has room to further develop strategic visions for its various internal units other than OIT – that are aligned with the County’s strategic plan. This report presents several, diverse examples of how such additional strategic planning efforts could help improve both county governance and the lives of county residents:

For example, we recommend that the Department of Health and Human Services develop a short-term, integrated DHHS strategic plan that aligns to Baltimore County’s 2019-2022 Strategic Plan and develop a longer-term plan that includes a high-level 10-to-20-year investment roadmap. The Baltimore County Council brought the Department of Health (DOH) and the Department of Social Services (DSS) together under one administrative umbrella in 2011 to create the Department of Health and Human Services (DHHS). However, the consolidation of health and human services in Baltimore County is not truly complete without an integrated plan that includes both pillars of the organization. In fact, the DHHS “as is” reality is that the consolidated agency has not yet been well-positioned to think and plan longer-term in an interconnected and integrated way.

In contrast to the need for a comprehensive strategic planning effort for a sprawling agency like DHHS, the Department of Aging would benefit from a strategic planning process that sets forth an innovative course for the vitalization, staffing, capital improvements, and future of each of its individual senior centers through a community engagement process that involves senior center participants and Department of Aging staff along with senior center stakeholders. This will enable the Department of Aging to move forward in planning for the current and future needs of senior center patrons.

Our examination of the Department of Economic and Workforce Development (DEWD) highlights the possibility, and necessity, of strategic planning as to not just internal County operations but also an external vision of the County’s economy. In recent years, DEWD has commissioned or developed several high-quality and helpful documents that together create an inter-locking picture of economic and workforce development in the County. But they do not constitute a “strategic plan,” per se, let alone one that defines a comprehensive vision for the County’s future economy and the economic and workforce development efforts to advance it. DEWD has and continues to take great strides in the direction of strategic thinking, but could go further to construct an comprehensive strategic plan that incorporates all the County’s tools and opportunities for economic and workforce development

Similarly, the Department of Planning itself could focus on an improved vision of Baltimore County’s quality-of-life by developing a Transit-Oriented Development (TOD) Strategic Plan, in coordination with ongoing transportation and transit planning efforts led by the Baltimore Metropolitan Council and the Department of Public Works and Transportation. Thus far, the Department of Planning has not developed specific plans to drive TOD around existing stations, and no zoning framework has been developed to encourage the practice.

One obstacle to achieving the affordable housing goal to remain in compliance with the Voluntary Conciliation Agreement with HUD is the process of gaining approval for new developments. The approval process can be long and fraught; other jurisdictions use varying methods of development review that require different degrees of public engagement and judicial review. The County would be well served to review the County Code and the zoning regulations for opportunities to make the development review process more permissive of affordable housing developments.

Baltimore County provides recreation programming at County parks facilities through a network of 45 non-profit, volunteer-led organizations known as Recreation and Parks Councils. These “Rec Councils” are an important venue for civic participation in Baltimore County. They contribute to neighborhood identity and promote volunteerism. And, because the planning and organizing of recreation programs are done by volunteers rather than County staff, the Councils theoretically allow the County to save on payroll costs; however, the lack of clarity in roles, responsibilities, and accountability in the current structure may leave the County open to financial and legal liabilities. The County would be well served to evaluate whether current terms and practices remain appropriate and to consider potential options for restructuring these relationships, while ensuring that the Councils are able to provide uninterrupted, high-quality recreation programming to the residents of Baltimore County.

3.1.1 HEALTH AND HUMAN SERVICES STRATEGIC PLANNING

The Department of Health and Human Services (DHHS) should develop integrated health and human services strategic plans.

3.1.1.1 Develop a short-term, integrated DHHS strategic plan that aligns to Baltimore County’s 2019-2022 Strategic Plan.

3.1.1.2 Develop a longer-term plan that includes a high-level 10-to-20-year investment roadmap.

Findings

The Baltimore County Council brought the Department of Health (DOH) and the Department of Social Services (DSS) together under one administrative umbrella in 2011 to create the Department of Health and Human Services. Under this consolidation, the agency director serves as both Baltimore County’s Health Officer and the Director of Social Services, overseeing more than 1300 full-time staff, of which 480 are state employees. This large agency is charged with the provision of a broad range of programs focused on the health, safety, and wellbeing of Baltimore County residents. With an overall budget of approximately \$137 million, DHHS relies heavily on funds from non-county sources, primarily State and Federal funds, which represent 78 percent of the DHHS’ overall budget. Thus, County general funds represent a relatively small portion of the DHHS budget overall.

Unlike most states, the State of Maryland supervises and administers state human services at the local level, with Baltimore County DSS serving as the local branch of the state’s human services agency. At the same time, like most jurisdictions nationwide, public health programs are administered at the local level by Baltimore County. This bifurcation of state and county roles and resources under the DHHS umbrella means that DHHS employees utilize separate “shared services” such as human resources, information technology communication platforms, IT systems and distinct state and county personnel systems.

Health personnel administer a wide range of programs to promote health and prevent disease among Baltimore County residents. Program areas include family planning and reproductive health, maternal and child health, WIC, dental services, behavioral health, chronic care disease management, long term care assessments and monitoring, communicable disease, environmental health and animal services, among others. Many of these services are provided at the seven health centers operated by the Health Department. Social Services personnel administer entitlement and benefit programs such as Temporary Cash Assistance, the Food Supplement Program, Medical Assistance and Energy Assistance; investigate reports of child and adult abuse and neglect; offer continuing family services, homeless services, in home aide services; provide family-centered safe homes for children who cannot remain in their homes as well as referrals to foster treatment facilities for children who are

physically or emotionally vulnerable, among other services. DHHS is also supported in its work by a Finance and Administration Office and a Quality Improvement unit.

The consolidation of these two agencies under the DHHS umbrella holds promise for creating a “no-wrong door” approach to health and human services in which County residents can more seamlessly access services. Such an approach would take a holistic and person-centered lens and address both an individual’s health needs, as well as seeking to address the social factors which impact a person’s health, such as, food insecurity, housing instability, lack of income, and neighborhood safety, among other “social determinants of health.” The leadership of DHHS fully supports this vision and has taken steps toward integration of department programming through some operational consolidation of health and human services and co-location in County buildings.

At present, DHHS has many plans that are based on community needs assessments, a multitude of State/Federal Plans that DHHS must adhere/align to, and separate accreditation processes for departments and programs. These plans have strengths as individual plans, but do not appear connected as part of “one DHHS,” or aligned to a broader County plan.

Moreover, because 72 percent of DHHS’ budget comes from external sources (grants and revenue allocations from State/Federal government), there are additional grant-driven plans in place for practices and programs, (e.g., a separate plan for behavioral health services; a separate plan for the Child Advocacy Center, etc.).

Although the Department of Health has existing traditional performance metrics – some of which were used to support FY2022 County budget requests – an integrated short-term or longer-term plan that takes a modern “upstream” approach that aligns and is infused across the broader county government strategic plan would be highly beneficial.

Understandably, DHHS narrows to short-term thinking when building budget requests, whereas a ten-year high-level investment map would drive incremental and sustainable capacity to support the County in achieving its “quality of life” goal that is embedded in the current County’s strategic plan.

However, the consolidation of health and human services in Baltimore County is not truly complete without an integrated plan that includes both pillars of the organization. In fact, the DHHS “as is” reality is that the consolidated agency has not yet been well-positioned to think and plan longer-term in an interconnected and integrated way. To paraphrase DHHS’ leaders engaged in this project:

- We do what gets funded/what grants we secure.
- We lack data and modern technologies to achieve the full promise of a “No Wrong Door” vision.
- We have smart, committed people but lack the infrastructure to think, plan, act, and evaluate as effectively as possible.

A foundational next step would be the development of a short-term and long integrated DHHS strategic plan that seeks to modernize and build capacity necessary to achieve the “no-wrong door” vision, as well as an investment roadmap so that DHHS can more strategically prepare for the future. Seventy-seven percent of the 244 DHHS employees who responded to the Baltimore County Employees Insights on Efficiency Survey, conducted in June-July, 2021 as part of this review, rated “strategic planning to guide decisions and actions” as having high or moderate potential for achieving greater efficiency (in cost savings or time). Likewise, just over seventy-seven percent cited “clear lines of communication and collaboration” as holding high or moderate potential for achieving greater efficiency. These employee-driven findings support this recommendation for enhanced short- and longer-term planning.

Notably, DHHS personnel should be acknowledged for their extraordinary efforts during the unprecedented, once-in-a-century pandemic. Health personnel shifted their focus to meet the health and vaccination needs of county residents; remarkable resilience has been required. As of July 30, sixty-two percent of Baltimore County residents (512,489 residents) have received at least one dose of the COVID-19 vaccine and 468,473 people have been fully vaccinated, or more than 57 percent of Baltimore County residents.²⁶⁸

268 [Baltimore County COVID-19 Vaccine Hub](#), accessed July 30, 2021

The health crisis in 2020 swiftly metastasized into an economic crisis: Social/Human Services personnel exerted extraordinary efforts to meet this challenge. During the local Social Services Board meeting in May 2020 a DSS representative stated that in times of economic prosperity, the Department serves about in eight residents and that in a recession, such as in 2009, it department serves about one in eight; however, at that time – amid Covid-19 related shutdowns – the department was serving one in every four County residents.²⁶⁹ Indeed, by June 2020, Supplemental Nutrition Assistance Program (SNAP/food security) applications had increased over 600 percent from 4,000 to 25,000.²⁷⁰

Alongside DHHS, other county departments and community partners rose to meet the pandemic challenges. No one was immune from the impact of the health and economic crisis. However, for DHHS in particular, integrated departmental planning likely needed to take a backseat to meeting County residents' pandemic-catalyzed needs.

The Covid-19 pandemic brought health as a key to quality of life into sharp focus. As recently noted by the Frameworks Institute, a non-profit research organization, "a few basic truths have become plain to see: Our lives are interconnected, our collective physical and mental health is at the heart of a thriving society, and our responsibility to support and maintain the wellbeing of our entire community is shared."²⁷¹ A risk to Baltimore County residents' health can bring everything else – work, school, civic and social activity, and the larger economic ecosystem – to a halt.

The personnel at DHHS well know that health is not something to be obtained from the doctor's office when we are sick. Health starts in families and homes, in schools and workplaces, in playgrounds and parks, and in the air we breathe, the food we eat, and the water we drink. Scientists have clearly established that there is an integral relationship between our health and where and how we live, learn, work and play.²⁷² Consequently, it will be critical for this DHHS planning to bring a modern, rather than traditional health indicators lens to planning:

- Traditional health outcome indicators, such as prevalence of chronic disease and rates of low birth weight, describe the existing health status of a population.
- Other indicators describe the social, environmental, and economic conditions that are important "upstream" drivers of health and equity, such as access to resources and opportunities such as education and lifelong learning.
- Combining health indicators with those that describe community conditions will offer windows into different types of solutions to address identified problems in Baltimore County.²⁷³

Modernized health and human systems across the nation use a social determinants of health (SDOH) framework. In academic circles, the Federal government, and many jurisdictions across the U.S. have already taken this more holistic approach to public health which emphasizes the nonmedical precursory factors that impact health conditions, disparities, and outcomes.²⁷⁴ SDOH encompasses:

- Availability of resources to meet daily needs (e.g., safe housing and local food markets)
- Access to educational, economic, and job opportunities
- Access to health care services
- Quality of education and job training
- Availability of community-based resources in support of community living and opportunities for recreational and leisure-time activities
- Transportation options
- Public safety
- Social support
- Social norms and attitudes (e.g., discrimination, racism, and distrust of government)

269 Baltimore County Social Services Board approved minutes, May 18, 2020, meeting.

270 Baltimore County Social Services Board approved minutes, June 15, 2020, meeting.

271 [Framing the Foundation of Community Health | FrameWorks Institute](#)

272 [A New Way to Talk about the Social Determinants of Health - RWJF](#)

273 [HealthHousingStarterKit-UsingIndicators-FINAL-20180531.pdf \(changelabsolutions.org\)](#)

274 [Social Determinants of Health | Healthy People 2020](#)

- Exposure to crime, violence, and social disorder (e.g., presence of trash and lack of cooperation in a community)
- Socioeconomic conditions (e.g., concentrated poverty and the stressful conditions that accompany it)
- Residential segregation
- Language/Literacy
- Access to mass media and emerging technologies (e.g., cell phones, the Internet, and social media)
- Culture

Further, examples of *physical determinants* of health include:

- Natural environment, such as green space (e.g., trees and grass) or weather (e.g., climate change)
- Built environment, such as buildings, sidewalks, bike lanes, and roads
- Worksites, schools, and recreational settings
- Housing and community design
- Exposure to toxic substances and other physical hazards
- Physical barriers, especially for people with disabilities
- Aesthetic elements (e.g., natural lighting, trees/vegetation, and benches)

Many of the social and physical determinants of health are themes found interwoven throughout the Baltimore County 2019-2022 Strategic Plan's goals and strategies. They are not necessarily communicated as a longer-term, holistic vision for a healthy county. Providing a framework for thinking and talking about the interconnected conditions that impact health should be an invaluable result of planning that will generate increased interest by funders.

Benefits to the County

Baltimore County currently ranks 16th among Maryland's 23 counties for health outcomes.²⁷⁵ Establishing modernized, integrated short and longer-term DHHS plans could be transformative in terms of agency culture and effectiveness, and lead to improved health outcomes for county residents. Plans will provide long-term North Star guidance for DHHS, as well as daily guidance toward the existing "No Wrong Door" vision departmental leaders espouse. The DHHS planning processes will also help illuminate the health and human services infrastructure necessary for DHHS to play a vital role in helping Baltimore County become a 21st Century government that fosters an enhanced quality of life for all county residents.

A longer-term plan to modernize and build capacity for person-centric ("No Wrong Door") health and human services organization. will position Baltimore County for success in securing anticipated federal funding.

²⁷⁵ Baltimore County, Maryland | County Health Rankings & Roadmaps

Best Practices and Benchmarks

Social Determinants of Health

The federal Office of Disease Prevention and Health Promotion offers excellent research-based guidance, providing definitions, tools, evidence-based practices resources, and an initial data framework useful in planning.²⁷⁶ Further, many major counties have developed plans that use the Social Determinants of Health approach to advancing health including Ramsey County (Minnesota),²⁷⁷ Cook County (Illinois)²⁷⁸, Fon du Lac County (Wisconsin).²⁷⁹

How to Talk About the Determinants of Health

Guidance on how to transliterate the somewhat cumbersome vernacular of “determinants” into public-friendly language is provided by Frameworks Institute,²⁸⁰ a nonprofit research think tank that helps mission-driven organizations build public will for progressive change. Frameworks suggests grounding communications upon a metaphor:

“The health of our community is like a building—it depends on a strong and stable foundation. Things like quality education, safe and affordable housing, access to healthcare, and employment opportunities structure positive health outcomes for everyone in important ways. As public health professionals, it’s our mission to build thriving communities, so we work closely with many other sectors to assemble a solid foundation that supports long-lasting good health for us all.”²⁸¹

Health in All Policies (HiAP) Framework

Traditional health outcome indicators, such as prevalence of chronic disease and rates of low birth weight, describe the existing health status of a population. Other indicators describe the social, environmental, and economic conditions that are important “upstream” drivers of health and equity, such as access to resources and opportunities. Combining health indicators with those that describe community conditions will offer windows into different types of solutions to address identified problems in the county.

Counties across the nation have begun to adopt “Health in All Policies” (HiAP) approaches to achieving healthy and equitable communities. HiAP relies upon the principle that every part of government has a role to play to improve a community by incorporating health, sustainability, and equity considerations into decision-making across government agencies and policy areas. At its core, HiAP means that government agencies collaborate to identify shared goals, maximize resources, harmonize activities, and invest in big solutions that produce multiple benefits. In partnership with the communities they serve, public agencies are using this approach to solve their largest social and environmental challenges.²⁸²

Examples that can be used as models include:

- Denver (Colorado) City and County’s Comprehensive Plan²⁸³. The plan encompasses six “vision elements” that align well to Baltimore County’s existing plan, but offers an example of how health and human services play a crucial role in creating a quality of life for all residents in ways that are readily understandable for residents:

“In 2040, Denver is a city of safe, accessible and healthy communities. A healthy city is one that addresses all components of community health including sustainable and clean natural environments, affordable and nutritious food, and reliable, safe and accessible active transportation infrastructure. A healthy Denver includes better access to the services and amenities needed to improve and maintain physical and mental health— from quality health services to a strong network of urban and mountain parks. It is the vision of our great city to increase opportunity for healthy living for people of all ages, incomes and abilities.” (p. 58).

276 Social Determinants of Health | Healthy People 2020

277 2014-2018 Community Health Improvement Plan, St-Paul-Ramsey County Public Health

278 Strategic Planning 2020-2022, Impacting Social Determinants of Health, Cook County Health

279 Fond du Lac County Overarching Health Priority: Social Determinants of Health, Healthy Fond du Lac County, 2020 Steering Committee

280 www.frameworksinstitute.org

281 Framing the Foundation of Community Health | FrameWorks Institute, and see also Framing Two Generation Approaches to Supporting Families

282 Health in All Policies | ChangeLab Solutions; From Start-to-Finish HIAP Guide | ChangeLab Solutions; and, The Health & Housing Starter Kit | ChangeLab Solutions

283 Comprehensive Plan 2040 - City and County of Denver

- » Five Goals fall under this Vision Element, one of which is Goal 5: Incorporate health analysis into relevant city policies, processes and planning.
 - » Strategies: A. Integrate health impacts and considerations into relevant city programs and projects. B. Work across multiple city departments and partners to address health impacts.
- The California Department of Public Health (CDPH) and the Public Health Institute developed the Five Key Elements of HiAP²⁸⁴ as a guide and filter for identify opportunities for operationalizing this work:
 1. Promote health, equity, and sustainability
 2. Support intersectoral collaboration
 3. Benefit multiple partners
 4. Engage stakeholders
 5. Create structural or procedural change

As the State of California notes, that there is no one “right” way to do Health in All Policies: HiAP is an approach that can be modified to meet individual jurisdictions’ needs. “The approach identifies the ways in which decisions in multiple sectors affect health, and how better health can support the achievement of goals from multiple sectors. It engages diverse governmental partners and stakeholders to work together to improve health and simultaneously advance other goals, such as promoting job creation and economic stability, transportation access and mobility, a healthy agricultural system, environmental sustainability, and educational attainment.”²⁸⁵

- Last, and most similar to Baltimore County, “Fairfax County [Virginia] is experiencing substantial changes in its population, economy, and infrastructure. These changes have resulted in a broadening of needs in the areas of housing, economic self-sufficiency, health, and connections to resources.”²⁸⁶ Part of the Fairfax County plan development process involves integrated the existing “Live Healthy” plan into the broader county government comprehensive plan. Live Healthy focuses on three easily understandable goals: Healthy Eating, Healthy Environment and Active Living, and Behavioral Health.

Implementation Guidance

Short-Term Planning

DHHS should use a holistic, person-centered, two-generation, equity-focused approach to its integrated department-level strategic planning. That approach should, at a minimum, weave together health and social/human services’ strategic priorities and metrics, aligned to the County’s 2019-2022 Strategic Plan.

The short-term department-level plan should include, but not be limited to:

- Jargon-free, modern nomenclature and frameworks,
- Evidence-based “what is proven to work” practices, and
- Milestones for implementing modern tools and technologies, “so that we better measure where we really are, where we want to go, and how we get there.” –County Executive Johnny Olszewski.

²⁸⁴ California Department of Public Health, *Health in All Policies*

²⁸⁵ Id.

²⁸⁶ *Countywide Strategic Plan | Strategic Plan (Fairfax County)*

Long-Term Planning

Winston Churchill is credited with saying, “Never let a good crisis go to waste.” Light at the end of the pandemic tunnel presents a watershed opportunity for DHHS, a chance to leverage the crisis and refine, reframe, and deepen the way Baltimore County thinks and talks about health. DHHS should seize this historic moment where health – and the non-medical precursory conditions called social determinants of health – is top of mind due to the Covid pandemic. Through planning, DHHS should envision a future state in which all county residents have equitable opportunities to make choices that lead to good health and wellbeing, vital to an enhanced quality of life.

This longer-term plan could be a standalone DHHS plan (such as a ‘2040 healthy Baltimore County’) or interwoven into the County’s longer-term comprehensive plan that uses the “Health in All Policies”²⁸⁷ approach. It is recommended that the longer-term plan also include a high-level investment roadmap so that continuous progress on the path toward an enhanced quality of life for all residents is paved.

There are federal resources which could be pursued and applied to support DHHS in its short and long-term planning efforts:

- The Centers for Disease Control and Prevention’s (CDC) provides a grant opportunity to develop multisector action plans that address SDOH by accelerating action in state, local, territorial, and tribal jurisdictions that lead to improved chronic health conditions among Americans experiencing health disparities and inequality. The county and DHHS leadership was made aware of the “Closing the Gap with Social Determinants of Health Accelerator Plans” funding opportunity which, for this cycle, concluded in July 2021. However, it is anticipated that this grant opportunity will be offered again in the future.
- \$65.1 billion in direct, flexible aid to every county in America is available under the American Rescue Plan. The estimated Baltimore County allocation is \$160,706,923.²⁸⁸
- The proposed Public Health Infrastructure Saves Lives Act²⁸⁹ includes \$4.6B in funding to create a Core Public Health Infrastructure Program at CDC to help modernize public health at every level to ensure every American is served by a 21st-century health department:
 - » State, tribal, territorial and local health departments would receive sustained funding to address the foundational capabilities of public health, a core set of activities and measures that ensure they have the tools, highly trained workforce and systems in place to address existing and emerging health threats.
 - » The program would award grants to all state and territorial health departments, and to local health departments serving over 500,000 people, based on a formula determined by factors including population size, burden of preventable disease and disability, and poverty rate.
 - » Additional competitive grants would be available based on core public health infrastructure needs to local and tribal health departments.
 - » Grantees would also be eligible for technical assistance from the CDC.
 - » Grant awards would supplement, and not supplant, existing public health department resources.

Initial implementation steps may include:

- Determine budget and develop an RFP to solicit consultant bids and/or use an expedited bid process to identify current contractors able and interested in assisting DHHS with short and long-term strategic planning, including a high-level investment roadmap.
- Identify federal or other funding sources that can be applied to this planning effort.
- Take the time to review other counties’ plans for inspiration and benchmarking purposes
- Compile all existing DHHS plans in one place/repository for easy cross-plan analysis.

287 [Health in All Policies | ChangeLab Solutions](#)

288 [American Rescue Plan Act Funding Breakdown \(naco.org\)](#)

289 [Text of S. 674: Public Health Infrastructure Saves Lives Act \(Introduced version\) - GovTrack.us](#)

- Create an internal steering committee that includes key county partner agencies, e.g., Housing, Economic & Workforce Development, etc.
- Identify key stakeholder and partner groups and individuals that must be engaged in order to consider this planning process a success.
- Ensure clarity around IT requirements for a public-facing planning website so that planning is transparent and inclusive.
- Be consistent in the use of jargon-free language, using Frameworks Institute findings and strategy brief as a guide.

3.1.2 DEPARTMENT OF AGING STRATEGIC PLANNING

Enhance Senior Center Services through a community engagement strategic planning process that sets forth an innovative course for the vitalization, staffing, capital improvements, and future of senior centers in Baltimore County.

3.1.2.1 Develop a strategic plan using a highly community-engaged process that sets the course of senior centers for the next three years.

3.1.2.2 Conduct an infrastructure assessment of renovation needs and building upgrades of current buildings housing senior centers and consider mobile “senior center” vans.

3.1.2.3 Create a “Virtual Senior Center” that offers virtual programs to older residents of Baltimore County serving as a hybrid that complements current programming. This will require hiring a full-time Director and technical support.

Findings

Baltimore County has a robust and active history in providing services to older adults through senior centers. According to the Baltimore County Department of Aging Annual Report (2019), over 20,500 individuals actively joined at least one of the twenty senior centers operated by the County. This resulted in 569,284 visits to centers during which seniors participated in healthy aging physical activity and dance programs, recreational activities, continuing education, health screenings, center connection services and other evidenced-based programs to advance the quality of their lives. The centers also served over 100,160 congregate meals to older adults.

A strategic planning process that involves senior center participants and Department of Aging staff along with senior center stakeholders will enable the Department of Aging to move forward in planning for the current and future needs of senior center patrons. Many of the senior centers are in buildings that require a significant upgrade and renovation as they are housed in older structures or in renovated schools. In addition, some are experiencing diminishing numbers of participants. These are two core issues that a strategic plan should address in concert with identifying the future needs of Baltimore County’s aging population and innovative ways to address them. The Baby Boomer generation, for example, will be looking for a myriad of services that resonate with their generational preferences which will be different from those of the WWII and Silent generations before them.²⁹⁰ Neighborhoods have and will continue to change as some older residents remain, others move to downsize their living space and newer generations move in. All these factors are worth studying to determine the optimal ways to reach seniors and meet the Department’s goals of “strengthening lives, engaging older adults for better health and enhancing older adult’s independence.”

²⁹⁰ <https://medicine.jrank.org/pages/1557/Senior-Centers-Future-challenges.html>

One innovative approach to meeting these growing needs among existing and new generations of seniors is to continue to advance remote and virtual programming launched during the COVID-19. Area Agencies on Aging throughout the country including BCDA, learned to quickly pivot as to how they offered services to isolated and quarantined seniors during the pandemic. In a survey conducted by the National Association of Area Agencies on Aging (N4A) on the “Continued Impact of COVID-19 on Area Agencies on Aging and Their Clients in 2021,”²⁹¹ they found that 89 percent report that the pandemic will continue to have either a “very significant or significant impact” on area agency on aging services and operations.

Nearly 80 percent see services shifting to or remaining virtual which has opened doors to building new partnerships in their community to serve more people virtually. Just over three-fourths of agency respondents believe that “social isolation of community dwelling older adults” is one of the “greatest challenges facing older adults and caregivers.

Vaccine outreach to seniors along with scheduling and delivery will continue, and congregate meal sites may again be forced to close due to variants of COVID-19. Over three-fourths (78 percent) report that the limited capacity of AAA provider partners will continue while agencies face increased numbers of clients needing services while 52 percent believe that “limited or no access to technology” remains a barrier to older adults and caregivers” in being connected to services and social interaction.

Thus, during the next few years, the impact of the pandemic will be felt and despite the challenges, there will be new opportunities to vitalize senior centers and the populations they serve. Innovations such as “pop-up” senior centers offered through mobile clinics and vans along with virtual programs and services will be beneficial to older residents of Baltimore County. It would be wise for BCDA to explore the possibility of creating a Virtual Senior Center staffed by a director with technical support to operate it.

Benefit to the County

Conducting a strategic plan with a high level of community engagement among senior center leaders and participants will enable the County to finetune and align its resources that strengthen lives, foster independence, and promote health and well-being through senior centers. Such a plan would address assessing the building infrastructure of centers and their venue, changing needs and preferences of new age cohorts among participants, and aligning staffing requirements to meet the demands of running high-performing centers. The plan would also explore virtual platforms and methods that address social isolation of participants during possible recurrence of quarantining due to public health measures to stop the spread of COVID-19 and its variants.

Best Practices and Benchmarks

- **Hartford County (Maryland): Video Library.** Hartford County now offers videos online uploaded to replace senior center activities that participants could no longer attend due to the pandemic. These videos include exercise videos and arts and crafts videos. The exercise videos range from cardio and strengthening classes to learning the basics of tai chi.²⁹² Under the ‘Health and Nutrition Programs’ section, there are videos on nutrition for different health needs, such as “Nutrition Guidelines for Arthritis,” and other wellness related topics.²⁹³
- **Anne Arundel County (Maryland) Department of Aging and Disabilities: Virtual Senior Center Programming.** In response to the closing of senior centers due to COVID-19, the Anne Arundel County Department of Aging and Disabilities developed and launched Remote Online Virtual Education Resources for Seniors (ROVERS). The program offers a daily message, activities, and virtual socialization for older adults. Community members can participate in online exercise classes, art classes, crafts, line dancing, music, and history lessons through ROVERS. videos shared on the Area Agency on Aging’s website²⁹⁴, Facebook²⁹⁵, and Twitter.²⁹⁶ The videos are also broadcast on Anne Arundel local television channels.

291 <https://www.n4a.org/Files/n4a-Fast%20Facts%2021%20COVID-508.pdf>

292 <https://www.hartfordcountymd.gov/2858/Exercise-At-Home>

293 <https://www.hartfordcountymd.gov/2943/Health-Nutrition-Programs>

294 <https://www.aacounty.org/departments/aging-and-disabilities/videos/>

295 <https://www.facebook.com/ArundelSeniors/>

296 <https://twitter.com/AACoDoAD>

Implementation Guidance

Identify funds for developing a Senior Center Strategic Plan as herein described and issue a Request for Proposals describing the Scope of Work to conduct the plan. This would include: assessing needs and preferences of current and evolving senior center participants, identifying capital improvements of senior centers located in older buildings and renovated school buildings, participation rates among centers, visioning as to what future senior centers should look like, how virtual services can augment senior center programming, a SWOT analysis (Strengths, Weaknesses, Opportunities and Threats) and facilitation of community participation in setting the course of senior centers.

3.1.3 ECONOMIC AND WORKFORCE DEVELOPMENT STRATEGY

Develop comprehensive and coordinated strategic economic and workforce development plans and more strategically define and coordinate target sector strategies for economic and workforce development.

In many ways, the Department of Economic and Workforce Development (DEWD) is at the cutting edge. A decade ago, economic development was combined with workforce programs – something that Public Works LLC long has advocated nationally and is considered a best-practice. The Department has identified and focused on key industry sectors and related its workforce programs to these sectors – both, again, best-practices. Under its current leadership, DEWD has pursued innovative policies such as creating mobile job centers to bring access to job resources directly to the populations that need them most, and the four-part BEECO initiative that includes (1) Enjoy Baltimore County, to improve cultural and events services; (2) Job Connector Plus, to help service workers affected by the pandemic to regain jobs or upskill to new opportunities; (3) The Pipeline @ Tradepoint Atlantic, to build out the County’s transportation, logistics, and offshore-wind sectors; and (4) BC2 – Building Capacity in Baltimore County – developing the County government’s internal capacity to mount workforce training programs.

Other than standard observations applicable to most Baltimore County agencies – like the rest of Baltimore County government DEWD could use more strategic planning, better technology, and perhaps better connections between its various offices and with other departments of County government – there is not much to recommend by way of how DEWD could do better. Nevertheless, these standard observations are worth examining in the DEWD-specific context.

3.1.3.1 Develop a comprehensive and coordinated strategic plan for all economic and workforce development.

Findings

In recent years, DEWD has commissioned or developed:

- a study of occupational trends projected in the county, containing policy recommendations to promote economic and workforce development over a ten-year period.²⁹⁷
- a Local Workforce Area Plan to develop a strategy for transitioning to and implementing the new federal Workforce Innovation & Opportunity Act (WIOA).²⁹⁸
- a Job Connector Toolkit (updated 2019) to identify the industries that serve as the greatest economic and employment drivers for the County and to better align our workforce, education, and training partners to meet employers’ future demand. And,
- a Strategic Tourism Study (2019) to identify underutilized and/or missing tourism generators and support services and provide recommendations to achieve future tourism potential – in order to “set the stage for” a strategic plan.

297 JOBS OF THE FUTURE: Trends in Occupational Employment, 2015-2024.

298 Baltimore County Local Workforce Area Plan 2016 – 2020 (Amended 3/1/2019)

These are all high-quality and helpful documents, and together they create an inter-locking picture of economic and workforce development in the County. But they do not constitute a “strategic plan,” per se, let alone one that defines a comprehensive vision for the County’s future economy and the economic and workforce development efforts to advance its leaders within the department noted the lack of an overarching strategic plan that drives all efforts and echoed the County Executive’s desire for a true sectoral strategy and better coordination between the County and the community college on development and delivery of training programs.

In short, DEWD has done and is doing much to move in the direction of forward-looking strategic thinking. The County needs to construct a real strategic plan in this area, however, that address comprehensively all the County’s tools and opportunities for doing so – including not just business attraction and expansion, but also tourism promotion, trade and export promotion, site assembly, community and Main Street development, and targeted training programs: all areas in which the County can do more.

While the County’s new pandemic recovery plan has given DEWD needed focus, that is not quite the same as a strategic plan for the County’s economy, or its tourism future, or meeting the workforce needs of the 21st Century. There is indeed a good deal of overlap – but the County still could use a post-recovery vision of its economy – including tourism – and the workforce skills required to attain it, and a longer-term roadmap for how to get there. The County’s pre-existing targeted-sector, related workforce, and tourism documents all require greater definition, as discussed below in Recommendation 3.1.3.2.

We therefore recommend that, as the recovery gains steam, DEWD undertake development of strategic plans for economic development, tourism promotion, and workforce development, as further detailed below.

Benefit to the County

A comprehensive strategic plan to guide the County’s economic development – including tourism promotion – and workforce development efforts would improve both the efficacy with which County dollars are spent and the results obtained. It also would be consistent with our overall advice that the County move to strategic planning in all areas of its operations.

It is also worth noting that, while government is projected to be a job loser in the County overall, County government can still sometimes generate significant demand for new workers in specific areas – such as the large need for COVID-19 contact tracers in the past year. Baltimore County Government should utilize DEWD’s workforce resources strategically when they encounter similar focused hiring needs; the workforce arm of DEWD has access to a ready pool of workers who are un-and under-employed. The County might consider supporting a position within DEWD to recruit and screen candidates for such positions.

Best Practices and Benchmarks

It would not be possible to list all the counties with strategic economic development plans. A few diverse examples include:

- Prince George’s County, Maryland
- Cecil County, Maryland
- Pembina County, North Dakota
- Corvallis and Benton Counties, Oregon
- Marion County, Oregon
- Moore County, North Carolina
- Fairfield County, South Carolina
- Sierra County, New Mexico
- Livingston County, New York
- Forsyth County, Georgia
- Salem County, New Jersey
- Burlington County, North Carolina
- DeKalb County, (Atlanta) Georgia²⁹⁹

299 <https://www.dekalbcountyga.gov/economic-development/economic-development-strategic-plan-0>

Notably, DeKalb County, Georgia, which constitutes much of metropolitan Atlanta, was chosen as one of Baltimore County's peer counties.

In short, a county economic development strategic plan is a national best practice. And perhaps one of the best examples comes from neighboring – and peer – Prince George's County. The Prince George's County Economic Development Strategic Plan³⁰⁰ states at the outset, "Just like any successful company needs a strategic business plan to help it chart a course for continued growth, so too does local government need a well-researched, fact-based strategic plan to guide its efforts in economic development approaches." The Prince George's plan sets out a tripartite approach similar to that Public Works LLC has recommended around the country, starting with (1) a target high-growth industries approach, then (2) identifying the unique assets of the County that can be leveraged to capture economic development opportunities, and finally (3) setting forth targeted strategies and actions that use those unique assets to grow the target industries.

This implies more than simply identifying target industries (discussed in the next recommendation). The Prince George's plan also discusses needed staffing, financial and tax incentives, workforce centers and County funding, encouraging entrepreneurship, start-up financing, minority-business development, connections to universities and federal research institutions, place-based development policies including zoning and transit-oriented development, and specific site development projects, as well as branding and marketing efforts. These and other areas of potential leverage – including parks, recreation, cultural, arts and entertainment assets – are discussed in comprehensive county strategic plans across the country.

Implementation Guidance

An effective strategic planning exercise can occupy the better part of a year. Different efforts employ different techniques, but in general they involve widespread stakeholder participation, collection and study of economic data, SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis, peer comparisons, development of strategic objectives, and then policy analysis to build programs and action steps to achieve these objectives. Baltimore County has the building blocks of much of this research and analysis already in place, thanks to the studies already in place; they need to be unified and a comprehensive plan of action developed.

3.1.3.2 Define and coordinate target sector strategies more strategically.

Findings

The Baltimore County Executive would like to see the County institute a "workforce sector strategy." This is itself considered a nationwide best-practice. Such sector strategies consist of gearing workforce programs – not just economic development pursuits generally – to the industries targeted for growth in the jurisdiction.

A successful sector strategy begins with careful selection of industries and firms facing shortages of skilled workers, collaborating with employers to clearly identify the skills needed, and finding ways to fulfill those needs.

Sectoral workforce programs usually focus selectively on industries with good jobs offering high pay along with benefits and opportunities for advancement. Sectoral workforce development aims at long-term retention and career advancement, whether through ladders or lattices, in the "right" firms and industries. As programs build capacity, they can partner with multiple sectors, enabling them to offer participants a wider array of occupational opportunities.³⁰¹

300 Economic Drivers and Catalysts: A Targeted Economic Development Strategy for Prince George's County, Maryland (2013), https://issuu.com/mncppc/docs/economic_drivers/30.

301 Human Resource Economics and Public Policy, *supra*, note 4.

As the UC-Berkeley Labor Center observes in a recent research note, the first and most important step is to work with the business community to choose wisely as the industries and specific jobs to target:

- Note that the order of this process is important. Decisions around education and training programs are dependent upon the industry first determining the needs, and then problem solving together to uniquely shape what will be developed and delivered. This upends the traditional approach to workforce development because it allows the industry to pull in the education and training resources it needs rather than have the workforce development or community college system try to push out solutions they believe may work for those industries and workers.
- [Training partnerships] can tap into community colleges and other education and training providers as appropriate and contextualize the learning specific to their particular jobs and workers. It can choose to utilize what is already out there, develop and deliver their own programs, or use a hybrid approach specific to their particular workforce needs.

This is much more effective than trying to engineer training solutions from outside the industries themselves. It also allows workers and employers to proactively shape what may be needed for any “new” jobs and activities so they can best compete on the high road going forward.³⁰² Successful efforts appear to share several characteristics. They generally strive to:

- Establish mechanisms for efficiently identifying local employer and regional labor market needs, including incorporating a reliance on both labor market data and direct input from employers.
- Modify existing curricula or develop new courses with direct employer input to reflect the skills employers are seeking for positions they need to fill or anticipate filling.
- Share start-up and other costs to avoid duplication of efforts, including sharing the development of curricula across consortium partners, especially where multiple colleges are involved.
- Seek external funding sources from philanthropic funders, government, and employers. And,
- Track program outcomes and build in feedback from employers.³⁰³

Taking these efforts to scale essentially requires taking a sectoral approach to building training programs and working with employers – very simply, it is easier, more effective, and realizes economies-of-scale to develop programs involving multiple similar employers than to develop a different program every time for individual employers in a multitude of different industries. Thus, “[s]ectoral approaches offer promise to help resolve problems that have long plagued workforce development in America” because they “[o]ffer a means to effectively engage employers in public workforce development by focusing on selected industries and firms, developing a keen knowledge of their situation, and implementing strategies to meet their needs”,³⁰⁴ “address issues at multiple firms in ways that individual firms, which independently could not solve the issues, can benefit;”³⁰⁵ and, “with their common occupations and skill requirements... develop greater understanding of workers and employers in the field, and develop regional partnerships to obtain important input and buy-in, mobilize resources, and pool public and private funding from local and regional stakeholders.”³⁰⁶

Baltimore County, as noted, has developed a *Job Connector Toolkit*³⁰⁷ (updated 2019) to identify the industries that serve as the greatest economic and employment drivers for the County and to better align our workforce, education, and training partners to meet employers’ future demand.

But the County’s economic clusters nevertheless are only loosely translatable into workforce development guidance. That’s because, as currently constituted, these clusters are not particularly meaningful. The County has identified nine clusters – listed on the following page in a graphic from the Job Connector Toolkit:

302 UC Berkeley Labor Center, *Taking The High Road, High Road Training Partnerships: A Path to Reimagine & Rebuild Our Economy*, May 2020.

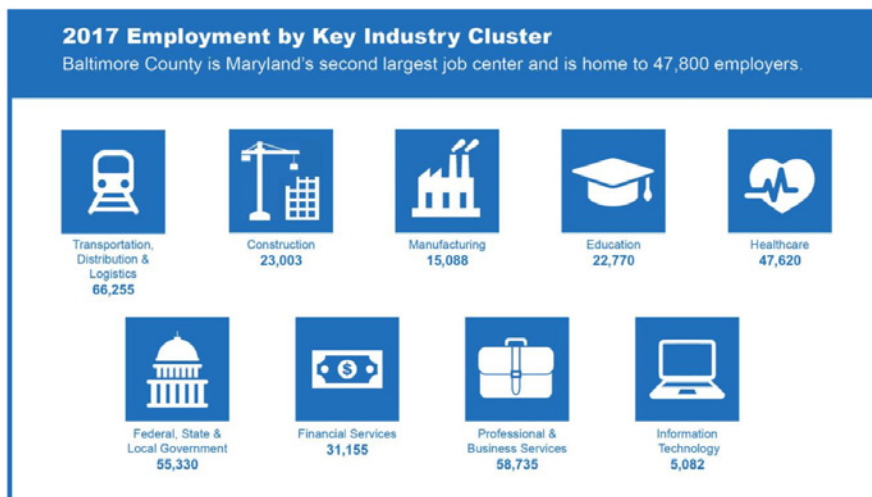
303 Maria Heidkamp and Thomas Hilliard, *A Review of Community College-Employer Partnerships and Initiatives: Expanding Opportunities for Job Seekers with Disabilities (Employer Assistance and Resource Network on Disability Inclusion)*, <https://askearn.org/wp-content/uploads/2018/03/A-Review-of-Community-College-Employer-Partnerships-and-Initiatives-Final.pdf>.

304 Human Resource Economics and Public Policy, *supra*, note 4.

305 U.S. Departments of Labor, Commerce, Education, and Health & Human Services, *What Works in Job Training: A Synthesis of the Evidence* (July 22, 2014).

306 National Transitional Jobs Network, *Employment Program Models for People Experiencing Homelessness: Different approaches to program structure* (2012).

307 <https://resources.baltimorecountymd.gov/Documents/EconomicDevel/jobconnectortoolkit.pdf>



Source: Baltimore County Job Connector Toolkit 2019 Update

As should be clear, these “targets” encompass practically the entire economy today, except for agriculture. Meanwhile, these clusters are each broad. For instance, the “Manufacturing” cluster includes a list of selected job categories that number, ranging from Industrial Production Managers and Electrical Engineers to Textile Workers and Bakers. The 2019 Update to the Baltimore County Local Workforce Area Plan identified fully 113 “In-Demand Occupations.” This does not provide particularly useful guidance to workforce training programs either for individuals, or the County as a whole.

Moreover, it is worth noting that most of these industries – and the jobs they generate – are in white-collar fields. Of the three “blue-collar” industries on the list, manufacturing is one of only three clusters projected to lose jobs over the decade 2014-2024 (in fact, the second-biggest job loser), and of the six projected to gain jobs construction is second-from-the-bottom with an anemic 3.2 percent growth rate.

This highlights the importance of choosing industries and clusters strategically – considering not just job-generating potential but also what jobs, and for which workers they are likely to generate jobs. Baltimore County faces the same choice as many areas of the country for its blue-collar workers – determining whether the best strategy is to pursue manufacturing employers to bring in further jobs, or to focus helping entry-level and displaced workers transition to jobs in other sectors such as education, health care, or financial, professional, and business services. If the decision is to pursue more manufacturing, then what types of manufacturing should be targeted – and what kinds of sites are available in the County?

It has been observed that Baltimore County, unlike many jurisdictions, does not include site-assembly in its economic development strategies; the presumption is that there is very little available shovel-ready real estate in the County. Historically, the County has not played a major part in identifying problematic properties nor taking a real estate lead. Many other Economic Development Agencies are very involved with real estate acquisition and sale. (Baltimore City is a perfect example). If Baltimore County were to pursue a real estate component to their sector strategy, it could identify and acquire potential sites, offer RFPs to developers for response, and then sell the properties to the best proposal. This would enable the County to expedite re-development of problematic properties while steering them toward desirable uses in the interest of economic development.

In sum, a successful workforce sectoral approach requires “target industries” or clusters to be more strategically defined in conjunction with comprehensive economic development strategic planning. DEWD’s current initiative, The Pipeline @ Tradeport Atlantic, is an implicit recognition of this: it is targeting exactly the right kind of industry sector with high-growth potential, and career ladders from blue collar to high-tech jobs with relatively high wages. Now, the County needs a plan for identifying and developing others.

As the County Executive recognizes, Baltimore County could implement a sector strategies approach that integrates workforce development into its overall economic strategy and approach. The efficiency and effectiveness of such an effort would be enhanced by narrowing range of target industries and increasing their specificity, while considering which of these will best improve the employment prospects of local workers without a college degree or technical certification – those who are most vulnerable to economic fluctuations.

Best Practices and Benchmarking

Local jurisdictions across the country, like many states, have adopted Sector Strategies for guiding their workforce development efforts.

- Baltimore City describes its two sector strategies in its [2020-2024 Strategic Plan](#).³⁰⁸ Bridge to Careers (B2C) provides case management services to unemployed, low-skilled, job seekers through a process that sets them up for employment in high growth industries such as construction, manufacturing, transportation, and logistics/warehousing. B2C is a four-phase program that “involved a comprehensive orientation to specific industries, courses in computer literacy, academic enhancement and employment readiness, referrals to occupational skills training and connection to employment and post placement services.”³⁰⁹ Baltimore City is also working to expand its apprenticeship program — which has seen success in the energy sector — to other high growth areas, such as Information Technology.
- Anne Arundel County runs its workforce development through its Workforce Development Corporation (AAWDC), a nonprofit nationally recognized for its sector-based strategies. Anne Arundel County’s main economic development sectors are Cybersecurity, Construction, Green Careers, and Marine Sectors. The county uses a career navigation approach that combines the expertise of sector partnerships with industry navigators to create industry sector strategies.
- Sector navigators are professionals with expertise in industry culture and trends, job search norms, and the training required for jobs in the industry.³¹⁰ They “guide training, placement, and business service strategies to effectively align with industry needs.”³¹¹ In 2013, AAWDC created a sector strategy for Customer Service Industries that combined “accommodation and food service, retail, arts, entertainment and recreation subsector of gambling industries” under a Customer Service Industry Navigator. It brought together 14 hotels to come up with a comprehensive training program, as well as an internship. Of those who completed the hospitality training, 89 percent were given a service industry award and offered employment. The recruitment effort for retail resulted in a 7-8 percent hire-rate increase.
- King County, which includes Seattle, Washington, is of comparable size to Baltimore County, and has identified five current and three potential high growth sectors for the county. Since 2003, the county convenes every two years, to reassess national and local trends, and to decide what areas are worth investing in, in both the short- and long-term. Seattle- King County has an online [Map Your Career](#) tool³¹², which provides resources for understanding how a person’s values can inform professional plans and goals, and the steps needed to enter the workforce. The Map Your Career tool also details the competencies required to successfully enter the following sectors: healthcare, manufacturing, maritime, construction, professional scientific & technical services, information technology, public sector, and trade.³¹³
- Since 2010, the Health Professions Opportunity Grant (HPOG) has provided funds for Seattle-King County to run a health care sector-based strategy that trains low-income individuals to fill staffing shortages in healthcare.³¹⁴ Cumulative outcomes from the 10-year initiative include:
 - » 82% of TANF recipients who became employed went off public assistance as a result of HPOG.
 - » 84% of youth in the eight-week healthcare exploration program enrolled in college within two years.
 - » “A \$19.86 average hourly wage of participants once employed.”
- As discussed above, Prince George’s County provides a good exemplar of what targeting target industries can really look like. As the figure below illustrates:³¹⁵

308 https://moed.baltimorecity.gov/sites/default/files/Local_Workforce_Plan_2020-2024%20Final%20for%20signature1.pdf

309 https://moed.baltimorecity.gov/sites/default/files/Local_Workforce_Plan_2020-2024%20Final%20for%20signature1.pdf

310 <http://www.aawdc.org/sites/default/files/Industry%20Navigation%20Paper.pdf>

311 <https://www.aawdc.org/content/innovative-practices>

312 <http://www.mapyourcareer.org/>

313 <http://www.mapyourcareer.org>

314 https://static1.squarespace.com/static/53c04ba6e4b0012ad48d079e/t/60e649e603dbe844a78e2446/1625704935571/HPOG-OnePager_WDC-SKC_2021.pdf

315 Economic Drivers and Catalysts: A Targeted Economic Development Strategy for Prince George’s County, Maryland (2013), https://issuu.com/mncppc/docs/economic_drivers/30.

**TOTAL EMPLOYMENT TRENDS, PRINCE GEORGE'S COUNTY, WASHINGTON D.C.
- BALTIMORE REGION AND THE UNITED STATES (2001-10)**

STEP 1 Started with analysis of 23 primary industry groupings from prior Occupational Shifts Study of primary/econotraded sector industries.	STEP 2 Organized into 11 broader primary clusters for analysis.
Aerospace Products & Parts Biosciences Business Consulting Services Business Support Services Communications & Media Equipment Computer & Peripheral Equipment Construction Destination Retail Federal Government Finance & Insurance Hospitals and Health Services Legal Marketing & Advertising Media Services Navigation & Control Instruments Research, Development & Engineering Services Semiconductors & Electronic Components Software & Computer Services Strategic Office Centers Telecommunications Services Traditional Print Media Transportation, Distribution, and Logistics Travel & Tourism	Key Assessment Criteria for 11 Broad Primary Industry Clusters: <ul style="list-style-type: none"> • Industry Cluster Performance • Projected Growth Rates • Average Wages • Employment Multipliers • Presence of Industry Drivers
	<div> STEP 3 Which 3-5 industry clusters have the best opportunity to grow and create good jobs for residents in the county. </div> <ul style="list-style-type: none"> • Federal Government • Business Services • Healthcare and Life Sciences • Information, Communication, and Electronic (ICE)-Advanced • Technology Industries

The county started with a list of 23 potential target industries but combined these into 11 broader clusters. After conducting analysis on a range of data, Prince George's County narrowed its target clusters down to five.

Even then, with that small number, the County understood that "targeting" requires getting even more granular as to what types of businesses the area is best positioned to grow based on its existing assets. For instance, while Prince George's County recognizes "Health Care and Life Sciences" as a vital growth field, its proximity to the National Institutes of Health, the Food and Drug Administration, and prominent medical research universities, provides the best opportunity to gain market share by targeting more *specific* industry niches, such as clinical research connections between universities and industry, and nutritional and food safety research.

In the smaller—but growing—non-clinical biosciences industries, the challenge is to define a niche that Prince George's County can serve. The county is centrally located between the region's hub of non-clinical biosciences industry in the Shady Grove area, the National Institutes of Health in Bethesda, the Food and Drug Administration in White Oak, and the large academic medical complexes at Johns Hopkins University and the University of Maryland in Baltimore. Among the key assets for the county are the University of Maryland College Park (UMCP), the USDA Beltsville Agricultural Research Center, and the location of a large FDA facility focused on food safety at the University of Maryland's M Square Research Park. This suggests an opportunity for Prince George's County to further gain market share of non-clinical biosciences industries by targeting specific niches. One niche might focus on clinical research connections with universities and industry at the new UMMS regional medical center. Another niche might focus on nutritional and food safety research activities with industries leveraging the presence of the Beltsville Agricultural Research Center, FDA, and the University of Maryland's School of Agriculture.

Similarly, where Baltimore County's target industries include the generic, "manufacturing," Chester County, South Carolina, targeted much more specific sub-specialties, such as:

- Automotive Manufacturing,
- Fabricated Metals Products and Machinery Manufacturing,
- Plastics and Rubber Manufacturing,
- Pharmaceuticals and Medical Device Manufacturing, and
- Value-Added Food Products Manufacturing.³¹⁶

Implementation Guidance

In addition to the Prince George's plan discussed above, the Chester County, South Carolina, economic development strategic plan provides a useful and detailed discussion of how to conduct a Target Industry Study:³¹⁷

- When identifying industry targets match feasibility (strengths and assets) with desirability.
- To determine the target industries that represent the greatest opportunities, compare data on the employment base and employment trends for the County to state and national data along with the current research on the most active and growing industries. The recommendations for target industries should be the industries that are "most feasible and desirable."

316 <http://www.lcni5.com/pages/specialsections/155/08EconDevelopment/EconDevelopmentFull.pdf>.

317 *Id.*

- Determining what is desired by the community is equally important; recommendations should be informed by a tour of the community, community interviews, SWOT Analysis, and the project leadership's/consultant's collective experience.
- County assets to consider in assessing industry potential include:
 - » Geographic location
 - » Available Workforce
 - » Available Land
 - » Education & Training
 - » Infrastructure
- The analysis should also include an inventory of significant available buildings and sites in the county; these elements are necessary to complete the SWOT Analysis.
- Consider future growth potential and risk of decline. Manufacturing, in general, should be of concern for all of the United States. Some manufacturing industries will need to stay within the borders such as defense-related, food, medical equipment, and pharmaceuticals. However, the more a manufactured product becomes a commodity – that is a standardized product with limited differentiation or technical specialization – the more likely it will move to lowest cost location to be competitive. This type of manufacturing industry is likely to remain in jeopardy.

The Employment and Training Administration of the U.S. Department of Labor published a Sector Strategies Technical Assistance Initiative to serve as a guide for implementing sector-based strategies.³¹⁸

1. Planning:
 - » Identify your resources.
 - » Set up your team: determine the groups needed to prepare a job seeker for a specific field: education institutions, training providers, community-based organizations.
 - » Understand the trends of the sectors in which you are considering investing resources.
2. Implementation:
 - » Coordinate and establish a working relationship with stakeholders and define roles and responsibilities
 - » Develop program and evaluation measures
3. Financial sustainability
 - » Identify assets, maintenance, and development (i.e., what do you have, what do you need to keep it going, and where do you want to go to in the future?)
 - » Assess costs, map resources, and develop a strategy to raise funds from a diverse array of resources
4. Leadership
 - » Identify and assign industry leadership
5. Performance
 - » Set goals, define success, manage performance, share successes with all stakeholders.

3.1.4 TRANSIT-ORIENTED DEVELOPMENT

The Department of Planning should develop a Transit-Oriented Development (TOD) Strategic Plan, in coordination with ongoing transportation and transit planning efforts led by the Baltimore Metropolitan Council and the Department of Public Works and Transportation.

Findings

Transit-Oriented Development (TOD) is a term used to describe dense, mixed-use developments sited near multimodal transportation stations that encourage use of transit, walking, and bicycling. The State of Maryland has cited several benefits of TOD.³¹⁹

- They reduce congestion and support the use of transportation alternatives, including transit accessibility by bicycles and pedestrians.
- They increase transit ridership, supporting broader transportation network efficiencies and reducing congestion.
- They augment land use and environmental conservation efforts by helping minimize air and water quality impacts.
- They serve as economic development catalysts for new community revitalization efforts.
- They enhance accessibility to jobs, housing, and other destinations for all residents.

In Maryland, state-designated TODs exist per Section 7-101 of the Transportation Article (from the 2008 legislative session), which authorizes the Maryland Department of Transportation (MDOT) to use departmental resources to support designated TOD projects. Projects may be designated through this program if they are determined by MDOT to be promising examples of TOD that have strong local support and that can succeed with a reasonable amount of state assistance; many strong projects are not state-designated, however, due to limited resources and capacity.

There are many transportation assets in Baltimore County, including 15 transit stations. The County is served by the Maryland Transportation Administration (MTA) light rail, rapid transit, and commuter rail; and the Maryland Area Regional Commuter (MARC) commuter train. There are currently two state-designated TOD areas in Baltimore County: the area surrounding the Aviation Station in Middle River (designated in December 2020) and Owings Mills Town Centre.

The Baltimore County Master Plan 2020 provides some prioritization to sites with multimodal access through a “Community Enhancement Area” designation. It also provides land use recommendations to promote TOD. Thus far, however, the Department of Planning has not developed specific plans to drive TOD around existing stations, and no zoning framework has been developed to encourage the practice.

Baltimore County is currently completing a state-required Transportation Development Plan (TDP) under the Department of Public Works and Transportation (DPWT).³²⁰ The Department of Planning is in the midst of its Master Plan 2030 process, which focuses on developing overarching goals and strategies for the county. It would be timely and beneficial for the Department to develop a TOD strategic plan, in consultation with DPWT, that would identify targeted locations and provide a toolkit and strategies (including zoning code adjustments) to advance the goals of the County’s Master Plan at the community level. By coordinating a TOD plan with these ongoing efforts, the Department can encourage transportation investments and land use planning that are strategically aligned and complementary in nature.

319 <https://planning.maryland.gov/Pages/OurWork/TOD/benefit.aspx>

320 <https://www.baltimorecountymd.gov/departments/publicworks/traffic/transportation/regionalplanning.html>

In its final form, a TOD Strategic Plan would include guidance on specific high-priority locations where a TOD zoning overlay could be applied (typically within ¼ mile of a major transit stop). This overlay should allow mixed uses (residential and commercial) and provide design guidelines that support walkability, such as orienting buildings to the street, allowing higher densities of development, reducing parking minimums, and encouraging street-level retail or other commercial uses, with residential or office space above.

Benefit to the County

Strategic plans for TOD enable counties and municipalities to plan more thoughtfully and effectively around existing and future transportation networks, encouraging public transit use, improving the convenience and safety of walking and bicycling paths, reducing traffic congestion, and helping to make communities more vibrant and livable. A coordinated TOD strategy would allow the Baltimore County to target public-private partnerships for development around stations and prioritize key transportation-related infrastructure investments in the decade to come.

A county-driven strategy and supportive zoning/regulatory changes also could unlock potential support from the Maryland Department of Transportation (MDOT) by establishing TOD designations for key locations. These could create new pathways for MDOT assistance, including support for further planning, environmental studies, financial analysis, design guidance, legal support, and help in identifying and attracting additional investment sources.³²¹

Best Practices and Benchmarks

Many counties and large cities across the United States support TOD through strategic plans and/or zoning overlays. The following examples represent some key best practices:

- **Montgomery County (Maryland)** which includes Bethesda and Silver Spring (both cities identified as exhibiting TOD best practices by the Maryland Department of Planning), as well as the areas surrounding the White Flint, Twinbrook, and Wheaton Metro stations as TOD areas. The County's TOD strategies include density bonuses for mixed-use development and for the inclusion of affordable housing. These benefits taper off gradually with distance from transit stops, to allow for a transition into areas with single family housing outside these zones. In addition, the County has prepared several TOD area plans specific to individual locations within the County. For example, White Flint 2 Sector Plan updates the initial 2010 plan, recommending that a two-mile section of Rockville Pike be transformed into a boulevard with dedicated Bus Rapid Transit (BRT).
- **Chester County (Pennsylvania)** received a 2017 Planning Excellence Award from the American Planning Association for its Commercial Landscape Series, which takes an innovative approach to repurposing older office parks, shopping centers, transit stations, and brownfield sites in the county. The Commercial Landscapes series recognizes that older commercial sites can be repurposed following current best practices, allowing these sites to be repurposed to meet evolving community needs. One element of this series focuses specifically on transit-oriented development, providing guidance on zoning ordinance revisions and design services to support higher density at designated TOD locations.
- **Arlington County (Virginia)** as early as the 1970s, produced RB72: Rosslyn-Ballston Corridor Alternative Land Use Patterns, a landmark report that presented a series of development scenarios for the transit corridor running from Rosslyn to Ballston. This document, which predates Peter Calthorpe's formalization of TOD as a concept in the 1980s, identifies "influence areas" or "bullseyes" around planned transit stations that may be appropriate for redevelopment.³²²

321 <https://www.mdot.maryland.gov/iso/pages/Index.aspx?PagelId=37>

322 Arlington County Virginia Planning and Zoning Section, RB72: Rosslyn-Ballston Corridor Alternative Land Use Patterns (November 1972), <http://arlingtonva.s3.amazonaws.com/wp-content/uploads/sites/31/2014/03/RB-Alt-Use1.pdf>.

Implementation Guidance

A preliminary step to developing a Baltimore County TOD Strategic Plan would be to conduct an overarching analysis of all 15 major transportation stations. The State of Maryland Department of Planning recommends that, in addition to a comprehensive plan to support TOD, jurisdictions should develop detailed station-area TOD plans to guide future development, planning and financing, and community design and regulatory provisions.³²³ This identification could begin during the Master Plan 2030 process with the actual plan being a recommendation to come out of the plan; subsequent plans and enabling zoning and regulatory changes could be undertaken as a part of the Plan's overall implementation.

A County ordinance would be required to establish a transit-oriented development zoning overlay in Baltimore County.

3.1.5 DEVELOPMENT REVIEW FOR AFFORDABLE HOUSING

Review the County Code and zoning regulations to make the development review process more permissive of affordable housing developments.

Findings

Baltimore County must facilitate the creation of 1,000 "hard units" of affordable housing in order to remain in compliance with the Voluntary Conciliation Agreement (VCA) with the federal Department of Housing and Urban Development. One obstacle to achieving this goal is the process of gaining approval for new developments. The approval process can be long and fraught, and more than one proposal for a new affordable housing development has been defeated by community opposition via the development review process.

There have been six new construction affordable housing developments in Baltimore County since the VCA was signed in 2016. According to the County's initial 90-day Analysis of Barriers to Obtaining Hard Unit Goals, "New construction projects utilize a development review process that included a range of steps that may or may not have required County Council approval. The different development tracts include Major, Limited and Planned Unit Development (PUD)."

Of the six developments, three have gone through the "Major" track, two using the "Limited" track, and one has gone through the PUD track. Only four of these developments have begun leasing as of April of 2021. Of these four, the timeline from project application to leasing has been between 334 days and 1,483 days. The proposal going through the "limited" track had the shortest timeline, at 334 days. The two developments that went through the "major" track had timelines of 968 days (approximately two years and eight months) and 1,111 days (three years). The proposal going through the PUD process took 1,483 days (four years and 23 days).

The Baltimore County Code establishes the procedures for the development review and approval process that the Department of Permits, Approvals, and Inspections (PAI) must follow. A property developer that wishes to construct a new building in Baltimore County, including affordable housing, must submit an application to the Department of Permits, Approvals, and Inspections (PAI) in order to receive a permit to build. PAI coordinates with other agencies to ensure that the project proposal complies with all County rules and regulations.

The County Code requires nearly every development proposal in the County, except for the construction of a single-family home or duplex, to be presented at a public input meeting and to be submitted for approval to the Hearing Officer at a subsequent public hearing. These steps are required even if the development is allowed by right in the underlying zoning. The Code also allows for an alternative process, the PUD process, which requires action by the County Council.

323 Maryland Department of Planning, "TOD Best Practices: Best Practice: Station Area TOD Plans," <https://planning.maryland.gov/Pages/OurWork/tod/tod-planning.aspx>, accessed 6/7/2021.

The decision of the Hearing Officer is based on the recommendation of County agencies, including PAI and the Planning Department, as well as the proposal's adherence to the County's laws and regulations in relation to land use and development, including the zoning regulations and the development policies as defined in the Code.

Also influencing the Hearing Officer's decision to approve or disapprove a project is any public comments from the public input meeting that are still unresolved. The Code states that, "The Hearing Officer shall take testimony and receive evidence regarding any unresolved comment or condition that is relevant to the proposed Development Plan, including testimony or evidence regarding any potential impact of any approved development upon the proposed plan." The Hearing Officer may impose conditions on a development proposal, including when it is "based upon a comment that was raised or a condition that was proposed or requested by a participant."

In recent years, at least one proposal for an affordable housing development has been rejected by the Hearing Officer because of unresolved comments or conditions, even though the development conformed to the underlying zoning. The decision was based on objections about traffic congestion, school capacity, and the location of other affordable housing developments nearby, rather than a lack of compliance with County laws and regulations.

The Code also outlines the procedures for a zoning reclassification. In most instances, if an affordable housing developer needs a zoning change in order to build an affordable development it must gain the approval of the County Council. The Council may approve or disapprove a rezoning at their discretion. In practice, it is the local councilmember who determines the fate of a rezoning proposal in their district.

One affordable housing proposal in Pikesville was rejected by the County Council last year because the local council member contended that there was not enough green space in the district, among other objections. The proposal was declined by the Court despite the Planning Department's recommendation that the project move forward and the likelihood that denying the development would mean missing a key VCA interim target.

Benefit to the County

Amending the County Code and other regulations will make clearer the intent of the County in regard to the provision of affordable housing and more likely that proposals for affordable housing will be approved via the development review process. Amendments to the Code related to the development review process that allow exemptions for affordable housing proposals would increase the chances of these proposals being approved, and would shorten the timeline of the development review process.

Best Practices and Benchmarks

Other jurisdictions use varying methods of development review that require different degrees of public engagement and judicial review. Baltimore County requires most development proposals to go through two rounds of public input before a permit can be issued, even if the development proposal adheres to the underlying zoning. Among other nearby jurisdictions, some require public review for proposals that adhere to the underlying zoning, and some do not.

One issue to consider is whether other jurisdictions require a public hearing and a decision by an administrative judge for a development proposal that adheres to the underlying zoning and is therefore not seeking a change to the zoning regulations or other exemptions.

In Baltimore City, development proposals that adhere to the underlying zoning are allowed as-of-right, and there is not public input, community meetings, or an administrative judge hearing. Development proposals are reviewed by the relevant City agencies to check for compliance with city rules, regulations, laws, and policies.

In Anne Arundel County, the development review process includes a community meeting, but only for those projects that would impact environmentally sensitive areas that include the subdivision of land that abuts a residential zone, or a new commercial, industrial, or institutional development that abuts a residential zone. A development proposal may only be disapproved if it fails to comply with the county code or the master plan. "Otherwise, the Office shall recommend approval. No appeal may be

taken from a recommendation made under this subsection. Approval of the permit by the Department of Inspections and Permits constitutes approval of the site development plan.”³²⁴

In Howard County, a pre-submission community meeting is required for all residential developments other than detached single-family homes. However, the agency decision to approve or disapprove the site plan is not made at a public meeting. A Planning Board decision is required only for residential projects in an “environmental district” or a historic district. Otherwise, development proposals are approved by County agencies in an administrative process.

In Montgomery County, development proposals over a certain size must be approved by the Planning Board. There is no required community input meeting, but the public is invited and encouraged to participate in a pre-submission meeting. The public may make comments on a proposal via the county website or by writing to the Planning Department.

In Prince George’s County, larger projects such as affordable housing projects must go before a public meeting of the Planning Board on two separate occasions.³²⁵ Mixed-used developments must also have a public hearing prior to the Planning Board meeting and decision. The Code of Prince George’s County does not list unresolved public comments as among the considerations of the Planning Board in making its decision.

Also in Prince George’s County, certain projects in transit-oriented zones are eligible for expedited review. The code states that all agencies must give these applications the highest priority, allowing them to skip to the front of the queue. Projects located in transit zones may also skip the requirement for the submission of a conceptual site plan, which has the effect of eliminating one of the two required Planning Board meetings and decisions. Projects eligible for expedited review only have to submit a detailed site plan, which is put in front of the Planning Board under an expedited timeline. If the site plan is approved, the County Council has the option of voting on the decision in a separate motion.

The City of Cambridge, Massachusetts has applied this concept to affordable housing development and created “affordable housing overlay zones.” These zones “allow incremental increases in density, limited increases in height, and relaxation of certain other zoning limitations for residential developments in which all units are made permanently affordable to households earning up to 100% of area median income.”

Implementation Guidance

1. Add language to the County Code that recognizes the benefit of affordable housing and lists the provision of affordable housing among the County’s stated policies, purposes, goals.
 - The County Code defines “development policies” that state the intent of the section of law that governs development in the County. Baltimore County could amend this section of the Code to include the provision of affordable housing, especially in areas designated as “opportunity areas” as among the listed policy goals. (§ 32-4-102)
 - Similarly, the provision of affordable housing should be listed among the “purposes” under § 32-4-103.
 - Among the requirements for the submission of a development plan is “a chart indicating... the number of dwelling units permitted and proposed.” The development plan should also include the affordability levels of the proposed development, if it will include income-restricted units, as well as whether the proposed development would be in an “opportunity area.” (§ 32-4-223)
 - The Code states that an application for a Planned Unit Development must include a statement of “how the Planned Unit Development will provide a community benefit” and includes “workforce housing” as one of the potential benefits. This should be replaced with “workforce housing or affordable housing.” (§ 32-4-242) Additionally, the provision of affordable housing should be considered for the “basis of approval” under section § 32-4-245.

324 Anne Arundel County Code, § 17-4-203 https://codelibrary.amlegal.com/codes/annearundel/latest/annearundelco_md/0-0-0-17903

325 A development proposal must first have a conceptual site plan approved, and then a detailed site plan.

2. Allow for public review earlier in the development review process, and consider eliminating the community input meeting.
 - Both Howard and Montgomery County solicit community input at the pre-submission phase, whereas Baltimore County's public input occurs after the submission of the concept plan. Soliciting community input earlier in the process may allow for community concerns to be addressed before the community input meeting. If it is deemed that soliciting input at the pre-submittal phase is a more appropriate way to solicit public input, the County may consider eliminating the requirement for a community input meeting.
3. Define the conditions under which the Hearing Officer may reject or place conditions on a development proposal.
 - By adding language similar to that used by Anne Arundel County, Baltimore County could make the intent of the development review process clearer and ensure that the decisions of the Hearing Officer are based on an application's adherence to County laws, regulations, and policies, rather than other considerations.
4. Allow for exemptions that would allow for affordable housing projects to be approved through an administrative process.
 - The Code allows for certain exemptions from the requirement that a proposed development go before a community input meeting and be approved by the hearing officer. Land use action currently eligible for an exemption are those that are relatively little impact on the built environment, such as lot line adjustments, the subdivision of rural land, and construction of accessory structures, among others. (§ 32-4-106)

An exemption could be made for applications for affordable housing projects that meet the underlying zoning. The exemption could be limited by a number of provisions, such as a requirement that the project does not abut a low-density residential district.

- The Code allows for zoning reclassifications to be made via the cycle zoning process, which requires approval by the Board of Appeals, rather than the County Council. A parcel may only be reclassified under a strict set of circumstances: if the current zoning classification was made in error, or if "a substantial change has occurred in the character of the neighborhood in which the property is located." (§ 32-3-510)

The Code could be amended so that a parcel may be reclassified via the cycle zoning process if it is to provide affordable housing. There should be restrictions on the circumstances in which this would apply, however. For example, it could apply only if the parcel was for zoned commercial or industrial use and is to be reclassified into a residential zone.

Similar to the use of transit-oriented zones in Prince George's County, Baltimore County could amend the zoning regulations and code to create "affordable housing overlay zones" that allow affordable housing developments in these zones to skip the community input meeting and to have the application reviewed and approved by the Baltimore County Department of Permits, Approvals and Inspections, rather than the Hearing Officer. Baltimore County could also establish a process of expedited review, in which all agencies place first priority on reviewing applications for affordable housing in an affordable housing overlay zone.

5. Ensure that affordable housing needs are a core component of the County's Master Plan 2030 and future community plans.
 - Among the County's "Development Policies," as defined in the County Code, is that all development of land shall conform to the Master Plan and "adopted community plans." Therefore, it is imperative that the updated Master Plan 2030, currently in progress and to be completed by 2022, prioritizes the provision of affordable housing. Similarly, as community plans are updated, they should also reflect the priority placed on new affordable housing production.

3.1.6 INCLUSIONARY ZONING

Establish an inclusionary zoning policy in Baltimore County that is aligned with the County’s affordable housing objectives.

Findings

Baltimore County must facilitate the creation of 1,000 units of affordable housing by 2027, or by an average of 83 units a year. Until recently, the County had met all the annual targets for the approval, construction, and leasing of affordable units as outlined in the Voluntary Conciliation Agreement (VCA) with the federal Department of Housing and Urban Development. But in 2020, the County failed to approve enough new units of affordable housing for construction and now must accelerate its rate of affordable housing production if there are to be enough affordable housing units in the development pipeline to meet future targets to serve rapidly growing need.

One strategy used by other jurisdictions to create affordable housing is a tool called inclusionary zoning. It is a requirement on certain new residential developments to include a certain percentage of affordable housing units alongside the market-rate units. For example, a new residential development with 100 units of housing—whether single-family homes, townhomes, or apartments—might be required to set aside ten percent of these units to be rented to families within certain income limits.

Inclusionary zoning laws can be voluntary or mandatory. A voluntary inclusionary zoning program allows for developers to opt-in. The developer usually receives a benefit, such as permission to build to a higher density than would otherwise be allowed, in return for meeting affordability requirements. A mandatory program requires developers to include a portion of affordable housing in a new development, and may or may not provide increases in density or other benefits. In either case, it is assumed that the additional cost to the developer of providing below-market-rate rents will be offset by the profits made on the market units.

This strategy has been adopted by many cities and counties nationwide, to varying degrees of success. In some jurisdictions, critics have contended that the policies do not create enough affordable units or do not have income limits that are low enough. In others, there are suggestions that the cost of providing the additional units is not enough to allow new developments to be economically viable, and therefore no new housing is built.

The number of new affordable units created by an inclusionary zoning policy is determined by the overall rate of housing production. A jurisdiction that is building significant new housing will create more affordable units through an inclusionary zoning policy than a jurisdiction that does not build very much new housing at all.

Over the past eight years, there has been relatively little housing production in Baltimore County. The number of housing units in the County, including owner-occupied and rental, increased by 0.7% between 2011 and 2019, from 334,000 units to 337,000 units. This rate of production is far lower than that of nearby counties. Over the same period, the number of housing units Prince George’s County increased by 1.8 percent, in Montgomery County by 4.0 percent, and in Prince George’s County by 10.2 percent. The total number of new units was 2,428, or less than half of the number of any of the nearby counties.³²⁶

Benefit to the County

An inclusionary zoning policy would allow Baltimore County to leverage new residential development to create affordable housing opportunities by lowering the per-unit cost of affordable housing units and allowing market-rate units to cross-subsidize the cost of building affordable units.

326 American Community Survey 5-year estimates, 2011 and 2019. U.S. Census Bureau.

Best Practices and Benchmarks

Two nearby jurisdictions have established forms of inclusionary zoning to increase the production of affordable housing: Montgomery County and Howard County.

Montgomery County's inclusionary zoning program was among the first in the nation, created in 1973. The Moderately Priced Dwelling Unit program (MPDU) is a mandatory program that requires affordable units but also allows for an increase in density. It provides both homeownership and rental opportunities, and affordable rental units are to remain affordable for 99 years. The requirements apply to all residential developments except for multifamily developments with fewer than 20 units, residential subdivisions subdivided into lots greater than one-half acre, and subdivisions that are not served by sewer or water.

Montgomery County has amended its program over the years to increase the amount of the density bonus while creating a sliding scale for the percentage of affordable units required, from between 12.5 percent and 15 percent. Additionally, the program provides the County the right of first refusal to purchase any MPDU put up for sale, and "almost all units that are sold during the control period are purchased by the County."

According to an analysis completed by Montgomery County in 2003, the program is particularly adept at creating affordable homes in residential subdivisions. "The density bonus, in effect, creates free lots upon which the MPDUs are constructed. The builder normally obtains some additional market rate units equal to the difference between the density bonus and the MPDU requirement."

The analysis also suggests that new multifamily rental units require public subsidy to be economically feasible: "Little rental housing except for those projects with low-income tax credits or tax-exempt bond financing have been constructed. The bonus density does not provide enough incentive to construct apartment projects. To solve this problem, the County has offered construction and permanent financing through the HIF to nonprofit housing sponsors to purchase and renovate existing apartment houses and to build new rental projects."

Howard County's inclusionary zoning program is called the Moderate Income Housing Unit Program (MIHU). It is a mandatory program and provides for both below market-rate home sales and rentals. Howard County requires that new residential developments set aside between 10 and 15 percent of units for families making up to 80 percent of the Area Median Income (AMI). Developers are also given the option of providing the housing off-site, of providing deeper affordability levels in return of a smaller percentage of affordable units, or of providing "disability units." The affordable rental units are to remain affordable in perpetuity.

Prince George's County at one time had an inclusionary zoning policy, but it was repealed in 1996. A report by the Brookings Institution suggests that the decision to repeal the policy was made by County officials to "raise the value of new homes coming into the market... County officials wanted to attract middle- and upper-income residents by providing more upscale housing choices, which would result in higher property taxes."

Since that time, there have been proposals to re-introduce inclusionary zoning in Prince George's County for developments along the new Purple Line transit corridor. However, a housing market feasibility study conducted by HR&A Associates and Enterprise Community Partners found that requiring affordable housing in new developments would not be feasible without subsidy, even with a density bonus.³²⁷ The study calculated that the base rent per square foot required to support development with an affordability mandate to be \$2.70 per square foot, whereas the market currently only supported rents at between \$2.22 and \$2.54 a square foot. The report recommended that the County consider other strategies, such as tax abatements in exchange for affordable housing construction.

³²⁷ <https://pgccouncil.us/DocumentCenter/View/6013/Prince-Georges-County-Inclusionary-Housing-Study?bidId=>

Implementation Guidance

Create incentives and requirements for the inclusion of affordable housing in a new residential development.

- Conduct a housing market study prior to establishing inclusionary zoning to determine if the proposed affordability requirements and density bonus would prevent new housing development from being built by making the development economically infeasible. The study should examine options for residential subdivisions, for medium-density residential, and high-rise residential. The study should divide the county into different market types, based on sales prices and rents, and develop recommendations for each market. The study should also consider market feasibility with the assumption that development may receive a subsidy, such as a property tax abatement or low-cost financing.
- After completion of the housing market study and based on its recommendations, amend the zoning regulations so that residential developments may be eligible for a “density bonus” if the development is to include a certain percentage of affordable, income-restricted units. To make this bonus valuable for a residential developer, the incremental density bonus should be greater than the floor area that is dedicated to affordable housing. (For example, if the regulations require that 20 percent of a development’s floor area be dedicated to affordable housing, then the density bonus should be greater than 20 percent of the buildable floor area.)
- Amend the Zoning Code to give the director of the Department of Permits, Approvals, and Inspections the authority to override parking minimum requirements for affordable housing developments, to reduce the cost of development and provide more opportunities for residential floor area on a given parcel.
- Given the extremely low rate of new housing production in the County, a mandatory inclusionary zoning program is unlikely to produce affordable units, however a voluntary program may still be a viable option.

3.1.7 RECREATION AND NATURE COUNCILS

Baltimore County would be well served to undertake a review of all County laws, policies, agreements, and legal contracts related to the Recreation and Nature Councils and the Board of Recreation.

Findings

Baltimore County employs a model of providing recreation programming at County parks facilities and Baltimore County Public Schools (BCPS) recreation centers through a network of 45 non-profit, volunteer-led organizations known as Recreation and Nature Councils (referred to hereafter as Recreation Councils). Examples of the types of programming provided by the Recreation Councils include youth sports leagues, a skateboarding club, a sailing center, a historical museum, and an agricultural center. The Recreation Councils collect fees and donations to pay for program activities. They organize programs and activities, buy equipment and uniforms, pay referees and umpires, and manage their own budgets.

The Councils work in collaboration with Recreation and Parks employees, who assist the Councils with obtaining any necessary permits, reserving facilities for Council programming, providing on-site staff at events as necessary, and facilitating the maintenance of facilities. Part-time staff hired by the Councils, such as coaches and instructors, are hired as County employees, known as Special Rate Employees. They are paid out of the Group Leadership Account, a line item in the Recreation and Parks budget. The account is funded by payments made from Recreation Councils to the Department. This practice began sometime in 2005 or 2006. Previously, the Councils had hired all of their own employees. However, at least one Council ran afoul of federal Internal Revenue Service (IRS) regulations for misclassifying employees as subcontractors and was issued a fine. In response, Baltimore County provided a grant to the Council to cover the cost of the fine and adopted the Special Rate Employee model.

The Recreation Councils are not defined in the County Charter or the Code. However, the Charter establishes a Board of Recreation. According to the Charter, the Board of Recreation “shall have and perform all duties and functions relating to... the organization of recreation councils,” among other duties. Otherwise, the County Charter and Code do not refer to Recreation Councils, their responsibilities, duties, or relationship with the County.

In practice, Recreation Councils are an important venue for civic participation in Baltimore County. They contribute to neighborhood identity and promote volunteerism. Because the planning and organizing of recreation programs are done by volunteers rather than County staff, the Councils also allow the County to save on payroll costs.

However, a lack of statutory clarity about the roles and responsibilities of Recreation Councils, oversight, and accounting controls, may leave the County vulnerable to potential financial and legal liabilities and potentially impact the ability of Recreation Councils to deliver high-quality recreation opportunities to the residents of Baltimore County. According to an investigative summary by the County’s Office of Inspector General, a review of meeting minutes of the Board of Recreation “reveals recurring issues of recertification, decertification, and financial irregularities,” with the Recreation Councils. The Inspector General reviewed the financial statements of one Recreation Council and concluded that the financial practices “do not reflect any intentional or illegal misappropriation of funds, but rather an ongoing lack of consistent and verifiable account that regularly failed to follow established best practices for accounting of public funds.”

Although the Recreation Councils are independent entities, they have ongoing financial, operational, and governmental relationships with the County; any mismanagement or malfeasance on the part of the Councils has the potential to negatively impact County operations, its finances, and its reputation.

- There are inadequate controls on recreation council spending, budgets, and accounting practices. Despite requirements that Council budgets and monthly reports be made available at the local Community Recreation and Parks office and that Councils undergo annual audits, it is unclear whether all Councils are in compliance.
- Decisions about pay rates for Special Rate Employees are made by the Councils with little or no input by the Department or the County.
- Some Councils are in arrears on payments and reimbursements to the County.
- Some Councils may not have tax-exempt 501(c)(3) status, despite this requirement in the Board of Recreation bylaws.
- It is unclear whether all Councils are in compliance with insurance requirements, per the Board bylaws.
- The Board of Recreation does not have clear processes or policies for the recertification of Recreation Councils.
- Recreation Council volunteers are governed by the Local Government Tort Claims Act. The County is obliged to defend Recreation and Nature Council volunteers in the event that a volunteer is made party to a civil suit while carrying out duties and acting on behalf of the Recreation Council.
- The Department of Recreation and Parks has no authority to direct the Recreation Councils to provide specific programs or activities, even if Department staff has identified a need for such programs.

The Board of Recreation adopted an amended Statement of Policies, Bylaws, and Rules of Procedure in December of 2014. In it, the Recreation Councils are described as creations of the Board of Recreation. The bylaws direct the Board “to form Recreation and Parks Councils” which, “must be certified as authorized agents of the Board.” The Board has sole discretion over the certification, recertification, and decertification of Recreation Councils. The bylaws state that, in order to become or remain certified, a Recreation Council must have its constitution and bylaws reviewed by Department of Recreation and Parks staff. A Council also must ensure that copies of its annual budget and monthly financial reports are available at the local Community Recreation and Parks office. The Bylaws state that each Council must conduct a yearly financial review “by either a Council audit committee, or an independent accountant” within 90 days of the end of the fiscal year, and report on the audit’s findings to the Board and “submit the Board’s Annual Audit Verification Form within thirty days of the Council’s annual audit.”

Gaining and maintaining certification is critical for the recreation councils, because only certified Councils are eligible for permits for playing fields and access to other county facilities. From the County’s perspective, Council certification is necessary to ensure that participating youth have continuing access to programs and facilities.

Other provisions of the Bylaws as related to the Councils include: a statement that Councils carry insurance for “Council-owned and donated equipment and supplies stored in County-owned facilities and reported on inventory filed with the Baltimore County Department of Recreation and Parks”; that Councils carry liability insurance for out-of-state travel, and that the Councils have federal 501(c)(3) tax exempt status. However, no proof of compliance with these Council policies is required for certification or recertification, according to the Bylaws.

Finally, the Board Bylaws include, as an appendix, a memorandum from the County’s Office of Law explaining the County’s policy on providing legal representation and/or reimbursement for legal expenses for volunteers with the Recreation Councils. In the memorandum, the County Attorney discusses the requirement that Recreation Councils have federal 501(c)(3) non-profit status, and the suggestion that the Councils should incorporate, to protect volunteer Council leaders from personal liability. The memorandum states: “The Office of Law will only defend the volunteers in suits filed against them that, if filed against a county employee, would be governed by the Local Government Tort Claims Act (LGTCa) (and not, for example, civil actions involving taxes, contracts, civil rights, etc.)” Attached to the memorandum is the County’s policy on the defense and reimbursement for civil actions; this policy defines “volunteer” and explains that volunteers acting on behalf of a Recreation Council will be defended by the County if the volunteer is named as a party in a civil action as a result of carrying out their duties as a member of a Recreation Council.

A subsequent Inspector General report dated July 30, 2021, reported that an investigation into the Group Leadership Account confirmed that several Recreation Councils were in arrears with reimbursements to the County. In the Administration’s response to the report, it is noted that “All Councils have been directed to provide ‘pay-as-you-go’ revenues to support all staff salaries. Councils will no longer be permitted to accrue balances throughout the remainder of the program.” The response also states that, “In consultation with the Office of Law the Department is developing a comprehensive Memorandum of Understanding (MOU) to address operational responsibilities of the Recreation and Nature Councils. Councils [sic] human resources is addressed as part of the MOU.”

At time of writing the Office of Law is undertaking a review of the MOU under development.

Benefit to the County

By reviewing the laws, policies, and agreements governing its relationships and interactions with the Board of Recreation and Recreation and Parks Councils, the County may clarify its current legal and financial risks and liabilities with respect to the activities of the Councils and their volunteers. Such an analysis would equip the County to evaluate whether current terms and practices remain appropriate and to consider potential options for restructuring these relationships, while ensuring that the Councils are able to provide uninterrupted, high-quality recreation programming to the residents of Baltimore County.

Best Practices and Benchmarks

The volunteer recreation council model is not unique to Baltimore County; several other jurisdictions in Maryland have established recreation programming relationships between county government, recreation councils, and advisory boards.

Most counties have an advisory board similar to Baltimore County’s Board of Recreation, which is defined in county charter and code. But most advisory boards are not responsible for council oversight, as is the case in Baltimore County. Further, the bylaws of Baltimore County’s Board of Recreation states that Recreation Councils are “agents” of the Board, constituting a legal relationship between the Board and the Councils.

Although some counties have recreation councils, others – notably Montgomery, Prince George’s, and Howard Counties – assign county employees to organize recreation activities. Because of this, these counties tend to have higher employee headcounts within their parks departments.

Certification

Some counties, such as Harford County, Frederick County, and Cecil County, do not have a certification process. In Frederick County, the County is not involved in facility reservations; these are made through the public school system. In Cecil County, there is no official certification process, but non-profits that wish to receive permits must prove liability insurance and be affiliated with a national youth sports league. Carroll County does not accredit councils but does require that councils submit an application and remain in good standing. Carroll County maintains a list of approximately 4,000 “approved volunteers.” Volunteers must submit a volunteer registration form; a background check is the primary requirement for approval.

In Anne Arundel County, the Department of Recreation and Parks reviews certification (referred to in Anne Arundel County as accreditation³²⁸) materials submitted by councils to ensure that they are in compliance with county policies and procedures. Anne Arundel County publishes a Guidelines and Reference Manual, available online, which details the County’s policies on accreditations, facility scheduling, maintenance grants, background checks, disciplinary actions. Anne Arundel County has three levels of accreditation. Councils that are not in full compliance receive the lowest accreditation and the lowest priority for the reservation of facilities. All officers and board members of a council must be considered to be in good standing. “Good standing is a term used to identify individuals who are in compliance with departmental policies, standards and requirements,” according to the Manual. To maintain its standing, the council must submit all required forms, such as the Organizational Accreditation Checklist, which “includes the organization’s equal opportunity and non-discrimination pledge, acknowledgement of receipt of departmental guidelines and policies, listing of accreditation submission requirements and the background check requirements for organizations that sponsor youth activities.” The council must submit a notarized Organizational Declaration Affidavit, which attests to the non-profit status of the council, including whether the council is a tax-exempt non-profit institution in good standing with the IRS. The council must submit a certificate of general liability insurance in the amount of \$500,000, must provide bylaws, and an “assessment of community need” that establishes the group’s intentions as compared to what is offered by existing organizations. Anne Arundel County does not require councils to submit budgets or financial statements or undergo audits. Anne Arundel County’s Manual also describes the need for councils to maintain compliance with the accreditation requirements and lists the disciplinary actions that may be imposed on a non-compliant council, including decertification.

Employees

Baltimore County’s practice of hiring employees on behalf of Recreation Councils appears to be unique. In Anne Arundel County, persons working on a council’s behalf are employees of that council. Frederick County advises recreation councils that they should hire contractors and that “contracts must be established under the supervision of the County Liaison, who will meet with the County Attorney and Risk Manager to establish a legally sound contract document.” It is common for counties to defend volunteers who are named in civil suits related to their actions on behalf of a recreation council.

Fees

Some jurisdictions charge recreation councils for field usage. In Anne Arundel County, all recreation councils are charged for use of turf fields, but only “Level 3” councils that do not meet the core accreditation requirements are charged for use of non-turf fields.

In Carroll County, recreation councils do not pay fees for field usage but do pay for maintenance costs. The County does provide scheduled mowing services, but any additional mowing or maintenance is either done by volunteers or by contractors hired by the council. Carroll County also has a grant program in which the County will pay for 20 percent of a requested improvement, while the council is responsible for the other 80 percent.

Programming

Some counties do not rely on recreation councils for youth sports programming. For example, Howard County organizes sports leagues on its own.

328 https://www.aacounty.org/departments/recreation-parks/forms-and-publications/RecPark_Guidelines_Reference_Manual.pdf

Implementation Guidance

Informed by a comprehensive review of existing laws, policies, and practices governing the County's relationship with Recreation Councils:

- Baltimore County could explore a system by which the Board of Recreation would provide confirmation of Recreation Councils' certification status to Department of Recreation and Parks. Baltimore County could encourage and provide technical support as needed to the Board of Recreation to create an updated manual of all policies regarding rules, policies, and codes of conduct related to recreation councils including methods and criteria for accreditation. These may include submission of forms by the Councils that attest to their 501 (c)(3) status, specific types and amounts of insurance coverage, and compliance with the County's guidelines and policies—and potentially a tiered system for accreditation as in Anne Arundel County. The Board of Recreation manual should clearly outline the procedures for certification, recertification, and decertification.
- Baltimore County should continue its efforts, now underway, to revisit the current policy of hiring employees on behalf of the Recreation Councils. Instead, the County could offer technical assistance to the Councils, if needed, on appropriate use of contracted (1099) employees that allows them to avoid repeating previous instances of non-compliance with the IRS. In the interim, it could consider setting standardized pay scales for employees and requiring that a Council be current on its balance with the County before hiring employees on its behalf.
- Other forms of technical assistance the County could provide, on a voluntary, cooperative basis include creating standard forms for budget reporting, providing assistance with accounting services, and launching a website hub that links to the Councils and provides a portal for program registration. (Parks and Recreation would require additional staff and resources to provide this kind of assistance.) Councils should be encouraged to voluntarily post their budgets and/or their tax forms on the website, as well as their bylaws, in the interest of transparency.

3.1.8 RECREATION AND PARKS: BEST-IN-CLASS SPORTS FACILITIES

Baltimore County could plan for the development of new and improved high-quality sports recreation facilities by selecting one of three models that best suits the needs of County residents.

Findings

Given its central Mid-Atlantic location, its proximity to large metropolitan populations, and its accessibility via interstate highway, rail, air, and mass transit, a multi-field sports facility in Baltimore County could be highly attractive to sports leagues, tournament hosts, and other event organizers. It could add value to and enhance quality of life in surrounding communities while also contributing to the local economy by drawing new patrons to nearby hotels, restaurants, and other businesses.

While Baltimore County has regional parks and facilities that cater to surrounding communities, a larger-scale sports and tournament-oriented venue is lacking. The closest example to this type of facility or complex is the Reisterstown Regional Park and Sportsplex.³²⁹ As noted above, many believe that a such a sports and recreation-oriented development could serve multiple needs – providing additional recreational space for County residents, creating a tourism draw through the hosting of regional and national tournaments, generating hotel and restaurant development in the area to service tournament attendees, producing additional revenue, leveraging further economic development in the area, and perhaps even enticing further tourism experiences and dollars.

³²⁹ Specifically, Reisterstown Regional Park is an 80-acre property owned by the County and managed by the County's Recreation and Parks Department. The site includes a playground, baseball diamonds, and athletic fields available for public use. The Park is the site of the Reisterstown Sportsplex, which was developed by the Revenue Authority and includes an ice rink and indoor soccer field. The Park is adjacent to another 50-acre County-owned parcel, as well as the privately owned Mitchell's Golf Complex, a 40-acre driving range and nine-hole golf course.

Such facilities present trade-offs, however, between their use for broader purposes and the advancing of the community goal of allowing local access to these facilities: The more local access is provided, the less revenue a sports facility will generate, and vice versa. If local access is the County's priority, it may want to explore other methods of developing best-in-class sports facilities. If revenue generation is the priority, then a tourism-oriented facility may best suit the County's goals.

With respect to the goal of generating revenue through the hosting of sports tournaments, the County already hosts some tournaments at existing facilities. Recreation and Parks staff have surveyed existing facilities within the County to see if a scatter-site model could be used to attract tournaments.

A 2019 Baltimore County Strategic Tourism Report by Johnson Consulting notes that, "The youth sports industry is one of the fastest growing industries in the United States, and is now close to a \$15-billion industry... Most youth sports tourism destinations have dedicated complexes. In order to compete from a youth sports standpoint, there would need to be a large facility that can host tournaments every weekend, something that Baltimore County does not have."³³⁰

A tournament-ready facility would attract more tournaments than a scatter-site model. However, in the absence of such a facility, the County could continue to explore how existing sites could be a draw for tournament organizers. A new "Enterprise Division" within Recreation and Parks could be tasked with organizing sports tournaments at existing facilities. It is unlikely, however, that a sports event/tournament complex would meet the department's expectation for revenue generation, as there may not be any excess revenues associated with such a facility. The revenue-positive effects of a sports complex are largely derived from new spending at hotels, shops, and restaurants by tournament attendees, and these tax revenues go back to the General Fund. Other potential avenues for Recreation and Parks revenue generation are outlined in elsewhere in this report (see **Recreation and Parks Revenue Generation**).

If no sports and tournament complex is built, are there are other ways to meet County residents' recreational needs? There may, in fact, be other means of providing high-quality facilities to local groups, such as partnering with Baltimore County Public Schools to develop two lighted, turf rectangle fields at each high school. Or, the County could develop a multi-field facility using its own resources, with community access as the principal priority, as has been done in Loudoun County, VA.

The remainder of this discussion will explore the alternatives available to the County for developing best-in-class sports facilities:

1. **The tournament-oriented sports complex**, such as the Soccerplex in Germantown, DE Turf in Frederica, Delaware, Cedar Lane in Worcester County, and the under-construction Liberty Sports Park in Prince George's County, discussed in the prior recommendation.
2. **A community-use-oriented sports complex** to be developed using public funds, as in Loudoun County, Virginia – which has Philip A. Bolan Park, and is developing Hal and Burni Hanson park; and in Chesterfield County, Virginia.
3. **A schools-based system** with Fairfax County, Virginia as a model.

The state of Maryland supports the acquisition, development, and improvement of park land through Program Open Space, a grant program available to local governments. This program provides an opportunity for Baltimore County to have a significant portion of the cost of sports facility development covered by the state. According to the 2017 Baltimore County Land Preservation, Parks, and Recreation Plan: "Baltimore County has been allocated nearly \$130 million since the inception of local POS funding in 1970, an average of about \$3.25 million per year. The County's three largest annual allocations were received in fiscal years 2006 – 2008, when its net apportionments averaged approximately \$9.7 million per year." Localities may request Program Open Space funds to cover 100 percent of the cost of parkland acquisition and up to 75 percent of park development and rehabilitation projects.

330 Available at <https://resources.baltimorecountymd.gov/Documents/EconomicDevel/strategictourismreport.pdf>

Best Practices and Benchmarks

Model 1: A tournament-ready sports and tournament complex with a tourism and economic development focus

Of the examples of a tournament-ready complex the most relevant to Baltimore County, at least, in terms of financing, may be Liberty Sports Park in Bowie, Maryland, in Prince George's County. This is primarily because Liberty Sports Park was able to receive a \$5 million contribution from the State of Maryland and another \$300,000 from the charitable arm of the Washington Football Club.

Liberty Sports Park is currently under development (its opening may have been delayed by the COVID-19 pandemic). It will have ten lighted rectangle fields, four of which will be synthetic turf. Once completed, the park is expected to drive new tourist spending from families participating in tournaments, especially at the adjacent South Lake development, which will feature 700,000 square feet of retail commercial space and a couple of hotels just a short walk from the athletic fields.³³¹

The land will remain in public ownership and will be leased to Green Branch Management Group, a 501(c)3 non-profit organization formed in 2014 that will manage and operate the facility. Any excess revenue will go back to Green Branch Management for park operations, but Green Branch Management is also expected to provide services for residents at reduced rates, such as community service sports-oriented programs. Through the Green Branch Foundation, additional funds will be reinvested in the Prince George's County Community, according to the Liberty Sports Park website.

Green Branch Management will provide access for local sports organizations and leagues: "Liberty Sports Park will provide defined after school hours for students in Prince George's County Public Schools and youth programs organized by M-NCPPC. Additionally, Liberty Sports Park will be utilized for youth sports clubs with tournaments for evening and weekend activities, as well as youth and adult league sports."³³²

Liberty Sports Park is expected to host 20 tournaments a year. In the mid-Atlantic region, a sports field is generally available for use between March 1 and November 30, meaning there are about 40 weekends during this time. Therefore, approximately half of the weekends will be reserved for local use during the warmer months in which the facility will be open.

Another tournament-ready sports complex is DE Turf in Frederica, Kent County, Delaware. The project cost \$24 million and was financed by bonds from the Kent County Levy Court, the executive branch of Kent County government. DE Turf is owned and operated by the Kent County Regional Sports Complex Corporation, a 501(c)3 non-profit organization formed for this purpose. In 2019, it was reported that DE Turf had missed revenue projections, and that upcoming debt payments were a looming threat. "Prior to its launch, DE Turf predicted it would bring in \$1.4 million during the 2017 calendar year. Actual revenue that year turned out to be \$635,869, according to tax documents. DE Turf predicted \$2.2 million in revenue for 2018, however, it is reported that the figure was closer to \$1.3 million.³³³ Starting in 2019, DE Turf must use operating revenues to cover a \$827,982 debt payment. In 2020, the mandatory debt service swells to nearly \$1.1 million, and grows each year thereafter." If the Kent County Regional Sports Complex Corporation is not able to cover those costs, Kent County taxpayers will be compelled to do so.

Model 2: Developing a community-use-oriented sports complex using public funds

Philip A. Bolen Park in Loudoun County, Virginia, is 405-acre regional park with 17 lighted sports fields, including nine diamond fields and eight rectangle fields. It is 11 years old and is owned and operated by Loudoun County. The Park is also home to 200 acres of woods, meadows, and stream valleys and includes three and a half miles of nature trails. Funding for the park came from public sources, including general obligation bond proceeds, county "proffer" funds (money collected from developers in exchange for the right to build), and local tax funds.

331 <https://www.capitalgazette.com/maryland/bowie/ac-bb-liberty-sports-park-0824-story.html>

332 <https://libertysportspark.com/>

333 <https://www.delawareonline.com/story/news/politics/2019/10/31/de-turf-hotel-tax-bill-sponsor-paradee-asks-kent-county-delay-consideration/4110484002/>

According to staff at Loudoun County, the sports facilities are community-oriented and local access is prioritized. However, the park does host tournaments for out-of-town organizations, such as the 2021 US Specialty Sports Association (USSSA) Fastpitch Eastern "C" National Championship Tournament. Any revenue generated through tournaments goes back to the parks department. According to department staff, the facility "does not rely on tournament revenue," and, "if we run events at the sites, it's a bonus."

Loudoun County is developing another large park called Hal and Burni Hanson Park that will feature "17 lighted athletic fields, including two artificial turf fields and one cricket field; five ponds; the historic Lee-Hanson House; an event lodge and nature center; a skate plaza and disc golf course; a splash pad and playground with inclusive features and over 75 acres of passive recreational space," according to LoudounNow.com.

The Park will be operated by the Loudoun County Department of Parks, Recreation and Community Services. It is currently budgeted to cost \$74.3 million and will use proffer funds and bond proceeds. However, cost overruns have meant that the county has had to find additional funds to complete construction.

Notably, even when facilities are developed with a community focus, economic development considerations are likely to be present. While the initial vision at Philip A. Bolen Park was primarily community-oriented, it seems that this vision has expanded to include tourism and economic development. In 2019, a new 5,000-seat soccer stadium was opened on a previously undeveloped site within Philip A. Bolen Park. The stadium is home to Loudoun United FC, along with the Washington Spirit from the National Women's Soccer League, and Old Glory Rugby DC, the area's Major league Rugby club. According to local news website LoudounNow.com, "The facility will include a 40,000-square-foot training center in a 30-acre complex, including four full-size outdoor practice fields, and a training center equipped with a weight room and recovery facilities for the club's performance and medical staff."³³⁴

The stadium is funded through bonds issued by Loudoun County. The Loudoun United FC will pay rent back to the County in order to cover the cost of construction, over 30 years. However, due to COVID-19, Loudoun United was unable to pay the rent due in 2020, and the county agreed to defer the \$600,000 payment over the next six years, at eight percent interest. According to the

Loudoun County Department of Economic Development, "After the stadium opens, Loudoun United will call the stadium home for 15 home games each season. That's 15 times each year that fans, officials and opposing teams will utilize Loudoun's hotels, restaurants and retail."³³⁵

The development of the soccer stadium is an example of how the vision and mission of a park facility may be shifted over the years, as the pressure for the site to generate revenue grows and economic development is prioritized.

Other counties, such as Chesterfield County, Virginia, have employed this model as well.

Model 3: A schools-based model

Fairfax County, Virginia, has established an "athletic field program" in which two lighted, synthetic turf rectangle fields are developed at each high school, including one "stadium" field and a practice field. The athletic fields are jointly developed by Fairfax County Schools and the Fairfax County Park Authority, which functions as the county's parks department.

Funding for the development, maintenance, and replacement of these fields comes from multiple sources, including many small donations. According to a Fairfax County report from 2013, "Community sports organizations and individual school booster clubs funded almost one-half of the cost of high school synthetic turf fields, with many taking on debt to contribute." In addition, an Athletic Services Fee of between \$5.50 and \$8.00 per registrant is placed on community sports organizations, and this money is dedicated to the athletic field program. The county's FY2022 budget includes \$1.4 million in athletic service fee revenue. Fairfax County also uses proffer funds and ongoing general fund contributions. The FY2022 budget includes a general fund contribution of \$6.7 million for the program.

³³⁴ <https://loudounnow.com/2021/01/28/d-c-united-breaks-ground-on-leesburg-training-center/>

³³⁵ <https://biz.loudoun.gov/2019/06/24/loudoun-united-stadium-update/>

The athletic field program also supports diamond field maintenance. The FY2022 budget includes \$1 million for diamond maintenance, “[t]o supplement the level of maintenance by [the Fairfax County Park Authority] on athletic fields at [Fairfax County Public Schools] sites, by providing a consistent mowing frequency schedule for high school diamond fields, as well as diamond field infield preparation twice a week for elementary, middle, and high school fields.”

Implementation Guidance

Baltimore County should consider the advantages and disadvantages or risks of each of the above models with respect to its goals for a potential new sports complex. These are summarized in table form below.

MODELS FOR LOCAL SPORTS FACILITY DEVELOPMENT

	Tourism and economic development	Financial risk	Community access	Revenue for R&P
Tournament-ready model	Most likely to drive tourism	High, unless money received from state or other sources	Less priority on community access, though careful negotiation with third-party operator may provide community benefits	Revenue is used to pay back bonds or goes to third-party operator, new tax revenue goes to general fund
Community-oriented model	Can host tournaments when not in community use	Medium. Cost overruns possible and are covered by the County	High priority on community access, though tournaments restrict local use	Tournament revenue goes back to parks department, but unlikely to be excess revenue. Some new tax revenue possible.
Schools-based model	No	Low	High priority, but some tension between schools and parks	No

First, if Baltimore County wishes to develop a tourism-oriented facility, either in Reisterstown or elsewhere, it should determine whether the State of Maryland would provide support at similar level as provided for Liberty State Park, and/or pursue other philanthropic funding sources.

If significant state funding is not available, the County could look to the Revenue Authority to issue bonds for the construction of a facility, similar to Kent County Court’s provision of bond revenue to fund the DE Turf facility. However, the County will need to consider the balancing of bond-service requirements with the provision of community benefit, and how this will be determined: The more the facility is rented out for revenue-generating tournaments, the less it will be available for less- or not-profitable use by the local community. This trade-off will need to be determined in advance of any commitments made to bondholders. County leadership will have to negotiate guidelines for community access to the facilities, including the amount of time reserved for community access and any rental fees to be paid by local organizations, as well as any community programs to be offered by the facility at no charge to the County. This may not result in adequately addressing the recreational needs of the County’s own residents – which is why two alternative models are also proposed for consideration.

At the same time, the County could consider using capital funds, Program Open Space grants, and other dedicated taxes to develop community-oriented athletic fields, similar to Loudoun County, Virginia. If so, the facility could be used as the site for revenue generating tournaments when not designated for community use. Baltimore County currently has approximately \$71 million in its capital improvement budget over the next six years, part of which could be dedicated to developing such a facility. Otherwise, the next six-year capital improvement plan could include the development of one or more facilities.

Finally, the County should reexamine the existing plan for athletic fields at Baltimore County Public Schools. Like Fairfax County, Virginia, Baltimore County Government also has a joint use agreement with Baltimore County Public Schools (BCPS), through which community groups have access to school-based athletic fields.

Baltimore County was among the first in the nation to establish such a dual use agreement between BCPS and the Department of Recreation and Parks relating to community use of school facilities for athletics and recreation. According to the County's website:

In 1952, Baltimore County pioneered the concept of the dual use school-recreation center. For close to 60 years this approach has proven to be both effective and economical in providing the citizens of Baltimore County with an exemplary system of facilities for both education and recreation. The Department of Recreation and Parks contributes to the acquisition and development of school-recreation center sites and shares in the maintenance and repair of the facilities. Through this cooperative effort, the citizens of Baltimore County benefit by minimizing the tax contribution and maximizing the service delivery system."

The joint use agreement was last updated in 2003 and would need substantial modification to realize some of the goals outlined above.

The County could also consider pursuing a strategy similar to that of Fairfax County by announcing a goal to build two lighted turf rectangle fields at each high school. The County could implement an athletic facilities fee on the Recreation Councils, a cost that would be passed on to program registrants. This should be in addition to any contributions currently made by Baltimore County Public Schools to develop athletic fields. Also, a County-affiliated non-profit organization could potentially fundraise for the athletic field program by making a grant to the County (see also in this report **Reimagining Economic and Workforce Development**).

The County could then use state Program Open Space funds for the remainder of the money necessary to develop the athletic fields. The athletic facilities fee should be set at a level that will allow the continual replacement of turf fields every eight to ten years.

3.2 Community Outreach and Civic Engagement

Baltimore County already has a relatively robust culture of stakeholder engagement and public outreach in its planning activities, which include the Comprehensive Zoning Map Process (CZMP), the decennial Master Plan process, community planning initiatives, and development review process. However, there is not currently a comprehensive citizen planning program at the county level that facilitates meaningful engagement by interested community members to engage in each step of the planning process, from goal setting through recommendations and implementation.

Customer feedback and data collection are widely used in the private sector to improve the production and delivery of high-quality products and services. Successful companies listen to their consumers; data collection is used to understand and interact with the consumer, as well as to personalize services to consumer needs. While some Baltimore County agencies are collecting data and some citizen feedback, there is no countywide mechanism for collecting and using citizen feedback. Collecting data and feedback in Baltimore County has the potential to improve government practices and services by putting people at the center of policy and responding to county residents' needs by acting on user input. Baltimore County could adopt a Real-Time Government System that collects citizen feedback for each department. This system will give citizens the ability to evaluate County services and enable the County to become even more responsive to their needs. A Citizens Planning Institute – a community education program designed to increase residents' understanding of local government planning, policy, zoning, and development decision-making and processes – also could provide a useful vehicle for ongoing community participation and support.

To meet the target set by the Voluntary Conciliation Agreement to create 1,000 units of new affordable housing units, as well as meet the County's future housing needs, we recommend that the County work collaboratively with local communities and their local council member to develop plans for the siting of new affordable housing developments that will be approved during the development review process, and therefore the County will be better positioned to meet the requirements of the VCA and avoid federal conservatorship. The County has recognized the need to develop financing programs for affordable housing development; Baltimore County could establish a new housing development fund as a mechanism for issuing bonds specifically for affordable housing development finance; any new housing finance programs should be designed to work in tandem with Low Income Housing Tax Credits. In addition, while, up to this point, the County has relied on developers to approach the Planning Department with development proposals for affordable housing, it will have to take a more proactive approach toward identifying sites suitable for affordable housing development and should solicit developer proposals for their development.

The Planning Department should identify appropriate external stakeholders and County agencies to participate in the planning process within each community. A bottom-up approach to community planning can be useful in that it directs County resources to areas that most desire the time and attention of County Planning staff. During the COVID-19 pandemic, the Department of Planning invested in the tools and technology needed to shift these public meetings to a virtual format. Some of the boards and commissions are effective in conducting virtual meetings, and could shift some meetings to fully virtual, while for others providing an option to attend either in-person or virtually (hybrid) to accommodate different preferences. The Department of Planning in particular should leverage recent pandemic-related investments in remote meeting technology to optimize and expand the practice of virtual public meetings, even as COVID-19 public gathering restrictions are lifted. A user-friendly web interface that promotes the planning process and highlights adopted plans in a way that is accessible to residents, developers, and County employees also is crucial to creating a set of plans that is easy for all to reference and use.

Speaking of websites, the County website currently is difficult to navigate and can be challenging to locate specific information, such as who to contact about any kind of issue. The County is currently collecting information about potential improvements to the website on the site itself, through a survey. We suggest specific changes to the Bureau of Engineering's web page, as one example, in addition to the currently ongoing alterations.

The Department of Aging also should enhance virtual programs and services and adopt technology-driven platforms for effective and innovative programming. Area Agencies on Aging throughout the country are embracing virtual and remote programming to reach current and new populations with services that strengthen the quality of lives among older persons. Many had offered a modest number of such programs, but it wasn't until the pandemic that agencies were forced to make a dramatic pivot towards embracing virtual interaction and platforms.

Finally, the County could expand efforts to recruit Minority- and Women-Owned Business Enterprises as County contractors and subcontractors, to ensure their utilization by other general/prime contractors, to improve tracking of compliance with MBE and WBE contracting requirements and commitments, and to provide the staffing necessary to support these efforts.

3.2.1 CITIZEN FEEDBACK SYSTEM

Baltimore County could adopt a Real-Time Government System that collects citizen feedback for each department. This system will give citizens the ability to evaluate County services and enable the County to become even more responsive to their needs.

Findings

Baltimore County departments collect and analyze citizen feedback to varying extents.

The Department of Permits, Approvals, and Inspections, for instance, has a survey on its website, but the department does not refer citizens to it, and county employees did not mention it as a strategy for receiving feedback.³³⁶

The Baltimore County Fire³³⁷ and Police³³⁸ Departments both have Compliments and Complaints forms on the County website to collect feedback.

Currently, the Fire Department maintains collected data on a spreadsheet. The Assistant Fire Chief uses the data to teach a customer service/leadership lecture for Officer Candidates. The department is currently working on ways to review the data through the chain of command to increase quality assurance.

The Baltimore County Police Department collects feedback and publishes it on the Baltimore County Statistics (BCSTAT)³³⁹ dashboard to increase transparency between the department and county residents.

The most extensive collection of customer feedback is in the Department of Health (DOH). The DOH started collecting data in 2006. In 2012, the DOH created the Office of Quality Improvement to track audit trends, hiring, grant spending, volumes of service, managing results, vacancy rates, viral loads, and more. The Director of Health and Human Services (DHHS), Dr. Gregory Branch, was interested in tracking incidents across the agency to mitigate barriers and improve customer satisfaction. In approximately 2015, the Office of Quality Improvement created a Performance Quality Improvement Plan to build consensus around how best to implement quality improvement processes. Both DOH and the Department of Social Services (DSS) have Performance Quality Improvement councils that “serve as a roundtable for organizational quality initiatives and to foster conversations about the integration and maintenance of a culture of quality.”³⁴⁰ In the last year, the DOH and DSS created a customer service survey³⁴¹ that is available on each respective county website. This is a new initiative: Both agencies are still in the process of determining how they will use the data.

The Office of Quality Improvement is limited in the types of data analyses it can perform because it uses only Excel software. Acquiring software comparable to that of BCSTAT would increase efficiency and produce more important data analyses for the departments.

BCSTAT is a data resource that seeks to “create accountability, improve performance, ensure data quality and increase transparency across Baltimore County.” It does not currently review and analyze citizen feedback.

336 <https://www.baltimorecountymd.gov/departments/permits/paisurvey.html>

337 <https://www.baltimorecountymd.gov/departments/fire/compliments-complaints-form>

338 <https://www.baltimorecountymd.gov/departments/police/complimentscomplaintsform.html>

339 <https://bcstat-bc-gis.hub.arcgis.com>

340 <https://resources.baltimorecountymd.gov/Documents/Health/qualimprovementplan.pdf>

341 <https://www.surveymonkey.com/r/2020HealthCustomerSatisfactionSurvey>

Customer feedback and data collection are widely used in the private sector to improve the production and delivery of high-quality products and services. Successful companies “listen to their consumers by modifying existing products and launching new ones” to increase revenue, profit, and customer satisfaction.³⁴² Data collection is used to understand and interact with the consumer, as well as to personalize services to consumer needs.³⁴³

While some Baltimore County agencies are collecting data and some citizen feedback, there is no countywide mechanism for collecting and using citizen feedback. Collecting data and feedback in Baltimore County has the potential to improve government practices and services by putting people at the center of policy and responding to county residents’ needs by acting on user input.

The main Baltimore County departments/offices that interact with the public are:

- Planning
- Police, Fire and Corrections
- Permits, Approvals and Inspections
- Department of Health and Human Services
- Department of Social Services
- Department of Aging
- Baltimore County Public Library
- Recreation and Parks
- Department of Housing and Community Development
- Department of Public Works and Transportation
- Department of Environmental Protection and Sustainability

Benefit to the County

Giving residents the ability to evaluate the service they received helps them to feel that their voices are heard, and that the various relevant departments value their input. Having government departments/offices use residents’ feedback “to measure service levels, gauge user satisfaction, diagnose problems” and modify policies and services accordingly increases the government’s value and stature.³⁴⁴ A government responsive to feedback puts residents’ needs at the center of decision-making.

A 2018 study³⁴⁵ conducted by global management consulting firm McKinsey and Company found that improving customer experience drives critical outcomes for government agencies worldwide, and that long-term organizational success is driven equally by organizational health and customer experience. The study found that satisfied customers are:

- Nine times more likely to trust the agency providing the service; and
- Nine times more likely to agree an agency is delivering on its mission

On the other hand, dissatisfied customers are:

- Twice as likely to reach out for help three or more times; and
- Twice as likely to express their dissatisfaction publicly.

342 https://www.researchgate.net/publication/305553441_How_Feedback_Loops_Can_Improve_Aid_and_Governance

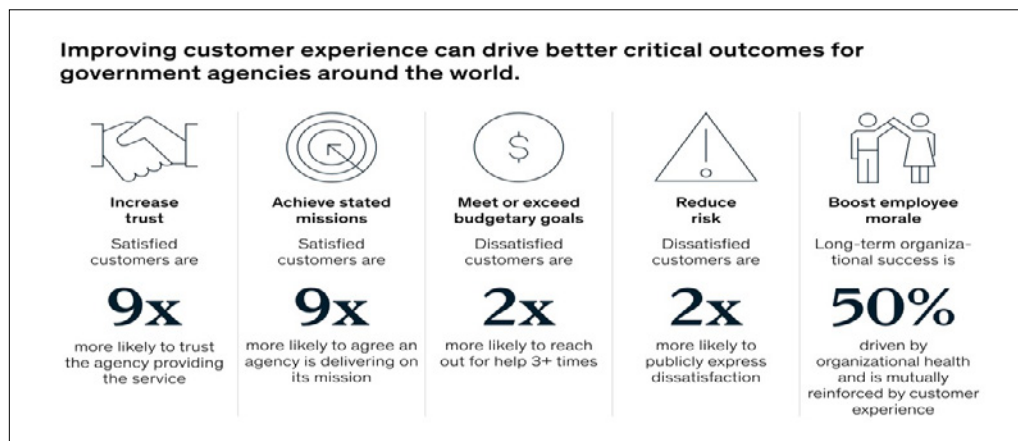
343 <https://insights.truyo.com/consumer-data>

344 <https://www.cgdev.org/publication/towards-real-time-governance-using-digital-feedback-improve-service-voice>

345 <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/the-global-case-for-customer-experience-in-government>

Best Practices and Benchmarking

In 2018 McKinsey conducted a customer-experience benchmarking survey of 20,000 people across 140 government agencies in seven countries.³⁴⁶ The study found that “better customer experience can help every agency – be it national parks or tax—have quantifiable impact on the outcomes that matter, including achieving the mission, managing to budget, mitigating risk, improving employee morale, and (most important) strengthening public trust.”³⁴⁷



Source: “The Global Case for Customer Experience in Government,” McKinsey and Company Article, Sept. 10, 2019.

The following are examples of government agencies that used customer feedback data to determine areas to improve trust and efficiency:³⁴⁸

- An effort by the US Department of Veteran Affairs to improve veteran’s experience with the agency increased agency trust from 47% to 70% from 2015 to 2018.
- A study of US tax agency customer satisfaction showed that increasing transparency about length of time for refund distribution resulted in happier customers and decreased complaint calls.
- In Dubai, the government “launched DubaiNow, a unified government-services smart app offering access to more than 50 government services from 24 entities, streamlining and digitizing the application process for several services.”³⁴⁹ This initiative not only increased data collection capabilities for the government but also made it significantly easier for citizens to provide feedback about government services. Furthermore, the program’s artificial intelligence advisor provides real-time answers to customer questions and allows agencies to update information regularly.

Towards Real-Time Governance: Using Digital Feedback to Improve Service, Voice, and Accountability, a paper published by the Center for Global Development, describes how the Indian state of Andhra Pradesh collects real-time data to increase efficiency and reduce exclusion.³⁵⁰ The data is collected in a central hub that “analyzes the data and provides dashboards for monitoring implementation.”³⁵¹ At the state level, the data hub collects information on grievances and tracks their resolution within a specified timeframe, “normally expected to be 24 hours, thereby fixing accountability and requiring a rapid response from the administration.”³⁵² Further, the data is scored on a happiness index, which is reported to government officials as a method for transparency and accountability. As the report summarizes its findings:

346 <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/the-global-case-for-customer-experience-in-government>

347 <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/the-global-case-for-customer-experience-in-government>

348 <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/the-global-case-for-customer-experience-in-government>

349 <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/the-global-case-for-customer-experience-in-government>

350 <https://www.cgdev.org/publication/towards-real-time-governance-using-digital-feedback-improve-service-voice#fn10>

351 <https://www.cgdev.org/publication/towards-real-time-governance-using-digital-feedback-improve-service-voice#fn10>

352 <https://www.cgdev.org/publication/towards-real-time-governance-using-digital-feedback-improve-service-voice#fn10>

Towards real-time governance APs digital delivery system generates a huge volume of administrative data, much of it in real-time. With digital authentication at each point of service, it is possible to track service delivery in every district, panchayat and village, and at each service facility. These data can provide rapid feedback on service delivery, including to pinpoint cases of failed transactions and require corrective action in real time.

A second feedback loop comes through surveys of customer satisfaction. In addition to the possibility of calling a hotline, beneficiaries receive a robocall after a service asking for feedback. Negative responses roll over into an operator, one of 2000 in a call center. Complaints are routed automatically to the local government responsible for the facility concerned; standard resolution time is 24 hours. Based on indicators of service delivery and resolution of complaints, districts, villages and programs are rated on service satisfaction indices, referred to colloquially as the “Happiness Index.” These are a management tool for state and local governments.

The study did not independently verify how completely this system is applied to ensure performance standards, but it appears to have a considerable effect. Officials are very conscious of the scores of their jurisdictions and focus group meetings indicate that beneficiaries see it as having an important role, including to contain corruption. Relative to other states, AP appears to be well ahead in the integration of digital feedback into delivery systems.

Such a system sounds highly compatible and integrable with the existing BCSTAT approach.

Implementation Guidance

1. Determine which departments will be involved, and in what capacities or activities citizen interaction occurs and opportunities arise to collect citizen feedback.
2. Determine data collection methods, i.e., text message, phone call, email, etc.
 - a. Baltimore County could create and advertise a centralized location on the County website for citizens to provide feedback on any department.
 - b. In Andhra Pradesh, for example, residents can call a hotline to provide feedback. In addition, all welfare agencies – for Baltimore County purposes, this should be expanded to include all departments with outward-facing citizen contact – are required to be a part of a survey system, which sends out a monthly robocall “soliciting views about the quality of the service.”³⁵³ As mentioned above, when complaints are reported, the call is rolled over to an operator, housed in the call center, to deal with the complaint immediately. “Once logged, complaints are forwarded to the relevant district offices and further down the line for action. The standard time for their resolution is 24 hours.”³⁵⁴
 - c. All customer input, and any agency response, all needs to be reported centrally. In Andhra Pradesh, service programs are rated on service satisfaction indexes, which are updated every three hours. “Together with dashboards monitoring complaints resolution and other indicators, they are brought together on the screens at the Real-Time Government System center for scrutiny. They are not made public, but they act as a management tool for state and local governments.”³⁵⁵ This system is not only incredible in the speed in which it responds to complaints, but also by holding government accountable. There are consequences for consistently negative ratings, such as suspensions and license cancelations.

353 <https://www.cgdev.org/sites/default/files/digital-governance-krishna-glimpse-future-working-paper.pdf>

354 <https://www.cgdev.org/sites/default/files/digital-governance-krishna-glimpse-future-working-paper.pdf>

355 <https://www.cgdev.org/sites/default/files/digital-governance-krishna-glimpse-future-working-paper.pdf>

- d. These practices can be implemented in Baltimore County to varying degrees. For example, a system can be established that sends residents a text message or gives residents a phone call after every interaction with County government. Or, after an inspector leaves a resident's home, a text message can be sent to the resident to collect feedback on how the inspection, and the interaction with the inspector, went. Similarly, after a medical appointment a patient could receive a text message asking how their appointment was. Similar to Andhra Pradesh, the real-time feedback should be directed to the relevant department head, and the central, in this case County government. The County could consider contracting with a provider of Experience Management Systems, such as Qualtrics³⁵⁶ or Dude Solutions.³⁵⁷
 - e. The County will need to select a feedback collection strategy best suited to yield high-response rates. This will be partially determined by the type of agency and the demographic of the group being served. For example, in-person interactions with populations less likely to communicate by computer or smart phone may require development of a self-mailer paper survey to be left with the customer. Attention may need to be given to multiple languages in all such communication media.
3. Develop a set of questions for each identified customer interaction in participating departments.
 4. Assign an individual from each participating department to be responsible for the data collected, and to flag issues that arise.
 5. Assign an individual in the County Executive's office who will be responsible for connecting with department designees.
 6. Determine how best to integrate these data streams with BCSTAT's data collection, reporting, analysis, and feedback systems.

3.2.2 CITIZENS PLANNING INSTITUTE

Create a Citizens Planning Institute to engage community members in the planning process and develop a strong cohort of well-informed supporters of Planning Department initiatives.

Findings

Implementation of the Department of Planning's initiatives often requires the participation and support of other Baltimore County departments, agencies, and community partners. Department staff report that it can be challenging to garner the necessary buy-in from other organizations to achieve goals such as the implementation of the County's Master Plan and community planning initiatives.

Citizens Planning Institutes (or academies) are community education programs designed to increase residents' understanding of local government planning, policy, zoning, and development decision-making and processes. Where they exist, these seminars are typically organized by the local planning department and held annually with the participation of rising cohorts of "citizen planners."

Public engagement and participation may present an untapped resource for the Department of Planning in garnering support for and advancing its top priorities. Baltimore County already has a relatively robust culture of stakeholder engagement and public outreach in its planning activities, which include the Comprehensive Zoning Map Process (CZMP), the decennial Master Plan process, community planning initiatives, and development review process. However, there is not currently a comprehensive citizen planning program at the county level that facilitates meaningful engagement by interested community members to engage in each step of the planning process, from goal setting through recommendations and implementation. A Citizens Planning Institute could provide a useful vehicle for this type of ongoing community participation and support.

³⁵⁶ <https://www.qualtrics.com/government/>

³⁵⁷ <https://www.dudesolutions.com/government-suite>

Benefit to the County

A Citizens Planning Institute could build a cohort of citizen and stakeholder planning advocates within Baltimore (or “citizen planners”) who understand the planning process and who can serve as the Department’s ambassadors in their respective communities. Institute “graduates” can use their detailed knowledge of the planning process to mobilize advocacy efforts focused on the elected officials, government staff, and community groups whose support is necessary to implement Department plans. They also can work within their communities to inform their neighbors about the recommendations in a local plan and encourage the steps needed for implementation. Through such a program, the Planning Department will extend its reach and ability to effectively implement thoughtful planning strategies within communities throughout Baltimore County.

A Citizen Planning Institute also will provide a means for Baltimore County to address the need for greater equity and inclusion in its planning efforts. As demonstrated in the best practices referenced below, proactively identifying and recruiting participants from diverse backgrounds is central to development of strong, effective cohorts of citizen planners. Through this system, the Department can become more engaged with the full scope of its constituents’ perspectives and needs while recruiting and training a representative group of advocates for the planning process from across Baltimore County’s diverse communities.

Best Practices and Benchmarks

A growing number of counties and large cities across the United States engage in this model of citizen planning education and engagement. They include the City of Baltimore, the City of Philadelphia, the City of Sacramento (California), Hanover County (Virginia), Wake Forest County (North Carolina), Santa Barbara County (California), among others. The following represent some key best practices:

- **Philadelphia:** The Citizen Planning Institute was established by the Philadelphia City Planning Commission (PCPC) in 2010 with a pilot course, supported by funding from the William Penn Foundation. Today, the program is now administered through the PCPC and is taught by a variety of planning and local government experts from a variety of City departments. The program now runs an eight-week course twice a year, in spring and fall.³⁵⁸

Philadelphia accepts 30 participants per session. In selecting participants, the program emphasizes diversity in geography, race/ethnicity, educational attainment, and experience, to make sure the program is accessible, equitable, and beneficial to all communities. Participation requires an application and a small fee (\$50 per class) to cover some costs and meals during the sessions. Scholarships are available for those unable to afford tuition. Participants must complete a final project to earn the Certificate of Completion as a Philadelphia Citizen Planner, which they receive at a public ceremony.

Key metrics for program success include the number of participants who complete the course and the diversity of neighborhoods represented in each session.³⁵⁹ The program also stays connected to individual participants. One of their success stories features a graduate who established a new community organization in an underserved neighborhood. He used the knowledge he gained in community engagement and his new understanding of the city’s resources to coordinate workforce development opportunities, which was a goal of the city’s plan for the neighborhood.³⁶⁰

- **City of Baltimore (Maryland):** The Citizens Planning Academy is similar to the Philadelphia Citizen Planning Institute model, described above, with a distinct focus on representation among communities impacted by historical disinvestment in urban neighborhoods.³⁶¹
- **Hanover County (Virginia):** To engage Hanover County residents, businesses and community leaders in the County’s planning process, the Hanover County Planning Department developed a five-class course to provide participants with a background in the fundamentals of county planning. The course covers a broad spectrum of planning and development-related topics and issues.

358 <https://planningpa.org/wp-content/uploads/A1.-Citizens-Planning-Institute.pdf> and <https://citizensplanninginstitute.org/about>

359 <https://citizensplanninginstitute.org/about>

360 <https://citizensplanninginstitute.org/citizen-planners-in-action/kyle-shenandoah>

361 <https://www.baltimoreplanningacademy.com/about/>

- **Wake Forest (North Carolina):** The city’s Citizen Planning Academy was initially designed to train residents who hoped to serve on the Planning Board. It has since expanded its mission to provide education to any resident who wants to learn about Wake Forest’s planning processes and practices. The training sessions emphasize public hearings procedures, legislative and quasi-judicial decisions, the Unified Development Ordinance (UDO), Transportation Planning, Historic Preservation, and Architectural Review.

Implementation Guidance

In other counties and cities, the primary cost for founding and running Citizen Planning Institute is providing salary and benefits for a single FTE staff person, who is responsible for developing curriculum, identifying, and capturing external funding, recruiting participants, engaging volunteers, and presenting the course. The average salary for a Citizen Planning Institute director is about \$80,000-\$90,000.³⁶²

A first step in establishing a Citizen Planning Institute in Baltimore County would be to identify a major funding partner and supporting organizations, to avoid incurring additional costs to the County. Philadelphia offers a successful model: The pilot course was developed in 2010 with support from the William Penn Foundation, a local pilot grant-making organization. Since then, the program has attracted funding from the federal government, as well as local philanthropic groups.

Potential sources of funding or other support for a Baltimore County Citizen Planning Institute include:

- Potential partnership opportunities with Baltimore City’s Citizen Planning Academy to identify potential partnership opportunities. Although the focus of these programs should be community-specific, there will likely be some curriculum overlap related to general planning and development concepts that could be presented collaboratively.
- Local foundation support to develop a pilot program. Potential funding partners might include the Baltimore Community Foundation or the Abell Foundation.
- Collaborate with the local Metropolitan Planning Organization, the Baltimore Metropolitan Council, both for direct support and for access to grants not available to government entities. Other organizations such as the Urban Land Institute (Baltimore chapter), Smart Growth Maryland, and the American Planning Association (Maryland) could offer resources or volunteers to support this initiative.
- Colleges and universities that offer planning and urban studies programs are natural partners in this endeavor. Potential partners could include Towson University’s Department of Geography & Environmental Planning, the University of Maryland, Baltimore County School of Public Policy, and Johns Hopkins University’s Social Innovation Lab.

The institute’s actual curriculum and “coursework” are typically developed by the staff member who administers the program, with classroom teaching support from staff planners and other government professionals. Example course topics include:

- Planning in the Community – The Big Picture
- Land Use and Zoning 101
- The Development Process

Some programs offer elective courses such as:

- | | |
|-----------------------------------|--------------------------------|
| • Commercial Corridor Development | • Sustainability |
| • TODs and Transit | • How to Run a Public Meeting |
| • Health and Resilience | • Preservation and Placemaking |

³⁶² The position is typically a mid-career professional with a background in planning, public policy, or adult learning. Salary range \$80-90k.

3.2.3 SMALL AREA COMMUNITY PLANS

The Department of Planning should develop and implement a systematic approach to completing small area community plans countywide as a follow up to the 2030 Master Plan process.

Findings

Currently, Baltimore County's community plans are initiated by County Council resolutions. The initiation of a community plan comes from representatives within a community approaching Council with a desire to complete a community plan or update an existing plan. As a result, many community plans that have been adopted are significantly older than the existing (2020) Master Plan.³⁶³

This bottom-up approach to community planning can be useful in that it directs County resources to areas that most desire the time and attention of County Planning staff. However, the current approach may also result in uneven planning, and does not ensure that all Baltimore County's communities are receiving the planning support needed to best support their long-term growth and development. There are also potentially problematic equity issues with the current approach, as communities with more resources to self-organize and self-advocate may have more success in accessing Planning's resources while neighborhoods with fewer resources and a possibly greater need for planning attention might receive less.

As the Department of Planning pursues its 2030 Master Plan process, the timing would be ideal to establish a systematic approach to completing community plans for all areas within the County over the course of the next five-to-eight years to complete the planning process.

Benefit to the County

Because the Master Plan is providing higher level countywide strategies, the recommendations may not be tangible enough for a community to implement at a local level. Systematic development of small area community plans (in concert with the County's Master Plan) would allow the Department of Planning to identify more specific place-based strategies to support the future land use and development trajectory of Baltimore County's communities. More specific recommendations could include topics in the areas of historic preservation, housing, employment, commercial districts, urban design, circulation and transportation, adequate public facilities, and open space/preservation.

A key advantage of completing small areas plans as a follow up to the 2030 Master Plan process would be to build on the momentum of that planning process, advancing goals and strategies that were recommended at a community-specific level. The process would be an opportunity to further engage Baltimore County partner departments, such as Housing, Economic Development, and Public Works, in identifying opportunities, issues, and strategies that guide County investment decisions.

Small area community plans can help to fine-tune and align land use planning with economic development strategies, providing a valuable roadmap for securing additional state, federal, and private funding to implement those specific strategies. They are also useful for targeting areas of focus for the County, such as such as vacant commercial areas, corridors, and other priorities of the County's strategic plan.

363 <https://resources.baltimorecountymd.gov/Documents/Planning/maps/commplansmap22x342014.pdf>

Best Practices and Benchmarks

Some best practice examples from other jurisdictions are briefly described below:

- **Anne Arundel County (Maryland):** To reflect the diverse planning needs across large, county-scale geographical planning areas, Anne Arundel County has divided the entire county into 16 planning areas, with each planning area establishing an advisory committee consisting of community representatives.³⁶⁴³⁶⁵ Dividing the county into planning districts creates clear decision-making units for planning processes that account for everyone. Each Small Area Plan was followed by comprehensive zoning legislation to rezone properties according to the adopted Land Use Plan.
- **Philadelphia (Pennsylvania):** Phase 1 of the *Philadelphia 2035* plan was a citywide vision that established broad planning goals for the city (county) in 2011. The second phase of the plan consisted of the completion of 18 District Plans that provided more specific physical improvements and changes.³⁶⁶ The District Plans serve as guides for developers and builders to understand the City's development priorities, for residents and business owners who want to support community development, and for public employees and administrators to target public investment and identify where to seek state and federal funds for public improvements. The City's planning staff hosted three public meetings for each district plan, completing the process in four cycles of one-and-a-half years.

Implementation Guidance

The Department of Planning is currently beginning its 2030 Master Plan process. Developing a follow-up community planning process and schedule that engages all areas of Baltimore County would be the next step for timely implementation.

To successfully advance this recommendation, the Department will need to identify appropriate external stakeholders and County agencies to participate in the planning process within each community. A user-friendly web interface that promotes the planning process and highlights adopted plans in a way that is accessible to residents, developers, and County employees is crucial to creating a set of plans that is easy for all to reference and use.

Implementation of this recommendation will require additional staff resources to be focused on community planning on a regular basis. There are significant time savings that could be leveraged from decreasing the frequency of the Comprehensive Zoning Map Process (CZMP), as recommended elsewhere in this report. If that recommendation is adopted, the implementation of countywide small area community planning as recommended here could likely be accomplished with existing staff resources.

364 Anne Arundel County, MD Department of Planning and Zoning (2021) *Small Area Planning*.

<https://www.aacounty.org/departments/planning-and-zoning/long-range-planning/small-area-planning/>

365 <https://www.aacounty.org/departments/planning-and-zoning/long-range-planning/small-area-planning/forms-and-publications/GISSAP.pdf>

366 Philadelphia City Planning Commission (PCPC) (2021) *Philadelphia 2035: The vision for Philadelphia's Growth and Development*. <https://www.phila2035.org/>

3.2.4 VIRTUAL PUBLIC MEETINGS

The Department of Planning should leverage recent pandemic-related investments in remote meeting technology to optimize and expand the practice of virtual public meetings, even as COVID-19 public gathering restrictions are lifted.

Findings

The Planning Board holds public meetings on the first and third Thursday of each month, excluding August and December, for 20 meetings per year. The meetings are scheduled from 4 p.m. to 6 p.m. in the Jefferson Building, a County Office Building at 105 West Chesapeake Avenue, Towson.

Historically, these meetings have been attended in-person by board members, staff, and members of the public. Members of the public appearing before the Planning Board may present maps, building plans, and other materials, either in a digital format such as PowerPoint, as rendered site plans (which must be mounted), or as GIS aerial images (which must be mounted or easily visible using an overhead projector). Presenters must arrive at the meeting site at least 30 minutes in advance of the meeting to set up their presentations.³⁶⁷ For staff, meeting preparation can include time spent preparing printed handouts and exhibits, traveling to the site, and setting up the room.

During the COVID-19 pandemic, the Department of Planning invested in the tools and technology needed to shift these public meetings to a virtual format. According to interviews with Department staff, some types of meetings are more or less conducive to virtual formats than others. For example, some of the boards and commissions are effective in conducting virtual meetings, and could shift some meetings to fully virtual, while for others providing an option to attend either in-person or virtually (hybrid) to accommodate different preferences. Other meetings, such as charettes and community meetings, are generally understood to be more effective when conducted in-person so that the community is fully engaged; these meetings may continue to be held predominantly in-person.

Now that restrictions on public gatherings are beginning to loosen, the County has the opportunity to continue offering virtual meeting formats that provide broader accessibility to the public while reducing some of the staff time spent on these frequent meetings. The Department may wish to complete an audit of all of its public meetings to evaluate when virtual meetings may be more appropriate and when virtual engagement tools may be more useful in lieu of in-person public engagement opportunities.

Benefit to the County

Baltimore County could benefit from reallocating staff resources to other activities with the time savings anticipated from moving to a blended approach (some virtual and some in person) to community meetings in the future.

The following time savings calculations are based specifically on public meetings for staff time associated with Planning Board meetings (excluding preparation, but including setup and take-down) as an example. These estimates result in approximately five hours per staff member per session, based on information provided by Department of Planning staff. With 15 staff members and one director attending meetings associated with the Comprehensive Zoning Map Process, this amounts to 1,600 hours annually (1,500 planning staff hours and 100 director hours).

367 "Planning Board," Baltimore County website (last accessed April 20, 2021), <https://www.baltimorecountymd.gov/boards-commissions/planning/planning-board>

ESTIMATED ANNUAL STAFF HOURS ASSOCIATED WITH ATTENDING PUBLIC MEETINGS

Job Title	Staff Count	Staff Hours
Planning Staff	15	1500
Director	1	100
TOTAL	16	1600

If meetings remain virtual, it is anticipated that staff members would still need the thirty minutes prior to the start of meetings to address technology needs with presenters, but that staff time per planner could be reduced to 2.5 hours, including the two-hour meeting plus 30 minutes prior to the start of the meeting, to assist any presenters in getting set up, or for any other needs. Therefore, total staff to associated with attending meetings would be halved from approximately 1,600 staff hours to 800 hours annually.

Since no staff reduction is recommended based on this time savings, there are no direct budgetary cost savings associated with this recommendation. (And because the Department of Planning already owns equipment related to producing large format materials, the direct cost of printing is not considered to be a substantial cost savings.) However, if this recommendation were implemented, the resulting time savings would allow the re-allocation of planning staff to other under-resourced areas, and would allow other promising potential initiatives recommended elsewhere in this report to be implemented with existing resources.

An additional benefit of continuing and expanding upon the Department's approach to the use of virtual public meetings for community engagement will be to expand and diversify public meeting attendance. Properly executed, virtual public meetings provide accessibility to a broader cross-section of residents who may not have traditionally been able to participate in public meetings due to scheduling conflicts, location, transportation time and cost, or other responsibilities such as childcare, which can be mitigated with virtual participation.

Best Practices and Benchmarks

There are several community-engagement tools and best practices that the Department of Planning could further leverage to optimize the effectiveness of virtual meetings, especially those with a community participation component, to ensure that meetings are useful to Planning staff and result in tangible feedback from the community.

- Platforms such as Jamboard, Miro, and Mural are online collaborative whiteboards that have been used for virtual conferences and planning commissions to recreate exercises that planners often use to brainstorm and solicit input.³⁶⁸ Some tools, such as Jamboard and Miro are free to some users while Mural has fee structures available for public sector users.
- The Urban Institute developed a guide to community engagement during the pandemic and noted that one best practice is to understand the audience that will be participating in the meeting before developing any exercises and activities. For example, an older population may respond better to an in-person meeting or a virtual meeting without interactive tools that are not intuitive, but young constituents may gravitate toward highly interactive, virtual meetings and may be more interested in future participation if they feel that their engagement was meaningful.³⁶⁹

368 <https://jamboard.google.com/>; <https://miro.com/>; <https://www.mural.co/>

369 <https://www.urban.org/sites/default/files/publication/102820/community-engagement-during-the-covid-19-pandemic-and-beyond.pdf>

Implementation Guidance

As the Department of Planning programs its coming year of public meetings (both standing Planning Board meetings and other engagement efforts, such as the Master Plan 2030), it should develop a hybrid meeting schedule so that virtual meetings remain an opportunity for public participation (especially if prepared to return to in-person meetings). As virtual meetings continue in the short-term, the Department should consider evaluating alternative engagement tools and platforms (i.e. Jamboard, Miro, Mural) to identify what is most effective and efficient tool for public meeting use.

Guidance for ensuring that a public meeting fulfills the legal requirements of Maryland Open Meetings Act can be found in the Maryland Open Meeting Manual, and particularly in Chapter Three. Further guidance issued by the Maryland Attorney General indicates that the state's open meetings requirement can generally be met through virtual meetings, given their adherence to certain standards.³⁷⁰

3.2.5 PUBLIC ENGAGEMENT ON AFFORDABLE HOUSING

Engage local communities and County Councilmembers in identifying sites and forming plans for affordable housing development.

Findings

In order to meet the target set by the Voluntary Conciliation Agreement (VCA) to create 1,000 units of new affordable housing, as well as meet the County's future housing needs, Baltimore County will need to review and amend the zoning map and community plans to allow for denser development, such as townhomes and multifamily apartments.

Between 2011 and 2019, the population of Baltimore County grew by 2.1 percent, the lowest growth rate among other nearby counties: Anne Arundel, Howard, Montgomery, and Prince George's County. The County's rate of new housing production was even lower, however, at 0.7 percent.³⁷¹ Thus, the rate of population growth was three times greater than the rate of new housing construction.

There are several factors that will influence and dictate where future growth may take place:

- Growth in Baltimore County is constrained by the Urban-Rural Demarcation line, established in 1967 and which restricts new growth in rural areas. Approximately two-thirds of the County's land is considered rural and unavailable for new urban development. Recognizing this boundary, Baltimore County developed a system of six "growth tiers" that identify where major and minor residential subdivisions may be developed and the type of sewage disposal system that will serve them.
- Baltimore County's Master Plan 2020 identifies the Owings Mills area as a growth area, noting that that area had grown from 13,500 housing units in 2000 to 18,300 housing units in 2010. The Master Plan also recognizes the Middle River area as a "redevelopment area" that could accommodate new growth. The master plan is currently in the process of being updated, and the Master Plan 2030 is expected to be completed in early 2022.
- Baltimore County also has 52 approved community plans. These plans reflect local preferences for density and design, and new development proposals must comply with local community plans as well as the Master Plan to be approved. Most of these plans are several decades old and do not reflect new priorities, such as the provision of affordable housing.

³⁷⁰ See https://www.marylandattorneygeneral.gov/OpenGov%20Documents/Openmeetings/OMA_FAQ_COVID19.pdf

³⁷¹ American Community Survey, five-year estimates, 2011 and 2019. U.S. Census Bureau.

- The VCA identifies census tracts in which new affordable housing development must take place, in order to avoid the concentration of affordable units into areas that already have such housing opportunities and to disperse affordable housing into areas of the county that have not had such housing in the past. The areas targeted for new affordable housing are called “opportunity areas.”

Recognizing these limitations, Baltimore County will have to identify areas of the county that could accommodate new growth. It is likely that the County will have to rezone certain areas for higher residential density, or rezone commercial areas into residential areas.

Zoning changes occur as part of the County’s quadrennial Comprehensive Zoning Map Process (CZMP). This process allows property owners, as well as the Department of Planning, to propose changes to the zoning map. Any changes must be approved by the County Council, which by tradition defers to the local councilmember concerning proposed changes to zoning in their district. The most recent CZMP was just concluded, and the next opportunity to comprehensively amend the zoning map will not be for another four years.

Developers may request a variance that would allow a development to diverge from area and height restrictions. Petitions for a variance are made to the Zoning Commissioner, who is an administrative judge, and must be the subject of a public hearing before any decision can be made. Zoning reclassifications may also be made during the “cycle zoning process,” but changes are limited to circumstances in which a substantial change has occurred in the character of the neighborhood in which the property is located; or in which the last classification of the property was established in error.

Given these constraints, and the conclusion of the most recent CZMP, it will be difficult to amend the Zoning Code so that new construction projects may be approved, built, and leased before the end of the VCA in March 2027. To date, the County has facilitated in the construction of 414 units of affordable housing and must complete an additional 586 units. The new units have primarily been built in the western portion of the County.

To accommodate affordable housing development and to determine whether rezoning of potential development sites is appropriate, it is necessary for the Department of Housing and Community Development and the Department of Planning to systematically engage councilmembers to identify areas of their districts that can accommodate affordable housing development. The Planning Department should develop council district-level targets for new affordable housing based on the current population, whether the district includes opportunity areas, the number of existing affordable units within the district, and infrastructure considerations. Planning should then determine whether the number of new units is possible under the current zoning capacity.

The Planning Department should also work with individual council members to identify any unmet community needs that could be met through a community benefits process. Many localities across the country have incorporated Community Benefits Agreements (CBA) into the political negotiations that often accompany a major development proposal. A CBA is an agreement that certain new public benefits, such as parkland, classrooms, cultural space, or transit improvements, will be developed in tandem with a new development proposal. The County could establish a community benefits fund and put into place a system in which community approval of new affordable housing projects may be conditional on the provision of community benefits.

Given the short timeframe between now and the end of the VCA, strategies may include identifying sites in which the underlying zoning is already available for affordable housing construction, using the variance process more aggressively, and/or to pursuing changes to the County Code that would allow affordable housing developments to use the “cycle zoning” process. Alternatively, the County might also consider convening a special CZMP cycle focused purely on affordable housing; however, this would also require modification of the County Code.

Benefit to the County

By working collaboratively with local communities and the local council member, the County will be better able to develop plans for the siting of new affordable housing developments that will be approved during the development review process, and therefore the County will be better positioned to meet the requirements of the VCA and avoid federal conservatorship.

Best Practices and Benchmarks

Amending the zoning regulations and plans to provide more opportunities for affordable housing

Localities with affordable housing goals may review their zoning regulations in ways that expand opportunities for affordable housing. This includes medium and higher-density buildings that allow developers to keep the cost per unit lower than for less dense housing types. By allowing these types of buildings as-of-right, developments do not have to request a zoning change or go through a public review process.

Among the strategies offered by Local Housing Solutions, a housing policy platform developed by Abt Associates and the NYU Furman Center, is amending the zoning code to allow for higher residential density. “By modifying zoning policies to allow for residential development and higher-density residential uses... jurisdictions can help to increase the number of housing units that can be created and better align housing supply with demand.”³⁷² The platform lists Fairfax County, Seattle, Los Angeles, and Minneapolis as local jurisdictions that have reviewed and amended their zoning code to upzone for more residential capacity and for more affordable housing.

Some localities have created community or neighborhood plans specifically to facilitate affordable housing development in those communities. Often these plans are in response to neighborhood concerns and at the request of the community, which has identified affordable housing as a priority issue. New York City created the East New York Plan as a means to consider zoning changes that will allow for new apartments to be built as-of-right, as long as they conform to the height, setback, density, and affordability requirements in the plan. The East New York Plan also took other community needs into consideration, including streetscape improvements, green space, and transportation.

Cross-Acceptance

To ensure that community plans are consistent with larger plans, such as master plans, New Jersey has instituted a system called cross-acceptance. “Cross-acceptance is a bottom-up approach to planning, designed to encourage consistency between municipal, county, regional, and state plans to create a meaningful, up-to-date and viable State Plan... Through Cross-acceptance, negotiating entities work with local governments and residents to compare their local master plans with the State Plan and to identify potential changes that could be made to achieve a greater level of consistency with statewide planning policy.”

While this example consists of a state and local jurisdiction, it could be applied to Baltimore County’s community plans and the master plan. The concept of cross-acceptance could be used as a means of triggering community benefits: approval of a local plan for affordable housing that meets the required need could qualify the community for community benefits investments.

Community Benefits

Other jurisdictions in Maryland have incorporated community benefits into large-scale development deals. In these deals, it has been the developer that provides the community benefits. For example, there is a community benefits agreement related to the Amazon HQ2 campus in Arlington, VA. While there has been some controversy in the past over the legal enforceability of CBAs, as well as the true representativeness of the local community groups that are often co-signatories to a CBA, Baltimore County could structure a community benefit process that is codified in law and avoids these issues.

³⁷² <https://www.localhousingsolutions.org/housing-policy-library/zoning-changes-to-allow-for-higher-residential-density/>

Implementation Guidance

The need to fulfill the requirements of the VCA places Baltimore County in a unique position relative to other nearby jurisdictions. It now has a very short timeline in which to approve new developments for construction so that 586 additional units of affordable housing may be built and leased by March 2027.

- The Department of Planning should set district-level targets to produce affordable housing. The targets should be based on whether a district includes opportunity areas, the current population, and infrastructure capacity. The Department should analyze whether the current zoning and stock of developable land would allow for the target to be met without a rezoning.
- The Department of Planning and DHCD should begin meeting with councilmembers now to identify areas or sites that may be appropriate for affordable housing. If the district will require a rezoning to meet its affordable housing production target, the Planning Department and the council member should develop a plan for rezoning that would add the necessary capacity.
- The Department of Planning should, in consultation with the local council member, identify outstanding community needs that might be provided for in a community benefits process.
- The County Executive should set a budget and parameters for a community benefits fund.
- The County Council should introduce a bill that would allow a special cycle of the CZMP that would focus solely on updating the zoning map to allow for more affordable housing, as identified by the Department of Planning and the local council members. Alternatively, the County could:
 - » Communicate to all stakeholders that it will aggressively pursue variances for affordable housing projects as provided in Article 32, Title 3, Subtitle 3 of the County Code, or
 - » Amend the Code to allow for affordable housing projects to be rezoned according to the cycle zoning process. § 32-3-510

3.2.6 SOLICIT DEVELOPER PROPOSALS FOR AFFORDABLE HOUSING

Identify sites appropriate for affordable housing development and solicit developer proposals for their development.

Findings

Baltimore County has facilitated the construction of 414 affordable housing units to date since 2016 and is nearly halfway to reaching its target of 1,000 leased units by 2027. The new units have been built across six new developments and five “scattered site” projects, which consist of substantial rehabilitation of existing units, rather than new construction.

Up to this point, the County has relied on developers to approach the Planning Department with development proposals for affordable housing. As the County continues its work to fulfill the Voluntary Conciliation Agreement (VCA) with the federal Department of Housing and Urban Development, it will have to take a more proactive approach toward identifying sites suitable for affordable housing development.

Baltimore County could begin by surveying county-owned parcels that may be underdeveloped. These may include parking lots, vacant land, or public buildings in need of redevelopment. In addition, the County could reach out to non-profit and faith-based institutions that may own land and be interested in having the land developed. The Department of Housing and Community Development could provide technical assistance to these institutions and help them partner with developers of affordable housing. Finally, the County may review the list of tax delinquent, vacant, or dilapidated properties to assess whether any of these parcels would be appropriate for affordable housing development. The County, using tax foreclosure or receivership, could

transfer these properties to affordable housing developers or Community Land Trusts to develop them into affordable housing, similar to a new approach being taken by Baltimore City.³⁷³

Benefit to the County

By identifying sites and issuing RFPs, the County will be able to help facilitate and accelerate the development of affordable housing, thereby providing new housing opportunities to residents and meeting the requirements of the VCA. This process will allow the County to prescribe the elements of the new affordable housing development, such as its size and affordability levels, among others.

Best Practices and Benchmarks

Requests for Proposals

Many jurisdictions support efforts to build affordable housing by issuing RFPs for the development of specific sites for which it has control, or for which it has partnered with an entity that does have control.

For example, Prince George's County recently issued an RFP for the development of a former park police headquarters. According to the county's press release, "The property, located adjacent to the future Beacon Heights-East Pines Purple Line Station site, will fulfill the community vision for a large mixed-income, mixed-use, transit-oriented community as outlined in the East Riverdale Beacon Heights Sector Plan and is now under contract with the development team."³⁷⁴

One benefit of an RFP process is that the city or county issuing the RFP can prescribe the general scope and terms of the development project, such as number of units, affordability levels, types of financing available, energy efficiency requirements, or other features. At the Prince George's site, "The proposed project is anticipated to deliver 350 units, 250 of which will be affordable, 100 market-rate units, and retail amenities to create a walkable community surrounding the Purple Line Station."

Faith-Based Partners Strategy

According to Enterprise Community Partners, "Many [Faith-Based Organizations] own significant amounts of underutilized or vacant property in both expensive and distressed real estate markets that can be developed to increase access to affordability and spur revitalization."³⁷⁵ In the Mid-Atlantic region, Enterprise reports that it has "directly invested more than \$155 million in grants, loans and tax credit equity supporting [faith-based] developments. In total [faith-based] partners have developed over 1,500 new affordable housing units and one community facility housing a health clinic and banquet hall, with another 1,000 units of new affordable housing in the pipeline."³⁷⁶

New York City, with the support of LISC, created the New York Land Opportunity Program helps mission-driven organizations with limited real estate experience to partner with experienced developers to develop new affordable housing on their land. The program "prepares mission driven organizations to make informed decisions about their land by providing them with extensive technical assistance. This support includes pro-bono architectural, legal, and financial modeling assistance to help groups understand what they could develop on their property to address the city's housing crisis— while enabling their organization to remain in the community."³⁷⁷

373 <https://www.baltimoresun.com/politics/bs-md-ci-baltimore-buy-tax-sale-liens-20210923-vrj5lmuj5g73n7nwg7jcaps3q-story.html>

374 Available at <https://pgccouncil.us/CivicAlerts.aspx?AID=1011>

375 <https://www.enterprisecommunity.org/download?fid=14935&nid=9835>

376 <https://www.enterprisecommunity.org/where-we-work/mid-atlantic/faith-based-development-initiative>

377 <https://www.lisc.org/nyc/what-we-do/affordable-housing/new-york-land-opportunity-program/>

Tax Foreclosure and Receivership

A jurisdiction may place liens on properties because of unpaid property taxes or unpaid fines for failing to keep the property up to code. A lien allows the locality to foreclose or transfer ownership of the property. If the property is suitable for affordable housing development, the locality may work with a developer to rehabilitate, demolish, or build new construction on the site.

A 2010 report by the National Community Reinvestment Coalition, notes that through receivership, a city or county can declare a property a nuisance, and through a civil action the court can appoint a receiver for the property who can then begin on any emergency repairs or rehabilitation. “The owner can only regain ownership of the property after paying the receiver’s repair costs and associated liens; if the owner fails to do so, the receiver or the local government can acquire the property through foreclosure.”

Baltimore City has used receivership to foreclose on abandoned homes and rehabilitate them as affordable housing. The city has had a receivership law on the books since 1991, but it was only in 2010 that the city began using the law in a proactive manner, creating the Vacants to Value program. Baltimore’s program allows courts to have the receiver foreclose on this lien before rehabilitation work has even begun and auction the property off to a developer who has demonstrated the ability to rehabilitate the property immediately.

As of 2010, Baltimore City had 12 attorneys working on receivership as part of the agency’s broader work on code enforcement, according to the Abell Foundation. The city filed 1,876 receivership cases in the first four years of Vacants to Value. Of these, the receiver sold and settled on 407 properties.

Similarly, if a vacant property has unpaid property taxes, they may have a lien against the property sold, or the locality may foreclose on the property directly. In both cases, if the locality can transfer ownership to a mission-driven non-profit developer or a Community Land Trust (see below), the tax delinquent can be rehabilitated for affordable housing.

Implementation Guidance

1. Identify properties suitable for affordable housing, establish site control, and issue RFPs for their development.
 - The County could direct the Department of Planning to survey county-owned properties for potential development sites.
 - The County could engage with non-profits and faith-based institutions to identify any sites that they may own that would be appropriate for residential development. The County could engage further with Enterprise Community Partners to learn more about their programs to support faith-based initiatives.
 - The County may also wish to survey all privately-owned underutilized land and explore acquiring property, or assisting a non-profit with acquisition.
 - Once site control is established, the County could establish the parameters of the desired development and issue an RFP.
2. Amend the Baltimore County Code to allow the County to pursue receivership and tax foreclosure of delinquent properties that may be candidates for affordable housing development.
 - Baltimore County could create a receivership law like Baltimore City. The City’s receivership law is within the Fire, Building, and Related Codes of the City of Baltimore, Section 121. The Code states, “Building Official may petition the court for appointment of a receiver to rehabilitate a vacant property, to demolish it, or to sell it to a qualified buyer,” and then details the provisions and process for a property to be placed into receivership.
 - » Article 35, Title 2 of the Baltimore County Code discusses building code enforcement and gives the County the authority to make emergency repairs to buildings if they pose a threat to public safety. The cost of the repair then becomes a lien on the property. The Code states that “the county may enforce the lien by sale of the property,” but does not include a receivership program, nor does this section of the Code detail the procedure for the sale of such property.

- Baltimore County could also explore how the annual tax sale may be a means to create affordable housing opportunities by diverting single-family homes from the tax sale and toward non-profit developers or CLTs. Authorization for the County's tax sale is based on the Maryland State Code, Title 14 of the Tax – Property law. The law allows for localities to withhold a property from sale "that has been designated for redevelopment purposes if: the property meets any additional objective criteria established by the governing body of the county or municipal corporation for withholding property from sale for redevelopment purposes."
- » The County could conduct a study of all properties that have gone through the tax sale over the past ten years to better understand what happens to these properties after the tax sale, and to understand whether any properties may be candidates for redevelopment as affordable housing.

3.2.7 ENHANCE DEVELOPER RESOURCES

Provide enhanced resources for developers of affordable housing.

Findings

Historically, Baltimore County government has not proactively pursued affordable housing development. The *Baltimore Region Impediments to Fair Housing* report states, "The County has maintained a deliberate decision not to build public housing in order to preserve its economic homogeneity." Before the Voluntary Conciliation Agreement (VCA) with the federal Department of Housing and Urban Development in 2016, which set the goal of the creation of 1,000 units of affordable housing by 2027, Baltimore County had not actively facilitated the development of affordable housing, other than senior housing.

The County must now take proactive steps to achieve the development of affordable housing on the scale required by the VCA. This includes enhancing its resources for developers, including informational materials, financing programs, term sheets, and the county website.

The primary means of communicating with developers and property owners about how the County can assist with financing affordable housing is the Affordable Housing Development Guide, developed by the Planning Department. It provides information for developers about how to submit an affordable housing development proposal, some potential sources of funding, an overview of the review process, and an application for financial assistance.

The Guide explains that the County "provides only gap financing to assist developers of affordable housing," and that, "developers are strongly advised to pursue all funding sources available and not view Baltimore County as a primary or sole source of project financing." The Guide lists the types of funding available, noting that, "The County funds its affordable housing initiatives by using its Economic Development Financing Fund, State financing, and the federal Community Development Block Grant (CDBG) and HOME Investment Partnerships (HOME) funds."

In practice, the County has relied overwhelmingly on the Economic Development Fund to finance affordable housing. As a condition of the VCA, the County committed to contributing at least \$3 million a year for ten years to help fund affordable housing. Halfway into the ten-year timeline, the County has spent \$29 million to assist developers with development costs in the form of grants from the fund. The County has not developed financing programs for affordable housing, other than making cash grants, or issued bonds to leverage its \$30 million commitment in a way that could provide many multiples of dollars of financing.

Baltimore County has recognized the need to develop financing programs for affordable housing development. It has created a new high-level position within the Department of Housing and Community Development (DHCD) to oversee the creation of new financing programs for affordable housing.

The Low-Income Housing Tax Credit (LIHTC) is the nation's largest source of affordable housing financing and may represent an underutilized resource for affordable housing development in Baltimore County. According to the Urban Institute, of projects that use LIHTC, "On average, tax credits finance about 55 percent of the qualified costs of a project."³⁷⁸ LIHTC tax credits are available through the Maryland Department of Housing and Community Development, and applications for tax credits are approved by the State. But localities often play a part in ensuring that local projects receive tax credits by partnering with developers to submit applications, or by tailoring their programs to conform with LIHTC requirements. In 2017, the State of Maryland eliminated the requirement that LIHTC applicants receive local support before a project may be approved. In addition, Maryland has instated a policy in which at least 1,500 units of family housing financed with LIHTC are to be developed in communities of opportunity annually.

The County's website provides only limited information to developers of affordable housing about the County's programs, and this information is not on any page with a title that includes the words "affordable housing." Information about the development review process is difficult to find. There is not comprehensive description of the review process or visual depictions of the process that would allow a developer or a member of the public to understand the process and its timeline.

Benefit to the County

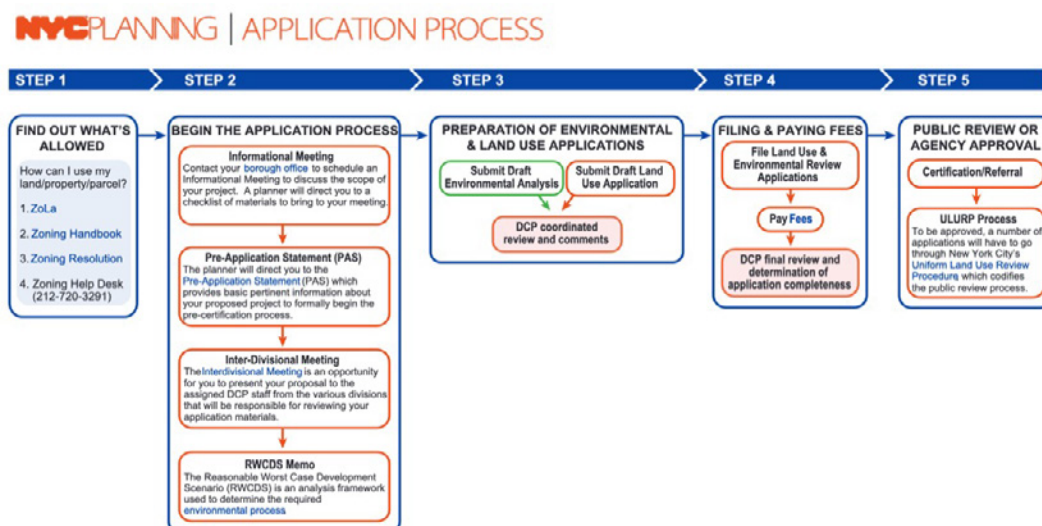
Enhancing the information available to developers of affordable housing would indicate to these developers that the County is prepared to assist with a development proposal. Materials describing the review process would allow developers to understand the process and the timeline required to gain project approval. New financing programs would encourage more developers to seek opportunities for affordable housing development in Baltimore County.

Best Practices and Benchmarks

Provide clear information and set expectations for developers with proposals for affordable housing.

Property owners and developers, as well as the public at large, seek clarity from local governments about the development review process and timelines, and about available financing programs and eligibility requirements. It is helpful to be clear about the different development review tracks and which types of proposals go through each track, including a visual representation of the process and the timeline.

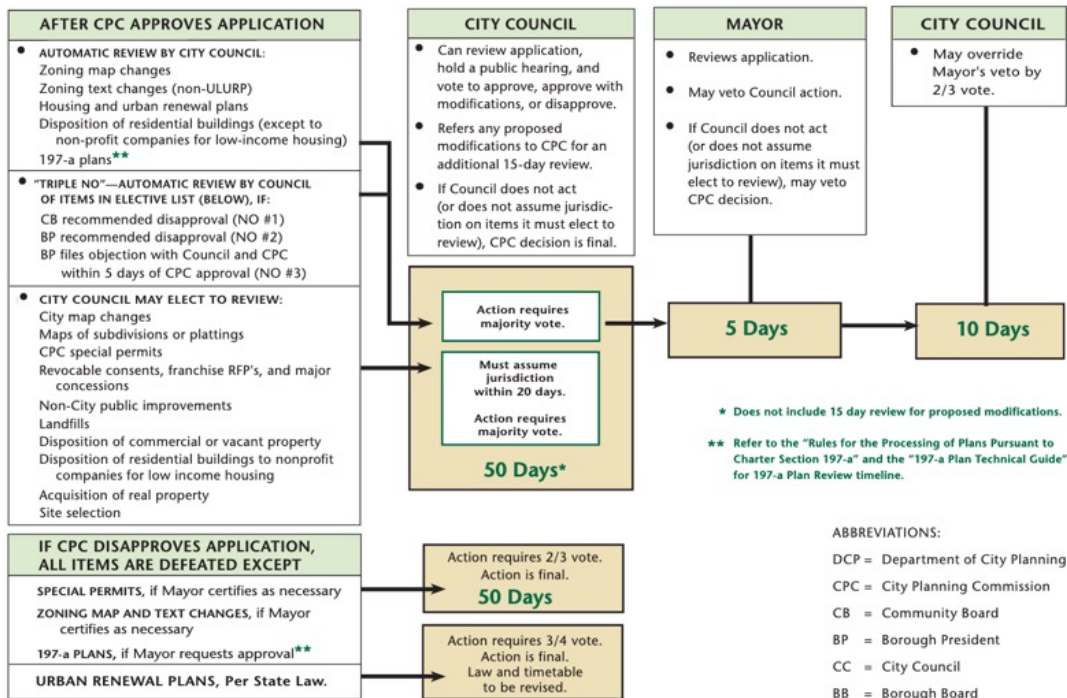
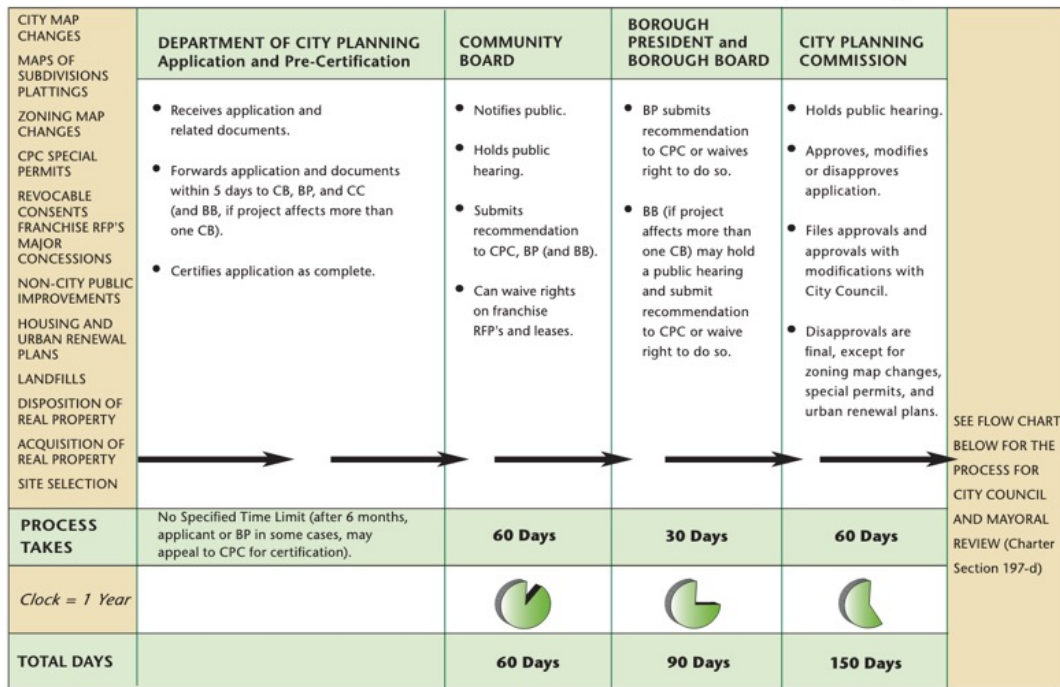
Below are examples from the New York City Department of Planning:



Source: *New York City Planning. Pre-certification Process Flow Chart*

378 https://www.urban.org/sites/default/files/publication/98758/lihtc_how_it_works_and_who_it_serves_final_2.pdf

Uniform Land Use Review Procedure (ULURP)



Source: *New York City Planning. ULURP Chart*

Montgomery County provides developers with a document called "Administrative Procedures for Development Review," a 40-page, highly-detailed document that outlines the review process.

Information about different financing programs should also be available online, including term sheets. Term sheets should describe the program, who is eligible, the required affordability, available loan amounts, rents and income bands, loan terms, closing requirements, and other information. The New York City Department of Housing Preservation and Development posts term sheets for all of its financing programs online. HUD provides sample term sheets online.

Expand the types of low-cost financing available to developers of affordable housing.

The primary means of funding the creation of new affordable housing in Baltimore County has been awarding direct grants from the Economic Development Fund to developers constructing county-approved affordable housing development projects. Other jurisdictions take advantage of federal tax credit programs and leverage public funds for affordable housing by issuing bonds, increasing the pool of money available to assist affordable housing developments.

In addition, it is common for larger localities to develop affordable housing financing programs to be used for local projects. Often, a locality will issue bonds and distribute the proceeds as loans to developers, and then use interest payments on the loans to pay back bondholders. For example, Montgomery County has established a Multifamily Mortgage Financing program, in which the County provides low interest mortgage financing to private developers, both for-profit and non-profit, by issuing tax-exempt revenue bonds. Other examples include the New York City's Extremely Low & Low-Income Affordability Program or its Mix and Match program for mixed-income developments. Additionally, it is common for localities to structure programs so that projects may also access LIHTC tax credits.

Finally, local jurisdictions may establish revolving loan funds that allow them to leverage general fund contributions. For example, Montgomery County recently established a mechanism to leverage an annual \$3.4 million appropriation to create a permanent, revolving \$50 million fund to provide low-cost financing to affordable housing developers. The Housing Production Fund is administered through Montgomery County's Housing Opportunities Commission, (HOC) which serves as the County's Public Housing Agency and is a county authority with the ability to issue bonds. HOC issues bonds and the money from the bond sales goes into a fund. The money from the fund is used to issue low-cost loans to developers. Montgomery County makes annual contributions to HOC, which uses the money to pay the debt service on the bonds. For \$3.4MM in annual appropriated funds over a period of 20 years, Montgomery County is creating a permanent, revolving \$50 million fund, which is to revolve every four-to-five years, yielding \$250 million in funds for affordable housing construction.

Implementation Guidance

Provide clear information and set expectations for developers with proposals for affordable housing.

Baltimore County could develop visual representations of project approval timelines, as well as clear descriptions of the different review tracks, and post the information online. The County's website should provide clear descriptions of financing programs and other assistance including eligible projects and affordability requirements. Links to a dedicated affordable housing development webpage should be included on the webpages of the Department of Planning, Permits, Approvals, and Inspections, and Housing and Community Development. The webpage should be clear about who to contact and first steps. The County could assign a staff person within the Neighborhood Improvement Division to be the lead on affordable housing projects, who will be tasked with coordinating with developers, state finance agencies, and Baltimore County departments involved in development review.

Identify sites for affordable housing development and issue RFPs for their development.

Baltimore County could direct the Department of Planning to survey county-owned properties for potential development sites. The County could also engage with non-profits and faith-based institutions to identify any sites that they may own that would be appropriate for residential development. The County may also wish to survey all underutilized land and explore acquiring property, or assisting a non-profit with acquisition. Additionally, there may be opportunities to acquire property through receivership or the tax sale. (See **Solicit Developer Proposals** elsewhere in this report for further discussion.) Once site control is established, the County could establish the parameters of the desired development, including community benefits, and issue an RFP.

Expand the types of low-cost financing available to developers of affordable housing.

Baltimore County has created a new Department of Housing and Community Development (DHCD) to take the lead with VCA compliance. The Department plans to hire for a new position to lead affordable housing finance who will be tasked with developing financing programs.

The County will want to establish a new housing development fund as a mechanism for issuing bonds specifically for affordable housing development finance. The County will need to provide the seed money for a revolving fund and may be able to use its annual \$3 million contribution as required by the VCA, or a portion thereof, to support a housing development. The housing development fund could be administered by the new DHCD.

Any new housing finance programs should be designed to work in tandem with LIHTC tax credits.

3.2.8 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION WEBSITE

The Bureau of Engineering would benefit from making specific changes to its web page in addition to the currently ongoing alterations. These changes are:

- 1. Listing the roles of public-facing Bureau employees clearly, so visitors to the site can recognize the hierarchy within the organization and identify the appropriate contact.**
- 2. Prominently feature the BaltCoGo App on the website as a preferred means by which to report issues to the Department.**
- 3. Including images of current and past projects**
- 4. Presenting a mission statement so constituents can better understand the day-to-day role and functions of the Bureau in Baltimore County.**

Findings

The DPWT website currently is difficult to navigate, and it can be challenging to locate specific information, such as who to contact about any kind of issue. The County is currently collecting information about potential improvements to the website on the site itself, through a survey.

Baltimore County has launched a BaltCoGo App, which offers an efficient means by which to report issues to County government; however, this app is not described or featured prominently on DPWT's site as a preferred means by which to report problems; nor did DPWT staff mention BaltCoGo as a regular means by which residents engage with the Department.

The website lacks images of current or past projects and does not list many details. In order for constituents to better form an accurate understanding of the work and roles performed by the Bureau, the Bureau should include images of its projects under the existing "[Current Engineering Projects](#)" tab.

The Bureau of Engineering specifically should list the contact information of individuals and representatives whom constituents may need to contact, because much of the work the Bureau does is driven by citizens' requests. Currently it is not easy to identify the roles different employees play in this department, or how it is organized.

The Bureau of Engineering additionally should consider displaying a mission statement on their website, to clarify the role and goals of the Bureau, and the type of work that they do.

Benefit to the County

Adding clearly displayed contact information will improve the working relationship between the Bureau and County residents and will likely improve both increase the quantity and quality of actionable feedback received. More detailed information about current and past projects will assist constituents in understanding what the Bureau does day-to-day, and in identifying the most appropriate contact for a given issue. A mission statement will clarify the purpose of the Bureau to provide the public with a more accurate understanding of what the Bureau does (and what it does not do).

Best Practices and Benchmarks

The Harford County (Maryland) Bureau of Engineering has a very readable and easily accessible website. Its Bureau of Engineering's team members are clearly listed on its website, with information about their roles and how to contact them. Images of current and past projects are listed prominently on the site, which also includes a mission statement. The statement consists of goals: to maintain the condition, efficiency, and safety of Harford County's roadway network and to provide safe and well-maintained bridges.

Howard County's Bureau of Engineering website lists clearly its services, its team members and their roles and contact information, and includes a detailed "About" statement describing its programs and purpose.

Implementation Guidance

The Bureau of Engineering should list the roles of team members and their contact information at the top of its web page. It should post and prominently display current projects with details and images, connected to the current interactive map on the site. Finally, it should include a mission statement that clarifies in terms meaningful to the layperson how the Bureau's activities serve the overarching goals of the County.

3.2.9 MINORITY-OWNED BUSINESS ENTERPRISES AND WOMAN-OWNED BUSINESS ENTERPRISES (MBE AND WBE) CONTRACTING IMPROVEMENT

Expand efforts to recruit Minority-Owned Business Enterprises and Women-Owned Business Enterprises (MBE and WBE) as County contractors and subcontractors, to ensure their utilization by other general/prime contractors, to improve tracking of compliance with MBE and WBE contracting requirements and commitments, and to provide the staffing necessary to support these efforts.

Findings

Baltimore County's Office of Minority, Disadvantaged and Small Business Programs oversees Baltimore County's MBE and WBE Program. Although the County draws MBE and WBE vendors approved by the Maryland Department of Transportation and Baltimore City, one of the program's chief responsibilities is to identify and recruit qualified MBE and WBE businesses to submit bids and proposals for goods and services used by County agencies. The County itself does not have an independent MBE and WBE verification and certification process.

Several years ago, the Office of Budget and Finance's Purchasing Division hired a Minority and Small Business Marketing Manager to perform procurement education and outreach to the MBE and WBE business community on behalf of the Purchasing Division. Prior to 2015, the Marketing Manager served as the liaison to the Office of Fair Practices Minority Business Enterprise (MBE) Officer, who was responsible for (1) providing assistance to contractors and subcontractors who participate in the

County's Capital Improvement Projects covered by Minority and Women's Business Enterprise requirements and (2) monitoring compliance with overall program goals.³⁷⁹ These contracts are issued by the Department of Public Works & Transportation (DPWT) Division of Construction Contracts. The Office of Fair Practices reviewed and approved the MBE plans submitted to the Purchasing Division through their procurement process. In 2015, the last person remaining in the Office of Fair Practices (MBE Officer) resigned leaving the responsibility of the County's entire MBE and WBE program on the Minority & Small Business Marketing (currently the Programs Manager. Therefore, outreach was eliminated and the focus was directed to contract compliance in an attempt to ensure MBE and WBE firms named in the bid were being utilized and compensated for the work they performed on County contracts.

In 2017, the County hired a new MBE Officer who now reports to the Marketing/Programs Manager. The MBE Officer conducts compliance on contracts issued by DPWT. After eleven years, the last Meet the Buyers procurement outreach event was held in Spring 2019. October 2020 "Meet the Primes" (in its eleventh year) in collaboration with Baltimore County Public Schools was held. No additional outreach events had been held until the County held a public meeting outlining the results of the MBE/WBE 2021 Disparity Study in July. The lack of MBE and WBE vendor educational programs has impeded efforts to attract new MBE and WBE entities and to provide educational opportunities to enable level-ground competition with the County's overall pool of potential vendors and suppliers.

The Purchasing Division is primarily the County's central contracting agency. The MBE and WBE Unit and the Purchasing Division have significant interaction. The Minority & Small Business Marketing/Programs Manager reviews all solicitations where the contract value is expected to exceed \$25,000 over the life of the contract, and service contracts of 2 years or longer, to determine if MBE/WBE goals are being met on a contract-by-contract basis. The Marketing/Programs Manager is the Chair of the Procurement Review Group (PRG), comprised of representatives from the Purchasing Division, Department of Public Works and Transportation (DPWT), and Office of Law. Once the MBE/WBE goal is established it is presented to the PRG for review, discussion, and approval.

The MBE and WBE unit works with the DPWT Construction Contracts Division to increase the use of MBE and WBE vendors (typically as subcontractors) in the same manner. However, the MBE/WBE Program Unit does not currently have sufficient resources to work with DPWT Professional Services to find appropriate MBE and WBE entities as sub-consultants for bids and proposals. Instead of assigning MBE and WBE goals on a contract-by-contract basis for DPWT Professional Services contracts, a 20 percent MBE and WBE goal was established for all solicitations classified as Architect or Engineering contracts advertised by DPWT Professionals Services. DPWT typically bids construction contracts, which are limited to the use of potential general/prime contractors prequalified by DPWT Division of Construction Contracts. The Professional Services Section Committee (PSSC) also solicits for architect and engineering firms that are prequalified by the DPWT. Depending upon the bid/proposal document specifications, DPWT prequalified contractors and consultants are required to direct a specified portion of work to MBE and WBE entities, as well.

The MBE and WBE program monitors the compliance of general/prime contractors and consultants in the use of MBE and WBE subcontractors as specified in bid, proposal and contract documents. The Purchasing Division awards approximately 1,200 master agreements annually with contract terms of five-to-seven years. If an MBE/WBE subcontract goal is assigned, contract compliance monitoring is required over the life of the contract term, to include site visits on construction projects. However, due to staffing constraints, there is limited compliance review currently being conducted of master agreements.

Although the County does not guarantee work under its contracts, the Minority, Disadvantaged and Small Business Programs Manager asserted that the use of primary, secondary, and tertiary vendors negatively impacts the use of secondary and tertiary contractors and their subcontractors, including MBE and WBE subcontractors, as they rarely receive work. Without a contractual requirement to divide the County's work among the primary, secondary, and tertiary vendors, this process has the effect of limiting competition and the ability of non-primary vendors, regardless of MBE or WBE status, to do business with the County.

The County encourages the use of MBE and WBE contractors when possible, but, depending upon bid and proposal requirements, it often requires general/prime contractors to identify specific MBE and WBE subcontractors in submitted bid packages. Although the County cannot guarantee that work will actually be directed to the specified MBE and WBE entities, Executive Order 2017-003 requires the MBE and WBE program unit to confirm general/prime adherence to MBE and WBE contractual obligations. Due to staffing limitations, the current review and confirmation process is conducted on a voluntary,

379 <https://www.governmentjobs.com/careers/baltimorecounty/classspecs/53705?keywords=Minority%20Business%20enterprise&pagetype=classSpecifications>

transaction-by-transaction basis as MBE and WBE subcontractors are paid by the general/prime contractor. The Office is responsible for tracking compliance (prime payments to the subcontractor/sub-consultants), or lack thereof, but this requires voluntary action on the part of general/prime contractors/consultants and MBE and WBE subcontractors. Currently, there is a manual interface process of transferring contract data from the financial system to the contract compliance software tool in order to compare the MBE and WBE subcontracting goals, general/prime contractor commitments, and prime payments to subcontractors. This manual process is outdated and quite time-consuming. Clearly, a better software solution is required; once the County's new Workday program is operational, a new interface with it will need to be developed to automate the matching of contract goals and requirements with actual vendor compliance and subcontractor payments.

With only one manager and two FTEs (one compliance officer and an office assistant), the Office is currently understaffed, but two, new FTEs were added to the FY2022 budget. The hiring process for the new hires is currently ongoing, although the director reported shortly before this report's completion that the Office has identified candidates for these positions. Nevertheless, inadequate staffing and other resource constraints severely limit the program's ability to conduct outreach to MBE and WBE vendors, work with Baltimore County agencies, and conduct appropriate compliance reviews and site visits of existing contracts.

The Minority and Small Business Marketing Manager is currently responsible for reviewing MBE and WBE compliance for more than 1,200 new contracts per year and monitoring approximately 500 active contracts. Currently, only one dedicated MBE and WBE compliance officer monitors approximately 100 contracts that require site visits.

In October 2020, the County implemented the federally mandated Transportation Disadvantaged Business Enterprise Program, which also falls under the responsibility of the MBE and WBE Program Unit. This program requires monthly contract compliance reporting to the Maryland Transit Administration for the use of Disadvantaged Business Enterprises in federally funded contracts.

Benefit to the County

Increasing the participation of minority-owned business enterprises and woman-owned business enterprises in contracting and procurement opportunities will further advance the goals outlined in Executive Order 2017-003. Expanding the pool of eligible and participating contractors through improved recruitment of MBE and WBE certified firms will increase competition and create new opportunities for local minority- and woman-owned small businesses. These efforts will help to create and sustain jobs more generally, expand the tax base, and strengthen the local economy and communities.³⁸⁰

Best Practices and Benchmarks

The Maryland State Office of Small, Minority, and Women Business Affairs, established in 1978, is the oldest program of its type in the country. The program was established to ensure that small, minority- and women-owned firms had the opportunity to participate fully and fairly in both state and federally funded projects.³⁸¹ Under the State program, a dedicated staff liaison is assigned to each department to connect with the minority business enterprise program.

"The Governor's Office of Small, Minority & Women Business Affairs is a coordinating office within the Executive Branch. Our primary role is to connect the small business community to greater economic opportunities in both the public and private sectors.

*We have oversight of the state's Small Business Reserve (SBR), Minority Business Enterprise (MBE), and Veteran-Owned Small Business Enterprise (VSBE) procurement programs, establish best practices for their successful implementation, and monitor compliance across the 70 participating agencies."*³⁸²

380 How small businesses impact their communities. (2018, July 24). Cumberland Area Economic Development. <https://cumberlandbusiness.com/news/how-small-businesses-impact-their-communities/>

381 Office of Minority Business Enterprise Overview. (n.d.). Maryland State Government. <https://www.mdot.maryland.gov/tso/pages/index.aspx?pageid=114>

382 Office of Small, Minority & Women Business Affairs, Maryland State Government, <https://gomdsmallbiz.maryland.gov/Pages/About-Us.aspx>

A recent study conducted by the Baltimore County Minority and Small Business Marketing Manager found that the program is severely understaffed in comparison with peer departments. (See table below.)

Comparison of MBE and WBE Program Staff in Select Jurisdictions		
Agency/Jurisdiction	Responsibility	Number of Staff
City of Atlanta Mayor's Office of Contract Compliance	MBE/DBE/Title VI/P3 City General Fund Public Works, Title VI and Public Private Partnership (P3) Transportation, Airport Concessions and Certification	14 for DPWT
Maryland Aviation Administration (MAA) Office of Fair Practices	MBE/WBE/DBE/ADA/EEO State Agency Responsibility	5 (7 when fully staffed)
Rhode Island Department of Transportation Office of Civil Rights	DBE/Internal and External EEO/ADA/Environmental Justice Agency/Title VI State Agency Responsibility *External EEO – Contractor EEO compliance	11

A recent study analyzing minority participation in County contracts noted that MBE and WBE metrics should focus on the number of dollars expended rather than the number of contracts signed.³⁸³

Implementation Guidance

1. The MBE and WBE Unit should endeavor to hire two new staff members as quickly as possible. At least one of the new staff members should have data and analytical skills, the better to support the agency's ability to identify existing data and utilize it for recruitment, compliance and reporting purposes.
2. The MBE/WBE Program should resume coordinating with the Office of Budget and Finance Purchasing Division, DPWT, and Department of Economic and Workforce Development (DEWD) to increase education and outreach to current and potential MBE and WBE vendors. This collaboration should include procurement events and other community outreach initiatives.
3. The County recently reorganized in 2021, moving the Minority and Women's Business Enterprise Program Manager and staff as a direct report to the Chief, Diversity Equity and Inclusion. In 2021 the Office of the Chief Administrative Officer. The federally mandated Transportation Disadvantaged Business Enterprise Program reports to the CAO. These programs should be consistent as the compliance reporting is similar.
4. The MBE and WBE program unit has hired two FTE compliance officers in the FY2021 budget. It is possible that additional FTEs will be required to accomplish the goals set forth in Executive Order 2017-003 and to fulfill the requirements of the newly implemented federally mandated Transportation funded Disadvantaged Business Enterprise program. The unit is in the process of backfilling a much-needed administrative assistant as there is currently no clerical personnel on staff. Therefore, during FY2023, the MBE and WBE program should evaluate its accomplishments and improvements and determine if additional FTEs will provide added significant benefit the program and County.

383 <https://resources.baltimorecountymd.gov/Documents/Budget/mbe/baltimorecountydsparitystudy.pdf>.

3.3 Efficient and Effective Public Services

The premise underlying most of this discussion of “connected government” is that new technological developments make it increasingly easy for governments to provide timely, efficient and effective services to its customers and stakeholders. But the County’s conception of “connected” – connecting operations to objectives, priorities to needs, and means to ends – is equally applicable to non-technology processes and old-fashioned service delivery. This report presents a wide range of ways in which traditional government functions and services can be improved the old-fashioned way: simply by examining how they can be better and more efficient by making sure that the processes best fit the goals.

This is best exemplified by the “next generation” of regulatory approaches that have been developed by governments and researchers around the world and have gained traction in the United States. Cities and counties across the U.S. are beginning to employ a set of principles that redefines a traditional code enforcement approach to emphasize compliance – and the support, education, and outreach that leads to it – as its main strategy and strategically deploy enforcement tactics for more serious violations and more frequent offenders. Baltimore County could pursue code enforcement strategies and techniques that emphasize achieving compliance with regulatory objectives rather than simply enforcement of regulatory mandates.

There are numerous other ways in which services can be delivered more efficiently and effectively: Because Baltimore County has been re-assigning residential trash collection routes to private haulers on an ad hoc basis for the last 60 years rather than reevaluating how the assignments are dispersed throughout the County, the existing route system is disorganized and inefficient. A single property may have recycling pickup on a different day from trash collection. The County attempted to restructure the routes in 2018 with a plan to bid out the restructuring, but the process was halted. Bureau of Solid Waste staff view route restructuring (which may entail a new schedule for residents to anticipate waste collection) as crucial to streamline their operations but also a challenge to receive broad support to address. By reassessing the current routes and consolidating operations, the County will benefit from efficiencies of scale that will allow for remaining companies to be paid fairly while reducing overall costs to the bureau, as well as reducing traffic congestion and wear and tear on the roads. The Department of Public Works & Transportation should prioritize redesigning residential collection routes, including consolidating operations to structure routes in a systematic way with a targeted baseline of 10,000 units per route.

Baltimore County’s CountyRide system provides transportation for older adults, people with disabilities (ages 18-59), and rural residents. Currently, rides can be used for medical appointments, grocery shopping, and to visit pharmacies. Riders can request medical trips up to two weeks in advance, or other trips up to one week in advance. In general, riders are currently unable to schedule rides more than two weeks in advance. There is an option for a short-term “standing ride” that can be set up only for people who go to partnership hospital locations regularly, for a specific, short period of time (for example, for chemotherapy). However, this is limited in scale and only makes up a small portion of eligible rides. CountyRide should implement a pilot for subscription trips, which would serve as an expansion of the existing short-term standing ride option. An effective subscription trip model can help to optimize routes and reduce the scheduling burden for both CountyRide employees and people who use the service.

In addition, with the increasing population of seniors comes an increasing need for transportation services for seniors and disabled adults to remain socially connected and acquire access to attend to their health care needs. Adopting an innovative, cost-saving model of “Volunteer Drivers” that augments the current paratransit system currently operated by the County will help meet the growing demand for mobility among older and/or disabled individuals in the county.

The Baltimore County Loan Closet lends durable medical equipment to Baltimore County residents ages 60 and older. The County has an opportunity to meet an ever-growing demand of an aging population for assistive devices that they cannot afford and to enable more individuals and families to donate their durable medical equipment to a good cause that can assist other seniors. The County could enhance the Senior Loan Closet program by:

- Creating a space dedicated to the Loan Closet with a designated phone number.
- Forming partnerships with community organizations and an Occupational Therapy (OT) program to provide health education support for clients on how to use devices.
- Purchasing a medical equipment cleaning machine to ensure full sanitization of the equipment.
- Delivering equipment closer to seniors with limited travel capabilities.
- The County also should create a Family Loan Closet program that makes tools and equipment needed by families for work around their homes available for County residents at several locations around the county the way that neighbors used to help each other out with home improvement needs.

The Baltimore County Public Library does not currently have a policy or systematic process for developing, approving and evaluating its library programs. Programming has become increasingly central to libraries' operations. The Baltimore County Public Library offered programs across a large number of subject areas. But BCPL's program offerings and attendance place it in the bottom third among its Maryland peers. Compared with its peer systems nationwide, BCPL's program efforts rank sixth among 11, leaving considerable room for improvement in BCPL's programming, both in the number of programs offered and the number of participants served. The Baltimore County Public Library should establish policies and systematic processes for developing, approving, and evaluating its library programs.

Permits, Approvals, and Inspections (PAI) should adopt and implement formal quality assurance strategies for inspections. PAI does not have quality control procedures to ensure that inspections are performed properly. Nor does it collect systematic data on how effectively inspections are conducted. PAI does not gather or maintain internal assessments of inspection compliance with code standards, nor does it effectively support inspectors in pursuing additional training relevant to their duties. PAI does not regularly audit inspections to ensure compliance with County standards. Adopting quality assurance measures such as regular county audits of inspections and more robust professional development programs for inspectors will ensure that county inspectors complete inspections effectively and on time and that county stakeholders have generally positive experiences with inspections.

Finally, Baltimore County could lower the maximum permissible height of tall grass and weeds from twelve inches to eight inches. The eight inches limit has been spearheaded by Baltimore City and by multiple jurisdictions nationwide as a quality-of-life improvement tool. Despite Baltimore County's more lenient limit, tall grass violations are amongst the most common code violations, according to Permits, Approvals, and Inspections (PAI) staff. There is compelling evidence that reducing the maximum height of tall grass and weed in Baltimore County will improve quality of life for County residents and increase neighborhood safety through a reduction in violent crime.

3.3.1 RETHINKING CODE ENFORCEMENT

Baltimore County could more actively pursue innovative code enforcement strategies and techniques that emphasize achieving compliance with regulatory objectives rather than simply enforcement of regulatory mandates.

Findings

Roughly a generation ago, a new paradigm for enforcement began to emerge in the field of policing. This approach called for less reliance on responding to incidents of law-breaking, and more attention, instead, to detecting and deterring violations before they occurred, especially through community outreach, encouraging the community to become involved in crime control itself, and attempting to remedy the conditions known to encourage or enable law-breaking. Malcolm K. Sparrow, a policeman-turned-professor at Harvard's Kennedy School of Government, noted that regulators in such diverse fields as environmental enforcement and tax collection were soon undertaking the same sort of enforcement restructuring as policing had pioneered. One of the lessons was that, in an environment of constrained resources, any regulator must:

- Target its enforcement resources effectively on the worst offenders; and
- Encourage compliance among the rest through cooperative means, including incentives for going beyond minimal compliance, proactive education and outreach, labor-management cooperation, and other creative strategies.

Even at the same time as the rising popularity of “zero-tolerance” approaches, researchers and practitioners in criminal justice have found that preventive, service-oriented approaches – generally known as “community policing” or “problem-oriented policing,” produce more cost-effective reductions in criminal activity than traditional reactive, enforcement-oriented approaches. Shifting the focus to attaining desired outcomes leads, in Sparrow's words, to “a new regulatory craftsmanship, which brings with it the ability to ... pick important problems and fix them.”

Public Works LLC has worked on several projects devising such “next-generation” regulatory and compliance strategies for a wide range of areas, including environmental, labor, and housing standards. These approaches help governments target enforcement resources on the worst offenders while encouraging compliance among the rest through cooperative means, and include incentives for going beyond minimal compliance, education and outreach, labor-management cooperation, and other creative solutions. The review team believes such approaches also can and should be applied productively to code enforcement.

Cities and counties across the U.S. are beginning to employ a set of principles that redefines a traditional code enforcement approach. Three frameworks, in particular, have emerged as promising practices for cutting-edge approaches to housing code enforcement. They are:

- Strategic code enforcement;³⁸⁴
- Cooperative/facilitative code enforcement;³⁸⁵
- Equitable code enforcement;³⁸⁶

These frameworks work in tandem and reinforce one another, with some principles that are distinct and many that overlap. Each of them contributes toward an approach that emphasizes compliance – and the support, education, and outreach that leads to it – as its main strategy and that strategically deploys enforcement tactics for more serious violations and more frequent offenders.

384 See, e.g., Urban Institute, *STRATEGIC HOUSING CODE ENFORCEMENT AND PUBLIC HEALTH: A HEALTH IMPACT ASSESSMENT IN MEMPHIS, TENNESSEE* (2018).

385 See, e.g., ChangeLab Solutions, *Up to Code: Code Enforcement Strategies for Healthy Housing* (2015).

386 See, e.g., Cities RISE, *The Power & Proximity of Code Enforcement: a Tool for Equitable Neighborhoods* (2019).

The features associated with a leading code enforcement program from this robust body of research would include:

- **Deploying finite resources effectively** to “target the right responses to the right places at the right time,” using a portfolio of strategies ranging from outreach and education to civil litigation, market mechanisms and other levers outside of the traditional code enforcement toolkit. This allows localities to channel resources towards the most serious violations and tailor strategies to different subsets of compliers based on their track records.

This should include creating a tiered system that tailors compliance/enforcement strategies for property owners based on their histories of compliance: Those with strong histories of compliance may be subject to less frequent inspection, the earned opportunity for self-certification, or incentives and recognition; those who wish to comply but lack the necessary information, resources, or support to do so, compliance strategies can be provided robust education, outreach and assistance; non-compliers with a history of repeated and/or serious violations can be subjected to a set of more serious enforcement strategies that can range from the traditional citation and notice-oriented code enforcement process, to market mechanisms, civil litigation, publicity, and others. The goal is to determine what strategies are most appropriate to ensure compliance in different cases.

- **Establishing a clear process for prioritizing violations**, based on public health and safety and other criteria. This may be informed by analyzing under-covered areas and violations to examine where gaps in code enforcement exist or identifying “problem multifamily properties and neighborhoods” and targeting resources there.

According to PAI staff, there are very few “emergency” requests and those are given highest priority. Beyond that, to our knowledge, there does not seem to be an established method of prioritizing responses. The County would be well served by a clear set of criteria that determines how service responses are prioritized.

- **Collaborating across silos** to engage health and social services agencies for a comprehensive cross-sector approach.
- **Developing strong data systems that synchronize with relevant agencies and departments outside of – but closely related to – code enforcement (such as health and social services)** and regularly evaluating outcomes to inform these processes. A strong data system is a requirement for making informed and strategic decisions about how enforcement resources are allocated. Best practice research points to:
 - » Using neighborhood-level data and indicators to track the relationship of housing code cases and health conditions over time and use that data to assign code enforcement services to the most in-need areas;
 - » Developing mechanisms to track and monitor unsafe properties and problem areas.
 - » Coordination with the data systems of other relevant entities, allowing for a more comprehensive understanding of linkages between housing, health, and social service provision;
 - » Regular evaluation of Code Enforcement services; and
 - » Adopting a reportable, unified data standard for housing code violations.
- **Reorienting code enforcement officials to serve as partners of the community** and ensuring that they are demographically-representative of the populations they serve, culturally competent, and equipped to meet a wide range of resident needs.

Benefit to the County

Moving from an enforcement strategy to a compliance strategy tends to be doubly effective from an efficiency standpoint: It increases attainment of the objectives sought through the regulatory program – in this case, safer buildings, cleaner neighborhoods, higher quality-of-life. And it does so with fewer resources than consumed in traditional inspection and enforcement programs.

This is because fewer resources are expended on the resource-intensive business of inspecting and monitoring the preponderance of businesses or individuals who have demonstrated they need less intensive oversight to comply with the law, and resources are deployed instead on less-expensive forms of encouraging compliance – such as public outreach, incentives and rewards, and simplifying compliance requirements – that actually achieve higher rates of compliance with and obedience to the law. All of this has the added advantage of increasing the satisfaction of “consumers” of government services – taxpayers, homeowners,

renters, businesses, developers – by making them less intrusive, as well as the already-cited benefits of being less expensive and more effective.

Best Practices and Benchmarks

1. Deploy finite resources effectively.

Many jurisdictions have created a tiered system that tailors compliance/enforcement strategies for property owners based on their histories of compliance. Those with strong histories of compliance may be subject to less frequent inspection, the earned opportunity for self-certification, or incentives and recognition

- Some entities allow for property owners with multi-year histories of compliance to “graduate” into a self-certification program, which may include a required course (as does the California Apartment Association).³⁸⁷
- Many entities have practices of more frequent re-inspections for property owners with histories of non-compliance, and less frequent re-inspections for those with strong histories of compliance. In Kansas City, MO, certificates of compliance are valid for two years, but owners can be issued certificates lasting up to four years if no violations have been found.³⁸⁸
- A range of potential incentives exist for incentivizing landlords into compliance, allowing finite departmental resources to be spent on the most serious violators/violations. These incentives include: training and technical assistance (free training courses, one-on-one technical assistance); improved access (single point of contact in County, etc.), help obtaining tenants, and direct or indirect financial assistance.

For individuals who wish to comply but may lack the necessary information, resources, or support to do so, compliance strategies relate to robust education and outreach.

- Cities such as Boston and Los Angeles host extensive workshops and seminars both to train landlords and educate tenants. “Many cities offer landlord training programs. The city of Milwaukee offers a free training program to landlords that concentrate on how to be a ‘proactive property manager’ including code compliance, applicant screening and how to recognize and deal with drug and other illegal activity. The program is five hours long, and at the end participants receive a free 100 page manual with useful information about the legal and business issues associated with managing rental property.”³⁸⁹

For those non-compliers who have repeatedly violated housing code, have had a history of serious violations, and demonstrate ill will, a set of more serious enforcement strategies can be applied. This practice of strategic resource allocation ensures that resources can be targeted towards the most serious violations.

Other jurisdictions utilizing these frameworks have broadened the range of enforcement strategies that can be deployed to include not only the traditional citation and notice-oriented code enforcement process, but market mechanisms, civil litigation, criminal law enforcement, and others. It is a best practice to develop a process that can be used to conduct a cost-benefit analysis that determines which cases resources should be focused on and which strategies are most appropriate to ensure compliance.

- As discussed above, frequent violators can be subject to more regular inspections than those who are consistently in compliance. In Boston, owners who have received more than four complaints must annually request inspection and develop management plans to remediate the property’s substandard condition.³⁹⁰ Howard County, MD (peer county) has rental licenses that are valid for two years but may be limited to six months if there is an outstanding violation.

387 https://www.changelabsolutions.org/sites/default/files/Proactive-Rental-Inspection-Programs_Guide_FINAL_20140204.pdf

388 https://www.changelabsolutions.org/sites/default/files/Proactive-Rental-Inspection-Programs_Guide_FINAL_20140204.pdf

389 <https://www.communityprogress.net/good-landlord-incentives-pages-212.php>

390 https://www.changelabsolutions.org/sites/default/files/Proactive-Rental-Inspection-Programs_Guide_FINAL_20140204.pdf

- Cities have targeted “bad apple” landlords through Probationary Rental Occupancy Permit Ordinances (Raleigh, North Carolina), wherein, “Landlords who have violated rental property ordinances and failed to bring the property into timely compliance or who have a pattern of repeat citations must obtain a two-year Probationary Rental Occupancy Permit (PROP) from the city,” and must pay \$500 per year to cover the cost of administering the program and attend an approved residential property management course.³⁹¹ Ridgefield, NJ requires “landlord security deposits” that can be used in the event of a problem landlord failing to alleviate an emergency condition.³⁹²
- Memphis has considered the adoption of a Chronic Nuisance Ordinance that would require “comprehensive, unit-by-unit inspections, paid for by the property owner, only at properties with a consistent track record of severe and unresolved housing code violations.”³⁹³

2. Establish clear processes for prioritizing violations.

Clallum County, Washington, has developed clear guidelines to prioritize responses to potential violations as follows:

Urgent Level Priority (Emergency)

- Violations that present an imminent threat to public health or safety
- Violations that present a high risk of damage to public resources and/or facilities
- Serious violations already in progress/occurring that can be stopped.

Important Level Priority

- Violations involving a regulated use or activity under Chapter 27.12 CCC, Clallam County Critical Areas Code, or CCC Title 32, Floodplain Management, or involving shorelines or shorelands under Chapter 35.01 CCC, Shoreline Management.
- Violations that may result in damage to real or personal property.
- Violations of permit conditions; building work without a permit, faulty or unsafe construction and/or construction of habitable space.

Routine/Low Level Priority

- Violations that do not fit within any of the previous categories and have only minor public impacts. These violations should be processed in the order which they are received, and as resources allow.

Many best practices use public health as the guiding framework for determining these priorities and utilize code enforcement as a way to improve long-term health of residents and communities, not to simply alleviate immediate safety concerns and obvious problems. Mold, lead-based paint, bed bugs, and asthma triggers are focuses of these programs.

PAI staff with whom we have spoken have repeatedly alluded to a lack of serious health and safety concerns among Baltimore County rental properties; if this perception is true, prioritizing according to public health may not be the approach most conducive to the County’s needs. However, some established protocol for how requests are prioritized should be in place, if it isn’t already.

3. Collaborate across silos.

The City of Newark, New Jersey has attempted to improve housing code enforcement by facilitating interagency coordination. The City has a referral system, through which agencies that learn of substandard housing conditions can refer to the code enforcement agency. In 2014, the City established a taskforce, Newark’s Life Improvement Task Force, which has sought to strengthen and refine the referral system to make code enforcement more effective.³⁹⁴

391 <https://www.communityprogress.net/tool-4--finding-targeting--bad-apples--pages-210.php>

392 <https://www.communityprogress.net/covering-recovering-costs-pages-211.php>

393 https://www.urban.org/research/publication/strategic-housing-code-enforcement-and-public-health/view/full_report

394 <https://www.localhousingolutions.org/housing-policy-library/code-enforcement/>

4. Develop strong data systems.

Best practice research for making informed and strategic decisions about how enforcement resources are allocated points to:

- Developing mechanisms to track and monitor unsafe properties and problem areas, such as the City of Lansing's Neighborhood Enhancement Action Team (NEAT). "NEAT tracks properties that have been 'tagged' as unsafe for habitation based on internal or external conditions. A tagged property is transferred to the NEAT program after 90 days of noncompliance. For every month that the violations are not addressed, the landlord incurs a \$150 fee. Property owners are not charged the fee if they can demonstrate progress toward habitability. This incentive has had a dramatic effect on the number of tagged properties in the city, which has steadily decreased from 740 in 2007 to 362 in 2013 (224 of which were NEAT properties)." ³⁹⁵
- Greensboro, NC's Code Compliance Benchmark Study, which offers a valuable deep dive and evaluation. ³⁹⁶ Similarly, the City of Garland issues public-facing audits that identify areas for improvement and comprehensively analyze violations, compliance time, etc. in pursuit of the audit's objective to: "Evaluate whether Code uses appropriate processes and techniques to maximize the efficiency and effectiveness of code enforcement efforts and tools available." ³⁹⁷
- The reportable, unified data standard for housing code violations developed in San Francisco and adopted by a number of entities already, to increase consumer access to housing information.

5. Reorient code enforcement officials to serve as partners of the community.

In other jurisdictions, this has included:

- Incorporating social work and social services backgrounds and principles into code enforcement:
 - » The City of Newburgh "ensures that a code enforcement officer with a social service background and deep connections among local support networks conducts inspections in these kinds of complex cases" and provides referrals to resources beyond code enforcement. ³⁹⁸
 - » Newburgh also "hired a CEO with a social work and community organizing background with the expertise necessary to evaluate and connect residents to the services they most want and need. Newburgh established a two-pronged protocol to focus on high-need cases impacting low-income tenants. First, they prioritize high-risk safety and health code violations. Second, for any cases where the violation may result in temporary or permanent displacement, the CEO/social worker is automatically assigned to the case." ³⁹⁹
- Training code enforcement officers on Healthy Homes practices:
 - » "Code enforcement officers must understand how building safety standards affect the health of residents. Recommended by the Centers for Disease Control and Prevention and offered by the National Healthy Homes Training Center and Network, the Code Inspection for Healthier Homes course takes a holistic approach to code enforcement and emphasizes the seven key elements of a healthy home: "Keep It Dry, Keep It Clean, Keep It Pest-Free, Keep It Ventilated, Keep It Safe, Keep It Contaminant-Free, and Keep It Maintained." ⁴⁰⁰

395 https://www.changelabsolutions.org/sites/default/files/Proactive-Rental-Inspection-Programs_Guide_FINAL_20140204.pdf

396 <https://www.greensboro-nc.gov/Home/ShowDocument?id=18285>

397 <https://www.garlandtx.gov/DocumentCenter/View/1692/Code-Compliance-PDF>

398 https://www.urban.org/research/publication/strategic-housing-code-enforcement-and-public-health/view/full_report

399 https://www.urban.org/research/publication/strategic-housing-code-enforcement-and-public-health/view/full_report

400 https://www.changelabsolutions.org/sites/default/files/Up-tp-Code_Enforcement_Guide_FINAL-20150527.pdf

- Adopting a “cooperative compliance” model where code enforcement officers actively help property owners fix problems and bring their properties into compliance:
 - » One example of this is a partnership between Health Homes Collaborative, the Los Angeles Housing Department, and the L.A. County Department of Public Health: “Under the partnership, a member of the collaborative visits selected homes prior to scheduled city inspections. The collaborative representative assists residents in preparing for inspections by educating residents about lead hazards and lead-safe work practices, providing information and referrals about blood lead testing and how to report unsafe repair work, listing potential defects, and informing residents of their legal rights.”⁴⁰¹
- Hiring code officers who reflect the communities they serve, are multilingual, and trained in cultural competence.
 - » The City of Brooklyn Park, Minnesota, “instituted a new protocol that requires outreach prior to any enforcement actions. They developed educational materials that address language, resource and other barriers [and] provide training to all officers that includes data, racial justice and scenario planning tools. And importantly, staff are empowered to say no when they feel that race and/or ethnicity is a motivator for a complaint.”⁴⁰²
- Pairing veteran code enforcement officers with new officers, as is done in the City of Rochester:
 - » “The City’s comprehensive, two-year, cross-training and mentorship program pairs veteran CEOs with new trainees. This approach ensures that CEOs get the on-the-job training and support they need to navigate both the technical and human aspects of the job. Experienced officers are able to pass off long-term relationships to their newer co-workers – essential for continuity and consistency in this oftentimes sensitive public function.”⁴⁰³
- Taking community-oriented and grassroots approaches to improve compliance:
 - » In response to a concentration of “unsafe conditions and would-be code violations in vulnerable neighborhoods,” the City of Santa Clarita (CA) “started their own Extreme Neighborhood Makeover program. The city collaborated with various nonprofits, local businesses, and community volunteers to sponsor kick-off block parties in target areas. Local elected officials turned out to meet their constituents and city employees provided information about local regulations, grant programs, and other resources for homeowners and tenants. Local businesses sold food and drinks, and neighbors came out to eat, meet each other, and figure out ways to work together to improve their neighborhood. Each block party was followed up with a thank you letter and a heads-up list of current violations from the city. City staff continuously checked in with residents to clarify issues or connect them to resources. As a result, the city reached almost 500 homes and, for a relatively low cost, improved compliance rates from 10% to 95%.”⁴⁰⁴

3.3.2 SOLID WASTE ROUTES REALLOCATION

Prioritize redesigning residential collection routes, including consolidating operations to structure routes in a systematic way with a targeted baseline of 10,000 units per route.

Findings

Thirty-six private hauler companies (many of them family-owned) provide residential trash collection service along 51 routes in Baltimore County. These routes, some of which date back to 1949, vary in scale and other characteristics that affect how waste is collected. For example, some are in denser urban areas, while others are rural in nature.

401 *Ibid.*

402 https://hesterstreet.org/wp-content/uploads/2019/07/CR_Phase-I_Equitable-Code-Enforcement-report_FINAL-JUNE-2019.pdf

403 *Ibid.*

404 *Ibid.*

According to the Ten-Year Solid Waste Management Plan, 2019-2028 and conversations with Bureau staff, there are approximately 237,000 single-family homes and 86,000 apartments and condo units in Baltimore County. Approximately 22,540 homes receive collection service twice a week (to mitigate against rodent issues). Additionally, the Urban-Rural Demarcation Line (URDL) defines the areas that receive certain waste collection services. Properties outside of the URDL (in rural areas) do not have yard materials collected, while the remaining 70 percent of single-family homes and townhomes inside the URDL have yard materials collected every other week from April to December.

Although each collector is responsible for trash, recycling, and yard materials collection (inside the URDL), these services are not scheduled on the same day for individual properties, meaning that one property may have recycling pickup on a different day from trash collection.

When routes lose their hauler, the Bureau of Solid Waste Management offers those routes to other companies servicing neighboring routes. More than one third of trash collection companies serving Baltimore County residents serve fewer than 5,000 units.

According to interviews with senior Bureau staff, because Baltimore County has been re-assigning routes and haulers on an ad hoc basis for the last 60 years rather than reevaluating how the assignments are dispersed throughout the County, the existing route system is disorganized and inefficient. Baltimore County attempted to restructure the routes in 2018 with a plan to bid out the restructuring, but the process was halted. Bureau staff view route restructuring (which may entail a new schedule for residents to anticipate waste collection) as crucial to streamline their operations but also a challenge to receive broad support to address.

The *Tactical Five-Year Plan: Baltimore County's Recycling & Solid Waste System* report (currently in draft form) recommends the consideration of a "Long-term Process for Collection." This document suggests the consideration of "10-12 contract areas; this is a greatly reduced number of areas so that the selected contractor (and its subcontractors) can provide the sustainable services with a reasonably significant fleet size and have economies of scale and efficiencies in so doing. The areas would be determined based on both the number of properties to be serviced and the road miles that would have to be travelled to serve them and deliver collected materials to the appropriate unloading location."

Benefit to the County

By reassessing the current routes and consolidating operations, the County will benefit from efficiencies of scale that will allow for remaining companies to be paid fairly while reducing overall costs to the bureau. In addition to these direct benefits, streamlined routes (that is, structuring a route system for haulers that is organized in a systematic way) will also benefit the County and its residents in other ways, including through reduced traffic congestion and wear and tear on the roads. Redesigning the existing system from the bottom up and with a baseline of 10,000 units per route would mean fewer contractors and more consolidated service (all pickups at a residence on the same day).

As noted in the *Tactical Five-Year Plan*, "The benefits of changing the service agreements to franchises would be that the existing haulers would have more opportunity to continue providing services in the County. There would need to be significant changes in how their services are delivered based on the Pilot Project results."

Best Practices and Benchmarks

As noted in Baltimore County's draft *Five-Year Tactical Plan for Solid Waste*, Portland, Oregon, implemented a franchising concept for a long-term contractual engagement. Portland granted 10-year franchise agreements to 69 haulers in 1992, and now has 14 haulers providing service in the residential collection system, with reductions driven in part by retirements and buyouts.⁴⁰⁵

405 "A Look at Portland, Ore.'s Residential Franchise Zoning System," Waste360, <https://www.waste360.com/residential/look-portland-ore-s-residential-franchise-zoning-system>.

Implementation Guidance

The Bureau of Solid Waste Management is currently finalizing a service agreement with the 36 companies that collect residential waste within the County. This five-year service agreement is a first step for Baltimore County in re-thinking how its routes are arranged but, according to the Bureau, further steps need to be taken to streamline the collections process. The Bureau will need to consider potential pushback from both the family-owned collection companies that will be impacted by this change, as well as from residents who may not want changes to their existing collection schedules.

To proceed with the route reallocation, the Bureau will need to broadly evaluate hauler size and capacity, routes and historical collections volume, and redevelop a system that takes into consideration company capacity, geographical distribution, and consistency in pickups across services where possible. After adjustments are made, it will be crucial for Baltimore County to broadly communicate route and schedule changes and the various benefits to residents that will come with the new and improved routes.

3.3.3 PILOT COUNTYRIDE SUBSCRIPTION SERVICE

The Department of Public Works and Transportation (DPWT) should implement a CountyRide subscription trip pilot program, which would serve as an expansion of the existing short-term standing ride option.

Findings

Baltimore County's CountyRide system provides transportation for older adults, people with disabilities (ages 18-59), and rural residents. Currently, rides can be used for medical appointments, grocery shopping, and to visit pharmacies. Riders can request medical trips up to two weeks in advance, or other trips up to one week in advance.

Riders can request rides up to two weeks in advance for a medical trip, or up to one week in advance for other trips. Staff answer the phone from 8:00 a.m. - 4:00 p.m., and an automated system is available 24 hours per day. When making appointments, riders give the time and location of their appointment (rather than requested pick-up time), and the exact pick-up time is finalized through an automated phone call at 5:00 p.m. the day before the trip. Rides can be scheduled for the same day if resources are available. If there are no openings at the time of booking a trip, riders may choose to be placed on stand-by (dependent upon cancellations or other factors).

In general, riders are currently not able to schedule rides more than two weeks in advance. There is an option for a short-term "standing ride" that can be set up only for people who go to partnership hospital locations regularly, for a specific, short period of time (for example, for chemotherapy). However, this is limited in scale and only makes up a small portion of eligible rides. County staff expressed frustration with the CountyRide scheduling system. Increasing the share of subscription trips is expected to reduce the administrative burden for CountyRide staff who schedule trips.

Benefit to the County

Subscription trips allow for greater predictability; thus, an effective subscription trip model can improve service and reduce the time it takes for employees to schedule trips. For example, pre-booked trips through this model helps the County better anticipate the demand for trips. Greater predictability could help to optimize the routes and reduce the scheduling burden for both CountyRide employees and people who use the service.

Best Practices and Benchmarks

According to Easter Seals Project ACTION's "Innovative Practices in Paratransit Services," approximately 50 percent of all paratransit rides are subscription service rides.⁴⁰⁶ While this data is not recent and is focused on fee-free paratransit-specific programs, it indicates that subscription trips have the potential to make up a large portion of all rides.

Dallas' DART mobility management system offers a subscription service that is limited to riders traveling to the same place at the same time at least once a week for a minimum period of 90 days. DART reserves the right to restrict and/or prioritize subscription service to maintain a maximum level of 50 percent when capacity is limited. Riders must cancel trips no later than two hours before their ready time window.

Implementation Guidance

CountyRide should consider implementing a pilot expansion program that broadens the current guidelines to allow for longer-term subscription trips, including trip to medical appointments that are not at a partner hospital. This will allow the program to evaluate demand and adjust any potential policies and guidelines. For example, the County may decide to require that all new subscription trips be phoned in for confirmation during the first month, or that a subscription will be terminated if a rider accumulates more than two consecutive cancellations or no-shows.

3.3.4 VOLUNTEER DRIVERS FOR SENIOR CITIZENS

The Baltimore County Department of Aging should develop and operate a Volunteer Driver Program for older residents of Baltimore County.

Findings

Aging Nationally

Baby Boomers, adults born between 1946 and 1964, were the largest generation in history until 2019.⁴⁰⁷ A 2015 study conducted by the Population Reference Bureau on Aging in the United States found that the "number of Americans ages 65 and older is projected to nearly double from 52 million in 2018 to 95 million by 2060, and the 65-and-older age group's share of the total population will rise from 16 percent to 23 percent."⁴⁰⁸

Aging Locally

From 2010 to 2017, the senior population in Baltimore County grew by 15 percent. Seniors 75 years and older grew from 6 to 7.3 percent of the county's total population⁴⁰⁹. Baltimore County's 2019-2020 Enterprise Strategic Plan notes that 25 percent of Baltimore County residents are 60 years of age and older.⁴¹⁰

U.S. Census Bureau data indicate that the number of Americans ages 65 and older will increase to more than 71 million by 2030 – when the senior population will reach its peak.⁴¹¹ Research shows more than 20 percent of seniors ages 65 years and

406 Easter Seals Project ACTION, "Innovative Practices in Paratransit Services," https://www.nadtc.org/wp-content/uploads/634712807643425585_Innovative_Practices_in_.pdf, p. 9.

407 <https://www.pewresearch.org/fact-tank/2020/04/28/millennials-overtake-baby-boomers-as-americas-largest-generation/>

408 <https://www.prb.org/resources/fact-sheet-aging-in-the-united-states/>

409 <https://resources.baltimorecountymd.gov/Documents/Aging/bacoareaplannarrative.pdf>

410 <https://resources.baltimorecountymd.gov/Documents/Executive/BCStrategicPlan.pdf>

411 United States Census Bureau, "Population under age 18 and 65 and older: 2000, 2010, and 2030" data available at the <http://www.census.gov/population/www/projections/projectionsagesex.html>

older – nearly 7 million people – do not drive at all.⁴¹² Without transportation programs, these individuals struggle to leave their homes for activities such as shopping, doctor’s appointments, dining out, and more. This leads to a large segment of the population remaining isolated and not able to contribute to the local economy nor able to access medical appointments, or health and wellness programs which makes them especially vulnerable given that older populations struggle multiple chronic health conditions.

Studies show that seniors aged 65 and older who no longer drive make 15 percent fewer trips to the doctor, 59 percent fewer trips to shop or eat out, and 65 percent fewer trips to visit friends and family, than drivers of the same age.⁴¹³ The 2014 STAR Awards found that four of the top five destinations identified by those who utilized their volunteer driving services were medical transportation, to locations such as doctors’ offices, non-emergency health care centers, pharmacies, and dialysis centers.⁴¹⁴ Program managers report that these driving services can delay institutionalization for one or two years.⁴¹⁵

Baltimore County Transportation for seniors and disabled adults

Baltimore County CountyRide provides transportation for seniors, individuals with disabilities and those living within the rural boundaries of the county. However, with the increasing population of seniors comes an increasing need for transportation services for seniors and disabled adults to remain socially connected and acquire access to attend to their health care needs.

A survey recently conducted by the Baltimore County Department of Aging found that one of the biggest areas of concern for seniors is the “ability to remain in one’s home and transportation.”⁴¹⁶

Previously, a group of about five volunteers made informal arrangements to provide rides to the grocery store and other appointments for seniors. The county paused this practice because of liability concerns.

Housed in the Department of Aging, The Home Team Program seeks to provide services that decrease isolation among seniors. The program currently provides home visits, phone calls, and food pick-up support. Baltimore County’s Comprehensive Plan of Services describes a desire to expand the volunteer services to include increased transportation support for seniors.

The National Aging and Disability Transportation Center highlights the importance of community driven transportation services to fill transportation gaps for those with limited travel capabilities and identifies volunteer transportation programs as an example.⁴¹⁷

Benefit to the County

Adopting an innovative, cost-saving model of “Volunteer Drivers” that augments the current paratransit system currently operated by the County will help meet the growing demand for mobility among older and/or disabled individuals in the county.

According to the National Center for Senior Transportation, volunteer transportation programs meet the specific needs of seniors by:⁴¹⁸

- Ensuring that individuals are provided a ride home.
- Providing the opportunity to travel beyond county lines for individuals that would otherwise remain in the same limited area.
- Tailoring the service to the clients’ specific needs.
- Helping seniors stay active and maintain their independence
- Increasing human connection for those who might otherwise be isolated.

412 <https://t4america.org/docs/SeniorsMobilityCrisis.pdf>

413 Bailey, Linda (2004), “Aging Americans: Stranded without Options” Surface Transportation Policy Project, Washington, D.C.

414 <https://www.giaging.org/issues/volunteer-driver-programs/>

415 <https://www.giaging.org/issues/volunteer-driver-programs/>

416 <https://resources.baltimorecountymd.gov/Documents/Aging/bacoareaplannarrative.pdf>

417 <https://www.nadtc.org/about/transportation-aging-disability/unique-issues-related-to-older-adults-and-transportation/>

418 <https://www.n4a.org/files/NCST%20Volunteer%20Transportation%20Info%20Brief.pdf>

Best Practices and Benchmarks

Harford County and Cecil County's joint volunteer driving program, *Getting There Ride Share*, is dedicated to providing "safe, dependable and reasonably priced supplemental transportation services, utilizing community volunteers and resources."⁴¹⁹

- The program serves seniors 60 years and older.
- Users must schedule 3 business days in advance.
- Users can schedule up to 12 rides per month.
- Roundtrip Price: within zip code: \$5.00, different zip code: \$6.00, other jurisdiction: case by case.
- Drivers identify themselves with a magnetized sign on the side of their car, and a photo ID.

In terms of addressing liability precautions, this Volunteer Driver Program employs the following practices:

- Riders sign a waiver form dictating that they "waive all claims arising out of the transport."⁴²⁰
- Volunteers sign a Volunteer Driver Agreement that requires a character reference, formal driving record, and background check. Also, the Agreement states: "volunteer and passengers are covered by the driver's personal automobile insurance policy." And "Getting There Ride Share's insurance will take effect as secondary coverage."⁴²¹

The Montgomery County Department of Health and Human Services Aging Unit's *Senior Ride Program* provides free transportation for individuals ages 60 and older.⁴²² Volunteers drive their own car, escort the senior to the appointment, and drive them home. In general, the average trip takes 2.5 to 3 hours. The program limits the number of rides to 4 per month per senior. The Department tries to accommodate seniors who have more needs, such as dialysis patients. It uses a Ride Scheduler software through Edgfish to track rides. The volunteers have log-ins to the software and can select their own rides based on their availability and location. The Senior Ride Program has four employees: an Executive Director, Director of Operations, Marketing manager, and Transportation manager. Last Fiscal Year, they served 462 seniors, with 160 volunteers escorting the seniors to 4,414 one-way rides. On average, they complete 500 rides each month utilizing about 60 unique volunteers. The program recommends scheduling rides 2-3 weeks in advance, because the program is very popular.

While driving as a volunteer for Senior Connection, the volunteer is covered by a General Liability Policy that Senior Connection pays for through Brotherhood Mutual. The Senior Ride Program has a strong vetting process to protect their seniors. Volunteers must fill out an application and agree to a MVA/Background Check, and two reference checks. Furthermore, the county provides "comprehensive and on-going training on such topics as senior mobility and sensitivity, and HIPPA compliance."⁴²³

Transportation Reimbursement and Information Program (TRIP) in Riverside, California, provides another award-winning model of volunteer drivers.⁴²⁴ The TRIP model has riders choose their volunteer driver from people they already know, and then the trip is reimbursed. Having riders choose their own volunteers minimizes risk and liability and decreases operating costs.⁴²⁵

Some of their success includes:⁴²⁶

- From 2018-2019, 809 riders were served, with an average of 14 trips per rider, for a total of 138,000 one-way trips.
- Each one-way trip with TRIP costs \$6.33. The 2015 National Database reported that on average, the cost of a one-way trip by paratransit service is \$35.55. Using TRIP is 5.6 times LESS expensive.
- The program has grown by 37% since 2014.
- 98.1% of riders recommend the program.

419 <https://gettingtherideshare.org>

420 <https://wilsoncentergtrs.files.wordpress.com/2010/08/riderwaiver22.pdf>

421 <https://wilsoncentergtrs.files.wordpress.com/2013/04/gtrs-volunteer-driver-consolidated-forms1.pdf>

422 <https://www.seniorconnectionmc.org/our-programs/senior-rides/>

423 <https://www.seniorconnectionmc.org/volunteer-today/>

424 <https://ilpconnect.org/overview/>

425 <https://ilpconnect.org/wp-content/uploads/2019/09/TRIP-Model.pdf>

426 <https://ilpconnect.org/wp-content/uploads/2019/07/2018-2019-TRIP-Riverside-County-Report.pdf>

Implementation Guidance

A Volunteer Driving Program should be housed in the Volunteer Program Home Team Division of Baltimore County Department of Aging. The following are best practices for implementing a Volunteer Driving Program.

The National Center on Senior Transportation recommends the following steps for setting up a volunteer driving program:⁴²⁷

1. Program Structure: Determine which volunteer driving model to use.
2. Target audience, service area, trip type: Identify the target client and determine the types of trips that will be offered.
3. Funding: Determine the funding sources for the program.
4. Risk liability and insurance: Determine insurance and liability protocols, and who is responsible if there is an accident.
5. Volunteer Recruitment: Use various methods for recruiting volunteers on a regular basis to meet county needs.
6. Volunteer training and supervision: Train and supervise volunteers regularly to ensure quality service.
7. Volunteer Retention:
 - » Make volunteer expectations clear.
 - » Find ways to accommodate volunteers that have different time availability.
 - » Create volunteer incentives, and make sure volunteers feel appreciated.
8. Program Quality and Data Collection
 - » Define goals and what success looks like.
 - » Define types of data to collect, including volunteer and rider feedback.
 - » The National Aging and Disability Transportation Center highlights the following as metrics to use for collecting data on volunteer driving programs: Trips provided, trip length, miles traveled, passenger satisfaction, driver satisfaction, cost of outreach to secure one driver, types of trip purposes, passenger demographics, driver demographics, operational cost to provide a ride and operation cost to schedule a ride.⁴²⁸

Baltimore County can take advantage of the resources available from the National Volunteer Transportation Center by accessing its Volunteer Driver Recruitment and Retention Experience and Practice Handbook.⁴²⁹ In addition, the Community Transportation Association of America provides COVID-19 Safety Protocols⁴³⁰ that combine all guidance from a variety of federal agencies. Baltimore County ought to review the existing safety protocols and require volunteers and members of the program to follow such guidelines to keep all parties safe. The protocols include recommendations about: masks, at risk drivers, driver compartment barriers, social distancing, vehicle and transit facility cleaning and disinfecting, fare collections, essential trips, wheelchair securement and transporting a COVID-19 positive patient.

Training

The Community Transportation Association of America provides Training and Certification classes on the following topics:

- Recruiting, Building and Retaining a Sustainable Driver Workforce
- Front Line Supervisor Training
- Excellence in Training: Training-the Trainer
- Understanding Passengers who have experienced Trauma

427 <https://www.n4a.org/files/NCST%20Volunteer%20Transportation%20Info%20Brief.pdf>

428 <https://www.nadtc.org/news/blog/5-keys-to-successful-volunteer-driver-programs/>

429 https://ctaa.org/wp-content/uploads/2018/10/NVTC_DriverRecruitHandbook_v1.pdf

430 https://ctaa.org/wp-content/uploads/2020/04/CTAA_Final_COVID19.pdf

- Passenger Assistance, Safety and Sensitivity (PASS)
- Volunteer Driver Safety
- Conflict management and De-escalation for transit drivers and supervisors

Passenger Assistance, Safety and Sensitivity training is a training program updated yearly depending upon new trends and potential new content that has emerged in the last year. More than 150,000 volunteer drivers are PASS certified. PASS is a two-day course that can be taken on-line or in-person.

3.3.5 LOAN CLOSET IMPROVEMENTS

Enhance the Department of Aging Loan Closet program that provides durable medical equipment and assistive devices to older adults:

3.3.5.1 Create a space dedicated to the Loan Closet with a designated phone number.

3.3.5.2 Form partnerships with community organizations and an Occupational Therapy (OT) program to provide health education support for clients on how to use devices and to ensure that the equipment is in good standing.

3.3.5.3 Invest in purchasing a medical equipment cleaning machine to ensure full sanitization of the durable medical equipment loaned out to seniors.

3.3.5.4 Fill the courier position so that equipment can be delivered closer to seniors with limited travel capabilities.

Findings

The Baltimore County Loan Closet lends durable medical equipment, including bathroom safety and transfer equipment and ability devices, to Baltimore County residents ages 60 and older. According to Census Reporter, as of 2019, 25 percent of Baltimore County were 60 years and older.⁴³¹ Low-income seniors benefit from the Loan Closet's lending of assistive and safety equipment that is often non-refundable by insurance. From April 2018 through April 2020, the most recent available data, 427 people were served by the Loan Closet in Baltimore County,⁴³² or roughly someone every single workday.

Staffing

The Loan Closet has been operating for more than 20 years. For 18 years, the Loan Closet operated with no full-time staff dedicated to the program. The Loan Closet has had one part-time staff member for two years. One part-time staff is not sufficient to keep everything clean and serve customers in a timely fashion.

Other staff members in the Department of Aging spend a few hours per week to keep the closet running. In summary:

- The Loan Closet Clerk is a half-time position who works three days a week for a total of 20 hours/week. The clerk is responsible for client interactions, cleaning, and storing protocols. The clerk helps adjust materials for clients and can make simple repairs but does not have the skillset for mechanical repairs of the equipment, nor of an occupational therapist as to how to advise clients in using the equipment or assuring that equipment meets basic quality standards and is worthy of being loaned out.

⁴³¹ <https://censusreporter.org/profiles/05000US24005-baltimore-county-md/>

⁴³² Information provided by Baltimore County Department of Aging, 8/10/21.

- Four staff members from the Department of Aging spend a few hours per week answering phone calls for the Loan Closet.
- An office manager from the Department of Aging carries out data entry work and bookkeeping for the Loan Closet.
- The manager of Baltimore Counties' Maryland Access Point and Community Outreach manages the program.
- The Department of Aging has a currently vacant courier position. When the position was filled, the Loan Closet was able to put in requests to have equipment dropped off at a senior center closer to clients who could not make it to the Towson location. This was particularly useful for low-income clients who lacked the ability or resources to travel to Towson.

Equipment

The Loan Closet has an inventory of 1,663 pieces of equipment, of which 1,481 are currently on loan and 173 housed in inventory. There is no time limit for how long residents can borrow the equipment. All equipment is free of charge except wheelchairs, which require a \$25 deposit that is returned once the wheelchair is returned. The Loan Closet accepts donated equipment, and over the years some equipment has been purchased for the Loan Closet (approximately \$8,900 worth). The equipment is maintained by the Loan Closet clerk. Donations left outside the door without notice is an issue, due to lack of space in the Loan Closet facility. In the Loan Closet, the most sought-after equipment are pieces not covered by insurance, such as bathroom equipment.

Location and Storage

The Loan Closet does not currently have its own location. The assistive equipment is currently located in two basements and two storage closets of a senior center in Towson, MD. The equipment closets are difficult to access and to keep clean. When retrieving equipment, the Loan Closet Clerk must carry equipment through community rooms where classes take place. The amount of equipment accepted is limited due to lack of space. The center staff is trying to find a balance between having enough equipment to service the needs of the community and having so much that they cannot warehouse it.

COVID-19 Response and Cleaning

The Loan Closet closed for approximately a year due to the COVID-19 pandemic. Since the beginning of COVID-19, clients are required to make an appointment prior to arriving at the Loan Closet for pick-ups and drop-offs. When they arrive, the clerk meets them in the lobby of the senior center to give them the equipment. When equipment is signed out, a liability waiver form must be signed indicating that the Loan Closet is not liable for potential injury from use of the equipment. Receipts are issued when equipment is dropped off. The Loan Closet has stopped accepting new equipment since the pandemic. Currently, the Loan Closet clerk cleans the equipment with a hose outside the Senior Center, which can be a lengthy process; given the pandemic and the continuing rise of new variants, the demand for sanitization will require higher standards of cleaning.

Tracking

The Loan Closet works with two databases that track client information and equipment. Inventory tracking is a challenge for the Loan Closet, due to the system not always working correctly, and clerical errors due to lack of time in maintaining it. In the past, this has resulted in residents coming to pick up equipment that is improperly logged as available.

Benefit to the County

The County has an opportunity to meet an ever-growing demand of an aging population for assistive devices that they cannot afford and to enable more individuals and families to donate their durable medical equipment to a good cause that can assist other seniors.

A dedicated space for the Loan Closet will provide adequate room to house, access, and organize the equipment. Creating a space where the equipment is visible and organized will make it easier to correct logging errors and ensure that if a client is coming to pick up equipment that it is available. It will allow room for older people to try out the device and adjust measurements to their height and size when needed (e.g., wheelchairs, walkers, crutches).

This also will provide space for a cleaning machine that will save time and labor while also ensuring that sanitation standards are met to protect the health of clients using the equipment, instead of simply hosing the equipment down with water. Acquiring a medical equipment cleaning machine will save the current part-time employee a great deal of time cleaning equipment (for example, 6 minutes per wheelchair vs. 25 minutes by hand), which would free-up time for inventory control and making arrangements to gather equipment for seniors needing to pick it up. Furthermore, using a machine such as the Hub Scrub – “the

most comprehensive disinfection system for patient care equipment with the highest levels of protection”⁴³³ – will ensure full disinfection, which is exceedingly necessary as the COVID-19 pandemic continues.

A partnership between the Loan Closet and a local Occupational Therapy (OT) Program would be mutually beneficial. OT student volunteers will help clients learn how to use the equipment properly, which will increase client safety and decrease the likelihood of equipment malfunction. It will afford students the opportunity to receive hands-on experience with disabled and older clients, as well as an opportunity to increase competency with assistive technology. Student volunteers could also be tapped from local Vo-Tech schools for repair of equipment and maintenance of wheelchairs.

Forming community partnerships with colleges and community organizations will increase involvement with and investment in the Loan Closet and provide needed support for the program. Recruiting volunteers who are technologically skilled from community organizations ensures that the assistive technology in the Loan Closet will be well maintained.

Filling the courier position will improve access to assistive equipment for seniors with limited travel capabilities, low-income seniors, and seniors who are limiting their travel during the pandemic.

Best Practices

Howard County, Maryland

The Loan Closet in Howard County, a program run by The Office of Disability Services, is considered the best in the country. The Loan Closet is open 40 hours a week and is in a 7500 square-foot facility. Howard County Executive Calvin Ball reported that this Loan Closet served more than 12,000 residents between 2016 and 2019 – roughly twenty times the rate in Baltimore County. It saved families nearly 5 million dollars.⁴³⁴ Howard County uses Hub Scrub to clean its equipment and ensure thorough sanitation.

The Loan Closet of Howard County provides not only equipment for those who need it, but also information about how to use the equipment. The Howard County Loan Closet engages the community by posting equipment maintenance volunteer opportunities. The equipment is loaned out for free with wheelchairs being the only equipment with a loan limit (30 days, with extension up to 90 days). Recognized for its success by the Baltimore Sun,⁴³⁵ Howard County’s Loan Closet partners with three organizations: Rebuilding Together, Equipment Connections for Children and the Maryland Department of Disabilities Maryland Technology Assistance Program. The Loan Closet’s partners unite under similar missions to provide free services to vulnerable populations and matching and demonstrating assistive technologies.

433 <http://www.hubscrub.com/products>

434 <https://www.baltimoresun.com/maryland/howard/columbia/cng-ho-loan-closet-move-20200109-2vldedvwnhqparg4iwwd24apq-story.html>

435 <https://www.baltimoresun.com/maryland/howard/columbia/cng-ho-loan-closet-move-20200109-2vldedvwnhqparg4iwwd24apq-story.html>

St. Lawrence County, NY

The St. Lawrence County, NY, Office for the Aging offers two Loan Closets that allow clients to borrow equipment for up to 30 days.

One of these sites is located and maintained by Clarkson University's Assistive Technology Resource and Education Center and is managed and staffed by a faculty member and graduate students. The Closet benefits community members who are elderly and/or disabled, as well as those who are training clinicians. It offers the following services:

- Lending assistive technology.
- Training community members who are elderly and/or disabled to use the assistive medical equipment, for no cost.
- Providing OT students with the opportunity to gain hands-on experience with clients and new assistive technologies.
- Providing OT students the opportunity to create new and unique devices using a 3D printer.
- "Support[ing] clinicians, special educators, families and individuals in the community by offering AT demonstrations and hands-on trials prior to making purchas[es]".⁴³⁶

This Loan Closet is particularly technology-focused, as it has 3D printers available with which students may experiment to create assistive technology. Furthermore, the center collaborates with the Adirondack Regional Technology Center at SUNY Plattsburg, which is a Technology Related Assistance for Individuals with Disabilities (TRAID) Center.

The other Loan Closet provided by St. Lawrence County – Maximizing Independent Living Choices (MILC) – focuses on supporting individuals with disabilities. This site is used for short-term loans primarily to support clients while they wait for their equipment to arrive or ensure that they are buying the correct equipment.⁴³⁷

Implementation Guidance

The Department of Aging should locate potential spaces to house the Loan Closet. Preference should be based on price, space, and access to a water source to run a medical equipment cleaning machine. It is highly advised that the Department review the various types of cleaning machines available and purchase one.

There are multiple universities in Baltimore County that offer Occupational Therapy programs, including Towson University and Community College of Baltimore County. The Johns Hopkins Occupational Therapy program also has a location in the County. The Loan Closet should also consider partnering with the Maryland Technology Assistance Program to help provide assistive technology demonstrations and coordinate with other local organizations and medical programs to form mutually beneficial partnerships.

⁴³⁶ <https://www.clarksonassistivetech.com>

⁴³⁷ <http://milcinc.org/loan-closet/>

3.3.6 HOME AND PROPERTY MAINTENANCE TOOL LOAN CLOSET

Develop a Home and Property Maintenance Tool Loan Closet program that provides home and garden tools to County residents.

Findings

Elsewhere in this report the review team addressed ways to improve the Baltimore County's existing Loan Closet program providing durable medical goods and related equipment to Baltimore County seniors and resident with disabilities. (See **Loan Closet Improvements**.)

The Loan Closet has been operating for more than 20 years.

While various County governments maintain similar loan closet programs for elderly and disabled residents, the basic idea behind a "loan closet" can be applied in other contexts and, while the review team could locate no other local governments who do so, various non-profit community entities around the country, as well as U.S. military installations, have created loan closets for common home and garden tools.

Benefit to the County

Home improvement tools can be very expensive – especially given that they are often required for specific tasks and then not necessarily used much again. Access to such tools, however, can enable many families to improve their homes and living conditions themselves without the often-high expense of hiring experienced contractors. Making such tools available at no- or low-cost thus can contribute to improved quality-of-life and better neighborhoods for residents across the County. Small membership or loan fees, including ones geared to the users' income levels, can make valuable service self-sustaining and thereby of no cost to the taxpayers.

Best Practices

As noted, many military operations around the country offer loan closet operations. For instance, Altus AFB, Oklahoma, has a Loan Closet that provides a variety of items available for loan including: kitchenware/appliances, utensils, dish packs, cookware, sleeping cushions, baby items (pak-n-plays, strollers, baths, boosters, high chairs etc.) and more. Some items are limited such as TVs, child car seats, wheelchair, baby gates and swings. The Loan Closet has a selection of children's toys available for loan as well, donated by the Officer Spouses Club. There is also a limited number of vacuum cleaners available for 48 hours at a time. The Loan Closet is primarily available to military and DoD civilian personnel, along with Altus AFB permanent residents/retirees and their house guests. The Loan Closet also has carts and a ramp to help with loading and unloading the items from vehicles. There is no charge to use the Loan Closet unless an item is broken or not returned. As noted on the contract which is signed prior to use of the Loan Closet, all items must be cleaned and serviceable prior to their return to the Loan Closet, and are not transferable to another individual. (See <https://www.altus.af.mil/News/Article-Display/Article/352866/family-services-provides-helpful-tools-for-everyone/>.) Naval Air Station Pensacola similarly, has a loan closet program that "allows service members, families and loved ones to borrow durable equipment or resources." (See <https://installations.militaryonesource.mil/military-installation/naval-air-station-pensacola/military-and-family-support-center/loan-closet>.)

Loan closet programs appear to be most common, however, amongst organizations aimed at helping low-income families to meet their housing needs. For instance, Lewis & Clark Valley Habitat for Humanity in Idaho offers a Lawn & Garden Tool Loan Closet that “make[s] it easier for home-owners, especially with limited resources, to borrow the necessary equipment to take care of and improve the appearance of their yards.” The L-C Valley Habitat Loan Closet charges a small fee to borrowers. (See <https://l-cvalleyhabitat.org/lawn-garden-tool-loan-closet-sponsorship/>.)

Modcon Living is a Franklin County, Ohio, nonprofit organization dedicated to providing access to safe and healthy homes. Its social enterprise, Mod Squad, offers home repair and maintenance services and helps to fund repairs for vulnerable homeowners through a pay-it-forward system. Modcon’s “Tool Library” provides members access to more than 4,800 hand and power tools for homes and gardens – on up to tractors. (See <https://www.modconliving.org/>.)

Implementation Guidance

ModCon Living provides the following membership structure for its tool library:

\$50 – Individual (Annual Membership) *

\$25 – Student / Senior / Veteran (Annual Membership) *

\$15 – Special Project (30-Day Membership) *

It also offers “Pay What You Can Memberships” for any individuals that may not be able to contribute the full membership fees.

The current Baltimore County Loan Closet has operated for 18 years with no full-time staff. As discussed elsewhere, the loan closet probably requires two full-time-equivalent staff to operate, plus an office manager to carry out data entry work and bookkeeping, as well as some management oversight. The County will probably want to offer loaner access to the tools inventory at several locations around the area; this will require operating staff at each, but the accounting and management functions can be centralized. This would require annual outlays of approximately \$700,000 per year.

If the County were to charge a \$50 annual membership fee for the tool loan closet, 14,000 families would need to join to make the program self-sustaining. With approximately 313,000 households in Baltimore County,⁴³⁸ that means that the participation of approximately 4 percent of County households would be required to fully sustain the program. The number of locations could be expanded or scaled back to meet membership interest and balance this against cost. It is also anticipated that the program could seek grants and donations, like most such loan programs.

438 <https://www.census.gov/quickfacts/fact/table/baltimorecountymaryland/PST045219>.

3.3.7 PUBLIC LIBRARY PROGRAMS

The Baltimore County Public Library should establish policies and systematic processes for developing, approving, and evaluating its library programs.

Findings

The Baltimore County Public Library does not currently have a policy or systematic process for developing, approving and evaluating its library programs.

Programming has become increasingly central to libraries' operations. The Institute of Museum and Library Services (IMLS), an independent federal agency, reported in a 2016 survey that public libraries in the United States had presented 5.2 million programs that year, a 72 percent increase since 2010.

In FY2020, the Baltimore County Public Library offered 9,312 programs: 8,706 were offered in the branches, and 606 were offered directly by the Youth & Family Engagement (YFE) and Adult & Community Engagement (ACE) departments.

The YFE and ACE departments are responsible for program development. These departments work informally with branch managers to create programs based on their assessment of community needs and interests, library usage, past program attendance, staff capacity, and the success of similar programs. Consideration also is given to the likelihood of attracting and retaining new patrons.

The number of programs offered at each branch ranged from 223 to 662, with overall attendance per branch ranging from 1,247 to 18,482 participants. On average, about 23 people attend each program. (See table below, **Number of Programs, Attendance, and Average Attendance by Branch, ACE, and YFE in FY2020.**) Two branches - Sollers Point and Lansdowne – reported average program attendance of fewer than 10 people. Nine branches reported average program attendance of 10 to 19 people, and eight branches reported average attendance of 20 to 32.7 persons.

**NUMBER OF PROGRAMS, ATTENDANCE, AND AVERAGE ATTENDANCE
BY BRANCH, ACE, AND YFE IN FY2020**

Branch	Number of Programs	Program Attendance	Average Attendance by Branch
Arbutus	368	6,467	17.6
Catonsville	662	11,140	16.8
Cockeysville	556	18,482	32.7
Essex	610	7,149	11.7
Hereford	521	9,513	18.3
Lansdowne	268	2,208	8.2
Loch Raven	243	2,943	12.1
North Point	461	8,848	19.4
Owings Mills	586	15,706	26.8
Parkville	350	7,633	21.8
Perry Hall	461	13,597	29.5
Pikesville	415	7,806	18.8
Randallstown	518	7,971	15.4
Reisterstown	389	9,326	24.0
Rosedale	575	10,675	18.6
Sollers Point	223	1,247	5.6
Towson	508	10,222	20.1
White Marsh	406	9,253	22.8
Woodlawn	586	15,487	26.4
ACE*	24	516	21.5
YFE**	582	6,196	10.6
Total	9,312	182,385	23.4

Source: Baltimore County Public Library, April 2021.

*ACE refers to Adult & Community Engagement.

** YFE refers to Youth & Family Engagement.

As shown in the table below (**FY2020 Programs by Subject Area, Number, and Total and Average Attendance**), the Baltimore County Public Library offered programs across a large number of subject areas. Story Time, which numbered more than 3,200 programs system-wide, led the list, followed by more than 1,400 Gaming & Recreation programs and 1,100 programs in Technology Instruction. Attendance by program area varied enormously, from a total of 192 attendees for Legal programs to 70,910 Story time participants. Of the individual programs with the lowest attendance, 1,796 drew fewer than 10 attendees, and 1,297 had only two or three attendees.

FY2020 PROGRAMS BY SUBJECT AREA, NUMBER, AND TOTAL AND AVERAGE ATTENDANCE

Program Type	Number of Programs	Total Attendance	Average Attendance
Unassigned	137	3,935	28.7
Art Instruction	507	6,133	12.1
Author Event	51	1,599	31.4
Book Club /Discussion	385	18,589	48.3
Business	50	489	9.8
Community & Civic Engagement	569	15,346	27.0
Continuing Education	145	1,542	10.6
Finance	46	354	7.7
Gaming & Recreation	1,422	22,560	15.9
Health & Wellness	300	2,244	7.5
Jobs & Careers	190	537	2.8
Legal	16	192	12.0
Performances & Receptions	96	4,205	43.8
School Visit*	225	12,344	54.9
STEAM/Maker**	660	10,789	16.3
Story Time	3,212	70,910	22.1
Tabling***	101	7,821	77.4
Technology Instruction	1,107	2,272	2.1
Writing Workshop	103	624	6.1

Source: Baltimore County Public Library, April 2021.

*School visit program category refers to a library staff visit to a school to present a program, teach about library databases and online resources, or promote library programs, services or other activities.

**STEAM/Maker program category refers to programs that focus on Science, Technology, Engineering, Arts or Mathematics (STEAM) or on creation and tinkering as a way of learning, including technology as well as woodworking, metalworking, crafting and more.

***Tabling program category refers to events that are held in the community, such as festivals, where the library primarily sets up a table and does promotional outreach.

BCPL offered 14.17 programs per 1,000 residents, with an average of 366.42 attendees per 1,000 in 2019. Its eight Maryland peers offered 7.82 to 40.27 programs per 1,000 people, with program attendance of 171.59 to 1,053.66 per 1,000. BCPL's program offerings and attendance place it in the bottom third among its Maryland peers (see table below).

BCPL's 10 national peers offered 5.02 to 27.55 programs per 1,000, with attendance of 122.73 to 755.22 per 1,000 residents. Compared with its peer systems nationwide, BCPL's program efforts rank sixth among 11.

These statistics show that Baltimore County Public Library has considerable room for improvement in its programming, both in the number of programs offered and the number of participants served.

**LIBRARY PROGRAMS AND ATTENDANCE MEASURES:
BALTIMORE COUNTY PUBLIC LIBRARY, MARYLAND PEER GROUP AND NATIONAL PEER GROUP**

Library	Programs per 1,000 People	Program Attendance per 1,000 People
Maryland Peer Group		
Carroll County Public Library	40.27	1,050.05
Howard County Public Library	26.26	1,053.66
Frederick County Public Libraries	26.00	810.68
Hartford County Public Library	23.88	1,033.17
Montgomery County Public Library	20.37	247.77
Cecil County Public Library	14.28	393.00
Baltimore County Public Library	14.17	366.42
Anne Arundel Public Library Public Library	9.79	375.16
Prince George's County memorial Library System	7.82	171.59
National Peer Group		
St. Louis County Library	27.55	755.22
Charlotte-Mecklenburg Library	25.61	374.55
Ocean County Library	22.09	440.48
Nashville Public Library	20.43	500.03
Jacksonville Public Library	15.41	252.17
Baltimore County Public Library	14.17	366.42
Indianapolis-Marion County Public Library	13.96	634.41
Enoch Pratt Free library	13.44	210.62
Sno-Isle Libraries	8.93	250.82
Metropolitan Library System	5.65	122.73
Pierce County Library System	5.02	125.66

Source: Baltimore County Public Library, Trending & Benchmark Report 2019.

Although the Baltimore County Public Library invests a considerable share of its resources on programming, it does not have a formal policy or process for program development and approval.

As noted above, many programs are initiated and coordinated through YFE and ACE. Branch libraries also develop their own programs, with little communication and coordination beyond their individual branches.

Program development staff have raised concerns about the process used to select program topics, the extent of program duplication between branches, and overall program quality. Department managers say the programming development process is inefficient, and staff in some branches spend a significant amount of time on program development with little attention to duplication of effort. Lack of coordination between the two departments and the branch libraries raises concerns about the program topics chosen and the quality of programs developed. The COVID-19 pandemic underscored resource limitations and the need to respond better to community needs and interests.

BCPL also lacks measurable criteria to assess program quality and success. There is no formal program evaluation process that factors in differences across branches and the communities they serve. Library staff indicate that branches collect some anecdotal information about programming, focusing primarily on attendance. However, many programs persist despite low attendance, as shown in the data above. Library staff do not keep data on discontinued programs. YFE and ACE may ask for feedback on programs they initiate and present at branch libraries, but branches share little or no information about their own programs.

The Baltimore County Employee Insights on Efficiency Survey conducted by Public Works LLC in June and July 2021 generated responses from 212 Baltimore County Public Library staff echoed concerns about program responsiveness to patron interests and needs; program development, coordination and implementation; program quality; and attendance. The following are representative comments of Library staff who responded to the survey's open-ended questions about ways to improve efficiency or quality of services in their department:

"More time spent talking with residents to hear what they need from us. We don't ask them directly enough. When we do, we are able to pivot more quickly. Because we don't, we're often making assumptions about their needs. I'd like to see more regular evaluations of our collection and programming through the eyes of a Baltimore County resident."

"The most pressing would be for the library to take a stronger stance on the strategic plan and make sure the great deal of effort going into program planning actually contribute to the strategic plan. Currently, the program offerings are ALL OVER THE PLACE. It's an incredible waste of staff time. If programming could be slimmed down and more strategic, it could be managed by fewer staff. The branch where I work has 6+ staff members who help with programming but the attendance stats do not support such effort."

"Streamline communication between librarians on the ground implementing programs and organizations such as ACE, YFE, and Teen Council so we don't have to continuously go through management and intermediaries. I can't count the number of ideas I've had that have died on someone's desk, or the times I've had to chase down management to get answers on a program I've been proposing for months."

"Targeted quality programs which might mean less quantity of programs."

"Rifle approach instead of a shotgun approach. Specific, targeted, higher quality programs/services, instead of a wide array of cheap, generic ones."

"We should expand our programs encouraging financial literacy, basic computer skills, and encouraging fun and educational activities for older kids and teens."

Given the considerable staff resources spent by BCPL departments and branches on program development, the large number of programs offered – 9,312 in FY2020 – and the increasing importance of programming in public library operations nationwide, it is imperative that BCPL develop formal policies, processes, procedures, and evaluation measures for its programs.

Benefit to the County

A formal policy, process, procedures and evaluation system for programming will make it possible for BCPL to assess individual community needs and interests, improve interdepartmental communications, avoid duplication of effort, develop targeted programs that attract increased participation, evaluate programs rigorously and consistently, and make transparent decisions on program continuation/discontinuation based on clear, uniform criteria.

Creating a formal programming system will save significant staff time, yielding increased operational efficiencies, and avoid wasting BCPL resources on unnecessary, redundant, or underattended programs.

Best Practices/Implementation Guidance

BCPL's programming policy, process, procedures, and evaluation measures should include the following best practice components:

- A countywide needs assessment to explore library-related program interests. The data generated by the countywide needs assessment should be structured to allow identification of specific program interests and needs for each branch library.
- Formal communication procedures between YFE, ACE, and branch libraries for program identification, development, review and approval.
- Development of program criteria based on needs assessment, historic data, estimated costs, and expected impact.
- System-wide and branch-specific tracking of program costs.
- Development of cost/benefit criteria that recognize differences among program areas and reflect individual branch and community needs.
- Inclusion of cost/benefit analysis as a standard requirement in the program approval process.
- Line-item listing of program revenues and expenses in the BCPL budget.
- Development and consistent use of a program participant evaluation form that includes demographic information, history of library use, and program-specific impact questions, such as new knowledge and skills, attitude and behavior change, and increased awareness of library resources and services. Data from the evaluation form will be analyzed according to program topic and branch location.
- Development of a program evaluation system that designates an evaluation analyst and specifies evaluation data dissemination.
- A program continuation/discontinuation decision index that is branch- and program-adjusted.

3.3.8 QUALITY ASSURANCE FOR PERMITS, APPROVALS, AND INSPECTIONS

Permits, Approvals, and Inspections (PAI) should adopt and implement formal quality assurance strategies for inspections.

Findings

PAI does not have quality control procedures to ensure that inspections are performed properly. Nor does it collect systematic data on how effectively inspections are conducted.

PAI does not gather or maintain internal assessments of inspection compliance with code standards, nor does it effectively support inspectors in pursuing additional training relevant to their duties.

PAI does not regularly audit inspections to ensure compliance with County standards. County programs limit professional development opportunities for inspectors to develop skills and qualifications relevant to carrying out effective inspections. In a recent Baltimore County PAI survey on improving efficiency, four out of sixteen suggestions called for hiring more staff with higher skills and qualifications. While the county offers full-time, merit, or classified employees a tuition assistance program reimbursing 70 to 80 percent of tuition for pre-approved courses related to their position,⁴³⁹ PAI staff report that this program does not include inspector certifications.⁴⁴⁰ This benefit does not support inspectors in obtaining additional professional certifications that would expand or update their job-related skills and thus does not support effective inspection performance.

439 <https://www.baltimorecountymd.gov/departments/humanresources/jobs/>

440 Correspondence with PAI Director, July 9, 2021

Benefit to the County

Adopting quality assurance measures such as regular county audits of inspections and more robust professional development programs for inspectors will ensure that county inspectors complete inspections effectively and on time and that county stakeholders have generally positive experiences with inspections. Specifically, formalizing audit goals for inspections will help the county to identify and rectify any future performance problems within inspections. Expanding continuing education and certification opportunities for inspectors will enhance their professional development and may also improve their job satisfaction.

Best Practices and Benchmarks

Internal audits of inspections are most commonly prioritized when private providers contribute additional oversight of plans reviews and inspections. For example, in Florida, home of peer Duval County, local jurisdictions are authorized to audit private provider services and to cause remedy of any identified deficiencies.⁴⁴¹ Internal audits appear to offer useful tools for quality control in Montgomery County (MD), where the Internal Audit program has previously reviewed the Department of Planning Services to assess the adequacy of controls over permitting receipts, and the Department of Permitting Services procedures for calculating commercial building permit fees.⁴⁴²

Other peer counties abide by more general goals of tracking permit success metrics and using audits to manage performance. For example, San Diego County's (California) Land Use and Environment Group tracks and publicly displays metrics, such as the number of code compliance cases opened and closed within the last month, under its open performance strategy.⁴⁴³

One example of an internal audit system comes from a 2019 performance audit of the Hillsborough County (Florida) Development Services Department vertical building process. The audit recommended that the County formalize inspection audit goals for county inspectors and any private or contract inspectors used. Quality control audits, per the recommendation, should be sample-based; track results by inspector; be conducted by Chief Inspectors in each discipline; be performed at a minimum level during each measurement period (e.g., at least once a month); and yield results that are tracked and utilized in each inspector's performance review.⁴⁴⁴

For professional development opportunities, several jurisdictions offer reimbursement or funding for inspector certifications and/or skills development. For example, Hillsborough County's establishment in March 2017 of a stipend for additional inspector licenses allows inspectors to become multi-certified in plumbing and mechanical inspections or structural and electrical inspections and has improved job satisfaction within the Building Division.⁴⁴⁵ Job satisfaction has been broadly observed to correlate positively with performance,⁴⁴⁶ and job-embedded professional development has also been observed to positively impact employee performance.⁴⁴⁷

Inspectors can further increase their skills for performing high-quality inspections through opportunities such as International Code Council certification exams. The Council offers certification exams for electrical, plumbing, and mechanical plans examiners; permit inspectors; zoning inspectors; and energy conservation and green building, and coastal and floodplain construction inspectors.⁴⁴⁸ Exams include: Permit Technician, covering zoning and building code and code administration and enforcement; to Code Specialist, covering legal, management, and communication skills for many aspects of code administration; and Fuel Gas Inspector, including installation and approval of fuel gas piping systems and gas-fired appliances.⁴⁴⁹ These exams typically cost between \$100 and \$300.⁴⁵⁰ More advanced designations can be given to individuals who pass multiple examinations, such as the Master of Special Inspections certificate awarded to those who pass Structural Welding, Structural Steel and Bolting, Structural Masonry, and Reinforced Concrete Special Inspector exams.⁴⁵¹

441 https://www.floridabuilding.org/fbc/publications/Commission_Special_Report_553_791.pdf

442 https://www.montgomerycountymd.gov/exec/internal_audit.html

443 <https://data.sandiegocounty.gov/stories/s/Health/g6nm-4fxz>

444 <https://www.hillsboroughcounty.org/library/hillsborough/media-center/documents/auditor/oa-19-01-building-division-vertical-process-audit-report.pdf>, page 36.

445 <https://www.hillsboroughcounty.org/library/hillsborough/media-center/documents/auditor/oa-19-01-building-division-vertical-process-audit-report.pdf>, page 20.

446 <https://www.tandfonline.com/doi/full/10.1080/1331677X.2016.1163946>

447 https://www.tandfonline.com/doi/full/10.1080/13664530.2015.1011346?casa_token=cCZjoRMUk_EAAAAA%3AP2cmHHec3OrPw-wisNjhkDxzHLSw2NjzZiYVpZ5gEVil9mZmexb8wH4X2y3KwDfrFbpMLZjx9yI

448 https://shop.iccsafe.org/education-and-certification/certification.html?exam_state=National%2Fall&p=2&product_list_limit=30

449 <https://www.iccsafe.org/certification-exam-catalog/>

450 https://shop.iccsafe.org/education-and-certification/certification.html?exam_state=National%2Fall&p=2&product_list_limit=30

451 <https://www.iccsafe.org/professional-development/certifications-and-testing/special-inspector-exams/>

More broadly, in New Jersey, Rutgers University assists the state Bureau of Code Services by offering more than 300 annual technical and administrative seminars (mandated by law under continuing-education requirements) for construction code enforcement officials and multiple-dwelling inspectors. Areas of focus include building, electrical, elevator, fire, mechanical, plumbing, multiple dwellings, and special inspectors.⁴⁵² In San Diego County, the Employee Development Division employs in-house instructional designers who create customized trainings supporting County staff's professional development, including more than 1,000 trainings offered through an online distance learning format.⁴⁵³ Finally, within Baltimore County, Baltimore County Public Schools offers staff regular, free professional development courses; the district also has a partnership with Goucher College in Townson, Maryland, allowing employees to take the school's professional development courses for free.⁴⁵⁴

Implementation Guidance

The PAI Director, Building Inspections Supervisor, Electrical Inspections Supervisor, and Plumbing Inspections Supervisor should develop quality control measures that are most appropriate for PAI, as well as determine the scope of each (e.g., how many times per year internal audits of inspections should occur). These individuals should collaborate with the Office of Human Resources early in the process to ensure compliance with relevant county best practices in employee hiring and retention. Once quality assurance measures are adopted, PAI should take steps to raise inspector awareness of new professional development opportunities and corresponding additional responsibilities.

3.3.9 TALL GRASS CODE

Baltimore County could lower the maximum height of tall grass and weeds from twelve inches to eight inches.

Findings

Baltimore County's code states a twelve-inch limit for tall grass and weed (§ 13-7-401) which is a higher limit than the more recent trend of eight inches. The eight inches limit was spearheaded by Baltimore City and by multiple jurisdictions nationwide as a quality-of-life improvement tool. Despite Baltimore County's more lenient limit, tall grass violations are amongst the most common code violations, according to Permits, Approvals, and Inspections (PAI) staff.

Overgrown grass and weeds tend to serve as breeding grounds for insects and rats which creates a public health concern.^{455,456} A 2015 study examining the relationship between yard management and neighborhood crime in Baltimore City and Baltimore County found that uncut lawns are correlated with an increase in crimes such as robbery, burglary, theft, assault, vandalism, arson, and shootings. The study estimated an increase of six percent to ten percent in the number of crimes when income, population density, and housing types are held constant.⁴⁵⁷

In addition, research cited in the U.S. National Institutes of Health's National Library of Medicine (NIH/NLM) indicates that overgrown, untended vacant lots are associated with higher levels of depression, anxiety, and stress for residents and that unmaintained lots with overgrown grasses provide sites for illegal dumping, hiding spots for criminals, and discreet environments for illegal activity.⁴⁵⁸

452 <https://cgs.rutgers.edu/programs/codeenforcement#Courses>

453 https://www.sandiegocounty.gov/content/sdc/hr/hr_div/EmployeeDevelopmentDivision.html

454 https://oe.bcps.org/departments/organizational_development/teacher_development/continuing_professional_development_c_p_d

455 <https://www.uky.edu/Ag/Entomology/PSEP/pdfs/cat7struc8health.pdf>

456 <https://www.health.ny.gov/environmental/pests/rats.htm>

457 https://www.fs.fed.us/nrs/pubs/jrnl/2016/nrs_2016_troy_001.pdf

458 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6373470/>

While grass height between two and four inches is considered “best practice,” a limit of only four inches is not practical for county involvement and is not found in the codes of other jurisdictions. Weather and seasonal factors also come to bear on grass length. During a recurrent rainy period, grass cannot be cut and may reach a greater height. Patterns of warm days and cool nights may also cause the grass to grow more quickly than usual. According to PAI staff, at such times, grass may reach eight inches. Furthermore, because of these weather and seasonal factors, the demand for mowing services may exceed the availability of Baltimore County mowing contractors, leaving grass growing longer. In addition, given that the enforcement process can take 30 days, the grass will likely be even longer and may reach 12 inches by the time the issue is resolved, creating conditions that are “not conducive to neighborhood living.”

Benefit to the County

There is compelling evidence that reducing the maximum height of tall grass and weed in Baltimore County will improve quality of life for County residents and increase neighborhood safety through a reduction in violent crime, as demonstrated in the 2015 study illustrating the positive association between uncut lawns and crime. This study builds on a growing body of literature exploring the potential impact of environmental design and community engagement (i.e., maintaining one’s lawn) on crime reduction.

NIH/NLM research cited above also suggests that such a change will improve the mental health and stress of Baltimore County residents, with neighborhood environmental conditions proven to affect residents’ quality of life, health, and longevity.⁴⁵⁹

Jurisdictions with eight-inch limits in their codes – listed below – cite the following benefits:

- Excessive weeds offer breeding places for mosquitos, rats, mice, and snakes.
- Eight inches is often the limit for grass overtaking sidewalks and may interfere with public convenience.
- Grass and weeds more than eight inches in height adversely affect public health and safety by emitting pollen and triggering asthma and allergies.
- Grass longer than eight inches may constitute a fire hazard and safety hazard, as debris may be hidden in the grass.
- Vegetation exceeding eight inches in height can create a harbor for concealing trash.
- Grass over this length may negatively impact property values.
- Noxious weeds may cause hay fever or skin rash if they are allowed to pollinate or may be invasive species.
- Grass is often even longer by the time the nuisance is abated, potentially up to 16 inches. Beginning the enforcement process earlier on enables a timelier return to livable neighborhood conditions.

Lowering the maximum height of grass and weeds is one tool that Baltimore County can deploy as part of a comprehensive strategy to strengthen communities. Code enforcement personnel in another jurisdiction with an eight-inch limit – Champaign, IL, cited below – indicated that the reduction did not significantly increase the number of citations or fines, nor did it require significantly more frequent mowing.

Best Practices and Benchmarks

An eight-inch grass and weed height code is prevalent in many jurisdictions across the U.S., as shown in the table below. Baltimore County can follow Baltimore City, a trailblazer in code updating, to become a leader among neighboring Maryland counties by setting an eight-inch limit.

459 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6373470/>

TALL GRASS LIMIT BY JURISDICTION

Baltimore County, MD	12 inches
Baltimore City, MD	8 inches
District of Columbia	8 inches
Bloomington, IN	8 inches
Omro, WI	8 inches
City of Sioux Falls, SD	8 inches
Manchester, MO	8 inches
Champaign, Urbana, Savoy, Mahomet, and St. Joseph, IL	8 inches

The City of Omro, WI offers an example of a municipal code that spells out the specific benefits of maintaining grass and weed length at eight inches, and the consequences of grass that exceeds this length (see below):

CITY OF OMRO (WI) CODE

“‘Noxious weeds’ shall include any weed, grass, or similar plant growth which, if allowed to pollinate, would cause or produce hay fever in human beings, or would cause a skin rash through contact with the skin.

8.28.040 - Public nuisance declared.

The common council finds that lawns, grasses, and noxious weeds on non-agricultural lots or parcels of land, as classified under the city’s municipal zoning code Chapter 17, within the city of Omro, which exceed eight inches in length, adversely affect the public health and safety in that they tend to emit pollen and other discomforting bits of plants, constitute a fire hazard and safety hazard in that debris can be hidden in the grass, interferes with the public convenience, and adversely affects property values of other land within the city. For that reason, any non-agricultural lawn, grass or weed on a lot or other parcel of land which exceeds eight inches in length is declared to be a public nuisance.”

Source: <https://www.omro-wi.com/lawns--noxious-weeds.html>

The District of Columbia also clearly describes the implications of excessive growth and defines circumstances in which vegetation is in violation:

“Excessive vegetative growth can cause serious public health implications. Tall grass can trigger respiratory problems like asthma and allergies in District residents and visitors. Weeds create a breeding place for mosquitoes, rats, mice, snakes, and other vermin which are drawn to grass and weed overgrowth.

Vegetation, according to District of Columbia regulations, may be defined as any grasses, weeds, or plants at any state of maturity that⁴⁶⁰:

- Exceeds more than eight inches in height, is untended, or creates a dense area of shrubbery that is a detriment to the health, safety and welfare of the public;
- Creates a harbor (including hiding places for persons) or provides a place to conceal refuge or trash, regardless of height;
- Develops into deposits, or accumulation of, refu[s]e or trash;
- Harbors rodents and vermin or provides a refuge for snakes, rats or other rodents;
- Creates an unpleasant or noxious odor;
- Constitutes a fire hazard; or
- Contains grass or weeds that are dead.”

Implementation Guidance

The County Code would need to be modified to implement this recommendation. Proposed language should be specific and include a rationale describing the benefits of the new eight-inch limit and the negative consequences for the community that are associated with overgrowth, as do the codes of the City of Omro and District of Columbia, cited above.

PAI should disseminate information about the code change and available resources through educational materials that can be circulated, both virtually and on paper; train code enforcement officials to inform residents and property owners; host community meetings with the goal of sharing information on the reasons behind the code change and tools for encouraging compliance.

Baltimore County could consider implementing a voluntary compliance method, as has been done in the District of Columbia. Door hanger reminders are placed at properties where the grass height is close to eight inches, informing individuals that their grass is reaching the enforcement limit. Anecdotally, officials within DCRA have shared that this has improved compliance rates by serving as a reminder.

PAI should track several Baltimore County neighborhoods with unkempt lawns following enforcement of the code change to eight inches to evaluate whether crime rates, rats, or other health hazards decrease.

3.4 Leveraging IT to Better Serve the Public

Digital applications have exploded over the past decade, making it possible for people everywhere to obtain new goods, services, and information in faster, less expensive, and more convenient ways. This can and should be just as true of government services – and there are numerous ways that technologies that are standard in today’s business world and in everyday consumer transactions can improve services to the public in Baltimore County: from how agency customers fill out forms to how the County conducts inspections to how citizens access their libraries, roads, and educational opportunities.

To start with the simplest improvements, the Baltimore County Public Library reported during the course of this review 25 megabits-per-second download speeds for both staff and public use, which is woefully insufficient. Given that many patrons may rely on Public Library Wi-Fi – and increasingly now since the advent of the Covid-19 pandemic – because their homes are not equipped with Internet access, the failure to provide adequate bandwidth at these locations could present concerning equity issues. While the review team was advised that a Wi-Fi upgrade then-underway would address any performance concerns, Baltimore County would be well served to verify that publicly available Wi-Fi at Public Library locations is now adequate to meet its customers’ needs.

460 <https://dcra.dc.gov/page/grass-weed-regulations>

The County also should create an online e-permit center where all information needed for permit applications and links for submitting and tracking applications are located. Baltimore County's current permitting process is duplicative and fragmented. It often requires high levels of staff assistance to applicants and is still likely to result in incomplete information and missing documentation. It makes the application completion and submission process challenging. PAI staff estimated that approximately 18 to 20 percent of paper-based submissions to the Rental Registration program have incomplete information or are missing required permit application documents. Establishing an online e-permit Center that provides a centralized online portal for submission of permit applications will streamline the permit application process, rendering it more accessible to customers, and will encourage the reduction of customer need for one-on-one attention and problems of incomplete information and missing documentation. The time savings for staff are likely to be substantial.

Baltimore County does not currently accept electronic signatures in its Rental Registration program. The program requires multiple signatures for processing and currently only allows online payment of permit application fees after PAI staff have reviewed an initial application and contacted the applicant. This lengthens the application process and increasing customer and staff inconvenience. The County also is not utilizing digital certification or transactions to facilitate the permit application process, specifically for online signatures and payments involved in PAI customer interactions. While Baltimore County allows online payment of permit fees, along with various other charges such as plan submission, licensing, zoning application, and trash disposal or animal services fees, paying permit fees online is not a streamlined process for applicants. The County would be well served to make e-signatures and e-payments an integral part of its digitization process to improve residents' ease of use and increase efficiency.

The onset of COVID-19 led Baltimore County, like many other jurisdictions, to utilize virtual inspections. Currently, two to five percent of inspections are conducted virtually, and only when it is not possible to have an inspector physically on-site. Onsite engagements are still preferred for most inspections, although the virtual inspection process has gone smoothly to date. Virtual methods are only used for smaller commercial inspections, such as trench inspections, and only for trusted contractors with strong inspection histories. PAI staff consider virtual inspections a "temporary fix" made necessary by COVID, rather than a long-term practice for future use. But virtual inspections are expected to become a more prevalent practice in the industry soon. PAI should explore the use of virtual inspections post-COVID and develop permanent policies around virtual inspections, including methodology, process, and procedures.

Expanded use of digital rather than paper processes will ultimately improve the efficiency of County operations for both County government employees and the residents, businesses, and customers they serve. But many of the latter will face specific challenges in moving from current processes to new digital forms – including lack of access to computers or Wi-Fi, lack of familiarity and training as to use of these newer technologies, and the failure of many such technologies to be properly adapted for those with a range of disabilities. Baltimore County government should develop and formalize strategies for transitioning from paper to online permitting, with particular attention to supporting older and disabled community members.

Intelligent Transportation Systems (ITS) are systems that utilize technology to improve safety and mobility on roads and highways. ITS applications focus on both the infrastructure and vehicle, as well as integrated applications between the two, to enable the creation of an intelligent transportation system; these include red light cameras, traffic signal coordination, and variable speed limits, among other advances. These tools present opportunities to improve the overall circulation of the County's street and highway networks, reduce congestion, and decrease in air pollution from cars. The County should continue to pursue plans to evaluate and adopt key ITS to alleviate congestion and better monitor existing transportation assets.

Finally, changing attitudes as to how community college higher education should be designed and delivered will make it both possible and necessary for community colleges – including Community College of Baltimore County (CCBC) – both to reduce instructional costs and to improve student outcomes. CCBC is a recognized leader in community-based education. Despite its strengths, however, CCBC's enrollments have been declining, and its completion rates are too low, especially among younger students in credit programs. While CCBC provides benefits to a large number of students, it may not appeal sufficiently to a new generation of young people who are highly literate on remote learning platforms, and who have literally a world of options for pursuing online degree and certification programs. Making changes to improve the numbers and success rates of students in credit programs would substantially improve CCBC's economic impact. CCBC now has a unique opportunity to increase enrollments, reduce costs, and improve student success with a more intentional focus on building a well-supported, ongoing online-only community. CCBC should expand its efforts to capture the attention of would-be students across the United States while leveraging its advantages for local students. The County should encourage CCBC to build out online-only courses, faculty, and programs that will increase enrollments, reduce costs, and improve student success. An aggressively marketed expansion of

online classes could increase CCBC revenues while offering students a reasonably priced, high-quality alternative to for-profit online programs.

3.4.1 BALTIMORE COUNTY PUBLIC LIBRARY WI-FI

Ensure adequate bandwidth of publicly available Wi-Fi at Public Library locations.

Findings

According to Baltimore County Public Library staff, the Library is currently provided 25 megabits per second download speeds for both staff and public use, which is woefully insufficient. Some staff reported that download speeds on the BCPL network are so slow that some Library staff take computers home with them to install software updates because it is not always possible using the Library's internet connection.

Given that many patrons may be using Public Library Wi-Fi because their homes are not equipped with internet access, the failure to provide acceptable bandwidth at these locations poses serious equity issues. Especially in rural areas and low-resource communities, libraries serve an important function of helping to bridge the digital divide; inadequate bandwidth makes it difficult to impossible for patrons to use library computers and internet access to do homework, apply for jobs, or access public services. These constitute core services that the Public Library is expected to provide to Baltimore County residents.

When asked about countywide bandwidth utilization, the Office of Information Technology (OIT) reported that there were not currently internal or external bottlenecks. They reportedly updated it to 4GB with the expectation that they would have traffic, but they are only seeing 10-20 percent utilization..

OIT reportedly anticipates that the enterprise Wi-Fi upgrade currently underway will address any performance concerns, reporting that, "The new systems are in a pilot phase now and are planned to be in full production for BCPL and BCG networks by September 3rd, 2021. We have replaced the Guest Wi-Fi routers with the latest Cisco model ASR1001-x which provides higher throughput. We are also replacing the current Wireless LAN Controllers with the 9800-40 which also provides significant improvement to throughput." However, documentation provided during the period of the efficiency review did not demonstrate evidence Baltimore County Public Library locations were providing sufficient Wi-Fi functionality at that time.

Benefit to the County

As the COVID-19 pandemic eases and patrons return to public libraries, it is critical for Baltimore County to provide ample public Wi-Fi access at its libraries. In addition to providing a crucial service that is expected by Baltimore County residents, improving the Public Library's bandwidth will increase internet speeds for staff use and improve the efficiency and effectiveness of all the Public Library's public-facing services and programmatic activities.

Best Practices and Benchmarks

Since the COVID-19 pandemic began, most libraries across the country have boosted their Wi-Fi signals and keeping them on 24 hours a day, according to a March 2020 survey by the Public Library Association.⁴⁶¹

461 <https://www.ala.org/pla/issues/covid-19/march2020survey>

Other counties have developed unique strategies and new initiatives to help bridge the digital divide in their communities and to create opportunities for vulnerable or underserved communities to access high-speed Internet. For example, Orange County, California is piloting a program to bring mobile high-speed Wi-Fi to people without internet access,⁴⁶² dubbed “Wi-Fi on Wheels.” Under the program, library staff drive to underserved neighborhoods in a county vehicle outfitted with a trailer-mounted, 30-foot-tall antenna that can broadcast a Wi-Fi signal almost 1,000 feet in every direction.

3.4.2 E-PERMIT CENTER

Baltimore County could create an online e-permit center where all information needed for permit applications and links for submitting and tracking applications are located.

Findings

Baltimore County’s current permitting process is duplicative and fragmented. It often requires high levels of staff assistance to applicants and is still likely to result in incomplete information and missing documentation.

Baltimore County currently provides permitting information on several separate pages of its website. The web pages contain multiple lists, including a list of forms frequently needed for application submissions;⁴⁶³ a list of required documents for different permit applications, including both PAI-generated forms and items such as plot plans or construction plans;⁴⁶⁴ instructions for the application process which also include a list of pertinent forms;⁴⁶⁵ and Building Plans Review forms and notices.⁴⁶⁶

The organization and presentation of information is not easily manageable or user-friendly. The enumeration of required documents and the forms are not all listed together. Various relevant forms are reproduced on multiple website pages. It is somewhat duplicative: for example, PAI has separate web pages for “Forms” and “Information and Forms,” leaving it unclear where applicants should begin.

The current permitting approach makes the application completion and submission process challenging. PAI staff note that a degree of “hand-holding” in the form of additional support, one-on-one assistance, and follow-up is currently necessary throughout the permits process. This is further evidence that some applicants do not find the online information or the permitting process easy to follow and user-friendly. Follow-up is also currently needed for required documentation not provided by applicants. PAI staff estimated that approximately 18 to 20 percent of paper-based submissions to the Rental Registration program have incomplete information or are missing required permit application documents. These missing elements range from absent signatures to missing lead certificates needed for work that may disturb paint in older properties; no one deficiency is most common. Rental registrations are the only PAI process currently handled partially online and online submissions lack documentation less frequently, though approximately five to ten percent of submissions still are missing needed components.

In the recent Baltimore County Employee Insights on Efficiency survey conducted in June and July 2021, 81 percent PAI employee respondents agreed that “manual processes that could be automated or digitized” have a moderate or high potential to achieve greater efficiency in cost savings or time.

462 <https://www.ocregister.com/2020/10/22/o-c-public-library-brings-high-speed-wifi-to-schoolkids-adults-without-internet-access/>

463 https://www.baltimorecountymd.gov/departments/permits/pdm_forms.html

464 <https://www.baltimorecountymd.gov/departments/permits/permitprocessing.html>

465 https://www.baltimorecountymd.gov/departments/permits/pdm_permitsprocess/info-forms.html

466 <https://www.baltimorecountymd.gov/departments/permits/pdmbldgplansrev/index.html>

Benefit to the County

Establishing an online e-permit Center that provides a centralized online portal for submission of permit applications will streamline the permit application process, rendering it more accessible to customers, and will encourage the reduction of customer need for one-on-one attention and problems of incomplete information and missing documentation. The time savings for staff are likely to be substantial. In Milwaukee County (Wisconsin), which launched a one-stop web portal for resident services in late 2020 and included permits as one of the first integrated services, staff save 60 to 90 minutes per application compared to the prior paper-based, in-person application submission, and email follow-up process.⁴⁶⁷

Best Practices and Benchmarks

Jurisdictions in Maryland and other states indicate that e-Permit centers are frequently adopted as a best practice, generally allowing a) permit application, b) application tracking and payments, and c) access to inspection information and/or scheduling. Most portals require users to register an account before logging in and accessing the features. Examples of e-Permit Centers established by Maryland counties and cities include:

Baltimore City's e-Permits and e-Plans Review System allows the submission of permit applications 24 hours a day, as well as the sending and receiving of messages with City staff about the permit, permit payment, and receipt of permit via email.⁴⁶⁸

- Licensed contractors, if registered with the City, can pull permits through the system. Before City residents can use contractors to complete work on a permit, the contractor must sign up to use the e-Permits system and register their license.
- The e-Permits system includes a message board. Users receive an email if a permit processor has posted a message for them, and can then log in to their portal account to respond, including attaching documents, or asking a question themselves. This messaging feature may be particularly useful for communication efficiency. In Milwaukee County, the prior system of communicating with applicants only by email sometimes resulted in questions being lost in staff inboxes. The implementation of a central services portal eliminated this problem.

Harford County's ePermit Center provides a one-stop page for registering for the Center; logging in; applying for a permit, plan, or license; requesting an inspection; renewing licenses, and searching public records.⁴⁶⁹

- The Center also tracks and displays each day's inspections, allows users to pay invoices, and provides information on frequently asked questions and contact information.

467 <https://www.govtech.com/gov-experience/milwaukee-county-wis-launches-resident-services-web-portal>

468 <https://dhcd.baltimorecity.gov/pi/e-permits>

469 https://epermitcenter.harfordcountymd.gov/energov_prod/selfservice#/home

Examples of e-Permit Centers established in other states include:

- The City of Denver (Colorado) offers an online permitting and license center where users can apply for, pay for, and/or modify development permits, business licenses, right-of-way permits, conveyance certificates, or fire operational permits. The portal also allows users to search permit records for all the above.
 - » Users can schedule inspections, see inspection results, and check inspectors' estimated time of arrival.⁴⁷⁰ Contractors can also add license records to their accounts.
 - » The portal login link⁴⁷¹ is presented alongside tutorial videos⁴⁷² and frequently asked questions⁴⁷³ for e-permitting.
- The Contra Costa County (California) ePermits Center allows users to apply for building permits, check permit status or planning application status, make payments, view daily inspection time frames, and schedule or cancel inspections⁴⁷⁴
- The City of Fife (Washington) maintains an online public permitting portal, allowing the public to research local building trends, apply for permits, pay fees, submit digital architectural drawings, request inspections, and review public notice postings⁴⁷⁵
 - » The portal is compatible with both laptop computer and mobile devices.
 - » The access link is, as in Denver, presented alongside links to a video guide and written guide to the portal.
- Broward County's (Florida) ePermits OneStop system allows the uploading of plans and documents, fee payments, and permit applications.⁴⁷⁶
- The County provides side-by-side links to the e-permit login and registration, a user guide, permit search, and a few commonly needed certificates and reviews.

Implementation Guidance

The establishment of an online e-permit Center should involve collaboration with technical and PAI staff to ensure the online portal is interoperable with the internal LURA platform. The creation of an e-permit Center should also be integrated with any strategies adopted by the County as part of the broader transition from paper to digital permitting. For example, if the County trials the new online process with a selected group of users, the e-permit Center should be included in this testing. Emphasis ought to be placed on accessibility, clarity, and comprehensiveness of provided information and resources in the e-permit Center design.

470 <https://www.denvergov.org/AccelaCitizenAccess/Default.aspx>

471 <https://www.denvergov.org/Government/Departments/Community-Planning-and-Development/E-permits>

472 <https://www.youtube.com/playlist?list=PLR7u4aK8qSfg3in9LYfqeS0PLmFPH0rU>

473 <https://www.denvergov.org/Government/Departments/Community-Planning-and-Development/E-permits/E-permits-FAQs>

474 <https://epermits.cccounty.us/citizenaccess/Default.aspx>

475 <https://www.cityoffife.org/477/Online-Permitting>

476 <https://www.broward.org/ePermits/Pages/Default.aspx>

3.4.3 E-SIGNATURES AND E-PAYMENTS

Baltimore County could make e-signatures and e-payments an integral part of its digitization process to improve residents' ease of use and increase efficiency.

Findings

Baltimore County does not currently accept electronic signatures in its Rental Registration program. The program requires multiple signatures for processing and currently only allows online payment of permit application fees after Permits, Approvals, and Inspections (PAI) staff have reviewed an initial application and contacted the applicant. This lengthens the application process and increasing customer and staff inconvenience.

Interviews and secondary research indicate that Baltimore County is not utilizing digital certification or transactions to facilitate the permit application process, specifically for online signatures and payments involved in PAI customer interactions.

Staff report that although the County Rental Registration program requires many signatures from customers, it does not accept electronic signatures. Generally, in Maryland, documents are not required to have wet-ink signatures; electronic signatures may be used,⁴⁷⁷ subject to some legal requirements.⁴⁷⁸ Under the Uniform Electronic Transactions Act, if a law requires a record to be in writing, an electronic record satisfies the law, and if a law requires a signature, an electronic signature satisfies the law, provided that the parties have agreed to conduct transactions by electronic means. For a standard form contract, an agreement to e-sign must be separately consented to, while consent can be implicit for other documents, such as all parties e-signing, or a document may include a provision that the parties have agreed to accept e-signatures. Electronic recording is also permitted under the Maryland Uniform Real Property Electronic Recording Act, allowing land records offices to accept electronically signed documents for real estate inventory.⁴⁷⁹ In Maryland, for example, the Montgomery County Department of Permitting Services will accept digital signatures by design professionals who prepare or approve design plans and other documents and has accepted only digital signatures since 2017.⁴⁸⁰

While Baltimore County allows online payment of permit fees, along with various other charges such as plan submission, licensing, zoning application, and trash disposal or animal services fees,⁴⁸¹ paying permit fees online is not a streamlined process for applicants. The Baltimore County PAI payment process involves multiple steps requiring action and response from both the customer and the staff, which prolongs the process. While customers are allowed to make online payments or use checks, they must first submit their complete application to the County Office Building and wait to be contacted by PAI staff to obtain a reference number and fee amount, after which customers can create an account on the County's payment portal. They then must save their invoice for proof of payment.⁴⁸² This process involves several steps on the part of staff before payment can even be initiated.

477 <https://thedailyrecord.com/2020/06/16/levin-mohan-remote-transactions-in-md-during-the-pandemic/>

478 <https://www.jonesday.com/en/insights/2020/03/esignatures-and-remote-notarization>

479 <https://www.jdsupra.com/legalnews/record-from-the-comfort-of-home-20250/>

480 <https://www.montgomerycountymd.gov/DPS/Resources/Files/eServices/DigitalSignature.pdf>

481 <https://citizenaccess.baltimorecountymd.gov/CitizenAccess/Cap/CapHome.aspx?module=OnlinePayments&TabName=OnlinePayments>

482 <https://www.baltimorecountymd.gov/departments/permits/pay-fees-online.html>

Best Practices and Benchmarks

Online payments and digital signatures have been adopted in other jurisdictions well before the COVID-19 pandemic, including in Maryland. For example, Prince George's County's Department of Permitting, Inspections and Enforcement allows applicants to conduct electronic transactions for permit applications after submitting an electronic signature acknowledgement form.⁴⁸³ Montgomery County's Department of Permitting Services only accepts digital signatures from design professionals for submitted design plans;⁴⁸⁴ permit fees may be paid online with an Apply/Pay Online account that an individual customer such as a homeowner or an individual company can create online, by mail, or in person.⁴⁸⁵ In St. Louis County, construction permits and residential re-occupancy permits applications can be submitted online and paid for through the Accela Citizen Access gateway.⁴⁸⁶

The trend in government payments has been moving toward digital transactions and toward e-checks. Automated clearinghouse e-check transfers now exceed the number of payments made by a paper check in the United States, with 16.6 billion Automated Clearing House (ACH) transfers exceeding 14.5 billion paper check payments in 2018.⁴⁸⁷ Digital payment processes are used in different states by a variety of agencies. For example, Acworth, Georgia implemented an online portal to settle and pay traffic tickets without in-person court appearances, through which participating jurisdictions pay only fees for payment processing.⁴⁸⁸ Phoenix, Arizona implemented e-billing of outside counsel.⁴⁸⁹ Waltham, Massachusetts has an online municipal bill payment for its residents that accepts payments by electronic check or credit card 24 hours a day, seven days per week, and which collected \$21 million in payments in the year it launched.⁴⁹⁰ Milwaukee County (Wisconsin) launched a one-stop citizen service portal, including permit requests, in late 2020, and intends to incorporate payments processes in the future, once a third-party payment provider is secured.⁴⁹¹

Benefit to the County

Incorporating electronic signatures and payments would increase ease of use and efficiency. Electronic signatures would streamline the applications and registrations that customers file, obviating the need for manual signatures and physical delivery of documents to PAI. This would preserve the entire process within the digital plane, fully operationalizing the online interface to which PAI aims to migrate its interactions with customers. The e-payment process and platform(s) would reduce the amount of staff intervention currently required before payment is rendered. For categories of permits for which the fee amount is known, fee payment could be integrated into the initial online submission process.

Cost savings could also be significant; in the peer county of San Diego County, California, using e-signatures for homeowner's exemption forms—processed for up to 36,000 residents each year, a number similar to the estimated number of permits processed in Baltimore County, as described below—and several other changes of address/ownership forms saves approximately \$230,000 each year in labor costs and paper-related expenses such as ink and postage.⁴⁹²

Based on data from January and February 2021, the County has processed 1,449 building permit applications, issued 1,594 electrical permits, issued 1,227 plumbing permits, and processed 229 fire/sprinkler permit applications, plus 994 miscellaneous permits. Net e-payments revenue was \$471,996.72 for this period.⁴⁹³ Extrapolating to one year, the County would process 32,958 permits annually and earn a net online payment revenue of \$2,831,796. In FY2019, County revenue from permits (excluding licenses) was \$2,997,613,⁴⁹⁴ indicating that 32,900 permit applications per year represents a reasonable estimate.

483 <https://www.princegeorgescountymd.gov/DocumentCenter/View/11392/Electronic-Signature-Acknowledgment-Form-PDF?bidId=>

484 <https://www.montgomerycountymd.gov/DPS/Resources/Files/eServices/DigitalSignature.pdf>

485 <https://www.montgomerycountymd.gov/DPS/Resources/Files/eServices/eServicesAccountCreation.pdf>

486 <https://stlouiscountymo.gov/online-payments-and-forms/>

487 <https://www.federalreserve.gov/paymentsystems/2019-December-The-Federal-Reserve-Payments-Study.htm>

488 <https://www.govtech.com/biz/new-platform-offers-a-court-free-solution-to-traffic-tickets.html>

489 <https://www.govtech.com/budget-finance/e-billing-cuts-costs-and-delays-for.html>

490 <https://www.govtech.com/archive/residents-of-waltham-mass-can-now.html>

491 <https://www.govtech.com/gov-experience/milwaukee-county-wis-launches-resident-services-web-portal>

492 <https://www.signix.com/blog/e-signatures-in-local-government-saving-230000-per-year-and-counting>

493 <https://www.baltimorecountymd.gov/departments/permits/data-dashboard.html>

494 <https://www.baltimorecountymd.gov/departments/executive/fy21budgetdetails.pdf>

Because Baltimore County already accepts online permit payments, with the first two months of 2021 collecting only e-revenue and not any payment revenue at the point of sale,⁴⁹⁵ it is unclear whether direct savings will result from incorporating online payment more seamlessly into online permit applications; time and labor, however, will be saved, as the various steps of communication between staff and customers will be reduced. Other counties, such as Charles County in Maryland, that have transitioned to online permitting have saved eight hours per day and halved their permit review time.⁴⁹⁶

Five-Year Savings Estimate

	County One Year	County Five Years
Low End Range	\$370,778	\$1,853,890
High End Range	\$556,178	\$2,780,890

Upfront Costs: The County may be able to implement this recommendation with existing resources (See implementation guidance below).

Using e-signatures and reducing manual signature steps, according to research commissioned by Adobe, can save an average of 1.5 hours per transaction in government activity.⁴⁹⁷ Applying a conservative estimate of 0.5 saved hours per permit to all processed permits would yield 16,479 saved hours of labor in Baltimore County each year. Applying a less conservative estimate of 0.75 hour saved per permit to all processed permits would yield 24,719 hours of labor a year.

Assuming approximately 2,000 work hours in a year and using an average annual salary of \$45,000 for Baltimore County Permit Processing Coordinators and Engineering Assistants,⁴⁹⁸ the employees reviewing permits and plans earn approximately \$22.50 per hour. Given the potentially saved labor hours of 16,479 annually, Baltimore County could save nearly \$370,778 per year. Applying a higher estimate of saving labor hours of 24,719 will yield a saving of \$556,178 a year. These time and savings are equivalent to the cost of 7 to 11 FTE. Savings estimates reflect labor costs and assume a stable number of permits issued per year at current labor rates.

Implementation Guidance

PAI should explore whether e-signatures can be built into its current efforts to construct and update the online interface and internal operating systems for its permitting process and whether it should build on the County's existing capacity to accept online payments through the Accela Citizen Access portal.

The PAI Director and Permit Processing Supervisor should meet with both technical leaders on LURA implementation and staff handling permit applications and rental registrations to establish goals and a timeline for integrating e-signatures and e-payments into the online platform, as well as establish risks and challenges involved in this undertaking from the perspective of frontline staff. Legal counsel should also be consulted to ensure compliance with electronic signature consent requirements, which should not be onerous under Maryland law. The County should also consider whether it would serve its interests to contract with a third-party payment provider, which is the option Milwaukee County selected to avoid the administrative burden and liability of handling sensitive credit card details.

⁴⁹⁵ <https://www.baltimorecountymd.gov/departments/permits/data-dashboard.html>

⁴⁹⁶ <https://www.govtech.com/dc/articles/digital-counties-survey-2019-results.html>

⁴⁹⁷ <https://www.adobe.com/content/dam/dx-dc/pdf/ue/your-signature-move-gov-ue.pdf>

⁴⁹⁸ <https://www.governmentjobs.com/careers/baltimorecounty/classspecs?keywords=permit>

3.4.4 VIRTUAL INSPECTIONS

The Permits, Approvals, and Inspections Department (PAI) should explore continuing and expanding the use of virtual inspections as appropriate into the post-COVID era, and develop a virtual inspection methodology, process, and procedures.

Findings

Like many jurisdictions across the U.S., the onset of COVID-19 led Baltimore County's Department of Permits, Approvals, and Inspections (PAI) to utilize virtual inspections. Currently, two to five percent of inspections are conducted virtually, only when it is not possible to have an inspector physically on-site. PAI staff still prefer to perform in-person inspections, although the virtual inspection process has gone smoothly to date. PAI staff consider virtual inspections a "temporary fix" made necessary by COVID, rather than a long-term practice for future use.

Virtual methods are only used for smaller commercial inspections, such as trench inspections. Further, PAI gives the option of a virtual inspection only to trusted contractors with strong inspection histories.

PAI staff identified several key barriers to virtual inspections. Inspectors are concerned that in virtual inspections something important may be missed or that contractors may "only show you what you want to see." Virtual inspections may also take longer than in-person inspections as inspectors may ask the contractors to slow down their pace of scanning a particular area to allow inspectors to examine it closely. However, efficiencies associated with virtual inspections may not always hold. For example, electrical inspections, specifically, can sometimes take three times as long as an in-person inspection, according to staff interviews.

Still, virtual inspections are expected to become a more prevalent practice in the industry soon. Most experts agree that virtual inspections are not likely to completely replace in-person inspections, noting the complexity of some types of inspections and the importance of human judgment and observation in conducting inspections.

Virtual inspections may yield efficiencies related to cost, time, and transportation in cases where the type of inspection is conducive to this approach, while in-person inspections remain the standard for inspections that are particularly complex or urgent, and final inspections.^{499 500} Inspection processes of the future might resemble a "hybrid" approach that is customized based on each situation. Entities across the U.S. – such as Richmond, VA – report that they are "putting a greater emphasis on virtual inspections across all disciplines."⁵⁰¹

Benefit to County

Utilizing virtual inspections for specific projects with a limited scope, performed by trusted contractors, has the potential to achieve efficiencies for the County in a variety of ways, including:

- Saving inspectors' time.
- Limiting transportation costs including fuel, maintenance, and insurance.
- Paying energy and environmental dividends.
- Providing more precise inspection times for contractors.

499 <https://www.probuilder.com/future-virtual-inspections-coronavirus-safety>

500 <https://www.globest.com/2020/07/09/will-virtual-inspections-become-a-standard/?slreturn=20210613095218>

501 <https://www.rva.gov/>

Best Practices and Benchmarks

Jurisdictions are beginning to allow virtual inspections for smaller projects and under specific instances. Prince George's County's Department of Permitting, Inspections and Enforcement, a Maryland peer county, conducts virtual inspections for a select set of projects that qualify:

- Minor residential construction projects (reviewed by the inspector)
- Electrical service upgrades
- Electrical reconnects
- Mechanical service upgrades
- Follow-up inspections

Inspectors and contractors discuss before the inspection the scope of the inspection. The website makes it clear that this is not an across-the-board adoption of virtual inspections, stating that, "the size and complexity of some projects may prevent them from qualifying for virtual inspection."⁵⁰² They also provide in-depth virtual inspection procedures with instructions for how to prepare, what to expect during the inspection, and how to access inspection results.

San Diego, California, has taken similar steps. The city's new virtual inspection process allows small changes to be completed over video, such as moving electrical outlets, replacing water heaters, or installing an electric vehicle charging station. This also pays energy-savings and environmental dividends by reducing inspector driving to various locations.

Customers can request a virtual inspection by completing an Enhanced Inspection form on the Development Services Department website. The complete list of projects that qualify for virtual inspection for single-family residences, duplexes, and some commercial projects include:

- Electrical vehicle charging stations
- Drywall
- Exterior siding
- Foundation retrofits, including mobile homes
- Gas air tests
- Insulation
- Light standard footings
- Minor framing/shear
- Re-roofs
- Re-inspection of minor corrections
- Retaining wall footings
- Rooftop and ground-mount solar photovoltaic
- Shower pans and tubs
- Simple heating, ventilation and air-conditioning (HVAC) change-outs
- Slab grades
- Temporary power
- Trash enclosures
- Water heaters
- Water services and re-pipes
- Window and door replacements⁵⁰³

502 <https://www.princegeorgescountymd.gov/3467/Virtual-Inspections>

503 <https://timesofsandiego.com/business/2020/07/26/san-diego-offers-virtual-inspection-of-building-projects-during-pandemic/>

The program manager of San Diego's Building Inspection Department reported that the practice of virtual inspections allows inspectors to provide contractors with a much more precise virtual meeting time, as compared to the variable three to four-hour windows typical of in-person inspections.⁵⁰⁴

Implementation Guidance

1. The PAI director should discuss with PAI inspectors the challenges associated with virtual inspections and identify opportunities to remediate these.
2. PAI Inspection and Enforcement Division should establish criteria for who qualifies as a "trusted contractor" with the option to conduct virtual inspections.
3. PAI Inspection and Enforcement Division should develop guidelines outlining which projects are most conducive to virtual inspection.
4. The division should develop an approval process for qualifying projects, such as San Diego's Development Services Department, described above.
5. The Inspection and Enforcement Division should collect data on efficiencies or inefficiencies achieved using virtual inspections, as compared to traditional onsite inspections. Then they should apply this data continuously to better inform the types of projects that are best-suited to virtual inspection in Baltimore County.

3.4.5 ONLINE SERVICES TRANSITION STRATEGIES

Develop and formalize strategies for transitioning from paper to online permitting processes, with particular attention to supporting older and disabled community members.

Findings

Permit, Approvals, and Inspections' (PAI) transition process to online permitting currently has insufficient formal structure and guidance; the County lacks a finalized written transition plan, creating reliance on live working documents that are frequently evolving and do not provide an explicit structure for daily progress toward the permit transition. The documents currently in use for transition purposes also do not devote attention to the County's vulnerable (e.g., older and/or disabled) populations, leaving their unique needs unaddressed by the transition process.

As PAI transitions from a primarily paper-based permitting system to a digital system, staff are not working from a central document providing guidance and timelines. Rather, multiple working documents on different project operational elements are used, largely sourced from the Office of Information Technology (OIT) and at times involving updates or changes. Working off unfinished documents leaves PAI without a single coherent guide for the transition and consideration of its community impact in Baltimore County, creating a somewhat unstructured and unsolidified transition execution.

Moreover, the pieces making up the project plan, described as a work in progress in interviews, are focused mostly on data migration and other operational issues. They do not include strategies or goals for ensuring equitable access within Baltimore County communities, among which access to technology and digital literacy vary, and do not provide a structure for staff to consider and address access for more vulnerable potential customers. Nearly 17 percent (16.7) of the County's population is 65 years or older, nearly a third of whom have a disability, and slightly over 11 percent of the total civilian (non-institutionalized)

504 <https://www.nbcsandiego.com/news/local/virtual-inspections-save-city-time-and-money/2374837/>

population has a formally recorded disability.⁵⁰⁵ For the portion of PAI already accepting some online submissions, the rental registration program, staff note that a degree of ‘hand holding’—additional support, including one-on-one assistance and follow-up—is currently necessary, particularly among older community members less comfortable with online interfaces.

The County has hired a Project Advisor who facilitated a similar transition to electronic permitting in Baltimore City and whose role in the County was initially focused on code enforcement but expanded into implementation of online permitting. The Advisor has shared successful principles and suggested ideas based on Baltimore City’s experience with the County’s Land Use Regulatory Automation (LURA) team, including trialing the new online interface with a group of county customers, having permit applicants act as testers, listening and responding to difficulties teams experience in the transition, as well as identifying support strategies for customers such as one-on-one webinars and training videos, but these strategies are not enshrined in a central, formal transition policy.

Baltimore County should pursue paper-to-online permitting transition strategies and formalize their adoption, with attention to reducing barriers to access across permit customers and thus facilitating access for customer demographics likely to have more challenges using the online interface, including older individuals and individuals with disabilities. This may also reduce the need for resource-intensive “hand-holding” on permit applications.

Benefit to the County

Formal written documents are key in any government entity for transparency and clarity. A finalized strategy for the transition process will structure staff activity, as well as prioritize considerations of equity and access, improving the accessibility of the online system for customers. Additional benefits of formal written policies include:

- Providing a training and reference tool for staff.
- Affording opportunities for internal review and potential policy and procedure improvement.
- Preventing fraud, conflicts of interest, and/or favoritism.⁵⁰⁶

Best Practices

Best practices on which Baltimore County could draw, include:

1. Collaboration across technical lines, internal/external lines, and departmental lines

- Charles County (Maryland) facilitated collaboration between county and software staff to analyze and streamline its business process for permits and identify unnecessary steps to be eliminated. The county also selected residents applying for permits to test the design and functionality of the county’s new online portal.
- Charles County modernized its permitting process in 2019, allowing staff from multiple agencies to collaborate on projects and homeowners and builders to immediately access county feedback and track the permit approval process. The new system saves the county nearly eight hours per day previously spent searching for printed documents and has halved permit review time.
- Polk County (Florida) collaborated with local disability advocacy organizations to identify methods to improve online permitting access for customers with disabilities.

505 <https://www.baltimorecountymd.gov/departments/economicdev/meet-baltimore-county/stats-and-figures/county-demographics.html#veteran-disability-citizenship>

506 Controls and Control Environment, Association of Government Accountants, <https://www.agacgfm.org/Fraud-Prevention-Toolkit/Tools-Best-Practices/Controls-Control-Environment.aspx>.

2. Americans with Disabilities Act (ADA) website compliance

- Web Content Accessibility Guidelines include detailed standards for websites to be perceivable, operable, understandable, and robust for all users.
- While not specific to disability access, Dutchess County's (New York) redesign of its county websites to use plain-language guidelines for users seeking data resulted in a 51 percent net increase in visitors and a 206 percent net increase in page views.

3. Embedding instructional support throughout the new online process, including, where feasible, access to permit staff.

- The city of Fife (Washington) moved to online permitting during Covid-19, creating a ten-minute YouTube video covering 1) a general introduction to the online submission portal, 2) setting up a portal account, 3) applying for a permit, and 4) requesting an inspection.
- Support with online submissions is important for older adults in particular, but also for the general public. Fifty-two (52) percent of American adults report feeling hesitant to use or learn new technologies and digital skills, due to limited trust in the internet, or low digital skills. A third of the national population aged 65 and older never uses the internet, and 75 percent of those over 65 report needing someone else to set up their electronic devices.
- San Diego County (California), which has transitioned its Development Services Department interactions almost entirely online, features a Virtual Counter through which anyone can book an appointment with a staff member over their computer. During each 30- to 45-minute video session, a staff member uses Microsoft Teams to share a computer screen and review needed application information. The introduction of this service substantially reduced the amount of follow-up required on submitted applications without pre-review. San Diego requires a video session before permit submission, but similar advantages, with less burden upon staff bandwidth, might be gleaned from a similar optional service.

Implementation Guidance

Implementing this recommendation should involve an initial meeting of those who are leading and most directly involved in the LURA transition to identify preferred strategies and tactics. This should be followed by input from the PAI Director, Permit Processing Supervisor, and transition Project Advisor, leading to the development of an implementation plan for each chosen strategy and associated tactics, specifying the staff responsible. The implementation process should incorporate and build on steps already taken and knowledge gained in the transition.

3.4.6 INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

Evaluate and adopt key Intelligent Transportation Systems to alleviate congestion and better monitor existing transportation assets.

Findings

Intelligent Transportation Systems (ITS) are systems that utilize technology to improve safety and mobility on roads and highways. ITS applications focus on both the infrastructure and vehicle, as well as integrated applications between the two, to enable the creation of an intelligent transportation system. The most relevant types of ITS applications for Baltimore County include the following:

- Red light cameras (RLCs) detect a vehicle that passes over sensors in the pavement after a traffic signal has turned red and takes photos to identify the vehicle and its license to issue a ticket.
- Traffic signal coordination provides the ability to synchronize multiple intersections to improve the flow of traffic.
- Ramp meters are traffic signals on highway ramps that alternate between red and green in order to control the flow of vehicles at more congested times of day.
- Transit signal priority gives preference to transit vehicles at select signalized intersections. This technology uses sensors to detect transit vehicles and to adjust the signal timings to improve transit headways and performance of the network.
- Variable speed limits in high congestion corridors are an experimental application that evaluates traffic conditions and changes a digitized speed limit sign to correct the poor conditions on a segment.

According to interviews that Public Works LLC completed with staff from the Department of Public Works and Transportation (DPWT), the County is not currently utilizing ITS, but is, however, already moving in this direction, with new funding allocated in the FY2022 budget for this purpose. With the transition to an aggregated data system with CityWorks, the integration of key ITS tools that can help DPWT make data-based decisions on improvements and investments in the future could improve connectivity and safety on County roads. Without using these tools, Baltimore County is missing opportunities for benefits regarding residential quality of life such as improvements to congestion and decreases in air pollution from cars.

Benefit to the County

The primary benefit of implementing ITS is the improvements to the overall circulation of Baltimore County's street and highway network.

Ancillary benefits include the following:

- Traffic signal coordination: potential congestion/time savings for residents as the system improves flows of traffic. Studies show that traffic signal coordination reduces commute times, which results in reductions in greenhouse gas emissions in communities that implement the technology.
- Transit signal prioritization: enhanced performance of CountyRide and the Towson Loop, as they save time in traffic and stay on schedule. Improvements to speed (on schedule performance) of public transit creates a virtuous cycle that encourages increased ridership and buy-in from residents who will increasingly view public transit as a viable option for regular trips.
- Red light cameras: potential for additional ticketing revenue for red light infractions.

Best Practices and Benchmarks

ITS is used across state and county governments to varying degrees. Some notable best practices include the following:

- Montgomery County, Maryland, implemented an Advanced Transportation Management System (ATMS), which includes 1,500 traffic responsive traffic signals, video surveillance systems, transportation monitoring systems, transit signal prioritization, automated parking management, integration with police and fire dispatch systems, and many other capabilities. The investments, done in collaboration with the US Department of Transportation, the Maryland State Highway Administration, and private sector partners highlight the potential for integrating a variety of data assets across departments through coordination and shared tools.⁵⁰⁷

⁵⁰⁷ <https://www.montgomerycountymd.gov/DOT-TMC/ATMS/getatmtpub.html>

Implementation Guidance

Before advancing with implementation, it is crucial to consolidate the existing GIS and asset datasets managed by DPWT into a tool (i.e., CityWorks) that is accessible all appropriate personnel. The Department should then develop an inventory of its assets and identify key corridors with congestion challenges to implement a pilot of ITS applications. It is likely that developing a full toolkit of applications will require coordination with the Maryland Department of Transportation and the Baltimore Metropolitan Council.

3.4.7 EXPAND ONLINE PROGRAMMING AT CCBC

Encourage Community College of Baltimore County (CCBC) to build out online-only courses, faculty, and programs that will increase enrollments, reduce costs, and improve student success.

Findings

The state of Maryland has a rich science- and technology-based economy and boasts one of the most highly educated workforces in the nation. But Maryland, and Baltimore County with it, is being forced by the coronavirus pandemic, and parallel rapidly accelerating advances in technology, to confront a massive reshaping of its workforce.⁵⁰⁸ Changing attitudes amongst the public as to how community college higher education should be designed and delivered will make it both possible and necessary for community colleges – including CCBC – both to reduce instructional costs and to improve student outcomes.

The sudden and disruptive worldwide arrival of the coronavirus made virtual learning essential, hastening an ongoing shift to online study, particularly at the post-secondary level.⁵⁰⁹ At CCBC, online coursework as a share of full-time enrollment (FTE) grew from 13 percent in 2014 to 37 percent in 2021. Before the pandemic, however, only about 4 percent of CCBC's students were fully online, and it is difficult to determine if recent increases are temporary or part of a larger trend.⁵¹⁰

In responding to the pandemic, CCBC was able quickly to convert 500 courses to real-time online instruction. Simultaneously, CCBC's strategic team ramped up its "enrollment stabilization agenda," which is focused, among other things, on enrollment and retention of both academic and workforce students.

CCBC now has a unique opportunity to increase enrollments, reduce costs, and improve student success with a more intentional focus on building a well-supported, ongoing online-only community.

CCBC's annual budget came to a total of \$241.5 million last year. The County government provided an annual appropriation of about \$66.5 million, representing 27.5 percent of the college's budget – just behind revenue from tuition and fees (28.5 percent), ahead of grant funding (24.7 percent), and substantially more than state aid (17.6 percent).⁵¹¹ CCBC has done a great deal to make sure that those dollars are spent efficiently, including tracking the implementation of its strategic plan and monitoring mandatory performance indicators and other measures in the annual Community College of Baltimore County Fact Book,⁵¹² which is publicly available.

CCBC is in an excellent position to build on this success to realize even greater achievement. The College is one of the top economic development assets in Baltimore County, serving roughly 60,000 students in equal numbers of credit and continuing education students. At this size, CCBC is ten times the size of Baltimore City Community College and second in the state only to Montgomery College.

508 "Millions of jobs probably aren't coming back, even after the pandemic ends," Heather Long, The Washington Post, February 17, 2021.

509 New Survey of Americans Examines Enduring Preference for Nondegree, Online Education and Training Programs, Strata Education Network, August 26, 2020.

510 Memorandum to Dr. Sandra L. Kurtinitis from Melissa L. Hopp regarding Avenues for Growth Identified by Public Works, Community College of Baltimore County, July 23, 2021.

511 <https://www.ccbcmd.edu/About-CCBC/Our-Leadership/Annual-Report/Financials.aspx>

512 https://www.ccbcmd.edu/~media/CCBC/About%20CCBC/Administrative%20Offices/PRE/ccbc_factbook.ashx

CCBC is a recognized leader. It was recently awarded a \$1.7 million grant from the Mellon Foundation, in conjunction with Johns Hopkins University, to improve community college students' success in four-year colleges, and it has completed construction of a new health professions training facility. It is instituting an innovative Pathways approach to workforce training that offers academic support to students in career programs. The college has proven value in the community, providing average wage growth of approximately \$30,000 for its occupational graduates⁵¹³ and preparation for jobs in associate and postsecondary nondegree-level occupations that are growing in double digits.⁵¹⁴ Its website is inviting and functional, giving both students and employers confidence in the CCBC experience.

Despite these strengths, however, CCBC's enrollments have been declining, and its completion rates are too low, especially among younger students in credit programs. Total student headcount declined between 2016-2019 from almost 62,000 to 57,677. In 2019, the student share of first-time, full-time freshmen was 36 percent, and the population of recent, college-bound high school graduates declined between 2015-2018 from 53 percent to 45 percent. Addressing these issues can help CCBC make a greater contribution to the Baltimore County economy and boost the efficiency and effectiveness of its spending – including the County's share thereof.

Workforce training students in certificate and licensure programs

Between 2016-2019, CCBC's enrollment in continuing education courses remained stable at about 32,000 students. Pass rates among students in licensure and certification programs are high. The college offered hundreds of courses on-line in 2020, and it is now poised to consider how to sustain this momentum into a *reshaping of workforce training towards a more extensive online-only approach*.

CCBC has reported that it is seeking federal stimulus funding to reduce the cost of workforce training programs.⁵¹⁵ According to the Association of Community College Trustees, the most effective strategies to "support adult learners include offering asynchronous online classes for students to be able to complete coursework on their own schedules; simplifying course and degree requirements to support completion; connecting students with new child care options; and providing counseling and mental health services."⁵¹⁶ These findings are borne out in interviews with adult learners; nearly 40 percent say that "safety and convenience drive preferences for online-only education."⁵¹⁷ This trend is likely to continue and accelerate in the aftermath of the pandemic.

Recent high school graduates in credit degree programs

CCBC can actively position itself as the *higher education institution of choice*, not just for adults in the workforce but also among recent high school graduates preparing to enter degree programs. While CCBC's completion/transfer rate of 43 percent in 2015 among all students is on par with the national average, in which "fewer than 40 percent of community college students earn a certificate or degree within six years of enrollment,"⁵¹⁸ this is a low threshold. By comparison, after long years of work to establish seamless pathways in the California higher education system, nearly half of students earning a bachelor's degree from a University of California campus in science, technology, engineering and mathematics transferred from a California community college. This is an extraordinary achievement, especially considering that the University of California is one of the finest university systems in the world. The University of Maryland is also exemplary and is similarly located in the heart of a thriving economic corridor where students who complete degree programs can expect ready access to high-paying careers.

Fall-to-fall retention among college-ready students, a group that should be a prime target for CCBC, declined from 46 percent to 41 percent between 2015-2018; in California, the overall persistence rate is 77 percent.

513 "Occupations that typically require workers to have an associate degree for entry have an average annual wage of almost \$53,000, compared to an average annual wage of \$36,100 for workers in high school-level occupations, according to the U.S. Bureau of Labor Statistics."

514 Bureau of Labor Statistics.

515 Kurtinitis memorandum, 2021.

516 "Reskilling for the pandemic recession and recovery," Allison Beer and Jacob Bray, Association of Community College Trustees, November 2020.

517 Strata Education Network, August 26, 2020.

518 "Improving community college completion rates by addressing structural and motivational barriers," Elizabeth Mann Levesque, Brookings Institution, October 8, 2018.

These data indicate that, while CCBC provides benefits to a large number of students, it may not appeal sufficiently to young people who may have higher expectations for educational convenience than adults currently in the workforce. Making changes to improve the numbers and success rates of students in credit programs would substantially improve CCBC's economic impact.

It should be noted that results are "promising" for students who have participated in the *Baltimore County Promise Scholarship* since its inception in 2018. The program has awarded 71 Associate's degrees from an original cohort of 111 students, and 63 percent of students persisted for two consecutive semesters (as compared with 43 percent of students overall.) CCBC expected to serve 1,335 students in the *Promise* program by FY2022. National best practice research suggests that these successes can be attributed in large measure to CCBC's decision to "proactively assist [Promise] students who may not have been academically prepared [with] a mentoring program [in which] ... mentors met with the students throughout the semester and the academic year."⁵¹⁹ Given that CCBC's online-only students currently "have lower course completion and success rates,"⁵²⁰ the success of the Promise students may offer valuable lessons about supporting student persistence and completion.

The sea change: Online-only programs and degrees

Although today's students have myriad options for online-only educational programs, they tend to choose local schools, which have "greater visibility among employers and others in the community."⁵²¹ The "proportion of students studying fully online who are enrolled within 50 miles of their homes has risen from under half to fully two-thirds."⁵²²

CCBC offers the reputational value that students want, but in its present form the school's online programming may not be sufficiently competitive. The *2020 Guide to Online Schools* rates Montgomery College as the best online community college in Maryland, while CCBC is ranked 12th. This strategic disadvantage for CCBC must be quickly addressed in light of rapidly changing student demographics. A significant increase in online-only programs could dramatically boost CCBC's brand popularity among a new population.

It would appear that CCBC has adequate resources to expand its online programs substantially. The college has a \$500,000 budget for Internet, charges an \$180 technology fee per student, and has 77 campus positions dedicated to information technology.

Benefit to the County

CCBC contributes to the Baltimore County economy in a variety of ways. Its graduates gain new marketable skills and earn increased wages. Its high-demand occupational programs report high pass rates. CCBC also provides important educational opportunities for non-White students, who make up 60 percent of the student population.

While CCBC has worked to attain efficiencies and control costs, it still receives significant funding from the County. By expanding online-only community college programming, CCBC can:

- Broaden its reputation;
- Compete more successfully with Montgomery College and national competitors, such as the University of Phoenix;
- Position itself for greater flexibility and improved preparedness for future emergencies,
- Reinvigorate its faculty;
- Increase its cost-efficiency;
- Attract more students and generate more revenue.

These efforts will generate even greater return-on-investment for the County's support of CCBC.

⁵¹⁹ Kurtinitis memorandum, 2021.

⁵²⁰ Ibid.

⁵²¹ Ibid.

⁵²² Ibid.

Best Practices and Benchmarks

1. Meet today's students where they are.

Expanding online courses will enable CCBC to improve student support services and increase completion rates.⁵²³

"Americans who need education and training the most are telling us that feeling welcomed and supported is essential. We can design the best education programs in the world, but if people don't feel they belong there, it won't matter.... Americans without a college degree are more likely to identify feeling more comfortable and a more supportive environment as the most important factors in deciding among in-person, hybrid and online options, while low-income Americans place more importance on convenience."⁵²⁴

Research also indicates that student persistence is correlated with how colleges communicate with students and the kinds of technological supports they employ to improve ease of use and convenience. "Nearly three in five students age 45 or under said they completed some or most of their course-related activities using mobile devices [emphasis added]."⁵²⁵ At the City University of New York and elsewhere in New York, California, and Ohio, educators have begun using customized text message outreach to keep students on track towards completion.⁵²⁶

2. Recruit the next generation of faculty

In Fall 2020, one-quarter of CCBC full-time faculty were 60 or older. When faculty retire, the College considers a number of metrics to determine whether the vacant position should be filled, eliminated, or reallocated to another department. As the college considers its future strategic development, faculty retirements may create opportunities to recruit and hire a new cohort of tech-savvy instructors. This would enable the College to transition more smoothly into expanded online learning.

3. Audit coursework to maximize faculty expertise and eliminate redundancy

CCBC boasts more than 100 programs across three campuses. As the college rethinks its methods for delivering coursework, it may also want to consider increasing efficiencies by using online programs to fill gaps and eliminate any unnecessary redundancies. Increasing online access can be especially useful for students who are pursuing specialized programs that include coursework not available at their home campuses.

4. Expand dual-enrollment partnerships

At present, more than 1,600 high school students are participating in CCBC coursework through Advanced Placement or other dual-enrollment programs. Despite strengthened outreach to high schools, however, the share of recent high school graduates enrolled at the College has been dropping, indicating potential for the College to improve its direct outreach to high school students. Expanding online coursework will build on CCBC's existing efforts to attract high-achieving students who plan to complete a bachelor's degree.

⁵²³ Strata Education Network, 2020.

⁵²⁴ Ibid.

⁵²⁵ Ibid.

⁵²⁶ Page and Gehlbach 2017, Strata Education Network.

5. Expand partnerships between County Government and CCBC

Brand recognition

CCBC currently spends \$700,000 per year on advertising. There may be great benefit both to Baltimore County and to CCBC to collaborate on a campaign to brand CCBC profile as the region's online college of choice. An example can be found in the State University of New York (SUNY) system's new "Stay Near, Go Far" campaign, which highlights the SUNY for All Online Training Center.⁵²⁷

Economic development

CCBC has said that it "works closely with Baltimore County's Department of Economic and Workforce Development (DEWD)... [especially as a result of] DEWD's co-location at two CCBC extension centers: CCBC Hunt Valley and CCBC Liberty Center."⁵²⁸ However, Public Works LLC's interviews indicated that the agencies sometimes compete with each other instead of working together to maximize the County's potential for employment and business development.

From DEWD's perspective, the relationship could be improved if the highest-level leadership began conducting long-range planning together to align programming, especially for online coursework. This alignment would create new efficiencies and enable expanded outreach to Baltimore County's employers and workforce.

Facilities

As CCBC anticipates the trend towards more virtual programming, this shift may drive major long-term changes in the use of facilities. Although a recent CCBC report indicated that its strategic plans include potential expansion of its academic facilities, increasing the campus footprint may not be warranted at a time when virtual and remote learning is increasing.⁵²⁹ Given that the County owns the college's buildings, it will be important to work jointly to plan how facilities might be repurposed if a shift to online instruction reduces the need for classroom space.

6. Bring in students and money from outside Baltimore County

CCBC has been seeking to attract more students from out-of-county and out-of-state to its online courses, to expand its tuition base and reduce the need for increased government appropriations.⁵³⁰ The College's Board of Trustees in 2020 voted to lower out-of-state tuition to further attract non-local students. Public Works LLC agrees that CCBC should expand its efforts to capture the attention of would-be students across the United States, especially given the reality that community colleges are being "outmaneuvered in marketing by the ... for-profit college industry."⁵³¹ An aggressively marketed expansion of online classes could increase CCBC revenues while offering students a reasonably priced, high-quality alternative to for-profit online programs.

527 "SUNY launches community college social media campaign," Sara Weissman, Inside Higher Ed, June 3, 2021.

528 Ibid.

529 Ibid.

530 Ibid.

531 "California community colleges lose students to more expensive for-profit colleges," Thomas Peele, edsources.org, June 15, 2021.

3.5. Entrepreneurial Government

There are many opportunities for Baltimore County entities to become more entrepreneurial. These range from making government entities themselves behave more like business enterprises – balancing their bottom lines and better understanding their cost drivers, seeking opportunities to generate revenues by providing more services people want – to finding ways to partner with the private-sector and leverage the funds of private enterprise to pay for or provide public services from which they also benefit. Entrepreneurial governments proactively seek appropriate non-tax sources of financing for a variety of services and activities. Examples range from waste disposal to recreation and tourism, and from economic development to legal services:

- Enterprise fund structures are commonly used for public utilities (like water and sewer) to allow for a complete understanding of costs and revenues, which allows for more efficient and effective operations, creating a “bottom line” focus for prioritizing services, setting rates and fees, and developing and allocating capital. DPWT’s Bureau of Solid Waste Management estimate that it generates total annual revenue of approximately \$21.2 million – yet, the Bureau is currently funded primarily by the General Fund, with appropriations in 2021 exactly matching its anticipated expenditures. The County is not running its Bureau of Solid Waste Management as a utility – which means that it lacks a full and transparent accounting of costs and revenues. In addition, the Bureau does not currently have all of the data that it needs to understand where efficiencies may be gained, because it does not use full cost accounting, which means the Bureau cannot fully evaluate the costs and benefits of its operational and resource allocation decisions. We recommend that the Bureau of Solid Waste Management should adopt an Enterprise Fund Model, which would allow it to operate more like a business, employing full cost accounting, while retaining full control over employees, policies, regulations, and services.
- Baltimore County’s parks, recreation centers, and nature centers are a point of pride for county residents, as evidenced by the hundreds of volunteers working for the County’s 45 Recreation and Nature Councils. In Baltimore County, the Department of Recreation and Parks generates a limited amount of revenue, but this revenue is not then used to support the parks’ operating budget: The Department does not have a dedicated “account” into which it can deposit funds to use for operating expenses. All revenue generated at park facilities goes back into the general fund, rather than the Department’s own budget. The County could create an Enterprise Division within the Department of Recreation and Parks and adopt an entrepreneurial approach to identifying revenue-creating opportunities. The County also could avail itself the provisions of new legislation (Bill 17-21)⁵³² to solicit and leverage potential philanthropic support for the County’s parks system – and consider whether its strategic objectives might be served by merging the tourism functions within DEWD with the Department of Recreation and Parks.
- As is the case with most Baltimore County Departments, DEWD needs more staff in all its functional areas; the difference in the DEWD context is that the cost of doing so can be reduced to the extent that the County is able to attract private-sector funding. Economic development generally, tourism promotion specifically, and workforce training programs are supported in many places by the private sector, or specific interests, that benefit from them. Baltimore County therefore should pursue opportunities for private-sector funding of these county government activities.
- Attracting direct private-sector funding for government programs also requires different structural arrangements. Baltimore County already possesses a non-profit Destination Management Office – just one that is under-resourced – so there would be no need to create a new entity: The Tourism Office simply could be merged into Enjoy Baltimore County. Recreation and entertainment likely will be the centerpiece of any concerted County tourism strategy, building primarily off the County’s outstanding park and recreational facilities and options. We suggest that the County therefore consider whether the future of its tourism efforts best lie in concert with Recreation and Parks. This could be considered in the context of either a combined government department – or a combined non-profit, consistent with the more entrepreneurial model we suggest that Recreation and Parks pursue.

532 <https://resources.baltimorecountymd.gov/Documents/CountyCouncil/bills%202021/b01721.pdf>

- In various cities the private bar has helped ensure and subsidize the provision of lawyers to government agencies. Most government legal offices need more attorneys; fellowship programs enable them to be able to afford the staffing they need – while training a wider pool of attorneys to understand and value public service and the work of the public sector – all at little or no expense to the taxpayers. The County Executive and County Attorney should champion a legal fellowship program to area law firms and make it a reality.

3.5.1 SOLID WASTE ENTERPRISE FUND

Restructure the Department of Public Works and Transportation Bureau of Solid Waste as an Enterprise Fund.

Findings

The Bureau of Solid Waste Management is currently funded primarily by the General Fund, with approximately \$62.4 million in appropriations in 2021, exactly matching the Bureau's anticipated expenditures. While a detailed accounting of the Bureau's revenues (including through transfer and host fees, tipping fees for private commercial solid waste, and material processing) are not reported through the Bureau of Solid Waste's annual budget, the Bureau provided total annual revenue estimates of approximately \$21.2 million. This includes \$16.0 million related to ESL charges (including \$10.2 million from Harford County), \$3.2 million from material recovery (although it is likely higher this year, since markets for recyclables are currently strong), and \$1.3 million in ash acceptance fees related to Wheelabrator.

The dependence on the General Fund for the Bureau's operations means that the County is not running its Bureau of Solid Waste Management as a utility, and that it lacks a full and transparent accounting of costs and revenues. In addition, the Bureau does not currently have all the data it needs to understand where efficiencies may be gained, because it does not use full cost accounting, which would yield detailed information about specific cost drivers and revenue streams.⁵³³ Without more data on the true costs of waste collection and disposal, the Bureau cannot fully evaluate the costs and benefits of their decisions.

In addition to the operational improvements that an enterprise fund structure would offer, decreased reliance on the General Fund would make the Bureau of Solid Waste Management's funding less susceptible to potential budget cuts in the future.

The Tactical Five-Year Plan: Baltimore County's Recycling & Solid Waste System report (currently in draft form) concludes that adopting an Enterprise Fund Model would allow the Bureau of Solid Waste to "operate more like a business employing full cost accounting with revenues generated by fees charged to users of services adequate to cover all costs and funding for reserve funds, while retaining full control over employees, policies, regulations, and services."

⁵³³ Government Finance Officers Association, "Municipal Solid Waste Management and Full-Cost Accounting," <https://www.gfoa.org/materials/municipal-solid-waste-management-and-full-cost-accounting>.

Benefit to the County

Enterprise fund structures are commonly used for public utilities (like water and sewer) to allow for a complete understanding of costs and revenues, which allows for more efficient and effective operations and data-driven decision making about future investments. A 2014 article in *Waste Advantage Magazine* describes the benefits of an enterprise fund model for solid waste as follows:

*The enterprise fund creates a “bottom line” focus—building a foundation for prioritizing services, setting rates and fees, and developing and allocating capital. For a municipality, developing a focus on stewardship of their solid waste enterprise fund protects key assets (trucks, facilities, workforce), provides an incentive for cost-effective performance by capturing end of year budget surpluses and fund investment interest, and establishes reserve funds necessary for capital investments that can be defended in the public sector financial management environment.*⁵³⁴

This article describes key financial challenges faced by solid waste divisions, including the deferral of needed capital improvements, rising operating costs that outpace fee increases, and capital reserves reallocated from solid waste to other areas of a local government. An enterprise fund model can address these financial challenges, as true-cost accounting and fees-for-service allow solid waste divisions to fund their needed operations and capital plans. In fact, the *Tactical Five-Year Plan* identifies “unknown true cost of services” and the fact that the Bureau is “not in control of capital project financing” as two challenges that the Bureau faces.

Although fees are associated with this model, these costs would be tied directly with the services provided so that households or properties that produce less waste would owe less. For example, a “Pay-As-You-Throw,” model for collection would tie collection rates to the number or size of containers that a property has collected each week. Systems benefit charges (see **Solid Waste: Systems Benefit Charge**) vary based on property type, so that the types of properties that produce more waste are typically charged more.

Best Practices and Benchmarks

According to the Government Finance Officers Association, successful full cost accounting for solid waste should be reported both by “activity” (e.g., collection, transfer station, transport, solid waste facility, sales) and by “path” (e.g., recycling, composting, waste-to-energy, land disposal). Additionally, it is important to consider both fixed and sunk costs to develop plans that will be most effective in the long term.⁵³⁵ This type of consideration is especially relevant to complex, interconnected decisions like those presented in Recommendation DPWT Solid Waste: Comprehensive Landfill Strategy, which recommends planning for landfill expansion, landfill creation, and solid waste transfer as a set of responses to a challenge, rather than as individual alternatives.

Frederick County’s Solid Waste Management System operates as an enterprise fund, without the addition of General Fund revenues, to provide “sufficient revenues to cover debt service on capital expenditures, annual operating costs and anticipated closure and post closure costs for the solid waste system, and associated recycling programs.”⁵³⁶ The County uses collection fees, disposal fees, and systems benefit charges to fund its operations. Because it has a detailed understanding of its expenditures (including by path and activity, as described above), it can make intentional decisions about how to use revenues in one area to fund another (and thereby influence residents’ and businesses’ behavior. For example, \$4.5 million from the systems benefit charge (and potential other sources) supports the residential recycling program, meaning that residential recycling services offered by the County are offered with no direct cost to residents.⁵³⁷ Other counties in Maryland that have an enterprise fund structure include Anne Arundel, Howard, Montgomery, and Prince George’s Counties.

534 Jim Frey, “Growing the “Business” of Your Municipal Solid Waste Program: Enterprise Fund Management and You,” *Waste Advantage Magazine* (August 13, 2014), <https://wasteadvantagemag.com/growing-the-business-of-your-municipal-solid-waste-program-enterprise-fund-management-and-you/>.

535 Government Finance Officers Association, “Municipal Solid Waste Management and Full-Cost Accounting,” <https://www.gfoa.org/materials/municipal-solid-waste-management-and-full-cost-accounting>.

536 “SOLID WASTE MANAGEMENT PLAN 2018-2037, Frederick County, Maryland, Division of Utilities and Solid Waste Management,” https://frederickcountymd.gov/DocumentCenter/View/330456/SWMP_Senate-Bill-370_2020-11-25_Final_MDE-approved, p. 4-8.

537 “SOLID WASTE MANAGEMENT PLAN 2018-2037, Frederick County, Maryland, Division of Utilities and Solid Waste Management,” https://frederickcountymd.gov/DocumentCenter/View/330456/SWMP_Senate-Bill-370_2020-11-25_Final_MDE-approved, p. 5-16.

In some cases, the general fund can be used to subsidize an enterprise fund's operation, either to allow funds to be phased in or to keep fees low.⁵³⁸ This idea, which was discussed at the February 4, 2021, meeting of the Baltimore County Solid Waste Work Group, could ease the transition and allow the County to familiarize residents and businesses with the concept over time.⁵³⁹

Implementation Guidance

In order to move to an enterprise fund structure, the Bureau of Solid Waste Management would need to undertake a full cost accounting study to understand how costs and revenues currently align, taking future capital costs into consideration. As described above, full cost accounting is a best practice that will be important to DPWT and to the County whether or not the Bureau of Solid Waste Management ultimately moves to an enterprise fund structure. Therefore, full cost accounting appears in several recommendations related to solid waste within this report.

Full cost accounting will require a study of the full, long-term costs associated with various scenarios including expansion of the ESL facility, the creation of a new landfill, and how different volumes of solid waste remaining in-county will impact the landfill's capacity and continued lifespan. (See **Comprehensive Waste Management Plan** for further discussion.) It will allow the Bureau to evaluate the cost-effectiveness and efficiency of operations, and position it to charge fees that will support its administration and operations more completely. Some possible approaches to raising fee-based revenues include charging for collection (either per property/unit, or as a pay-to-throw model), increasing tipping, transfer, and/or host fees to account for true costs of disposal (**Solid Waste: Tipping, Transfer, and Host Fees**), and/or a systems benefit charge (see **Solid Waste: Systems Benefit Charge**).

Moving forward with the enterprise fund model would require County and State legislative approval.

3.5.2 RECREATION AND PARKS REVENUE GENERATION

Establish an Enterprise Division within the Department of Recreation and Parks to capitalize on opportunities to generate and collect revenues.

Findings

Baltimore County's parks, recreation centers, and nature centers are a point of pride for county residents, as evidenced by the hundreds of volunteers working for the County's 45 Recreation and Nature Councils. High-quality parks contribute to the County's quality of life and are important for attracting and retaining a highly skilled workforce. As the County continues to grow and develop, there are plans to expand the parks system, such as at Sparrows Point, where the County is building the first new park in six years. But as the County's parks system continues to expand, and as current facilities age and need more intensive maintenance, the County will need to find new alternatives to adequately fund parks maintenance and operations.

Cities and counties experiencing this type of growth often try to find ways to generate revenue from park facilities and programs that can be used to pay for park expansions and maintenance. They may enter into sponsorships and solicit donations, host paid-admission events and tournaments, develop revenue generating facilities such as a water park, and operate concessions or enter into concessionaire agreements with private vendors. A locality may choose to do all of the above in-house, with public employees, or may choose to work with outside entities, such as a non-profit. In other cases, the outside entity may be independent organizations.

538 "An Introduction to Funding and Accounting for Integrated Solid Waste Management Planning," (April 2017), https://nrcne.org/wp-content/uploads/2019/12/FCA-handbook_FINAL.pdf.

539 Idea presented by Kari Hodgson, P.E., Director, Solid and Hazardous Waste Management Division, Collier County, Florida, at the February 4, 2021 Baltimore County Solid Waste Work Group meeting.

According to the National Parks and Recreation Association, a research and advocacy organization with a network of more than 60,000 park and recreation professionals and advocates, the average parks department derives 23 percent of its operating budget from “Earned/Generated Revenue”.

In Baltimore County, the Department of Recreation and Parks does generate a limited amount of revenue, but this revenue is not used to support the department’s operating budget: The Department does not have a dedicated “account” into which it can deposit funds to use for operating expenses. All revenue generated at park facilities goes back into the general fund, rather than the Department’s own budget.

While the Department of Recreation and Parks does not have a dedicated account from which it may access revenues generated at park facilities, a grant program is being piloted that would allow the County to direct a portion of such funds to the Department. This program would facilitate Recreation and Parks’ ability to host paid events and programming.

There are several reasons beyond the lack of a dedicated account that the Department raises little revenue for park operations:

- The Department lacks a mechanism for collecting money electronically, which is a barrier to putting on ticketed events, though development of such a system is in progress.
- Until recently, Department staff was not authorized to solicit funds to support parks programming and operations, meaning they could not seek out sponsorships to host events in parks, such as summer movie nights or concert series, or solicit gifts for programming from local businesses or individuals. Fundraising for Recreation and Parks programming is done primarily through the County’s 45 Recreation and Nature Councils, which are themselves non-profit entities. But these councils have a limited, defined geographic or programmatic focus. There has been until recently no means to solicit donations for parks in general. However, in March 2021 the County Council passed Bill No. 17-21, which gives certain department heads limited abilities to solicit donations on behalf of the County. The Bill allows the County to establish a non-profit organization, called a fiscal sponsor, “for the purpose of hosting a fund to accept and manage charitable donations to benefit the county or county residents.” A department head that is given express permission to solicit funds may do so on behalf of the county or the fiscal sponsor.⁵⁴⁰ The County has yet to use this new authority.
- Finally, there are only limited venues for revenue generation at County parks. The Department charges admission at Rocky Point Beach, and picnic pavilions are available for rent. There are boats and kayaks available for rent at the Loch Raven Fishing Center. At Oregon Ridge, the County rents the “The Lodge,” an indoor facility, for weddings, bull roasts, and conferences. There are outdoor pavilions for rent at the Oregon Ridge Nature Center, but those are managed by the local recreation councils, and rental fees are collected by the council. At Miami Beach, the County has a concessionaire agreement with Eastern Watersports, a local business, which pays a flat rate to the County for the right to rent out boats and kayaks at the beach. Additionally, various community centers can be rented for community and family social events. Stages are available for rent for various outdoor festivals and other events, in which case the Department of Property Management manages the rental, but the funds are deposited into the County Facilities Rental Income account of the General Fund.

Recreation and Parks nonetheless currently pursues several revenue-generating strategies, although it does not take full advantage of these:

- Baltimore County charges a fee to for-profit youth sports tournament organizers for the use of county-owned ballfields, plus “leadership costs,” or the cost of Department staff time spent on-site at the event. All revenue for field rental and staff time goes to the general fund.
 - » Baltimore County does not charge usage fees to the County’s local youth sports leagues, organized by the Recreation and Nature Councils, for access to County owned and operated sports facilities. However, it is common for other jurisdictions to charge such fees.

⁵⁴⁰ <https://resources.baltimorecountymd.gov/Documents/CountyCouncil/bills%202021/b01721.pdf>

- There are other administrative tasks for which the Recreation and Parks uses staff time related to supporting the tournament, such as scheduling waste pick-up and grass mowing, and obtaining the necessary permits, but these costs are absorbed by the Department and not passed on to tournament organizers.
- The County has explored the idea of developing new revenue-generating facilities, such as a tournament-ready sports complex, and Recreation and Parks staff have in the past been asked to do initial scoping of some county-owned sites, including the undeveloped 61-acre Owings Mills site, to see if they would be appropriate for a tournament facility. These plans were never advanced. However, the fact remains that the County has sites available for park development, and that future uses could include those intended to generate revenue and attract tourism.
- The Baltimore County Revenue Authority owns and operates the Reisterstown Sportsplex, which has an indoor ice-skating rink and indoor turf field and was developed in 2008. The Revenue Authority also owns and operates two golf courses. Revenue generated at these facilities goes back to the Revenue Authority. However, some parks departments develop revenue-generating facilities and use the revenue to support operations and capital improvements.

Benefit to the County

By creating and leveraging mechanisms by which the Department of Recreation and Parks can generate and collect revenue, the County will be able to expand the recreation and leisure opportunities available to county residents while generating new revenue to support the Department's programs and services.

Best Practices and Benchmarks

There are several different models for revenue generation at county- or city-owned parks facilities. Some localities choose to keep all revenue-generating activities public by maintaining public ownership, management, and control. Parks department staff are authorized to solicit donations and sponsorships. Events are organized by department staff and fees or ticket sales are collected by the department. And any food, beverage, or recreation concessions are owned and operated by department staff. Other models outsource these activities to third-parties or non-profits, to varying degrees.

Fundraising

One common model for localities to fundraise for park facilities is through conservancies. A conservancy is a non-profit organization that is affiliated with a park. The conservancy supplies volunteers for maintenance, operations, and special projects. Conservancies accept donations, host events, and solicit sponsorships. All money generated goes into park needs and community programming. Conservancies are not usually expected to pay for all aspects of park maintenance. Parks department staff still serve the park and provide services. But some conservancies are so successful in their fundraising efforts that they make grants back to the locality, parks department, or charitable organizations.

Certain Recreation and Nature Councils in Baltimore County operate much like conservancies, such as the Lake Roland Nature Council or Friends of Benjamin Banneker Museum. Each of the County's regional parks and nature centers are affiliated with a recreation council, and they supply volunteers for park maintenance and programming and accept donations for facility improvements.

Regional Parks are not directly affiliated with Recreation and Nature Councils and thus do not have the built-in bases of volunteers and other resources that the other facilities have.

Some cities and counties have established parks foundations that fundraise not for one specific park, but for a parks system as a whole. The City of Austin, Texas, works with the non-profit Austin Parks Foundation (APF) to solicit sponsorships and fundraise for park programs. The APF organizes large events, including Austin City Limits, and delivers excess revenue to the County in the form of grants, which are used to support park facilities and programs. In 2018, APF-organized events contributed more than \$5 million to the City of Austin's Parks Department.

In Fairfax County, Virginia, the Fairfax County Park Foundation supports the county by raising private funds, obtaining grants and creating partnerships. Over the last two years for which data are available, the Foundation raised \$1.58 million and contributed \$908,000 to the county's parks department. The Foundation is led by a volunteer board of directors and staffed by an executive director with a small staff. In FY202, the Foundation spent \$415,000 on salaries and benefits for Foundation employees. The Foundation's board is comprised of volunteer community and business leaders, and officials from the county's parks department serve as ex-officio members of the board.

"Enterprise" divisions, revenue generating facilities, and concessions

Fairfax County also has a Park Authority, which functions as its parks department. The Fairfax Park Authority operating budget is made up of county general funds as well as earned revenue. The Authority operates a number of revenue-generating facilities such as golf courses, gymnasium/rec centers (with pools), and an ice-skating rink, among other facilities. In this way, the Authority operates similarly to the Baltimore County Revenue Authority, except that the Fairfax Park Authority does not have the ability to issue bonds on its own behalf. Bonds are issued by the county for park purposes, and Park Authority uses revenue to pay back debt service on behalf of the county.

It must be considered that not all revenue generated at these facilities amounts to "extra" money for the parks department. According to the Fairfax Park Authority the revenue covers "nearly all of the personnel expenses and operating costs" at these facilities. It also notes that "sustained revenue growth is essential to support the [revenue operating fund] and to offset increases in operating expenses. Income from fees must also pay back debt service associated with revenue bonds used to develop golf course facilities." Fees and rates are set by the Park Authority board. Consideration must be made to ensure that the cost for residents to access these facilities is not prohibitive in a way that impacts the goal of providing equity of access for all residents.

The Prince William County, Virginia, Department of Parks, Recreation, and Tourism (DPRT) derives 37 percent of its operating budget from revenue generating facilities and activities. DPRT's "Enterprise Recreation" team operates the County's "Enterprise facilities, which offset a high portion of their expenses with revenue," such as the County's recreation centers and waterparks.⁵⁴¹ DPRT was originally an independent public authority but was folded into Prince William government in 2012. Therefore, DPRT was, from its creation, enterprise oriented.

Enterprise facilities in Prince William County include:

- Kayak, paddle boat, motorized boat rentals, and a marina
- Guided hikes, including a "full moon" hike
- The Rippon Lodge Car Show (vintage cars)
- Batting cages
- Mini golf, driving range, and full-sized golf course
- Waterparks
- Outdoor and indoor pools
- Pavilions, event centers, and conference rooms for rent
- Fitness centers
- Farmer's Market

⁵⁴¹ Prince William Park, Recreation, and Tourism Department Profile. <https://www.pwcva.gov/assets/documents/park/DPRT%20DPT%20PROFILE%2012.5x18.5%20-5.pdf>

Implementation Guidance

- The County could create an Enterprise Division within the Department of Recreation and Parks.
 - » In years one and two, the Enterprise Division could consist of a chief and a planner or analyst, and they could be tasked with developing an Enterprise Plan. The County's Department of Recreation and Parks has begun the process to add a position to handle revenue generating activities and tournaments.
- The Enterprise Division could adopt an entrepreneurial approach to identifying revenue-creating opportunities, that could include (but not be limited to):
 - » Organizing and hosting sports tournaments at County parks.
 - » Expanding opportunities for boating, watersports, and marine activities
 - » Bike rentals
 - » Guided hiking tours
 - » A farmer's market
 - » Concert series and festivals
 - » Wedding venues
 - » Classes and recreation opportunities beyond what is offered by the Recreation and Parks Councils, including yoga, cooking, and fitness classes.
 - » Selling parks merchandise, both on-site and online.
 - » Allowing families to "adopt" or sponsor an animal at a park facility, in which the family receives a picture and story about the animal.
- In sum, the Enterprise Division should be encouraged to be creative and entrepreneurial. At the same time, retaining public control allows for the Recreation and Parks Director to ensure that parks remain primarily oriented toward serving the public, and that access to enterprise facilities and programming is open and equitable.
- The Enterprise Plan should include opportunities for concessions. Department staff should survey facilities to determine what improvements may need to be made to host concessions, including hookups to electric or Wi-Fi (the latter to enable credit card transactions on mobile devices). Existing but underutilized buildings could be reimaged as a venue for a food vendor, or a rotating roster of food vendors from the local community. The cost of improvements does not need to be borne solely by the Department as other jurisdictions have put the responsibility of incremental site improvements on concessionaires.
 - » Through a community-led planning process, the County could determine which services county residents may want to have available at particular facilities. They could include bike or kayak rentals, or a zip-line, for example, as well as unique food and beverage options from local vendors, including food trucks.
 - » Engage with local businesses for concession needs. By prioritizing partnerships with local businesses, the use of concessionaires may also achieve economic development goals.
- The Department should determine if any of the \$36 million in the six-year capital improvement plan that has been designated for park development and acquisition should be set aside for developing enterprise facilities.
 - » Use the Enterprise Plan to inform the next six-year capital plan.
 - » Explore the use of bonds to finance new enterprise park developments, and use revenue generated at newly developed facilities to pay back the debt.
 - » Enterprise facilities may include: marinas, batting cages, miniature golf, zip lines, waterparks, pools, fitness centers and gyms, spaces for weddings and other celebrations, ice skating rink, a botanical garden, camp grounds with RV hookups, a go-cart track, miniature trains, or any other facility identified by County residents through a community planning process.

- The County Executive and County Council could direct the Office of Budget and Finance to create an account or fund into which Recreation and Parks can deposit funds to be used solely for park operations, maintenance, and improvements. Through the annual budgeting process, the County Council and County Executive may set a maximum amount that can be disbursed from the account during the coming budget year. Any excess funds could either rollover to the following year or be transferred to the general fund. Note that if this recommendation is pursued, then it will be essential to ensure that Recreation and Parks possesses the capability to collect funds electronically, as well as to update to the Department's online registration system.
- The County could avail itself of the new authority granted by Bill No. 17-21, to solicit philanthropic funds on behalf of the County's parks system.
- The County could create reduced-admission programs to ensure that every resident may have access to the County's enterprise facilities. These may be distributed through the schools and the Department of Health and Social Services. Funding for reduced-admission programs should come from the general fund and not the Recreation and Parks budget.

3.5.3 REIMAGINING ECONOMIC AND WORKFORCE DEVELOPMENT

Baltimore County could rethink its economic and workforce development structures potentially to incorporate broader use of non-profits, public-private partnerships, privatization, and entrepreneurial approaches.

Findings

As is the case with almost every department of Baltimore County Government, all DEWD functions require more staff than at present. The difference in the DEWD context is that the cost of doing so can be reduced to the extent that the County is able to attract private-sector funding.

While public functions generally require broad-based public funding, so that they serve the general good and not the interests of those that pay for them, there are some specific government functions that could attract and benefit from outside support. Economic development functions often serve discreet interests and are specifically intended to help specific businesses or industries. These efforts generally produce identifiable economic benefit for identifiable parties, who thus have an interest in supporting them. For this reason, economic development generally, tourism promotion specifically, and workforce training programs are supported in many places by the private sector, or specific interests, that benefit from them.

Baltimore County therefore should pursue opportunities for private-sector funding of these county government activities. Attracting direct private-sector funding for government programs also requires different structural arrangements.

Benefit to the County

Moving some or all DEWD's current functions to an outside, public/private-backed non-profit model – like most of Baltimore County's peer counties would significantly increase both the resources available to the County's workforce and economic development efforts and their impact, all without further expense to the County.

Best Practices and Benchmarks

For several decades, various governments around the country have shifted to funding their economic development activities largely or wholly through the private sector. This has generally involved “spinning off” these activities into a separate, non-profit entity, rather than a government agency. The rationale for this has included:

- Allowing this entity to function outside of governmental bureaucracy increases its speed and efficiency.
- It increases public-sector confidence in the entity – important to an organization devoted to convincing businesses of an area’s business-friendliness.
- This provides more funding than otherwise would be possible solely at taxpayer expense.
- These factors combined produce higher economic return for the government and taxpayers.
- Economic development efforts are generally aimed at helping specific businesses and industries, and so these business and industries should shoulder some special responsibility for funding them.

At least seven states have created joint public/private non-profit economic development entities: Florida, Michigan, Illinois, Ohio, Wisconsin, Iowa and Arizona.⁵⁴² In 2015, Montgomery County (Maryland) decided to do the same.⁵⁴³ In fact, in this region alone, there are many examples of privatized economic development organizations acting as their jurisdictions’ lead EDO or primary point of contact for businesses, including the Prince George’s County Economic Development Corporation, the Baltimore Development Corporation, the Howard County Economic Development Authority, the Anne Arundel Economic Development Corporation, the Fairfax County Economic Development Authority, and the Washington, DC Economic Partnership.⁵⁴⁴

It is even more common to establish such an outside-the-government entity in tourism promotion. Such organizations, known as “Destination Marketing Organizations” (DMOs), in fact are authorized by the Maryland Tourism Development Board in every county in Maryland plus Baltimore City and Ocean City.

Some jurisdictions have even created outside non-profit entities to oversee workforce development. WorkSource Montgomery⁵⁴⁵ (WSM), for instance, currently receives 53 percent of its budget from federal funding, 10 percent from the State, 26 percent from the County, and 11 percent – nearly a half-million dollars – from private sources.⁵⁴⁶

Implementation Guidance

The review team highlights one area in which a non-profit County-aligned entity may be worth considering in the nearer-term: tourism. Baltimore County’s tourism activities are branded as “Enjoy Baltimore County” (see <https://www.enjoybaltimorecounty.com/>) – but this is not an independent DMO. The effort, which falls under the County’s Tourism and Promotion Office of Communications, has one dedicated staff position, although other DEWD staff support the promotional work. Funding is dramatically lower compared to that of Baltimore City, for example (see <https://baltimore.org/>). The County could consider transforming the Tourism Office and its “Enjoy Baltimore County” effort into an independent, non-profit DMO.

In addition to a serious strategic planning effort, (see Economic and Workforce Development Strategy) the County tourism efforts could use:

- A concerted marketing effort for the County, based on the strategy developed.
- A branding effort – according to Tourism staff, the County hasn’t had one since 1985.
- A modernized tourism-promotion website that can be more easily updated.
- A full promotional team to handle all the foregoing.

542 Dougherty, “States Let Private Sector Seal Deals,” Wall Street Journal (1/29/11), <https://www.wsj.com/articles/SB10001424052748704680604576110132080471742>.

543 Karem, “County votes to privatize economic development,” Montgomery Sentinel (7/2/15), https://wwwthesentinel.com/communities/montgomery/news/local/county-votes-to-privatize-economic-development/article_5006ffae-31ee-585a-994e-8e2a9fb92dc5.html.

544 Frequently Asked Questions on Restructuring Economic Development in Montgomery County, [https://www.montgomerycountymd.gov/ep/Resources/Files/FAQs%20on%20Restructuring%20Economic%20Development\(1\).pdf](https://www.montgomerycountymd.gov/ep/Resources/Files/FAQs%20on%20Restructuring%20Economic%20Development(1).pdf).

545 <https://worksourcemontgomery.com/>

546 https://www.montgomerycountymd.gov/council/Resources/Files/agenda/col/2020/20200505/20200505_23.pdf

Additional budget to go with this, to build an ongoing promotional campaign as opposed to one-offs efforts that the County currently launches around specific events. All of this, of course, requires additional spending, but could attract additional funding at non-taxpayer expense by moving to an outside entity.

Such efforts – strategic planning, promotion, marketing, and other communications – are needed, and could be shared, by DEWD’s economic and workforce development functions, as well. There are, in short, synergies to all current DEWD functions remaining together.

Elsewhere in this report, the review team cites the potential of making the Recreation and Parks Department more entrepreneurial (see Recreation and Parks Revenue Generation). That raises the possibility of combining it with Tourism – either within or outside the government.

The County’s new strategic tourism plan should be compiled through a full strategic planning process, as discussed above. Nonetheless, it would appear likely that any tourism strategy for Baltimore County would need to focus largely on recreation, supplemented by arts and culture (also currently under Tourism). As Tourism staff suggested to us, the County’s likely tourism audience consists of visitors within a day’s drive of the county (supplemented to some extent by conventioners and others already visiting Baltimore City, who might extend a stay to spend extra time in the surrounding County) – they all will come largely for recreational activities.

The County in fact boasts a wide range of enticing recreational activities – based largely out of its outstanding park facilities. On the east side of the county, there are 120 miles of waterfront, perfect for kayaking, paddle-boarding, or small recreational day-cruising; in the west, Cromwell Valley Park offers hiking and birding along with lots of family-oriented programming, while Oregon Ridge represents an expansive and underused park with hiking and a nature center – as well as, of course, the Reisterstown Sportsplex and surrounding recreational venues.

This region also contains Catonsville’s Arts & Entertainment District – a distinctive music-themed location containing old-style record shops, unique guitar stores, restaurants focused on outdoor music, and outdoor concert productions. This is a resource the County can build into an arts-&-culture draw – a smaller but more accessible Ashland, NC, say – which can stand on its own or as another “capstone” on an enjoyable day in the great Baltimore County outdoors.

The County’s economic “play” off of all of these recreational opportunities is primarily to induce visitors to cap them off with further hospitality expenses, including dining, drinking, and overnight hotel stays: Multiple dining opportunities surround the waterfront area; the western part of the county augments its outdoor options with the Guinness Open Gate Brewery, other craft breweries, and forty vineyards, along with fine dining – which families can visit after a long, thirst-inducing hike in the woods (or while then kids are off doing that with the other parent); and the further development around Reisterstown is premised on the spin-off opportunities for dining and lodging.

While there are other things to see and do in Baltimore County, without being exhaustive here it would appear that recreation and entertainment will be the centerpiece of any concerted County tourism strategy, building primarily off of the County’s outstanding park and recreational facilities and options. We suggest that the County therefore consider whether the future of its tourism efforts best lie in concert with Recreation and Parks. This could be considered in the context of either a combined government department or a combined non-profit – but especially if the latter, this would be consistent with the more entrepreneurial model we suggest elsewhere in this report that the Recreation & Parks Department pursue (see Recreation and Parks Revenue Generation).

As most of DEWD’s leadership concedes, it is hard to think of many tourism plays the County has that do not involve sports, recreation, parkland, arts and/or culture. Moreover, a great deal of energy is being devoted, both within Baltimore County government and in this report, to addressing how such activities can be leveraged into not just enjoyment for enjoyment’s sake but also generating economic activity and growth. It may very well be that, if, and when, a full strategic planning exercise is conducted around Baltimore County tourism, it is determined that such a strategy revolves primarily around capitalizing on the County’s recreational, parks, and entertainment assets. If so, a combined recreational, parks, arts, and culture entity – promoting these assets both for County residents and potential visitors – may turn out to make a great deal of sense. We urge the County to consider this possibility.

Thinking differently and creatively in directions such as these could yield new opportunities for advancing the Baltimore County economy and create synergies for both work-life and quality-of-life for Baltimore County’s residents.

3.5.4 OFFICE OF LAW FELLOWSHIP PROGRAM

Baltimore County could work with the region’s legal community to develop a public-private partnership to help staff the Office of Law.

Findings

The County’s legal functions are currently undergoing a reorganization that involves bringing all those functions directly under the Office of Law. This will centralize the function of legal advising like other cross-departmental support functions and allow legal advising to function more in a traditional counselor relationship to County “clients” than as part of the client’s own decisional apparatus.

As part of this effort, the Office hopes to be able to build specialized expertise in the various areas of County operations – as in any major law firm. As one of the Office’s top leaders told the Public Works LLC review team, “we’re building our firm.” With only roughly 20 attorneys, the Office will need to grow considerably to specialize sufficiently. And, like so many other areas in Baltimore County government, the Office of Law lacks the funding to build out the additional positions it needs.

A solution: create a fellowship program for private law firms to subsidize positions in the Office of Law. The County Executive and County Attorney could champion this program to area law firms and make it a reality.

Benefit to the County

Most government legal offices need more attorneys. Fellowship programs enable them to be able to afford the staffing they need – while training a wider pool of attorneys to understand and value public service and the work of the public sector – all at little or no expense to the taxpayers.

Best Practices and Benchmarks

As noted elsewhere in this report, while public functions generally require broad-based public funding, so that they serve the general good and not the interests of those that pay for them, there are some specific government functions that could attract and benefit from outside support. (See Reimagining Workforce Development.)

The legal industry has a synergistic relationship with government. Since government is inherently involved in the creation, interpretation and enforcement of laws, an intimate understanding of government institutions and processes is essential to effective representation of clients and the successful functioning of major law firms. At the same time, the legal industry prides itself on being a calling that serves the public interest generally, and government legal positions are often a point of prestige not just on individual lawyers’ resumes but also in the credentials of firms that employ them. Private law firms thus have an unusual interest in the flow of top-notch legal talent not just out of but also into government legal positions. As a result, in various cities the private bar has helped ensure and subsidize the provision of lawyers to government agencies.

Various other programs to support public interest and public-sector legal representation have been sponsored by any number of law firms and bar foundations (the charitable arm of local bar associations). For instance, the law firm of Fried Frank Harris Shriver & Jacobson provides, recent law graduates the opportunity to spend two years as a Fried Frank litigator and then two years as a staff attorney with either the NAACP Legal Defense and Education Fund (LDF) and the Mexican-American Legal Defense and Education Fund (MALDEF). The Philadelphia Bar Foundation sponsors the Judge William M. Marutani Fellowship, which provides a stipend to subsidize a public interest or government summer internship for an Asian Pacific American law student in Pennsylvania or the Greater Philadelphia Area.

With an extensive legal community in the region, between Baltimore City and County, the bar as a whole and individual firms should respond to the need for additional counsel in the County Office of Law – and the unique opportunity it affords for hands-on litigation experience and other responsibilities for young lawyers that they rarely obtain in large firms. This sort of win-win outcome is why the legal community in other areas across the country has been willing to pay the salaries of lawyers to go work in public-sector law offices – and why the County Executive and County Attorney (perhaps in concert with Baltimore City officials) should launch a program to call on the major firms and bar foundations of both the City and County to replicate such an effort in the Baltimore area.

Management Efficiencies

The birth of the “Reinventing Government” movement in the 1990s led to new approaches to governance, including:

1. Steering, not rowing (or as Mario Cuomo put it, “it is not government’s obligation to provide services, but to see that they’re provided”);
2. Empowering communities to solve their own problems rather than simply delivering services;
3. Encouraging competition rather than monopolies;
4. Being driven by missions, rather than rules;
5. Being results-oriented by funding outcomes rather than inputs;
6. Meeting the needs of the customer, not the bureaucracy;
7. Concentrating on earning money rather than spending it;
8. Investing in preventing problems rather than curing crises;
9. Decentralizing authority; and
10. Solving problems by influencing market forces rather than creating public programs.⁵⁴⁷

Three decades later, local governments of all sizes across the country have implemented these approaches, including the “performance review” – or “efficiency review” – concept closely related to them due to their joint adoption at the federal level.⁵⁴⁸ This report is the result of Baltimore County adopting the efficiency review approach.

But further advances in public administration and the world generally are still occurring, and these provide additional lessons that Baltimore County Government can apply to its internal management practices. Large groups of individuals can be “networked” to provide inputs and solutions to problems. Dispersed, and increasingly autonomous, groupings can make governance decisions with less centralized control, using increasingly reliable and transparent data, and established criteria and systematized processes for managers and managing groups to use that data routinely to make operational and strategic decisions.

Finally, to take the lead in data-driven governance, County Government needs to build a new IT management structure that serves not only as a platform for managing efficient government operations in the present day but, even more so, as a springboard to the future. The 21st Century technology upgrades that Baltimore County needs to pursue encompass the areas of technology management, cybersecurity, software and hardware, and specific applications.

Sometimes the fiscal impacts of management efficiencies recommended here are difficult or impossible to calculate because they are lacking in sufficient baseline data reliably to estimate savings; or their impact may be difficult to isolate among other variables to project direct savings with a high degree of confidence. While near-term fiscal impact cannot be reliably estimated for each of the recommendations presented in the report’s final chapter, they all demonstrate clear efficiency benefits over the long term.

⁵⁴⁷ David Osborne & Ted Gaebler, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector* (1992).

⁵⁴⁸ Schnurer, “The Secret to Cutting Government Waste: Savings by a Thousand Cuts,” *The Atlantic*, <https://www.theatlantic.com/politics/archive/2013/07/the-secret-to-cutting-government-waste-savings-by-a-thousand-cuts/277458/>.

4.1 Dispersed Decision-Making

Most government services now can be provided virtually. Large groups of individuals can be “networked” to provide inputs and solutions to problems. Among the recommendations presented here is to create a framework by which new efficiencies and cost-saving opportunities for cooperation and collaboration can be identified and pursued placing both the County’s Office of Information Technology (OIT) and Baltimore County Public Schools (BCPS) IT Department of Information Technology (DoIT) within a countywide IT governance framework. This recommendation would establish an Information Technology Governance Council (ITGC), assigning a Baltimore County ITGC Coordinator, creating a County Enterprise Architect position, and defining a unified governance model. Currently, collaboration and consultation between Baltimore County IT and BCPS is very limited. The purpose of the governance council would be to explore opportunities for providing shared services and standardizing, where feasible and appropriate, enterprise software between Baltimore County Government and BCPS, and to oversee their implementation. In addition, we recommend that the Council would oversee a complete assessment of Baltimore County Government/BCPS Enterprise architecture, the creation of a vision and strategy for the future state, and the oversight of its implementation. We anticipate that this would yield significant efficiency savings over the long term and, as importantly, initiate a process for making vital County decisions that more systematically incorporate the perspectives and strategic priorities of a broader range of stakeholders. These would include not only leadership from Baltimore County Government OIT and BCPS DoIT, but also members of the County Executive Office, representatives from the various entities served by these IT organizations, experienced external consultants, and community stakeholders.

This in turn leads to: Implementing a formal Data Governance program led by the Chief Data and Performance Officer of BCSTAT in the division of Government Reform & Strategic Initiatives within the Office of the County Executive, and the creation of a committee, a formal charter, and associated documented policies, procedures, roles, and responsibilities. With the County Executive’s creation of the position of Chief Data and Performance Officer in early 2020, the Office of Strategic Initiatives has attempted to implement a broader data-driven decision-making culture, with clear-cut performance metrics and greater transparency. This process has shown the need to involve all stakeholders in data management and to develop formal processes and standards for data governance. And, building off the focus of Chapter 1, it is not considered a best practice for an IT department to be exclusively responsible for data governance; rather data governance should be considered as part of the overarching strategy of a government entity. Although the BCSTAT performance management program⁵⁴⁹ has made important strides in strengthening accountability, improving performance, assuring data quality, and increasing transparency across Baltimore County, a formal Data Governance program is needed to achieve the program’s goals.

The next logical step in this process is that OIT should negotiate and implement Service Level Agreements with the individual agencies that it serves, detailing roles and responsibilities, terms and level of service, scope, and quality, and specific performance metrics. As an example, we also recommend in more detail developing such an Agreement to define the responsibilities formally and clearly between OIT and the Baltimore County Public Library and the scope of technology services the libraries can perform. But this idea is applicable to virtually all of County Government.

Improving participatory decision-making within government is not just a technology issue, however: At root, it’s a matter of good old-fashioned communication. Within the Department of Public Works and Transportation, the Bureau of Engineering & Construction and the Bureau of Utilities jointly plan and implement many of the projects and services provided by the County. Jointly-designed systems will be easier to operate and maintain, saving money for the County in the long run. But while the Bureau of Utilities sometimes has operations-related comments on plans for the Bureau of Engineering & Construction, when it provides those comments to the Engineering team, the response is often that it is too late to make the recommended changes to the plans. The Bureau of Utilities staff also commented that other times they do not see plans until the project has already been completed; this can create a problems where maintaining or operating systems is technically challenging, as the project may lack clear access or maintenance points. The Bureau of Engineering & Construction should develop a formal process to solicit and incorporate timely input on its plans from the Bureau of Utilities.

549 <https://bcstat-bc-gis.hub.arcgis.com/>

The Department of Planning supports the Department of Permits, Approvals, and Inspections (PAI) on Development Review evaluations of proposed residential and commercial development projects in Baltimore County. Department of Planning staff report that developers going through the review process may receive contradictory or conflicting responses from the County. These conflicting responses can result from a lack of internal communication and coordination. Further issues can arise because some of the documents used by the Department of Planning to support its Development Review, such as the Master Plan and Community Plans, offer guidance rather than specific regulations. Inconsistent recommendations from various County departments can frustrate developers and lead to delays in approvals. To streamline the Development Review process, Baltimore County departments with review responsibility during the Phase 1 Review process should coordinate decisions before responding to developers with requested or recommended changes to a development plan. There should also be input from DHCD as it relates to affordable housing opportunities.

Staff from the department of Planning and Permits, Approvals, and Inspections report that a new online tracking tool will be developed to support the development review process. This will enable digital storage of all documentation in a single place and allow County departments to share files during Development Review.

4.1.1 CREATE AN INFORMATION TECHNOLOGY GOVERNANCE COUNCIL ACROSS BALTIMORE COUNTY GOVERNMENT AND PUBLIC SCHOOLS

Create an Information Technology Governance Council Across Baltimore County Government and Baltimore County Public Schools.

Baltimore County would be well served to place its Office of Information Technology (OIT) and Baltimore County Public Schools (BCPS) IT Department of Information Technology (DoIT) within a countywide IT governance framework by establishing an Information Technology Governance Council (ITGC), assigning a Baltimore County ITGC Coordinator, creating a County Enterprise Architect position, and defining a unified governance model by which potential opportunities to achieve efficiencies and cost-sharing savings could be evaluated and implemented.

Findings

Baltimore County Government and BCPS DoIT collaboration and consultation is very limited. For example, the Baltimore County Office of Information Technology (OIT) manages some connectivity for the schools through an E-rate reimbursement. In 2012, Baltimore County Government and BCPS announced a departmental consolidation partnership, including merging the BCPS data center into that of Baltimore County Government.

The majority of enterprise systems are not standardized across Baltimore County Government and BCPS. A major example of this is the multimillion-dollar implementation of Workday. This will be implemented by Baltimore County, but there are no plans for BCPS to implement it. The potential for cost efficiencies through coordinating enterprise-wide IT initiatives is of considerable magnitude.

Although concerns have been raised as to how the specific IT needs of both Baltimore County Government and BCPS would be met under a unified governance framework, specific and different requirements need not inhibit enterprise-wide coordination and efficiencies. For example, content filtering needs, while dramatically different for government users and K-12 students, do not present a barrier to a centralized network management. Specific content filtering can be adjusted with settings if the policy takes it into consideration. Currently, BCPS uses LightSpeed Relay as their filtering solution and can route students and teachers working from home through this cloud-based solution. This is a managed service that BCPS uses an annually renewable agreement.

Another concern that has been voiced is potential complications regarding E-rate reimbursements. Prior to 2017, organizations were not allowed to provide network services to themselves and bill with a reimbursement.⁵⁵⁰ Now, E-rate policy allows for this as long as a formal service level agreement is in place. Currently, the Baltimore County OIT and BCPS have a similar agreement and are being reimbursed through E-rate. Baltimore County could engage an E-Rate expert to review the current funding situation, services needed, services provided, and the opportunities to maximize reimbursement.

Note that this recommendation is aligned with, but distinct from another recommendation in this report to create a formal Information Technology Steering Committee and related formal IT governance with associated documented policies and procedures, and in the future to routinely update the County's newly released IT Strategic Plan elsewhere in this report (see **Information Technology Steering Committee**).

Benefit to the County

The purpose of an ITGC would be to explore opportunities for providing shared services and standardizing enterprise software between Baltimore County Government and BCPS DoIT and, where possible, to oversee their implementation. In addition, the Council could oversee a complete assessment of Baltimore County Government/BCPS Enterprise architecture, the creation of a vision and strategy for the future state, and the oversight of its implementation.

Consolidation and collaborative decision-making could yield major and ongoing cost savings for Baltimore County Government and BCPS through:

- implement shared services
- consolidating data center infrastructure
- increased leverage with vendors
- decrease the number of applications supported
- standardizing processes, including support
- centralizing and standardizing enterprise applications
- optimizing staffing levels

Too many unknown and to-be-determined variables exist to project precise savings that could be achieved through the establishment of an ITGC and corresponding future cooperative IT initiatives between Baltimore County Government and BCPS. However, it is the opinion of the review team that it would not be unreasonable to project long-term savings of up to ten percent of OIT's annual budget.

Best Practices and Benchmarks

- A report from IBM touches on establishing shared County services:⁵⁵¹ Case Two: Identifying Operational Efficiencies in Howard County, Maryland Public Schools features Howard County's implementation of a task force to identify opportunities for shared services between the county and school and implement those services. "Upon his election to office in 2008, Howard County Executive Ken Ulman made it a priority to work with the Howard County Public Schools to identify areas in which the county and schools could achieve operational and financial efficiencies through cooperation and shared service delivery. Mr. Ulman and Superintendent of Schools Dr. Sydney Cousin assembled a high-level task force including top management and budget personnel from the county and the public schools." As a result, the county was able to save almost 4.5 million dollars annually through shared services across the county, including a shared data center.

550 <https://www.fcc.gov/general/summary-second-e-rate-modernization-order>

551 https://www.naco.org/sites/default/files/event_attachments/Additional%20Service%20Sharing%20Resources.pdf

- New Jersey Governor Phil Murphy announced his administration's commitment to assist school districts, municipalities and counties interested in sharing services or studying consolidation in 2019. This announcement included allocating \$10 million to assist municipalities in this process and creating a new Local Efficiency Achievement Program (LEAP) to administer funding and provide support.⁵⁵²
- The County of Onondaga (New York) proposed, among other items as part of their countywide Shared Services Plan, allowing its school districts and other eligible municipalities to use new Delinquent Tax Collection software as a shared service. The County estimated that this relatively limited shared service initiative alone could save them \$300,000 annually.⁵⁵³
- Implementing shared services was ranked Number One on global technology and research advisory firm Gartner's "IT Cost Optimization Techniques for Private and Public Sector Organizations: "Some CIOs leverage IT shared services across business units to drive economies of scale. Most savings and cost reductions can range from 15% to 20% of service costs in 18 to 36 months, and the highest savings can reach over 25%." ⁵⁵⁴

Implementation Guidance

The first priority of a newly established ITGC should be to establish a clear charter to define scope, procedures, roles/responsibilities, structure, and any potential sub-committees. Once established, the goal of the ITGC is to provide governance and pursue areas for cross savings and efficiencies, including analyzing and agreeing on a set of shared services to consolidate.

The review team recommends a staged and phased approach to identifying feasible and appropriate opportunities for cooperation, collaboration, and savings achieved through sharing IT services across Baltimore County and Baltimore County Public Schools. As part of the first phase of this initiative, the ITGC should investigate the potential for sharing the following services:

- Integrated Enterprise IT Architecture
- Network / Communications, Data Center Infrastructure
- Data Management and Analytic Tools
- IT Cooperative Purchasing Services
- Finance, Budget, and Human Resources Administrative Systems
- Cybersecurity Management
- and Monitoring Services

The services that are specific to the needs of Baltimore County (permitting, land use, zoning, recreation and parks, etc.) will continue as part of the Baltimore County Government OIT's purview, as will the services that are specific to BCPS (e.g., instructional technology) continue to be a part of its DoIT's responsibilities.

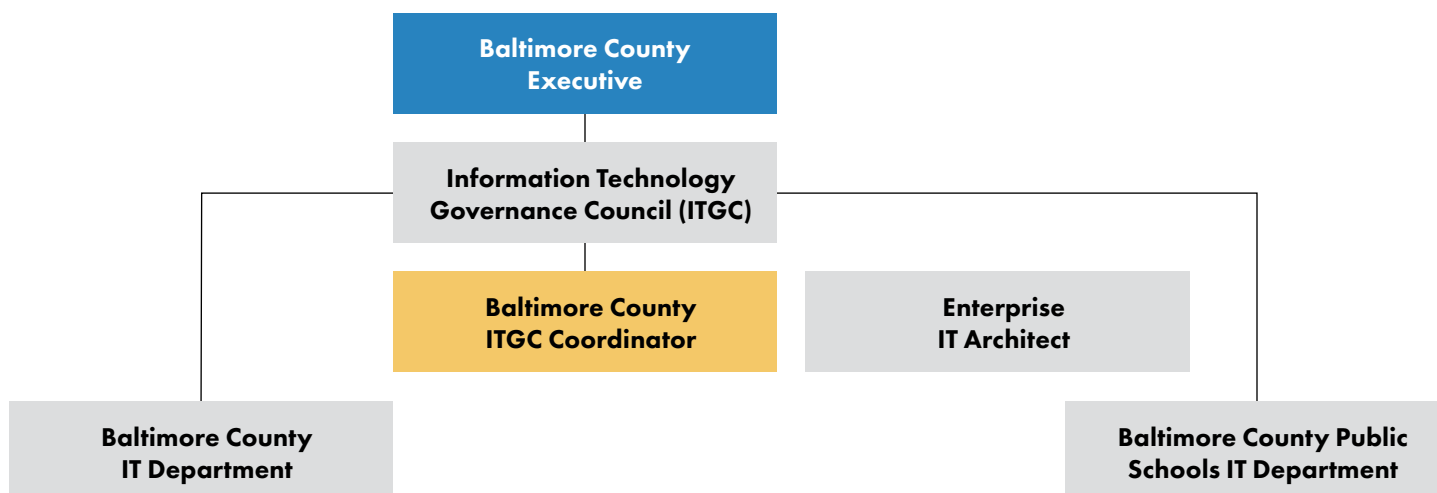
A proposed organizational structure for a new IT governance framework is illustrated in the figure below:

552 <https://www.njsba.org/news-publications/school-board-notes/october-1-2019-vol-xliii-no-10/governor-announces-10-million-to-support-shared-services-and-school-district-consolidation-studies/>

553 <http://www.ongov.net/sharedservicesplan/2017/documents/County-WideSharedServicesPlanVersion2.02.pdf>

554 <https://www.gartner.com/smarterwithgartner/10-it-cost-optimization-techniques-for-private-and-public-sector-organizations/>

Proposed Organizational Structure for IT Governance Framework



The ITGC should include representatives from the Baltimore County Executive Office and from the various agencies and entities served by OIT and DoIT, leadership from OIT and from BCPS DoIT, the Enterprise IT Architect, and the Baltimore County ITGC Coordinator, as well as experienced external consultants and community stakeholders. Additional members might include representation from the Courts and the Election Commission.

Government Executive highlights 30 years of IT reform initiatives at the federal level, which can be used to draw strong parallels for local government efforts. It also provides useful resource offering additional guidance for developing, implementing, and sustaining such a reform initiative.⁵⁵⁵

4.1.2 DATA GOVERNANCE

Implement a formal Data Governance program led by the Chief Data and Performance Officer of BCSTAT in the division of Government Reform & Strategic Initiatives within the Office of the County Executive. A formal Data Governance Program would include the creation of a committee, a formal charter, and associated documented policies, procedures, roles, and responsibilities.

Findings

Data Governance has been defined in CIO as “a system of decision rights and accountabilities for information-related processes, executed according to agreed-upon models which describe who can take what actions with what information, and when, under what circumstances, using what methods.”⁵⁵⁶

Baltimore County does not have a formal Data Governance structure or program in place. The Office of Information Technology (OIT) has taken on a portion of this role. However, it is not considered a best practice for Data Governance to be led by the IT Department of an enterprise organization.

555 <https://www.govexec.com/management/2021/03/lessons-30-years-government-reform-efforts/172926/>

556 <https://www.cio.com/article/3521011/what-is-data-governance-a-best-practices-framework-for-managing-data-assets.html>

With the County Executive's creation of the position of Chief Data and Performance Officer in early 2020, the Office of Strategic Initiatives has attempted to implement a broader data-driven decision-making culture, with clear-cut performance metrics and greater transparency. This process has shown the need to involve all stakeholders in data management and to develop formal processes and standards for data governance.

Although the BCSTAT performance management program⁵⁵⁷ has made important strides in strengthening accountability, improving performance, assuring data quality, and increasing transparency across Baltimore County, a formal Data Governance program is needed to achieve the program's goals.

Benefit to the County

The benefits of a well-structured Data Governance program include:

- Higher-quality, more consistent, complete, and reliable data
- More secure, well-protected data
- Greater ease of connecting data from various departments
- Greater awareness of what data is available for decision-making
- Standardized data definitions
- Appropriate data retention policies
- Standardization of data analysis tools
- Ability to do predictive analysis
- Much faster creation of new and reliable operational, analytical, and predictive tools, reports, dashboards
- Increased efficiency
- Better regulatory compliance
- Greater technological alignment with strategic goals
- A stronger foundation for digital transformation

These benefits yield the following advantages:

- Greater confidence in the data
- Greater understanding of data that is available
- Better decision making
- Ability to answer previously unanswerable questions
- Time and software cost savings
- Better regulatory compliance
- Greater technological alignment with the strategic goals of the county
- An overall stronger foundation for digital transformation

Good data governance prevents disruptive, damaging, and costly privacy and security issues; it also protects the County by ensuring that only verifiable and high-quality data that has been systematically reviewed is published on the County's behalf.

⁵⁵⁷ <https://bcstat-bc-gis.hub.arcgis.com/>

Best Practices and Benchmarks

To establish a strong, effective Data Governance program, organization leaders must ask a series of important questions:

- What is our vision for the future?
- How will the effective use of data to help us to make that future a reality?
- Which stakeholders must be included in a Data Governance committee?
- What will the Data Governance committee's purpose be?
- What subjects and parameters must be included in the Data Governance charter?
- What framework/methodology will be used to implement the charter?
- How will we measure the success of our Data Governance program?

A robust study by Fairfax County (Virginia) on Governmental Data Governance provides a wealth of information on what other governmental units including many counties have done and are doing to establish and institutionalize effective data governance programs and policies. The study provides data governance Lessons Learned, which include⁵⁵⁸:

- Focus on business benefit and communicate value
- Promote evidence-based decision making
- Clarify ownership and designation of duties
- Not an IT function
- Full-time management of program is recommended

Of the responses to Fairfax County's Data Governance Survey in 2018, 78 percent did not have a data governance policy in place. Of the 22 percent of jurisdictions that did have a formal policy, 73 percent agreed that it increased data utilization in decision making, and 55 percent agreed that their policy improved effectiveness and efficiency.⁵⁵⁹

From the data they gathered, the Organization for Economic Cooperation and Development (OECD) identified the following related trends and best practices in public sector data governance:⁵⁶⁰

- Data governance is increasingly relevant to data protection practices at the global scale in a more exclusive and explicit fashion.
- Data governance elements are often in place as part of broader digital transformation policies. However, these components can be fragmented, reducing their whole-government value in terms of public sector integration and cohesion. A holistic data governance can help to connect and align government as a high-functioning entity.
- Policymakers can misunderstand data governance as the exclusive responsibility of IT departments, but it also implies transformation and coherence of capacities, policies, regulatory frameworks, leadership, and organizational culture. There is therefore a need for more strategic approaches to data governance in the public sector.

Of particular importance, it is not considered a best practice for an IT department to be exclusively responsible for data governance; rather data governance should be considered as part of the overarching strategy of a government entity. Global management consulting firm McKinsey, for instance, echoes the Fairfax County study in recommending that data governance be led by an organization outside of the IT department.⁵⁶¹ McKinsey identifies the following essential components of a data governance structure: a central data management office typically led by a chief data officer with a data strategy, direction, and data standards set by governance leaders; governance roles for each data domain (i.e. specialized areas of data collection); and data council that brings them together to connect the data strategy to tactical priorities and solve problems.

558 <https://icma.org/sites/default/files/Leadership%20-%20Fairfax%20County%20Data%20Governance%20Survey.pdf>

559 Ibid.

560 <https://www.oecd-ilibrary.org/sites/9cada708-en/index.html?itemId=/content/component/9cada708-en>

561 <https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/designing-data-governance-that-delivers-value#>

Implementation Guidance

Although OIT should be represented in data governance structure, leadership of the data governance program should rest at the highest levels of County government. Only the Office of the County Executive can break down departmental silos and bring all parties together to make decisions collaboratively and successfully coordinate data collection and management and apply that data to continuously improve Baltimore County's operational effectiveness in serving each of its essential functions. Useful resources include:

- Data Governance Playbook: Guidance issued by the federal government for its agencies, and which provides helpful guidance for states and municipalities as well.⁵⁶²
- CIO.com: What is data governance? A best practices framework for managing data assets⁵⁶³ and Information governance for counties and municipalities⁵⁶⁴

The City of Dallas offers a best practice model for a data governance strategy (DGS) for a municipality. Its structure is designed to involve internal and external stakeholders, with escalation of issues *flowing up* the pyramid to the executive leadership with decision-making authority, and implementation *flowing down* the pyramid, with the data stewards being the subject matter experts and best suited to implement processes and changes to data. This structure provides clarity about decision-making authority at all levels. (See figure below.)

DATA GOVERNANCE STRATEGY MODEL



Source: City of Dallas Data Management Strategy 2019-2022

The City of Dallas has made detailed information about their data governance structure and process public at www.dallascityhall.com; this can serve as a valuable resource to other jurisdictions seeking to implement best practices.⁵⁶⁵

⁵⁶² <https://resources.data.gov/assets/documents/fds-data-governance-playbook.pdf>

⁵⁶³ <https://www.cio.com/article/3521011/what-is-data-governance-a-best-practices-framework-for-managing-data-assets.html>

⁵⁶⁴ <https://www.cio.com/article/3192530/information-governance-for-counties-and-municipalities.html>

⁵⁶⁵ City of Dallas Data Management Strategy 2019 - 2022. <https://dallascityhall.com/departments/ciservices/DCH%20Documents/data-management-strategy.pdf>

4.1.3 INFORMATION TECHNOLOGY STEERING COMMITTEE

Baltimore County should form an Information Technology Steering Committee to provide formal County IT governance.

Findings

Baltimore County does not currently have a fully functioning IT governance process that places enterprise goals above individual department goals in a systematic manner. Decisions on IT equipment and systems have the potential to impact County operations and required expenditures for decades.

At present, decisions on IT project prioritization and implementation are generally made within the Office of Information Technology (OIT) by leadership and customer relationship managers, sometimes in collaboration with representatives from affected agencies. Major budget requests require approval by the Office of the Baltimore County Executive.

Creation of an IT Steering Committee empowered to provide formal governance, based on national best practices, would help to ensure that Baltimore County's IT decisions are made deliberately and strategically, meet the current and anticipated needs of all County agencies, and align with the government's goals and priorities. The Steering Committee should include the Chief Information Officer and other members of OIT leadership, as well as representatives from the Office of the County Executive and other County departments, important external stakeholders, and expert advisors from industry and academia. Members of the IT Steering Committee should be chosen by the Office of the County Executive, with input from the CIO.

The Public Works LLC review team notes that the recently developed OIT Strategic Plan (2021) includes plans to restart the Information Technology Advisory Council to establish a multi-agency board to assess IT needs, trends, and initiatives across the County. While this plan was unavailable during the course of the efficiency review, the review team considers this an important, positive step. Further, the review team would recommend that OIT establish a dedicated planning function that is responsible for overall strategy and planning as part of an ongoing effort, not a one-time exercise. Timely, ongoing revisions of the IT strategic plan would be part of the IT Steering Committee's core responsibilities.

Benefit to the County

Appointing an IT Steering Committee to provide governance and strategic direction is a widely accepted best practice for large and complex organizations with diverse operations and IT needs. Adoption of formal IT governance structure ensure that appropriate decisionmakers collaborate in guiding Baltimore County's major technology decisions that impact every area of government, but would also provide a structure for ensuring the implementation of IT best practice policies and procedures across Baltimore County government, and for guiding long term strategic planning.

Although it is difficult to calculate specific year-by-year savings from adoption of this governance structure, numerous government entities nationwide that improved governance has driven cost savings and increased efficiencies. Documenting these savings will require careful measurement of key metrics: IT spending as a percent of operational expense, IT spending per County employee, and IT employees as a percent of total workforce. Appropriate benchmarks for these metrics are available from Gartner or a comparable IT research and advisory company with demonstrated expertise in government organizations. It would be extremely useful for the IT Steering Committee to conduct a review of IT and IT-related costs within OIT and throughout County government and establish baselines to measure future savings.

Too many unknown and to-be-determined variables exist to project precise savings that could be achieved through the establishment of a Steering Committee and its potential future initiatives. However, it is the opinion of the review team that it would not be unreasonable to project long-term savings of four-to-eight percent of OIT's annual budget, or \$6 million-to- \$12 million across five years (allowing a full year for implementation). This rough estimate does not include likely additional savings

associated with the County's IT projects and capital budgets. The rate at which savings would be achieved would depend on how the Steering Committee elects to prioritize projects. Some projects would yield savings earlier, while others would require more upfront investments to achieve longer-term savings.

Best Practices and Benchmarks

The following IT Governance best practices are set forth by IMPACT's IT Governance Specialists Development Group, a leading provider of expert services for IT professionals:

- An enterprise-wide approach. A shared, cohesive view of IT governance is needed across the enterprise based on a common, non-technical language.
- An institutionalized IT governance framework. An agreed-upon framework for defining IT processes and the controls or interdepartmental agreements that is integrated with other governance practices, such as the budget approval process.
- Top-level commitment. IT governance needs a mandate and direction from executive-level County management if it is to succeed. The framework should be supported by an effective communication campaign so that user departments understand objectives and comply with practices.
- Trust. For IT governance to be effective, the suppliers of IT services and knowledge must be professional, expert, and aligned to customer requirements. Trust must be developed, and this may warrant special initiatives, joint workshops, and/or an appropriate liaison, if needed (such as a county administrator or official).
- Measurement systems. Adoption of meaningful performance metrics will underpin and reinforce the achievement of the Steering Committee's objectives. Adoption of current or modified IT performance measures by the Steering Committee can be a very good way to establish common objectives.
- Emphasis on cost savings. Improved IT governance will yield valuable opportunities for measurable cost savings; these will help to garner broad-based support for improvement initiatives.

In 2016, Orange County (California) adopted an IT Governance Model to establish clear roles and responsibilities and to ensure transparency, accountability, and business alignment of IT decisions.⁵⁶⁶ Orange County's IT Governance Model identifies governing bodies; establishes the membership of the governing bodies to include department and CEO business and technical leaders; and clearly defines the roles and responsibilities of each. Orange County's IT governance entities include:

- IT Executive Council: Serves as an advisory council to the County Executive Officer (CEO) and serves as an escalation point for other IT governance groups.
- Technology Council: Serves as an advisory to the CIO and the IT Executive Council.
- IT Investment Review Board: Serves as an advisory board to the IT Executive Council and evaluates, prioritizes, and makes recommendations for approval on the county's IT investments.
- Shared Services Committee: Provides executive leadership related to the implementation of a shared services strategy for IT and fosters increased communication and collaboration among the departments that obtain their IT services wholly from OIT.
- Application/Program Specific Steering Committees: Review and approve enhancements to and funding for the application/program.

The Orange County IT Governance Model also clarifies the roles and responsibilities of the CIO and department IT Managers and Directors as participants in the defined governance structure. It ensures that there will be collaboration and agreement on countywide IT initiatives and strategic direction in a decentralized model. It further provides assurance to the Board that there is sufficient review of IT-related matters that are presented for their consideration.

⁵⁶⁶ Revised Countywide Information Technology Governance Model, Orange County, CA, 2016.

Implementation Guidance

Implement an IT Steering Committee and associated framework and process according to best practices: The Steering Committee should include the Chief Information Officer and other members of OIT leadership, as well as representatives from the Office of the County Executive and other County departments, important external stakeholders, and expert advisors from industry and academia. Members of the IT Steering Committee should be appointed by the Office of the County Executive, with input from the CIO.

The proposed framework should include a charter, bylaws, and other supporting documents guiding IT Steering Committee membership to include agency representation, external stakeholders, and technical experts; meeting frequency; and member roles and responsibilities.

The Steering Committee should adopt a comprehensive project prioritization scoring system as a component of an IT governance structure. An important role of the IT Steering Committee is to prioritize IT projects. An objective prioritization process must be fair, transparent, and credible. Project scoring factors should include:

- Alignment with the strategic, long-term, countywide vision.
- Statutory mandate from the local, state, or federal governments.
- Net positive revenue/cost savings projections.
- Urgent needs of the County and/or factors that may be outside the scope of the long-term plan.

Further, the adopted framework should allow for appeals of adverse decisions and for transparent decision-making and accountability. OIT and departmental staff can provide the analysis to help ensure decisions are made within established parameters, but the decisions should be made by the IT Steering Committee. The IT governance structure should include a clearly outlined appeals process so that appeals for non-prioritized projects can be made and considered in a transparent manner.

Two counties with well-implemented, exemplary approaches to a county IT governance are Fairfax County, Virginia⁵⁶⁷ and Shelby County, Tennessee.⁵⁶⁸ These counties have made their IT governance plans public, which can serve as models and valuable implementation resources.

4.1.4 SERVICE LEVEL AGREEMENTS FOR TECHNOLOGY SUPPORT

Baltimore County Office of Information Technology (OIT) should enter negotiations with the individual agencies that they serve to draft and implement Service Level Agreements that detail roles and responsibilities for each party; the terms and level of service, scope, quality; and specific performance metrics.

Findings

Staff interviews indicate that OIT has a great relationship with many of Baltimore County agencies and assigns customer relationship managers (CRMs) within OIT to each agency they support. However, based on our interviews with County employees, it does not appear that OIT and the agencies it supports have developed formal service level agreements (SLAs) that detail the roles and responsibilities of both parties, as well as levels of service, scope, and quality. The review team requested access to any service level agreements between OIT and the agencies they serve, and none were provided for this review.

⁵⁶⁷ <https://www.fairfaxcounty.gov/informationtechnology/sites/informationtechnology/files/assets/itplan/2021-adopted/fy2021itplansection1.pdf>

⁵⁶⁸ <https://www.shelbycountyn.gov/1504/IT-Steering-Committee>

Benefit to the County

Benefits of SLAs include:

- Definition of roles and responsibilities. Identifying the needs and the responsibilities of the parties to the SLA involves participation and input by both parties. The negotiation of the SLA also encourages and creates a framework for communication about these roles and responsibilities.
- Strengthened performance measures. The SLA can provide an objective framework for measuring level of service performance against documented roles, responsibilities, priorities, and expectations.
- Clarification of objectives and expectations. Documenting the expectations of the parties through the SLA also becomes a tool for preventing and resolving misunderstanding.⁵⁶⁹

Best Practices and Benchmarks

An SLA is a communications and conflict prevention tool that must be reviewed and assessed by the parties at regular intervals. The main components of a best practice SLA development process as identified by the Institute of Public Administration are⁵⁷⁰:

- Negotiation. To ensure optimal service provision arrangements, all aspects of the SLA (including the responsibilities that will be undertaken by both parties) should be negotiated between the IT service provider and the customer. The process of negotiation itself facilitates an increased appreciation of the needs and constraints on each side.
- Agreement. The process of negotiation should result in an SLA document. Establishing agreement on all aspects of the service level to be provided by each party is fundamental to its successful implementation. The process of negotiation and agreement has the benefit of educating both parties on the needs, priorities, and constraints of the other, resulting in more informed and intelligent service providers and customers.
- Quantifying service levels. The agreement will quantify service outcomes and levels (through performance indicators), defining what the customer will receive. Quantifying service levels involves reviewing departmental requirements and the cost justification of those requirements in terms of fulfilling the enterprise (County's) mission or strategic objectives.
- Clarification of responsibilities. For the service provider to supply a quality service, both the provider and customer must fulfill responsibilities and obligations. The SLA documents and communicates these mutually agreed upon responsibilities.

Shelby County, Tennessee's website provides a template of their annual internal service level agreement between information technology services and their various customers.⁵⁷¹ Racine County, Wisconsin's website provides an example of a Service Level Agreement specifically for helpdesk services.⁵⁷²

Implementation Guidance

Developing an SLA requires an investment of staff time, involving tasks such as negotiating service standards and levels, establishing tracking mechanisms, preparing supporting policies and procedures, and securing approval and buy-in of stakeholders. The Chartered Institute of Procurement and Supply (CIPS) guide to SLAs, titled, "How to Establish Service Level Agreements," suggests that a three- to six-month timeline is realistic for the process of information gathering, analyzing, documenting, negotiating, and consensus-building; more complex governing environments may take longer.⁵⁷³

⁵⁶⁹ https://www.ipa.ie/fileUpload/Documents/ServiceAgreementsReport_2014.pdf

⁵⁷⁰ https://www.ipa.ie/fileUpload/Documents/ServiceAgreementsReport_2014.pdf

⁵⁷¹ <https://www.shelbycountyttn.gov/DocumentCenter/View/4179/SLA-v9-6?bidId=>

⁵⁷² <https://www.racinecounty.com/Home/ShowDocument?id=28554>

⁵⁷³ <https://www.cips.org/knowledge/procurement-topics-and-skills/developing-and-managing-contracts/terms-and-conditions-and-the-developing-of-contracts/how-to-prepare-service-level-agreements/>

The CIPS guide, “How to Prepare Service-level Agreements”, sets forth six steps for developing an SLA:

1. Understand the baseline position. How are services really working in present practice? What are the current customer and service provider expectations? To what service standards are staff working at the moment? Do they know what the main outputs are for key activities?
2. Understand the drivers and demands likely to be placed on the SLA implementation process. Are there known efficiency gaps or areas of dissatisfaction that the SLAs may be expected by stakeholders to address? Similarly, are there areas or terms of service that IT staff would like clarified for users?
3. Initial consultation with service providers/customers. Who is going to “own” (or be responsible for) the negotiation processes up to final sign-off of SLAs? Who needs to be directly involved with reviewing each iteration or draft of the SLAs? Who must be kept informed of progress, if not directly involved?
4. Agree to a framework for SLA development. Will there be one SLA for all customers or tailored SLAs for different customer groups? What shall be the standard reporting/monitoring process?
5. Develop SLAs with providers and customers. This should be a carefully managed, iterative process with clear milestones and endpoints. Maximize use of limited staff time by having a neutral facilitator guide each meeting and by designating “owners” who are responsible for each review stage.
6. Agree to implementation and rollout plans. Rollout plans require a clear roadmap with identification of any trial periods and responsible personnel. It can be extremely useful to factor in a trial (shadow running) period for SLAs, after which the parties can take stock and make any final changes before the final rollout.⁵⁷⁴

If desired by either OIT or individual agencies, a trusted third party may be mutually selected or appointed to manage or mediate the service level agreement (SLA) negotiation process. This third party may be an appropriate County staff member or official or a private sector professional.

*This recommendation is linked with the recommendation that follows, **Service Level Agreement for Public Library Technology Support**. That recommendation involves developing a Service Level Agreement to define the responsibilities formally and clearly between OIT and the Baltimore County Public Library and the scope of technology services the libraries can perform.*

4.1.5 SERVICE LEVEL AGREEMENT FOR PUBLIC LIBRARY TECHNOLOGY SUPPORT

The Baltimore County Public Library and the Office of Information Technology (OIT) should use a Service Level Agreement to formally and clearly define the responsibilities of each department and the scope of technology services the Library may perform for itself.

Findings

The Baltimore County Public Library is limited in its ability to provide services and respond to customer needs efficiently and in a timely manner by its access to adequate technology support.

When Baltimore County centralized its technology operations in 2014, it eliminated the Baltimore County Public Library’s 21 technology-related positions and transferred responsibility for all of its technology services and support to the Office of Information Technology (OIT). This made the Baltimore County Public Library the only public library system in Maryland to not have its own technology resources.

⁵⁷⁴ https://www.ipa.ie/_fileUpload/Documents/ServiceAgreementsReport_2014.pdf

The Baltimore County Public Library's mission of providing open access to the public and meeting public needs in a timely manner is at times at odds with OIT's operations, which necessarily prioritize security. The working relationship between OIT and the Library in terms of technology support has been characterized by unclear roles and responsibilities, poor communications, lack of trust, and burdensome, slow, and inefficient processes.

According to Library staff, OIT has assigned a single person assigned to each system area, with no redundancy in staffing. This leads to siloed internal communications that require library staff to work with multiple OIT staff to address a single need for service or support. For example, OIT has assigned only one person to provide support for Polaris – a Library automation system of networked computers that tracks all library functions and coordinates Library operations. OIT's Polaris support is not always available and lacks the programming and data skills to solve some types of issues commonly faced by the Library; contacting multiple OIT staff to address a single need reportedly results in unacceptably slow turnaround on important project that negatively affects the Library's operations in multiple areas:

- BCPL has been waiting for more than three years to complete an upgrade of staff and customer PCs from Windows 7 to Win10. According to library staff, not all staff PCs have yet been upgraded to Win10, and no schedule has yet been set to upgrade the public PCs.
- The County's complex purchasing process has impeded the library's ability to respond to customer needs in a timely fashion. For example, BCPL had hoped to put the pandemic shutdown to use by purchasing a new application that would increase functionality and training staff in its use while the library was still closed to the public. The purchase order was submitted in November 2020; more than six months later, the library has been given no information about when the application is likely to arrive.
- A routine update of the Polaris system took weeks to complete because library staff are not authorized to do this type of task, unlike staff in other systems. The library was required to inform OIT that an update was needed; OIT then developed a quote for a work order which had to be approved before an OIT technician could be sent out to do the updates.

Denying the BCPL the authority to carry out basic support functions on its technology platforms and systems – even when OIT lacks the skills or capacity to provide this support – has created serious inefficiencies and operational hurdles.

- When Maryland passed a law in January 2021 abolishing library fines on youth materials, other library systems in the state responded by writing a new script in library software that cleared fines from youth accounts. Although BCPL uses this same software, OIT was unable to solve the problem. So BCPL staff spent days manually removing existing fines from more than 15,000 youth accounts.

Public PC queueing systems require occasional adjustments, to change time limits on use or to group PCs in a specific branch into different queues with different sign-in parameters. Library staff say other systems can make these routine changes very quickly, while some of BCPL's requests to OIT for queueing system updates have gone unresolved for more than three years.

- OIT's process for library staff to enable and re-enable Wi-Fi hotspots checked out by customers is cumbersome: It requires logging into several systems and running reports. In comparison, other libraries using the same platform simply receive an email every morning with a list of hotspots to be disabled and enabled.

In the Baltimore County Insights on Efficiency Employee Survey conducted in June and July 2021, Public Library staff made many comments about the role of OIT, its relationship with the Library, and its impact on the library's ability to serve its customers and to perform efficiently. Nearly 90 percent of the Baltimore County Public Library staff who responded to the survey recognized significant potential in achieving greater efficiency by having IT systems that are customized to their needs as well as systems that are more current and updated to the library's current needs (see table below).

STAFF PERCEPTION OF POTENTIAL FOR IMPROVING EFFICIENCY THROUGH IT

None	Low Potential	Moderate Potential	High Potential	No Opinion
IT systems that are more current or updated to current needs (N=207)				
1.5%	8.2%	25.6%	61.4%	3.4%
IT systems that are customized to our agency's needs (N=210)				
1.9%	7.6%	25.7%	61.4%	3.3%

Source: Baltimore County Employees Insights on Efficiency Survey, June-July 2021.

Benefit to County

Formally defining the roles and responsibilities of OIT and the Baltimore County Public Library with regard to technology management and support will lead to improved communications and build trust. This will also meet a key goal in the library's Technology Plan: "The library and OIT have a clear understanding of each other's roles and clear lines of communication."

A clear, thoughtful definition of roles and responsibilities will increase efficiency for both agencies. Under this agreement, BCPL should be provided with the flexibility it needs to perform routine tasks without requiring OIT permission or intervention. OIT will save staff time that can be devoted for more high-level troubleshooting and systems support. Library staff will have access to up-to-date systems and will spend less time coordinating routine computer support requests and more time responding to customer needs. Most importantly, BCPL customers will benefit from improved access to technology and smoother library operations.

Best Practices and Benchmarks

Service Level Agreements (SLAs) are a core component of IT service management. An SLA defines user and customer IT service expectations, level of service, and associated responsibilities of each party and provides regular information on how the actual services meet those expectations. Using an SLA can support an effective working relationship between IT and the user or customer.

SLAs benefit both parties in multiple ways:

- They create clear expectations of scope and quality of service
- They help guarantee delivery of agreed-upon services
- They avoid misunderstandings or confusion about each party's responsibilities and authority
- They provide a formal information source that protects each party from ambiguous and unstated service requirements

It is important for both IT and the user/customer to be fully involved in SLA development, maintenance and use. The steps involved in establishing an SLA include:

- Define and document SLA goals and objectives
- Gain mutual understanding
- Create a draft SLA, which should be written in an unambiguous, easily understood style
- Negotiate the SLA
- Sign the SLA
- Implement the SLA
- Periodically review the SLA and update it as needed

Implementation Guidance

The Baltimore County Public Library and OIT should formally and clearly define through the use of a Service Level Agreement (SLA) the responsibilities of each party and the scope of technology services that library staff are authorized to perform. The agreement between BCPL and OIT should include:

- Scope of services for each party
- Roles and responsibilities of each party
- Expected service levels
- Desired outcomes of agreement
- Communication processes between the two parties
- Procedures for addressing exceptions, complaints, and amendments
- Regular reports, to include the number of requests and the time required to reach resolution
- Procedures, frequency, and type of service reviews
- Escalation criteria for OIT services
- Security requirements
- Support requirements
- Service level targets
- Service continuity requirements
- Names of the parties
- Approval signatures and date SLA was signed
- SLA start, review and end dates
- Agreement renewal and termination rules
- Agreement change history
- Associated documents
- Glossary of terms

As part of the development of the SLA and in consideration of current discussions with OIT regarding the restoration of technology positions taken away during centralization, the library should assess its technology staffing needs and develop a work plan addressing the negotiated library obligations. Going forward, BCPL should track the time its staff spends on technology-related services and support previously performed by or through OIT to demonstrate efficiencies and possible cost savings.

4.1.6 ENGINEERING PLANS FEEDBACK

Within the Department of Public Works and Transportation, the Bureau of Engineering and Construction should develop a formal process to solicit and incorporate timely input on its plans from the Bureau of Utilities.

Findings

The staff of the Bureau of Utilities assert that they often do not have sufficient time or opportunity to review joint Engineering-Utilities Bureau internal and external plans. From an interview with Bureau of Utilities staff, the review team found that the Bureau of Utilities sometimes has operations-related comments on plans for the Bureau of Engineering and Construction. However, when it provides those comments to the Engineering team, the response is often that it is too late to make the recommended changes to the plans. The Bureau of Utilities staff also commented that other times they do not see plans until the project has already been completed.

This can create a problems where maintaining or operating systems is technically challenging, as the project may lack clear access or maintenance points.

Benefit to the County

The Bureaus of Engineering and the Bureau of Utilities jointly plan and implement many of the projects and services provided by the County. Both Bureaus have essential expertise and perspectives that together improve efficiency and the long-term success of projects and services. Jointly designed systems are understood to be easier to operate and maintain, saving money for the County in the long run. The County would benefit from the full expertise of both Bureaus in the planning stages of these projects; the plan development system should be reformed to ensure that appropriate staff in both Bureaus can provide timely and substantive input earlier the planning process.

Best Practices and Benchmarks

The Georgia Association for Water Professionals identifies obtaining “review/input/buy-in from operations staff for all proposed projects and programs,” as a best-practice for creating plans and long-term master plans.⁵⁷⁵

Implementation Guidance

Any input and feedback process should be incorporated into the electronic project management systems that the Department of Public Works and Transportation are currently building. As that system is developed, the Bureau of Engineering should share drafted plans with the Bureau of Utilities with sufficient time prior to project implementation so that comments can be reviewed and incorporated into the design.

⁵⁷⁵ https://cdn.ymaws.com/www.gawp.org/resource/resmgr/Master_Planning_Guidelines/GAWP_Master_Planning_Guideli.pdf

4.1.7 DEVELOPMENT REVIEW DECISION COORDINATION

To streamline the Development Review process, Baltimore County departments with review responsibility during the Phase 1 Review Process should coordinate decisions before responding to developers with requested or recommended changes to a development plan.

Findings

The Department of Planning supports the Department of Permits, Approvals, and Inspections (PAI) on Development Review evaluations of proposed residential and commercial development projects in Baltimore County. The Department of Planning makes recommendations based on the proposal's compliance with zoning regulations and alignment with standards set forth in the County Code, Master Plan, Community Plans, and other adopted regulations and guidelines. The Department of Planning estimates that there are 45-50 projects each year that require Development Review support from the Department.

Department of Planning staff report that developers going through the review process may receive contradictory or conflicting responses from the County. These conflicting responses can result from a lack of internal communication and coordination. Further issues can arise because some of the documents used by the Department of Planning to support its Development Review, such as the Master Plan and Community Plans, offer guidance rather than specific regulations.

Inconsistent recommendations from various County departments can frustrate developers and lead to delays in approvals.

Staff from the department of Planning and Permits, Approvals, and Inspections report that a new online tracking tool will be developed to support the development review process. This will enable digital storage of all documentation in a single place and allow County departments to share files during Development Review.

Benefit to the County

Coordination of brief review meetings across all departments on specific projects would alleviate the issue of seemingly conflicting responses; provide residents and developers with a transparent understanding of planning decisions; improve quality and effectiveness of service to, and relationships with, developers and constituents; and save staff time currently being spent on resolving conflicting communications.

Implementation Guidance

Departments responsible for Phase 1 Review should develop a coordinated sign-off policy on responses to developers before issuing recommendations during the Development Review process. That sign-off policy could potentially be coordinated through PAI's new CityWorks. PAI should coordinate a meeting with appropriate departments to reconcile potentially conflicting recommendations before formal responses are issued to the developer.

4.2 Human Resources

In this section of the report we recommend a comprehensive restructuring of the County's Human Resources operations; specific recommendations are intended to both to improve the County's services to its employees and to save the County money in the long-term.

This starts with consolidating countywide senior management-level human resources operations under the Office of Human Resources (OHR) and requiring that position incumbents be qualified human resources professionals. Baltimore County's human resources operations are inordinately dispersed across the County's agencies.

Designating the OHR Director as Director and Chief Human Resources Officer (CHRO), with authority over all HR functions throughout the County would enable clear lines of direction and control. This is not a matter of simple renaming but rather a signal that all Human Resource functions countywide fall under the direction of a chief human resources officer.

Exacerbating the dispersal of HR functions in the County is the fact that current HR staffing levels countywide and in individual departments do not meet the standard recommended by the Society for Human Resource Management of 1 HR staff for every 100 employees. The countywide ratio is 1:140. The County should consider establishing an employee full-time equivalent (FTE)-to-HR Professional ratio that comports with industry standards.

Challenges agencies and departments face when filling vacant positions include outdated or inaccurate position specifications and job descriptions, and lack of knowledge about the processes required to change them. The County would be well served to develop Standard Operating Procedures (SOPs) for updating job descriptions, organizational charts, and other routine policies and procedures.

Further updates to the merit and non-merit classification system policies, including clarifying its intended purpose and rationale, would help resolve several inconsistencies and improve morale by addressing perceived inequities in hiring and compensation, and among working employees doing similar jobs.

Right-sizing staffing at every level of countywide operations will result in net cost efficiencies and improved service delivery. A countywide productivity analysis would address these challenges and identify significant cost-efficient opportunities that would provide both immediate and long-term benefits, reducing unnecessary spending and freeing resources to recruit and hire key staff to fill crucial vacancies and create new positions as needed.

Streamlining the hiring and onboarding process and solving other HR-related issues will require clearly articulated standard operating procedures, professional personnel trained to carry them out, and direction from OHR that includes accountability between liaisons and OHR. Restructuring the recruitment and selection process should include redefining and reorganizing the role of HR liaisons, consolidating applications for recruitment and selection, and updating policies and standard operating procedures.

The County has determined that succession planning should be a priority. The costs of a poor hire or of losing a talented employee can range from \$250,000 to \$500,000 in lost productivity, training, and recruitment – along with the costs related to loss of institutional memory and capabilities and the ensuing right-sizing workforce and span of control benefits, argue for a comprehensive succession plan. While various departments are carrying out useful activities toward addressing the County's retirement and succession challenge, there is no comprehensive cost-benefit and impact analysis of imminent retirements and current workforce capacities.

The County would be well served to implement a formal retirement and succession planning analysis directed by the Office of Human Resources and involving relevant agencies and departments. This work would include anticipating and planning for imminent retirements and mitigating their impacts on operational units within County agencies. Formalization of this process will ensure the systematic preservation of institutional memory and transfer of mission-critical knowledge and will create important opportunities for staff development and promotion.

As a rule, government human resource management is centralized under the direction of a single office, department, or agency that can provide the most cost-efficient and effective service delivery. These functions typically include benefit administration. At present, however, employee benefits and retirement services are carried out by the Office of Budget and Finance. Shifting benefits and retirement services to the Office of Human Resources would improve efficiency and provide

better service to County employees and retirees. (This does not include the financial management of the pension investments themselves.)

Finally, all Baltimore County public safety agencies, including the Police Department, are experiencing tremendous recruitment challenges. There is an inordinate number of vacancies, and departments are struggling to meet hiring targets. The high number of unfilled positions leads to increased overtime spending and mandatory overtime requirements that contribute to burnout and high turnover – causing additional vacancies and intensifying the problem further. At the time this efficiency review was initiated, the County Human Resources Department’s policy barred anyone who initially failed the Civil Service Exam from taking the test ever again. The Police Department believed this was deterring promising potential employees and working against its efforts to fill vacant positions. During the period this efficiency review was undertaken, the County Human Resources Department revised its retesting policy for the Civil Service Exam.

4.2.1 CONSOLIDATE HUMAN RESOURCES OPERATIONS

Consolidate countywide senior management-level human resources operations under the Office of Human Resources (OHR) and require that position incumbents be qualified human resources professionals.

Findings

OHR is the central location of human resources (HR) operations. However, certain services are decentralized to provide direct support to the agency and to meet the department’s specific needs. While decentralized human resources operations are common in county governments, Baltimore County’s human resources operations are inordinately dispersed. For example, some human resources operations, such as benefits and retirement, are structurally assigned under the direction of the Office of Business and Finance. Several agencies and departments such as the Police Department and the Department of Health and Human Services (DHHS) have human resources operations that are essentially independent of OHR. In contrast, other units have specific employees that perform some human resources functions. In some cases, these functions occur in collaboration with the Office of Human Resources (OHR), while others do not. Still, other agencies rely fully on OHR for all human resources functions.

OHR’s principal resources are staff, information management systems, and policies and procedures. The Office provided Public Works LLC an organization chart that includes 37 positions, including a management team comprised of the OHR director, a deputy director, and six section chiefs. There are 14 Human Resources Analysis (HRA) positions: six HRA I, five HRA II, three HRA III positions. Other positions include two HR associates, a senior policy and compliance analyst, an intergroup relations analyst, a training instructor, two management analysts, two HR associates, two office clerks, and an executive assistant. OHR is creating a new Chief of Innovation and Service Delivery position, whose responsibilities will include retention and succession planning.

The Police Department and DHHS have their own human resources teams for their staffs of 2,808 and 243, respectively.⁵⁷⁶ Other agencies have individuals who perform HR support functions, such as the Department of Public Works (DPW), which has 995 positions. In some cases, these functions occur in consultation with OHR, while in others they do not. It is difficult therefore to identify an accurate and agreed upon FTE count for all Baltimore County human resources functions (see Recommendation HR: FTEs).

- DPWT has recently filled an HR coordinator position whose role includes centralizing HR assistance under the supervision of the agency coordinator. The position does not report to OHR but rather falls directly under DPWT management.
- The DHHS HR group is more formally organized than that of DPW, but less so than Police. DHHS has four HR positions and operates under a cooperative agreement with the State of Maryland Department of Human Services. This means that both Baltimore County and the State of Maryland have policies that apply to their respective employees.

⁵⁷⁶ Data referenced in this recommendation is cited from the Baltimore County 2021 Operating Budget Personnel Details.

- The Police Department has the most formalized HR structure of any agency, and its operations are essentially independent of OHR. The Police department has eight HR positions. All other agencies utilize staff who serve as liaisons to OHR, who in every case report to their respective agency management.
- OHR reports that there are 59 agency liaisons. Liaisons do not necessarily provide actual HR services to their respective agency. Rather, their role is to communicate information between OHR and the agency.
- The Office of Business and Finance, for instance, operates several departments, including Property Management, VOM, Central Communications Center, 911, and Vehicle Operations Maintenance. Each of these units has HR liaisons, with property management having two HR full-time budgeted positions. The agency does not have an internal central contact to liaise with OHR, rather each OBF unit engages the office directly.
- Further, there are other personnel within agencies that provide HR-related functions, from assisting agency personnel in filling out insurance forms to providing first-line responses to employee inquiries or complaints.

To capture the universe of these functions, the Public Works LLC review team asked each agency to complete a “shared services” questionnaire identifying the number of “cross-functional” personnel from each agency that regularly perform certain HR functions. Recognizing the problem of categorizing these dispersed positions, which do not report to OHR, as “HR” positions, OHR does not view these positions as HR personnel. OHR distinguishes between what it defines as HR operating responsibilities and those that are clerical or support activities. This presents a significant, complicating issue when interpreting data from a work-function perspective since various agencies reported non-OHR personnel providing between 16 and 40 hours a week on HR-specific issues.

Some agencies and departments, such as DHHS and Police, provide significant human resources services. When calculating Human Resources FTE’s, however, OHR does not include any personnel that do not report directly to OHR. One major department reported in an interview with the review team that three of its staff work on HR matters, although their positions are not considered to be HR roles. It is, therefore, difficult accurately to gauge the staff resources currently devoted to human resources functions through an FTE count, or to use that data to identify specific efficiency and service improvements.

Determining the number of HR full-time equivalents requires defining what work should be considered HR operations, as opposed to incidental administrative or clerical assistance, and which employees are performing those duties. The current HR program design does not lend itself to a functional performance assessment: Job descriptions and work assignments are not reliably accurate to make these determinations, and there is no central repository of this information.

Discussions from the several agency/department HR representative meetings provided additional support for modifying the current structure of the County’s HR operations. Directors and chiefs of HR operations in Police, HHS, OBF, and DPWT indicated varying degrees of satisfaction with their relationships with OHR. The County has determined that establishing HR operations independent of OHR provides the best operational efficiencies for the sworn-officer environment. That said, both the Fire (1120 positions) and Corrections (482 positions) departments have similarly unique operating environments and requirements, without dedicated HR operations. Further, within the Police Department, HR operations are divided into two sections, one for sworn officers and another for civilian employees.

Benefit to the County

Consolidation of HR functions and personnel would foster a comprehensive organizational continuity and internal control over human resources operations, while providing direct service and accessibility to human resources services. Consolidation would further facilitate benchmarking key human resources functions and the establishment of appropriate metrics for performance.

Best Practices and Benchmarks

According to the City of Baltimore HR director, the city centralizes its HR operations and provides shared services to departments or agencies that are too small to have their own HR offices. Those large enough to hire their own human resources managers do so in consultation with the City's HR director, who holds the authority to overrule decisions or actions taken at the agency or department level. The City of Baltimore benchmarks with Montgomery and Howard Counties, which operate similarly to Baltimore City.

Similar to the Baltimore approach, some counties, such as Montgomery County, Ohio – which includes Dayton and has a countywide population over 500,000 – operate human resources as a centralized function either under the executive's office or as its direct report. In this model, human resources operations are directed as a centralized function, while staff may be assigned to and managed day-to-day by specific agencies, departments, or units. For example, in the Sanitary Engineering Department (SED) of Montgomery County (Ohio) HR personnel are hired under the decision of the County Human Resources Director (Assistant County Administrator) in consultation with the agency director. The incumbent is assigned to and works out of SED offices. The SED director supervises the HR manager's day-to-day work, but the office of human resources directs their overall functions.

Implementation Guidance

- Establish a Consolidated Human Resources Operations.
- Conduct a productivity assessment and staffing analysis of HR operations countywide to identify which personnel carry out human resources functions and which simply provide administrative or clerical assistance related to human resources (see Recommendation HR: Productivity & Staffing Analysis).
- Designate a single position as the principal liaison between OHR and agencies/departments.
- Develop HR policy, standard operating procedures (SOP), and organizational charts that operationalize the new human resources protocols (see Job Specifications).
- Provide in-service training on new human resources policies and SOPs.

4.2.2 CHIEF HUMAN RESOURCES OFFICER

The director of the County’s Office of Human Resources (OHR) should hold the title of Director and Chief Human Resources Officer and direct all human resources operations countywide.

Findings

OHR is responsible for coordinating human resource policies and practices. This includes providing shared services to agencies and departments that are not staffed by dedicated human resources (HR) personnel.

HR operations are quasi-decentralized. The Police and Health and Human Services departments have their own HR operations, and the Department of Public Works and Transportation recently hired a human resources coordinator. These positions are not fully integrated into the County’s HR system.

Designating the OHR Director as Director and Chief Human Resources Officer (CHRO), with authority over all HR functions throughout the County would enable clear lines of direction and control. This is one of several interrelated recommendations aimed at reorganizing and streamlining Baltimore County’s HR operations. This is not a matter of simple renaming, but of bringing all Human Resource functions countywide under the aligned direction of the chief human resources officer. This recommendation is intended to strengthen and facilitate the previous recommendation, Consolidate Human Resources Operations.

The meaning of this step, beyond a simple name change, can be thought of in the same way as the common organizational designation of a Chief Information Officer. That is, IT functions, and the personnel to carry them out, exist throughout County Government and all its departments, although the supervision of them is centralized under the direction and control of the Office of Information Technology (OIT). The “Director of OIT” also functions as, and carries the title of, the County’s Chief Information Officer because he both directs OIT and, in that position, the IT decisions and efforts of employees outside OIT scattered throughout all of County Government. In contrast, while Baltimore County’s HR operations currently are structured much like its IT operations – there is a central Office but, at the same time, employees in most other departments also carry out these functions and make related decisions – all departmental IT operations must report to, and all such IT decisions must be approved by, the OIT Director, as the Chief Information Officer for the entire County, while the same is not true of the myriad HR processes carried on outside the purview of OHR and its Director. We recommend here that the County structure HR much like IT, with the disparate HR functions carried out in the departments brought under the OHR Director’s control, as well – making her both the Director of OHR and the County’s Chief Human Resources Officer.

Those positions in various departments currently carrying out HR functions within their departments would remain organizationally and budgetarily within those departments, just as now. The difference is that, while they would act on a day-to-day basis to respond to HR needs within their respective departments, they would coordinate and communicate on a regular basis with OHR, conform their policies and practices to a unified County standard, and report to the OHR Director in her capacity as Chief Human Resources Officer to ensure coherent Countywide HR decisions and procedures.

Benefit to the County

Creating a CHRO will designate the OHR Director as the final authority for all HR operations and policy interpretation and will signal to both internal and external audiences that OHR has ultimate responsibility for HR decision-making in Baltimore County Government.

Best Practices and Benchmarks

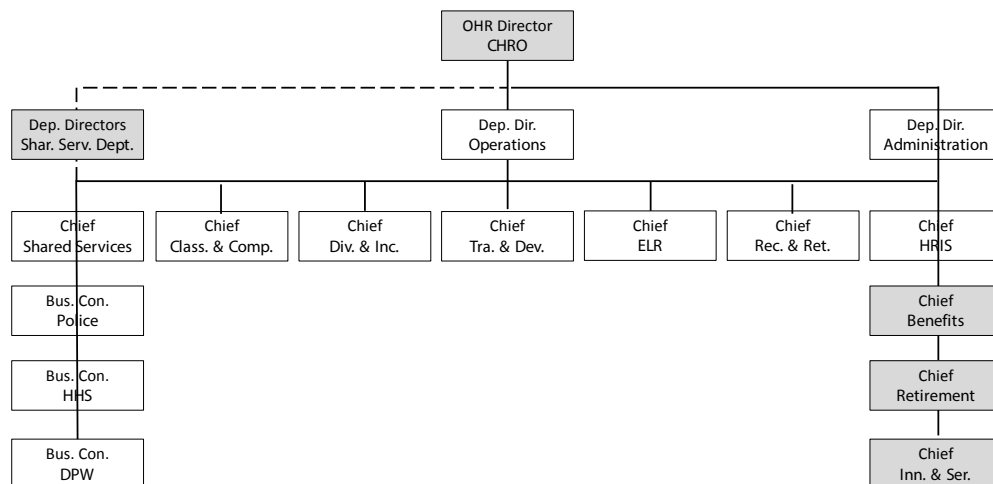
Numerous counties and other jurisdictions across the nation have created Chief Human Resources/Capital Officers, including the City of Baltimore; Fulton County, Georgia; Ramsey County, Minnesota; Jefferson County, Colorado; and Summit County, Ohio.

Implementation Guidance

Adopt a new table of organization that demonstrates the role and relationships of the OHR Director/CHRO with respect to agency- and department-level operations, as shown below.

- Review and update all relevant County policies and operating procedures to reflect the Director/CHRO position.
- Communicate the new structure throughout the HR operating system (HROS).

EXAMPLE OF RECOMMENDED OHR ORGANIZATIONAL CHART



Note: Boxes in grey represent new positions or titles (CHRO and Chief of Innovation, Service Delivery, and Deputy Director, Shared Services Departments)

4.2.3 ESTABLISH INDUSTRY STANDARD FTE:HR STAFF RATIO

Establish an employee full-time equivalent (FTE)-to-Human Resources (HR) Professional ratio that comports with industry best standards.

Findings

Exacerbating the dispersal of HR functions in the County is the fact that current HR staffing levels countywide and in individual departments do not meet the standard for number of FTEs recommended by the Society for Human Resource Management (SHRM). SHRM recommends a ratio of 1 HR staff for every 100 employees. The countywide ratio is 1:140.

- With 2,800 employees and approximately 8 FTE positions assigned to HR operations (five of which are assigned exclusively to payroll and report to OBF), the Police Department has a 1:327 ratio. The PD HR director also reports inadequate information systems, which for example, do not provide real-time data and reports.
- As mentioned previously in this report, the Department of Public Works and Transportation (DPWT) operates with HR decentralized from, but with HR liaisons to the Office of Human Resources (OHR). Recently, DPWT filled a new position to coordinate liaison activities between the agency and OHR, which provides more centralization within the agency. The new coordinator indicates his duties are split between his HR role and acting director of a DPWT bureau. He notes one of the biggest HR challenges is the length of time it takes to hire and on-board staff. He believes the problems are both related to the countywide OHR processes and DPWT internal processes, including the information systems DPWT uses. For example, DOT physical requirements slow the hiring process significantly.
- The DHHS HR chief indicates it is understaffed for both county and state operations.

Determining the number of HR full-time equivalents requires defining what work qualifies as direct HR operations versus incidental administrative or clerical assistance (such as disseminating information or assisting in filling out personnel-related forms). The current HR program design does not lend itself to determining these elements. Job descriptions and work assignments are not reliable ways to make determinations, and there is no system in place that gathers such information.

Baltimore County indicates that it has 8,612 authorized positions and 8,090.1 full-time equivalents. The number of HR personnel countywide is 59 authorized positions and 57.6 full-time equivalents. The FTE:HR ratio therefore appears to be 1:140 (see table below).⁵⁷⁷

This calculation does not count HR liaisons in departments as authorized HR positions. This is because the OHR does not view persons providing clerical or administrative assistance to agency or department personnel as HR personnel. That is understandable since OHR distinguishes between what it defines as human resource operating responsibilities and those that are merely clerical assistance or support activities that may involve human resource or employee-related materials. That is a significant issue, since the shared services report made available to Public Works LLC shows personnel from various agencies or departments providing between 16 and 40 hours a week on human resource-specific issues. According to a list provided by the Office of Human Resources, there are 59 liaisons (listed in the final column of the table below. NB: It is coincidence that the number of liaison positions equals the number of authorized HR professional positions). The index does not indicate whether the related staff provide actual HR functions to their respective agencies or departments and are thus excluded from the count of HR professionals.

⁵⁷⁷ This calculation is made based on data from the Baltimore County 2021 Operating Budget Personnel Detail report. It does not include the Baltimore County Revenue Authority or Public Library System.

BALTIMORE COUNTY STAFFING TABLE/FTES BY DEPARTMENT

Department/Division	NUMBERS					PERCENT				
	TOTAL		HR		Ratio	TOTAL		HR		Liaison
	Pos	FTEs	Pos	FTEs		Pos	FTEs	Pos	FTEs	
Department of Aging	235	201.05	0	0	0.00	0.03	0.02	0.00	0.00	2
Board of Appeals	9	5.67	0	0	0.00	0.00	0.00	0.00	0.00	1
Office of Budget and Finance	123	117.13	3	3	39.04	0.01	0.01	0.05	0.05	2
Circuit Court	94	91	0	0	0.00	0.01	0.01	0.00	0.00	2
Community Development	27	23.8	0	0	0.00	0.00	0.00	0.00	0.00	0
Cooperative Extension	10	8.11	0	0	0.00	0.00	0.00	0.00	0.00	2
Department of Corrections	482	479.37	0	0	0.00	0.06	0.06	0.00	0.00	3
County Administrative Officer	30	31.05	0	0	0.00	0.00	0.00	0.00	0.00	1
County Auditor	17	17	0	0	0.00	0.00	0.00	0.00	0.00	1
County Council	36	27	0	0	0.00	0.00	0.00	0.00	0.00	1
County Executive	10	7.93	0	0	0.00	0.00	0.00	0.00	0.00	1
County Sheriff	94	92.5	0	0	0.00	0.01	0.01	0.00	0.00	6
Economic & Workforce Development	19	19.95	0	0	0.00	0.00	0.00	0.00	0.00	1
Board of Elections	38	34.82	0	0	0.00	0.00	0.00	0.00	0.00	2
Emergency Communications Center	205	204.95	0	0	0.00	0.02	0.03	0.00	0.00	1
Department of Environmental Protection & Sustainability	83	82.3	0	0	0.00	0.01	0.01	0.00	0.00	2
Office of Ethic & Accountability	2	1.97	0	0	0.00	0.00	0.00	0.00	0.00	0
Fire Department	1120	1132.9	1	1	1132.85	0.13	0.14	0.02	0.02	2
Department of Health	661	641.12	3	2.97	215.87	0.08	0.08	0.05	0.05	1
Housing Office	66	71.78	0	0	0.00	0.01	0.01	0.00	0.00	1
Office of Human Resources	37	36.7	37	35.73	1.03	0.00	0.00	0.63	0.62	1
Office of Information Technology	234	226.22	0	0	0.00	0.03	0.03	0.00	0.00	1
Law Office	45	42.76	0	0	0.00	0.01	0.01	0.00	0.00	2
Liquor Board & License Commission	24	12.88	0	0	0.00	0.00	0.00	0.00	0.00	1
Local Management Board	4	3.88	0	0	0.00	0.00	0.00	0.00	0.00	1
Orphans Court	5	5	0	0	0.00	0.00	0.00	0.00	0.00	1
Department of Permits, Approvals & Inspections	191	168.6	0	0	0.00	0.02	0.02	0.00	0.00	2
Department of Planning	42	42.9	0	0	0.00	0.00	0.01	0.00	0.00	1
Police Department	2808	2455.4	8	7.5	327.38	0.33	0.30	0.14	0.13	3
Property Management	243	240.79	2	1.97	122.23	0.03	0.03	0.03	0.03	3
Department of Public Works	995	990.94	0	0	0.00	0.12	0.12	0.00	0.00	1
Department of Recreation & Parks	183	149.98	1	1	149.98	0.02	0.02	0.02	0.02	1
Retirement and Social Security	8	8.75	0	0	0.00	0.00	0.00	0.00	0.00	2
Department of Social Services	213	202.68	4	4.43	45.75	0.02	0.03	0.07	0.08	2
States Attorney	137	136.5	0	0	0.00	0.02	0.02	0.00	0.00	1
Vehicle Operations & Maintenance	39	39	0	0	0.00	0.00	0.00	0.00	0.00	3
Workforce Development	43	35.83	0	0	0.00	0.00	0.00	0.00	0.00	1
TOTAL	8612	8090.1	59	57.6	140.45	1.00	1.00	1.00	1.00	59.00

Benefit to the County

Bringing the FTE:HR ratio in line with industry standards for agencies and departments countywide would provide an appropriate level of HR professionals to ensure efficient and effective delivery of HR services to the County. Such service delivery is sure to address other HR-related challenges and opportunities that affect cost efficiencies and service effectiveness system-wide.

Best Practices and Benchmarks

According to the Society for Human Resource Management, the industry standard for human resource employees is one HR employee for every 100 employees overall.

Implementation Guidance

- Develop HR policy, standard operating procedures (SOP), and organizational charts that operationalize the new human resource protocols (see Job Specifications).
- Conduct a productivity assessment and staffing analysis of HR operations countywide (see Productivity and Staffing Analysis).
- Identify which personnel perform human resource functions and which simply provide administrative or clerical assistance related to human resources.
- Provide in-service training on new human resource policies and SOPs.
- Designate a single position as the liaison between the agency/department.

4.2.4 JOB SPECIFICATIONS

Develop Office of Human Resources (OHR) Standard Operating Procedures (SOPs) for updating job descriptions, organizational charts, and other routine policies and procedures.

Findings

Challenges agencies and departments face when filling vacant positions include outdated or inaccurate position specifications and job descriptions, and lack of knowledge about the processes required to change them. Some supervisors observe that some job classifications are poorly matched to actual job requirements considering evolving position roles and functions. It is understood that position descriptions differ from department to department although the job specification may be the same. For example, an HR Analyst 1 assigned to OHR position's description differs from an HR Analyst I assigned to Corrections – the two incumbents perform different functions and position descriptions are developed at the department level. Similarly, code enforcers and trade enforcers need different knowledge and skill sets, but jobs for each are advertised under the same OHR position specification, which may be ill-matched or no longer matched with the actual job functions, qualifications, or description. Further, the pay scale associated with a job specification may not be aligned with current market rate pay for all the job descriptions that are included under that specification. As another example, inspectors, whether in the Department of Public Works and Transportation or the Department of Housing and Community Development, are subject to the same OHR specifications despite different roles and skills sets.

Some managers argue it is difficult to fill positions with well-skilled candidates, because pay scales associated with a general position specification limit the pay that can be offered to the higher-skilled workers needed. Our review confirmed findings from the 2020 work done by the County's Office of Government Reform and Strategic Initiatives that organization tables are routinely and systemically inconsistent or outdated.

These examples, along with those identified in other HR recommendations (see **Retirement and Benefit Services**) support the need for a comprehensive review of essential HR-related materials and documentation, including job specifications, position descriptions, standard operating procedures, and organizational tables. Outdated or inaccurate materials can cause needless delays in filling vacant positions or assigning pay scales. In various combinations, their impact can be substantial.

Benefit to the County

Routine, systematic, and comprehensive reviews of position specifications, organizational charts, policies, and standard operating procedures can streamline HR processes that improve the overall functioning of the County's Human Resource operations. These quotidian processes and materials are the constituent gears for a well-functioning program that by themselves seem innocuously routine. Yet, any one not functioning well can cause needless disruption in an agency's mission-critical hiring process. Worse, when all of them are aggregated in such a moment, and those moments accumulate over time, the County realizes significant waste of resources, whether human, financial, or temporal.

Best Practices and Benchmarks

The Society for Human Resource Management (SHRM) recommends that job descriptions be updated no less frequently than annually, and should involve input from managers, employees, and human resource professionals.⁵⁷⁸ SHRM identifies the following best practices for job analysis to be incorporated (as appropriate to the position), into SOPs for updating job descriptions⁵⁷⁹:

- Have employees complete a job analysis questionnaire.
- Interview employees, asking them specific questions about their job duties and responsibilities.
- Obtain log sheets from employees with information about each of their tasks and the time spent on each task for at least one full work week.
- Complete desk audits where employees are observed doing their jobs at different times of the day and days of the week and track what they do and for how long.
- Interview supervisors and managers, and other employees, clients, and customers the employee may interact with while performing the job.
- Compare the job to other jobs in the department as well as the job grade or job family to show where it falls on the pay scale.

Implementation Guidelines

- OHR should coordinate the periodic review of organizational tables in conjunction with the annual budget approval process, to ensure that tables comport with approved positions.
- Agency and departmental HR chiefs and liaisons should be responsible for reviewing and approving organizational tables under the direction of their respective agency/department manager and OHR.
- OHR should review and update position specifications where appropriate, annually.

⁵⁷⁸ <https://www.shrm.org/hr-today/news/hr-magazine/pages/0113-job-descriptions.aspx>

⁵⁷⁹ <https://www.shrm.org/resourcesandtools/tools-and-samples/hr-qa/pages/conductjobanalysis.aspx>

4.2.5 MERIT AND NON-MERIT JOB CLASSIFICATIONS

Update the County’s Human Resources policies to include a section that thoroughly explains the position classification system regarding full-time (merit) and part-time (non-merit) workers. The updated policy should provide guidelines, including (1) distinguishing merit classification at 40-plus hours and non-merit classification at less than 40 hours, (2) the County’s purpose and rationale for the policy, including any differentiated compensation and benefits, and (3) standardized pay scales and benefits for all employee classes.

Findings

Baltimore County employs employee classification practice that are unduly complicated in terms of class and policy application. It designates two classes of employees, merit and non-merit, and defines eligibility for compensation and benefits based upon:

- The classification of the employee (merit versus non-merit),
- Whether the employee is a sworn employee of Police, Fire, or the Emergency Communication Center,
- The number of hours an employee is authorized to work, and
- The subclassification of non-merit employees, in which some follow the merit payment schedule, and some do not.

Anecdotal reports and interviews about the employee classification system and the policies for compensation indicate that many County employees view its application as fraught with inconsistencies and abuses, such as circumventing the merit system in order to avoid paying benefits and paying employees differently for the same or similar work. While County human resource policies refer to the classification system, and compensation rules which are followed, there is no policy providing a coherent and comprehensive explanation of the purpose and proper (or intended) use and rationale of merit- versus non-merit designations.

In July 2020, the County Executive approved a Decision Memorandum seeking to resolve these challenges, at least in part. In addition to establishing additional benefits for non-merit employees, the memorandum identified several issues requiring resolutions. They included (1) there are two classes of non-merit employees distinguished by the number of hours worked and benefits available to them, (2) there is no official pay scale for a class of non-merit employees, (3) instead of benefits, some non-merit employees are paid more than their merit employee counterparts in the same job class. These issues remain unresolved and are the focus of most controversy regarding the system.

Benefit to the County

Updating policy on the merit and non-merit classification system would help resolve several inconsistencies or inequities in hiring, compensating, and working employees doing similar, if not the same jobs, while improving morale because of improved perceptions of equity in compensation and work assignments.

Best Practices and Benchmarks

Prince George's County designates as full-time any employee whose customary employment is for 40 or more hours per week.⁵⁸⁰ Part-time employees include any employee whose customary employment is for less than 40 hours per week. The county designates as temporary any employee hired for a specified period or a special project, and the employment usually does not exceed six months. Full-time and part-time employees are eligible for benefits packages, respectively, while the temporary staff is not eligible for any leave or benefits.

Montgomery County, Maryland, designates a person in a "career position" as either employed full-time or part-time. The county requires staff in career positions to work 40+ hours per week. A part-time employee works for 20 to 39 regularly scheduled hours per week on a continuing year-round or, in the case of the school system, a school-year basis; or is specially designated by the CAO and requires regular employment for 10 to 20 hours per week on a continuing year-round or school-year basis and approval by the Merit System Protection Board (MSPB).⁵⁸¹ An incumbent in a career position, including a term position, is full-time if they work 12-hour shifts on a continuing year-round or school-year basis for 40 or more regularly scheduled hours per week during one week of the pay period and 36 or more regularly scheduled hours per week during the other week of the pay period. An incumbent is a career position who does not work 12-hour shifts, is designated full-time if they work 40 or more regularly scheduled hours per week on a continuing year-round or school year basis.

In contrast to Baltimore and Prince George's counties, Baltimore City offers benefits to all full-time and part-time employees who regularly work a minimum of 30 hours per week. Full-time employees are eligible for a full package of benefits, while temporary, seasonal, and contractual employees working 30 hours or more per week over a 12-month Initial Measurement Period are offered medical and prescription drug coverage only at the end of the initial measurement period. Failure to enroll online within these timeframes results in forfeiture of benefit eligibility until the next open enrollment period.⁵⁸²

Implementation Guidance

The updated policy should:

- Define full-time employee status as working 40 hours per week and part-time employees as working less than 40 hours per week. Note that a small number of employees currently classified as Merit employees are required to work only 35 hours per week. They should be allowed to continue as such, without any increase in the number of hours per week required to retain their Merit status, so that their pay and benefits would be unaffected; this should not be extended to future hires.
- Establish a Standard Pay Scale for all classifications irrespective of full- or part-time status.
- Offer benefits to all full- and part-time employees pursuant to the July 14, 2020, Decision Memorandum to all employees, unless an employee's current pay exceeds the prescribed rate and that employee elects Option One as defined in the following bullet.
- Give current part-time employees whose salaries are determined to be inconsistent with the updated pay scale two options:
 - » Option One – When such pay exceeds what would otherwise be paid if a person is hired with commensurate skills and experience (the Prescribed Rate), the employee would remain at the higher rate without benefits and pay increases until their tenure and performance evaluations would warrant placement in line with the updated pay scale.
 - » Option Two – The employee would be placed at the Prescribed Rate (vis-a-vis the updated Standard Pay Scale) and given benefits and pay increases commensurate with performance evaluation and tenure.

580 The County has an exception to this designation that is specific to collective bargaining or other justified agency/department-specific stipulations, for example any residential staff who lives in the home at least five days per week and whose customary employment is for 30 or more hours per week; and any day program staff whose customary employment is for 33 1/2 or more hours per week. The Arc Prince George's County Employee Handbook. <https://www.thearcofpgc.org/files/2019/06/Employee-Handbook-April-20191402SSL-Updated.pdf>.

581 https://www.montgomerycountymd.gov/HR/Resources/Files/Staffing/recruiting_terms.pdf.

582 <https://humanresources.baltimorecity.gov/hr-divisions/benefits>.

4.2.6 PRODUCTIVITY AND STAFFING ANALYSIS

Conduct a countywide productivity assessment and staffing analysis to establish appropriate staffing tables and plans for County agencies and departments.

Findings

Routine workforce planning in many public sector organizations often focuses exclusively on recruitment and retention, with only minimal, sporadic attention given to comprehensive productivity analyses, optimal staffing levels, and succession planning. As a result, government bureaucracies are often left lopsided by the accumulated staffing decisions of past administration that are inconsistent with changing circumstances or a new leader's vision. Absent regular assessments of current staffing needs, staffing tables and budgets can become bloated with excess staff whose skills are not aligned with agency priorities. Right-sizing staffing at every level of countywide operations will result in net cost efficiencies and improved service delivery.

While County policy calls for systematic job evaluation procedures that include need analysis, measurement, and job classifications, it does not set forth the coherent, comprehensive methodologies needed to conduct a full productivity and staffing analysis. Under current County policy, staffing analysis is called for only when a position description has changed substantially and the incumbent has performed the new duties for at least six months, or when there has been a formal reorganization and reassignment of duties approved by the Office of Budget and Finance.⁵⁸³

As noted in other recommendations, the County's human resources (HR) functions are hampered by multiple problems with efficiency and effectiveness. Fragmentation and disjointed operations have made it challenging to develop proposals for optimal staffing that would support the County's strategic plan and improve services. A countywide productivity analysis would address these challenges and identify significant cost-efficient opportunities that would provide both immediate and long-term benefits, reducing unnecessary spending and freeing resources to recruit and hire key staff to fill crucial vacancies and create new positions as needed. Implementing a staffing level/productivity analysis, increasing span of control, and reorganizing HR operations would provide a trifecta of improvement in Baltimore County's HR services.

Benefit to the County

A countywide staffing assessment/productivity analysis could yield significant cost savings and operational efficiencies. For example, a currently vacant Deputy Director position opening could be eliminated, and that salary could then be reallocated to fund three HR assistant positions, for instance, or whichever positions are most in need of additional resources based on the results of the analysis. Similar opportunities to right-size top-heavy agency staffing may exist across the County, improving performance, productivity, and span of control. The results of such an analysis would further facilitate informed implementation of the Countywide Span of Control improvements recommended previously in this report.

Best Practices and Benchmarks

The International Personnel Management Association notes that thoughtful workforce planning addresses the staffing implications of strategic and operational plans, including managed movements of employees into, out of, and within an organization. Therefore, workforce planning must address the full range of HR activities: recruiting, hiring, classification, compensation, promotion, transfer, redeployment, attrition, retention, succession planning, employee training and development, and retirement.⁵⁸⁴

⁵⁸³ BCnet Human Resources Section 2. Classification, Compensation, Status and other Changes.

⁵⁸⁴ Workforce Planning Resource Guide for Public Sector Human Resource Professionals. International Personnel Management Association. www.ipma.hr.org

In 2020, the City Auditor of Tulsa, Oklahoma, conducted an analysis of staffing and pay levels, in response to management concerns that understaffing, and relatively low pay scales were having a detrimental impact on the city's ability to retain sufficient staff to provide services.⁵⁸⁵ The study looked at complete compensation packages, including salaries, health insurance, vacation pay, and retirement benefits. The study also addressed whether staffing levels were aligned with the priorities in the city's strategic plan and compared budgeted staffing levels for core programs with pay scales in similar municipalities. Other issues studied included a detailed analysis of costs driven by high employee turnover versus the cost of employee retention through consistent raises. The analysts found that, after considering lost productivity and expenses for hiring and training new employees, the costs of keeping salaries flat (with resultant attrition) were roughly equal to the cost of providing an across-the-board annual raise of two percent.

Implementation Guidance

The County could contract with an experienced external consultant to conduct an extensive staffing analysis. A consulting group would approach this task with an independent viewpoint unbiased by historical staffing trends and decisions.

Another option would be to equip OHR's Classification and Compensation section with a well-designed program logic model to conduct the analysis in-house. OHR's Office of Class and Compensation would design the program strategy framework, creating an analytical model that would be launched within OHR and then implemented across County agencies, departments, and units. This option would enable routinized, ongoing systemic analysis that would enhance productivity and service delivery to offset its costs going forward.

4.2.7 RECRUITMENT AND SELECTION

Restructure the recruitment and selection process to reduce the length of time it takes to fill a vacant position. Restructuring should include redefining and reorganizing the role of Human Resources (HR) liaisons, consolidating applications for recruitment and selection, and updating policies and standard operating procedures.

Findings

There is a perception among staff in some agencies that filling positions takes excessive time, due to the County's partially decentralized HR structure, ineffective use of HR liaisons, fragmented information systems applications, and outdated, ineffective policies and standard operating procedures. (These issues are addressed in separate recommendations.)

The OHR/Recruitment and Talent Acquisition unit is working fully to automate its operations through the NEOGOV software suite, which is currently in use. Until very recently, NEOGOV users had to navigate an inefficient manual interface to a legacy application, CRM Advantage. Implemented in July 2020, as of August 2021, the unit reports that all agencies have completed conversion of the manual processes to NEOGOV. OHR leadership reports that this transition has made recruitment and selection more efficient in ascertaining what steps create hold-ups in the recruitment and hiring process. However, this shift also signifies a substantial resource commitment to continuing use of NEOGOV, even though the County has begun consolidating HR functions on the Workday system. Continuing to use the legacy NEOGOV system after the shift to Workday will diminish potential efficiencies and incur unnecessary costs for system support and updates.

585 <https://www.cityoftulsa.org/media/13557/pay-staff-final-report.pdf>

Staff also raised concerns about the effectiveness of HR liaisons that have been placed in County agencies and departments. OHR reports that few of the 50+ liaisons have professional HR experience. The liaisons also report directly to management in their respective agencies or departments, giving OHR little authority over their work priorities. This issue is particularly relevant to agencies and departments that rely on OHR's shared services platform.

Public Works LLC's assessment of complaints regarding the time it takes to fill positions is not only related to the foregoing discussion. It also stems from the inordinate dispersion of HR functions throughout County agencies and departments. We do not intend to suggest that decentralization is the problem, rather the absence of countywide direction of HR activities coupled with a tendency for some agencies and departments to include recruitment processes specific to their needs, but outside the formal process of OHR. They are found, for example, in the public safety and works departments. That combination can extend the time it takes to fill positions. Further, several steps in the formal process, such as scheduling candidate interviews, which are conducted or scheduled by OIT rather than OHR, can slow the process.

Thus, streamlining the hiring/onboarding process and solving other HR-related issues will require clearly articulated standard operating procedures, professional personnel trained to carry them out, and direction from OHR that includes accountability between liaisons and OHR. Restructuring should include redefining and reorganizing the role of HR liaisons, consolidating applications for recruitment and selection, and updating policies and standard operating procedures. These steps would incorporate recruitment practices as a formal countywide process.

Benefit to the County

Restructuring the recruitment and selection process will reduce the length of time required to fill vacancies, improve agencies' ability to fulfill their missions and provide high-quality County services; further it will enable the County to fully realize the efficiencies expected from its transition of human resources functions to Workday.

Best Practices and Benchmarks

Government organizations that have fully converted their HR processes to Workday report an average 83 percent decrease in recruit-to-hire time and an 81 percent average decrease in the time required to onboard new employees.⁵⁸⁶

Implementation Guidance

- Conduct a comprehensive review of policies and operating procedures that govern hiring and on-boarding new staff and update as needed.
- Require mandatory in-service training for all HR-related positions.
- Participate in the recruitment and selection of all staff who provide formal HR services as employees of agencies and departments.
- Provide regular in-service training (i.e., professional training or staff development, where designated, trained employees discuss their work with others in their peer group) to ensure that HR liaisons understand and comply with all hiring policies and processes.

586 <https://www.workday.com/content/dam/web/en-us/documents/datasheets/datasheet-workday-state-local-gov-us.pdf>.

4.2.8 SUCCESSION PLANNING

Implement a formal retirement and succession planning analysis directed by the Office of Human Resources (OHR), and involving relevant agencies and departments, such as the Office of Budget and Finance (OBF) and the Office of Information Technology (OIT).

Findings

Baltimore County has determined that succession planning should be a higher priority. While various departments are carrying out useful activities toward addressing the County's retirement and succession challenge, there is no comprehensive cost-benefit and impact analysis of imminent retirements and current workforce capacities. There does not appear to be a coherent and comprehensive process to achieve this objective. For example, Employee Training and Development performs several functions that support succession planning; these functions are not fully integrated as a coherent and comprehensive planning process with other divisions and units in the County's Human Resources operations. This is one of the most significant areas affected by the highly decentralized Human Resources operations, as previously discussed in this report (see **Consolidate Human Resources Operations**).

A single department (OHR) would most effectively lead such a plan with the full cooperation and support of the County. This work would include anticipating and planning for imminent retirements and mitigating their impacts on operational units within County agencies. The Office of Human Resources plans to hire for a new staff position in innovation and service delivery, which will be responsible for coordinating these functions across divisions. That additional position and assigned responsibility would go a long way in providing the necessary human resource capability for OHR to assume responsibility of directing the comprehensive and coordinated countywide retirement and succession planning program.

Benefit to the County

Assigning responsibility for direction of retirement and succession planning to OHR would streamline the process and facilitate accountability for its implementation as policy and as a standard operating procedure within OHR the County. Formalization of this process will serve to ensure the systematic preservation of institutional memory and transfer of mission-critical knowledge and will create important opportunities for staff development and promotion.

According to the American Society for Public Administration statistics on the costs to organizations of inappropriate hires or placements and inadequate experience or training, suggest costly outcomes:

- Cost per day when operating without a key player: \$7,000
- Cost of a poor hire: \$300,000 – \$500,000
- Rate of efficiency at which an organization must operate because of poor engagement levels: 30 percent
- Average time for a new manager to become productive: 6 months
- Percentage of employees who are well suited for their roles: 20 percent
- Cost of losing a talented employee: \$250,000 – \$500,000.

In addition to succession planning, the cost of turnover must be considered. According to the Center for American Progress, the cost of replacing an employee ranges from 10 to 30 percent of their annual salary.⁵⁸⁷

These statistics, along with costs related to loss of institutional memory and capabilities and their ensuing right-sizing workforce and span of control benefits, argue for both a comprehensive succession plan and a productivity analysis as discussed elsewhere in this report (see **Productivity and Staffing Analysis**).

Best Practices and Benchmarks

The Government Finance Officers' Association (GFOA) identifies the following best practices for governments in succession planning and planning for employee retirements⁵⁸⁸:

- **An integrated approach to succession management – not “just-in-time” management.**
A succession plan should place a high priority on planning for smooth transition in the organization's critical positions. Key components of an integrated approach include workforce planning, succession planning, knowledge management practices, and recruitment and retention practices.
- **Continual assessment of potential employee turnover.**
Career planning discussions should be a routine part of the performance review process and used to assessing potential organizational turnover. Department heads are a good resource in helping to identify the rate at which employees will leave, whether for retirement or other reasons.
- **A formal, written succession plan.**
Without a formal plan, succession planning tends to be haphazard. A formal plan provides a framework for specific succession initiatives by identifying risks and strategies, which employees may be involved in the plan, and what being part of the succession plan means. Additionally, having a formal plan indicates the organizational commitment that is critical for successful leadership transitions. The Budget Department and the Human Resources Department should work together to develop this plan, along with other departments as needed.
- **Written policies and procedures to facilitate knowledge transfer.**
Knowledge transfer is a critical component of succession management, which should involve formal, written, and updated procedures. A meeting should be held with departing staff to verify and document job responsibilities.
- **Leadership skills and personal professional development as key components of succession planning initiatives.**
The entire organization benefits over the long term from developing a leadership pool and by helping employees learn the skills they need to be ready to take on greater responsibilities in the future.
- **Well-designed recruitment and retention practices.**
Many organizations will focus more on recruiting the new employee and not enough on the ongoing development and retention of the employees they already have. Two important components of retention are 1) making sure pay levels are competitive and 2) providing career advancement opportunities.
- **Alignment with collective bargaining agreements and how they align with the overall succession plan.**
Consideration should be given to how succession plans fit in to collective bargaining agreements, Engaging bargaining units for cross-training opportunities should be encouraged.

587 <https://www.americanprogress.org/issues/economy/reports/2012/11/16/44464/there-are-significant-business-costs-to-replacing-employees/>.

588 <https://www.gfoa.org/materials/key-issues-in-succession-planning>

The Center for State and Local Government Excellence has recognized several governments with best-practice Succession Planning programs, including Sunnyvale, California; the State of Tennessee; and Hennepin County (Minneapolis, Minnesota) and identifies the following practices as exemplary⁵⁸⁹:

- Helping employees identify the education, training, and job experiences needed to qualify for positions that interest them.
- Encouraging employees to pursue promotions.
- Sending a clear message that promotions are based on performance rather than seniority.
- Stressing that succession planning does not mean that an “heir apparent” will be identified and groomed for specific jobs.

Hennepin County, for instance, which is facing dramatic and imminent shifts in its workforce demographics, has created⁵⁹⁰:

- **A New Employee Academy** that assigns employees to cohorts after an initial orientation. The cohorts help new employees create a network across business lines as they meet three times over the first year with each other and human resource staff.
- **Unleashing Your Potential**, a nine-month program for entry-level employees intended to engage them at the outset of their careers and to gauge their interest in leadership.
- **Emerging Leadership Development Program, Management Institute, and Leadership Management Academy**, a series of progressive programs that are offered through the county’s Center of Innovation and Excellence to further develop employee leadership skills.

From these programs, Hennepin County has created a transition cohort of more than 320 leaders, many of whom have been promoted from within.

Fairfax County (Virginia) implemented formal succession planning in 2007, in anticipation of widespread Baby Boomer retirements, to create a framework for managers and supervisors to implement more effective human resource planning and employee development. Fairfax County took an inclusive, thoughtful approach to developing its succession planning model: Led by a Department of Human Resources Project Team with the help of a consultant, the process included a series of pilots involving the county departments of Information Technology, Finance, Human Services Administration, Public Works and Environmental Services, and Tax Administration, while other departments also engaged in succession planning and competency development. Fairfax’s County Succession Plan identifies major roles and provides a chapter of guidance on each step in the succession planning process, outlined in the figure below:

589 <https://slge.org/assets/uploads/2018/02/2017-Succession-Planning.pdf>

590 Id.

SUCCESSION PLANNING PROCESS



Source: Fairfax County Succession Planning Guide

The Fairfax County Succession Planning Guide is made available as a public resource by the International Public Management Association for Human Resources (IPMA-HR).⁵⁹¹

Sonoma County (California) offers another example of a jurisdiction that has made concerted efforts in Succession Planning, which it considers to integral to ensuring there are opportunities for advancement, and for employee retention⁵⁹²:

"The creation of a strong "back-bench" leadership pool is the key factor to meeting these objectives, and the fastest route to a successful leadership pool is an organizational culture grounded in a succession "mindset."

Virtually all succession development is rooted in the appropriate assumption that tomorrow's leaders can be identified from today's talent pool. By using agreed-upon leadership competencies as the lens through which to observe and evaluate behavior, individuals can be groomed and developed so they can effectively compete for promotional opportunities through a combination of education, mentoring, job rotation, and other strategies."

591 <https://www.ipma-hr.org/docs/default-source/public-docs/importdocuments/pdf/hrcenter/succession-planning/cpr-splan-fairfax>.

592 <https://sonomacounty.ca.gov/HR/Workforce-Development/Succession-Planning/>.

The County's succession planning model incorporates the following elements:

- **Talent Review Forums:** Process-driven forums for conducting transparent reviews of anticipated vacancies, bench strength, and readiness at multiple levels across the entire County.
- **Sonoma County HIGHER:** A multi-month program designed to prepare leaders for senior roles in the County. Attended by a select group of around 25 mid- to upper level managers, the Academy includes seven facilitated training sessions, approximately one month apart, taught by experts; mentorship from senior leaders in the County utilizing a process that will be scalable toward a more generalized mentorship program; and a behavior-based 360 degree leadership development assessment supported with individualized coaching sessions, interpretation, goal-setting, follow-up, and behavioral reinforcement. HIGHER culminates in a series of small team projects to create viable solutions to existing County, organizational and/or community issues with a mentor or coach assigned to each project team.

Implementation Guidance

A transition strategy is integral to good succession planning. Such strategy would include steps to document proprietary information, capture institutional memory, and identifying the status of mission-critical projects. These steps require putting in place SOP's for succession and turnover events. The county would be well served to adopt and codify SOP's for such events. Procedures should include:

- Formally centralizing the direction of retirement and succession planning in OHRR.
- Establishing in OHR the Innovation and Service delivery section.
- Codifying and implementing standard operating procedures for transitions.
- Identifying mission critical operations and assessing management and staff strengths and weakness related thereto.
- Identifying potential replacement candidates with relevant competencies (e.g., skills, experience, leadership qualities) to fill vacant roles and positions and implementing transition strategies to fill them.

4.2.9 RETIREMENT AND BENEFITS SERVICES

Consolidate retirement and benefits services under the direction of the Office of Human Resources (OHR).

Findings

As a rule, government human resource management is centralized under the direction of a single office, department, or agency that can provide the most cost-efficient and effective service delivery. These HR functions typically include recruitment and hiring, onboarding, payroll, legal compliance, employee relations, and benefit administration.

At present, employee benefits and retirement services are carried out by the Office of Business and Finance. Current research and best practices support shifting these responsibilities to OHR to improve efficiency and provide better service to County employees and retirees. (Note that the administration of employee benefits and retirement services in this context do not include the financial management of the pension investments themselves.)

Benefit to the County

Centralizing HR functions under OHR will help the County better direct and coordinate HR-related processes, which will improve service delivery to employees. There are no quantifiable near-term financial cost savings likely to be achieved through centralization.

Best Practices and Benchmarks

The City of Baltimore has centralized its HR operations, including retirement and benefits. Similarly, Prince George's County's Office of Human Resource Management includes the Pensions and Investment Division, which is responsible for supervision and management of the County's retirement-related programs. Services include outreach to retired county employees and administrative oversight of the pension plans' funds, as well as financial education programs for current employees and retirees.

Implementation Guidance

Transferring retirement and benefits functions from OBF to OHR will require strategic coordination between the two departments to address issues related to timing, staffing, training, and budget planning.

The transfer process should begin at the start of a fiscal year, to give departments adequate time to develop and implement a strategy for a smooth transition. First steps for successful implementation should include:

- Identify staff transfer and training needs in OHR.
- Designate budget reallocations between departments.
- Establish a realistic but near-term date for full implementation.

4.3 Streamlining Internal Functions

This efficiency report began by identifying operational savings achievable by Baltimore County. Its concluding chapter focuses on improvements that can also be save money although the savings may be diffuse, long-term, hard-to-quantify, or in areas where the County lacks sufficient data to make firm savings projections. The review team started with future-focused management changes – the “brains” of County operations, so to speak – and then addressed County government's human infrastructure, the “heart” of its operations. We now turn to some of the “hands-on” processes and functions by which County government does the hard work.

Baltimore County divides the ownership, management, maintenance, repair, acquisition, and disposal of its vehicles and equipment into two disparate agencies: Vehicle Operations and Maintenance (VOM), under the Office of Budget and Finance, and Equipment Maintenance, commonly referred to as “EOM,” which is part of the Department of Public Works, Bureau of Highways and Equipment Maintenance. The County could combine the management of its two separate vehicle operations into a unified Fleet Management entity. Although VOM and EOM own and operate different types of fleets based on vehicle weight, capacity, and function – and although both use typical fleet management practices – a unified fleet management organization would be better positioned to adopt standard operating practices designed to maximize customer service and minimize vehicle life-cycle cost.

The County's property management function is also in need of closer consideration. The County Administration has expressed an interest in whether Property Management might become more like an overall “General Services Agency,” as referred to in certain counties; it is our conclusion that Property Management is doing a better job in this regard than generally acknowledged. Since a critical 2019 program review, many, but not all, of the documented problems of inadequate management, supervisory and operational performance appear to have been addressed. However, Property Management remains hampered by issues

stemming in perception as well as reality from the FY2012 reorganization; these issues include the inability to attract and retain experienced personnel, fewer than optimal authorized positions and FTEs, slim annual operating budgets, and increased reliance on contractual services. We therefore recommend ways by which Property Management could continue to enhance its management, organizational, and operational competencies further to improve service delivery, raise tenant-agency satisfaction, and strengthen the value it brings to Baltimore County Government.

The Office of Budget and Finance, Property Management implements a ten-hour-day, four-day work week for grounds maintenance personnel during spring and summer months. Property Management cannot currently validate the presumed productivity enhancement of its seasonal, four-day, ten-hour work schedule, however. Property Management should identify metrics and implement a methodology to gauge whether or not productivity improvements result from the use of a seasonal four-ten-hour-day workweek for grounds maintenance personnel.

Roughly a decade ago, the Baltimore County Administration transferred FTEs, equipment, supplies, materials, and maintenance-related facilities from Recreation and Parks (R&P) to a newly created Division within the Office of Budget and Finance (OBF) entitled Property Management (PM). Reportedly, the reorganization was prompted by the then-Administration's belief that moving Recreation and Parks' "Special Forces" unit to Property Management would result in the more efficient use of the unit's abilities and resources. However, due to personnel changes since the reorganization, the rationale behind the reorganization has not been fully validated. The loss of experienced Recreation and Parks personnel and reductions in authorized FTEs in the years following the reorganization had the effect of hampering PM's ability to provide services to, and on behalf of Recreation and Parks when it should have been building a new grounds maintenance unit, integrating formerly disparate functions, and ramping up its ability to provide and manage services that Recreation and Parks had, until then, provided for itself. The review team presents three hypothetical scenarios with alternative arrangements for staffing and departmental responsibilities for grounds maintenance functions that could improve Recreation and Parks' ability to fulfill its mission and goals, and serve the public: these alternatives, their costs, and potential benefits, are analyzed in this section.

Finally, the Permits, Approvals, and Inspections (PAI) Development Management Division utilizes a 200-page Zoning Policy Manual that has not been updated since 1992. The Policy Manual cannot currently be accessed online because of its size and its antiquated typewriter typeface. PAI should develop an updated Policy Manual and make it publicly available.

4.3.1 UNIFY FLEET MANAGEMENT FUNCTIONS

Combine the management of the Office of Budget and Finance's Vehicle Operations and Maintenance (VOM) and the Department of Public Works and Transportation's Equipment Maintenance (commonly referred to as EOM) into a unified Fleet Management entity.

Findings

Baltimore County divides the ownership, management, maintenance, repair, acquisition, and disposal of its vehicles and equipment into two disparate agencies: Vehicle Operations and Maintenance (VOM), under the Office of Budget and Finance, and Equipment Maintenance, commonly referred to as "EOM," which is part of the Department of Public Works, Bureau of Highways and Equipment Maintenance.

VOM owns and manages approximately 1,400 vehicles consisting of sedans, SUVs, police vehicles, pickup trucks, passenger and cargo vans, and minibuses. VOM provides services to virtually all county agencies and operates three vehicle Service Centers located in Essex, Hunt Valley, and Randallstown. The County Police, who operate approximately 800 VOM-owned vehicles, are VOM's largest customer.

EOM owns and manages approximately 3,500 units of equipment, of which 450 are heavy-duty vehicles including fire trucks, on- and off-road construction vehicles, library, and highway maintenance vehicles. The remainder of its inventory ranges from handheld, powered grounds maintenance equipment, to riding lawnmowers, emergency and temporary generators, and non-

powered on- and off-road vehicles (e.g., trailers). EOM operates a large, centralized truck and heavy equipment maintenance facility in Glen Arm. EOM's largest customers are the Department of Public Works & Transportation and the Fire Department.

Although VOM and EOM own and operate different types of fleets based on vehicle weight, capacity, and function – and although both use typical fleet management practices – VOM and EOM as the County's fleet managers do not share resources, knowledge, management or financial systems, or a common set of best-practice policies and procedures. VOM and EOM endeavor to provide fleet services in the best interest of their customers and Baltimore County, but both operate independently and compete for limited county resources.

Benchmarks and Best Practices

Most Maryland counties have a unified fleet services agency to manage all county-owned vehicles. Cecil County is an exception, outsourcing its fleet management services. The table below lists Maryland Counties and their relevant fleet management structures and functions for comparison purposes:

Maryland County	Fleet Management Entity	Role
Anne Arundel County	Central Services, Fleet Administration Division	Manages all county vehicles.
Calvert County	Fleet Management Division	Manages all county vehicles.
Carroll County	Bureau of Fleet Management/ Warehouse Operations	Maintains all county vehicles
Cecil County	Fleet management provided by a contractor	Manages all county vehicles
Frederick County	Fleet Services Department	Manages all county vehicles. The department also manages fuel inventory and usage.
Montgomery County	Division of Fleet Management Services	Manages all county vehicles
Prince Georges County	Fleet Management Division	Manages all county vehicles
St. Mary's County	Department of Public Works & Transportation, Fleet Management	Manages all county vehicles
Washington County	Fleet Management	Manages all county vehicles and smaller equipment. Manages automated fueling services.
Worcester County	Department of Public Works, Fleet Management	Manages all county vehicles and smaller equipment

Benefit to the County

Merging the management of VOM and EOM into a single operating unit would benefit Baltimore County in the following ways:

- By fostering the adoption of best, and unified fleet management operating practices;
- By enabling the implementation and development of a unified fleet management information system;
- By creating a shared vision of operating processes, procedures, and standards;
- By enabling the sharing of operational experience, human and physical resources.

Unifying VOM and EOM would also provide a single point of contact for client agencies, particularly the Department of Public Works, the Fire Department, and Libraries.

A unified fleet management organization would be better positioned to adopt standard operating practices designed to maximize customer service and minimize vehicle life-cycle cost. Benefits to Baltimore County would accrue in the following areas:

- Development, sharing and implementation of best-practice fleet management expertise;
- Elimination of silos and barriers to the unfettered sharing of talent, expertise, and information;
- Development and implementation of advanced standard operating procedures and metrics designed to minimize vehicle lifecycle cost;
- Potential reduction in the number of FTEs by combining administrative responsibilities;
- Development of enhanced analytical expertise applied to all fleet metrics;
- Development and implementation of transparent, predictable vehicle replacement strategies.

Separately, VOM and EOM have developed operating strategies and systems that they each see as best suited to their vehicles, mission, and customers. Each would bring many positive attributes to a combined organization, but, together, they would be better positioned to adopt best-practices, innovate, and control fleet lifecycle costs.

Implementation Guidance

- Analyze existing VOM and EOM organizational structures and create a new organizational structure that combines management, administrative, and financial functions while separating operating areas into logical groups: Light and medium duty vehicles, heavy trucks and construction vehicles, powered and unpowered equipment.
- Define tentative position and personnel assignments to the new organizational structure.
- Define budgetary changes required to accommodate the VOM and EOM reorganization.
- Create a strategy, plan, and schedule to implement and operationalize the new organization structure while adopting minimally revised processes and procedures.
- Create, introduce, and adopt legislation to facilitate the reorganization.
- Execute the defined implementation plan.
- Begin the process of creating annual strategic plans, identifying fleet management best-practices, creating organization-wide standard operating procedures, implementing revised policies and procedures, and measuring and analyzing metrics intended to minimize vehicle and equipment lifecycle cost and enhance customer service.
- Although this recommendation encompasses the creation of a unified fleet entity, it does not include the physical relocation of any operating units at this time.

4.3.2 PROPERTY MANAGEMENT SERVICE DELIVERY

The Property Management Division should continue to enhance its management, organizational, and operational competencies on the basis of objective evaluations of services, spend, work order data, asset condition, and customer feedback to further improve service delivery and strengthen the value of information it brings to Baltimore County's annual budgeting process.

Findings

Property Management was formed in FY2012 as a division under the Office of Budget and Finance through a reorganization that consolidated FTEs and operational responsibilities from disparate County agencies. Reportedly, during Property Management's early years, its ability to deliver services was reportedly hampered by the departure of experienced personnel, significant year-to-year reductions in authorized positions, personnel reclassifications, management changes, and under-developed policies, procedures, and business processes. In the years that followed, and especially during the last few years, the division's management has worked to address many of these challenges and significantly improved customer satisfaction and the services it provides to County agencies. However, entrenched, institutional impressions are difficult to dispel, and facility management/facility maintenance agencies are magnets for complaints when resources are limited and a significant portion of service delivery is relatively personalized.

Property Management responsibilities:

- Facilities: Repairs, maintenance/preventive maintenance, environmental control, custodial services, facility planning, upgrades, design, construction management
- Tenant agency management: Space allocation and design, agency moves, renovations, decoration (including painting and picture-hanging)
- Grounds maintenance: Mowing, bed maintenance, snow removal, parking lots, paving, sidewalks
- Leased property: Planning, acquisition, disposal, lease management
- Facility planning: Needs assessment, design, bidding, construction management
- Contractual services: Goods and service RFP/RFB specifications and contractual requirements
- Contract and contractor management
- Energy management and the "greening" of County facilities
- Warehousing, goods distribution, and countywide delivery services

Property Management owns, maintains and leases:

- 740 County facilities, structures, pavilions, comfort stations, pump stations, and other assets totaling 5.8 million square feet
- 68 leased properties (office, warehouse, storage, and open space) with a combined annual rent of approximately \$3.1 million

PROPERTY MANAGEMENT FY2021 BUDGET

Authorized Positions Full Time	180
Authorized Positions Part time	63
FTEs	240.79
Salaries Wages and Fringe Benefits	\$13,119,027
Salaries Wages and Fringe Benefits for Recreation and Parks Grounds Maintenance FTEs (included in the \$13,119,027 appropriation)	\$741,000
Rent and Utilities	\$10,691,027
Rent (Included in the Rent and Utility appropriation)	\$3,137,478
Utilities (Included in the Rent and Utility appropriation)	\$7,553,549
Contractual Services	\$10,755,966
Supplies and Materials	\$1,836,628
Total Annual Appropriation	\$36,785,148
Annual Rental Expense Included in Total Appropriation	\$3,137,478
Less Salaries and Wages for 13 R&P Grounds Maintenance FTEs	\$741,000
Total Annual Expenditure for Owned Facilities and Grounds	\$32,906,670
Total Square Feet Managed	5,814,592
\$ Per Square Foot (Including Grounds Maintenance except Recreation and Parks)	\$5.66 *

Source: Baltimore County Data, 2021.

*Note: Although the \$5.66 per square foot calculation removes the annual appropriation for leased space, it does not segregate the cost of project design and construction services, warehousing, or the delivery of supplies to County agencies. Therefore, the County's actual annual dollar per-square-foot appropriation for operations, repair, and maintenance is actually less than \$5.66.

Although there are many factors that affect the comparison of per-square-foot facility operation, maintenance and repair budgets (e.g., average age, size, condition, type of construction, climate, accumulated deferred maintenance, etc.), it is possible to compare relative expenditures among public and private-sector entities. The following chart illustrates the FY2022 State of Maryland Facilities Management budget:

Authorized Positions	197
Salaries Wages and Fringe Benefits	\$16,236,640
Fuel and Utilities	\$12,806,086
Motor Vehicles Operations	\$882,443
Contractual Services	\$19,956,081
Supplies and Materials	\$870,359
Equipment Replacement	\$105,314
Equipment Additional	\$55,125
Total expenditure	\$52,513,982
Total Sqft Managed	6,300,000
\$ per Sqft	\$8.34 *

Source: Baltimore County Data, 2021.

*Note: Maryland's FY2022 Facility Management budget and the calculated annual per-square-foot facilities appropriation does not include FTEs or expenditures for leased property, project design and construction services, warehousing, or the cost of delivering supplies to external agencies.

Work Order System

PM uses Maintstar and Crystal Reports to manage and analyze workorder information entered by tenant agencies, PM Customer Service personnel, PM maintenance, and PM management staff. Although Maintstar and Crystal offer robust information management and analysis capabilities, Property Management acknowledges that it is not currently using the systems and tools to its best advantage. However, over the last few years PM has, and continues to evaluate the form and content of information entered into Maintstar and ways in which the information can best be used to evaluate customer service, expenditures, facility condition, maintenance and repair trends, and the need for future capital improvements. PM expects to eventually equip all of its maintenance staff with tablets or laptops to enable remote, on-site access to Maintstar and online information pertaining to equipment maintained and repaired. The intent is to improve the efficiency and accuracy of data entered into Maintstar while providing the information needed to accurately diagnose and work on increasingly complex systems and equipment.

Customer Service

Property Management has integrated customer service personnel into its business model and operating procedures. Customer service personnel act as a liaison with informed agency contacts; they evaluate service requests and create, edit, and route work orders to appropriate PM personnel. Customer service liaisons respond to requests for service-related information and provide status updates to tenant agencies. Conceptually, an engaged customer service group should result in the more efficient allocation of maintenance and repair resources and improved overall tenant-agency satisfaction. While agency surveys have demonstrated significant improvement in customer service over the last few years, the division's management acknowledges that improvements are warranted and will be implemented by evaluating internal business processes and means of communicating with tenant-agencies. Property Management plans to continue enhancing the way it provides information to tenant-agencies, plans to begin or expand conducting periodic face-to-face performance review meetings with tenant-agencies, and will provide enhanced training to its agency contacts.

Financial Management

Property Management is not currently able to analyze the aggregate cost of completed work orders, or accumulate and analyze expenditures by facility, service category, or tenant-agency. This hampers its ability to spot anomalous expenditures, identify maintenance and repair trends, or conduct root cause analysis. Property Management is aware of these limitations and attempts to use the resources and tools at its disposal to manage assets and expenditures. However, the division's management is optimistic that "Workday," the County's soon-to-be-implemented ERP solution, will address many current financial management deficiencies and support the more robust availability and use of critical spend data.

Energy Management

Property Management is fully integrated into the implementation of Baltimore County sustainable energy initiatives and works closely with the Sustainability Office to manage and reduce energy consumption in its facilities, reduce the cost of energy purchased⁵⁹³, incorporate LEED design principles into new construction projects,⁵⁹⁴ and develop photovoltaic energy production capabilities on County owned buildings and parking lots. Property Management and the Sustainability Office are in the process of awarding a Guaranteed Energy Savings Agreement⁵⁹⁵, a budget-neutral way to reduce facility energy consumption and greenhouse gas emissions through the use of future energy expenditure savings and are investigating the appropriate use of this methodology in a wider range of facilities.

593 <https://www.baltometro.org/member-portal/regional-purchasing-database/supply-electrical-energy>

594 <https://www.usgbc.org/help/what-leed>

595 <https://www.energy.gov/eere/slsc/energy-savings-performance-contracting>

Performance Questions

An October 2019 program review reported, but did not fully document, instances of deficient Property Management operational, supervisory, and management performance. The reported performance shortcomings include the inadequate or improper supervision of staff and contractors, contractor misuse of County equipment, poor PM staff morale, inequitable treatment of staff by management, inflexible work rules, and unproductive relationships with client agencies.

In its meetings with Property Management personnel, the review team was able to discuss a number of these reported instances, however, because the events described in the 2019 report were specific personnel issues or one-time events, and because of the time that has elapsed since being reported, it was not feasible to investigate, confirm the details of, or draw larger conclusions from these reports.

Many, but not all, of the underlying problems that preceded the 2019 reports of inadequate management, supervisory and operational performance appear to have been resolved. However, Property Management remains hampered by issues including the inability to attract and retain experienced personnel, reductions in authorized positions and FTEs, slim annual operating budgets, and increased reliance on contractual services.

Implementation Guidance

Property Management should:

1. Continue work started during the current County Administration to review management practices, policies, procedures, and ways to continue building better relationships with tenant-agencies.
2. Conduct a countywide facilities assessment survey as recommended by Public Works, LLC in a separate Office of Budget and Finance Whitepaper.
3. Create “blue-sky” information analysis scenarios based on the potential capabilities of Maintstar and Workday; evaluate the planned Workday implementation to determine the extent to which “blue-sky” data analysis scenarios will, and can be supported; propose short and long-term Workday enhancements to enable valuable, but currently unsupported information analysis methodologies.
4. Formalize the use of the annual, cost-benefit analysis of in-house vs. contracted services for lawn mowing, building maintenance, grounds maintenance, custodial, and other services. Incorporate the results of the analysis into recommendations that shape annual budget requests.
5. Continue the process of developing employee skills and abilities through formal training and participation in professional facility management organizations (such as the International Facilities Management Association (IFMA) Public Sector Facilities Council⁵⁹⁶ or the Building Owners and Managers Association International (BOMA), for instance.)⁵⁹⁷
6. Whether or not required by edict, prepare an annual strategic plan which sets forth Property Management’s goals and objectives, and identifies key performance indicators (KPI) and key performance measures (KPM). (Note that KPIs set forth organizational goals and objectives. e.g., the average time required to close a work order, while KPMs set forth KPI measurements of success, e.g., the organization strives to close all work orders within 10 working days of their creation.)
7. Prepare an end of fiscal-year annual report that summarizes Property Management’s accomplishments, challenges, and plans for the next fiscal year, and includes an assessment of KPIs and KPMs.
8. Continue the process of enhancing Property Management’s proficiency in the preparation of annual operating and capital budget requests; enhance the compilation of critical planning and risk mitigation information for County resource allocation decisions.

⁵⁹⁶ See <https://psc.ifma.org/>

⁵⁹⁷ See <https://www.boma.org/>

Finally, Property Management should strive to develop and institutionalize qualities embodied by the highest performing facilities management/facilities maintenance organizations:

- Use strategic planning to effect goals and objectives.
- Identify, track, and analyze key performance indicators and key performance measures
- Develop and maintain the highest standards of leadership.
- Examine decisions through the lenses of organizational performance, service quality, sustainability, human factors, fiscal responsibility, and customer service.
- Understand and manage organizational, operational, and fiscal risk.
- Seek input from and share decision-making rationale with all levels of staff.
- Foster collaborative problem solving.
- Cultivate individual and organizational critical thinking and problem-solving abilities.
- Develop and maintain frequent, multiple, open lines of communication with customers.
- Research, investigate, understand, and embrace new and developing energy, information, management, and building system technologies.
- Build organizational culture that elevates qualities required for individual and organizational success: Honesty, skills development, work-ownership, pride in accomplishment, responsibility, and communication.

4.3.3 PROPERTY MANAGEMENT SEASONAL WORKWEEK

The Office of Budget and Finance, Property Management Division, should identify metrics and implement a methodology to gauge whether or not productivity improvements result from the use of a seasonal four-ten-hour-day workweek for grounds maintenance personnel.

Findings

The Office of Budget and Finance, Property Management implements a ten-hour-day, four-day work week for grounds maintenance personnel during spring and summer months. The rationale behind the change from a five-day, eight-hour-day workweek is:

- Additional daylight hours during the spring and summer enable expanded hours of productive, outdoor work.
- The beginning and end of each workday requires time to organize, prepare, and return tools, equipment, and supplies. According to Property Management, reducing the workweek from five to four days adds approximately forty-five minutes of productive worktime per week.
- Grounds maintenance work is weather-dependent; rain and the chance of severe weather can make it impossible to complete scheduled work. Because Property Management has the ability to modify weekly work schedules (which four out of five days are workdays) on the basis of weather forecasts, overtime can be avoided or minimized.
- Grounds maintenance personnel generally like the four-day workweek and appreciate the extra day off it affords them during spring and summer months.

Theoretically, a seasonal, ten-hour, four-day workweek for grounds maintenance personnel should result in higher productivity and reduced overtime. However, the theoretical improvement in productivity may be affected by the following:

- Unanticipated inclement weather and inaccurate weather forecast can limit ability to reschedule personnel prior to their arrival for a ten-hour workday.
- Whether worker productivity remains at a constant level for an entire ten-hour workday despite difficult working conditions (e.g., high temperature, high humidity).
- The suitability of an aging workforce to ten-hour workdays.
- Reliance on precise daily and weekly work-schedules, predictable site-to-site travel times, and reliance on minimal equipment breakdowns.

Property Management cannot currently validate the presumed productivity enhancement of its seasonal, four-day, ten-hour work schedule.

Implementation Guidance

Property Management should take the following steps to identify and collect data to underpin the analysis of the seasonal four-day workweek:

- Select a set of relevant metrics to support a comparison in productivity between grounds maintenance personnel assigned to four-day, or five-day workweeks. These metrics may include the number of weekly work sites completed, total weekly acres or areas mowed or maintained, weekly overtime hours, employee sick-days, hours lost to inclement weather, or others.
- Select and implement a methodology to support the collection of data. Because fall/winter work tasks are very different from spring/summer tasks, Property Management will likely need either to divide its grounds personnel into two groups, one on a five-day workweek and the other on a four-day workweek, or to divide the usual four-day workweek season into two segments, one a four-, and the other a five-day workweek to enable the collection of appropriate data.

Based on a comparison of metrics data, Property Management will have the information to either validate or disprove the assumption that grounds personnel are more productive if assigned to a ten-hour, four-day workweek during spring and summer months. Property Management will then also have the data to predict the cost impact of implementing either a five-day or four-day spring/summer workweek.

4.3.4 GROUNDS MAINTENANCE SERVICES

Implement changes in the way grounds maintenance services are provided to and on behalf of the Department of Recreation and Parks that improve the Department's ability to meet its mission and goals and provide services to the public.

This options paper examines three potential alternative scenarios that could shift the provision of either none, some, or all grounds maintenance services from the Office Property Management to Department of Recreation and Parks.

Background and Findings

In or around 2011-2012, the Baltimore County Administration transferred FTEs, equipment, supplies, materials, and maintenance-related facilities from the Department Recreation and Parks (Recreation and Parks) to a newly created Division within the Office of Budget and Finance (OBF) called Property Management. Reportedly, the reorganization was prompted by the then-Administration's belief that moving Recreation and Parks "Special Forces" unit to Property Management would result in the more efficient use of the unit's abilities and resources. However, due to personnel changes since the reorganization, the rationale behind the reorganization has not been entirely characterized or validated.

The 2011-2012 reorganization resulted in the creation of the Property Management and the transfer of Recreation and Parks' grounds maintenance capabilities to the new division of OBF. In the aftermath of the reorganization, a sizeable number of former Recreation and Parks personnel left Property Management; this had the effect of hampering its ability to provide services to, and on behalf of Recreation and Parks when it would otherwise would have been building a new grounds maintenance unit, integrating formerly disparate functions, and ramping up its ability to provide and manage services that Recreation and Parks had, until then, provided for itself.

The 2011-2012 reorganization was initiated and completed without well-defined organizational relationships, roles, and responsibilities. This resulted in a suboptimal relationship between Property Management, Recreation and Parks, and other agencies, from which FTEs and operational responsibilities had been transferred.

Although many of the organizational challenges resulting from the 2011-2012 reorganization have been resolved, Recreation and Parks cites its pre-reorganization capabilities and maintains that it remains best suited to manage and maintain the County's recreational facilities and parks. A review of the current organizational structure, Property Management operating practices, and changes in authorized grounds maintenance positions between FY2012 and FY2022 show a significant reduction in grounds maintenance capabilities and an increase in the use of contracted grounds maintenance services since the 2011-2012 reorganization. This supports Recreation and Park's assertion that the County has too few grounds maintenance FTEs and relies too heavily on contract services.

Recreation and Parks cites the following issues as representative of inadequate maintenance service related to the current organizational structure and operating practices. Property Management counters the noted issues, and due to the general nature of Recreation and Park's assertions, some statements cannot be verified or put into a larger context:

- Property Management does not fully understand the management, operation, and maintenance requirements of recreational facilities and parks.
- Work is often performed by contractors without the necessary skills or professionalism to provide the requisite services; this results in an incomplete or unacceptable work product.
- The Property Management work-request process creates bottlenecks and causes undue delay and scheduling issues for Recreation and Parks.
- Recreation and Parks work requests are often subject to an unexpected determination of financial responsibility by Property Management. Although the Office of Budget and Finance pre-approves expenditures to be made by Property Management against the Recreation and Parks budget, when the expenditure is made, it is completed without the prior approval of Recreation and Parks.
- Since 2011-2012 reorganization, Property Management has shifted a significant portion of work performed on behalf of Recreation and Parks to contractors. Recreation and Parks maintains that the contractors do not have the appropriate skills and that they are not adequately supervised by PM personnel. Together, inadequate contractor skills and supervision result in otherwise avoidable costs, project delays, scheduling conflicts, and have a negative impact on Recreation and Parks operations.
- Recreation and Parks has lost the ability to control relatively small issues such as grass cutting height, mowing frequency, and the ad-hoc repair of benches, picnic tables, fences, and other small assets.

Recreation and Parks also cites the following operating and control issues resulting from 2012 transfer of FTEs to Property Management:

- Recreation and Parks does not now have sufficient personnel or vehicles to manage operations unrelated to maintenance and repair tasks (e.g., special events and recreational programs).
- Trash removal is performed by the Department of Public Works, Bureau of Solid Waste, which may assign a lower that requested priority to work critical to Recreation and Parks.
- Recreation and Parks does not have sufficient personnel to enforce rules and regulations and remedy encroachment and property misuse in its parks and on its properties.

The 2011-2012 Reorganization and Changes in Authorized Grounds Maintenance Positions Between FY2012 and FY2022:

In the nine years since the reorganization, Property Management has:

- Assumed responsibility for grounds maintenance tasks once performed by Recreation and Parks and other County agencies.
- Managed the transfer, elimination and creation of newly classified grounds maintenance positions that resulted in a smaller workforce.

The following observations were drawn from an analysis of the historical data on authorized positions transferred from Recreation and Parks to Property Management, the creation of new Property Management grounds maintenance positions, and the elimination of other positions between FY2012 and FY2022. In FY2012, 119 positions (119 FTEs) were transferred from Recreation and Parks to Property Management (organizational code 2504).

1. Of the 119 transferred positions, 116 provided direct and indirect grounds maintenance services for Recreation and Parks.
2. Between FY2012 and FY2022, 56 positions transferred to Property Management in FY2012 were eliminated or transferred to other organizational units.
3. As of FY2022, a total of 59 Property Management positions provides direct and indirect grounds maintenance services to Recreation and Parks, Property Management grounds and facilities, and other County agencies.

The following table titled **Calendar 2019 Work Orders Summary** summarizes calendar 2019 workorder data for work performed by Property Management on behalf of Recreation and Parks. The table shows the number of workorders, work order hours recorded, and the number of FTEs that may have been required to compete the work. Although the data as presented does not include contractual services and, based on work order hours recorded, may not accurately reflect the actual number of FTEs involved in the provision of services, it can be used to estimate the number of Property Management FTEs engaged in the provision of services to Recreation and Parks. The FTE calculations are qualified below:

- The workorder hours recorded may or may not include travel time to and from Recreation and Parks' widely distributed worksites. Therefore, the calculated number of FTEs (7.84) required to provide 16,395 service hours is likely to significantly undercount the actual number of FTEs
- Due to the wide distribution of Recreation and Parks worksites, for the purpose of this analysis a second FTE calculation assumes that the total number of hours required to provide maintenance services is double the number of "work hours recorded" ($16,305 \times 2 = 15.68$ FTEs)

CALENDAR 2019 WORK ORDERS SUMMARY

Work Order Category	Number of Work Orders	Work Order Hours Recorded
Bed Maintenance	344	5,476
Natural Turf	340	770
Mowing	8510	4,242
Playground	1452	3,066
Ball Diamond	4797	0
Artificial Turf	99	432
Other GM	1233	2,320
Total Hours		16,305
Person Work Hours Per Year (40-Hour Week)		2,080
FTEs Required Using 16,305 Work Hours		7.84
FTE Requirement Assuming 32,610 Work Hours		15.68

Conclusions

1. The 2011/2012 reorganization created Property Management and shifted authorized positions from Recreation and Parks and other agencies to the new organizational unit.
2. Property Management was designated as the County's central facility and grounds maintenance unit. As such, it assumed responsibility for tasks that were once performed by many County agencies including Recreation and Parks, Aging, and others.
3. Between FY2012 and FY2022, Property Management's grounds maintenance unit (organizational code 2504) lost a total of 56 authorized positions through attrition, position reductions, and transfers to other organizational units; there were no changes in operational responsibilities.
4. The use of contracted grounds maintenance services significantly increased between FY2012 and FY2022.
5. Calendar 2019 workorders data indicates that approximately 16 Property Management FTEs provided grounds and other maintenance services to Recreation and Parks. However, the calculations that derived the number of FTEs (16) include assumptions that may require additional validation.

Benchmarking Recreation and Parks Authorized Positions and FTEs:

Recreation and Parks maintains that the transfer of 119 authorized positions (119 FTEs) to Property Management in FY2012 hampered its ability to provide quality services to those who use its facilities, and degraded the maintenance of County parks, recreational areas, ballfields, and playgrounds. Recreation and Parks has expressed concern that even in the event of a reversal of the 2011/2012 reorganization and the transfer or addition of 119 new, authorized positions (the number of positions transferred to Property Management in FY2012), Recreation and Parks may or may not be sufficiently staffed to maintain its current assets and provide quality services to County residents.

Public Works LLC used staffing and FTE data compiled by the National Recreation and Parks Association (NRPA) to compare Baltimore County Recreation and Parks staffing levels with similar jurisdictional organizations.^{598, 599} The data supports FTE calculations on the basis of total jurisdictional population and population density. The data also supports comparisons with median, lower, and upper quartile FTE calculations.

⁵⁹⁸ <https://www.nrpa.org/publications-research/research-papers/agency-performance-review/staffing/> and <https://www.nrpa.org/siteassets/nrpa-agency-performance-review.pdf>

⁵⁹⁹ Note that the NRPA staffing and FTE data include maintenance positions.

The following Baltimore County metrics were used in conjunction with the NRPA data to calculate the FTE complement of recreation and parks-type organizations:

BALTIMORE COUNTY METRICS USED IN HYPOTHETICAL COMPARISONS WITH PEER COUNTIES

Population	826,392
Population Units of 10,000	83
Area: Square Miles	598
Average Population Density per Square Mile	1,381
Recreation and Parks FY2022 FTEs	150
Maintenance FTE Transferred to Property Management as Part of the 2011 /2012 Reorganization	119

The following observations are based on an analysis of data provided by Baltimore County and the NRPA data.

- The following staffing calculations and comparisons use Baltimore County total population, and a theoretical Recreation and Parks FTE count of 269 (150 FY2021 FTEs + 119 FY2012 transferred FTEs = 302):
 - Recreation and Parks would have 46 more FTEs than similar organizations with NRPA Lower Quartile staffing levels.
 - Recreation and Parks would have 384 fewer FTEs than similar organizations with NRPA Upper Quartile staffing levels.
 - Recreation and Parks would have 161 fewer FTEs than similar organizations with NRPA Median staffing levels.

Note that this comparison is based on how Recreation and Parks would compare to similar organizations *if* the 2011 reorganization were to be reversed and 119 FTEs were to be transferred to Recreation and Parks. The review team notes and acknowledges that in this hypothetical scenario, Recreation and Parks would be understaffed relative to median NRPA recommended staffing levels based on population.

- The following staffing calculations and comparisons are based on Baltimore County population count, population density, and a theoretical Recreation and Parks FTE count of 269 (150 FY2022 FTEs + 119 FY2012 transferred FTEs = 269):
 - Compared to Jurisdictions with a population density of less than 500 residents per square mile, Recreation and Parks would have 152 fewer FTEs than NRPA performance data would indicate.
 - Compared to Jurisdictions with a population density of between 500 and 2,500 residents per square mile, Recreation and Parks would have 590 fewer FTEs than NRPA performance data would indicate.
 - Compared to an average, population density-based FTE count (7.75 FTEs per 10,000 residents), Recreation and Parks would have 371 fewer FTEs than NRPA performance data would indicate.

Note that this hypothetical comparison is based on how Recreation and Parks would compare to similar organizations *if* the 2011 reorganization were to be reversed and 119 FTEs were to be transferred to Recreation and Parks. The review team notes and acknowledges that in this scenario, Recreation and Parks would be understaffed relative to NRPA recommendations.

NRPA provides the average distribution of FTEs among the following work categories: Operations/Maintenance, Programming, Administration, Capital Development, and Other. The chart on the following page shows the NRPA average distribution of FTEs and the actual distribution of Recreation and Parks FY2022 FTEs among the noted work categories:

NRPA AVERAGE DISTRIBUTION OF FTES AND DISTRIBUTION OF BALTIMORE COUNTY RECREATION AND PARKS FTES IN SELECTED WORK CATEGORIES

NRPA Average Distribution of FTes by Work Category		Recreation and Parks Percent Distribution of FTes based on FY2022 FTes (150)	Recreation and Parks Number of FTes by Work Category Based on FY2022 FTes (150)	Recreation and Parks Percent Distribution of FTes Based on Work Category and a Theoretical Count of 269 FTes (150 FY2022 FTes Plus 119 Positions Transferred to PM)	Recreation and Parks Number of FTes by Work Category Based on a Theoretical Count of 269 FTes (150 FY2022 FTes Plus 119 Positions Transferred to PM)
Work Category	% Total FTes	% Total FTes	Total Number of FTes	% FTes by Work Category	Total Number of FTes by Work Category
Operations/ Maintenance	45%	13.1%	19.67	50.8%	136.67
Programming	31%	55.4%	83.13	30.9%	83.13
Administration	18%	30.8%	46.2	17.9%	48.2
Capital Development	3%	0.7%	1	0.4%	1
Other	3%	0%	0	0%	0

The following observations regarding the distribution of FTes among the NRPA work categories can be derived from the preceding chart:

1. The percent distribution of Recreation and Parks FTes among NRPA work categories using Recreation and Parks FY2022 personnel data does not paint an accurate picture. Recreation and parks-type organizations typically include all operations and maintenance FTes in data compiled by the NRPA.
2. Using a theoretical Recreation and Parks FTE count of 269 (150 FY2022 FTes Plus 119 Transferred Positions), the comparison between NRPA FTE work-category distribution data and the distribution of Recreation and Parks FTes is very close.

Conclusions

Using a theoretical FTE count of 269 (150 FY2022 FTes plus 119 positions transferred to Property Management in FY2012) and NRPA staffing data, Baltimore County Recreation and Parks would have fewer FTes than most similar organizations under the potential alternative scenario examined. However, FTE data reported by the NRPA may not be directly applicable to Baltimore County for the following reasons:

- FTes calculated on the basis of total population and population density may not be accurate due to the mix of urban and rural communities of Baltimore County.
- FTE totals reported by similar recreation and parks organizations may include staff with duties similar to those performed in Baltimore County by Recreation and Nature Councils, the Department of Aging, and Department of Public Works and Transportation Bureau of Solid Waste Management.
- 41% of recreation and parks-like organizations operate senior centers. The FTes required to operate and provide senior center programming would be included in the NRPA data, but not in Recreation and Parks authorized position count.
- If the 119 FTes transferred to Property Management are added to the FY2022 Recreation and Parks FTE total (150), one can conclude that the distribution of FTes among NRPA-defined work categories is very similar to the average distribution reported by other recreation and parks-type organizations.

Summary of Findings

1. The 2011-2012 Baltimore County reorganization created Property Management and moved 119 authorized positions from Recreation and Parks to PM.
2. The reorganization stripped Recreation and Parks of its grounds maintenance capabilities; functionality typically retained by recreation and parks-like jurisdictional entities when other maintenance functions performed by centralized, property management-like units.
3. The reorganization initially disrupted the delivery of grounds maintenance services to Recreation and Parks and hindered Recreation and Parks' ability to perform tasks central to the operation of parks and recreational facilities. However, in the years since the reorganization many operational issues have seemingly been largely resolved. The scenarios presented in this propose potential solutions to the remaining organizational challenges, which could be resolved through a Memorandum of Understanding and Shared Service- Level Agreement and/or the transfer of certain staff and responsibilities from Property Management to Recreation and Parks.
4. The 2011-2012 reorganization had the following consequences:
 - It transferred responsibility for most Countywide grounds and facility maintenance services to Property Management.
 - It reportedly resulted in the loss of many former experienced Recreation and Parks grounds maintenance personnel who were transferred to PM as part of the reorganization.
 - It resulted in the loss or reclassification of all but 2 of the 119 positions transferred from Recreation and Parks to PM (117 maintenance-related, and 2 administrative positions).
 - Between FY2012 and FY2022, the aggregate number of Property Management grounds maintenance personnel decreased by 56 FTEs.
 - It increased the use of contractual services to for grounds maintenance work that had previously been performed by Recreation and Parks FTEs.
5. The reorganization was implemented without sufficient consideration of business processes, workflow, or communications required to ensure efficient interaction between Property Management and its client agencies (e.g., Recreation and Parks).
6. The reorganization resulted in an adversarial relationship between Property Management and Recreation and Parks. While the relationship between the two agencies has improved over the last few years, ongoing disagreements remain an impediment to the efficient delivery of services and use of resources, and there is not an adequate system in place for resolving conflicts.
7. Except for fostering cooperation and the negotiation and acceptance of a Memorandum of Agreement and Service Level Agreement between Property Management and Recreation and Parks, recommended strategies to change the method of grounds maintenance service delivery will require additional FTEs and new expenditures.
8. Using staffing data compiled by the *National Recreation and Parks Association (NRPA)*, Recreation and Parks has fewer FTEs than most jurisdictional recreation and parks-type entities.⁶⁰⁰ This may in part reflect the fact that certain functions typically carried out by Recreation and Parks organizations are managed by other agencies in Baltimore County including Property Management, Department of Aging, and Department of Public Works and Transportation Bureau of Solid Waste Management.
9. Using staffing data compiled by the *National Recreation and Parks Association (NRPA)*, Recreation and Parks' distribution of FTEs among NRPA-defined work categories is on par with similar organizations.
10. Calendar 2019 Property Management workorder data indicates that approximately 16 PM FTEs were required to provide direct, not contractual, maintenance and other services to Recreation and Parks; most work orders are completed by contractual agreements.

600 Available at: <https://www.nrpa.org/publications-research/research-papers/agency-performance-review/staffing/> and <https://www.nrpa.org/siteassets/nrpa-agency-performance-review.pdf>

Options: Three Scenarios

Typically, Public Works LLC proposes operational or organizational changes to reduce cost and improve or enhance efficiency and effectiveness. Although proposed recommendations usually require a modicum of investment, they are accompanied by calculated savings projected over a period of five fiscal years.

The following recommendations, presented as Scenario One through Scenario Three, are not typical of those usually proposed by the Public Works LLC review team. With the exception of Scenario One, each recommendation requires an investment in FTEs, equipment, facilities, and other physical resources, but the recommendations do not identify measurable savings, increased efficiencies, or improvements in service to the public. However, among Baltimore County management there is a sense that the 2011-2012 grounds maintenance reorganization did not evolve as hoped or produce the intended benefits for the County and its residents. Therefore, this analysis and the following three scenarios were developed in response to management concerns and provide multiple approaches to change the current mode of operation.

SCENARIO ONE: Property Management and Recreation and Parks rebuild their operating relationship and reform business policies and procedures.

- Property Management and Recreation and Parks negotiate and execute a Memorandum of Agreement and Service Level Agreement to define the roles, responsibilities, obligations, and service expectations of both agencies.
- Property Management and Recreation and Parks jointly analyze existing business rules, process, and workflows with the objective of simplifying tasks, improving inter-agency communication and dispute resolution, accelerating task completion, enhancing contractor management, and implementing the joint preparation of annual operating and capital budgets. The analysis is intended to create new business rules, policies, and procedures and the implementation of an amended Memorandum of Agreement and Service Level Agreement.
- Scenario One does not shift staff resources or responsibilities from one agency to another; rather this option would provide a formal framework for Recreation and Parks and Property Management to interact on a predictable and equitable basis. However, it would not provide direct control to Recreation and Parks over the maintenance of its facilities as desired by that department.

Benefit to the County

- Increased efficiency and effectiveness in Property Management's delivery of services for, and on behalf of Recreation and Parks.
- Streamlined business policies and procedures.
- A joint, objective analysis of current and future resource requirements to be incorporated into the annual budget preparation process.
- Minimal upfront investment.

Implementation Resources

- Management time and resources to negotiate a Memorandum of Agreement and Service Level Agreement.
- Management time and resources to jointly analyze business policies and procedures and formalize changes that may result from the analysis.
- Requests for additional resources that may result from a joint annual budget preparation process.

SCENARIO TWO: Transfer 13 FTEs and a subset of operational responsibilities from Property Management to Recreation and Parks.

- Property Management proposes the transfer of 13 of its 63 grounds maintenance FTEs to Recreation and Parks.⁶⁰¹ The table below identifies the FTEs and tasks that can be transferred from PM to Recreation and Parks.
- Contractual services such as mowing would, for now, remain the responsibility of Property Management. However, Property Management, Recreation and Parks, and the Purchasing Division would discuss the potential division of current master agreement into multiple agreements or implement the joint management of the existing contract.
- Appropriated funds for contractual services to be managed by Recreation and Parks would be moved from Property Management to Recreation and Parks.
- During snow and other weather-related emergencies, Property Management would retain the ability to request the temporary use of Recreation and Parks FTEs for snow removal and other purposes.
- Property Management and Recreation and Parks would be required to implement Scenario One recommendations as part of Scenario Two.

Benefit to the County

- Recreation and Parks would regain control of some grounds maintenance services transferred from Property Management. Services provided to County residents may be improved.
- Recreation and Parks would be better able to manage contractors and contractual services.
- Recreation and Parks may be able to advance the professional development of FTEs transferred to its organization and foster ownership and pride in the delivery of services that support Recreation and Parks' mission.
- Increased efficiency and effectiveness in Property Management's delivery of remaining services for, and on behalf of Recreation and Parks.
- Streamlined business policies and procedures.
- A joint, objective analysis of current and future resource requirements to be incorporated into the annual budget preparation process.

Implementation Resources

- Recreation and Parks will be required to devote time and resources to the management of FTEs transferred from Property Management.
- Recreation and Parks will require vehicles, tools, equipment and supplies. A portion of these resources can likely be transferred from Property Management, but the County will likely have to purchase additional resources to support the 13 FTEs.
- Prior to the 2011-2012 reorganization, Recreation and Parks operated five regional maintenance shops. Of the five, Property Management now uses four; they propose to transfer what was known as the "Special Forces Shop" to Recreation and Parks. Because the Special Forces facility is not currently used, it will likely need some level of investment to make it useable by Recreation and Parks. Also, because the tasks proposed for transfer to Property Management are performed Countywide, the availability of only one grounds maintenance shop may increase aggregate travel time, and result in the need for additional Recreation and Parks grounds maintenance FTEs.
- Management time and resources to negotiate a Memorandum of Agreement and Service Level Agreement.
- Management time and resources to jointly analyze business policies and procedures and formalize changes that may result from the analysis.
- Requests for additional resources that may result from a joint annual budget preparation process.

⁶⁰¹ Property Management proposes the transfer of 13 grounds maintenance FTE to Recreation and Parks. Property Management asserts that it requires its remaining grounds maintenance FTEs to provide services to agencies other than Recreation and Parks. The number of FTEs available for transfer is indicative of the reduction in FTEs between FY2012 and FY2022 and the commensurate increase in the use of contractual services.

EXAMPLE OF POSSIBLE RESOURCE AND RESPONSIBILITY SHIFTS UNDER SCENARIO 2

Task	Scope of Work to be Transferred to Recreation and Parks	Number and Category of FTEs to be Transferred to Recreation and Parks	Notes
Playgrounds	Maintenance, replacements, dig outs, and inspections for all playgrounds, three senior center (Ateaze, Catonsville, Fleming) and Angel Park.	1 Crew Chief 3 Inspectors Total = 4 FTEs	PM requires its remaining FTE's for major repairs and maintenance of swales, parking lots, and snow removal and other weather-related emergencies at County facilities it will continue to operate and maintain.
Natural Turf Fields	Aeration, seeding, fertilization and minor repairs and improvements.	1 Assistant Property Management Specialist 2 (Identify FTEs) Total = 3 FTEs	Property Management will continue to use contractual services for mowing, bed maintenance, and snow removal, but PM may require the addition of a to-be determined number of new FTEs. Patriot Plaza irrigation will remain the responsibility of Property Management.
Artificial Turf Fields	Maintenance, cleaning, gmax testing, and repairs of 31 sites (including BOE sites)		
Irrigation	Irrigation operation, maintenance, and repair		
Ball Diamonds	Maintenance, grooming, rebuilding, and delipping services for 395 ball diamonds	1 Ground Supervisor, 2 Inspectors Total = 3 FTEs	This task impacts only Recreation and Parks. Current contract covers both mowing and ball diamond grooming. The master agreement expired Nov 2022. Recreation and Parks and PM can work with Purchasing Division to bid a new, combined master agreement or separate the work into two agreements.
Management		1 Sr. Prop Management Specialist, 1 Ground Maintenance Supervisor, 1 Office Administrator Total = 3 FTEs	
Other Tasks	Removal of benches, picnic tables, soccer goals, bleachers; sign installation and repair; backboard installation.		
Total FTEs to be Transferred		13 FTEs	

SCENARIO THREE: Reorganize Property Management and Recreations and Parks. Shift all responsibility for Recreation and Parks Grounds Maintenance from PM to Recreation and Parks.

- Transfer 13 of 63 grounds maintenance FTEs from Property Management to Recreation and Parks according to the table shown in Scenario 2 and the schedule developed according to Bullet number 6.
- Property Management and Recreation and Parks define and memorialize all service responsibilities to be moved to Recreation and Parks. The list of services will include those identified in the Scenario Two table and additional services now provided by Property Management on behalf of Recreation and Parks (e.g., beds maintenance, snow removal, tree pruning/removal)
- Recreation and Parks, with assistance from Property Management, identifies the physical resources it requires to assume responsibility for services transferred from Property Management. Physical resources include facilities, vehicles, tools, equipment, supplies, etc.
- Based on the inventory of physical resources developed according to Bullet number 3, Property Management identifies the physical resources it can transfer to Recreation and Parks. Negotiations among Property Management, Recreation and Parks, and the Office of Budget and Finance begins with Property Management's proposal and result in an agreed inventory of physical resources to be transferred from PM and purchased for.
- Recreation and Parks, with assistance from Property Management, defines the number and classification of additional FTEs it will require to assume the responsibilities shifted from PM (see Bullet Number 2).
- Property Management, Recreation and Parks, and the Office of Budget and Finance negotiate and define the schedule for the transfer physical resources and grounds maintenance responsibilities.
- Implement the Scenario One recommendations for maintenance responsibilities not shifted from Property Management to Recreation and Parks (e.g., building maintenance, outdoor lighting maintenance and repairs, capital projects).
- Property Management, Recreation and Parks, and the Purchasing Division work together to identify contractual services master agreements to be rebid or amended to enable Recreation and Parks to assume management of contractors and services used to maintain its facilities.
- Recreation and Parks identifies contractual services that should be supplanted by Recreation and Parks FTEs. Recreation and Parks identifies the benefits and quantifies the FTEs, vehicles, equipment, tools, supplies, and facilities required to replace the identified contractual services. A request for additional FTEs and the purchase of physical resources may be included in the next-fiscal-year budget request.

Benefit to the County

- Recreation and Parks will regain control and resume providing grounds maintenance services for its parks and recreational facilities. Recreation and Parks asserts that it is better able to manage the operation and maintenance of its assets while improving services provided to County residents.
- Recreation and Parks will become fully accountable for its management and operational practices.
- Contractors and contractual services will be better utilized and managed.
- The use of contractual services may be reduced and replaced by better trained and motivated Recreation and Parks FTEs.
- Recreation and Parks will have more control over the professional development of its FTEs and be better able to foster pride in the ownership of services required to support Recreation and Parks' mission.
- Recreation and Parks will be better positioned to implement streamlined business policies, process, and workflows to improve efficiency and accelerate the delivery of services
- Recreation and Parks will become solely responsible for the development and promotion of annual capital and operating budget requests that it believes better reflects the vision and mission of the agency.

Implementation Resources

- Recreation and Parks will be required to devote time and resources to the development of operational, fiscal, and management capabilities lost because of the 2011-2012 reorganization.
- Recreation and Parks will require at least one maintenance facility, vehicles, tools, equipment, and supplies. A portion of these resources will be transferred from Property Management, but the County will undoubtedly be required to acquire physical resources to support new FTEs added to Recreation and Parks authorized position inventory. The following chart specifies the assumptions and calculations supporting Scenario Three high and low FY2023 implementation cost estimates:

- » **FY2023 Scenario Three High Implementation Cost Estimate: FTEs: \$8,485,541;
One-Time: \$1, 362,000; Annual Additional Operating Cost: \$126,000**
- » **FY2023 Scenario Three Low Implementation Cost Estimate: FTEs: \$2,069,998;
One-Time: \$722,500; Annual Additional Operating Cost: \$42,000**

Scenario Three Staffing Plan	Comments	Cost Calculation	FY2023 Estimated Cost
Transfer 13 grounds maintenance FTEs from Property Management to Recreation and Parks as described in Scenario Two.	The transfer of 13 grounds maintenance FTEs according to Scenario Two is the starting point for the transfer all identified and memorialized grounds maintenance responsibilities from PM to Recreation and Parks.	No Additional Cost	No Additional Cost
Transfer 13 FTEs from Property Management to Recreation and Parks. Add 106 new FTEs to Recreation and Parks authorized position inventory. This will fully reverse the FTE transfer that accompanied the 2011-2012 reorganization.	<ul style="list-style-type: none"> • The addition of 106 new FTEs is an <u>estimate</u> used in the calculation of the likely high-end Scenario Three implement cost. The quantity of 106 new FTEs is in addition to the transfer of 13 existing FTEs from PM to Recreation and Parks; it reverses the 2011-2012 PM/Recreation and Parks grounds maintenance reorganization. • Of the 119 positions moved to PM, between FY2012 and FY2022 59 FTEs were reverted or moved to other agencies. • Property Management has operational responsibilities that, pre-reorganization, had been divided among many agencies. Therefore, PM does not now have the ability to transfer all grounds maintenance FTEs to Recreation and Parks. Therefore, the County will have to add FTEs to implement Scenario Three. • Between FY2012 and FY2022 Property Management increased the use of contractual services as it lost grounds maintenance FTEs. Therefore, the initial implementation of Scenario Three is likely achievable with the addition of less than 106 new FTEs. • Assuming that 106 new FTEs <i>will be required</i>, the number provides a likely, high-end, FY2023 implementation cost estimate. 	<ul style="list-style-type: none"> • Average annual salary using FY2021 Property Management FTE Budget data: Total recommended appropriation: \$3,251,518; Total FTEs: 62.65 • Estimated OEC: 50% • Average annual salary with OEC = \$3,251,518 / 62.65 X 1.5 = \$77,849 • 109 FTEs X \$77,849 = \$8,485,541 	\$8,485,541

Scenario Three Staffing Plan	Comments	Cost Calculation	FY2023 Estimated Cost
Transfer 13 FTEs from Property Management to Recreation and Parks. Add 26.5 (25% X 106 new FTEs noted above) to Recreation and Parks authorized position inventory.	<ul style="list-style-type: none"> Due to the increased use of contractual services between FY2012 and FY2022, the initial implementation of Scenario Three will likely require fewer than 106 new FTEs. Post-Scenario-Three-implementation, Recreation and Parks is likely to evaluate contractual services it inherited from Property Management. Future Recreation and Parks budget requests may propose additional FTEs and a reduction in the use of contractual services, but at this time it's not possible to predict whether the budget proposals will, or will not, require an increase in annual appropriations. The proposed addition of 26.5 new Recreation and Parks grounds maintenance FTEs is an estimate, and the estimated number of new FTEs is intended to calculate the likely, minimum cost to implement Scenario Three. The actual cost of implementation is dependent upon many factors, some of which will not be quantified until Property Management and Recreation and Parks identify and memorialize the service responsibilities to be transferred to Recreation and Parks. 	26.5 FTEs X \$77,849 = \$2,062,998	\$2,069,998
Transfer the currently unused "Special Forces" Shop to Recreation and Parks.	The cost to reopen, repair, renovate and equip the currently unused shop was not part of this analysis. However, using an estimated cost of \$500,000 is likely to be conservative.	Estimated at \$500,000	\$500,000
Vehicles, Tools and Equipment for 119 FTEs	<p>Assumptions:</p> <ul style="list-style-type: none"> One vehicle for 4 FTEs Three vehicles to be transferred from PM to Recreation and Parks Average estimated expenditure per new FTE for equipment, tools, supplies, uniforms, etc.: \$1,000 <p>Assumes Property Management transfers 13 FTEs to Recreation and Parks with all required equipment, tools, supplies, uniforms, etc.</p>	<ul style="list-style-type: none"> Purchase Vehicles: $119/4 = 30$ (rounded up from 29.75). 30 total vehicle – 3 from PM = 27 new vehicles. $27 \times \\$28,000 = \\$756,000$ Annual vehicle rental cost estimated at \$350 per month: 12 months X 30 vehicles = \$126,000 Tools and Equipment: 119 FTEs – 13 FTEs = 106 FTEs X \$1,000 = \$106,000 	<p>High Estimate</p> <p>One Time Cost: \$862,000</p> <p>High Estimate</p> <p>Annual Additional Operating Expense: \$126,000</p>
Vehicles, Tools and Equipment for 39.5 FTEs	<p>Assumptions:</p> <ul style="list-style-type: none"> One vehicle for 4 FTEs Three vehicles to be transferred from PM to Recreation and Parks Average estimated expenditure per new FTE for equipment, tools, supplies, uniforms, etc.: \$1,000 <p>Assumes Property Management transfers 13 FTEs to Recreation and Parks with all required equipment, tools, supplies, uniforms, etc.</p>	<ul style="list-style-type: none"> Purchase Vehicles: $39.5/4 = 10$ (rounded up from 9.8). 10 total vehicle – 3 from PM = 7 new vehicles. $7 \times \\$28,000 = \\$196,000$ Annual vehicle rental cost estimated at \$350 per month: 12 months X 10 vehicles = \$42,000 Tools and Equipment: 39.5 FTEs – 13 FTEs = 26.5 FTEs X \$1,000 = \$26,500 	<p>Low Estimate</p> <p>One Time Cost: \$222,500</p> <p>Low Estimate</p> <p>Annual Additional Operating Expense: \$42,000</p>

4.3.5 PERMITS, APPROVALS, AND INSPECTIONS POLICY MANUAL UPDATE

The Permits, Approvals, and Inspections Department (PAI) should develop an updated Policy Manual and make it publicly available.

Findings

The PAI Development Management Division utilizes a 200-page Zoning Policy Manual that has not been updated since 1992. Yet, Baltimore County City Council has passed new legislation since the Manual was published, rendering 20 to 30 percent of the manual obsolete. The Manual is available for public use but is primarily used by engineers, lawyers, and surveyors. The main areas of the Policy Manual that are outdated are policies regarding sign regulations, zoning regulations, and density residential regulations.

When the Policy Manual was current, all documents were included in one volume. As policies changed since 1992, the Development Management Division kept the 1992 Manual intact and separately compiled documents with the new policies and forms instead of replacing old policies and incorporating the new policies into the Manual. The division has about 200 zoning forms and documents, some of which replace or supplement the outdated material in the Policy Manual. The current arrangement makes it tedious, slow, and inefficient for all staff and especially challenging for new staff to determine which policy documents are still relevant. New staff often rely on the expertise of two long-serving staff members to determine which documents to use.

The previous Zoning Director started to update the Manual, but the updating was slowed down by the COVID-19 pandemic. While the Manual updating project is still ongoing, staff consider it a very large task that will likely take a year or longer because it is largely done after hours, as staff do not have the time to work on it as part of their daily activities.

The Policy Manual cannot currently be accessed online because of its size and its antiquated typewriter typeface.

Benefit to the County

A readily available Policy Manual to the public increases transparency of policies and procedures in and outside of the department. A digitally available Policy Manual increases accessibility for all. It additionally makes it easier and quicker to update policies or make other changes in the Manual so that it can be kept current and relevant. Having a Policy Manual that incorporates all policies and documents makes the search and reference process efficient. It also helps new planners to become proficient in their system.

4.4 IT-Enabled Efficiencies

When thinking about the future, one immediately thinks of technology – the driving force of change over the last several decades, and the single element that most defines the near-term future. Information Technology (IT) is therefore central to defining what Baltimore County Government can do and be – and is exemplary in summing up the opportunities for County government to modernize and invest in order to move forward into the future.

That starts with the envisioning and decision-making themselves that lead to the structures and systems. Baltimore County needs to get its “IT governance” right before it can get its IT right. This begins with a long-term strategic vision for Information Technology generally and how it can and will shape the larger County Government. The further 21st Century Technology upgrades that Baltimore County needs to build its springboard to the future encompass the areas of technology management, cybersecurity, software and hardware, and specific applications. We turn here to the first of those.

Baltimore County’s Office of Information Technology (OIT) is in the midst of implementing Workday, a cloud-based software system that provides a full suite of integrated financial and human resources functions, including payroll, time and attendance, benefits, and recruiting. We recommend that Baltimore County use Workday to replace systems with redundant capabilities wherever possible and move expeditiously to ensure that all staff are properly trained, and all systems updated and tested as necessary to support the Workday transition.

In addition to Workday grants management software, Baltimore County could implement a centralized grants management software system with features that supplement and integrate with Workday’s grants management module. Grants are currently managed and tracked within Baltimore County by specific departments, including DHHS, using Excel spreadsheets. According to conversations with Baltimore County’s CIO, the department will be implementing Workday’s grants management solution by January 2022. However, Workday does not offer robust assistance in identifying potential grant sources or detailed management across the full grant lifecycle and is not optimized to meet the unique grant management needs of county governments. The Department of Health and Human Services, in particular, has no dedicated grant writer. Grant funding is critical to DHHS’ operations – accounting for 78 percent of the Department of Health’s, and 42 percent the Department of Social Services’ budgets. The County would be well served to invest in the human and information technology software resources necessary to consistently identify new public and private philanthropic grant opportunities, manage grant funds more efficiently, and ensure all funds secured are expended.

Telehealth has increasingly been recognized as an important tool for improving access to health care services. The onset of COVID-19 led to an exponential escalation in the deployment of technology as a mechanism to provide needed services to patients while limiting the spread of the virus. Along with the trend in overall number of visits, telehealth was utilized across a much broader spectrum of activities than previously deployed. Baltimore County’s Department of Health & Human Services (DHHS) staff reported using technology to conduct care management and provide other services remotely during the pandemic. As one employee stated in our response to our June-July 2021 Baltimore County Employee Insights on Efficiency survey, “We have proven during the pandemic that our work can be done telephonically. We need to utilize available technologies to serve our residents and save valuable county resources as well as save the environment.”

DHHS should assess its deployment of telehealth during the pandemic to optimize its use in providing health services, care coordination, and human services into the future. Increased use of the telehealth modality post-pandemic can help increase access to services offered by DHHS to Baltimore County residents. Given it is such a geographically dispersed County, telehealth can help eliminate transportation barriers faced by Baltimore County residents in accessing care. Telehealth also can help address other community needs for services in areas where demand for services far outstrips providers and resources, such as behavioral health care. And, if properly deployed, telehealth can help reduce health disparities, a priority identified in the County’s Community Health Needs Assessment. Finally, telehealth may also help to reduce costs through better use of staff resources and reduced travel time. A full evaluation of how best to integrate the use of this technology in services will help ensure it is deployed in a manner that best meets the needs of Baltimore County residents.

The Department of Health (DOH) Electronic Health Record (EHR) is extremely outdated and needs to be replaced. DOH utilizes Visual Health Net (VHN) for its EHR system, a system built from scratch more than 15 years and tailored to meet the workflow needs at the time, the technology does not meet current industry-wide standards and requires specialized technical support. Due to the age and specialization of its foundation it struggles to integrate technological advances. It is also not easily adaptable to quickly changing Department priorities such as the COVID-19 pandemic. The Office of Information Technology has taken important steps to replace the existing system. The County would be well served to advance plans to implement a new electronic health record system for DHHS as expeditiously as possible.

4.4.1 WORKDAY IMPLEMENTATION

Use Workday to replace systems with redundant capabilities wherever possible and expeditiously ensure that all staff are trained in the use and application of each functionality that pertains to their role, and that all systems are updated and tested as necessary to support the Workday transition.

Findings

Baltimore County's Office of Information Technology (OIT) is in the midst of implementing Workday, a cloud-based software system that provides a full suite of integrated financial and human resources functions, including payroll, time and attendance, benefits, and recruiting.

Workday is a top enterprise application provider, respected across various industry sectors, including government. Moving from multiple applications to a single system will substantially increase efficiency and functionality and reduce the long-term development, support, and maintenance costs of maintaining numerous disparate software packages that do not readily interconnect.

This two-phase project, which, at time of writing, is scheduled to go live on January 2, 2022, is intended to replace several legacy systems:

- CGI Advantage Financial (FIN)
- CGI Advantage Human Resource Management (HRM)
- CGI Advantage Performance Budgeting (PB)
- Online Time and Attendance (OLTA)
- Employee Self Service (ESS)

Workday modules also are intended to replace various Apex human capital management systems, various SharePoint applications, and some Microsoft Access databases, as well as agency payroll systems and performance evaluations.

Several agencies have announced their intention to continue using legacy systems after the Workday project is fully implemented, even though Workday includes modules that would duplicate or improve those legacy systems' functionality. For example, the Baltimore County Office of Human Resources is planning to keep NEOGOV for applicant tracking, even though the Workday Recruiting module provides an end-to-end talent acquisition application that provides streamlined, transparent management of recruitment, applicant tracking, hiring, and onboarding.

Several departments, including Fire, Police, and Corrections, plan to continue using Kronos to track employee time and attendance. During one meeting, some OIT staff claimed Workday could not accommodate 24-hour, seven-days-per-week (24/7) scheduling and attendance needs. However, Workday is widely used by hospitals, airlines, municipal governments, and other organizations that require round-the-clock staffing.

Baltimore County's Chief Information Officer has explained that several County public safety agencies plan to continue using Kronos for time and attendance because Workday does not tie into Kronos' callbacks functionality. Although Workday does not currently recognize callbacks automatically, supervisors and staff can be trained to record callback time with the appropriate time entry code. Other scheduling and timekeeping issues, such as bidding for holidays and automatic inputs of shift differentials, can be programmed into the Workday system.

Continuing to use multiple redundant software systems will require the County to continue paying for licenses, updates, and user support services; over time, these accumulated costs can be considerable. Maintaining multiple systems also will require ongoing reintegration as Workday and the other systems undergo updates and revisions.

Benefit to the County

Instead of paying for and supporting multiple systems, Baltimore County would benefit from the added simplicity, reduced maintenance requirements, improved efficiency, and reduced costs of using one centralized solution. Moving to a single enterprise suite also would support development of a centralized platform that could be shared with Baltimore County Public Schools as well. (See elsewhere in this report, **Create an Information Technology Governance Council across Baltimore County Government and Public Schools.**)

A centralized system also will provide access to a rich dataset of personnel metrics, which can be used to support 21st Century data-driven management and decision-making.

Best Practices and Benchmarks

GovTech.com, which provides in-depth coverage of IT case studies, emerging technologies and the implications of digital technology on the policies and management of public sector organizations, has reported that application consolidation "can merge redundant systems into a common platform that reduces complexity, saves money on software licensing, and enhances information sharing."⁶⁰²

Similarly, the Info-Tech Research Group, an information technology research and advisory company, proudly serving over 30,000 IT professionals, has stated that "using application consolidation to eliminate redundancies has long been a favorite target of IT leaders because it demonstrably reduces IT costs," but adds: "Many organizations fail to plan the consolidation strategy and wind up investing in failed projects."⁶⁰³

Implementation Guidance

A formal gap review and analysis is necessary to confirm which, if any, necessary functions Workday cannot provide. This gap analysis should include representatives of all departments affected. Documentation of any gaps should be presented to expert Workday personnel; as feasible, the Workday system should be revised and augmented to meet the County's needs. The ultimate goal should be selection and deployment of Workday as a single Countywide solution for financial and human capital management functions.

Given recent reports of Baltimore City's rocky implementation of Workday⁶⁰⁴, it is imperative that the County make careful plans and move judiciously to migrate vital personnel systems to this new system. The savings that a move to a unified systems could achieve will be lost if the transition is unsuccessful.

602 <https://www.govtech.com/workforce/application-consolidation-where-the-real-savings-is.html>

603 <https://www.infotech.com/research/ss/it-increase-standardization-consolidation-to-reduce-business-disruption>

604 <https://technical.ly/baltimore/2021/02/05/city-unions-workday/>

To make this plan work smoothly, Baltimore County must:

- Plan and carry out multiple mandatory training sessions for both supervisors and staff. As possible given pandemic restrictions, these sessions should be held in person, to make sure that relevant questions are raised and answered well before the target implementation date.
- Order an immediate, comprehensive department-by-department review and refresh of relevant employee databases, to ensure that errors are not ported in and amplified by the new system.
- Conduct tests of payroll systems, to ensure that overtime, shift differentials, hazardous pay, and other issues specific to public safety workers are identified and addressed.
- Special attention must be paid to checking the accuracy of bank information used for automatic payroll deposits. Multiple trials should be run to identify potential errors and admissions ahead of the target launch date.

The Workday software system is robust and well-respected, and Baltimore County should be commended for making this forward-thinking investment in creating a single, efficient system that will save time and yield benefits for management and staff alike. As OIT leads the Workday transition, these efficiencies and savings will be maximized by making all possible efforts to identify and address the complexities of the County's staffing needs and to ensure that all personnel are aware of the system's multitudinous functionalities and trained to use the system correctly, and to leverage its advantages in their roles.

4.4.2 COUNTYWIDE GRANTS MANAGEMENT SOLUTION

In addition to Workday grants management software, Baltimore County could implement a centralized, robust grantee-focused grants management software system with features that supplement and integrate with Workday's grants management module.

Findings

Baltimore County's FY2020 budget included \$300 million in grant revenue. In FY2021, that number was approximately \$235.8 million. Most of the County's grant funding is derived from the State of Maryland and the federal government.

Some County agencies are especially reliant on grant funding. For example, the Department of Health and Human Services (DHHS) proposed FY2022 budget included more than \$98 million in grant funding, or 72 percent of its total budget. (See **Health and Human Services Grants Management** elsewhere in this report, which is aligned with this recommendation.)

Grants are currently managed and tracked by departments, including DHHS, using Excel spreadsheets. According to conversations with the CIO, the department will be implementing Workday's grants management solution by January 2022. The Workday Grants Management module includes:⁶⁰⁵

- Tracking of grant-related expenditures
- Tracking and certifying effort related to grants
- Management of sponsor reporting requirements
- Integration with Workday HR and Financial modules

605 <https://www.workday.com/content/dam/web/en-us/documents/datasheets/datasheet-grants-management-us.pdf>

However, Workday does not offer robust assistance in identifying potential grant sources or detailed management across the full grant lifecycle. Workday also is not optimized to meet the unique grant management needs of county governments.

Managing grants “manually,” without use of a grants management software solution, is unlikely to maximize the value of each grant and increases the likelihood of waste, such as allowing funds to expire unused. Centralizing grants management within a single software solution reduces duplicative effort and human error. Specialized grants management software systems also can facilitate the process of identifying and applying for grants that are aligned with Baltimore County’s programs and strategic plan.

Specialized grants management software systems include modules that can:

- Generate grants proposals quickly and efficiently through configurable workflow templates for proposal submission, review and approval
- Enable funders and grantees to collaborate on applications in real time
- Search open grant opportunities based on selected criteria
- Track funder profiles and interactions
- Build and maintain a comprehensive database including private, corporate and government funders
- Automatically track and provide notifications of historical and upcoming grant opportunities and deadlines

The grants management system most widely used by government is eCivis, a cloud-based suite designed to maximize grant revenues and track performance; eCivis is currently used by hundreds of counties nationwide and can be integrated with the Workday system.

Benefit to the County

Conservatively, adoption of a specialized grants-management software solution would be expected drive an annual increase of three-to-five percent in grant funding. Using an average baseline of \$250 million, this translates to \$7.5 million to \$12.5 million in new grant funding per year.

Five Year Revenue Estimate

	County One Year	Five Years
Low End Range	\$3,485,000	\$32,065,000
High End Range	\$6,140,000	\$55,220,000

The high-end range revenue estimate assumes upfront implementation costs of \$100,000 (see Implementation Guidance below) with recurring annual costs of \$10,000 and a five percent increase in realized grant revenue. The low-end range revenue estimate assumes upfront implementation costs of \$250,000 (see Implementation Guidance below) with recurring annual costs of \$25,000 and a grant revenue increase of three percent.

Although license costs for products such as eCivis start around \$5,000, the full costs of implementation are estimated at \$100,000 to \$250,000, including software license, customizations, consulting, and integrations with other systems. These costs, plus ongoing maintenance and technical support are reflected in the net savings/revenue estimates for the first year above. Maintenance and technical support would likely cost between \$10,000 and \$25,000 annually and are reflected in the net five-year savings estimates.

Best Practices and Benchmarks

As noted above, the eCivis grants management system is used by hundreds of U.S. counties, including Orange County, California; Harris County, Texas; Glynn County, Georgia, and Anne Arundel County, Maryland.⁶⁰⁶ The specialized functions specifically cited by county-level users include indirect cost planning and cost-allocation services, which enable accurate indirect cost calculations to maximize reimbursements.

The system can be used to create a central database that licensed users inside and outside the County can use to identify potential funding sources. The system also can enable management of the County's grants to local businesses and organizations.

Implementation Guidance

To maximize the benefit of this investment, it will be essential to involve all agencies that receive – or wish to seek – grant funding in the implementation process. Their input will be necessary to identify key assumptions, constraints, and risks; confirm the scope of the project; designate point persons in each department to assure clear lines of communication; set a schedule for implementation and training, and to define metrics to measure improvements going forward and the program's success.

Vendor selection should be driven by highly specific demonstrations of functions and modules that have been identified as high priorities by agency users. Agency personnel should be invited to participate in all vendor demonstrations and should be actively involved in the final selection of grants management software.

The review team estimates the cost of implementing this recommendation to be between \$100,000 and \$250,000 including software license, customizations, consulting, and integrations with other systems, although license costs for products such as eCivis start at around \$5,000. Maintenance and technical support could cost between \$10,000 and \$25,000 annually.

4.4.3 HEALTH AND HUMAN SERVICES GRANTS MANAGEMENT

Invest in the human and information technology software resources necessary to consistently identify new public and private philanthropic grant opportunities, manage grant funds more efficiently, and ensure all funds secured are expended.

*This recommendation is aligned with the previous recommendation, **Countywide Grants Management Solution**, which echoes this recommendation to adopt a centralized grants management solution to support grant-seeking departments countywide. This paper focuses on the specific needs of the Department of Health and Human Services (DHHS) with respect to grants management.*

Findings

Grant funding is critical to DHHS' ability to serve county residents. The FY2022 budget demonstrates that:

- Seventy-eight percent (\$88.8 million) of the Department of Health's budget is grants;
- Forty-two percent (\$9.7 million) of the Department of Social Services' budget is grants;
- The combined DHHS total budget is seventy-two percent grants (\$98,555,536); and
- Just 28 percent of the total DHHS budget is non-grant funding.

⁶⁰⁶ <https://www.ecivis.com/who-we-serve/grants-management-for-county-government>

DHHS has no dedicated grant writer, thus personnel “catch as catch can,” in the words of one program administrator. A fulltime grant writer position was requested in the FY2022 DHHS budget. It should be noted that Baltimore County is considering the pursuit of a consolidated or centralized approach to identifying, applying for, and managing grants, however there is no such functional system countywide.

Interviews with DHHS personnel indicated that at present:

- DHHS does not maintain a comprehensive list of public and private grant providers and thus grant opportunities are missed;
- DHHS staff members independently look for grant opportunities, as time allows, or may learn of grant funding opportunities through a professional network of contacts in other counties;
- There is no single DHHS platform for disseminating and assigning analysis of grant opportunities, nor is there a shared platform for managing the programmatic and fiscal tasks required post-grant awards;
- The DHHS grant management process requires program staff to complete data tracking and narrative reporting related to grant goals, and fiscal personnel use Excel spreadsheets for the approximately one hundred thirty-seven (137) existing grants; and,
- DHHS personnel report that while they do an excellent job at securing grants and drawing down to ninety percent (90 percent) of each grant secured, there is an opportunity loss due to not becoming aware of grants.

Of the 244 DHHS employees who responded to the June-July 2021 Baltimore County Employees Insights on Efficiency Survey 83 percent responded that there was either a high potential (54 percent) or moderate potential (29 percent) for achieving greater efficiency (in cost savings or time) through IT systems that are customized to the agency’s needs.

Grants management technology solutions are available to improve how organizations manage grants by providing a central hub to organize, manage, and automate tasks such as:

- Identifying grants aligned to county goals and residents’ needs
- Tracking DHHS grant applications
- Tracking performance against grant goals
- Importing various expenses
- Ensuring that grant milestone reporting requirements are met
- Completing all grant closeout tasks in an error and audit-free manner

Purchase or licensing of a grant management platform will empower all team members (fiscal and programmatic) to manage all of the grant-related tasks at one time, and in one place.

There are many grant management software solutions on the market that range considerably in price. However, a conservative expenditure estimate is \$20,000 annual software for this sole department’s licensing and training costs; some platforms operate on by per user fee/licensee schedule. Some platforms have built-in federal grant funder regulations.

Benefit to the County

Implementation of a single grants management platform will empower DHHS to manage its entire grant portfolio in the same space with no overlap (no hand-offs between personnel because of real-time, simultaneous use) among department staff on applications or tasks and discontinue use of Excel spreadsheets for grant management purposes. Further, the addition of a grant writer (requested by the agency for FY2022) dedicated to locating grant funding opportunities and developing the grant proposals will generate increased grant revenue. DHHS is tremendously successful at drawing in grant revenue. Providing the agency with the tools to better identify and manage grant opportunities will build upon its existing successful track record with respect to grants and will address employees' expressed need for appropriate information technology to perform their work.

This recommendation aligns with the County Goal for Government Accountability.

4.4.4 TELEHEALTH

DHHS should assess its deployment of telehealth during the pandemic to optimize its use in providing health services, care coordination, and social services into the future.

Findings

Telehealth has increasingly been recognized as an important tool for improving access to health care services. The Health Resources and Services Administration (HRSA) defines telehealth as the use of "electronic information and telecommunication technologies to support long-distance clinical health care, patient and professional health-related education, public health, and health administration." While the technology has changed significantly, telehealth at its core is not a new concept. Its origins can be traced to the use of the telegraph in connecting remote patients to their physicians. Transportation continues to be a significant social determinant of health barrier and telehealth an important modality to connect patients with physicians and other health care providers.⁶⁰⁷

In recognition of its continued importance, the Healthy People 2030 report published by the Office of Disease Prevention and Health Promotion, U.S Department of Health and Human Services, identified increasing the use of telehealth to improve access to health services as one of the key Health IT issues for further research.⁶⁰⁸ Likewise, the Maryland Health Care Commission Strategic Report for 2019-2022 included elevating telehealth to expand its use in a variety of health care settings as one of five priority areas to help the State of Maryland reach its health care goals. The Commission cited its potential "to meet patients where they are and remove barriers to care" in identifying this as one of its priority areas of focus.⁶⁰⁹

The onset of COVID-19 led to an exponential escalation in the deployment of technology as a mechanism to provide needed services to patients while limiting the spread of the virus. Telehealth visits increased by more than 50 percent in the first quarter of 2020 compared to the comparable period in the prior year; and by week 13 of 2020, telehealth visits were 154 percent above where they stood the previous year.⁶¹⁰

607 Dixon-Shamblay, Kamilah MA, MD; Gabbe, Patricia T. MD, MPH "Using Telehealth Approaches to Address Social Determinants of Health and Improve Pregnancy and Postpartum Outcomes" *Clinical Obstetrics and Gynecology*: June 2021 - Volume 64 - Issue 2 - p 333-344 https://journals.lww.com/clinicalobgyn/Fulltext/2021/06000/Using_Telehealth_Approaches_to_Address_Social.13.aspx

608 Office of Disease Prevention and Health Promotion, US Department of Health and Human Services, "Healthy People 2030". <https://health.gov/healthypeople>.

609 Maryland Health Care Commission, "2019-2022 Strategic Report" https://mhcc.maryland.gov/mhcc/pages/home/mhcc_overview/documents/MHCC_2019_2022_Strategic_Rpt.pdf

610 Koonin LM, Hoots B, Tsang CA, et al., "Trends in the Use of Telehealth During the Emergence of the COVID-19 Pandemic – United States, January-March 2020. *Morbidity and Mortality Weekly report* 2020; 69; 1595-1595. <https://www.cdc.gov/mmwr/volumes/69/wr/mm6943a3.htm>

Along with the trend in overall number of visits, telehealth was utilized across a much broader spectrum of activities than previously deployed. Human services agencies across the country shifted to remote case management as an alternative to in-person visits with the onset of the pandemic. Correspondingly, state Medicaid home and community-based programs utilized telehealth to do service assessments and case management for beneficiaries in their homes, as well as provide personal care, adult day services, life skills and employment-related activities, among other services.⁶¹¹

Consistent with these trends, Baltimore County DHHS staff reported using technology to conduct care management and provide other services remotely during the pandemic. This ranged from the Maternal and Child Health Division's use of telephonic and virtual outreach for their programs serving high-risk pregnant women and babies, as well as the nurse monitoring and assessments provided for home and community-based waiver recipients through the Bureau of Community Services. Funding made available through Federal programs for COVID-19 helped provide some of the upfront resources needed to make this shift to the use of more telehealth. Once the pandemic has subsided, DHHS will be well-positioned to evaluate how best to incorporate these new tools into service delivery going forward to increase access to services by Baltimore County residents.

Results from the Baltimore County Employees Insights on Efficiency Survey conducted during June and July 2021 indicate that Baltimore County employees welcome the adoption of new technologies to achieve greater efficiencies and improved service. Eighty-two percent of DHHS employees responding to the survey indicated that a customized or more current IT system would have a moderate or high potential – with about 55 percent saying this had a high potential – for achieving greater efficiency. As one employee stated, “We have proven during the pandemic that our work can be done telephonically. We need to utilize available technologies to serve our residents and save valuable county resources as well as save the environment.”

Telehealth is not an appropriate tool in all cases, and there are barriers to its widespread adoption. For example, there is no substitute for face-to-face visits in the home of an individual receiving Medicaid home and community-based services to ensure their safety and well-being, although virtual contact can be an important supplement to provide continuous engagement around health care needs. Permanent changes in program rules, relaxed during the COVID-19 public health emergency period, may be required to deploy remote telehealth into practice more broadly in some instances. Shifting to a remote system also requires that clients have access to broadband and internet-enabled devices and understand how to use the technology.

Benefit to County

Increased use of the telehealth modality post-pandemic can help increase access to services offered by DHHS to Baltimore County residents. One of the top priority areas identified in the Community Health Needs Assessment for Baltimore County for 2020-2021 is access to physical health services. Given it is such a geographically dispersed County, telehealth can help eliminate transportation barriers faced by Baltimore County residents in accessing care. Telehealth also can help address other community needs for services in areas where demand for services far outstrips providers and resources, such as behavioral health care. And, if properly deployed, telehealth can help reduce health disparities, another identified priority area in the Community Health Needs Assessment. Finally, telehealth may also help to reduce costs through better use of staff resources and reduced travel time, although this may be offset by increased utilization of services and upfront technology costs.

A full evaluation of how best to integrate the use of this technology in services will help ensure it is deployed in a manner that best meets the needs of Baltimore County residents.

Best Practices and Benchmarks

The COVID-19 pandemic resulted in a dramatic expansion in the use of telehealth across all human services and health systems. There is a significant body of evidence that indicates telehealth can improve patient access to care, improve patient satisfaction and improve outcomes for multiple diseases,⁶¹² suggesting that similar results can be achieved through utilization in the full range of health and human services programs.

611 Disabled and Elderly Health Programs Group, Center for Medicaid and CHIP Services, CMS, “Innovations in Medicaid: State Home and Community Based Services Pandemic Response”, presented at Advancing States Conference, December 8, 2020.

<http://www.advancingstates.org/sites/nasquad/files/u24453/Innovations%20in%20Medicaid%20State%20HCBS%20PHE%20and%20Unwinding%20COVID%20Final.pdf>

612 Rodriguez, J. et. al., “Disparities in Telehealth Use Among California Patients with Limited English Proficiency,” Health Affairs, March 2021.

<https://www.healthaffairs.org/doi/10.1377/hlthaff.2020.00823>

Current research also includes a strong evidence base to support provision of behavioral health services through telehealth. Numerous studies have demonstrated its effectiveness across a range of modalities (e.g., telephone, videoconference) and mental health concerns and have shown it to be comparable in terms of outcomes to in-person services.⁶¹³

Telehealth can also be used to support children and families involved with the child welfare system in several different ways, including:

- Conducting *standardized behavioral health assessments and remote counseling*, monitoring and medication management.
- Providing “*virtual home visits*,” Most of the national early childhood home-visiting models have endorsed the use of videoconferencing and other technologies during the COVID-19 crisis.
- Facilitating completion of service plans by offering remote access to some required services, such as parent education, support groups, and substance use disorder treatment.
- Offering enhanced *mental health support to youth in foster care* via text or video chat.⁶¹⁴

In Colorado, three distinct programs with overlapping clients: Invest in Kids, a state-based intermediary for a home visiting model; Nurse-Family Partnership (NFP); and a social and emotional program called Incredible Years – together used virtual communication to connect their staff across the state, support supervision, and conduct home visits with established clients under specific circumstances (such as inclement weather or a client’s move out of state). In part due to this established foundation, NFP was able to pivot to *almost exclusively virtual home visitation* quickly by expanding on protocols already in place (for HIPAA compliance and client consent) and offering staff training in effective virtual communication techniques. Incredible Years staff also have been able to continue established parent groups and support classroom-based social skills lessons via Zoom.

In Allegheny County (Pennsylvania) the Office of Behavioral Health had just opened the option of telepsychiatry to address an emerging shortage of psychiatrists when the COVID-19 pandemic hit. They quickly ramped up to provide additional mental health and substance abuse treatment services using telehealth. Among the strategies they were able to implement using telehealth included: immediate access to psychiatrists in hospital emergency rooms and juvenile detention facilities; virtual access to certified recovery specialists; and telehealth monitoring coupled with mobile delivery of medication-assisted treatment for opioid addiction. With more ways to engage clients, substance use disorder treatment providers are optimistic that they may see more engagement and longer persistence in outpatient treatment, two key indicators for positive outcomes.

Implementation Guidance

In response to the COVID-19 pandemic, Baltimore County DHHS staff have had to rely on telehealth technologies to interact with clients on a regular basis and conduct many of the basic functions of the Department. Once the pandemic has ended, DHHS will benefit from taking a step back to assess where the use of this technology proved most beneficial, remaining barriers to expanded use of technology, and the ways it can best be deployed to increase access for Baltimore County residents. To assist with this process, we recommend engaging an experienced telehealth consultant as a first step to undertake this assessment.

To position itself for the future, Baltimore County would be well served to undertake a top-to-bottom assessment of how the County can best leverage telehealth going forward – including where it worked well during COVID-19 and the barriers that remain to be addressed – to optimize this modality in providing services to residents. This should include a review of how contractors to DHHS used telehealth, and opportunities for encouraging/requiring deployment of these tools through the contracting process.

613 Warren, J. and Smalley, K.B., “Using Telehealth to Meet Mental Health Needs During the COVID 19 Crisis.” The Commonwealth Fund, June 18, 2020. <https://www.commonwealthfund.org/blog/2020/using-telehealth-meet-mental-health-needs-during-covid-19-crisis>

614 Casey Family Foundation, “Strategy Brief: Strong Families. How can child protection agencies use telehealth to increase service access for children and families?”, July 2020 <https://caseyfamilypro-wpengine.netdna-ssl.com/media/20.07-QFF-SF-Telehealth.pdf>

A long-term telehealth strategy should take into consideration the following crucial issues:

- Effectiveness of telehealth in meeting specific programmatic goals, including ability to serve as a platform for evidence-based practices
- Feedback from staff on use of telehealth during the pandemic and opportunities for future deployment
- Feedback from clients and patients regarding their satisfaction with telehealth services
- Client safety and confidentiality of client information
- Client access to technology, including availability of devices and Wi-Fi, as well as their familiarity/ability to use technology
- County IT needs, including devices and software, necessary to significantly expand telehealth
- Technological sophistication of providers and community-based organizations
- State/Federal rules that may govern the use of telehealth

4.4.5 ELECTRONIC HEALTH RECORD

Advance plans to implement a new electronic health record system for DHHS as expeditiously as possible.

Findings

The Department of Health (DOH) Electronic Health Record (EHR) is extremely outdated and needs to be replaced. The Office of Information Technology has taken important steps to replace the existing system and this work should continue as expeditiously as possible to support the Department of Health and Human Services (DHHS) programming going forward.

One of the recurrent pain points cited by DHHS officials was the ongoing challenge of an EHR system that is outdated and unable to respond to ever- and rapidly changing Department needs. The EHR is the backbone of much of the Department of Health's operations, serving as the clinical health and case management record for services provided to Baltimore County residents, billing third parties for clinical services and serving as the repository for data necessary for reporting and analytics, among other functions.

DOH utilizes Visual Health Net (VHN) for its EHR system, a system designed more than 15 years ago to meet County health center needs for an electronic clinical record. At the time, there were fewer similar EHR systems in existence, and Baltimore County was able to piggy-back on to another government contractor (the state of North Carolina) to purchase the product and tailor it to DOH's specifications.

Built from scratch and tailored to meet the workflow needs at the time, the technology does not meet current industry-wide standards and requires specialized technical support. Due to the age and specialization of its foundation it struggles to integrate technological advances. It is also not easily adaptable to quickly changing Department priorities such as the COVID-19 pandemic.

VHN design characteristics make it difficult to meet the goal of providing more holistic, patient-centered care. VHN uses different logic for clinical and case management workflows, which means that information from the clinical record (e.g., vitals, weight, health conditions from a previous physical health exam) is not integrated with a person's case management record (e.g., referrals to other agencies, counseling, education needs). The system was also built with a very narrow interpretation of rights and permissions as to who can access information in the system. Although this can be a strength in protecting sensitive information, it can also be a hindrance that compromises continuity and quality of care and increasingly fluid caretaker roles.

DHHS users have a very difficult time retrieving data from the system to meet mandated and operationally required reporting. VHN provides static reports, and extraction of data from the system is challenging, usually requiring specific written commands to extract data and statistics, or special programming from the vendor (at additional costs) to obtain reports. It does not provide

a dynamic user-friendly interface to extract varied analytics. This can lead to an inability to respond quickly to information requests and additional staff time to assemble reports to meet the requirements of government funders. One staff member reported an instance where staff had to pull information from individual clinical records to manually develop a report for their state government funding agency.

In addition, the VHN does not include all the various units within the DHHS Department of Health in its system, nor does it interface with DSS case management systems. Behavioral health, COVID-19 vaccination, communicable disease, contract tracing, Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and emergency preparedness and response are not part of the VHN system. When speaking about the TB program, one staff person mentioned that because their clinical data were not part of VHN, they had to physically carry clinical records to a health center for patient encounters. WIC is another program not on the VHN system despite the linkages with other services provided in DHHS Health, such as the maternal and child health programs and DSS. This lack of integration makes it more difficult to ensure that all the needs of an individual are met. It is also less efficient for the client who may be required to repeat information that could otherwise be contained in an integrated health record.

Although the VHN currently interfaces with the Maryland State Labs and its statewide vaccine information system (ImmuNet), as well as third party billing insurance clearing houses, it does not currently share information with CRISP, Maryland's statewide health information exchange. The latter would allow the Health Department to share clinical information (subject to HIPAA requirements) with other health care providers.

Results from the July 2021 Baltimore County Employees Insights on Efficiency Survey indicate that updated IT systems are an important priority for DHHS employees. Eighty-two percent of DHHS employees responding to the survey indicated that a customized or more current IT system would have a moderate or high potential (55 percent) for achieving greater efficiency. As one respondent stated when asked for specific ideas on how DHHS could improve efficiency or save money, "technology, technology, technology."

Benefit to the County

A new EHR built consistently with government standard best practices will allow DHHS to provide better health care and case management for high-risk and underserved Baltimore County residents. It also will allow DHHS to reliably provide data and analytics on a real-time basis and to take rapid and effective actions in response to fast-shifting and emerging priority issues at the county, state and federal levels. It will also allow for greater efficiencies in County staff time in meeting the health and human service needs of Baltimore County residents.

Best Practices and Benchmarks

The National Learning Consortium's Health Information Technology Research Center issued a report on "Change Management in EHR Implementation" that identified several key action steps in replacing an existing EHR system, so-called "rip and replace." The recommended process includes an assessment of the current state to identify root causes of dissatisfaction with the current system as well as evaluation of current workflows and resources to determine what processes must be significantly redesigned. It also cites the importance of managing staff expectations and keeping goals for the system realistic, measurable and achievable. The report notes the importance of identifying training needs as well as a data migration plan for information contained in the current system, among other action steps. The report also recommends several key action steps when beginning to implement the system, such as continually seeking input from customers and stakeholders in order to improve workflows related to EHR, and the expectation of making necessary adjustments as implementation progresses.⁶¹⁵

615 Health Information Technology Resource Center, National Learning Consortium, "Change Management in EHR Implementation," April 2013.

Implementation Guidance

The new EHR system should be developed with the goal of meeting the holistic needs of individuals served by Baltimore County government and interface across DHHS, including Behavioral Health and Department of Social Services programs.

Baltimore County has taken an important first step by issuing an RFP for a vendor to help define and scope a program to automate and integrate health care and case management activities across the DHHS enterprise. Given the critical nature of this effort to vital DHHS functions, the County would be well served to prioritize the timelines and deliverables contained in the solicitation and expedite the issue of an RFP upon completion of the vendor's work. The review team also understands that funding for the new system is included in the FY2023 Office of Information Technology capital budget, which should facilitate the expeditious completion of this project.

4.4.6 INTEGRATE NEW DATA SYSTEMS AND PROGRAM MANAGEMENT

Department of Public Works and Transportation (DPWT) Bureaus should engage in a process to develop interim Program Goals, Cost Analysis, Risk Analysis, and Program Metrics to guide program and policy decisions as the SAMP is implemented through 2025-2026.

Findings

DPWT is in a four-to-five-year process of implementing a transition to digital record keeping and data analysis outlined in the Sustainable Asset Management Plan (SAMP). During the SAMP implementation period, DPWT should develop interim data collection and analysis processes to develop DPWT-wide and individual Bureau Program Goals, Cost Analysis, Risk Analysis, and Program Metrics that are data driven. These interim processes will help guide policy decisions in the four-to-five-years that the SAMP is currently estimated to take for full implementation.

One of the overarching themes that emerged throughout interviews with DPWT leadership and staff was the critical nature of recently initiated transitions to modern and innovative data systems. DPWT and Baltimore County should be commended for the recently developed Sustainable Asset Management Program (SAMP). The proposed and ongoing shift to modernize and digitize Baltimore County record keeping and asset management will yield enormous benefits in the levels of service provided to citizens.

Baltimore County's SAMP is an ambitious and innovative attempt to bring government agencies into a new regimen of data driven management. The scope of the effort required to make the transition to interactive, transparent, and dynamic data management systems dominated some of the interviews and conversations with DPWT Bureau staff. All DPWT Bureaus support the development of a Computerized Maintenance Management System (CMMS) and implementation of the SAMP.

The SAMP described a three-year roadmap for implementation of a CMMS, one of the foundational building blocks for a modern data management system. This first, necessary but not sufficient step of building a CMMS will enhance the County's ability to reach its SAMP goals. However, the implementation plan recognizes that "Based on the deployment of Cityworks and the status of DPWTs asset registry, it will take 4.5 years for all Bureaus to have a completed SAMP."

A phased transition schedule is described in a three-year project outline in the SAMP and August 3, 2021 email confirms that implementation is proceeding in some Bureaus on the SAMP. The most advanced DPWT Bureau in CMMS and SAMP implementation is Solid Waste, which has achieved "53% complete" status in data migration to the new Cityworks data system. Some DPWT Bureaus have not yet begun implementation of their CMMS and SAMP.

Department-wide, and specific Bureau data collection and data management systems that were discussed during DPWT interviews (and are currently being implemented) include, but are not limited to:

- Land Use and Resource Allocation (LURA) systems to facilitate planning;
- Cityworks to improve the development and management of work orders (particularly those work orders that impact the workflow of multiple Bureaus and Departments);
- WorkDay for budgeting and cost analysis; and
- Prism for Minority Business Enterprise (MBE) compliance.

Several other data collection and analysis systems will also be deployed in the Baltimore County SAMP. Many of these data collection and management systems have not been implemented before in Baltimore County. Cityworks is already being utilized by the City of Baltimore.

Benefit to the County

Because the transition to a fully functioning CMMS and SAMP will not be complete until 2025 or 2026, Baltimore County would be well served to develop interim mechanisms to assist with this transition to a data driven management system and build in process recommendations to help accelerate application of information from the CMMS and SAMP. This will better allow DPWT management to share data among Bureaus (and, where appropriate, the public) and engage staff and management teams with the development of interim goals and cost analysis tools pending the completion of the CMMS and SAMP.

Developing interim processes for developing shared goals and program priorities during the implementation of a comprehensive data collection and analysis system will allow multiple Bureaus to operate more efficiently during the four to five year transition period. Interim procedures for establishing shared program goals, conducting cost analysis, performing risk analysis and setting priorities for project selection will improve program operations during the CMMS and SAMP implementations period. Process mapping enabled by shared data systems will dramatically increase efficiency across Bureaus within DPWT. Shared consensus-based program goals will increase morale, establish shared metrics to track progress towards those goals, enables better analysis of how best to avoid risks or correct errors mid process – all of which ultimately saves effort and resources.

The transition to more comprehensive, digital, and shared data systems is already underway at DPWT. That transition should be accelerated and made a top priority. Interim project management and design measures should be incorporated into the CMMS and SAMP deployment plan. A DPWT CMMS/SAMP working group should be established and empowered to develop interim program guidance drawing from the CMMS and SAMP systems.

Best Practices and Benchmarks

A Local Government Leaders’ Playbook – by Mark Funkhouser describes several instances where local governments developed interim data collection and analysis systems to address immediate program goals. Two examples are:

- **Long Beach, California, CARES Act implementation** - When the pandemic broke out, some Long Beach government staff, such as health department personnel, were overwhelmed while others, such as janitors and office support staff, had little to do. Long Beach, CA managers used their recently completed IT system to identify under-utilized staff and reassigned Park Planning & Partnerships staff to help stand up COVID-19 testing sites. Technology played a key role in the city’s ability to effectively redeploy staff.

The City set up shared folders and passwords on the cloud, and redeployed computer equipment to new staff/ locations so that team members could communicate and share information easily. Park Planning & Partnerships set up a shared OneDrive folder where they centralized information that everyone had access to. This redeployment of underutilized staff using existing IT capabilities allowed the health department to use their own staff in the field to operate testing sites - caring for patients. Park, Planning and Partnerships staff essentially ran all of the back office and support services – making sure the tests were processed in a timely manner and all activities were reimbursed through the CARES Act. Having the data and information in a seamless and integrated IT system allowed Long Beach managers from different Departments to identify shared goals, metrics and implement a testing plan – all in record time.

- **Pierce County, WA, CARES Act implementation** - One of the most difficult factors for policymakers at the beginning of the pandemic was a lack of data to guide decision making. So much was unknown from how the virus was being transmitted to best practices for stopping the spread. The lack of data to define the problem and formulate solutions made decisions about how to deploy Cares Act funding difficult.

The County finance department responded by setting up an interim data platform that incorporated existing systems but added new indicators and data points to facilitate decision-making. The County designed dashboard (incorporating Socrata software) and included a dashboard of 192 health and economic measures to track CARES Act spending. Because data could be accessed by government officials across the county and seen by County government leadership – the dashboard helped facilitate goal setting and decision making in real time. The interim database also allowed officials to track expenditures in public health and emergency response – that were fully reimbursable under the CARES Act.

CityScore – Boston, Massachusetts

Managing the city effectively using data has been a central focus for Boston since 2014. Because they were starting a new effort for a city with over 16,000 employees across 42 departments, they knew their team needed to be able to work with departments at very different levels in their data use and understanding. The result was CityScore - an initiative designed to inform the Mayor and city managers about the overall health of the City at a moment's notice by aggregating key performance metrics into one number.

The Citywide Analytics Team had a strong focus on serving departments collaboratively and helping them solve problems. They chose projects based on requests from departments in addition to ideas nominated by the team. The initial projects that the team took on in 2015 were selected with a few goals in mind — “something that has a clearly visible public impact to begin the process of communicating how data is changing the city; something with a financial impact to demonstrate some financial returns; and something that demonstrates the data team’s interest and willingness to work with all levels of the agency.”

The CityScore project picked out 24 data categories to put on the Mayor’s Dashboard – just a small subset of possible topics. CityScore is able to add and subtract topics from the public dashboard based upon project status and interest in the services provided. Examples of CityScore projects included:

Topic	Day	Week	Month	QTR
311 Call Center Performance	0.82	0.86	0.94	0.93
Code Enforcement On-Time %	1.25	1.24	1.25	1.24
Code Enforcement Trash Collection	0.78	1.10	1.11	1.13
Graffiti On-Time %		0.71	0.74	0.61
Missed Trash On-Time %	1.25	1.23	1.20	1.21
Parks Maintenance On-Time %	1.25	1.02	0.88	0.91
Pothole On-Time %	1.25	0.92	0.76	0.87
Sign Installation On-Time %	0.13	0.36	0.60	0.78
Signal Repair On-Time %	0.94	1.25	1.18	1.16

Pothole Repairs

Boston’s Department of Public Works repairs potholes to increase safety and reduce vehicular damage. The City aims to repair at least 80 percent of potholes reported through 311 within one business day. Adding the Pothole Repair metric to the CityScore system allowed managers to dramatically improve response rates. Data collection and data analysis that is focused on solving specific problems can accelerate results. More information at: <https://www.boston.gov/innovation-and-technology/cityscore>.

Government Analytics Program (GAP) – University of Massachusetts, Boston

The mission of the Government Analytics Program (GAP) is to strengthen government's use of data, measures, and goals, to make it a permanent feature of management practices, and to accelerate the sharing of ideas and best practices among governments and government departments. Put simply, GAP uses data to fix problems. The following are examples of projects GAP can undertake by creating data systems, analyzing the data, establishing shared goals and developing metrics to implement a plan. See **2020 GAP Applications & Awards – [GAP Web Site for Additional Examples](#)**

- **The City of Woburn**, designated a Green Community in 2011, is receiving a recognition award for completing dozens of energy efficiency and clean energy projects across many municipal sites, including replacing oil boilers with air source heat pumps at its senior center, installing over 600 kW of rooftop solar across four schools and a 3.4MW array on a closed landfill, procuring battery-electric and hybrid vehicles for its fleet, and more.
- **The Town of Egremont**, designated a Green Community in 2016, is receiving a recognition award for significant Municipal Solid Waste reduction and diversion, procuring 24 percent of the town's electricity for the town through a 20-year clean energy PPA, completing extensive efficiency projects across municipal facilities, engaging the public to increase adoption of solar PV and reduce waste across town, and more.

Implementation Guidance

Principles for Development of Interim Management Goals and Risk Avoidance Strategies

In broad terms, the shift to data-driven and evidence-based policymaking and program implementation has two goals:

1) to use what government agencies already know from program evaluation to make evidence-based policy decisions; and 2) to build more knowledge to better inform future decisions. The SAMP three-year Report appropriately highlights the advantages offered through this transition: A) Improvements to Operation and Maintenance Strategies; B) Level of Service and Risk Analysis; C) Financial Forecasting and D) Improvements to Communication.

While every agency and department in Baltimore County has a need for comprehensive data analysis systems to inform decision making, DPWT's needs are particularly acute. DPWT directly interacts with the public on the delivery of several essential services such as snow removal, street sweeping, sewage and stormwater collection, street paving and repairs, transportation services such as the Towson Loop and the CountyRide systems, and municipal waste collection. As a result, DPWT has a particular need for dynamic and interactive data systems to manage workflow and to keep the public informed on an up to the minute basis.

We recommend the six-step process described above for interim implementation of the ongoing upgrades to the DPWT CMMS and SAMP data systems.

1. Common Data – Common Evidence

Each DPWT system should be shared and be interactive among relevant DPWT Bureaus. Many of the tasks performed by DPWT must integrate the activities of several Bureaus and so data systems should also be shared. Shared data can be used to develop common criteria and goals between Bureaus. Once shared goals are established, shared data can form the basis for determining whether operations are lined up to meet established milestones. Common datasets also make it easier to put in place controls to adjust approaches when the established goals and the evidence of what is happening in the field are not aligned.

As the CMMS and SAMP are being designed and deployed, we recommend that joint monthly management sessions be held with a designee of each DPWT Bureau. This joint CMMS/SAMP working group will allow Bureaus that are scheduled to implement CMMS systems later in the process to learn from the early adopting Bureaus. It will also allow all Bureaus to have input into the data collection and input system design before problems arise. Although the CMMS/SAMP process is at its core an information technology function – the insights of Bureau management on program operations will play a critical role in the implementation and rollout of each phase of the process.

2. Shared Criteria and Goals

Second, well established data collection and analysis systems allow managers to determine what good performance looks like in each area of responsibility. The definition of good performance might include industry guidelines or best

practices as laid out by a professional association, or it could include federal standards or requirements. It could also include contracts and agreements that have been previously entered into by DPWT or the County. The critical task is to line up the criteria of whether good performance is occurring with the new data collection and analysis systems. These shared criteria and goals will evolve over time but allowing DPWT Bureaus to develop their own data driven goals and management priorities will help make sure that data collection and analysis systems are aligned with interim and long-term goals for each Bureau's programs.

3. Risk Avoidance

Third, a wide range of risks are associated with each of the DPWT's Bureau's operations – from financial risks to legal risks and to risks pertaining to public health and safety. Data collection and analysis systems help managers assess those risks in terms of probability and magnitude and make determinations as to whether any of the risks are changing over time. For example, an increase of flooding events in certain Baltimore County neighborhoods could be an indicator of increased risks posed by changing weather patterns or sea level rise associated with climate change. Establishing risk avoidance goals informed by GPS data analysis during the three-to-five-year implementation of the CMMS and SAMP will prevent potential flooding problems and avoid risks before the CMMS and SAMP systems are fully functional and implemented.

4. Interim Controls

Fourth, new and consolidated data collection systems can help managers put in place controls to mitigate the risks the county faces. How DPWT managers regularly monitor the effectiveness of those controls and make improvements as circumstances require can further reduce risks and costs in the future. Implementation of the CMMS and SAMP should be designed to allow each Bureau to establish interim data informed controls during the implementation period.

5. Project Management Software and Process Mapping

As each step of the CMMS and SAMP are implemented, project management software should be used as soon as possible to help facilitate process mapping to further increase efficiency. As LURA, CityWorks, WorkDay and Prism and other data systems go online and are further integrated into DPWT operations, process mapping can help simplify tasks – particularly those that require input from two or more Bureaus. Process mapping will help make sure that these new and expanded data systems can make workflow and analysis more efficient. Process mapping can also help streamline operations and better inform interactions and negotiations with other jurisdictions like the City of Baltimore. Process mapping should not be placed on hold until the 2025-2026 implementation schedule is completed.

6. Priority Setting and Project Selection

Finally, during the crush of day-to-day operations, managers can be forced to decide on the fly which projects to take on first according to their own personal expertise and experience. This may effectively address short term goals, but the process by which projects are prioritized and/or chosen remains somewhat mysterious to others in the Bureau or across DPWT. It can also present issues for collaboration with contractors and other departments. Finally, relying on one individual manager's expertise eventually will present succession planning challenges as well. Although there is a separate recommendation on Project Selection, each Bureau should be allowed to factor in priority setting to the implementation process of the CMMS/SAMP.

Note on Monthly Bureau Working Group Meetings During CMMS & SAMP Implementation - DPWT program managers know their programs best and the sequencing and implementation of the CMMS and SAMP systems should be carefully tailored to their individual needs (and where Bureaus deliver services though jointly managed services – their cross-Bureau needs). It is absolutely critical that CMMS and SAMP implementation include interim processes that include input and feedback from Bureau management and leadership on program priorities. During the four-to-five-year CMMS and SAMP implementation period, program managers from each DPWT Bureau should be directly involved and consulted.

Note on CMMS/SAMP Staffing - During the interviews with DPWT Bureaus, some Bureau leaders expressed concerns about having the staffing resources to input data into the CMMS/SAMP system. We recommend deploying data entry and data management staff (perhaps as temporary employees) in the Bureaus that require support during the transition period.

4.5 IT Management and Security

IT security is of growing daily concern. Baltimore County has seen first-hand the threats of cyberattack and the failure of cyber-defense in the unfortunate recent ransomware attack on the Baltimore Public Schools. The first responsibility of any “governance” system is security and safety, so the first item we turn our attention to after addressing the proper constitution of IT governance is IT security. With proper governance and security in place, County IT operations must turn to modernizing its outdated infrastructure – from decades-old software to less-remarked retro technologies still in widespread County use, such as legacy machines and outdated phones.

Baltimore County’s Office of Information Technology (OIT) should create a formal Enterprise Architecture (EA) function with the purpose of documenting and communicating the organization’s full IT infrastructure, including hardware, software, processes, and people. Without a regularly updated formal Enterprise Architecture, it is extremely difficult to determine whether IT decisions are aligned with the overall use of technology across Baltimore County. The lack of a “current state” documented comprehensive Enterprise Architecture impedes efficiency and effectiveness enterprise-wide and makes the design of a realistic “best-practice” future state almost impossible.

The County then should right-size and right-skill the Office of Information Technology (OIT) through attrition, retirement and hiring for updated skill sets in order to address issues stemming from a lack of the knowledge and skills needed quickly and efficiently to address the current and future IT needs of the County and its constituents. However, rightsizing OIT with the correct balance of expertise and modernized skill sets will only benefit Baltimore County up to a point. To avoid encountering this situation again in the future, OIT should ascertain that the right training options are available in the newer technologies that Baltimore County is moving to and that staff is properly incentivized (or required) to take that training. Using this approach, OIT may be able to do more with a smaller number of staff.

During our analysis, several opportunities were identified in which Baltimore County’s OIT should improve the technology support that provides to agencies within their purview to assist each departments’ specialized functions. These include but are not limited to providing additional support within OIT to address audiovisual needs countywide, increasing OIT’s support for software specifically used by the Fire Department, and improving the responsiveness among the GIS team to Board of Election requests. Although many items are on OIT’s radar, we encourage Baltimore County to investigate and pursue further ways that agency IT support could be improved.

Baltimore County also should consolidate and combine all broadband, network, and communications support services for Baltimore County and Baltimore County Public Schools into a single unified system. Although further collaboration between the County Government and BCPS has been referred to by Baltimore County employees as comparable to a minnow swallowing a whale, a precedent for collaboration already exists. Expanding collaboration across these services would require establishment of a formal governance model to ensure appropriate, equitable prioritization of broadband and network projects and investments across the two entities. Despite our requests, no single, comprehensive operational/cost model or documented plan for County government and school network services was provided for this review. A comprehensive, standardized service catalog across Baltimore County agencies and public schools would support higher, standardized levels of service, provide more consistent security and reliability, prevent duplicative efforts and resource investments, and reduce costs.

While the County’s application portfolio is extensive, OIT has an intake process for reviewing agency requests for whether they fit in with an existing or new solution. That being said, software duplication and redundancy is likely to increase without a systematic process for cataloguing the County’s hundreds of applications and their functions. Given the large number of software packages in use throughout Baltimore County, it is probable that many other systems provide overlapping or duplicative functions that decrease efficiency and impose unnecessary licensing costs. OIT should identify and consolidate software licenses that serve duplicate or similar functions; the County thereby could save considerable money, improve efficiency, and potentially identify gaps in its current software portfolio.

Of particular concern, during our initial examinations, the Public Works LLC review team was able to access a detailed geographic information system (GIS) map of the Baltimore County Optical Network. This specific information was publicly available online as a part of a grant requirement, but is now offline. As a result of this finding, the map was moved offline and is now available by request. With cybersecurity at the forefront of IT-related concerns, we recommend that OIT should conduct a thorough review of all publicly available and accessible information about its information network and component systems.

It is almost impossible to overstate the potential cost of a cyberattack, in dollars, in time lost, and in essential public services interrupted. Baltimore County OIT reportedly follows NIST cybersecurity guidelines and, according to Baltimore County's Chief Information Officer, has a "full-blown" and fully vetted cybersecurity plan. Upon review, however, we believe the plan is limited, and a much more robust plan is required. In addition, OIT should hire an independent security consultant to conduct a thorough evaluation of its cybersecurity infrastructure and policies, and a comprehensive independent assessment of its networking capabilities.

Finally, at the onset of this review, OIT assigned only its Chief Security Officer specifically to cybersecurity, although it had recently filled an IT security position and is in the process of hiring another. We commend Baltimore County for its current efforts, but our review team sees a need for additional staff allocated to cybersecurity. Typically, an organization of the size and type of Baltimore County IT would have at least 5 to 10 IT security professionals. Baltimore County would greatly reduce the risk of a future data breach/cybersecurity attack by increasing the resources available to the Chief Security Officer, both by adding highly experienced cybersecurity professionals to County staff and by partnering with an outside vendor focused on vulnerability management.

4.5.1 ENTERPRISE ARCHITECTURE

The Office of Information Technology (OIT) should create a formal Enterprise Architecture (EA) function.

Findings

The purpose of an Enterprise Architecture program is to communicate and document the organization's full IT infrastructure, including hardware, software, processes, and people. Enterprise Architecture should include data management, planned acquisitions and expansions of IT systems and components, and performance metrics.

Baltimore County does not currently have a formal Enterprise Architecture (EA) encompassing its full technological footprint across divisions. However, OIT did provide a memo to the review team explaining that, "While Baltimore County Government has not adopted a specific Enterprise Architecture framework, the organization does follow a set of best practices to guide how we acquire new technology to align with our strategic enterprise vision." The County Chief Information Officer agreed with the review team's assessment that OIT needs to work on their Enterprise Architecture documentation.

Without a formal Enterprise Architecture, it is extremely difficult to determine whether IT decisions are aligned with the overall use of technology across the Baltimore County government. The lack of a comprehensive architectural vision impedes efficiency and effectiveness enterprise wide.

Benefit to the County

Establishing a formal Enterprise Architecture that encompasses Baltimore County government and its component agencies will provide a cohesive blueprint to optimally design, purchase, develop, deploy, and manage information systems for Baltimore County and ensure that all IT purchases and decision-making are aligned with the County's IT portfolio, strategy, and policy.

Best Practices and Benchmarks

Montgomery County (Maryland) provides a good example of an established Enterprise Architecture. Beginning in 2000, Montgomery County's Department of Technology Services initiated an Enterprise Architecture program, resulting in the publication of the County's Technical Architecture document in 2003. The architecture has been updated on a roughly annual basis ever since.

Montgomery County's Enterprise Architecture consists of five separate-but-interrelated sub-architectures:

- Business Architecture, which defines the business strategy, processes, business domains, and governance
- Technical Architecture, which defines the IT infrastructure and standards
- Data Architecture, which defines the data management infrastructure, policies, and governance
- Application Architecture, which defines the organization's software applications and standards
- Performance Architecture, which defines metrics for the system

Montgomery County's Enterprise Architecture includes a robust change management process, which includes stringent change management controls and designates an Enterprise Architect (See **Create an Information Technology Governance Council Across Baltimore County Government and Public Schools** elsewhere in this report for further discussion) to ensure that updates are coherent and representative of user needs. Full details of Montgomery County's Enterprise Architecture are available on their website.⁶¹⁶

The Maryland State Department of Information Technology has also published a handbook on enterprise architecture, which provides a valuable resource with various best practices, for instance.⁶¹⁷

*Note this recommendation is interrelated with, but distinct from the recommendation presented elsewhere in this report to create an **Information Technology Steering Committee**. That recommendation involves implementing a formal Information Technology Steering Committee and related formal IT governance with associated documented policies and procedures and for regularly updating an IT strategic plan. It is also related to, but distinct from, our recommendation to **Create an Information Technology Governance Council Across Baltimore County Government and Public Schools**, which involves creating a County Enterprise Architect position and defining a unified governance model.*

⁶¹⁶ <https://www.montgomerycountymd.gov/dts/resources/files/mcgenterprsearchitecture.pdf>

⁶¹⁷ <https://doit.maryland.gov/policies/Documents/Policies/DoIT-EA-Handbook.pdf>

4.5.2 RIGHTSIZING AND RIGHT-SKILLING OIT

Baltimore County would benefit from rightsizing/right-skilling the Office of Information Technology (OIT) to ensure the department has the right number of staff with the right mix of knowledge and skills needed to efficiently address all the County's IT needs. Employees should be encouraged or incentivized to take advantage of current training opportunities. Where relevant training opportunities are not available, OIT should investigate additional options.

Findings

According to the Chief Information Officer, OIT might more efficiently serve Baltimore County's needs with fewer employees than they currently have (approximately 230), as long as they have the knowledge, skills, and abilities to find innovative solutions to not just the technology problems of today but of the future as well. Public Works LLC agrees. Many within OIT have limited experience outside of working within Baltimore County, or have not updated their skills or certifications since completing college, leaving some with skills and expertise limited to technologies that are now a decade or more old.

In general, contractors are being hired to provide highly specialized skills and to work on temporary assignments. In some cases, contract positions are offered to evaluate an applicant's skills before committing to hiring on a full-time staff basis. In FY2021, Baltimore County is spending \$1,765,288 on 13 full-time contract workers and one on-call contract worker within OIT. Four of the full-time contract positions are funded through the CARES Act, at a total combined spend of \$113,281 in FY21 so far. All but one of the contractors (a call center representative) were hired for project work of a specific duration.

According to OIT leadership, the use of these contract positions makes it possible to bring in staff quickly and deploy them flexibly, as opposed to going through the process of hiring a full-time employee who may not be needed after a specific project is completed. The review team finds these practices to be appropriate and aligned with best practices. Continuing this practice will sustain an efficient, cost-effective approach to staffing.

In the long term, strategic efforts to right-size and right-skill the department should involve an audit and gap analysis of the skill sets currently available to the department, and likely to be needed now, and in the near future, to meet evolving and anticipated technology demands. This information should be used to inform professional development opportunities and recruitment efforts.

Of the 54 OIT employees who responded to the July 2021 Baltimore County Employee Insights on Efficiency survey, 41 percent have worked for Baltimore County for 15 years or more, and 26 percent for over 20 years. Forty-two (42) percent of respondents indicated that they plan to continue to work for Baltimore County for more than ten years. Only about 10 percent of individuals surveyed planned to retire within the next three years. OIT has reportedly tried to address the option of implementing early retirement programs, but it is not currently under consideration.

Rightsizing and right-skilling OIT with the optimal balance of expertise and modern skill sets will only benefit Baltimore County up to a point. To ensure that balance is continually maintained, and skill sets continuously updated, OIT should ascertain that the right training options are available in the newer technologies that the County is moving toward.

Benefit to the County

Offering early retirement programs, hiring staff with more modern skillsets, and enabling the remaining staff to keep up to date with the tools and training required to overcome all of Baltimore County's current and prospective challenges can provide the following benefits:

- Potentially be able to achieve more with fewer people
- Increase project and support delivery speed and quality due to having a team trained in the most relevant newer technologies
- Enable better decisions to be made as to new technology options and processes
- Through the advantages listed above, reduce costs and increase satisfaction of internal and external stakeholders

Best Practices and Benchmarks

ITMunch's definition of rightsizing is as follows: "In simple terms, rightsizing refers to getting the company to the optimal size, which will help meet its new business objectives."⁶¹⁸ Chron's David Ingram notes, "As a strategic tool rather than an emergency measure, rightsizing can include restructured job roles, workforce attrition or even voluntary early retirement."⁶¹⁹

During the ICMA 97th Annual Conference in 2011, "The Five Stages of Denial When Rightsizing" presentation referenced various approaches to rightsizing, including:

- economic development
- alternative revenues
- productivity enhancements
- consolidation and shared service
- outsourcing assessment services
- strategic resources alignment⁶²⁰

For reference, the website for Montgomery County, Maryland, provides a wealth of resources regarding its Department of Technology and Enterprise Business Solutions (TEBS), including an organizational chart.⁶²¹

Implementation Guidance

OIT should initiate a formal exploration (or skills audit) of exactly what skills the departments' employees currently have, what skills are needed to match current and future technology needs, and identify gaps and options for filling the gaps. Options may include developing those skills among the existing workforce and/or prioritizing those skills among future new hires. This effort should culminate in a strategic recommendation and formal plan presented to IT and County leadership. Ideally this audit should be performed by an outside party that specializes in IT skills and staffing analysis and has deep experience in the government sector, ideally county government.

618 <https://itmunch.com/everything-need-know-layoffs-rightsizing-benefits/>

619 <https://smallbusiness.chron.com/strategies-rightsizing-companies-75436.html>

620 https://icma.org/sites/default/files/303354_The%20Five%20Stages%20of%20Denial-all.pdf

621 <https://www.montgomerycountymd.gov/tebs/orgchart.html>

"Rightsizing Government: The Literature and the Detroit Experience," provides various lessons on how to implement rightsizing within government. The author, Janet Anderson, describes Detroit as "where a swirl of initiatives in this decade has invoked different and potentially competing concepts of rightsizing." She goes on to explain, "Without adjusting the mix of service responsibilities within and across jurisdictions overlapping an area, it is hard to imagine that sustainable reforms of service delivery systems will be realized. A broad-based definition of the sources of a jurisdiction's problems must be demonstrated through data-driven analysis, so that all stakeholders can be engaged around a common roadmap for action."⁶²²

According to the ICMA presentation, the primary options for rightsizing include flexible rightsizing (furloughs, reduced work weeks, sabbaticals, teleport, and pay cuts), eliminating programs/layoffs (typically requires an assessment), consolidating/shared service, and outsourcing of specialized skill sets (a fully loaded cost comparison is essential to determine business case).⁶²³ Seventy (70) percent of survey respondents indicated successful outsourcing of some government functions, 32 percent were considering outsourcing additional functions in the short term, and 11 percent ceased previously outsourced arrangements.⁶²⁴

Critical success factors for rightsizing include:

- clear fiscal benefit
- maintained or improved service delivery
- leadership
- trust
- shared perception of the need for change
- employee support⁶²⁵

When implementing rightsizing, it is important to consider the following:

- engage staff early and often;
- clearly articulate the situation (i.e., what are the skills gaps that need to be filled);
- encourage and reward innovation and collaborative thinking;
- share the options being explored and let staff be part of the solution;
- celebrate and empower⁶²⁶ staff through professional development and the creation of opportunities for advancement and promotion from within.

622 <https://www.jstor.org/stable/pdf/23077069.pdf?refreqid=excelsior%3A55fbc8353401577a5662b936b7344270>

623 https://icma.org/sites/default/files/303354_The%20Five%20Stages%20of%20Denial-all.pdf

624 Ibid

625 Ibid

626 Ibid

4.5.3 TECHNOLOGY SUPPORT

Baltimore County should investigate and pursue ways to better serve the specific IT needs of County agencies and expand technology and IT support resources to assist departments' specialized functions. These include, but are not limited to:

- **updating MaintStar,**
- **providing additional support within OIT to address audiovisual (AV) needs countywide,**
- **providing field employees with internet-connected devices or smartphones to increase efficiency and improve communication,**
- **improving responsiveness among GIS team to Board of Elections requests,**
- **increasing support for Fire Department software,**
- **providing a more robust media storage solution for the Police Department, along with digitization of the Department's personnel records for looming Public Information Act requests,**
- **helping the Office of Law to institute an electronic case management system and redaction software,**
- **enabling the Office of Law, the County's Destination Marketing Organization (DMO), and other entities in need of one, to develop easily updatable websites responsive to their needs, and**
- **developing a united Contact Relationship Management (CRM) system for departments and offices that deal regularly with businesses throughout the county, such as Economic Development; Workforce Development; Planning; and Permits, Appeals & Inspections.**

Findings

A greater focus on the specific IT needs of each agency, department and office will support Baltimore County's efforts to improve operational efficiency countywide. Recommendations elsewhere in this report discuss the need to modernize and reimagine countywide IT governance and services. The review team has called for consolidating and combining all broadband, network, and communications support services including BCPS into a single unified organization; connecting OIT and BCPS' DoIT under a countywide governance structure; creating a countywide IT steering committee that will provide for broader input; developing a countywide IT strategic plan; consolidating data centers and computer facilities; investing in cybersecurity; and generally driving the County closer to the paperless future⁶²⁷ – among many other recommendations.

Beyond the need for a new approach to addressing the needs of all County agencies, however, there is also a countywide challenge to find ways better to serve the specialized functions of each County agency. The specific challenge varies from agency to agency, but most agencies have some IT need that could be addressed more responsively – a systemic issue with agency-by-agency particulars. For instance:

MaintStar currently is used primarily by Recreations & Parks for work orders, requests, maintenance scheduling, expendable inventory, and equipment/vehicle maintenance. According to Baltimore County Property Management, inspection and inventory records are kept by hand, using a traditional checklist and clipboard. Use of an application with increased functionality would enable use of mobile devices for these functions, reducing time spent per inspection, decreasing errors, and improving efficiency across the process.

Opportunities currently exist to collaborate on asset management software with other County agencies, such as Recreation and Parks and the Department of Public Works. According to OIT, a project to upgrade MaintStar from v14 to v15 is pending, which will move the system from being hosted on-prem to being hosted in the cloud.

⁶²⁷ Providing collaboration and information management tools that support paperless workflow is a component of the OIT's strategic plan that was released after the review period and prior to the publication of this report.

Current staff and resources within OIT are not sufficient to provide audio-visual (AV) support to Baltimore County agencies. OIT staff report that Baltimore County currently engages with a vendor to provide AV support services, including setting up rooms and installing televisions and other AV equipment. Several staff members say reliance on external vendors causes unacceptable delays in installation and response to requests for support.

At present, according to the Baltimore County Property Manager, the Property Management field technicians do not have access to electronic devices to record what they have done and how long it took them to complete each task. Similarly, Baltimore County Recreation & Parks reportedly have several Naturalists and Park Rangers who are primarily field workers and who do not have access to internet-connected devices or smartphones to support their work.

Baltimore County's Property Manager said increased technology support could make it possible to reorganize some positions and increase staff effectiveness. For example, Property Management could use an online platform to ease inventories of County assets, and Recreation & Parks could potentially benefit from access to a database that tracks trail maintenance.

The Board of Elections, Voter Registration Department reportedly have not had updated maps software for two years, have difficulty gaining access to County GIS data, and find OIT response times inadequate. A lack of up-to-date technology affects how efficiently they can perform their roles within the County.

- According to the Baltimore County Fire Department, there currently is no dedicated OIT staff supporting the Fire Department's software. The Fire Department previously had an internal software support group, but that is no longer the case.
- According to the Baltimore County Police, the Department has been looking into expanding its media storage capabilities. Their body worn camera system has saved time and effort, allowing them to view the videos and use them as an investigative tool; however, they have increasing quantities of data to process, including audio, video, and cell phone files, and are looking for ways to better store and manage that information.
- The Office of Law expected [at time of writing] a deluge of Public Information Act (PIA) requests on October 1, 2021 when a new state law took effect making almost all police department personnel records public. PIA requests already consist predominantly of requests for the personnel and disciplinary records of police officers; the new law is expected to unleash blanket requests for all officer information from a range of civil rights groups and defense counsel. A conservative estimate is that this will require the collection, review, redaction, and production of at least 25,000 pages of information. All of this clearly would be more easily accomplished with digitization rather than by-hand processes – which would require several full-time staff devoted to the task by both the Police Department and Office of Law (neither of which currently have sufficient personnel to carry out the task). While digitization would cost more in the short-term than handling the material in a pre-computer age fashion, it would allow such PAI responses to go forward on a once-and-done basis; in fact, the results of such production could then be placed online, as in the City of Baltimore's "Open Baltimore" site (<https://data.baltimorecity.gov/>), allowing all future requests for police records simply to be referred to the existing public site with no further effort or cost – and furthering County Executive Olszewski's goal of greater transparency. None of this is possible today with the lack of technology and software support.
- The Office of Law more generally requires an electronic case management system, as well as redaction software, to carry out its duties. No modern law firm functions today without such software, which is readily available from numerous vendors for as low as \$300-\$500/year per user, although fully functional versions usually cost more in the range of \$1000/year per user. For the County's Office of Law, this would mean an expenditure of roughly \$20,000 a year, or less, well below the purchasing threshold. But OIT has blocked such a purchase, on the grounds that it can design a better system more cheaply itself than the widely available commercial products; unfortunately, it doesn't have the time to do so and doesn't consider this a priority project. For the Office of Law, however, it is essential.

- Like the Office of Law's idea of an easy-to-use open-data website for Public Information, other County agencies have need of specialized public-facing websites that can be updated easily and provide useful information to the public. One example cited by the Office of Tourism – which the reader will notice immediately upon sight – is the difference between the Office's government-issue website (<https://www.baltimorecountymd.gov/departments/tourism/>) and that of the County's tourism direct marketing organization (DMO), Enjoy Baltimore County (<https://www.enjoybaltimorecounty.com/>), and those of their Baltimore City counterparts: Explore Baltimore (<https://www.explorebaltimore.org/>) and Visit Baltimore (<https://baltimore.org/>).

The Office of Economic Development suggested to us the usefulness to the County of a unified Contact Relationship Management (CRM) system for all departments and offices that deal regularly with businesses throughout the county, such as Economic Development; Workforce Development; Planning; and Permits, Appeals & Inspections. This would allow each entity to learn instantly what other interactions a business has had with the County on tax, permit, expansion, employment, or other issues, which might facilitate or inform conversations by the other agencies with this business on the same or a related matter (e.g., a business the economic development office wishes to entice to expand, but which has had negative dealings with the County to date on its existing premises). OIT has been working to inject new unified systems such as Workday and LURA throughout multiple agencies – but relatively simple software unifications and streamlining lags, to the frustration of many and the creation of widespread inefficiency.

Benefit to the County

Ensuring that each agency has the necessary technical support to optimize its use of technology in fulfilling its specific responsibilities and achieving its goals is fundamental to efficient operations across county government. For example:

- Automating functions such as inventories and inspections and integrating the current work order system with other department activities will increase efficiency of essential work tasks. Sharing asset management software with other agencies will make it possible to integrate maintenance activities and planning across departments, resulting in further savings and the ability to reallocate staff time to under-resourced areas.
- The upgraded cloud-based version of MaintStar, which includes a mobile app⁶²⁸ that makes it possible for residents to use their smartphones to report issues such as graffiti, potholes, leaking hydrants, and damaged or missing signs. This function increases community connection with county government, extends the Property Management department's ability to monitor County infrastructure, and significantly shortens the time from initial report of an issue to completed repair.
- There is a clear need for additional AV support throughout Baltimore County. Allocating additional resources to this function within OIT will enable faster installation of equipment and provide more flexible, reliable assistance for those agency staff. Reducing lead time for installation and support also will translate into less time spent by County employees trying to install equipment and resolve issues on their own, without the help of industry professionals.
- Providing non-office-based employees and fieldworkers with online access could improve efficiency and communication and streamline workflows.
- With a more robust media storage solution, Baltimore County Police would be able to streamline the gathering, reporting, and sharing of investigation records, ultimately saving time and money, and creating a more efficient workflow for records management.

628 <https://www.maintstar.com/solutions/citizen-engagement/>

Implementation Guidance

OIT should work to create new policies and systems to manage and improve support, especially remotely. This could start with undertaking a frank debrief with members of all agencies, including:

- A summary of all the work OIT has been doing for the last three years, and where that work now stands.
- An explanation of what OIT hopes to achieve.
- An assessment of where OIT feels it can improve.
- Then, most importantly, soliciting honest feedback from the agencies on:
 - what has gone well and what has not.
 - where they need the most help.
 - where OIT's priorities are aligned with their needs and where they are not.
 - how OIT's processes could be improved.
 - how OIT could be more collaborative and inclusive in its decision-making process.

The larger OIT governance recommendations in this report should move the County a long way toward advancing ongoing customer-agency input into OIT decision-making on a permanent basis. But agency-by-agency input upfront as to existing needs and gaps would be a much-needed start.

4.5.4 CONSOLIDATE BROADBAND AND NETWORK SUPPORT

Consolidate and combine all broadband, network, and communications support services for Baltimore County and Baltimore County Public Schools into a single unified system.

Findings

Two organizations, the Office of Information Technology (OIT) and the Baltimore County Public Schools (BCPS) Department of IT (DoIT), currently support the network infrastructure of Baltimore County.

Combined, Baltimore County Government and BCPS invest more than \$34 million in data center and network operations annually. The FY2021 budget for Baltimore County OIT Infrastructure Services is \$13.7 million, and the FY2022 proposed budget for BCPS Network Support Services is \$20.5 million. Baltimore County employs 14 network/communications staff and BCPS employs 25, for a combined total of 39 staff.

At present, there appears to be no single, comprehensive operational/cost model or documented plan for County government and BCPS network services; the Public Works LLC review team requested such documentation, but none was provided.

Combining the two networks would require establishment of a formal governance model to ensure appropriate, equitable prioritization of broadband and network projects and investments across the two entities.

Although concerns have been raised regarding how the specific needs of both Baltimore County Government and the BCPS would be met under a reorganization of this scope, the review team is unaware of any specific requirements that should be unworkable under this initiative, with regard to the shared services recommended above. For example, content filtering, while drastically different for government users and K-12 students, is not a reason to avoid centralized network management. Specific content filtering can be adjusted with settings so long as the policy takes it into consideration. Currently, BCPS uses LightSpeed

Relay as their filtering solution, and can route students and teachers working from home through this cloud-based solution. This is a managed service that BCPS uses an annually renewable agreement.

Another issue that has raised concern about consolidating broadband and network support is potential complications regarding E-rate reimbursements. Prior to 2017, organizations were not allowed to provide services to themselves and bill for a reimbursement. Now, E-rate policy allows for this so long as a formal service level agreement is in place. Currently, the Baltimore County OIT and the Baltimore County Public Schools have a similar agreement and are being reimbursed through E-rate. Baltimore County could engage an E-Rate expert to review the current funding situation, services needed, services provided, and the opportunities to maximize reimbursement.

Benefit to the County

A comprehensive, standardized service catalog across Baltimore County agencies and public schools would support higher, standardized levels of service, provide more consistent security and reliability, prevent duplicative efforts and resource investments, and reduce costs.

Working together as a single entity would reduce the total full-time equivalent (FTE) hours required to fulfill a common set of network and communication services to Baltimore County Government, BCPS, Baltimore County Public Libraries, and residents.

Consolidation also will enable more flexibility and increase pricing leverage in negotiations with vendors for hardware and software. Standardization of processes and equipment will also save training and support costs. Centralization of support and management will expedite issue resolution and improve detection and resolution of network issues.

Five Year Savings Estimate

The experience of similar government entities suggests the following estimated five-year savings potential:

- Low-end range: 3 to 5 percent of all current operational, network service, and data center costs.
- High-end range: 10 percent of all current operational, network service, and data center costs.

More precise savings cannot be calculated with the data available to the review team: County officials have not provided actual operational details of network operations and services. The following documents were requested but not made available:

- A completed inventory, to include the location and the types and levels of service provided to the location
- High-level network architecture documentation
- For County and school locations not currently supported by OIT broadband, a plan to show when service will be provided to each location

Best Practices and Benchmarks

A 2017 study prepared for Montgomery County provides a useful overview of peer county network models.⁶²⁹ An internal analysis concluded that their countywide model provided an estimated cost avoidance of about \$3.7 million per year over a 15-year period.

629 <https://www.montgomerycountymd.gov/DTS/Resources/Files/fibernet/FiberNet%20OrganizationalStudy-FinalComplete-20170316.pdf>

Implementation Guidance

Baltimore County has no uniquely challenging network requirements. The review team has recommended a staged, phased implementation of shared services across the County and BCPS. Consolidation of broadband and network services should be included in the first stage of IT reorganization.

4.5.5 CONSOLIDATE SOFTWARE LICENSING

Systematically consolidate software applications by function to reduce licensing, maintenance, and support costs.

Findings

According to the Office of Information Technology, Baltimore County has 467 software applications within its purview. Many of these applications may serve highly similar functions. For example, Baltimore County currently uses separate systems to track staff applications for Police and for Human Resources. Property Management primarily uses MaintStar for asset management, although Baltimore County also holds licenses for Yardi and Cityworks Utilities. In some cases, multiple applications are needed for legitimate reasons, but these must be evaluated systematically to avoid unnecessary duplication.

While the application portfolio is extensive, OIT reports that the department is making progress on replacing various disparate systems with enterprise-wide solutions. One such initiative is to replace CassWorks and other applications utilized in the Department of Public Works & Transportation (DPWT) through a series of projects, some of which are scheduled to be implemented by the end of 2021 or midway through 2022.

OIT reports that it has implemented an intake process that reviews agency requests for best fit in an existing or net new enterprise solution; it further reports that as legacy systems sunset or agency needs expand OIT will always seek an enterprise solution for replacement. The review team acknowledges these efforts as commendable, however the intake process does not address consolidation opportunities in the current application portfolio.

Based on the information available to the review team, current documentation processes are not adequate to enable a full analysis of potential software consolidation opportunities. Public Works LLC requested documentation related to OIT's internal analysis of the current inventory of applications, identifying duplication, and removing overlaps. OIT provided the following documentation:

- A list of applications supported by OIT, including the related agency and, in some cases, its function; and
- A list of applications supported by OIT, including maintenance costs.

Although OIT provided an inventory of the software used in the county, the review team recommends that more detail about each software be gathered and maintained. The review team was unable to obtain the following documentation required to complete a full analysis of potential software consolidation opportunities and their projected cost savings:

- Inventory of all enterprise systems software licenses including the license unit numbers and costs
- Inventory of all end-user system software licenses including the license unit numbers and costs
- Inventory of approximately 500 applications IT supports and related license costs including enterprise systems, IT systems, departmental systems
- Details of the department's plan for reviewing the current inventory of applications, identifying and correcting duplication

The review team notes that an intake process for reviewing agency requests for best fit in an existing or new enterprise solution is already in planning or implementation stages, however documentation provided for this review revealed opportunities for improving OIT's process, documentation, and analysis of their existing software portfolio rather than only engaging new requests.

Benefit to the County

Software duplication and redundancy is likely to increase without a systematic process for cataloguing the County's hundreds of applications and their functions. Given the large number of software packages in use throughout Baltimore County, it is probable that many other systems provide overlapping or duplicative functions that decrease efficiency and impose unnecessary licensing costs.

By identifying and consolidating software licenses that serve duplicate or similar functions, Baltimore County could save considerable money, improve efficiency, and potentially identify gaps in its current software portfolio. Further savings may be achieved by optimizing existing licenses and negotiating prices with current suppliers. These savings cannot be quantified however without access to actual cost data from OIT.

Savings Estimates

A full analysis of potential consolidation opportunities and their associated savings was not possible with the documentation provided to the review team. The information needed to quantify potential savings includes actual costs for software licenses beyond maintenance costs. (See Findings above for specific data points the review team was unable to obtain.)

Best Practices and Benchmarks

Application consolidation that merges redundant systems into a common platform is understood as an industry best practice that reduces complexity, saves money on software licensing, and enhances information sharing and systems compatibility within an organization⁶³⁰

Cataloguing purchased software by functionality and features is essential to eliminating and preventing redundancy. As a best practice, software features should drive software purchases. Info-Tech Research Group, for instance, cautions that organizations must clearly identify the set of required features before selecting a package and advises that all candidate systems should be carefully reviewed, balancing licensing costs with specific functionality. By extension, when software functionality is thoroughly cataloged, duplicative software purchases can be more easily avoided.

630 <https://www.govtech.com/workforce/application-consolidation-where-the-real-savings-is.html>

Implementation Guidance

Baltimore County would be well served to conduct an audit of each of the nearly 500 software services and applications now in use. The result of this analysis should be documented and kept up to date in a database that contains the following information, at a minimum:

- Software name
- Purpose of software
- Main features of software
- Department(s) that use the software
- Number of users
- Frequency of use
- License, maintenance costs
- Costs to support
- Other software with similar features already in use by the County Overall importance of software

After this audit is complete, the resulting documentation can be used to identify software by functionalities and consolidate into fewer applications (or one application) wherever possible. In addition to identifying and eliminating unnecessary costs, this process also may uncover areas in which additional licenses are required.

4.5.6 SENSITIVE NETWORK INFORMATION

The Office of Information Technology (OIT) should conduct a thorough review of all publicly available and accessible information about its information network and component systems and should move swiftly to remove sensitive information from public view.

Findings

There is specific network information available online that could be used to launch a cyberattack against Baltimore County. For example, the review team was able to access a detailed geographic information system (GIS) map of the Baltimore County Optical Network.⁶³¹

OIT staff explained that this level of detail is provided online to the public as part of its outreach to current and potential users of its regional fiber network (dark fiber), which generated \$1,360,215 in income in FY2019. These revenues increased to \$1,537,068 in FY2020 and are projected to increase to \$1,918,270 in FY2021; operating expenses remained flat at \$757,596 in FY2020 and FY2021. Marketing the network to new users provides the County with a substantial opportunity to increase revenues without raising taxes.

In a meeting with the County Executive, the Baltimore County Chief Information Officer said it would be possible to obfuscate the information that is publicly available, to protect network security.

631 <https://bc-gis.maps.arcgis.com/apps/webappviewer/index.html?id=2cfcae48d12415e8214b767dc51ef4b>

Benefit to the County

Limiting the amount of publicly available information about network specifics will reduce the risk that Baltimore County will fall victim to the types of major, costly cybersecurity breaches that have recently affected Baltimore County Public Schools and Baltimore City. While there are no budgetary cost savings associated with this recommendation, the cost avoidance potential is vast.

Best Practices and Benchmarks

Cybersecurity best practices limit public sharing of vital network information to only those details required by law or regulation. Netwrix's "Network Security Best Practices" provides examples of technologies and methods that can be used to secure a network environment.⁶³²

Implementation Guidance

Given the recent cyberattacks on Baltimore-area government entities, it would be prudent to begin the network obfuscation process immediately. This process should include review and documentation of all sites where information on the Baltimore County IT optical network is available online.

One practical approach would be to search online using terms that a potential intruder might use to access information about the County network, its data centers, broadband components, and any sub-components. Ideally, OIT should also hire an "ethical hacker" to search for any sensitive information available online. Ethical hackers are IT professionals who are authorized to attempt to gain otherwise unauthorized access to systems for the purpose of identifying and resolving vulnerabilities.

All vulnerabilities found should be documented, along with details of actions OIT has taken to address these problems and secure the network. This document should be shared with the County Executive's Office. This could be done in conjunction with a cybersecurity assessment, as recommended elsewhere in this report. (See **Cybersecurity Assessment**.)

OIT should contact County departments and network users to assess and document their specific needs for information about the network, data centers, and other related systems. Their responses should be used to revise and limit network information available on Baltimore County's website; as possible, Baltimore County should contact other sites to request revision or elimination of online network information.

OIT also should create and disseminate guidelines for County staff to raise awareness of network security; these guidelines should clearly state the types of information that should never be posted online, as well as recommendations for swift response to any apparent threats to network security.

⁶³² https://www.netwrix.com/network_security_best_practices.html

4.5.7 CYBERSECURITY ASSESSMENT

Hire an independent security consultant to conduct a thorough evaluation of the County’s cybersecurity infrastructure and policies. In addition, Baltimore County would benefit from a comprehensive independent assessment of its networking capabilities.

Findings

In 2019, hackers seized control of the City of Baltimore’s computer systems in a ransomware attack that hobbled government operations for weeks. Last year, the Baltimore County Public Schools system suffered a serious cyberattack that rendered some student records unrecoverable. Earlier this year, an inadvertent breach exposed a large quantity of BCPS employee’s personal data on the district’s website. These types of cybersecurity threats, both malicious and inadvertent, represent real risks to Baltimore County, its employees, and its constituents.

Given that the City of Baltimore and Baltimore County schools have recently suffered cyberattacks, it is not unlikely that Baltimore County could be targeted. Additionally, the continued use of outdated and unsupported software systems (e.g., Windows 7, Access 97) in some departments at the time this review was undertaken increases Baltimore County’s vulnerability to a security breach. It is understood that OIT is currently working to phase out their use.

Baltimore County OIT reports that it follows NIST cybersecurity guidelines.⁶³³ Upon review of the County’s cybersecurity plan, however, the review team identified limitations and believes that a more robust plan is needed.

Benefit to the County

It is almost impossible to overstate the potential cost of a cyberattack, in dollars, in time lost, and in essential public services interrupted. Hiring an independent firm experienced in such reviews to lead a thorough cybersecurity audit and updating systems and policies accordingly will require material upfront investment. While there are no budgetary savings associated with this recommendation, the potential cost avoidance dwarfs the expense required.

Best Practices and Benchmarks

Last September, Fairfax County Public Schools (Virginia) was targeted by a cyberattack one of more than 1,000 such attacks on educational systems in the past year.⁶³⁴ Although the attack resulted in a limited data breach, the district’s cybersecurity systems were sufficient to reduce the impact of the attack. The district also had a strong IT response team in place. Thanks to their swift action, there was no delay in the first day of school, and the district was able to meet its payroll and administrative obligations. The district has since implemented several cybersecurity-related enhancements and continues to evaluate additional methods to harden its defenses.

Cecil County (Maryland) Department of Information Technology has published its cybersecurity strategy plan on its website. Their plan offers a strong example of the ways Baltimore County could enhance its own cybersecurity.⁶³⁵

633 <https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-53r5.pdf>

634 <https://www.fcps.edu/blog/update-cybersecurity-incident>

635 <https://www.ccgov.org/home/showpublisheddocument/34552/637012076418200000>

Certain network assessment tools offered by managed IT service vendors provide insight into the following:

- Network performance issues
- Security assessment
- Capacity/storage issues
- Network-related issues
- User-related issues
- Networks/servers used throughout Baltimore County

Implementation Guidance

The audit should be undertaken by a reputable, experienced, impartial, outside firm and should be sponsored by County leadership. Network assessment should be comprehensive, looking at how all types of networked devices (such as computers, laptops, iPads, servers, routers, etc.) are managed and secured. This recommendation should be implemented with the greatest expediency, as the review team believes that Baltimore County could be at significant risk of attack.

4.5.8 CYBERSECURITY RESOURCES

Reduce the risk of a future data breach/cyberattack by increasing the resources available to the Chief Security Officer, both by adding highly experienced cybersecurity professionals to County staff and by partnering with an outside vendor focused on vulnerability management.

Findings

Last year, Baltimore County Public Schools (BCPS) suffered a serious cyberattack. In April, it was reported that a large quantity of BCPS personal data was available on the web.⁶³⁶ Such cybersecurity threats represent real risks to Baltimore County, its employees, and its constituents.

Baltimore County's Chief Information Security Officer is assigned to oversee and manage cybersecurity. At the onset of this review, OIT had no other staff assigned specifically to cybersecurity, although they have recently filled on IT security position and are in the process of hiring for another. The review team acknowledges and commends this effort, but nevertheless observes the need for additional staff resources to be allocated to cybersecurity. Typically, an organization of the size and type of Baltimore County IT would be expected to have five to ten IT security professionals.

Given that the City of Baltimore and BCPS have had the dubious distinction of having been the target of major hacking and cyberattacks, it is very likely that any government agency associated with Baltimore or Baltimore County is high on the "radar" of potential hackers. The likelihood that another cyberattack will be attempted in the next five years would seem very high.

636 <https://www.wbalte.com/article/baltimore-county-public-schools-accept-responsibility-for-data-breach/36109608#>

Benefit to the County

Investing further in cybersecurity could save Baltimore County significant money in avoiding potentially costly cybersecurity threats. According to the Baltimore Sun,⁶³⁷ Baltimore City officials agreed to pay \$6 million in 2019 to help cover costs associated with a ransomware attack and considered purchasing a \$20 million cyber liability insurance policy for \$830,000. Baltimore City's budget office has estimated that the ransomware attack will cost at least \$18.2 million as a combination of lost revenue and direct costs to repair their systems. Baltimore County could avoid an emergency expense of \$1 million to \$9 million by preventing a similar attack. However, with cyber threats on the rise, the frequency of these events could increase drastically the value of cost avoidance.

Best Practices and Benchmarks

When Fairfax County Public Schools (Virginia) was the victim of a cyberattack in September 2020, they were prepared enough to react accordingly and began implementing security enhancements. "Due to the swift action of our IT team, we were able to restore virtual learning operations in time for the first day of school, which have continued without disruption. The incident has also not affected our ability to meet payroll and administrative obligations. We have implemented several cybersecurity-related enhancements and are continuing to evaluate additional steps that may be taken to further harden our defenses."⁶³⁸

As a result of the attack, Fairfax County Public Schools retained leading outside security experts to determine the nature and scope of the incident. Additional details about the cybersecurity incident⁶³⁹ and the Fairfax County Information Technology Security Policy are available on the Fairfax County Public Schools website.⁶⁴⁰

According to the National Association of Chief Information Officer's (NASCIO) 2021 State and Local Tech Forecast, Cybersecurity and Risk Management ranked Number One for strategies, policy issues, and management processes; the category has held the top place for eight consecutive years and has been on their Top Ten list since 2006.⁶⁴¹

DeKalb County, Georgia's fourth most populous county, has four FTEs assigned to cybersecurity. The City of Roseville, California uses a cross-functional approach, with 11 team members assigned to cybersecurity from various departments, including human resources, police, utilities, and information technology.⁶⁴²

Implementation Guidance

It is not easy to find the right cybersecurity staff. A joint report from ICMA and Microsoft, "Cybersecurity: Protecting Local Government Digital Resources," states that "an available workforce is simply not there for local governments to hire. Thirty-five percent of organizations have open security positions that they are unable to fill, and 53 percent say it can take as long as six months to fill one need." According to CEO of iSheriff, Paul Lipman, a "typical state or local government agency spends less than five percent of its IT budget on cybersecurity, compared to over ten percent in the typical commercial enterprise."⁶⁴³

Before hiring additional cybersecurity staff, OIT should evaluate its current and future cybersecurity staffing needs as compared to the newly developed IT Strategic Plan and the County's strategic direction. This effort should culminate in a documented plan for hiring the right people with the right skills to meet Baltimore County's identified needs. As noted above, the review team recommends that vulnerability management should be handled by an outside partner who specializes in this field.

637 <https://www.baltimoresun.com/politics/bs-md-ci-ransomware-expenses-20190828-njgznd7dsfaxbbaglnvnbkjihe-story.html>

638 <https://www.fcps.edu/blog/update-cybersecurity-incident>

639 <https://www.fcps.edu/information-about-cybersecurity-incident>

640 https://www.fairfaxcounty.gov/informationtechnology/sites/informationtechnology/files/assets/security/pm70-05_01.pdf

641 https://www.nascio.org/wp-content/uploads/2021/01/NASCIO-PTI-Tech-Forecast_2021_FINAL.pdf

642 Ibid

643 <https://icma.org/sites/default/files/18-038%20Cybersecurity-Report-hyperlinks-small-101617.pdf>

Given the known and ubiquitous challenges faced by local governments in hiring cybersecurity talent, Baltimore County could consider the following recruiting guidance:

- IT security department (or individuals within OIT who best understand the department's security needs) should lead the recruiting process;
- Use the NICE Framework⁶⁴⁴ (National Initiative for Cybersecurity Education)⁶⁴⁵ to refine job requirements, duties, knowledge, and skills;
- Standardize cybersecurity job titles and market/promote job openings strategically where the right talent will see them;
- Be willing to provide or secure some additional training for candidates who are otherwise good fits;⁶⁴⁶
- Assess the current cybersecurity environment;
- Identify and remove any hidden bias in your hiring process.⁶⁴⁷

*Note that this recommendation is aligned with but distinct from **Cybersecurity Assessment**. That recommendation involves hiring an outside firm to conduct a thorough evaluation of Baltimore County's cybersecurity stance.*

4.6 Modern Technologies and Tools

This chapter and this report concludes with several IT systems or practices that would benefit from modernization – the software by which the County manages much of its internal business processes, the IT allowing it to offer more modern services to County residents, and the policies and efforts needed to enable these residents to move forward technologically themselves as the government and economy around them does so.

Baltimore County OIT should prioritize swift elimination and replacement of any and all remaining outdated software currently in use, which may include Windows 97 and Access 97. As of the period during which this review was undertaken, Baltimore County continued to support use of outdated Windows 7 software. Continued use of Windows 7, which is no longer supported by software and security updates, puts users at greater risk for viruses and malware. Commendably, at the time of this review OIT was in the process of replacing these systems with up-to-date enterprise solutions, such as Windows 10, and has purchased access to the Extended Security Update (ESU) program for the next two years. Eliminating the use of Windows 7 software and upgrading to currently supported products will save costs on product support, streamline workflows, improve security, and improve efficiency overall across County IT.

The County also should develop an appropriate Bring Your Own Device (BYOD) policy and provide a stipend to certain (non-public safety or security-involved) professional staff for using their own cell phones where feasible, rather than providing them with County-owned cellular devices, which will reduce annual costs in addition to staff time and resources required to administer an inventory of devices. It is not advisable, of course, for every employee to use their personal phone for county business: Employees who routinely handle sensitive information such as HIPAA-protected data, personal and financial data, security information; certain public safety employees including police officers; and mission-critical employees who cannot risk brief periods of phone downtime, should all be excluded from a BYOD option.

644 <https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-181r1.pdf>

645 <https://www.nist.gov/itl/applied-cybersecurity/nice/nice-framework-resource-center>

646 <https://www.tripwire.com/state-of-security/risk-based-security-for-executives/connecting-security-to-the-business/cyber-security-recruiting-win-top-candidates-tips/>

647 <https://www.nist.gov/system/files/documents/2020/10/30/HR%20One%20Pager%20Final.pdf>

The County's current printing and publishing services are commendable, however, some improvements can be made. Baltimore County's OIT should enhance its lease agreements where possible to include auto-reorder of supplies. Baltimore County also would save money by reducing the use of small desktop printers by staff across departments and migrating those users to high-capacity copiers.

The Permits and Licensing Division, and the Development Management Division within the Permits, Approvals, and Inspections (PAI) Department, should modify its current availability of phone and email contact information for its senior staff and transition its administrative phone setup to a Virtual Call Center (VCC) that screens and relays calls to the appropriate staff. The availability of contact information for senior staff on the PAI website and the limited functionality of the phone system used in the Permits and Licensing and Development Management divisions impedes efficient and cost-effective information provision to applicants. The PAI website lists phone numbers and emails for all senior staff members; this results in an increased call volume to high-level staff regarding low-level issues. The current phone system also lacks basic features such as an intercom function and the ability to answer calls that are on hold from elsewhere, which limits staff's capability to transfer constituents to the appropriate staff member. The technological limitations of the current phone system result in some phone numbers that ringing on up to 30 desks simultaneously; this disrupts workflow and results in a diffusion of responsibility. The County should explore the expansion of its Virtual Call Center phone system to other departments that receive a high call volume, such as the divisions of the Department of Public Works and Housing.

Finally, PAI is transitioning from a paper-based permit review process to a digital review process, but the computer monitors currently used in office are not large enough to efficiently review digitally displayed plans, which threatens to make the transition to digital permitting inconvenient and slow. Approximately 80 percent of the plans in the County were originally electronic drawings. Thus, the transition from a paper-based application process to a digital platform will significantly enhance efficiency, given the appropriate hardware. Some of the plans submitted to PAI are very large and cannot be efficiently reviewed on standard-size computer screens PAI currently utilizes. PAI should provide staff with dual monitors at their desktop workspaces to facilitate a more efficient permit review and boost staff productivity and satisfaction. At time of writing, OIT reports plans to implement these dual monitors.

4.6.1 UPDATING OUTDATED SOFTWARE

The Office of Information Technology (OIT) should prioritize the swift identification, elimination, and replacement of any remaining outdated software currently in use, including Windows 97 and Access 97.

Findings

At the time this review was undertaken, Baltimore County continued to support use of outdated Windows 7 software. Commendably, OIT has long been in the process of replacing these systems with up-to-date enterprise solutions, such as Windows 10. The Windows 10 upgrade project launched in mid-2017, with orientation and planning activities with specific agencies starting in January 2018. In some cases, however, (such as Baltimore County Public Library), these systems replacements are reported to have been pending for three years or more. These systems should be retired as soon as possible.

Microsoft's extended support for Windows 7 ended on January 14th, 2020.⁶⁴⁸ Microsoft has warned that continued use of Windows 7 without continued software and security updates puts users at greater risk for viruses and malware. To avoid security breaches, Baltimore County has purchased access to the Extended Security Update (ESU) program for the next two years, which is "a last resort option for customers who need to run certain legacy Microsoft products past the end of support."⁶⁴⁹

⁶⁴⁸ <https://www.microsoft.com/en-us/windows/windows-7-end-of-life-support-information>

⁶⁴⁹ <https://docs.microsoft.com/en-us/lifecycle/faq/extended-security-updates>

According to Baltimore County's Chief Information Officer, 5,589 Windows 10-equipped devices are currently in use, with 1,520 devices still running Windows 7 devices. The CIO reports that Windows 10 deployment has been completed or is nearly complete for 21 agencies and is in process for the remaining agencies. At the time of writing, the countywide upgrade to Windows 10 is scheduled for completion by 2021 yearend.

Benefit to the County

Eliminating the use of Windows 7 software and upgrading to currently supported products will save costs on product support, streamline workflows, improve security, and improve efficiency overall countywide.

Best Practices and Benchmarks

The costs of maintaining and supporting outdated legacy systems are significant. The costs of these systems are not simply financial; as systems age, it becomes increasingly difficult to monitor security patches and updates, posing serious cybersecurity risks for government enterprises.

A joint cybersecurity advisory co-authored by the FBI, the Cybersecurity and Infrastructure Security Agency (CISA), the Environmental Protection Agency (EPA), and the Multi-State Information Sharing and Analysis Center (MS-ISAC) reported that a February 5, 2021, cyberattack on a Florida drinking water treatment plant was attributed to "cybersecurity weaknesses" that included continued use of Windows 7. Although the water treatment plant apparently was not protected by an ESU program, the hack – which could have devastated the community's drinking water resources – underscores the cybersecurity risks associated with use of outdated software.

The advisory further warns: "Windows 7 will become more susceptible to exploitation due to lack of security updates and the discovery of new vulnerabilities. Microsoft and other industry professionals strongly recommend upgrading computer systems to an actively supported operating system. Continuing to use any operating system within an enterprise beyond the end-of-life status may provide cyber criminals access into computer systems."⁶⁵⁰

Implementation Guidance

Baltimore County OIT should continue to prioritize replacement of all Windows 7 systems with up-to-date equivalents, using existing procedures for software upgrades.

⁶⁵⁰ https://us-cert.cisa.gov/sites/default/files/publications/AA21-042A_Joint%20Cybersecurity%20Advisory_Compromise%20of%20U.S.%20Water%20Treatment%20Facility.pdf

4.6.2 BRING YOUR OWN DEVICE (BYOD) POLICY

Develop a Bring Your Own Device (BYOD) policy and provide a stipend to certain employees for using their own cell phones where feasible, rather than providing them with County-owned cellular devices. This will reduce annual costs in addition to staff time and resources required to administer an inventory of devices.

Findings

Bring Your Own Device (BYOD) policies, which encourage, or in some cases require, employees to use their personal devices for work, are rapidly expanding in both government and corporate environments. Usually (but not always) employees are provided a monthly stipend to cover partial device costs in exchange for using their own device for work-related communications. The 2016 Cisco Annual Report reported that 69 percent of IT decision-makers are in favor of BYOD policies and that workers are more efficient and productive when using their own devices.⁶⁵¹ In 2010, Dell reported that 50 percent of workers over 30, and 61 percent of workers 30 and under, found their personal devices to be more effective in accomplishing work tasks than their work-issued devices.⁶⁵² Over a decade later, this sentiment has likely increased as millennial generation and younger employees make up an increasing portion of the workforce.

In 2019, Baltimore County paid \$580,825 for cell phones used by County employees. This increased to \$934,036 in 2020 at least partially due to the COVID-19 pandemic. As of March 2021, Baltimore County had 1,980 cell phones in their inventory and spent \$78,654 that month to maintain them. That equates to approximately \$40 per device per month. This does not include the costs in staff time spent performing maintenance or inventory tasks on County-owned devices.

There are reasons that some Baltimore County employees should not use their personal phones for business. The County reportedly receives free equipment due to the volume at which they purchase cellular devices. The current contract also excludes activation or termination fees, which allows for the suspension and reactivation of lines for seasonal workers or where needed. Government plan users are reportedly also eligible for upgrades more frequently than individual consumers. Baltimore County's Chief Information Officer also explained that Priority and Preemption features are only available to government profiles, meaning that any normal consumer could potentially lose features during high volume/usage or other crisis events. Baltimore County reportedly has Verizon BDA in some facilities to enhance coverage within older buildings. The credit check that often accompanies purchasing a cellular device use plan may deter some County employees from obtaining a personal device if they do not already have one; however, for employees requiring basic voice service only, low-cost, pre-paid phones are available without a credit check.

It is not advisable for every employee to use their personal phone for county business, of course. Employees who routinely handle sensitive information such as HIPAA-protected data, personal and financial data, security information; certain public safety employees including police officers; and mission-critical employees who cannot risk brief periods of phone downtime, should all be excluded from a BYOD option. However, Baltimore County should consider the significant savings potential of transitioning certain employees who have County-issued phones to a BYOD plan – especially those whose roles require basic phone and email use that is uncomplicated by special performance, security, or safety considerations.

651 2016 Cisco Annual Report. https://materials.proxyvote.com/Approved/17275R/20161014/AR_300358/INDEX.HTML#/40/

652 "Consumerization: What is in Store for IT." Dell. July 2010. https://i.dell.com/sites/content/business/solutions/whitepapers/it/Documents/intel-imr-consumerization-wp_it.pdf

Benefit to the County

The 2016 Cisco Annual Report found that BYOD policies can save organizations an average of \$350 and up to \$1300 per employee.⁶⁵³ According to a 2019 survey by Oxford Economics, organizations with BYOD policies provide mobile reimbursements averaging \$36 per month, or about \$430 per year, per employee.⁶⁵⁴

While there are certain benefits to providing employees with County-owned devices, among them that OIT can more effectively control the phone if it is ever lost or stolen, there are also various benefits to providing County employees reimbursements for using their own cellular devices, where appropriate. Some examples include saving money on service contracts and the time spent managing the inventory of devices.

As noted above, it is understood that not all employees would be able to use their own cell phones for work purposes. For example, Baltimore County Police officers would not be able to use personal devices to view body-worn camera (BWC) footage or to collect evidence. Other emergency workers who require their devices to be working during crisis events will rely on the Priority and Preemption features provided by using a County-owned cell phone. In cases where security, confidentiality, compliance, or access to their devices in an emergency are vital, Baltimore County should continue providing employees with County-owned cellular devices. Some additional benefits of allowing some employees to use their own cell phones for business and providing a monthly stipend are:

- Employees avoid having to carry two phones.
- OIT would not be responsible for maintenance, support, and repairs thereby reducing costs and administrative burden.
- Typically, this type of employee allowance is a non-taxable benefit.
- Multiple studies suggest that employees perform work tasks more efficiently on their personal devices.⁶⁵⁵
- A new BYOD policy may enable the County to allow some employees who not been previously had a County-issued phone to use their own device to increase productivity when a laptop is not accessible – at a lower cost than a County-issued phone – improving access and response times, increasing productivity, and issue awareness in times of emergencies.

Five-Year Savings Estimate

	County One Full Year	Five Years
Low End Range	\$23,760	\$118,800
High End Range	\$178,200	\$891,000

Low-end estimate assumes that 25 percent of the County's 1,980 phone lines would be replaced with personal reimbursable lines at a \$36 stipend (savings of \$4 per line per month, or \$48 per line per year) or $(0.25)(1,980)(48) = \$23,760$.

High-end estimate assumes that 50 percent of the County's 1,980 phone lines would be replaced with personal reimbursable lines at a \$25 stipend (savings of \$15 per line month or \$180 per line per year) or $(0.5)(1,980)(180) = \$178,200$.

There are no upfront costs associated with this recommendation; it is expected that necessary policy updates and initial employee outreach can be managed with existing resources.

653 2016 Cisco Annual Report. https://materials.proxyvote.com/Approved/17275R/20161014/AR_300358/INDEX.HTML#/40/

654 <https://insights.samsung.com/2020/02/04/how-much-should-you-compensate-byod-employees-for-mobile--2/>

655 Bullock, Lilach, "The Future of BYOD: Statistics, Predictions, and Best Practices to Prep for the Future," Forbes. Jan. 21, 2019. <https://www.forbes.com/sites/lilachbullock/2019/01/21/the-future-of-byod-statistics-predictions-and-best-practices-to-prep-for-the-future/?sh=33c992761f30>

Best Practices and Benchmarks

In 2019, Palm Beach County (Florida) began approving personal phone stipends to employees who meet any of the following criteria:⁶⁵⁶

- The job function requires considerable time outside of their assigned office or work area and it is important that they are accessible during those times.
- The job function requires them to be accessible outside of scheduled or normal working hours.
- Duties require regular contact with their office, outside vendors and/or customers while away from the office.
- The employee is a critical decision maker.
- Safety requirements indicate having cellular phone is an integral part of performing duties of job description.

Now, Palm Beach County only issues phones to employees on a limited/exceptional basis. Similarly, Colusa County (California) has provided personal phone stipends for employees who are approved to use their own phone for work purposes since 2010; the allowance is only intended to pay for the average business use of the phone, not to pay for the employee's entire phone bill. County-issued phones are provided on a limited basis.⁶⁵⁷

According to the Salt Lake County (Utah) Policy on Employee Use of Cell Phones, "Employees may be given an ongoing allowance, reimbursed for actual costs incurred for these services, or may be provided these services by their agency pursuant to the discretion of the Department or Elected Official and the budget allocation granted by the Council. Reimbursements and allowances are subject to review and approval per this policy."⁶⁵⁸

Santa Clara County (California) has also taken additional steps to reduce the expenses associated with their 4,800 cell phone lines, with savings estimated at over \$650,000. These included the following cost-saving measures: ⁶⁵⁹

- Identifying and eliminate underutilized phone numbers/phone lines as appropriate.
- Eliminating county phones primarily used for email access (with the exception of those used to access emails covered under HIPAA) and instead providing a monthly stipend for the use of the employee's personal smart phone.
- Rightsizing phone plans to actual usage.
- Clarifying the criteria by which the issue of a County-owned cell phone is justified.
- Requiring county departments to update their cell phone policies to align with the County's policy, and to include department-specific detail.
- Strengthening financial accountability through a Telecommunication Internal Services Fund.
- Conducting an audit of county resources dedicated to administering the county's telecommunications services, including land lines and cell phones, and assess the feasibility of a centralized telecommunications unit.
- Competitively bid the county cell phone service as a single-vendor contract, obtaining bids for one-, three-, and five-year leases.

Implementation Guidance

The review team recommends that Baltimore County begin this initiative by analyzing county cell phone utilization; establishing criteria by which to identify positions that require a County-issued cell phone due to the nature of their job duties, for data or physical security, or other reasons, and are therefore *not* BYOD eligible; and developing a BYOD policy that serves the needs of Baltimore County. The County must update its existing policy governing employees' use of mobile devices to reflect BYOD issues. Staff from OIT, Human Resources, and the Law Office should participate in the development of this policy, which should address employee eligibility, records management, employee support and guidance for the new policy, employee privacy, IT strategy,

656 <http://www.pbcgov.com/publicaffairs/ppm/pdf/CW-O-085.pdf>

657 <https://www.countyofcolusa.org/DocumentCenter/View/8909/POLICY-316?bidId=>

658 <https://slco.org/globalassets/1-site-files/policies/countywide/1035.pdf>

659 https://board.sccgov.org/sites/g/files/exjcpb936/files/Cell_Phone_Final_Report_100311.pdf

budget, and reimbursements, among other potential concerns. We recommend that the stipend be set at a single flat rate or very few (two or three) tiered rates in the range of \$25-36 per month (based on expected phone utilization for the position) to realize the intent of reducing the County's administrative burden.

Baltimore County should consider launching a new BYOD policy in a phased approach, retiring a portion of County-owned cell phones by offering newly BYOD-eligible employees the opportunity to return their County-issued phone in exchange for the monthly stipend as reimbursement for transitioning to the use of their own personal devices. The review team anticipates that most eligible employees will opt-in to this transition for the benefits described above. Going forward, new employees whose positions are BYOD eligible, but who do *not* wish to use their personal phone for work purposes and receive a stipend and prefer instead to be issued a County-owned phone, should request the approval of their department heads on a case-by-case basis.

One common objection to BYOD has been the fear that stipends could be taxable, which was true in the past. However, in 2011 the IRS stated that when employers give reimbursements for business use of cell phones, that money is not taxable.⁶⁶⁰ According to Lippman, Semsler & Salb, LLC, "so long as the employer has a substantial noncompensatory business reason for requiring the employee to maintain that personal cell phone, reimbursement to the employee—even for the full cost of the employee's flat-rate plan—for the use of the phone will not be considered taxable income so long as the employee's plan is a reasonable plan for the business need."⁶⁶¹

According to the IRS's Employer's Tax Guide, How you report a reimbursement or allowance amount depends on whether you have an accountable or a nonaccountable plan:⁶⁶²

To be an accountable plan, your reimbursement or allowance arrangement must require your employees to meet all three of the following rules:

1. *They must have paid or incurred allowable expenses while performing services as your employees. The reimbursement or advance must be payment for the expenses and must not be an amount that would have otherwise been paid to the employee as wages.*
2. *They must substantiate these expenses to you within a reasonable period of time.*
3. *They must return any amounts in excess of substantiated expenses within a reasonable period of time.*

Amounts paid under an accountable plan are not wages and are not subject to income, social security, Medicare, and FUTA taxes.

IRS Publication 535, Business Expenses, describes business expenses as the following:

*To be deductible, a business expense must be both ordinary and necessary. An ordinary expense is one that is common and accepted in your industry. A necessary expense is one that is helpful and appropriate for your trade or business. An expense does not have to be indispensable to be considered necessary.*⁶⁶³

There are stipulations, however:

*For instance, if the employer has an accountable plan, but the employee fails to properly substantiate the expenses within a reasonable time, or the employee fails to return excess advance payments, then any reimbursements could become taxable income... In addition, if any expenses are paid in excess of IRS limitations, then the excess is taxable income.*⁶⁶⁴

Clear guidance on the instances in which there may be tax ramifications should be provided to employees who are approved for a phone stipend, in consultation with the Law Office.

⁶⁶⁰ <https://www.irs.gov/pub/irs-drop/n-11-72.pdf>

⁶⁶¹ <https://www.lslawyers.com/articles/is-employer-reimbursement-for-cell-phone-use-taxable-income/>

⁶⁶² <https://www.irs.gov/pub/irs-pdf/p15.pdf>

⁶⁶³ <https://www.irs.gov/pub/irs-pdf/p535.pdf>

⁶⁶⁴ <https://justworks.com/blog/expenses-101-expense-reimbursements-taxable-income>

4.6.3 PRINTERS AND COPIERS

The Office of Information Technology should improve printer and copier lease agreements where possible to include auto-reorder of supplies. The County also would save money by reducing the use of small desktop printers by staff across departments and migrating those users to high-capacity copiers.

Findings

Baltimore County OIT printing and publishing services are used primarily for high-volume jobs, such as jury notices, licenses, and tax bills. Baltimore County leases copiers and high-end printers and uses two print server applications to manage printing via IP, as well as a mainframe printer application for document conversion. This configuration will change when the new Payroll and Property Tax systems are live.

By providing printing and copying services in-house, Baltimore County is currently achieving lower costs than by outsourcing these jobs. The industry average cost per page is \$0.02 for black and white and \$0.10 for color printers. By comparison, market rates for outsourced print jobs are around \$0.14 per page for black and white and \$0.30 for color.

According to staff, the large multi-function printers have not been set up for auto-reorder of supplies. As a result, administrative staff are required to keep track of supply levels for multiple machines from different manufacturers and place individual restocking orders. This process is time-consuming and inefficient. Past attempts to streamline the process by reordering in bulk have resulted in machines being replaced before those supplies are used, resulting in wasted expenditure on unusable printer cartridges and other supplies. Auto-reordering of printing supplies based on predicted use was cited in a 2019 Consumer Reports article as a cost saving measure for organizations using relatively stable quantities of supplies, with savings of up to 50 percent.⁶⁶⁵ This is a service offered by most vendors who discount the cost of the supplies with a standing order.

In addition to the central printing operation, staff report that small desktop printers are also in use throughout Baltimore County. This presents another opportunity to save on the cost of printing supplies; desktop and inkjet printers are far less efficient than the high-capacity multi-function printers. Further savings could be achieved by encouraging departmental staff to shift away from using individual desktop machines to large multi-user machines for routine printing tasks. The cost per page of printing on a desktop machine (\$0.05 - \$0.10) can be over two- to five- times the average cost per page of a high-capacity laser jet printer (\$0.02); these unit costs are small, but over hundreds of thousands of prints, they become significant. OIT reports that migrating users from small desktop printers to workgroup printing using high-capacity copiers is already in planning, documentation of that effort was not available to the review team.

Benefits to the County

In addition to a significant, ongoing discount on printing supplies, adjusting lease terms to include supply auto-reordering will also save staff time and reduce waste. Further incremental cost savings will accrue as small desktop printers are removed from circulation.

Implementation Guidance

OIT should continue its cost-efficient practice of providing printing and copying services in-house using leased printers. OIT should further reduce printing costs by revising or negotiating lease agreements to include auto-reorder of supplies, in quantities based that are based on actual use levels, at discounted prices. Baltimore County should consider phasing out support of desktop printers and generally limit their use to special circumstances.

⁶⁶⁵ <https://www.consumerreports.org/printers/ways-to-save-money-on-printer-ink/>

4.6.4 PHONE SYSTEM (VIRTUAL CALL CENTER)

The Permits and Licensing Division, and the Development Management Division within the Permits, Approvals, and Inspections (PAI) Department, should modify its current availability of phone and email contact information for its senior staff and transition its administrative phone setup to a Virtual Call Center (VCC) that screens and relays calls to the appropriate staff.

Baltimore County could explore the expansion of the Virtual Call Center phone system to other departments that receive a high call volume, such as the divisions of the Department of Public Works and Transportation and the Department of Housing and Community Development.

Findings

The availability of contact information for senior staff on the PAI website and the limited functionality of the phone system used in the Permits and Licensing and Development Management divisions impedes efficient and cost-effective information provision to applicants.

The PAI website lists phone numbers and emails for all senior staff members. This results in an increased call volume to high-level staff regarding low-level issues. Many staff have reported that this impedes them from completing their job responsibilities. Senior staff members recently reported that half of their day is spent answering phone calls. Due to COVID-19 restricting constituents' ability to come to PAI offices in person, PAI offices have had an increase in call volume.

The current phone system lacks basic features such as an intercom function and the ability to answer calls that are on hold from elsewhere, which limits staff's capability to transfer constituents to the appropriate staff member. Due to the limited technology of the current phone system, there are phone numbers that ring on about 30 desks every time there is an incoming call. This disrupts workflow and results in a diffusion of responsibility.

More than 80 percent of PAI employees who responded to the Baltimore County Employee Insights on Efficiency survey in July 2021 said that a system that is customized to their department's needs has a high or moderate potential to achieve greater efficiency in terms of cost and time savings.

Benefit to the County

Transitioning to a call center setup will improve overall efficiency technologically and managerially. A new phone system will improve overall communication by permitting staff members to put constituents on hold, answer calls from elsewhere, and utilize an intercom function. Designating staff members to answer the phones from a number that only rings to their desk will limit distractions and disruptions in the office, and staff members to hone specific service skills, which ultimately benefits both the client and the staff.

The following are the key benefits to using the VCC system:

- VCC uses a cloud contact-center software, which enables the customer to contact the department using the method they feel most comfortable with, such as phone, email, chat or text.⁶⁶⁶
- VCC uses Interactive Voice Recognition (IVR), which enables customers to self-direct through automated voice menus, ultimately resulting in customers reaching the person most equipped to answer their question and staff members saving time by only speaking to customers that they have the skillset to assist.⁶⁶⁷

⁶⁶⁶ https://enterprise.verizon.com/resources/solutionsbriefs/2021/virtual-contact-center.pdf?_ga=2.216134742.139594996.1623686055-1087093875.1623686055

⁶⁶⁷ https://enterprise.verizon.com/solutions/achieving-business-objectives/federal/vcc/?_ga=2.239220547.139594996.1623686055-1087093875.1623686055

- VCC is compliant with government security precautions, thus efforts are consistently taken to protect and secure government data.
- VCC utilizes customizable agent performance dashboards that display real-time statistics to evaluate customer experience; some metrics include call volume, average wait time (AWT) and average handling time (AHT). This data can be used to evaluate staff performance, as well as provide information about staffing needs.

Best Practices and Benchmarks

Verizon's Virtual Call Center (VCC) is a system already being used in many Baltimore County departments. All departments listed in the table below currently use the VCC System.

VCC System Users	
Aging-MAP	Health WIC Spanish VM
Animal Services	Health – Hotline
BCPS IT	Health MCHP
Centralized Call Center – 311	Health – Transportation
Code Enforcement -In	Jury Commission
DPWT - CountyRide	Metro – Finance
DPWT – Highways	OBF – Finance Parking Enforcement
DPWT – Solid Waste	OBF – Finance - insurance
Health WIC English	OIT Service Desk Outbound
Health WIC Spanish	

Source: Baltimore County 311 Center, July 2021.

The Baltimore County Department of Public Works recently started using the VCC system. Anecdotally, staff indicated that using this system reduced calls to the Director of Public Works by over 75 percent.

Implementation Guidance

The heads of the Permits and Licensing and Development Management divisions should meet with 311 personnel and the Office of Information Technology (OIT) personnel to:

- Determine how many additional staff are needed to transition to a call center set-up.
- Set up the VCC System and appropriately train staff to use it.
- Determine which metrics are appropriate for measuring success.

4.6.5 DUAL MONITORS FOR PERMIT REVIEW

The Department of Permits, Approvals, and Inspections (PAI) should provide staff with dual monitors at their desktop workspaces to facilitate a more efficient permit review and boost staff productivity and satisfaction.

Findings

PAI is transitioning from a paper-based permit review process to a digital review process. The computer monitors currently used in office are not large enough to efficiently review digitally displayed plans, which threatens to make the transition to digital permitting inconvenient and slow.

Approximately 80 percent of the plans in the County were originally electronic drawings. Thus, the transition from a paper-based application process to a digital platform will significantly enhance efficiency, given the appropriate hardware. Some of the plans submitted to PAI are very large and cannot be efficiently reviewed on standard-size computer screens PAI currently utilizes

Currently, Baltimore County's standard-issue desktop monitor for general and business use is a 23.8-inch liquid-crystal display (LCD) with standard 1920 x 1080 resolution.⁶⁶⁸ A 27-inch monitor is better suited to activity requiring greater visual immersion, such as graphic design or photo editing, and in this case, electronic plan review. 1440p or 4K resolution is preferable for this slightly larger screen, as standard high-definition resolution (1080p) can appear blurry.⁶⁶⁹

PAI staff interviewed expect that the hardware for staff who review electronic plans, including both construction drawings and over-the-county permits will be upgraded and improved specifically with regard to the provision of monitors with a larger screen size as part of the department's digital transition. Research has demonstrated that dual monitors – potentially ones that are larger than the current standard, e.g., 27-inch 1440p or 4K monitors rather than 24 inch – are likely to enhance productivity more than single larger monitors.

Benefit to the County

Providing dual monitors will reduce staff challenges with electronic permit review and will improve staff productivity and speed in the plan review process. Even with dual monitors (or larger monitors) requiring more office desk space than single displays, electronic plan submittal, tracking, and storage reduces or eliminates space and retrieval problems associated with paper blueprints.⁶⁷⁰ These outcomes will ultimately enhance the likelihood of a successful overall transition to online permitting.

Best Practices and Benchmarks

Dual monitors are associated with greater productivity in general work settings. A study by Wichita State University's Software Usability Research Laboratory tracked participants performing business tasks; over the course of the study, participants completed projects more quickly and reported more easily finding information with dual monitors than with single screens, even reporting a pair of smaller monitors to be more useful than a single larger display. Participants worked 18 percent faster, with a 15 percent reduction in switching between windows, with dual monitors compared to single monitors. Over 90 percent of users were more satisfied with dual monitor configurations than with single monitors.⁶⁷¹ Other evidence indicates that multiple monitors,

668 <https://resources.baltimorecountymd.gov/Documents/IT/technicalstandards.pdf>

669 <https://www.coolblue.nl/en/advice/help-choosing-the-right-monitor-size.html>

670 http://www.natlpartnerstreamline.org/documents/WhitePaper_ElectPlan_092107.pdf

671 https://i.dell.com/sites/csddocuments/Shared-Content_data-Sheets_Documents/en/Dual_Monitors_Boost_your_productivity.pdf

or even using a laptop and a monitor for dual display, provide greater employee satisfaction and comfort as well as increase creativity.⁶⁷² While single ultrawide monitors can offer similar benefits, they have reduced visibility and may cause eye strain.⁶⁷³ Baltimore City upgraded staff hardware as part of the process of moving permits online. In Baltimore City's transition from paper to digital permit application and review, the city transitioned to double large monitors for all staff, reportedly as large as 42 inches.

Implementation Guidance

The Development Plans Review Supervisor, Permit Processing Supervisor, and Building Plans Review Supervisor should provide input on the County's selection of the hardware it will provide to staff, including the selection of dual and/or larger monitors. They should also participate in an assessment of how office space will be reconfigured to accommodate the larger size double monitors. This information should be provided to the PAI Director.

Estimated retail costs of a 27 inches 1440p or 4K monitor ranges from about \$250 to about \$600 per monitor or \$500 to \$1,200 for double monitors, depending on brand and features before discounts available for volume purchases and government entities.⁶⁷⁴

Assuming that PAI would purchase these monitors for all 36 Development Management Division staff, including 12 staff of Development Plan Review, 13 staff of Zoning Review, and 11 staff of Development Review and Closeout, total costs for double monitors before discounts would range from \$18,000 to \$43,200.

672 <https://insights.samsung.com/2015/08/20/second-screens-the-benefits-of-multiple-monitors-case-study/>

673 <https://www.laptopmag.com/articles/dual-monitors-vs-ultrawide>

674 <https://www.bestbuy.com/site/computer-monitors/4k-ultra-hd-monitors/pcmcat374100050017.c?id=pcmcat374100050017>

