

Moving people to in-demand jobs in key industries in Baltimore County, Maryland





Baltimore County Executive Johnny Olszewski and the Baltimore County Council

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ABOUT THE TOOLKIT

The Job Connector Toolkit features industry and occupational information for each of Baltimore County's nine targeted industries. These nine industries are projected to drive more than 75% of Baltimore County's employment growth over the next five years.

Baltimore County's Nine Targeted Industries

- Transportation, Distribution, and Logistics (TDL)
- Construction
- Manufacturing
- Education
- Healthcare
- Government Federal, State, and Local
- Financial Services
- · Professional and Business Services
- Information Technology (IT)

By prioritizing these industries, the Baltimore County workforce system can more effectively match workforce supply with employer demand in these growth areas of the economy.

JOB CONNECTOR TOOLKIT GOALS

- Provide area employers with current economic and labor market information to support their growth in Baltimore County;
- Equip American Job Center (AJC) staff to counsel job seekers about promising careers in the high-growth industries;
- Provide jobseekers with information on the skills and credentials that are in the highest demand with Baltimore County's employers;
- Exemplify a data-driven approach to matching jobseekers with in-demand occupations in the Baltimore Region; and
- · Provide a framework, resources, and tools to implement and sustain career pathway programs.

USER'S GUIDE

The Job Connector Toolkit features a 4-page economic and occupational overview for each of Baltimore County's nine targeted industries.

Page 1: Industry Overview: Key economic and labor market data on the local, regional, & state level.

Page 2: Occupational Overview: An overview of career clusters within each industry and in-demand occupation summaries.

Page 3: Spotlight Jobs: Featured entry and middle-skilled occupations with projected high growth.

Page 4: *In-Demand Occupations:* A detailed list of employment and wage data for leading entry, middle and high skilled occupations in the industry.

HOW TO USE THE TOOLKIT:

FOR WORKFORCE PROFESSIONALS & SYSTEM PARTNERS:

Counselors and other workforce professionals working with students, job seekers and transitioning workers can use these resources to:

- Educate themselves on labor market information.
- Use the data to develop more comprehensive employment plans for individuals.
- Identify the skills and industry-recognized credentials in highest demand.
- Create training options for traditional and non-traditional learners.
- Provide job seekers with components that are most helpful in their research.

FOR JOB SEEKERS & TRANSITIONING WORKERS:

Individuals at any phase of their careers can use the Toolkit to:

- Identify how transferrable knowledge, skills, and credentials can translate into one or several in-demand occupations.
- Research the skills, credentials, and experience required for high-demand occupations.
- Compare wage and employment numbers to better understand earnings potential and advancement options.

FOR EMPLOYERS, BUSINESS & INDUSTRY:

Identifying and closing skill gaps in the workforce means businesses can be more productive and competitive. Business and industry leaders are encouraged to:

- Share insights on changes in occupational demand, educational requirements, industry-recognized credentials, wages, and the economic trends.
- Provide feedback on the workplace readiness and professional skills required of your workforce.
- Use the data to understand the economic impact when considering starting, expanding, or maintaining a business in Baltimore County.



TRANSPORTATION, DISTRIBUTION AND LOGISITICS



- INDUSTRY PROFILE -

TRANSPORTATION, DISTRIBUTION & LOGISTICS

Baltimore County's strategic East Coast location makes it a critical hub for the Transportation, Distribution & Logistics (TDL) industry, which is central to the region's economy. With strong locational assets, including access to one of the nation's leading ports, miles of rail and major highways, the TDL industry is well situated for continued robustness and growth.



Regional Impact

235,538 Jobs

\$11B Associated Worker Income

14,000 Employers

Statewide Impact

462,196 Jobs

\$22B Associated Worker Income

33,000 Employers

Baltimore County, MD

Baltimore County is home to the 3rd highest number of TDL employers in Maryland.

NORTHERN CENTRAL

The Hunt Valley/I-83 Corridor features a diversified business community with major corporate headquarters and global distribution operations.

WESTERN

The Western Corridor features Industrial & Logistics/Distribution Hubs with direct interstate access.

EASTERN

Businesses on the County's east side access the locational assets of Sparrows Point-Dundalk for their TDL operations.

- **1. Walmart/Sam's Club** 3,400 Employees
- 2. United Parcel Service (UPS) 1,140 Employees
- **3. Amazon** 1,000 Employees

BALTIMORE COUNTY FAST FACTS:

- 66,255 TDL workers
- More than 4,000 TDL employers
- 17,000 jobs projected at Tradepoint Atlantic
- Generates more than \$2.8B in worker income

Top Employers

Data Source: Maryland's Quarterly Census of Employment and Wages (2018)
Note: Regional data is the Baltimore-Columbia-Towson Metropolitan Statistical Area (MSA).
Top employers as ranked by number of employees in Baltimore County

OCCUPATIONAL PROFILE

TRANSPORTATION, DISTRIBUTION & LOGISTICS

The TDL industry encompasses establishments at each phase of the distribution process including: Transportation and Warehousing, Wholesale Trade (distribution/merchandising of agricultural, mining, manufacturing & information products), Retail Trade (distribution of merchandise and after-sales services), and Utilities (provision/distribution of utility services and goods - electric power, natural gas, steam/water supply and sewage removal). There is great demand for skilled workers in this industry.



THE TDL INDUSTRY RELIES ON OCCUPATIONS RELATED TO:

Transportation, Operations & Logistics Planning

Material Moving / Operating Vehicles

Facility & Mobile Equipment Maintenance

TDL CAREER CLUSTERS

There are similarities across the occupations, logistical processes and equipment/machinery used in TDL, depending on the mode of transportation which includes air, rail, water, road, and pipeline.

TRANSPORTATION, OPERATIONS & LOGISTICS PLANNING

Workers with some experience in material moving occupations have the potential to progress into higher paying logistics planning and management positions such as Dispatchers, Transportation, Storage and Distribution Managers, and other supervisory roles.



MATERIAL MOVING / OPERATING VEHICLES

Career options in this cluster can start with entry- and middle-skilled occupations in which wages increase with years of training and work experience or transition into higher paying supervisory or driving positions.



FACILITY & MOBILE EQUIPMENT MAINTENANCE

Entry-level positions leading to careers in this cluster often start with Support Service Occupations related to Installation, Maintenance and Repair. General Maintenance and Repair Workers can progress into more highly-skilled mechanic positions with additional training and certification.



EDUCATION & CREDENTIALS

- Entry requires a high school diploma/equivalent and some degree of post-secondary education.
- Advancement occurs through vocational training, apprenticeship, and short to long-term on-the-job training.
- Industry-recognized certifications and credentials are critical to becoming employed in these occupations.

Source: ONETOnline.org - The occupational data on the next pages are categorized by "Transportation, Distribution & Logistics" Career Clusters as identified by Standard Occupational Classification codes for groups of occupations in the same field of work that require similar skills.

TRANSPORTATION, DISTRIBUTION & LOGISTICS

These **Spotlight Jobs** represent a few of the leading **middle-skilled occupations** with projected high growth that present promising opportunities for advancement in careers in the TDL industry. Education, skills, and credentials play an important role in success along these career pathways.



TRANSPORTATION, OPERATIONS & LOGISTICS PLANNING

Material Recording, Scheduling, Dispatching and Distributing Workers (43-5000)

2018 Estimated Employment: 8,750 2018 Average Wage: \$16.26

Entry/Experienced Wage: \$10.39 / \$19.19

Billing and Posting Clerks (43-3021)

2018 Estimated Employment: 1,490 2018 Average Wage: \$19.65

Entry/Experienced Wage: \$15.42 / \$21.77

Shipping, Receiving, and Traffic Clerks (43-5071)

2018 Estimated Employment: 1,080 2018 Average Wage: \$18.01

Entry/Experienced Wage: \$12.63 / \$20.70

Dispatchers, Except Police, Fire and Ambulance (43-5032)

2018 Estimated Employment: 700 2018 Average Wage: \$19.39

Entry/Experienced Wage: \$11.87 / \$23.15



MATERIAL MOVING / OPERATING VEHICLES

Motor Vehicle Operators (53-3000)

2018 Estimated Employment: 10,290 2018 Average Wage: \$19.59

Entry/Experienced Wage: \$11.82 / \$23.48

Light Truck or Delivery Services Drivers (53-3033)

2018 Estimated Employment: 3,940 2018 Average Wage: \$18.32

Entry/Experienced Wage: \$10.65 / \$22.16

Bus Drivers, School/Special Client (53-3022)

2018 Estimated Employment: 1,040 2018 Average Wage: \$15.92

Entry/Experienced Wage: \$13.14 / \$17.30

Motor Vehicle Operators, All Other (53-3099)

2018 Estimated Employment: 470 2018 Average Wage: \$22.15 Entry/Experienced Wage: \$11.77 / \$27.34



FACILITY & MOBILE EQUIPMENT MAINTENANCE

Other Installation, Maintenance and Repair Occupations (49-9000)

2018 Estimated Employment: 8,260

2018 Average Wage: \$22.96

Entry/Experienced Wage: \$14.30 / \$27.29

Vehicle and Mobile Equipment Mechanics, Installers and Repairers (49-3000)

2018 Estimated Employment: 4,010

2018 Average Wage: \$24.58

Entry/Experienced Wage: \$14.54 / \$29.60

Maintenance and Repair Workers, General (49-9071)

2018 Estimated Employment: 3,210

2018 Average Wage: \$19.64

Entry/Experienced Wage: \$13.75 / \$22.58

Installation, Maintenance and Repair Workers, All Other (49-9099)

2018 Estimated Employment: 670 2018 Average Wage: \$20.01

Entry/Experienced Wage: \$14.19 / \$22.92





SUPPORT SERVICE OCCUPATIONS

Support Service Occupations (SSOs) are jobs within this industry that are critical to the daily operation, administration or management of the business that provide **entry-level** opportunities for individuals lacking industry-specific skills or experience. For a complete list of these occupations, see "Support Service Occupations" on page 48.

Material Moving Workers (53-7000)

2018 Estimated Employment: 10,510 2018 Average Wage: \$15.25

Entry/Experienced Wage: \$10.77 / \$17.50

Laborers & Freight, Stock & Material Movers, Hand (53-7062)

2018 Estimated Employment: 7,240 2018 Average Wage: \$14.37

Entry/Experienced Wage: \$10.78 / \$16.16

Stock Clerks and Order Fillers (43-5081)

2018 Estimated Employment: 5,330 2018 Average Wage: \$13.27

Entry/Experienced Wage: \$10.14 / \$14.84

Packers and Packagers, Hand (53-7064)

2018 Estimated Employment: 740 2018 Average Wage: \$14.14

Entry/Experienced Wage: \$10.12 / \$16.15

Other Transportation Workers (53-6000)

2018 Estimated Employment: 7202018 Average Wage: \$12.51

Entry/Experienced Wage: \$10.47 / \$13.53

Order Clerks (43-4151)

2018 Estimated Employment: 450 2018 Average Wage: \$15.97

Entry/Experienced Wage: \$10.21 / \$18.85

IN-DEMAND OCCUPATIONS —

TRANSPORTATION, DISTRIBUTION & LOGISTICS



This table represents Baltimore County 2018 employment and wage data for the leading entry, middle, and high skilled occupations (by estimated employment and wages) in the Transportation, Distribution & Logistics Career Clusters found in O*NET OnLine (onetonline.org).

TOP ENTRY & MIDDLE SKILLED OCCUPATIONS

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Material Moving Workers (53-7000)

2018 Estimated Employment: 10,510

2018 Average Wage: \$15.25

Entry/Experienced Wage: \$10.77 / \$17.50

Motor Vehicle Operators (53-3000)

2018 Estimated Employment: 10,290 2018 Average Wage: \$19.59

Entry/Experienced Wage: \$11.82 / \$23.48

Material Recording, Scheduling, Dispatching and Distributing Workers (43-5000)

2018 Estimated Employment: 8,750

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2018 Estimated Employment: 8,260

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Vehicle and Mobile Equipment Mechanics, Installers and Repairers (49-3000)

2018 Estimated Employment: 4,010

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Entry/Experienced Wage: \$14.54 / \$29.60

Light Truck or Delivery Services Drivers (53-3033)

2018 Estimated Employment: 3,940

2018 Average Wage: \$18.32

Entry/Experienced Wage: \$10.65 / \$22.16

Maintenance and Repair Workers, General (49-9071)

2018 Estimated Employment: 3,210

2018 Average Wage: \$19.64

Entry/Experienced Wage: \$13.75 / \$22.58

Automotive Service Technicians and Mechanics (49-3023)

2018 Estimated Employment: 1,870 2018 Average Wage: \$25.36

Entry/Experienced Wage: \$16.12 / \$29.98

Electrical and Electronic Equipment Mechanics, Installers and Repairers (49-2000)

2018 Estimated Employment: 1,760 2018 Average Wage: \$23.60

Entry/Experienced Wage: \$14.89 / \$27.96

Billing and Posting Clerks (43-3021)

2018 Estimated Employment: 1,490

2018 Average Wage: \$19.65

Entry/Experienced Wage: \$15.42 / \$21.77

Supervisors of Installation, Maintenance and Repair Workers (49-1000)

(and)

First Line Supervisors of Mechanics Installers and Repairers (49-1011)

2018 Estimated Employment: 1,470

2018 Average Wage: \$33.14 Entry/Experienced Wage: \$23.00 / \$38.20 Telecommunications Line Installers and Repairers (49-9052)

2018 Estimated Employment: 1,150

2018 Average Wage: \$28.74

Entry/Experienced Wage: \$17.03 / \$35.49

First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors (53-1048)

2018 Estimated Employment: 1,090

2018 Average Wage: \$28.08

Entry/Experienced Wage: \$17.65 / \$33.29

Shipping, Receiving, & Traffic Clerks (43-5071)

2018 Estimated Employment: 1,080

2018 Average Wage: \$18.01

Entry/Experienced Wage: \$12.63 / \$20.70

Dispatchers, Except Police, Fire and Ambulance (43-5032)

2018 Estimated Employment: 700

2018 Average Wage: \$19.39

Entry/Experienced Wage: \$11.87 / \$23.15

Installation, Maintenance and Repair Workers, All Other (49-9099)

2018 Estimated Employment: 670

2018 Average Wage: \$20.01

Entry/Experienced Wage: \$14.19 / \$22.92

Motor Vehicle Operators, All Other (53-3099)

2018 Estimated Employment: 470

2018 Average Wage: \$22.15

Entry/Experienced Wage: \$11.77 / \$27.34

TOP HIGH SKILLED OCCUPATIONS

Heavy & Tractor-Trailer Truck Drivers (53-3032)

2018 Estimated Employment: 3,820 2018 Average Wage: \$22.39

Entry/Experienced Wage: \$15.59 / \$25.79

Heating, Air Conditioning and Refrigeration Mechanics & Installers (49-9021)

2018 Estimated Employment: 900 2018 Average Wage: \$31.04

Entry/Experienced Wage: \$22.24 / \$35.43

Industrial Truck & Tractor Operators (53-7051)

2018 Estimated Employment: 650 2018 Average Wage: \$19.86

Entry/Experienced Wage: \$14.17 / \$22.71

Industrial Machinery Mechanics (49-9041)

2018 Estimated Employment: 640 2018 Average Wage: \$26.34

Entry/Experienced Wage: \$19.99 / \$29.51

Mobile Heavy Equipment Mechanics, Except Engines (49-3042)

2018 Estimated Employment: 510 2018 Average Wage: \$26.98

Entry/Experienced Wage: \$20.05 / \$30.44

Bus and Truck Mechanics and Diesel Engine Specialists (49-3031)

2018 Estimated Employment: 480 2018 Average Wage: \$26.39

Entry/Experienced Wage: \$17.38 / \$30.89

Automotive Body and Related Repairers (49-3031)

2018 Estimated Employment: 480 2018 Average Wage: \$26.33

Entry/Experienced Wage: \$17.33 / \$30.84

Logisticians (13-1081)

2018 Estimated Employment: 360 2018 Average Wage: \$37.75

Entry/Experienced Wage: \$22.64 / \$45.31

Transportation, Storage, and Distribution Managers (11-3071)

2018 Estimated Employment: 250 2018 Average Wage: \$42.97

Entry/Experienced Wage: \$29.50 / \$49.71



Moving people to in-demand jobs in key industries in Baltimore County, Maryland

CONSTRUCTION



CONSTRUCTION

The construction industry is one of Baltimore County's leading industries – accounting for six percent of the County's overall employment. Although the industry was hit by the Great Recession, it is projected to continue to grow through 2024.



Regional Impact

74,871 Jobs

\$5.1B Associated Worker Income

Over 7,000 Employers

Statewide Impact

163,285 Jobs

\$10.7B Associated Worker Income

Over 16,000 Employers

Baltimore County, MD

Baltimore County accounts for 14% of Maryland's construction jobs – with current and future large-scale construction projects popping up all over the County.

TOWSON ROW

This 1.2M square foot mixed-use development is projected to:

- Create over 3,000 construction jobs
- Generate nearly \$185 million in labor income
- Create nearly \$500 million in business sales

GREENLEIGH AT CROSSROADS

This 200-acre mixed-use development will create an estimated 2,000 construction jobs.

TRADEPOINT ATLANTIC

At Tradepoint Atlantic, redevelopment of the Sparrows Point peninsula is projected to create over 21,000 construction jobs in Baltimore County.

BALTIMORE COUNTY FAST FACTS:

- 24,254 construction workers
- More than 2,000 construction employers
- Generates nearly \$1.6B in worker income

1. Whiting-Turner Contracting Co. 1,000 Employees

2. Kinsley Construction 110 Employees

3. Concrete Protection & Restoration 90 Employees

Top Employers



Data Source: Maryland's Quarterly Census of Employment and Wages (2018)

Note: Regional data is the Baltimore-Columbia-Towson Metropolitan Statistical Area (MSA).

Top employers as ranked by number of employees in Baltimore County

OCCUPATIONAL PROFILE

CONSTRUCTION

The construction industry comprises establishments primarily engaged in: the construction of buildings or engineering projects (e.g., highways and utility systems); the preparation of sites for new construction; and subdividing land for sale as building sites. Construction projects may include new work, additions, alterations, or maintenance and repairs. Design and Pre-Construction occupations such as Drafting and Engineering are included under "Architecture" within the Professional & Business Services Industry.



THE CONSTRUCTION INDUSTRY RELIES ON OCCUPATIONS RELATED TO:

Construction

Transportation Operations / Material Moving

Facility & Mobile Equipment Maintenance / Maintenance & Operations

CONSTRUCTION CAREER CLUSTERS

With a strong core of more than 2,000 businesses and robust growth and re-development, Construction trades rank highly for current and future employer demand through 2024.

CONSTRUCTION

The Construction industry relies heavily on highly-skilled and experienced laborers across occupational clusters to meet current growth and demand. Employers are actively seeking to attract the next generation of talent to these long-term careers in anticipation of an aging workforce and projected growth through 2024.



TRANSPORTATION OPERATIONS / MATERIAL MOVING

Career options in this cluster can start with entry- and middle-skilled occupations in which wages increase with years of training and work experience or transition into higher paying supervisory or driving positions.



MAINTENANCE / OPERATIONS, INSTALLATION & REPAIR

Entry-level positions leading to careers in this cluster often start with occupations related to Installation, Maintenance and Repair. General Maintenance and Repair Workers can progress into more highly-skilled mechanic positions with additional training and certification.



EDUCATION & CREDENTIALS

- Entry requires a high school diploma/equivalent and some degree of post-secondary education.
- Advancement occurs through vocational training, apprenticeship, and short to long-term on-the job training.
- Industry-recognized certifications and credentials are critical to becoming employed in these occupations.

Source: <u>ONETOnline.orq</u> - The occupational data on the next pages are categorized by "Architecture & Construction Career Clusters" as identified by Standard Occupational Classification codes for groups of occupations in the same field of work that require similar skills.

CONSTRUCTION

These **Spotlight Jobs** represent a few of the leading **middle-skilled occupations** with projected high growth that present promising opportunities for advancement in careers in the Construction industry. Education, skills, and credentials play an important role in success along these career pathways.



CONSTRUCTION

Construction Trades Workers (47-2000)

2018 Estimated Employment: 14,330

2018 Average Wage: \$22.48

Entry/Experienced Wage: \$15.08 / \$26.18

Construction Laborers (47-2061)

2018 Estimated Employment: 3,610 2018 Average Wage: \$16.93

Entry/Experienced Wage: \$12.90 / \$18.95

Carpenters (47-2031)

2018 Estimated Employment: 2,990

2018 Average Wage: \$24.65

Entry/Experienced Wage: \$17.69 / \$28.13

Telecommunications Line Installers and Repairers (49-9052)

2018 Estimated Employment: 1,150

2018 Average Wage: \$28.74

Entry/Experienced Wage: \$17.03 / \$35.49



TRANSPORTATION OPERATIONS / MATERIAL MOVING

Material Moving Workers (53-7000)

2018 Estimated Employment: 10,510

2018 Average Wage: \$15.25

Entry/Experienced Wage: \$10.77 / \$17.50

Industrial Truck and Tractor Operators (53-7051)

2018 Estimated Employment: 650

2018 Average Wage: \$19.86

Entry/Experienced Wage: \$14.17 / \$22.71

Crane and Tower Operators (53-7021)

2018 Estimated Employment: 230

2018 Average Wage: \$26.78

Entry/Experienced Wage: \$15.89 / \$32.23

Motor Vehicle Operators, All Other (53-3099)

2018 Estimated Employment: 470

2018 Average Wage: \$22.15

Entry/Experienced Wage: \$11.77 / \$27.34



FACILITY & MOBILE EQUIPMENT MAINTENANCE / MAINTENANCE OPERATIONS

Other Installation, Maintenance and Repair Occupations (49-9000)

2018 Estimated Employment: 8,260

2018 Average Wage: \$22.96

Entry/Experienced Wage: \$14.30 / \$27.29

Vehicle and Mobile Equipment Mechanics, Installers and Repairers (49-3000)

2018 Estimated Employment: 4,010

2018 Average Wage: \$24.58

Entry/Experienced Wage: \$14.54 / \$29.60

Maintenance & Repair Workers, General (49-9071)

2018 Estimated Employment: 3,210

2018 Average Wage: \$19.64

Entry/Experienced Wage: \$13.75 / \$22.58

Electrical and Electronic Equipment Mechanics, Installers and Repairers (49-2000)

2018 Estimated Employment: 1,760

2018 Average Wage: \$23.60

Entry/Experienced Wage: \$14.89 / \$27.96





SUPPORT SERVICE OCCUPATIONS

Support Service Occupations (SSOs) are jobs within this industry that are critical to the daily operation, administration or management of the business that provide **entry-level** opportunities for individuals lacking industry-specific skills or experience. For a complete list of these occupations, see "Support Service Occupations" on page 48.

Grounds Maintenance Workers (37-3000)

2018 Estimated Employment: 3,260 2018 Average Wage: \$16.00

Entry/Experienced Wage: \$11.73 / \$18.13

Painters, Construction and Maintenance (47-2141)

2018 Estimated Employment: 780 2018 Average Wage: \$18.83

Entry/Experienced Wage: \$13.85 / \$20.57

Cleaners of Vehicles and Equipment (53-7061)

2018 Estimated Employment: 7402018 Average Wage: \$12.85

Entry/Experienced Wage: \$10.57 / \$14.00

Helpers-Construction Trades (47-3000)

2018 Estimated Employment: 710 2018 Average Wage: \$13.84

Entry/Experienced Wage: \$9.57 / \$15.98

Helpers-Carpenters (47-3012)

2018 Estimated Employment: 440 2018 Average Wage: \$14.09 Entry/Experienced Wage: \$9.37 / \$16.44

Drywall and Ceiling Tile Installers (47-2081)

2018 Estimated Employment: 380 2018 Average Wage: \$22.31 Entry/Experienced Wage: \$18.18 / \$24.37

IN-DEMAND OCCUPATIONS —

CONSTRUCTION



This table represents Baltimore County 2018 employment and wage data for the leading entry, middle- and high-skilled Construction occupations (by estimated employment and wages) in the Architecture & Construction Career Clusters found in O*NET OnLine (onetonline.org). Design and Pre-Construction occupations such as Drafting and Engineering are included under "Architecture" within the Professional & Business Services Industry.

TOP ENTRY & MIDDLE SKILLED OCCUPATIONS

Construction Trades Workers (47-2000)

2018 Estimated Employment: 14,330

2018 Average Wage: \$22.48

Entry/Experienced Wage: \$15.08 / \$26.18

Material Moving Workers (53-7000)

2018 Estimated Employment: 10,510

2018 Average Wage: \$15.25

Entry/Experienced Wage: \$10.77 / \$17.50

Other Installation, Maintenance and Repair Occupations (49-9000)

2018 Estimated Employment: 8,260

2018 Average Wage: \$22.96

Entry/Experienced Wage: \$14.30 / \$27.29

Vehicle and Mobile Equipment Mechanics, Installers and Repairers (49-3000)

2018 Estimated Employment: 4,010

2018 Average Wage: \$24.58

Entry/Experienced Wage: \$14.54 / \$29.60

Construction Laborers (47-2061)

2018 Estimated Employment: 3,610

2018 Average Wage: \$16.93

Entry/Experienced Wage: \$12.90 / \$18.95

Grounds Maintenance Workers (37-3000)

2018 Estimated Employment: 3,260

2018 Average Wage: \$16.00

Entry/Experienced Wage: \$11.73 / \$18.13

Maintenance & Repair Workers, General (49-9071)

2018 Estimated Employment: 3,210

2018 Average Wage: \$19.64

Entry/Experienced Wage: \$13.75 / \$22.58

Landscaping & Groundskeeping Workers (37-3011)

2018 Estimated Employment: 3,190 2018 Average Wage: \$15.77

Entry/Experienced Wage: \$11.68 / \$17.82

Carpenters (47-2031)

2018 Estimated Employment: 2,990

2018 Average Wage: \$24.65

Entry/Experienced Wage: \$17.69 / \$28.13

Electrical and Electronic Equipment Mechanics, Installers and Repairers (49-2000)

2018 Estimated Employment: 1,760 2018 Average Wage: \$23.60

Entry/Experienced Wage: \$14.89 / \$27.96

Supervisors, Building and Grounds Cleaning and Maintenance Workers (37-1000)

2018 Estimated Employment: 1,650

2018 Average Wage: \$18.35

Entry/Experienced Wage: \$11.89 / \$21.58

Supervisors of: Installation, Maintenance and Repair Workers (49-1000); and, Mechanics Installers & Repairers (49-1011)

2018 Estimated Employment: 1,470

2018 Average Wage: \$33.14

Entry/Experienced Wage: \$23.00 / \$38.20

Telecommunications Line Installers and Repairers (49-9052)

2018 Estimated Employment: 1,150

2018 Average Wage: \$28.74

Entry/Experienced Wage: \$17.03 / \$35.49

Other Construction and Related Workers (47-4000)

2018 Estimated Employment: 1,070

2018 Average Wage: \$27.94

Entry/Experienced Wage: \$17.63 / \$33.09

Installation, Maintenance and Repair Workers, All Other (49-9099)

2018 Estimated Employment: 670 2018 Average Wage: \$20.01

Entry/Experienced Wage: \$14.19 / \$22.92

First-Line Supervisors of Landscaping, Lawn Service and Groundskeeping Workers (37-1012)

2018 Estimated Employment: 670 2018 Average Wage: \$20.01

Entry/Experienced Wage: \$14.19 / \$22.92

Industrial Truck and Tractor Operators (53-7051)

2018 Estimated Employment: 650

2018 Average Wage: \$19.86

Entry/Experienced Wage: \$14.17 / \$22.71

Cement Masons and Concrete Finishers (47-2051)

2018 Estimated Employment: 610

2018 Average Wage: \$23.83

Entry/Experienced Wage: \$20.02 / \$25.74

Construction and Building Inspectors (47-2121)

2018 Estimated Employment: 490

2018 Average Wage: \$28.02

Entry/Experienced Wage: \$20.59 / \$31.73

TOP HIGH SKILLED OCCUPATIONS

Heavy and Tractor-Trailer Truck Drivers (53-3032)

2018 Estimated Employment: 3,820 2018 Average Wage: \$22.39

Entry/Experienced Wage: \$15.59 / \$25.79

Supervisors of Construction Trades and Extraction Workers (47-1000); (47-1011)

2018 Estimated Employment: 2,470

2018 Average Wage: \$32.77

Entry/Experienced Wage: \$24.34 / \$36.99

Electricians (47-2111)

2018 Estimated Employment: 2,170

2018 Average Wage: \$23.84

Entry/Experienced Wage: \$15.92 / \$27.80

Plumbers, Pipefitters, and Steamfitters (47-2152)

2018 Estimated Employment: 1,620

2018 Average Wage: \$27.96

Entry/Experienced Wage: \$18.01 / \$32.94

Heating, Air Conditioning and Refrigeration Mechanics & Installers (49-9021)

2018 Estimated Employment: 900 2018 Average Wage: \$31.04

Entry/Experienced Wage: \$22.24 / \$35.43

Construction Mangers (11-9021)

2018 Estimated Employment: 1,070 2018 Average Wage: \$48.74

Entry/Experienced Wage: \$32.86 / \$56.69

Industrial Machinery Mechanics (49-9041)

2018 Estimated Employment: 640

2018 Average Wage: \$26.34 Entry/Experienced Wage: \$19.99 / \$29.51

Operating Engineers and Other Construction

Equipment Operators (47-2073) 2018 Estimated Employment: 610

2018 Estimated Employment: 610 2018 Average Wage: \$26.19

Entry/Experienced Wage: \$19.90 / \$30.23

Mobile Heavy Equipment Mechanics, Except Engines (49-3042)

2018 Estimated Employment: 510 2018 Average Wage: \$26.98

Entry/Experienced Wage: \$20.05 / \$30.44

Job Connector
Toolkit

Moving people to in-demand jobs in key industries in Baltimore County, Maryland

MANUFACTURING



MANUFACTURING

A diversity of manufacturers call Baltimore County home and have helped sustain the industry throughout economic uncertainty for decades. Technological innovations and direct proximity to a world-class multi-modal logistics hub are projected to significantly spur the steady recovery and growth of this critical industry in Baltimore County and throughout the region.



Regional Impact

56,714 Jobs

\$4.5B Associated Worker Income

Over 1,800 Employers

Statewide Impact

109,202 Jobs

\$8.6B Associated Worker Income

Over 4,000 Employers

Baltimore County, MD

Baltimore County accounts for 14% of MD's manufacturing jobs – with employers benefitting from strategic location, integrated supply chain, and a skilled and agile workforce.

500+ EMPLOYEES

Baltimore County is home to 36% of the Baltimore Region's top 25 manufacturers as ranked by Baltimore area employers.

100-499 EMPLOYEES

Mid-sized manufacturers are vital to the industry's local supply chain, fabricating quality components, parts and packaging required for larger scale production jobs.

<100 EMPLOYEES

Baltimore County has technical assistance resources & local incubators that help establish & grow small business ventures.

- 1. McCormick & Company 2,300 Employees
- 2. BD Life Sciences, Diagnostic Systems

2,292 Employees

3. Stanley Black & Decker 1,600 Employees

Top Employers

BALTIMORE COUNTY FAST FACTS:

- 15,418 manufacturing workers
- More than 500 manufacturing employers
- Generates \$1.1B in worker income

Data Source: Maryland's Quarterly Census of Employment and Wages (2018)
Note: Regional data is the Baltimore-Columbia-Towson Metropolitan Statistical Area (MSA).
Top employers as ranked by number of employees in Baltimore County

OCCUPATIONAL PROFILE

MANUFACTURING

The Manufacturing industry comprises establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. Assembling component parts of manufactured products is considered manufacturing, except when the activity is construction related. Manufacturing businesses are often described as plants, factories, or mills and characteristically use advanced technologies, power-driven machines, and materials-handling equipment in their operations.



THE MANUFACTURING INDUSTRY RELIES ON OCCUPATIONS RELATED TO:

Production

Production Process Development & Quality Assurance

Maintenance, Installation & Repair

MANUFACTURING CAREER CLUSTERS

The diversity of manufacturers who call the County home helps sustain this rapidly evolving industry as well as Baltimore County's economy.

PRODUCTION

Employment in the Manufacturing Cluster is highly concentrated in Production occupations, accounting for nearly half of all employment. While entry-skilled occupations are in greatest demand, there are positions that require more advanced technical skills such as Machinists and Metal & Plastic Workers.



PRODUCTION PROCESS DEVELOPMENT & QUALITY ASSURANCE

Technological innovations allow manufacturers to achieve high levels of precision and productivity, creating both significant shifts in the skills required of today's manufacturing workforce and opportunities for growth and advancement to meet future demand.



MAINTENANCE, INSTALLATION & REPAIR

Entry-level positions leading to careers in this cluster often start with Support Service Occupations related to Installation, Maintenance and Repair. General Maintenance and Repair Workers can progress into more highly-skilled mechanic positions with additional training and certification.



EDUCATION & CREDENTIALS

- Entry requires a high school diploma/equivalent, post-secondary education, and technical proficiency.
- Advancement occurs through vocational training, apprenticeship, and short- to long-term on-the job training.
- Industry-recognized skills and credentials are critical to becoming employed in these occupations.

Source: ONETOnline.org - The occupational data on the next pages are categorized by "Manufacturing Career Clusters" as identified by Standard Occupational Classification codes for groups of occupations in the same field of work that require similar skills.

MANUFACTURING

These **Spotlight Jobs** represent a few of the leading **middle-skilled occupations** with projected high growth that present promising opportunities for advancement in careers in the Manufacturing industry. Education, skills, and credentials play an important role in success along these career pathways.



PRODUCTION

Metal Workers & Plastic Workers (51-4000)

2018 Estimated Employment: 1,740 2018 Average Wage: \$22.81 Entry/Experienced Wage: \$14.37 / \$27.03

Assemblers and Fabricators (51-2000)

2018 Estimated Employment: 1,660 2018 Average Wage: \$16.53 Entry/Experienced Wage: \$10.73 / \$19.42

Supervisors of: Production and Operating Workers (51-1000); (51-1011)

2018 Estimated Employment: 1,090 2018 Average Wage: \$29.37 Entry/Experienced Wage: \$17.91 / \$35.09

Production Workers, All Other (51-9199)

2018 Estimated Employment: 780 2018 Average Wage: \$17.34

Entry/Experienced Wage: \$11.03 / \$20.50



PRODUCTION PROCESS DEVELOPMENT & QUALITY ASSURANCE

Electrical and Electronic Engineering Technicians (17-3023)

2018 Estimated Employment: 730 2018 Average Wage: \$30.17 Entry/Experienced Wage: \$22.77 / \$33.87

Production, Planning and Expediting Clerks (43-5061)

2018 Estimated Employment: 650 2018 Average Wage: \$24.35 Entry/Experienced Wage: \$16.32 / \$28.37

Inspectors, Testers, Sorters, Samplers and Weighers (51-9061)

2018 Estimated Employment: 550 2018 Average Wage: \$23.82

Entry/Experienced Wage: \$15.68 / \$27.89

Weighers, Measurers, Checkers and Samplers, Recordkeeping (43-5111)

2018 Estimated Employment: 150 2018 Average Wage: \$20.25

Entry/Experienced Wage: \$11.96 / \$24.39



MAINTENANCE, INSTALLATION & REPAIR

Other Installation, Maintenance and Repair Occupations (49-9000)

2018 Estimated Employment: 8,260 2018 Average Wage: \$22.96

Entry/Experienced Wage: \$14.30 / \$27.29

Vehicle and Mobile Equipment Mechanics, Installers and Repairers (49-3000)

2018 Estimated Employment: 4,010

2018 Average Wage: \$24.58

Entry/Experienced Wage: \$14.54 / \$29.60

Maintenance & Repair Workers, General (49-9071)

2018 Estimated Employment: 3,210 2018 Average Wage: \$19.64

Entry/Experienced Wage: \$13.75 / \$22.58

Electrical and Electronic Equipment Mechanics, Installers and Repairers (49-2000)

2018 Estimated Employment: 1,760 2018 Average Wage: \$23.60

Entry/Experienced Wage: \$14.89 / \$27.96





SUPPORT SERVICE OCCUPATIONS

Support Service Occupations (SSOs) are jobs within this industry that are critical to the daily operation, administration or management of the business that provide **entry-level** opportunities for individuals lacking industry-specific skills or experience. For a complete list of these occupations, see "Support Service Occupations" on page 48.

Packaging and Filling Machine Operators and Tenders (51-9111)

2018 Estimated Employment: 8,400 2018 Average Wage: \$15.79 Entry/Experienced Wage: \$12.30 / \$17.53

Food Processing Workers (51-3000) 2018 Estimated Employment: 2,270

2018 Average Wage: \$14.63 Entry/Experienced Wage: \$10.22 / \$16.83

Assemblers and Fabricators, All Other, Including Team Assemblers (51-2098)

2018 Estimated Employment: 1,100 2018 Average Wage: \$14.09

Entry/Experienced Wage: \$10.58 / \$15.85

Bakers (51-3011)

2018 Estimated Employment: 970 2018 Average Wage: \$12.62 Entry/Experienced Wage: \$9.48 / \$14.19

Textile, Apparel and Furnishings Workers (51-6000)

2018 Estimated Employment: 830 2018 Average Wage: \$12.26 Entry/Experienced Wage: \$9.61 / \$13.59

Food Batchmakers (51-3092)

2018 Estimated Employment: 560 2018 Average Wage: \$13.37 Entry/Experienced Wage: \$10.37 / \$14.70

Helpers, Production Workers (51-9198)

2018 Estimated Employment: 450 2018 Average Wage: \$14.88

Entry/Experienced Wage: \$10.71 / \$16.97

Maintenance Workers, Machinery (51-3011)

2018 Estimated Employment: 150 2018 Average Wage: \$18.08

Entry/Experienced Wage: \$10.64 / \$21.81

— IN-DEMAND OCCUPATIONS —

MANUFACTURING



This table represents Baltimore County 2018 employment and wage data for the leading entry-, middle-, and high-skilled occupations (by estimated employment and wages) in the Manufacturing Career Clusters found in O*NET OnLine (onetonline.org).

TOP ENTRY & MIDDLE SKILLED OCCUPATIONS

Other Installation, Maintenance and Repair Occupations (49-9000)

2018 Estimated Employment: 8,260 2018 Average Wage: \$22.96

Entry/Experienced Wage: \$14.30 / \$27.29

Vehicle and Mobile Equipment Mechanics, Installers and Repairers (49-3000)

2018 Estimated Employment: 4,010

2018 Average Wage: \$24.58

Entry/Experienced Wage: \$14.54 / \$29.60

Maintenance & Repair Workers (49-9071)

2018 Estimated Employment: 3,210

2018 Average Wage: \$19.64

Entry/Experienced Wage: \$13.75 / \$22.58

Electrical and Electronic Equipment Mechanics, Installers and Repairers (49-2000)

2018 Estimated Employment: 1,760

2018 Average Wage: \$23.60

Entry/Experienced Wage: \$14.89 / \$27.96

Metal Workers & Plastic Workers (51-4000)

2018 Estimated Employment: 1,740

2018 Average Wage: \$22.81

Entry/Experienced Wage: \$14.37 / \$27.03

Assemblers and Fabricators (51-2000)

2018 Estimated Employment: 1,660

2018 Average Wage: \$16.53

Entry/Experienced Wage: \$10.73 / \$19.42

Supervisors of: Installation, Maintenance and Repair Workers (49-1000); and Mechanics Installers & Repairers (49-1011)

2018 Estimated Employment: 1,470

2018 Average Wage: \$33.14

Entry/Experienced Wage: \$23.00 / \$38.20

Supervisors of: Production and Operating Workers (51-1000); (51-1011)

2018 Estimated Employment: 1,090 2018 Average Wage: \$29.37

Entry/Experienced Wage: \$17.91 / \$35.09

Production Workers, All Other (51-9199)

2018 Estimated Employment: 780 2018 Average Wage: \$17.34

Entry/Experienced Wage: \$11.03 / \$20.50

Electrical and Electronic Engineering Technicians (17-3023)

2018 Estimated Employment: 730 2018 Average Wage: \$30.17

Entry/Experienced Wage: \$22.77 / \$33.87

Prepress Technicians & Workers (51-5111)

2018 Estimated Employment: 700 2018 Average Wage: \$19.67

Entry/Experienced Wage: \$12.61 / \$23.30

Installation, Maintenance and Repair Workers, All Other (49-9099)

2018 Estimated Employment: 670 2018 Average Wage: \$20.01

Entry/Experienced Wage: \$14.19 / \$22.92

Production, Planning and Expediting Clerks (43-5061)

2018 Estimated Employment: 650 2018 Average Wage: \$24.35

Entry/Experienced Wage: \$16.32 / \$28.37

Machinists (51-4041)

2018 Estimated Employment: 670 2018 Average Wage: \$20.01

Entry/Experienced Wage: \$14.19 / \$22.92

Inspectors, Testers, Sorters, Samplers and Weighers (51-9061)

2018 Estimated Employment: 550 2018 Average Wage: \$23.82

Entry/Experienced Wage: \$15.68 / \$27.89

Paper Goods Machine Setters, Operators and Tenders (51-9196)

2018 Estimated Employment: 400 2018 Average Wage: \$17.12

Entry/Experienced Wage: \$10.91 / \$20.23

Electrical, Electronic and Electromechanical Assemblers, Except Coil Winders, Tapers and Finishers (51-2028)

2018 Estimated Employment: 370

2018 Average Wage: \$19.98

Entry/Experienced Wage: \$15.08 / \$22.48

Mixing and Blending Machine Setters, Operators and Tenders (51-9023)

2018 Estimated Employment: 360 2018 Average Wage: \$20.06

2018 Average Wage: \$20.06

Entry/Experienced Wage: \$15.23 / \$22.48

Printing Press Operators (51-5112)

2018 Estimated Employment: 310

2018 Average Wage: \$21.05

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Entry/Experienced Wage: \$14.32 / \$24.42

Welders, Cutters, Solderers, Brazers (51-4121)

2018 Estimated Employment: 260 2018 Average Wage: \$23.91

Entry/Experienced Wage: \$13.00 / \$29.37

Weighers, Measurers, Checkers and Samplers, Recordkeeping (43-5111)

2018 Estimated Employment: 150

2018 Average Wage: \$20.25

Entry/Experienced Wage: \$11.96 / \$24.39

TOP HIGH SKILLED OCCUPATIONS

Heating, Air Conditioning and Refrigeration Mechanics and Installers (49-9021)

2018 Estimated Employment: 900 2018 Average Wage: \$31.04

Entry/Experienced Wage: \$22.24 / \$35.43

Industrial Machinery Mechanics (49-9041)

2018 Estimated Employment: 640 2018 Average Wage: \$26.34

Entry/Experienced Wage: \$19.99 / \$29.51

Mechanical Engineers (17-2141)

2018 Estimated Employment: 640 2018 Average Wage: \$26.34

Entry/Experienced Wage: \$19.99 / \$29.51

Electrical Engineers (17-2071)

2018 Estimated Employment: 560 2018 Average Wage: \$44.84 Entry/Experienced Wage: \$29.18 / \$52.68

Mobile Heavy Equipment Mechanics,

Except Engines (49-3042) 2018 Estimated Employment: 510

2018 Average Wage: \$26.98 Entry/Experienced Wage: \$20.05 / \$30.44

Mechanical Drafters (17-3013)

2018 Estimated Employment: 400 2018 Average Wage: \$31.19

Entry/Experienced Wage: \$24.08 / \$34.74

Plant and System Operators (51-8000)

2018 Estimated Employment: 320 2018 Average Wage: \$33.74

Entry/Experienced Wage: \$22.76 / \$39.23

Industrial Engineers (17-2112)

2018 Estimated Employment: 290 2018 Average Wage: \$43.64

Entry/Experienced Wage: \$31.04 / \$49.94

Industrial Production Managers (11-3051)

2018 Estimated Employment: 190

2018 Average Wage: \$58.32

Entry/Experienced Wage: \$34.83 / \$70.06

Job Connector **Toolkit**

Moving people to in-demand



EDUCATION



The education industry—comprising both public and private education—is a core economic driver in Baltimore County and is expected to experience growth in the County through 2024. According to Niche.com's 2020 Rankings, Baltimore County's four-year institutions were ranked among the top 10 Colleges in the State of Maryland and the Baltimore Area.



Regional Impact

46,251 Jobs

\$2.9B Associated Worker Income

Over 1,100 Employers

Statewide Impact

69,378 Jobs

\$4B Associated Worker Income

Over 2,900 Employers

Baltimore County, MD

With over 24,000 public and private education workers in Baltimore County, the County makes up 17% of the State's employment in the industry.

EDUCATION IN THE COUNTY

The Education industry has 5 major colleges and boasts some of Baltimore County's top employers.

Baltimore County Public Schools (BCPS)

3rd largest school district in Maryland (more than 9,800 teachers)

Community College of Baltimore County (CCBC)

2nd largest education employer in Baltimore County

University of Maryland, Baltimore County (UMBC)

Ranked #3 Best College in the Baltimore Area

Towson University (3,476 Employees)

Ranked #4 Best College in the Baltimore Area

Goucher College (700 Employees)

Ranked #5 Best College in the Baltimore Area

Stevenson University (1,094 Employees)

Ranked #6 Best College in the Baltimore Area

- 1. Baltimore County Public Schools 18,202 Employees
- 2. Community College of Baltimore County

4,184 Employees

3. University of MD, Baltimore County 3,612 Employees

Top Employers



BALTIMORE COUNTY FAST FACTS:

- 24,080 education workers
- More than 760 public and private education employers
- Generates \$935M in worker income

Data Source: Maryland's Quarterly Census of Employment and Wages (2018) Note: Regional data is the Baltimore-Columbia-Towson Metropolitan Statistical Area (MSA). Top employers as ranked by number of employees in Baltimore County

OCCUPATIONAL PROFILE

EDUCATION

The Education industry comprises establishments that provide instruction and training in a wide variety of subject areas. This instruction and training is provided by specialized establishments such as schools, colleges, universities, and training centers. These establishments may be privately owned and operated for profit or not for profit, or they may be publicly owned and operated.



THE EDUCATION INDUSTRY RELIES ON OCCUPATIONS RELATED TO:

Teaching & Training

Administration & Administrative Support

Professional Support Services

EDUCATION CAREER CLUSTERS

The Education Industry has dual importance, both as a source of employment growth for the County and as the key supplier of a skilled and educated workforce for the Baltimore Metropolitan Region.

TEACHING & TRAINING

Educational services are usually delivered by teachers or instructors that explain, tell, demonstrate, supervise, and direct learning, with instruction imparted in diverse settings through varying training modalities.



ADMINISTRATION & ADMINISTRATIVE SUPPORT

Education Administrators plan, direct, or coordinate the academic, non-academic, instructional, administrative, or auxiliary activities of public or private learning environments, ranging from pre-kindergarten through post-secondary institutions including universities, colleges, community colleges and vocational training organizations.



PROFESSIONAL SUPPORT SERVICES

Professional Support Services includes occupations that provide direct services to the student body such as educational, guidance and support counselors, or librarians and other library workers.



EDUCATION & CREDENTIALS

- Occupations in this industry require extensive education and postsecondary degree credentials.
- Industry-recognized certifications, credentials and experience are critical to advancing in these careers.
- Entry- and middle-skilled occupations may be found in the areas of office and clerical support, facility
 maintenance, and service occupations such as teachers' assistants, school bus drivers, and cafeteria workers.

Source: ONETOnline.org - The occupational data on the next pages are categorized by "Education & Training" Career Clusters as identified by Standard Occupational Classification codes for groups of occupations in the same field of work that require similar skills.

These **Spotlight Jobs** represent a few of the leading **middle-skilled occupations** with projected high growth that present promising opportunities for advancement in careers in the Education industry. Education, skills, and credentials play an important role in success along these career pathways.



TEACHING & TRAINING

Primary, Secondary and Special Education School Teachers (25-2000)

2018 Estimated Employment: 11,170 2018 Average Wage: \$27.47

Entry/Experienced Wage: \$16.74 / \$32.83

Other Teachers & Instructors (25-3000)

2018 Estimated Employment: 3,830 2018 Average Wage: \$25.38 Entry/Experienced Wage: \$11.96 / \$32.09

Elementary School Teachers, Except Special Education (25-2021)

2018 Estimated Employment: 3,630 2018 Average Wage: \$28.23

Entry/Experienced Wage: \$19.34 / \$32.67

Secondary School Teachers, Except Special and Career/Technical Education (25-2031)

2018 Estimated Employment: 1,960 2018 Average Wage: \$30.34

Entry/Experienced Wage: \$21.92 / \$34.55



ADMINISTRATION & ADMINISTRATIVE SUPPORT

Secretaries and Administrative Assistants (43-6000)

2018 Estimated Employment: 11,750

2018 Average Wage: \$20.75

Entry/Experienced Wage: \$13.89 / \$24.17

Other Office and Administrative Support Workers (43-9000)

2018 Estimated Employment: 8,370

2018 Average Wage: \$17.05

Entry/Experienced Wage: \$10.79 / \$20.18

Payroll and Timekeeping Clerks (43-3051)

2018 Estimated Employment: 490 2018 Average Wage: \$23.51

Entry/Experienced Wage: \$17.24 / \$26.64

Librarians, Curators and Archivists (25-4000)

2018 Estimated Employment: 450 2018 Average Wage: \$25.02

Entry/Experienced Wage: \$13.10 / \$30.98



PROFESSIONAL SUPPORT SERVICES

Educational, Guidance, School and Vocational Counselors (21-1012)

2018 Estimated Employment: 600 2018 Average Wage: \$27.97

Entry/Experienced Wage: \$17.41 / \$33.26

Child, Family, and School Social Workers (21-1021)

2018 Estimated Employment: 530 2018 Average Wage: \$30.15

Entry/Experienced Wage: \$19.37 / \$35.55

Librarians (25-4021)

2018 Estimated Employment: 260 2018 Average Wage: \$29.18

Entry/Experienced Wage: \$19.91 / \$33.81

Instructional Coordinators (25-9031)

2018 Estimated Employment: 250 2018 Average Wage: \$35.86

Entry/Experienced Wage: \$18.85 / \$44.37





SUPPORT SERVICE OCCUPATIONS

Support Service Occupations (SSOs) are jobs within this industry that are critical to the daily operation, administration or management of the business that provide **entry-level** opportunities for individuals lacking industry-specific skills or experience. For a complete list of these occupations, see "Support Service Occupations" on page 48.

Teacher Assistants (25-9041)

2018 Estimated Employment: 2,400 2018 Average Wage: \$14.03

Entry/Experienced Wage: \$10.38 / \$15.86

Preschool Teachers, Except Special Education (25-2011)

2018 Estimated Employment: 1,480 2018 Average Wage: \$15.38 Entry/Experienced Wage: \$10.37 / \$17.88

Bus Drivers, School or Special Client (53-3022)

2018 Estimated Employment: 1,040 2018 Average Wage: \$15.92

Entry/Experienced Wage: \$13.14 / \$17.30

Library Assistants, Clerical (43-4121)

2018 Estimated Employment: 290 2018 Average Wage: \$14.38

Entry/Experienced Wage: \$11.22 / \$15.96

Education, Training and Library Workers, All Other (25-9099)

2018 Estimated Employment: 270 2018 Average Wage: \$15.22

Entry/Experienced Wage: \$9.92 / \$17.87

Library Technicians (25-4031)

2018 Estimated Employment: 160 2018 Average Wage: \$15.74

Entry/Experienced Wage: \$10.85 / \$18.18

IN-DEMAND OCCUPATIONS —

EDUCATION



This table represents Baltimore County 2018 employment and wage data for the leading occupations (by estimated employment and wages) in the "Education & Training" Career Clusters found in O*NET OnLine (onetonline.org). As most occupations require higher education credentials, the classification of entry-, middle-, or high- are not indicative of skill levels, but were selected based on a comparison of the "Entry" wage for each occupation.

TOP ENTRY & MIDDLE SKILLED OCCUPATIONS

Primary, Secondary and Special Education School Teachers (25-2000)

2018 Estimated Employment: 11,170 2018 Average Wage: \$27.47

Entry/Experienced Wage: \$16.74 / \$32.83

Other Teachers and Instructors (25-3000)

2018 Estimated Employment: 3,830 2018 Average Wage: \$25.38

Entry/Experienced Wage: \$11.96 / \$32.09

Elementary School Teachers, Except Special Education (25-2021)

2018 Estimated Employment: 3,630 2018 Average Wage: \$28.23 Entry/Experienced Wage: \$19.34 / \$32.67

Teacher Assistants (25-9041)

2018 Estimated Employment: 2,400 2018 Average Wage: \$14.03

Entry/Experienced Wage: \$10.38 / \$15.86

Secondary School Teachers, Except Special and Career/Technical Education (25-2031)

2018 Estimated Employment: 1,960 2018 Average Wage: \$30.34

Entry/Experienced Wage: \$21.92 / \$34.55

Middle School Teachers, Except Special and Career/Technical Education (25-2022)

2018 Estimated Employment: 1,880 2018 Average Wage: \$29.70

Entry/Experienced Wage: \$20.39 / \$34.36

Teachers and Instructors, All Other, Except Substitute Teachers (25-3097)

2018 Estimated Employment: 1,670

2018 Average Wage: \$25.79

Entry/Experienced Wage: \$15.48 / \$30.95

Preschool Teachers, Except Special Education (25-2011)

2018 Estimated Employment: 1,480 2018 Average Wage: \$15.38

Entry/Experienced Wage: \$10.37 / \$17.88

Substitute Teachers (25-3098)

2018 Estimated Employment: 1,280

2018 Average Wage: \$28.58

Entry/Experienced Wage: \$11.30 / \$37.22

Self-Enrichment Education Teachers (25-3021)

2018 Estimated Employment: 830 2018 Average Wage: \$19.62

Entry/Experienced Wage: \$10.39 / \$24.24

Educational, Guidance, School and Vocational Counselors (21-1012)

2018 Estimated Employment: 600 2018 Average Wage: \$27.97

Entry/Experienced Wage: \$17.41 / \$33.26

Coaches and Scouts (27-2022)

2018 Estimated Employment: 550 2018 Average Wage: \$22.53

Entry/Experienced Wage: \$10.65 / \$28.47

Child, Family & School Social Workers (21-1021)

2018 Estimated Employment: 530 2018 Average Wage: \$30.15

Entry/Experienced Wage: \$19.37 / \$35.55

Kindergarten Teachers, Except Special Education (25-2012)

2018 Estimated Employment: 460 2018 Average Wage: \$28.66

Entry/Experienced Wage: \$20.89 / \$32.55

Librarians, Curators and Archivists (25-4000)

2018 Estimated Employment: 450 2018 Average Wage: \$25.02

Entry/Experienced Wage: \$13.10 / \$30.98

Education, Training and Library Workers, All Other (25-9099)

2018 Estimated Employment: 270 2018 Average Wage: \$15.22

Entry/Experienced Wage: \$9.92 / \$17.87

Librarians (25-4021)

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2018 Estimated Employment: 260 2018 Average Wage: \$29.18

Entry/Experienced Wage: \$19.91 / \$33.81

Instructional Coordinators (25-9031)

2018 Estimated Employment: 250 2018 Average Wage: \$35.86

Entry/Experienced Wage: \$18.85 / \$44.37

Library Technicians (25-4031)

2018 Estimated Employment: 160 2018 Average Wage: \$15.74

Entry/Experienced Wage: \$10.85 / \$18.18

TOP HIGH SKILLED OCCUPATIONS

Postsecondary Teachers (25-1000)

2018 Estimated Employment: 5,710 2018 Average Wage: \$39.47

Entry/Experienced Wage: \$20.64 / \$48.88

Education Administrators, Elementary and Secondary School (11-9032)

2018 Estimated Employment: 570 2018 Average Wage: \$57.88

Entry/Experienced Wage: \$43.13 / \$65.25

Education Administrators, All Other (11-9039)

2018 Estimated Employment: 460 2018 Average Wage: \$44.63 Entry/Experienced Wage: \$27.71 / \$53.08

Art, Drama, and Music Teachers, Postsecondary (25-1121)

2018 Estimated Employment: 410 2018 Average Wage: \$34.95

Entry/Experienced Wage: \$20.73 / \$42.06

Special Education Teachers, Secondary School (25-2054)

2018 Estimated Employment: 370 2018 Average Wage: \$31.63

Entry/Experienced Wage: \$23.53 / \$35.67

Education Teachers, Postsecondary (25-1081)

2018 Estimated Employment: 350 2018 Average Wage: \$32.75 Entry/Experienced Wage: \$20.57 / \$38.84

Education Administrators, Postsecondary (11-9033)

2018 Estimated Employment: 270 2018 Average Wage: \$60.62

Entry/Experienced Wage: \$34.98 / \$73.44

English Language and Literature Teachers, Postsecondary (25-1123)

2018 Estimated Employment: 220 2018 Average Wage: \$31.30

Entry/Experienced Wage: \$19.75 / \$37.03

Computer Science Teachers, Postsecondary (25-1021)

2018 Estimated Employment: 210 2018 Average Wage: \$44.08

Entry/Experienced Wage: \$25.93 / \$53.17



HEALTHCARE



The healthcare industry is a core economic driver in Baltimore County—with demand for a skilled workforce to support our major medical institutions, public and private healthcare practices, clinics, laboratories, long-term care and rehabilitation establishments, and geriatric and assisted living facilities throughout the area. Baltimore County accounts for a large share of the region's healthcare workforce.



Regional Impact

208,556 Jobs

\$11.3B Associated Worker Income

Over 8,100 Employers

Statewide Impact

375,977 Jobs

\$20.1B Associated Worker Income

Over 17,800 Employers

Baltimore County, MD

With over 49,000 healthcare workers in Baltimore County, the County makes up 13% of the state's employment in the industry.

HEALTHCARE IN THE COUNTY

Baltimore County is home to many major medical institutions that each contribute a large share to the County's employment base. Some of these institutions include:

Greater Baltimore Medical Center (GBMC)

3,900 employees

MedStar Franklin Square Hospital

2,800 employees

University of Maryland St. Joseph Medical Center

2,230 employees

Sheppard Pratt Health Systems

1,910 employees

LifeBridge Health/Northwest Hospital Center

1,600 employees

BALTIMORE COUNTY FAST FACTS:

- 49,360 healthcare workers
- More than 5,000 healthcare employers
- Generates \$1.9B in worker income

- 1. Greater Baltimore Medical Center 3,900 Employees
- 2. MedStar Franklin Square Hospital 2,800 Employees
- 3. University of MD St. Joseph Medical Center 2,230 Employees

Top Employers



Data Source: Maryland's Quarterly Census of Employment and Wages (2018)
Note: Regional data is the Baltimore-Columbia-Towson Metropolitan Statistical Area (MSA).
Top employers as ranked by number of employees in Baltimore County

OCCUPATIONAL PROFILE

HEALTHCARE

The Healthcare industry comprises establishments providing health care and social assistance for individuals. The industry includes both because it can be difficult to distinguish the boundaries of these two activities. Industries in this sector are on a continuum starting with establishments providing medical care exclusively, continuing with those providing health care and social assistance services. Services provided by establishments in this industry are delivered by trained, certified, and licensed professionals.



THE HEALTHCARE INDUSTRY RELIES ON OCCUPATIONS RELATED TO:

Therapeutic Services

Diagnostic Services

Support Services & Health Informatics

HEALTHCARE CAREER CLUSTERS

Employment in the Healthcare and Social Assistance Career Clusters accounts for 17 percent of all jobs in Baltimore County.

THERAPEUTIC SERVICES

Occupations in this cluster perform administrative and clinical duties under direct medical supervision. Administrative duties include: scheduling, maintaining records, and, billing/coding. Clinical duties include: taking, recording and monitoring vital signs and medical histories; setting up equipment; preparing patients for treatment/examination; routine care such as drawing blood, changing bandages/dressing wounds, and applying topical medications; and, administering medications as directed by physician.



DIAGNOSTIC SERVICES

Diagnostic Services include routine medical laboratory tests on various body systems for the diagnosis, treatment, and prevention of disease: Use and maintenance of specific equipment/technologies to demonstrate portions of the human body for diagnostic purposes (x-ray film, fluoroscopic screen, magnetic resonance imaging (MRI), ultrasonic recordings); monitoring patient safety and comfort while viewing images of examined area to ensure quality for physicians' use, and; providing patient pre- and post-operative care.



SUPPORT SERVICES & HEALTH INFORMATICS

Entry-level positions leading to careers in the Healthcare industry often start with occupations related to general patient assistance or administrative and clerical support. Support Service workers can progress into more highly-skilled occupations with additional training and certification.



EDUCATION & CREDENTIALS

- Entry requires a high school diploma/equivalent and some degree of post-secondary education.
- Advancement occurs through vocational training, apprenticeship, and short- to long-term on-the job training.
- Industry-recognized certifications and credentials are critical to maintaining employment in these occupations.

Source: <u>ONETOnline.ora</u> - The occupational data on the next pages are categorized by "Health Science and Human Service Career Clusters" as identified by Standard Occupational Classification codes for groups of occupations in the same field of work that require similar skills.

HEALTHCARE

These **Spotlight Jobs** represent a few of the leading **middle-skilled occupations** with projected high growth that present promising opportunities for advancement in careers in the Healthcare industry. Education, skills, and credentials play an important role in success along these career pathways.



THERAPEUTIC SERVICES

Licensed Practical and Licensed Vocational Nurses (29-2061)

2018 Estimated Employment: 2,940 2018 Average Wage: \$26.04 Entry/Experienced Wage: \$20.57 / \$28.77

Dental Assistants (31-9091)

2018 Estimated Employment: 1,430 2018 Average Wage: \$20.02 Entry/Experienced Wage: \$15.58 / \$22.25

Emergency Medical Technicians and Paramedics (29-2041)

2018 Estimated Employment: 1,160 2018 Average Wage: \$24.14 Entry/Experienced Wage: \$15.53 / \$28.45

Occupational and Physical Therapy Assistants & Aides (31-2000)

2018 Estimated Employment: 850 2018 Average Wage: \$20.83 Entry/Experienced Wage: \$10.19 / \$26.15



DIAGNOSTIC SERVICES

Medical and Clinical Laboratory Technologists (29-2011)

2018 Estimated Employment: 780 2018 Average Wage: \$25.20 Entry/Experienced Wage: \$15.91 / \$29.85

Radiologic Technologists (29-3034)

2018 Estimated Employment: 780 2018 Average Wage: \$34.05 Entry/Experienced Wage: \$28.06 / \$37.05

Diagnostic Medical Sonographers (29-2032)

2018 Estimated Employment: 280 2018 Average Wage: \$34.75 Entry/Experienced Wage: \$28.46 / \$37.90

Cardiovascular Technologists and Technicians (29-2031)

2018 Estimated Employment: 110 2018 Average Wage: \$34.10 Entry/Experienced Wage: \$24.85 / \$38.73 •

SUPPORT SERVICES & HEALTH INFORMATICS

Medical Secretaries (43-6013)

2018 Estimated Employment: 2,510 2018 Average Wage: \$19.03 Entry/Experienced Wage: \$14.45 / \$21.31

Medical Assistants (31-9092)

2018 Estimated Employment: 1,960 2018 Average Wage: \$17.41 Entry/Experienced Wage: \$13.53 / \$19.36

Healthcare Social Workers (21-1022)

2018 Estimated Employment: 920 2018 Average Wage: \$29.51

Entry/Experienced Wage: \$20.04 / \$34.24

Medical Records and Health Information Technicians (29-2071)

2018 Estimated Employment: 580 2018 Average Wage: \$27.00

Entry/Experienced Wage: \$18.46 / \$31.27





SUPPORT SERVICE OCCUPATIONS

Support Service Occupations (SSOs) are jobs within this industry that are critical to the daily operation, administration or management of the business that provide **entry-level** opportunities for individuals lacking industry-specific skills or experience. For a complete list of these occupations, see "Support Service Occupations" on page 48.

Other Healthcare Support Occupations (31-9000)

2018 Estimated Employment: 4,960 2018 Average Wage: \$18.66 Entry/Experienced Wage: \$13.41 / \$21.29

Home Health Aides (31-1011)

2018 Estimated Employment: 4,510 2018 Average Wage: \$13.71

Entry/Experienced Wage: \$10.93 / \$15.10

Personal Care Aides (31-9021)

2018 Estimated Employment: 3,770 2018 Average Wage: \$13.01

Entry/Experienced Wage: \$10.37 / \$14.32

Social and Human Service Assistants (21-1093)

2018 Estimated Employment: 1,190 2018 Average Wage: \$18.11 Entry/Experienced Wage: \$12.16 / \$21.09

Healthcare Support Workers, All Other (31-9099)

2018 Estimated Employment: 660 2018 Average Wage: \$15.98 Entry/Experienced Wage: \$9.91 / \$19.02

Physical Therapist Aides (31-2022)

2018 Estimated Employment: 320 2018 Average Wage: \$13.01 Entry/Experienced Wage: \$9.85 / \$14.60

Community Health Workers (21-1094)

2018 Estimated Employment: 150 2018 Average Wage: \$23.41 Entry/Experienced Wage: \$14.91 / \$27.65

Orderlies (31-1015)

2018 Estimated Employment: 120 2018 Average Wage: \$13.16

Entry/Experienced Wage: \$10.83 / \$14.32

Medical Equipment Preparers (31-9093)

2018 Estimated Employment: 120 2018 Average Wage: \$22.21

Entry/Experienced Wage: \$15.89 / \$25.36

HEALTHCARE



This table represents Baltimore County 2018 employment and wage data for the leading entry-, middle-, and high-skilled occupations (by estimated employment and wages) in the Health Science and Human Services Career Clusters found in O*NET OnLine (onetonline.org).

TOP ENTRY & MIDDLE SKILLED OCCUPATIONS

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Nursing Assistants (31-1014)

2018 Estimated Employment: 6,860 2018 Average Wage: \$14.70 Entry/Experienced Wage: \$12.11 / \$15.99

Licensed Practical and Licensed Vocational Nurses (29-2061)

2018 Estimated Employment: 2,940 2018 Average Wage: \$26.04 Entry/Experienced Wage: \$20.57 / \$28.77

Medical Secretaries (43-6013)

2018 Estimated Employment: 2,510 2018 Average Wage: \$19.03 Entry/Experienced Wage: \$14.45 / \$21.31

Medical Assistants (31-9092)

2018 Estimated Employment: 1,960 2018 Average Wage: \$17.41 Entry/Experienced Wage: \$13.53 / \$19.36

Pharmacy Technicians (29-2052)

2018 Estimated Employment: 1,530

2018 Average Wage: \$15.41

Entry/Experienced Wage: \$12.37 / \$16.93

Dental Assistants (31-9091)

2018 Estimated Employment: 1,430 2018 Average Wage: \$20.02

Entry/Experienced Wage: \$15.58 / \$22.25

Fitness Trainers and Aerobics Instructors (39-9031)

2018 Estimated Employment: 1,190 2018 Average Wage: \$27.47

Entry/Experienced Wage: \$12.16 / \$21.09

Emergency Medical Technicians and Paramedics (29-2041)

2018 Estimated Employment: 1,160 2018 Average Wage: \$24.14

Entry/Experienced Wage: \$15.53 / \$28.45

Healthcare Social Workers (21-1022)

2018 Estimated Employment: 920 2018 Average Wage: \$29.51

Entry/Experienced Wage: \$20.04 / \$34.24

Occupational and Physical Therapy Assistants and Aides (31-2000)

2018 Estimated Employment: 850 2018 Average Wage: \$20.83

Entry/Experienced Wage: \$10.19 / \$26.15

Medical and Clinical Laboratory Technologists (29-2011)

2018 Estimated Employment: 780 2018 Average Wage: \$25.20

Radiologic Technologists (29-3034)

Entry/Experienced Wage: \$15.91 / \$29.85

2018 Estimated Employment: 780 2018 Average Wage: \$34.05

Entry/Experienced Wage: \$28.06 / \$37.05

Substance Abuse, Behavioral Disorder and Mental Health Counselors (21-1018)

2018 Estimated Employment: 760 2018 Average Wage: \$20.75

Entry/Experienced Wage: \$12.99 / \$24.63

Rehabilitation Counselors (21-1015)

2018 Estimated Employment: 630 2018 Average Wage: \$20.58

Entry/Experienced Wage: \$13.28 / \$24.23

Medical Records and Health Information Technicians (29-2071)

2018 Estimated Employment: 580 2018 Average Wage: \$27.00

Entry/Experienced Wage: \$18.46 / \$31.27

Phlebotomists (31-9097)

2018 Estimated Employment: 580 2018 Average Wage: \$19.59

Entry/Experienced Wage: \$17.15 / \$20.81

Physical Therapist Assistants (31-2021)

2018 Estimated Employment: 410 2018 Average Wage: \$24.28

Entry/Experienced Wage: \$10.70 / \$31.07

Other Healthcare Practitioners and **Technical Occupations (29-9000)**

2018 Estimated Employment: 330

2018 Average Wage: \$32.66

Entry/Experienced Wage: \$20.16 / \$38.91

Diagnostic Medical Sonographers (29-2032)

2018 Estimated Employment: 280 2018 Average Wage: \$34.75

Entry/Experienced Wage: \$28.46 / \$37.90

Mental Health and Substance Abuse Social Workers (21-1023)

2018 Estimated Employment: 270 2018 Average Wage: \$27.47

Entry/Experienced Wage: \$18.38 / \$32.02

Surgical Technologists (29-2055)

2018 Estimated Employment: 210

2018 Average Wage: \$28.40

Entry/Experienced Wage: \$23.14 / \$31.03

Dietitians and Nutritionists (29-1031)

2018 Estimated Employment: 180

2018 Average Wage: \$29.92

Entry/Experienced Wage: \$20.04 / \$34.85

Healthcare Practitioners and Technical Workers, All Other (29-9099)

2018 Estimated Employment: 150 2018 Average Wage: \$33.92

Entry/Experienced Wage: \$21.67 / \$40.05

TOP HIGH SKILLED OCCUPATIONS

Registered Nurses (29-1141)

2018 Estimated Employment: 8,760 2018 Average Wage: \$37.17 Entry/Experienced Wage: \$30.05 / \$40.74

Medical & Health Services Managers (11-9111)

2018 Estimated Employment: 1,420 2018 Average Wage: \$60.79

Entry/Experienced Wage: \$40.21 / \$71.08

Pharmacists (29-1051)

2018 Estimated Employment: 980 2018 Average Wage: \$59.45 Entry/Experienced Wage: \$50.12 / \$64.12 Physical Therapists (29-1123)

2018 Estimated Employment: 780 2018 Average Wage: \$40.60

Entry/Experienced Wage: \$23.81 / \$48.99

Occupational Therapists (29-1122) 2018 Estimated Employment: 600 2018 Average Wage: \$45.29

Entry/Experienced Wage: \$33.30 / \$51.28

Dental Hygienists (29-2021)

2018 Estimated Employment: 580 2018 Average Wage: \$45.94

Entry/Experienced Wage: \$40.80 / \$48.50

Nurse Practitioners (29-1171)

2018 Estimated Employment: 450 2018 Average Wage: \$53.51

Entry/Experienced Wage: \$38.43 / \$61.05

Speech-Language Pathologists (29-1127)

2018 Estimated Employment: 360 2018 Average Wage: \$36.16

Entry/Experienced Wage: \$21.72 / \$43.38

Physician Assistants (29-1071)

2018 Estimated Employment: 240 2018 Average Wage: \$48.44

Entry/Experienced Wage: \$34.47 / \$55.43



Moving people to in-demand jobs in key industries in Baltimore County, Maryland

GOVERNMENT — FEDERAL, STATE AND LOCAL



- INDUSTRY PROFILE -

GOVERNMENT - FEDERAL, STATE AND LOCAL

Each day over 55,000 government workers report to work in Baltimore County. With easy access to the I-95 corridor, close proximity to Washington D.C., and an abundant skilled and educated workforce, Baltimore County is home to significant federal and local government headquarters.



Regional Impact

219,678 Jobs

\$14.6B Associated Worker Income
Over 1,490 Employers

Statewide Impact

489,102 Jobs

\$35.1B Associated Worker Income
Over 3,500 Employers

Baltimore County, MD

Baltimore County employs 11% of the State's total workers (federal, state, and local).

BALTIMORE COUNTY GOVERNMENT

Headquartered in Towson, Baltimore County Government employed over 22,000 people in 2018.

SOCIAL SECURITY ADMINISTRATION (SSA)

SSA's Headquarters, located in Woodlawn, employs over 11,500.

CENTERS FOR MEDICARE & MEDICAID SERVICES

CMS employs over 4,000 at Federal Center in Woodlawn.

- **1. Baltimore County Government** 22,233 Employees
- 2. Social Security Administration 11,500 Employees
- 3. Centers for Medicare & Medicaid Services (CMS) 4,100 Employees

Top Employers

BALTIMORE COUNTY FAST FACTS:

- 55,256 government workers
- More than 320 government employers
- Generates \$3.7B in worker income

Data Source: Maryland's Quarterly Census of Employment and Wages (2018)
Note: Regional data is the Baltimore-Columbia-Towson Metropolitan Statistical Area (MSA).
Top employers as ranked by number of employees in Baltimore County

OCCUPATIONAL PROFILE

GOVERNMENT - FEDERAL, STATE AND LOCAL

The Government industry consists of establishments of federal, state, and local government agencies that administer, oversee, and manage public programs and have executive, legislative, or judicial authority over other institutions within a given area. These agencies also establish laws and policy, monitor and regulate compliance matters, adjudicate civil and criminal legal cases, and provide services for the public good including housing, health, education, safety, and national defense.



THE GOVERNMENT INDUSTRY RELIES ON OCCUPATIONS RELATED TO:

Governance, Regulation, Revenue & Taxation

Public Management & Administration

Support Services - Administrative, Management & Operations

GOVERNMENT CAREER CLUSTERS

Baltimore County is highly specialized in federal, state and local government employment, serving as a key economic driver for the Greater Baltimore Region.

GOVERNANCE, REGULATION, REVENUE & TAXATION

Employment in these Career Clusters consists primarily of occupations related to managing, monitoring, recording, and reporting on regulatory and fiscal aspects of Government organizations, in accordance with established laws, policies, and protocols.



PUBLIC MANAGEMENT & ADMINISTRATION

Employment in this Career Cluster is highly concentrated in the oversight of governmental programs and activities. Agencies are accountable for organizing, financing, producing, and administering public goods and services, which are provided for free or at a nominal cost to benefit the constituency they serve.



SUPPORT SERVICES - ADMIN., MANAGEMENT & OPERATIONS

Government establishments rely heavily on support occupations at every level of the organization that are critical to the daily operation of public programs and services. Occupations include general, business, and operational management roles, with even greater demand for administrative and clerical support workers.



EDUCATION & CREDENTIALS

- Minimum education/skill requirements vary, almost equally split between high- and entry-skilled occupations.
- High-skilled occupations may require higher education degree credentials, work-related expertise, and experience.
- Industry-recognized skills and technical proficiency are critical to becoming employed in these occupations.

Source: ONETOnline.org - The occupational data on the next pages are categorized by "Government & Public Administration" as identified by Standard Occupational Classification codes for groups of occupations in the same field of work that require similar skills.

GOVERNMENT - FEDERAL, STATE AND LOCAL

These **Spotlight Jobs** represent a few of the leading **middle-skilled occupations** with projected high growth that present promising opportunities for advancement in careers in Government and Public Administration. Education, skills, and credentials play an important role in success along these career pathways.



GOVERNANCE, REGULATION, REVENUE & TAXATION

Accountants and Auditors (13-2011)

2018 Estimated Employment: 3,680 2018 Average Wage: \$40.70 Entry/Experienced Wage: \$24.43 / \$48.84

Compliance Officers, Except Agriculture, Construction, Health and Safety and Transportation (13-1041)

2018 Estimated Employment: 850 2018 Average Wage: \$34.20

Entry/Experienced Wage: \$19.93 / \$41.33

Construction and Building Inspectors (47-4011)

2018 Estimated Employment: 490 2018 Average Wage: \$28.02

Entry/Experienced Wage: \$20.59 / \$31.73

Occupational Health and Safety Specialists (29-9011)

2018 Estimated Employment: 120 2018 Average Wage: \$34.90

Entry/Experienced Wage: \$21.83 / \$41.43



PUBLIC MANAGEMENT & ADMINISTRATION

Bookkeeping, Accounting and Auditing Clerks (43-3031)

2018 Estimated Employment: 3,530

2018 Average Wage: \$21.09 Entry/Experienced Wage: \$15.17 / \$24.05

Law Enforcement Workers (33-3000)

2018 Estimated Employment: 2,410

2018 Average Wage: \$34.11

Entry/Experienced Wage: \$24.26 / \$39.03

Police and Sheriff's Patrol Officers (33-3051)

2018 Estimated Employment: 1,910

2018 Average Wage: \$35.91

Entry/Experienced Wage: \$25.78 / \$40.98

Fire Fighting and Prevention Workers (33-2000)

2018 Estimated Employment: 610 2018 Average Wage: \$31.09

Entry/Experienced Wage: \$20.20 / \$36.54



ADMINISTRATIVE SUPPORT - MANAGEMENT & OPERATIONS

Business Operations Specialists (13-1000)

2018 Estimated Employment: 16,220

2018 Average Wage: \$39.12

Entry/Experienced Wage: \$22.85 / \$47.26

Secretaries and Administrative Assistants (43-6000)

2018 Estimated Employment: 11,750

2018 Average Wage: \$20.75

Entry/Experienced Wage: \$13.89 / \$24.17

Supervisors of Office and Administrative Support Workers (43-1000); (43-1011)

2018 Estimated Employment: 5,810

2018 Average Wage: \$30.18

Entry/Experienced Wage: \$19.83 / \$35.36

Office and Administrative Support Workers, All Other (43-9199)

2018 Estimated Employment: 620

2018 Average Wage: \$21.67 Entry/Experienced Wage: \$15.05 / \$24.98





SUPPORT SERVICE OCCUPATIONS

Support Service Occupations (SSOs) are jobs within this industry that are critical to the daily operation, administration or management of the business that provide **entry-level** opportunities for individuals lacking industry-specific skills or experience. For a complete list of these occupations, see "Support Service Occupations" on page 48.

Information and Record Clerks (43-4000)

2018 Estimated Employment: 15,270

2018 Average Wage: \$17.90

Entry/Experienced Wage: \$11.68 / \$21.01

Other Office and Administrative Support Workers (43-9000)

2018 Estimated Employment: 8,370 2018 Average Wage: \$17.05

Entry/Experienced Wage: \$10.79 / \$20.18

Other Protective Service Workers (33-9000)

2018 Estimated Employment: 8,030

2018 Average Wage: \$15.17

Entry/Experienced Wage: \$10.67 / \$17.42

Financial Clerks (43-3000)

2018 Estimated Employment: 7,470 2018 Average Wage: \$20.21

Entry/Experienced Wage: \$15.00 / \$22.81

Security Guards (33-9032)

2018 Estimated Employment: 6,880 2018 Average Wage: \$15.31

Entry/Experienced Wage: \$10.71 / \$17.61

Office Clerks, General (43-9061)

2018 Estimated Employment: 5,920

2018 Average Wage: \$15.89

Entry/Experienced Wage: \$10.11 / \$18.78

Receptionists and Information Clerks (43-4171)

2018 Estimated Employment: 3,050

2018 Average Wage: \$14.51 Entry/Experienced Wage: \$10.90 / \$16.31

Postal Service Mail Carriers (43-5052)

2018 Estimated Employment: 370 2018 Average Wage: \$23.99

Entry/Experienced Wage: \$17.58 / \$27.19

Protective Service Workers, All Other (33-9099)

2018 Estimated Employment: 290 2018 Average Wage: \$16.61

Entry/Experienced Wage: \$10.33 / \$19.75

IN-DEMAND OCCUPATIONS —

GOVERNMENT – FEDERAL, STATE AND LOCAL



This table represents Baltimore County 2018 employment and wage data for the leading entry-, middle-, and high-skilled occupations (by estimated employment and wages) in Government & Public Administration found in O*NET OnLine (onetonline.org). As most occupations require occupationally specific expertise, the classification of entry-, middle-, or high- are not indicative of skill levels, but were selected based on a comparison of the "Entry" wage for each occupation.

TOP ENTRY & MIDDLE SKILLED OCCUPATIONS

Secretaries and Administrative Assistants (43-6000)

2018 Estimated Employment: 11,750 2018 Average Wage: \$20.75 Entry/Experienced Wage: \$13.89 / \$24.17

Supervisors of Office and Administrative Support Workers (43-1000); (43-1011)

2018 Estimated Employment: 5,810 2018 Average Wage: \$30.18 Entry/Experienced Wage: \$19.83 / \$35.36

Bookkeeping, Accounting and Auditing Clerks (43-3031)

2018 Estimated Employment: 3,530 2018 Average Wage: \$21.09

Entry/Experienced Wage: \$15.17 / \$24.05

Law Enforcement Workers (33-3000)

2018 Estimated Employment: 2,410 2018 Average Wage: \$34.11

Entry/Experienced Wage: \$24.26 / \$39.03

Police and Sheriff's Patrol Officers (33-3051)

2018 Estimated Employment: 1,910 2018 Average Wage: \$35.91

Entry/Experienced Wage: \$25.78 / \$40.98

First-Line Supervisors/Managers, Protective Service Workers (33-1099)

2018 Estimated Employment: 1,400 2018 Average Wage: \$37.36

Entry/Experienced Wage: \$17.12 / \$47.48

Bill and Account Collectors (43-3011)

2018 Estimated Employment: 1,020

2018 Average Wage: \$19.25

Entry/Experienced Wage: \$16.05 / \$20.85

Buyers and Purchasing Agents (13-1020)

2018 Estimated Employment: 1,010

2018 Average Wage: \$31.51 Entry/Experienced Wage: \$20.28 / \$37.13

Compliance Officers, Except Agriculture, Construction, Health & Safety and

Transportation (13-1041)2018 Estimated Employment: 850

2018 Average Wage: \$34.20 Entry/Experienced Wage: \$19.93 / \$41.33

Cost Estimators (13-1051)

2018 Estimated Employment: 680 2018 Average Wage: \$29.66

Entry/Experienced Wage: \$16.43 / \$36.27

Office and Administrative Support Workers, All Other (43-9199)

2018 Estimated Employment: 620 2018 Average Wage: \$21.67 Entry/Experienced Wage: \$15.05 / \$24.98

Fire Fighting & Prevention Workers (33-2000)

2018 Estimated Employment: 610 2018 Average Wage: \$31.09

Entry/Experienced Wage: \$20.20 / \$36.54

II Firefighters (33-2011)

2018 Estimated Employment: 590 2018 Average Wage: \$31.11 Entry/Experienced Wage: \$20.28 / \$36.52

First-Line Supervisors of Protective

Service Workers, All Other (33-1099) 2018 Estimated Employment: 500 2018 Average Wage: \$23.95

Entry/Experienced Wage: \$14.44 / \$28.71

Construction and Building Inspectors (47-4011)

2018 Estimated Employment: 490 2018 Average Wage: \$28.02

Entry/Experienced Wage: \$20.59 / \$31.73

Postal Service Mail Carriers (43-5052)

2018 Estimated Employment: 370 2018 Average Wage: \$23.99

Entry/Experienced Wage: \$17.58 / \$27.19

Information and Record Clerks, All Other (43-4199)

2018 Estimated Employment: 220 2018 Average Wage: \$25.16

Entry/Experienced Wage: \$16.83 / \$29.32

II Procurement Clerks (43-3061)

2018 Estimated Employment: 170 2018 Average Wage: \$23.29 Entry/Experienced Wage: \$17.59 / \$26.14

Eligibility Interviewers, Government Programs (43-4061)

2018 Estimated Employment: 160 2018 Average Wage: \$25.63

Entry/Experienced Wage: \$19.99 / \$28.44

Occupational Health and Safety Specialists (29-9011)

2018 Estimated Employment: 120 2018 Average Wage: \$34.90

Entry/Experienced Wage: \$21.83 / \$41.43

Surveyors (17-1022)

2018 Estimated Employment: 110 2018 Average Wage: \$28.15

Entry/Experienced Wage: \$18.88 / \$32.79

TOP HIGH SKILLED OCCUPATIONS

Business Operations Specialists (13-1000)

2018 Estimated Employment: 16,220 2018 Average Wage: \$39.12

Entry/Experienced Wage: \$22.85 / \$47.26

Financial Specialists (13-2000)

2018 Estimated Employment: 9,340 2018 Average Wage: \$42.87

Entry/Experienced Wage: \$22.97 / \$52.83

Other Management Occupations (11-9000)

2018 Estimated Employment: 7,700 2018 Average Wage: \$52.34

Entry/Experienced Wage: \$30.66 / \$63.18

Management Analysts (13-1111)

2018 Estimated Employment: 4,080 2018 Average Wage: \$50.84

Entry/Experienced Wage: \$34.94 / \$58.78

Accountants and Auditors (13-2011)

2018 Estimated Employment: 3,680 2018 Average Wage: \$40.70

Entry/Experienced Wage: \$24.43 / \$48.84

Financial Managers (11-3031)

2018 Estimated Employment: 1,920 2018 Average Wage: \$70.27

Entry/Experienced Wage: \$42.77 / \$84.01

Business Operations Specialists, All Other (13-1199)

2018 Estimated Employment: 1,680 2018 Average Wage: \$41.16

Entry/Experienced Wage: \$24.13 / \$49.67

Administrative Services Managers (11-3011)

2018 Estimated Employment: 660 2018 Average Wage: \$59.93

Entry/Experienced Wage: \$35.53 / \$72.13

First-Line Supervisors of Police and Detectives (13-1000)

2018 Estimated Employment: 620 2018 Average Wage: \$44.00

Entry/Experienced Wage: \$21.58 / \$55.22



FINANCIAL SERVICES

FINANCIAL SERVICES

The Financial Services industry primarily includes firms that are engaged in activities such as investing, lending, and securities trading. In Baltimore County, the Financial Services industry is the third largest of the nine high-growth industries and accounts for six percent of all jobs in the County.



Regional Impact

72,783 Jobs

\$7.2B Associated Worker Income

Over 6,900 Employers

Statewide Impact

138,188 Jobs

\$13B Associated Worker Income

Over 15,000 Employers

Baltimore County, MD

With over 2,000 Financial Services employers, Baltimore County employs more than 20% of the State's workers in this industry.

T.ROWE PRICE

A global investment management firm - employs over 4,000 people in its Baltimore County Owings Mills location.

BANK OF AMERICA

One of the world's leading financial institutions and the largest bank in the Baltimore region—added 600 new jobs to its Hunt Valley complex between 2016 and 2018. Bank of America anticipates 1,500 total new jobs by 2020.

TOYOTA FINANCIAL SERVICES

The automotive finance brand for Toyota in the U.S. employs more than 500 workers at its Owings Mills location.

BALTIMORE COUNTY FAST FACTS:

- 29,938 financial services workers
- More than 2,300 financial services employers
- Generates \$2.7B in worker income

1. T. Rowe Price 4,200 Employees

1. Bank of America 748 Employees

2. Toyota Financial Services 560 Employees

Top Employers



Data Source: Maryland's Quarterly Census of Employment and Wages (2018)
Note: Regional data is the Baltimore-Columbia-Towson Metropolitan Statistical Area (MSA).
Top employers as ranked by number of employees in Baltimore County

OCCUPATIONAL PROFILE

FINANCIAL SERVICES

The Financial Services (and Insurance) industry comprises establishments primarily engaged in financial transactions involving the creation, liquidation, or change in ownership of financial assets and/or in facilitating financial transactions. It also encompasses commercial and consumer transactions related to insurance and real estate.



THE FINANCIAL SERVICES INDUSTRY RELIES ON OCCUPATIONS RELATED TO:

Accounting & Business Finance

Securities & Investments

Banking, Consumer & Insurance Services

FINANCIAL SERVICES CAREER CLUSTERS

Financial Services is one of the most highly skilled of Baltimore County's nine high-growth industries, with 72% of all jobs classified as high-skilled across a wide variety of occupations.

ACCOUNTING & BUSINESS FINANCE

While office, administrative, and clerical support occupations are critical to the Financial Services industry, the second largest grouping of occupations support Business and Financial Operations, accounting for 30 percent of all employment.



SECURITIES & INVESTMENTS

Occupations within this Career Cluster are primarily found within establishments that manage or administer securities, commodity contracts, investments, funds, trusts, and other financial vehicles.



BANKING, CONSUMER & INSURANCE SERVICES

Banking, Consumer & Insurance Services includes occupations related to: monetary authorities or banking institutions; credit intermediation and related activities; insurance carriers and related activities, and; real estate, rental, and leasing services.



EDUCATION & CREDENTIALS

- Occupations in this industry require extensive education and post-secondary degree credentials.
- High-skilled occupations are projected to experience the most significant employment gains through 2024.
- The Financial Services industry has been significantly impacted by changes in technology, with increased use of information technology reducing demand for entry-skilled office support occupations.

Source: <u>ONETOnline.ora</u> - The occupational data on the next pages are categorized by "Finance" Career Clusters as identified by Standard Occupational Classification codes for groups of occupations in the same field of work that require similar skills.

FINANCIAL SERVICES

These **Spotlight Jobs** represent a few of the leading **middle-skilled occupations** that present promising opportunities for advancement in careers in the Financial Services industry. Entry- and middle-skilled occupations are found primarily in the areas of office and clerical support activities such as billing and accounts receivable, consumer services, or transactional activities performed by cashiers and tellers.



ACCOUNTING & BUSINESS FINANCE

Financial Clerks (25-3000)

2018 Estimated Employment: 7,470 2018 Average Wage: \$20.21

Entry/Experienced Wage: \$15.00 / \$22.81

Bookkeeping, Accounting and Auditing Clerks (43-3031)

2018 Estimated Employment: 3,530 2018 Average Wage: \$21.09

Entry/Experienced Wage: \$15.17 / \$24.05

Billing & Posting Clerks and Machine Operators (43-3021)

2018 Estimated Employment: 1,490 2018 Average Wage: \$19.65

Entry/Experienced Wage: \$15.42 / \$21.77

Bill and Account Collectors (43-3011)

2018 Estimated Employment: 1,020

2018 Average Wage: \$19.25

Entry/Experienced Wage: \$16.05 / \$20.85



SECURITIES & INVESTMENTS

Financial Specialists, All Other (41-3021)

2018 Estimated Employment: 640 2018 Average Wage: \$38.29

Entry/Experienced Wage: \$17.13 / \$48.86

While Financial Services occupational clusters have experienced growth across all major occupational groupings, changes in occupational demand significantly favor high- (38%) and middle-skilled (32%) jobs.



BANKING, CONSUMER & INSURANCE SERVICES

Claims Adjusters, Examiners and Investigators (13-1031)

2018 Estimated Employment: 2,700 2018 Average Wage: \$37.14

Entry/Experienced Wage: \$25.09 / \$43.16

Insurance Sales Agents (41-3021)

2018 Estimated Employment: 1,500

2018 Average Wage: \$33.22

Entry/Experienced Wage: \$15.26 / \$42.40

Insurance Claims and Policy Processing Clerks (43-9041)

2018 Estimated Employment: 840 2018 Average Wage: \$21.36

Entry/Experienced Wage: \$15.94 / \$24.07

Credit Analysts (13-2041)

2018 Estimated Employment: 170

2018 Average Wage: \$37.73

Entry/Experienced Wage: \$24.61 / \$44.29





SUPPORT SERVICE OCCUPATIONS

Support Service Occupations (SSOs) are jobs within this industry that are critical to the daily operation, administration or management of the business that provide **entry-level** opportunities for individuals lacking industry-specific skills or experience. For a complete list of these occupations, see "Support Service Occupations" on page 48.

Cashiers (41-2011)

2018 Estimated Employment: 11,210 2018 Average Wage: \$11.18

Entry/Experienced Wage: \$9.51 / \$12.01

New Account Clerks (43-4141)

2018 Estimated Employment: 920 2018 Average Wage: \$18.85

Entry/Experienced Wage: \$15.18 / \$20.69

Tellers (43-3071)

2018 Estimated Employment: 610 2018 Average Wage: \$14.61

Entry/Experienced Wage: \$11.68 / \$16.08

IN-DEMAND OCCUPATIONS —

FINANCIAL SERVICES



This table represents Baltimore County 2018 employment and wage data for the leading occupations (by estimated employment and wages) in the "Finance" Career Clusters found in O*NET OnLine (www.onetonline.org).

TOP ENTRY & MIDDLE SKILLED OCCUPATIONS

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Financial Clerks (25-3000)

2018 Estimated Employment: 7,470 2018 Average Wage: \$20.21

Entry/Experienced Wage: \$15.00 / \$22.81

Bookkeeping, Accounting and Auditing Clerks (43-3031)

2018 Estimated Employment: 3,530 2018 Average Wage: \$21.09

Entry/Experienced Wage: \$15.17 / \$24.05

Claims Adjusters, Examiners and Investigators (13-1031)

2018 Estimated Employment: 2,700 2018 Average Wage: \$37.14

Entry/Experienced Wage: \$25.09 / \$43.16

Insurance Sales Agents (41-3021)

2018 Estimated Employment: 1,500 2018 Average Wage: \$33.22

Entry/Experienced Wage: \$15.26 / \$42.40

Billing and Posting Clerks and Machine Operators (43-3021)

2018 Estimated Employment: 1,490 2018 Average Wage: \$19.65

Entry/Experienced Wage: \$15.42 / \$21.77

Bill and Account Collectors (43-3011)

2018 Estimated Employment: 1,020 2018 Average Wage: \$19.25

Entry/Experienced Wage: \$16.05 / \$20.85

Buyers and Purchasing Agents (13-1031)

2018 Estimated Employment: 1,010 2018 Average Wage: \$31.51

Entry/Experienced Wage: \$20.28 / \$37.13

New Account Clerks (43-4141)

2018 Estimated Employment: 920 2018 Average Wage: \$18.85

Entry/Experienced Wage: \$15.18 / \$20.69

Insurance Claims and Policy Processing Clerks (43-9041)

2018 Estimated Employment: 840 2018 Average Wage: \$21.36 Entry/Experienced Wage: \$15.94 / \$24.07

Financial Specialists, All Other (41-3021)

2018 Estimated Employment: 640 2018 Average Wage: \$38.29

Entry/Experienced Wage: \$17.13 / \$48.86

Tellers (43-3071)

2018 Estimated Employment: 610 2018 Average Wage: \$14.61

Entry/Experienced Wage: \$11.68 / \$16.08

Real Estate Sales Agents

(41-9022)

2018 Estimated Employment: 300 2018 Average Wage: \$22.69

Entry/Experienced Wage: \$16.90 / \$25.59

Credit Analysts (13-2041)

2018 Estimated Employment: 170 2018 Average Wage: \$37.73

Entry/Experienced Wage: \$24.61 / \$44.29

Credit Counselors .. (13-2071)

2018 Estimated Employment: 130 2018 Average Wage: \$20.10

Entry/Experienced Wage: \$16.02 / \$22.14

Loan Interviewers and Clerks (43-3131)

2018 Estimated Employment: 90 2018 Average Wage: \$20.50

Entry/Experienced Wage: \$12.11 / \$24.69

Credit Authorizers, Checkers and Clerks (43-4041)

2018 Estimated Employment: 40 2018 Average Wage: \$20.16

Entry/Experienced Wage: \$14.12 / \$23.18

TOP HIGH SKILLED OCCUPATIONS

Financial Specialists (13-2000)

2018 Estimated Employment: 9,340 2018 Average Wage: \$42.87

Entry/Experienced Wage: \$22.97 / \$52.83

Accountants and Auditors (13-2011)

2018 Estimated Employment: 3,680 2018 Average Wage: \$40.70

Entry/Experienced Wage: \$24.43 / \$48.84

Financial Managers (11-3031)

2018 Estimated Employment: 1,920

2018 Average Wage: \$70.27

Entry/Experienced Wage: \$42.77 / \$84.01

Personal Financial Advisors (13-2052)

2018 Estimated Employment: 1,440 2018 Average Wage: \$60.45

Entry/Experienced Wage: \$20.73 / \$42.06

Loan Officers (13-2072)

2018 Estimated Employment: 1,280 2018 Average Wage: \$39.14

Entry/Experienced Wage: \$18.84 / \$49.30

Financial Analysts (13-2051)

2018 Estimated Employment: 1,010 2018 Average Wage: \$44.64

Entry/Experienced Wage: \$25.85 / \$54.03

Securities, Commodities and Financial Services Sales Agents (41-3031)

2018 Estimated Employment: 940 2018 Average Wage: \$50.45

Entry/Experienced Wage: \$22.24 / \$64.55

Insurance Underwriters (13-2053)

2018 Estimated Employment: 470 2018 Average Wage: \$38.57

Entry/Experienced Wage: \$27.53 / \$44.09

Budget Analysts (13-2031)

2018 Estimated Employment: 140 2018 Average Wage: \$42.60

Entry/Experienced Wage: \$28.32 / \$49.74



PROFESSIONAL AND BUSINESS SERVICES



- INDUSTRY PROFILE -

PROFESSIONAL AND BUSINESS SERVICES

The Professional & Business Services industry is made up of corporate headquarters, non-information technology professional services, and office services. With developments in Hunt Valley and Owings Mills, Baltimore County has traditionally served as a major location for corporate headquarters and corporate branch office operations and has a strong base of business and professional services companies.



Regional Impact

216,959 Jobs

\$16.4B Associated Worker Income

Over 16,000 Employers

Statewide Impact

452,271 Jobs

\$36B Associated Worker Income

Over 42,600 Employers

Baltimore County, MD

With over 4,500 Professional & Business Services employers, Baltimore County employs more than 13% of the State's workers in this industry and is projected to experience growth through 2024.

CAREFIRST BLUECROSS BLUESHIELD

The largest network for medical, dental and vision insurance in Maryland, D.C. and Northern Virginia employs more than 2,000 employees in Owings Mills.

ELEMENT FLEET MANAGEMENT

A global fleet management solutions company employs nearly 600 people at its Sparks location.

KCI TECHNOLOGIES

A 100 percent employee-owned engineering, consulting and construction firm that employs 400 people at its Sparks location.

BALTIMORE COUNTY FAST FACTS:

- 60,501 professional & business services workers
- More than 4,500 employers
- Generates \$3.9B in worker income

- 1. CareFirst BlueCross BlueShield 2,220 Employees
- **2. Element Fleet Management** 600 Employees
- **3. KCI Technologies** 400 Employees

Top Employers



Data Source: Maryland's Quarterly Census of Employment and Wages (2018)
Note: Regional data is the Baltimore-Columbia-Towson Metropolitan Statistical Area (MSA).
Top employers as ranked by number of employees in Baltimore County

OCCUPATIONAL PROFILE

PROFESSIONAL AND BUSINESS SERVICES

The Professional & Business Services industry comprises establishments that administer, oversee, manage, or undertake the strategic or organizational planning and decision-making role of another entity, company or enterprise, performing routine support activities for the day-to-day operations of other organizations. These establishments specialize in one or more of these support activities and provide various services to clients across all industries as well as in the consumer/commercial marketplace.



THE PROFESSIONAL & BUSINESS SERVICES INDUSTRY RELIES ON OCCUPATIONS RELATED TO:

Business Management & Office Operations

Architecture, Engineering, Science & Technology

Professional Business, Sales & Customer Services

PROFESSIONAL & BUSINESS SERVICES CAREER CLUSTERS

Baltimore County is specialized in three of the ten career clusters in this industry: Architectural, Engineering & Related Services, Office Administrative Services, and Bookkeeping & Payroll Services.

BUSINESS MANAGEMENT & OFFICE OPERATIONS

Employment in this career cluster is concentrated in a mix of high-, middle-, and entry-skilled occupations. The greatest demand for entry- and middle-skilled occupations is for Office and Administrative Support occupations, while high-skilled General & Operations Management occupations are projected to increase most rapidly through 2024.



ARCHITECTURE, ENGINEERING, SCIENCE & TECHNOLOGY

This career cluster is dependent upon high-skilled technical and professional occupations in architecture, engineering and primarily life, environmental and social sciences.



PROFESSIONAL BUSINESS, SALES & CUSTOMER SERVICES

Specialized business services are foundational to this industry, which is inclusive of professional and support occupations related to marketing, sales, and customer relations. Examples of these specialized industries (not listed in Financial Services and IT) include legal services; professional sales, marketing, advertising and design; media and communications, and; the printing industry.



EDUCATION & CREDENTIALS

- Entry requires a high school diploma/equivalent and some degree of post-secondary education.
- High-skilled occupations in this industry may require extensive education and post-secondary degree credentials.
- Industry-recognized certifications and credentials are critical to maintaining employment in these occupations.

Source: <u>ONETOnline.org</u> - The occupational data on the next pages are categorized by a grouping of Career Clusters (detailed on the In-Demand Occupations page) as identified by Standard Occupational Classification codes for groups of occupations found in Professional & Business Services.

PROFESSIONAL AND BUSINESS SERVICES

These **Spotlight Jobs** represent a few of the leading **middle-skilled occupations** with projected high growth that present promising opportunities for advancement in careers in the Professional & Business Services industry. Education, skills, and credentials play an important role in success along these career pathways.



BUSINESS MANAGEMENT& OFFICE OPERATIONS

Supervisors, Office and Administrative Support Workers (43-1000);(43-1011)

2018 Estimated Employment: 5,810 2018 Average Wage: \$30.18 Entry/Experienced Wage: \$19.83 / \$35.36

Human Resources Specialist (13-1071)

2018 Estimated Employment: 1,790 2018 Average Wage: \$34.52 Entry/Experienced Wage: \$23.99 / \$39.78

Market Research Analysts and Marketing Specialists (13-1161)

2018 Estimated Employment: 1,520 2018 Average Wage: \$31.33 Entry/Experienced Wage: \$18.62 / \$37.68

Executive Secretaries and Executive Administrative Assistants (43-6011)

2018 Estimated Employment: 1,100 2018 Average Wage: \$31.64 Entry/Experienced Wage: \$22.90/ \$36.01

Property, Real Estate & Community Association Managers (11-9141)

2018 Estimated Employment: 710 2018 Average Wage: \$29.88

Entry/Experienced Wage: \$18.16 / \$35.74



ARCHITECTURE, ENGINEERING, SCIENCE & TECHNOLOGY

Art and Design Workers (27-1000)

2018 Estimated Employment: 970 2018 Average Wage: \$30.36 Entry/Experienced Wage: \$16.75 / \$37.17

Drafters, Engineering and Mapping Technicians (17-3000)

2018 Estimated Employment: 690 2018 Average Wage: \$30.96 Entry/Experienced W age: \$22.41 / \$35.23

Electrical and Electronics Engineering Technicians (17-3023)

2018 Estimated Employment: 140 2018 Average Wage: \$31.01 Entry/Experienced Wage: \$23.26 / \$34.88

Mechanical Drafters (17-3013)

2018 Estimated Employment: 100 2018 Average Wage: \$32.25 Entry/Experienced Wage: \$21.08 / \$37.98

Environmental Science and Protection Technicians, Including Health (19-4091)

2018 Estimated Employment: 100 2018 Average Wage: \$28.65 Entry/Experienced Wage: \$21.96 / \$31.99



PROFESSIONAL BUSINESS, SALES & CUSTOMER SERVICES

Sales Representatives, Services (41-3000)

2018 Estimated Employment: 7,790 2018 Average Wage: \$35.50 Entry/Experienced Wage: \$17.15 / \$44.67

Sales Representatives, Services, All Other (41-3099)

2018 Estimated Employment: 5,030 2018 Average Wage: \$34.00 Entry/Experienced Wage: \$17.31 / \$42.34

Legal Support Workers (23-2000)

2018 Estimated Employment: 2,500 2018 Average Wage: \$28.28 Entry/Experienced Wage: \$19.94 / \$32.45

Paralegals and Legal Assistants (23-2011)

2018 Estimated Employment: 2,110 2018 Average Wage: \$27.84 Entry/Experienced Wage: \$19.72 / \$31.89

Media and Communication Equipment Workers (27-4000)

2018 Estimated Employment: 600 2018 Average Wage: \$23.93 Entry/Experienced Wage: \$13.64 / \$29.08





SUPPORT SERVICE OCCUPATIONS

Support Service Occupations (SSOs) are jobs within this industry that are critical to the daily operation, administration or management of the business that provide **entry-level** opportunities for individuals lacking industry-specific skills or experience. For a complete list of these occupations, see "Support Service Occupations" on page 48.

Retail Sales Workers (41-2000)

2018 Estimated Employment: 24,860 2018 Average Wage: \$12.85 Entry/Experienced Wage: \$9.82 / \$14.37

Information and Record Clerks (43-4000)

2018 Estimated Employment: 15,270 2018 Average Wage: \$17.90 Entry/Experienced Wage: \$11.68 / \$21.01

Secretaries and Administrative Assistants (43-6000)

2018 Estimated Employment: 11,750 2018 Average Wage: \$20.75

Entry/Experienced Wage: \$13.89 / \$24.17

Other Office and Administrative Support Workers (43-9000)

2018 Estimated Employment: 8,370 2018 Average Wage: \$17.05

Entry/Experienced Wage: \$10.79 / \$20.18

Customer Service Representatives (43-4051)

2018 Estimated Employment: 7,970 2018 Average Wage: \$18.68

Entry/Experienced Wage: \$12.08 / \$21.97

Financial Clerks (43-3000)

2018 Estimated Employment: 7,470 2018 Average Wage: \$20.21

Entry/Experienced Wage: \$15.00 / \$22.81

Office Clerks, General (43-9061)

2018 Estimated Employment: 5,920 2018 Average Wage: \$15.89 Entry/Experienced Wage: \$10.11 / \$18.78

Printing Workers (51-5000)

2018 Estimated Employment: 700 2018 Average Wage: \$19.67

Entry/Experienced Wage: \$12.61 / \$23.20

Parts Salespersons (41-2022)

2018 Estimated Employment: 580 2018 Average Wage: \$21.94

Entry/Experienced Wage: \$12.94 / \$26.43

IN-DEMAND OCCUPATIONS —

PROFESSIONAL AND BUSINESS SERVICES



This table represents Baltimore County 2018 employment and wage data for the leading entry-, middle-, and high-skilled Professional & Business Services occupations (by estimated employment and wages) in the Business Management & Administration, Law, and Science, Technology, Engineering & Math Career Clusters found in O*NET Online (onetonline.org).

TOP ENTRY & MIDDLE SKILLED OCCUPATIONS

Customer Service Representatives (43-4051)

2018 Estimated Employment: 7,970 2018 Average Wage: \$18.68 Entry/Experienced Wage: \$12.08 / \$21.97

Sales Representatives, Services (41-3000)

2018 Estimated Employment: 7,790 2018 Average Wage: \$35.50

Entry/Experienced Wage: \$17.15 / \$44.67

Supervisors, Office and Administrative Support Workers (43-1000);(43-1011)

2018 Estimated Employment: 5,810 2018 Average Wage: \$30.18

Entry/Experienced Wage: \$19.83 / \$35.36

Sales Representatives, Services, All Other (41-3099)

2018 Estimated Employment: 5,030 2018 Average Wage: \$34.00 Entry/Experienced Wage: \$17.31 / \$42.34

Supervisors, Sales Workers (41-1000)

2018 Estimated Employment: 4,530 2018 Average Wage: \$26.36 Entry/Experienced Wage: \$14.77/ \$32.16

Sales Representatives, Wholesale & Manufacturing (41-4000)

2018 Estimated Employment: 3,170 2018 Average Wage: \$39.11 Entry/Experienced Wage: \$18.24 / \$49.55

Legal Support Workers (23-2000)

2018 Estimated Employment: 2,500 2018 Average Wage: \$28.28 Entry/Experienced Wage: \$19.94 / \$32.45

Paralegals and Legal Assistants (23-2011)

2018 Estimated Employment: 2,110 2018 Average Wage: \$27.84

Entry/Experienced Wage: \$19.72 / \$31.89

Human Resources Specialist (13-1071)

2018 Estimated Employment: 1,790 2018 Average Wage: \$34.52 Entry/Experienced Wage: \$23.99 / \$39.78

Market Research Analysts and Marketing Specialists (13-1161)

2018 Estimated Employment: 1,520 2018 Average Wage: \$31.33 Entry/Experienced Wage: \$18.62 / \$37.68

Other Sales & Related Workers (13-1161)

2018 Estimated Employment: 1,320 2018 Average Wage: \$23.63

Entry/Experienced Wage: \$11.24 / \$29.82

Executive Secretaries and Executive Administrative Assistants (43-6011)

2018 Estimated Employment: 1,100 2018 Average Wage: \$31.64 Entry/Experienced Wage: \$22.90/ \$36.01

Art and Design Workers (27-1000)

2018 Estimated Employment: 970 2018 Average Wage: \$30.36 Entry/Experienced Wage: \$16.75 / \$37.17

Property, Real Estate and Community Association Managers (11-9141)

2018 Estimated Employment: 710 2018 Average Wage: \$29.88 Entry/Experienced Wage: \$18.16 / \$35.74

Printing Workers (51-5000)

2018 Estimated Employment: 700 2018 Average Wage: \$19.67 Entry/Experienced Wage: \$12.61 / \$23.20

Drafters, Engineering and Mapping Technicians (17-3000)

2018 Estimated Employment: 690 2018 Average Wage: \$30.96 Entry/Experienced Wage: \$22.41 / \$35.23

Public Relations Specialists (27-3031)

2018 Estimated Employment: 640 2018 Average Wage: \$29.15

Entry/Experienced Wage: \$18.43 / \$34.51

Office and Administrative Support Workers, All Other (43-9199)

2018 Estimated Employment: 620 2018 Average Wage: \$21.67 Entry/Experienced Wage: \$15.05 / \$24.98

Media and Communication Equipment Workers (27-4000)

2018 Estimated Employment: 600 2018 Average Wage: \$23.93 Entry/Experienced Wage: \$13.64 / \$29.08

Human Resources Assistants, Except Payroll and Timekeeping (43-4161)

2018 Estimated Employment: 590 2018 Average Wage: \$20.40 Entry/Experienced Wage: \$14.49/ \$23.36

Meeting, Convention and Event Planners (41-4000)

2018 Estimated Employment: 540 2018 Average Wage: \$24.89

Entry/Experienced Wage: \$15.72 / \$29.48

Payroll and Timekeeping Clerks (43-3051)

2018 Estimated Employment: 490 2018 Average Wage: \$23.51

Entry/Experienced Wage: \$17.24 / \$26.64

Compensation, Benefits and Job Analysis Specialists (13-1141)

2018 Estimated Employment: 430 2018 Average Wage: \$35.88

Entry/Experienced Wage: \$24.32 / \$41.66

Legal Support Workers, All Other (23-2099)

2018 Estimated Employment: 360 2018 Average Wage: \$31.06

Entry/Experienced Wage: \$22.48 / \$35.36

TOP HIGH SKILLED OCCUPATIONS

Business Operations Specialists (13-1000)

2018 Estimated Employment: 13,660 2018 Average Wage: \$34.36

Entry/Experienced Wage: \$21.69 / \$40.85

Other Management Occupations (11-9000)

2018 Estimated Employment: 9,000 2018 Average Wage: \$52.27 Entry/Experienced Wage: \$30.56 / \$63.13

Operations Specialties Managers (11-3000)

2018 Estimated Employment: 5,650 2018 Average Wage: \$67.59

Entry/Experienced Wage: \$41.54 / \$80.62

Lawyers, Judges and Related Workers (23-1000)

2018 Estimated Employment: 4,660 2018 Average Wage: \$57.19 Entry/Experienced Wage: \$27.32 / \$72.12

General and Operations Managers (11-1021)

2018 Estimated Employment: 4,470 2018 Average Wage: \$66.21 Entry/Experienced Wage: \$32.00 / \$83.31

Engineers (17-2000)

2018 Estimated Employment: 2,890 2018 Average Wage: \$46.27 Entry/Experienced Wage: \$29.58 / \$54.62

Life Scientists (19-1000)

2018 Estimated Employment: 1,840 2018 Average Wage: \$41.68

Entry/Experienced Wage: \$27.51 / \$48.77

Advertising, Marketing, Promotions, Public Relations and Sales Managers (11-2000)

2018 Estimated Employment: 1,820 2018 Average Wage: \$63.24

Entry/Experienced Wage: \$36.43 / \$76.64

Civil Engineers (17-2051)

2018 Estimated Employment: 1,110

2018 Average Wage: \$41.04

Entry/Experienced Wage: \$28.50 / \$47.31

Job Connector
Toolkit

Moving people to in-demand jobs in key industries in Baltimore County, Maryland

INFORMATION TECHNOLOGY (IT)



- INDUSTRY PROFILE -

INFORMATION TECHNOLOGY (IT)

The Information Technology industry is the fastest growing of Baltimore County's nine priority industries, with overall employment increasing by 46 percent between 2001 and 2015 and projected to increase by 19 percent through 2024.



Regional Impact

15,894 Jobs

\$1.4B Associated Worker Income

Over 870 Employers

Statewide Impact

36,234 Jobs

\$3.3B Associated Worker Income

Over 2,700 Employers

Baltimore County, MD

With nearly 5,000 IT employees, Baltimore County employs more than 13% of the State's workers in this industry.

LOCKHEED MARTIN

This global security and aerospace company employs over 1,500 people in its Windsor Mill location.

BWTECH@UMBC

A 71-acre IT incubator with over 130 cybersecurity start-up companies as tenants.

HUNT VALLEY & DIGITAL ENTERTAINMENT

Hunt Valley is a nationally-recognized hub for digital gaming and entertainment companies. Companies in this IT hub include:

- Firaxis Games
- · BreakAway Games
- Big Huge Games
- ZeniMax Online Studios

- 1. Lockheed Martin 1,519 Employees
- **2. Tessco Technologies** 668 Employees
- 3. General Dynamics Information Technology 600 Employees

Top Employers



- 5,023 IT/Information Services workers
- More than 600 IT/Information Services employers
- Generates \$386M in worker income

Data Source: Maryland's Quarterly Census of Employment and Wages (2018)
Note: Regional data is the Baltimore-Columbia-Towson Metropolitan Statistical Area (MSA).
Top employers as ranked by number of employees in Baltimore County

OCCUPATIONAL PROFILE

INFORMATION TECHNOLOGY (IT)

The Information Technology (or "Information Services") industry comprises establishments engaged in: Producing/distributing information and cultural products; providing means to transmit or distribute these products, data or communications, and; processing data. In Baltimore County, the top sectors are information services and data processing. Occupations related to: equipment installation and repair; drafting and design; publishing (including software), and; print, broadcast, and digital media are also included.



THE IT INDUSTRY RELIES ON OCCUPATIONS RELATED TO:

Information Support & Services

Network Systems

Programming & Software Development

IT CAREER CLUSTERS

The Information Technology industry is one of the most highly skilled of Baltimore County's nine high-growth industries, with 72 percent of all jobs in this cluster classified as high-skilled occupations.

INFORMATION SUPPORT & SERVICES

Information Support & Services primarily encompasses an array of technological and human resources that provide systems to support the storage, computing, distribution, and communication of information specific to an organization or enterprise, providing technical assistance and support for system users.



NETWORK SYSTEMS

Network Systems occupations involve installing, configuring, and supporting an organization's local area network (LAN), wide area network (WAN), and internet systems or a segment thereof. IT workers monitor the network to ensure availability and perform necessary maintenance, as well as assist in modeling, analysis, planning, and coordination between network and data communications hardware and software.



PROGRAMMING & SOFTWARE DEVELOPMENT

Programmers create, modify, and test the code, forms, and script that allow computer applications to run, while Software Developers design and modify computer applications software or specialized utility programs to create desired software solutions. Both may research, design, develop, and test operating system/network distribution software, and write computer programs to store, locate, and retrieve documents, data, and information.



EDUCATION & CREDENTIALS

• IT occupations require post-secondary degree credentials, industry or occupationally specific certifications, and advanced technical proficiency.

Source: ONETOnline.org - The occupational data on the next pages are categorized by "Information Technology" Career Clusters as identified by Standard Occupational Classification codes for groups of occupations in the same field of work that require similar skills.

INFORMATION TECHNOLOGY (IT)

These **Spotlight Jobs** represent a few of the leading middle-skilled occupations with projected high growth that present promising opportunities for advancement in careers in the IT industry. With increasing employer demand for computer proficiency and advanced technical expertise at every level, it is critical to attain post-secondary industryrecognized credentials and certifications to become employed in IT.



INFORMATION SUPPORT & SERVICES

Computer Specialists (15-1000)

2018 Estimated Employment: 14,940 2018 Average Wage: \$46.62 Entry/Experienced Wage: \$27.23 / \$56.32

Telecommunications Line Installers and Repairers (49-9052)

2018 Estimated Employment: 1,150 2018 Average Wage: \$28.74 Entry/Experienced Wage: \$17.03 / \$34.59

Computer User Support Specialists (15-1151)

2018 Estimated Employment: 1,100 2018 Average Wage: \$26.78 Entry/Experienced Wage: \$17.64 / \$31.35

Telecommunications Equipment Installers and Repairers, Except Line **Installers (49-2022)**

2018 Estimated Employment: 640 2018 Average Wage: \$24.00

Entry/Experienced Wage: \$15.99 / \$28.00



NETWORK SYSTEMS

Computer Network Support Specialists (15-1152)

2018 Estimated Employment: 950

2018 Average Wage: \$35.01 Entry/Experienced Wage: \$21.81 / \$41.60

Database Administrators (15-1141)

2018 Estimated Employment: 400 2018 Average Wage: \$38.70 Entry/Experienced Wage: \$22.77 / \$46.66

Information Security Analysts (15-1122)

2018 Estimated Employment: 300 2018 Average Wage: \$47.50 Entry/Experienced Wage: \$28.74 / \$56.89

Computer Hardware Engineers (17-2061)

2018 Estimated Employment: 180 2018 Average Wage: \$47.90

Entry/Experienced Wage: \$31.27 / \$56.22



PROGRAMMING & SOFTWARE DEVELOPMENT

Software Developers, Applications (15-1132)

2018 Estimated Employment: 2,390 2018 Average Wage: \$46.99

Entry/Experienced Wage: \$24.59 / \$58.20

Computer Systems Analysts (15-1121)

2018 Estimated Employment: 1,870 2018 Average Wage: \$42.30

Entry/Experienced Wage: \$29.25 / \$48.83

Computer Programmers (15-1131)

2018 Estimated Employment: 570 2018 Average Wage: \$37.81 Entry/Experienced Wage: \$21.24 / \$46.09

Web Developers (15-1134)

2018 Estimated Employment: 330 2018 Average Wage: \$32.37

Entry/Experienced Wage: \$24.04 / \$36.53





SUPPORT SERVICE OCCUPATIONS

Support Service Occupations (SSOs) are jobs within this industry that are critical to the daily operation, administration or management of the business that provide entry-level opportunities for individuals lacking industry-specific skills or experience. For a complete list of these occupations, see "Support Service Occupations" on page 48.

Computer, Automated Teller and Office Machine Repairers (49-2011)

2018 Estimated Employment: 420 2018 Average Wage: \$19.55

Entry/Experienced Wage: \$12.36 / \$23.15

Data Entry Keyers (49-9021)

2018 Estimated Employment: 390 2018 Average Wage: \$18.08

Entry/Experienced Wage: \$13.55 / \$20.35

Word Processors & Typists (43-9022)

2018 Estimated Employment: 50 2018 Average Wage: \$20.96

Entry/Experienced Wage: \$15.50 / \$23.69

Computer Operators (43-9011)

2018 Estimated Employment: 40 2018 Average Wage: \$23.49

Entry/Experienced Wage: \$16.81 / \$26.83

IN-DEMAND OCCUPATIONS —

INFORMATION TECHNOLOGY (IT)



This table represents Baltimore County 2018 employment & wage data for the leading entry-, middle-, and high-skilled occupations (by estimated employment & wages) in the IT Career Clusters found in O*NET OnLine (onetonline.org). As the IT industry has greatest projected demand for high-skilled occupations, classification of entry-, middle-, or high- are not indicative of skill levels, but were selected based on estimated employment numbers and a comparison of "Entry" wages for each occupation.

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TOP ENTRY & MIDDLE SKILLED OCCUPATIONS

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Computer Specialists (15-1000)

2018 Estimated Employment: 14,940 2018 Average Wage: \$46.62

Entry/Experienced Wage: \$27.23 / \$56.32

Software Developers, Applications (15-1132)

2018 Estimated Employment: 2,390 2018 Average Wage: \$46.99 Entry/Experienced Wage: \$24.59 / \$58.20

Computer Systems Analysts (15-1121)

2018 Estimated Employment: 1,870 2018 Average Wage: \$42.30

Entry/Experienced Wage: \$29.25 / \$48.83

Telecommunications Line Installers and Repairers (49-9052)

2018 Estimated Employment: 1,150 2018 Average Wage: \$28.74 Entry/Experienced Wage: \$17.03 / \$34.59

Computer User Support Specialists (15-1151)

2018 Estimated Employment: 1,100 2018 Average Wage: \$26.78

Entry/Experienced Wage: \$17.64 / \$31.35

Media and Communication Workers (27-3000)

2018 Estimated Employment: 1,060

2018 Average Wage: \$32.38

Entry/Experienced Wage: \$17.86 / \$39.64

Computer Network Support Specialists (15-1152)

2018 Estimated Employment: 950 2018 Average Wage: \$35.01

Entry/Experienced Wage: \$21.81 / \$41.60

Telecommunications Equipment Installers and Repairers, Except Line Installers (49-2022)

2018 Estimated Employment: 640 2018 Average Wage: \$24.00

Entry/Experienced Wage: \$15.99 / \$28.00

Media and Communication Equipment Workers (27-4000)

2018 Estimated Employment: 600 2018 Average Wage: \$23.93 Entry/Experienced Wage: \$13.64 / \$29.08

Computer Programmers (15-1131)

2018 Estimated Employment: 570 2018 Average Wage: \$37.81

Entry/Experienced Wage: \$21.24 / \$46.09

Graphic Designers (27-1024)

2018 Estimated Employment: 510 2018 Average Wage: \$25.42

Entry/Experienced Wage: \$16.78 / \$29.74

Computer, Automated Teller and Office Machine Repairers (49-2011)

2018 Estimated Employment: 420 2018 Average Wage: \$19.55

Entry/Experienced Wage: \$12.36 / \$23.15

Database Administrators (15-1141)

2018 Estimated Employment: 400 2018 Average Wage: \$38.70

Entry/Experienced Wage: \$22.77 / \$46.66

Data Entry Keyers (49-9021)

2018 Estimated Employment: 390 2018 Average Wage: \$18.08

Entry/Experienced Wage: \$13.55 / \$20.35

Web Developers (15-1134)

2018 Estimated Employment: 330

2018 Average Wage: \$32.37

Entry/Experienced Wage: \$24.04 / \$36.53

Information Security Analysts (15-1122)

2018 Estimated Employment: 300 2018 Average Wage: \$47.50

Entry/Experienced Wage: \$28.74 / \$56.89

Computer Hardware Engineers (17-2061)

2018 Estimated Employment: 180 2018 Average Wage: \$47.90

Entry/Experienced Wage: \$31.27 / \$56.22

Audio and Video Equipment Technicians (27-4011)

2018 Estimated Employment: 180 2018 Average Wage: \$19.25

Entry/Experienced Wage: \$12.96 / \$22.39

Broadcast Technicians (27-4012)

2018 Estimated Employment: 170 2018 Average Wage: \$28.74

Entry/Experienced Wage: \$14.53 / \$35.85

TOP HIGH SKILLED OCCUPATIONS

Computer Occupations, All Other (15-1199)

2018 Estimated Employment: 3,700 2018 Average Wage: \$53.53

Entry/Experienced Wage: \$42.73 / \$58.92

Occupations Classified within the 15-1199 SOC Code:

- .01 Software Quality Assurance Engineers & Testers
- .02 Computer Systems Engineers/Architects
- .03 Web Administrators
- .04 Geospatial Information Scientists & Technologists
- .05 Geographic Information Systems Technicians
- .06 Database Architects
- .07 Data Warehousing Specialists
- .08 Business Intelligence Analysts
- .09 Information Technology Project Managers
- .10 Search Marketing Strategists
- .11 Video Game Designers
- .12 Document Management Specialists

Network and Computer Systems Administrators (15-1142)

2018 Estimated Employment: 1,600 2018 Average Wage: \$51.61

Entry/Experienced Wage: \$34.05 / \$60.39

Computer and Information Systems Managers (11-3021)

2018 Estimated Employment: 1,190

2018 Average Wage: \$71.40

Entry/Experienced Wage: \$49.50 / \$83.25

Software Developers, Systems Software (15-1133)

2018 Estimated Employment: 1,120 2018 Average Wage: \$55.20

Entry/Experienced Wage: \$35.27 / \$65.16

Computer Network Architects (15-1143)

2018 Estimated Employment: 590 2018 Average Wage: \$62.43

Entry/Experienced Wage: \$44.65 / \$71.32

Job Connector Toolkit

Moving people to in-demand jobs in key industries in Baltimore County, Maryland

SUPPORT SERVICE OCCUPATIONS



SUPPORT SERVICE OCCUPATIONS



Support Service Occupations (SSO's) are jobs that can be found across all industries that are critical to the daily operation, administration, and management of the business.

TOP SUPPORT SERVICE POSITIONS BY OCCUPATIONAL CATEGORY

ADMINISTRATIVE, CLERICAL & OFFICE SUPPORT

Information and Record Clerks (43-4000)

2018 Estimated Employment: 15,270

2018 Average Wage: \$17.90

Entry/Experienced Wage: \$11.68 / \$21.01

Secretaries and Administrative Assistants (43-6000)

2018 Estimated Employment: 11,750

2018 Average Wage: \$20.75

Entry/Experienced Wage: \$13.89 / \$24.17

Other Office and Administrative Support Workers (43-9000)

2018 Estimated Employment: 8,370

2018 Average Wage: \$17.05

Entry/Experienced Wage: \$10.79 / \$20.18

Financial Clerks (43-3000)

2018 Estimated Employment: 7,470

2018 Average Wage: \$20.21

Entry/Experienced Wage: \$15.00 / \$22.81

Office Clerks, General (43-9061)

2018 Estimated Employment: 5,920

2018 Average Wage: \$15.89

Entry/Experienced Wage: \$10.11 / \$18.78

Supervisors, Office and Administrative Support Workers (43-1000);(43-1011)

2018 Estimated Employment: 5,810

2018 Average Wage: \$30.18

Entry/Experienced Wage: \$19.83 / \$35.36

Bookkeeping, Accounting and Auditing Clerks (43-3031)

2018 Estimated Employment: 3,530

2018 Average Wage: \$21.09

Entry/Experienced Wage: \$15.17 / \$24.05

Receptionists and Information Clerks (43-4171)

2018 Estimated Employment: 3,050

2018 Average Wage: \$14.51

Entry/Experienced Wage: \$10.90 / \$16.31

Executive Secretaries and Executive Administrative Assistants (43-6011)

2018 Estimated Employment: 1,100

2018 Average Wage: \$31.64

Entry/Experienced Wage: \$22.90/ \$36.01

Computer User Support Specialists (15-1151)

2018 Estimated Employment: 1,100

2018 Average Wage: \$26.78

Entry/Experienced Wage: \$17.64 / \$31.35

Office and Administrative Support Workers, All Other (43-9199)

2018 Estimated Employment: 620

2018 Average Wage: \$21.67 Entry/Experienced Wage: \$15.05 / \$24.98

Data Entry Keyers (43-9021) 2018 Estimated Employment: 390

2018 Average Wage: \$18.08

Entry/Experienced Wage: \$13.55 / \$24.98

Mail Clerks & Mail Machine Operators, Except Postal Service (43-9051)

2018 Estimated Employment: 300

2018 Average Wage: \$15.00

Entry/Experienced Wage: \$10.52 / \$17.24

File Clerks (43-4071)

2018 Estimated Employment: 290 2018 Average Wage: \$17.22

Entry/Experienced Wage: \$11.29 / \$20.18

Information and Record Clerks, All Other (43-4199)

2018 Estimated Employment: 220 2018 Average Wage: \$25.16

Entry/Experienced Wage: \$16.83 / \$29.32

Procurement Clerks (43-3061)

2018 Estimated Employment: 170 2018 Average Wage: \$23.29

Entry/Experienced Wage: \$17.59 / \$26.14

Office Machine Operators, Except Computer (43-9071)

2018 Estimated Employment: 170 2018 Average Wage: \$16.77

Entry/Experienced Wage: \$12.98 /

\$18.67)

Communications Equipment Operators (43-2000)

2018 Estimated Employment: 110 2018 Average Wage: \$13.96

Entry/Experienced Wage: \$11.11 / \$15.39

HUMAN RESOURCES

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Human Resources Specialists (13-1071)

2018 Estimated Employment: 1,790

2018 Average Wage: \$34.52 Entry/Experienced Wage: \$23.99 / \$39.78

Human Resources Assistants, Except Payroll and Timekeeping (43-4161)

2018 Estimated Employment: 590 2018 Average Wage: \$20.40

Entry/Experienced Wage: \$14.49/ \$23.36

Training and Development Managers (11-3131)

2018 Estimated Employment: 1,020

2018 Average Wage: \$33.24

Entry/Experienced Wage: \$22.21 / \$38.75

Payroll and Timekeeping Clerks (43-3051)

2018 Estimated Employment: 490

2018 Average Wage: \$23.51

Entry/Experienced Wage: \$17.24 / \$26.64

Human Resources Assistants, Except Payroll and Timekeeping (43-4161)

2018 Estimated Employment: 590

2018 Average Wage: \$20.40

Entry/Experienced Wage: \$14.49/ \$23.36

Compensation, Benefits and Job Analysis Specialists (13-1141)

2018 Estimated Employment: 430

2018 Average Wage: \$35.88

Entry/Experienced Wage: \$24.32 / \$41.66

Human Resources Managers (13-3121)

2018 Estimated Employment: 400

2018 Average Wage: \$66.56

Entry/Experienced Wage: \$46.55 / \$76.57

Labor Relations Specialists (13-1075)

2018 Estimated Employment: 320 2018 Average Wage: \$38.67

Entry/Experienced Wage: \$23.96 / \$46.02

Lifti y/Experienced Wage. \$23.90 / \$40.02

Training and Development Specialists (13-1151) 2018 Estimated Employment: 180

2010 Estimated Employment, 100

2018 Average Wage: \$61.03

Entry/Experienced Wage: \$40.80 / \$71.15

Compensation and Benefits Managers (13-1075)

2018 Estimated Employment: 100 2018 Average Wage: \$69.73

Entry/Experienced Wage: \$51.52 / \$78.84

SUPPORT SERVICE OCCUPATIONS

BUSINESS MANAGEMENT & GENERAL OPERATIONS

Business Operations Specialists (13-1000)

2018 Estimated Employment: 13,660

2018 Average Wage: \$34.36

Entry/Experienced Wage: \$21.69 / \$40.85

Other Management Occupations (11-9000)

2018 Estimated Employment: 9,000

2018 Average Wage: \$52.27

Entry/Experienced Wage: \$30.56 / \$63.13

Operations Specialties Managers (11-3000)

2018 Estimated Employment: 5,650

2018 Average Wage: \$67.59

Entry/Experienced Wage: \$41.54 / \$80.62

General and Operations Managers (11-1021)

2018 Estimated Employment: 4,470

2018 Average Wage: \$66.21

Entry/Experienced Wage: \$32.00 / \$83.31

Financial Managers (11-3031)

2018 Estimated Employment: 1,920

2018 Average Wage: \$70.27

Entry/Experienced Wage: \$42.77 / \$84.01

Managers, All Other (11-9199)

2018 Estimated Employment: 1,750

2018 Average Wage: \$52.38

Entry/Experienced Wage: \$36.62 / \$60.26

Computer and Information Systems Managers (11-3021)

2018 Estimated Employment: 1,190

2018 Average Wage: \$71.40

Entry/Experienced Wage: \$49.50 / \$83.25

Administrative Services Managers (11-3011)

2018 Estimated Employment: 1,040

2018 Average Wage: \$56.57

Entry/Experienced Wage: \$37.18 / \$66.26

Social and Community Service Managers (11-9151)

2018 Estimated Employment: 940

2018 Average Wage: \$38.95 Entry/Experienced Wage: \$25.24 / \$45.80

Property, Real Estate & Community Association Managers (11-9141)

2018 Estimated Employment: 710 2018 Average Wage: \$29.88

Entry/Experienced Wage: \$18.16 / \$35.74

Marketing Managers (11-2021)

2018 Estimated Employment: 700

2018 Average Wage: \$66.48

Entry/Experienced Wage: \$38.44 / \$80.49

Public Relations and Fundraising Managers (11-2031)

2018 Estimated Employment: 520 2018 Average Wage: \$54.17

Entry/Experienced Wage: \$34.67 / \$63.91

SALES, SERVICE & PRODUCTIVITY

Retail Sales Workers (41-2000)

2018 Estimated Employment: 24,860

2018 Average Wage: \$12.85

Entry/Experienced Wage: \$9.82 / \$14.37

Cashiers (41-2011)

2018 Estimated Employment: 11,210

2018 Average Wage: \$11.18

Entry/Experienced Wage: \$9.51 / \$12.01

Customer Service Representatives (43-4051)

2018 Estimated Employment: 7,970 2018 Average Wage: \$18.68

Entry/Experienced Wage: \$12.08 / \$21.97

Sales Representatives, Services (41-3000)

2018 Estimated Employment: 7,790

2018 Average Wage: \$35.50 Entry/Experienced Wage: \$17.15 / \$44.67

Stock Clerks and Order Fillers (43-5081)

2018 Estimated Employment: 5,330

2018 Average Wage: \$13.27

Entry/Experienced Wage: \$10.14 / \$14.84

Sales Representatives, Services, All Other (41-3099)

2018 Estimated Employment: 5,030

2018 Average Wage: \$34.00

Entry/Experienced Wage: \$17.31 / \$42.34

Supervisors, Sales Workers (41-1000)

2018 Estimated Employment: 4,530 2018 Average Wage: \$26.36

Entry/Experienced Wage: \$14.77 / \$32.16

First-Line Supervisors of Retail Sales Workers (41-1011)

2018 Estimated Employment: 3,690

2018 Average Wage: \$22.54 Entry/Experienced Wage: \$14.33 / \$26.64

Sales Representatives, Wholesale and Manufacturing (41-4000)

2018 Estimated Employment: 3,170 2018 Average Wage: \$39.11

Entry/Experienced Wage: \$18.24 / \$49.55

Counter and Rental Clerks (41-2021)

2018 Estimated Employment: 1,920 2018 Average Wage: \$19.48

Entry/Experienced Wage: \$11.52 / \$23.46

Advertising, Marketing, Promotions, Public Relations and Sales Managers (11-2000)

2018 Estimated Employment: 1,770 2018 Average Wage: \$72.10

Entry/Experienced Wage: \$38.59 / \$88.85

Billing and Posting Clerks and Machine Operators (43-3021)

2018 Estimated Employment: 1,490 2018 Average Wage: \$19.65

Entry/Experienced Wage: \$15.42 / \$21.77

Other Sales and Related Workers (13-1161)

2018 Estimated Employment: 1,320 2018 Average Wage: \$23.63

Entry/Experienced Wage: \$11.24 / \$29.82

Shipping, Receiving and Traffic Clerks (43-5071)

2018 Estimated Employment: 1,080 2018 Average Wage: \$18.01

Entry/Experienced Wage: \$12.63 / \$20.70

Bill and Account Collectors (43-3011)

2018 Estimated Employment: 1,020 2018 Average Wage: \$19.25

Entry/Experienced Wage: \$16.05 / \$20.85

New Account Clerks (43-4141)

2018 Estimated Employment: 920

2018 Average Wage: \$18.85

Entry/Experienced Wage: \$15.18 / \$20.69

First-Line Supervisors of Non-Retail Sales Workers (41-1012)

2018 Estimated Employment: 840 2018 Average Wage: \$43.28

Entry/Experienced Wage: \$24.16 / \$52.84

Printing Workers (51-5000)

2018 Estimated Employment: 700 2018 Average Wage: \$19.67

Entry/Experienced Wage: \$12.61 / \$23.20

Parts Salespersons (41-2022)

2018 Estimated Employment: 580 2018 Average Wage: \$21.94

Entry/Experienced Wage: \$12.94 / \$26.43

Meeting, Convention and Event Planners (13-1121)

2018 Estimated Employment: 540 2018 Average Wage: \$24.89

Entry/Experienced Wage: \$15.72 / \$29.48

Sales and Related Workers, All Other (41-9099)

2018 Estimated Employment: 510 2018 Average Wage: \$18.64

Entry/Experienced Wage: \$10.59 / \$22.66

Order Clerks (43-4151)

2018 Estimated Employment: 450 2018 Average Wage: \$15.97

Entry/Experienced Wage: \$10.21 / \$18.85

Hotel, Motel and Resort Desk Clerks (43-4081)

2018 Estimated Employment: 450

2018 Average Wage: \$11.64 Entry/Experienced Wage: \$10.60 / \$12.15

Parking Lot Attendants (53-6021)

2018 Estimated Employment: 310 2018 Average Wage: \$11.63

Entry/Experienced Wage: \$10.58 / \$12.10

Advertising Sales Agents (43-3051)

2018 Estimated Employment: 270 2018 Average Wage: \$27.23

Entry/Experienced Wage: \$15.39 / \$33.15

Telemarketers (41-9041)

2018 Estimated Employment: 220 2018 Average Wage: \$13.50

Entry/Experienced Wage: \$9.89 / \$15.31

Couriers and Messengers (43-5021)

2018 Estimated Employment: 140 2018 Average Wage: \$17.46

Entry/Experienced Wage: \$13.99 / \$19.20



APPENDIX 2019
Update



Baltimore County Executive Johnny Olszewski and the Baltimore County Council



Job Connector Toolkit Source List

Primary Research and Report Resources:

Jobs of the Future: Trends in Occupational Employment, 2015 – 2024

Consultants: The Jacob France Institute/University of Baltimore and Valbridge Property Advisors http://resources.baltimorecountymd.gov/Documents/EconomicDevel/futurejobs.pdf

- Nine Targeted Industry Clusters
- Trends in occupational employment across targeted industry clusters by degree requirement and skill level
- Market analysis data by 6-digit SOC (Standard Occupational Classification)
- 2015 employment numbers by occupational group
- Median wage data
- Location quotient for Baltimore MSA

Baltimore County Local Workforce Area Plan (2016-2020) - 2019 Update

http://resources.baltimorecountymd.gov/Documents/EconomicDevel/localplanmaster.pdf

COMMON GROUND: A Vision for Redeveloping Sparrows Point and Leveraging the Industrial Assets of East Baltimore County

Sparrows Point Partnership - First Year Report, May 2013

Eastern Baltimore County Emerges as a Major Hub, Again - October 2016

Consultant - Sage Policy Group

http://resources.baltimorecountymd.gov/Documents/EconomicDevel/finalsagereport.pdf

ALICE Report (Asset Limited, Income Constrained, Employed): A Study of Financial Hardship in Central Maryland

United Way of Central Maryland http://www.uwcm.org/main/alice/

United States Department of Labor Employment & Training Administration—Workforce GPS

<u>https://www.workforcegps.org/</u> - a repository of information on tools, resources and national best practices for workforce practitioners

- Workforce System Strategies Evidence-Based and Emerging Practices to Support Informed Decisions
- Building Career Pathways Systems for Education, Training, and Employment
- Career Pathways Toolkit An Enhanced Guide and Workbook for System Development
- Sector Strategies
- Sector Ready Workforce and Sector Ready Toolkit 1.0 Workforce Investment Board of Southwest Missouri
- <u>Innovation and Opportunity Network:</u> Implementing the Workforce Innovation and Opportunity Act



Job Connector Toolkit Source List

Primary Data Sources:

Department of Labor, Licensing and Regulation (DLLR) – Office of Workforce Information & Performance

http://www.dllr.state.md.us/lmi/

Maryland Industry and Occupational Growth Analysis

Local Area Unemployment Statistics (LAUS)

<u>Quarterly Census of Employment and Wages (QCEW)</u> - Regional data is the Baltimore-Columbia-Towson Metropolitan Statistical Area (MSA)

Maryland Current Employment Statistics

Maryland Occupational Employment and Wages

Baltimore County Occupational Wage Estimates

- Mean, entry and experienced wages
- Top areas in Maryland for occupations by best pay and highest employment

Workforce region occupational projections (2014 - 2024)

Major Employer Lists - Baltimore County, MD

Maryland Workforce Exchange – Labor Market Analysis Tool

Baltimore County Department of Economic & Workforce Development

<u>Meet Baltimore County</u> - Local data and information on business communities, top employers and labor market statistics

EMSI/Burning Glass - http://www.economicmodeling.com/workforce-development/

- Occupational data and projections not captured in the JOTF study
- Local and regional workforce data projections

O*NET Online -https://www.onetonline.org/

Resource Center: https://www.onetcenter.org/

Code Connector: https://www.onetcodeconnector.org/
 Career Clusters: https://www.onetonline.org/find/career

- Occupationally specific information
- Occupational groups by O*NET Standard Occupational Classification (SOC)
- Occupational outlook
- Occupational career clusters
- Sample job titles
- Labor market information
- Industry outlook
- Worker characteristics skill and educational requirements, certifications

Career OneStop https://www.careeronestop.org/

- Competency Model Clearinghouse https://www.careeronestop.org/competencymodel/
 - Industry specific tools and templates to create career lattices and competency models with portable stackable credentials

About the Authors:

Baltimore County Department of Economic & Workforce Development Policy & Planning Team

Carol Brooks currently serves as the Senior Workforce Analyst. With an extensive background serving the agency in innumerable workforce, business development, and economic development capacities, she had spearheaded several of the Agency's industry-driven sector initiatives. Ms. Brooks was an active member of the Baltimore Metropolitan Council's Opportunity Collaborative partnership and Fellows Program, contributing to the Regional Workforce Plan and the 25-Year Plan for Regional Sustainability. She earned her Master of Arts in Cultural Sustainability from Goucher College and was an Annie E. Casey Foundation Fellow in their Leadership Development Program for Human Services Professionals through the University of Maryland, School of Social Work. She is a member of the 2019 class of the Maryland Equity and Inclusion Leadership Program through the Maryland Commission on Civil Rights and the Schaefer Center for Public Policy, University of Baltimore.

Jen Horton served as the Policy and Planning Manager. Before this position, she served as the Community and Economic Development Program Manager at the National Association of Counties (NACo) in Washington D.C. She also has experience working on the state and local level with workforce development, economic diversification, smart growth, and sustainable communities. She earned her Masters of Science and Masters of Urban Planning from University of Michigan.

This toolkit was researched and produced by the Baltimore County Department of Economic and Workforce Development ("DEWD"). Data shown are based on commissioned studies and most currently available County, Metropolitan Statistical Area (MSA) and State datasets at the time of publication. No official endorsement by DEWD of any product, commodity, service or enterprise mentioned in this publication is intended or should be inferred. DEWD makes no assurances with respect to such information, including any information on linked sites, as to the accuracy, continued availability, or ownership of information. Internal use by an organization and personal use by an individual for non-commercial purposes is permissible; authorization to reproduce it in whole or in part is granted.

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