



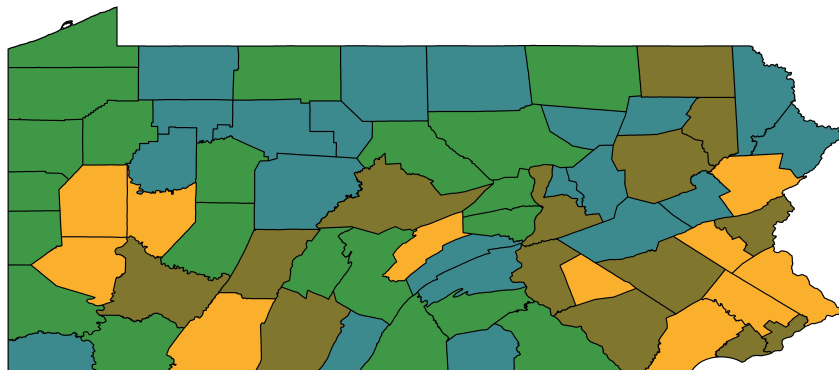
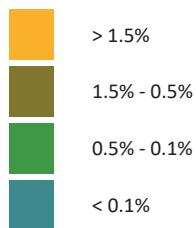
Pennsylvania defines industry clusters to serve as the basis for data-driven workforce development policies. An industry cluster includes industries closely linked by common products, labor pools, technologies, supplier chains and training needs. They take on strategic importance for long-term economic planning as changes that benefit one group member will generally impact other members of the cluster.

Cluster Summary

	2018	2023
Employer Units	2,579	3,873
Number of Jobs	82,779	95,934
Percent of Total Pennsylvania Jobs	1.4%	1.6%
Average Annual Wages	\$111,562	\$138,386
Location Quotient (LQ)	1.22	1.23

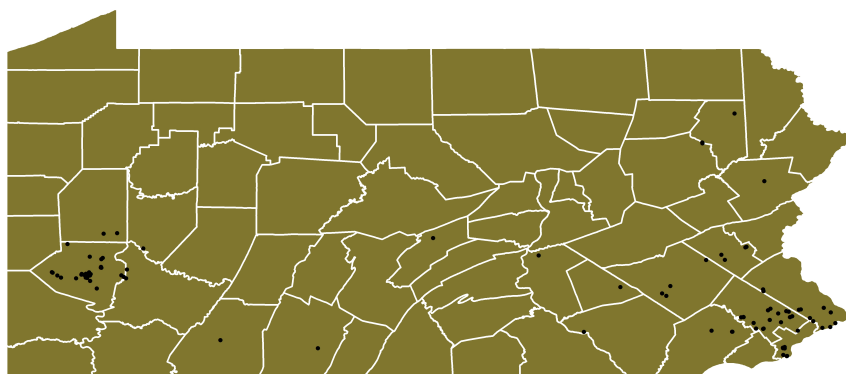
Statewide employment within the Bio-Medical cluster has greatly increased over the 2018-2023 time period (15.9%) and it is one of the top clusters in the state for its location quotient (LQ). This is mostly due to the Montgomery County Workforce Development Area (WDA) LQ of 4.40 (seen on page 3). Much of the employment gain in the cluster appears to have been in higher-paying jobs as the average wage increased considerably (approximately 24 percent) over the same time period.

Percent Employment by County



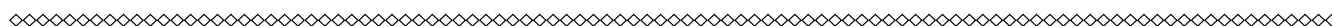
Major Employers

- Merck
- Smithkline Beecham Corporation
- Janssen Research & Development LLC
- Fluor Marine Propulsion LLC
- The Children's Hospital of Philadelphia
- Aventis Pasteur Inc



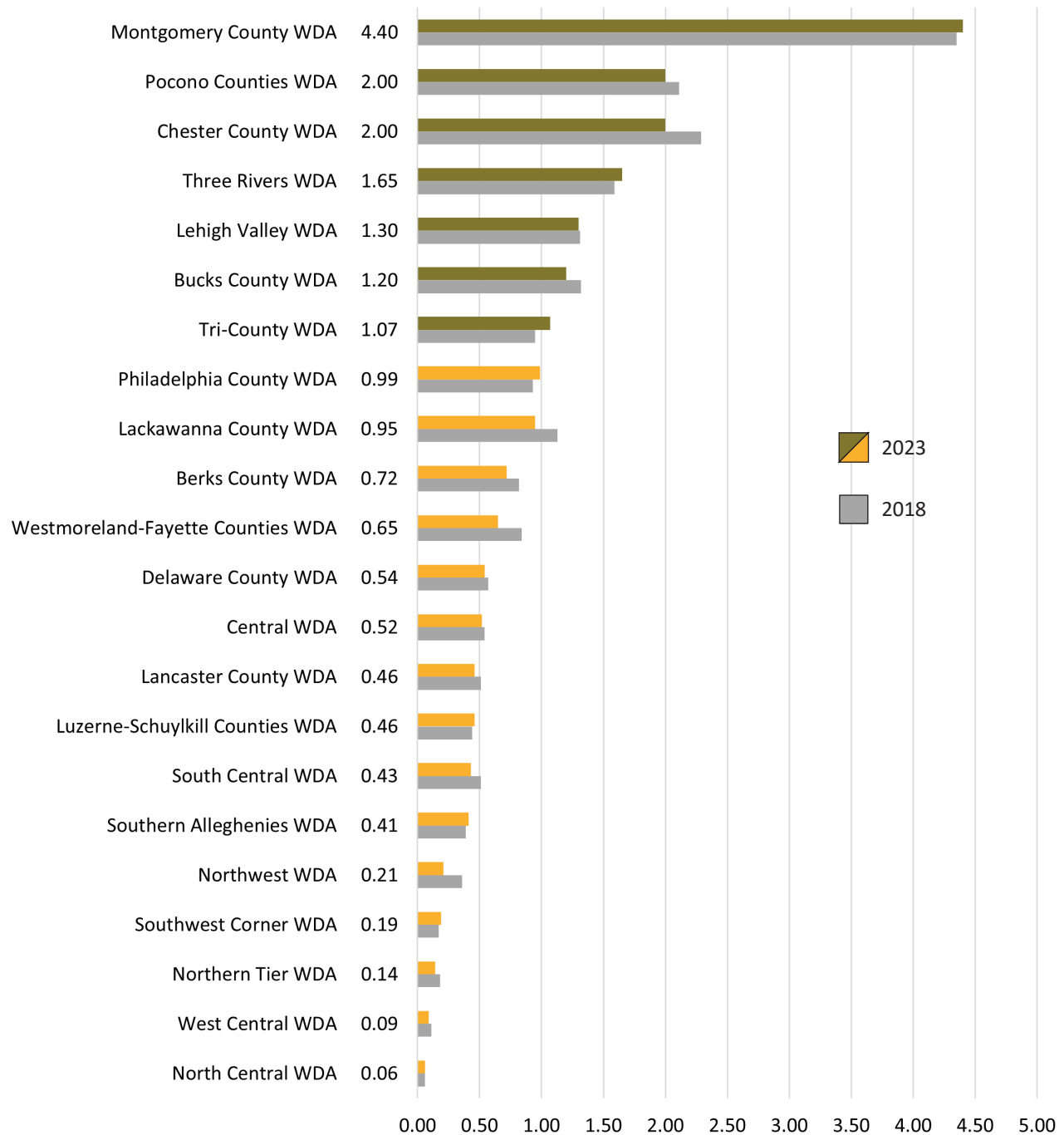
Top Industries Based on Employment

- | | |
|-----------------------------------------------|-----------------------------------------------|
| • Physical, Engineering & Biological Research | • Dental Laboratories |
| • Biotechnology Research & Development | • Nanotechnology Research & Development |
| • Pharmaceutical Preparation Manufacturing | • Medicinal & Botanical Manufacturing |
| • Medical Laboratories | • Dental Equipment & Supplies Manufacturing |
| • Surgical & Medical Instrument Manufacturing | • In-Vitro Diagnostic Substance Manufacturing |
| • Biological Product Manufacturing | • Ophthalmic Goods Manufacturing |
| • Surgical Appliance & Supplies Manufacturing | |
| • Electromedical Apparatus Manufacturing | |
| • Diagnostic Imaging Centers | |
| • Social Science & Humanities Research | |



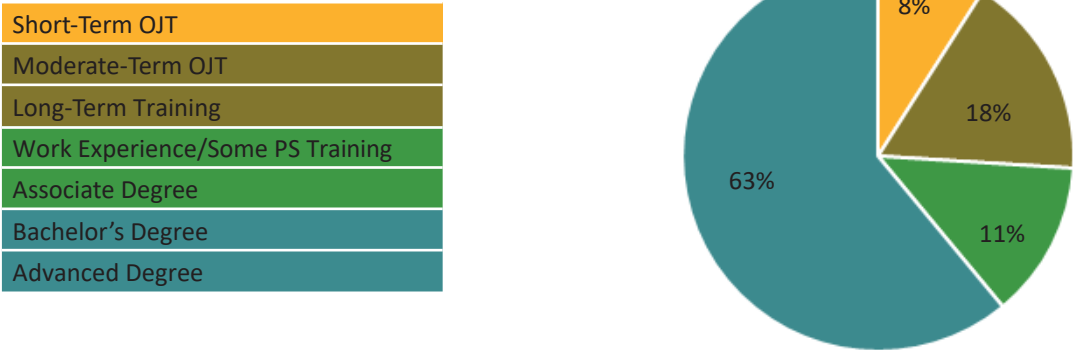
Employment Concentration

A location quotient, or LQ, compares a cluster's share of local employment to its share of national employment. This value can be used when evaluating the strength of an industry cluster within an area. An LQ greater than one indicates that the cluster has, on average, more employees locally than typically expected implying a possible competitive advantage. The Montgomery County Workforce Development Area (WDA) has the highest LQ for the cluster at 4.40, but it slightly decreased since 2018. The only other WDAs that have LQs greater than one and have also increased their competitiveness since 2018 are Three Rivers, and Tri-County WDAs.



Educational Requirements

This graph illustrates the minimum educational attainment levels for jobs found in this cluster's various industries. Postsecondary education is very important to this cluster as nearly 74 percent of BM jobs require some formal postsecondary education to enter employment. This cluster offers the fewest opportunities for employment for lower-skilled workers.



Occupations with Significant Employment

The following table lists occupations that employ at least 680 people in the BM cluster.

			Annual Demand	
SOC Code	Occupation	Average Wage	All Industries	Industry Cluster
19-1042	Medical Scientists	\$13,690	528	462
19-4021	Biological Technicians	\$55,550	709	429
51-2090	Misc. Assemblers & Fabricators	\$44,950	5,131	291
29-2010	Clinical Laboratory Techs	\$62,120	951	239
11-9121	Natural Sciences Managers	\$157,740	496	219
17-2112	Industrial Engineers	\$99,500	841	191
17-2141	Mechanical Engineers	\$103,660	1,202	189
51-9061	Inspectors, Testers, Sorters, Samplers & Weighers	\$50,960	2,432	181
19-2031	Chemists	\$76,790	404	177
31-9097	Phlebotomists	\$42,390	660	174
19-1021	Biochemists & Biophysicists	\$114,280	180	165
19-4031	Chemical Technicians	\$61,150	436	138
51-9011	Chemical Equipment Operators & Tenders	\$54,540	482	125
51-9081	Dental Laboratory Technicians	\$54,380	116	106
13-1041	Compliance Officers	\$79,890	1,160	56

*The 2024 average annual wage reflects wages across all industries and is not specific to the cluster.