



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.

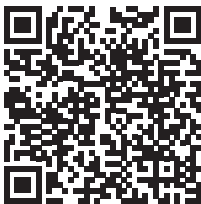
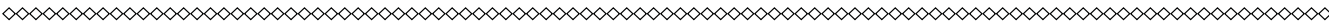
Industry clusters are comprised of specific six-digit North American Industry Classification System, or NAICS, codes. They are mutually exclusive, so that no two clusters contain the same NAICS code. Currently, there are 12 clusters identified, along with several critical sub-clusters. Combined, these 12 industry clusters account for nearly 85 percent of all employment in the commonwealth.

Cluster Summary

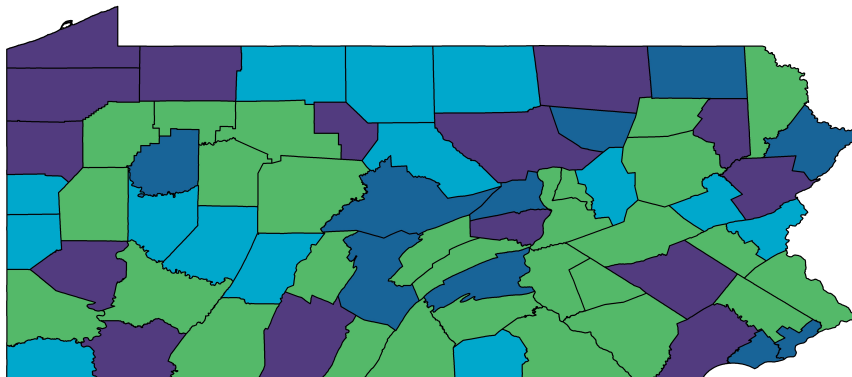
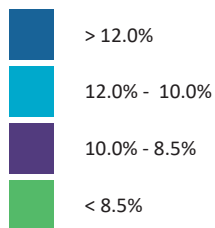
The Education (ED) cluster provides a full view of educational institutions in the state. The cluster encompasses elementary schools through universities, as well as technical schools and junior colleges. Finally, public agencies that oversee educational programs are also included in the cluster.

	2018	2023
Employer Units	13,520	14,509
Number of Jobs	560,960	558,060
Percent of Total Pennsylvania Jobs	9.6%	9.4%
Average Annual Wages	\$52,508	\$62,464
Location Quotient (LQ)	1.01	1.02
LQs greater than one suggest a competitive advantage.		

Employment in this cluster has slightly decreased by 0.5% from 2018 to 2023 and is only slightly higher than the national average with a competitive location quotient (LQ) at 1.02. The cluster responds to changes in demographics and state and local taxes, making it difficult to determine competitiveness in relation to the other industry clusters.

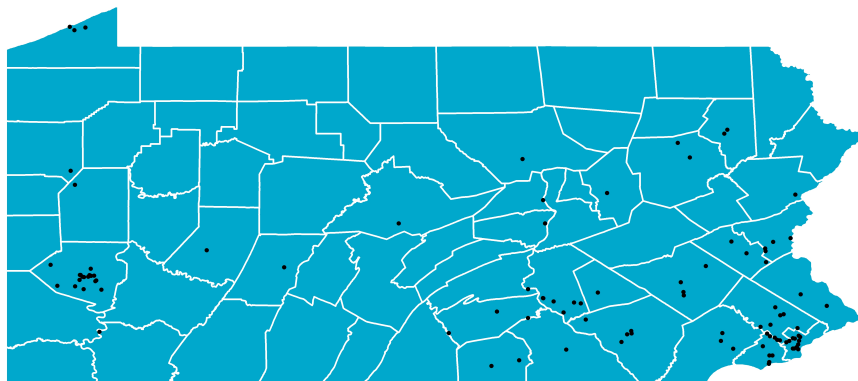


Percent Employment by County



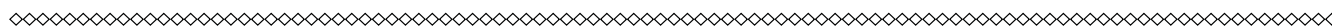
Major Employers

- Pennsylvania State University
- University of Pennsylvania
- School District of Philadelphia
- University of Pittsburgh
- PA State System of Higher Education
- Temple University



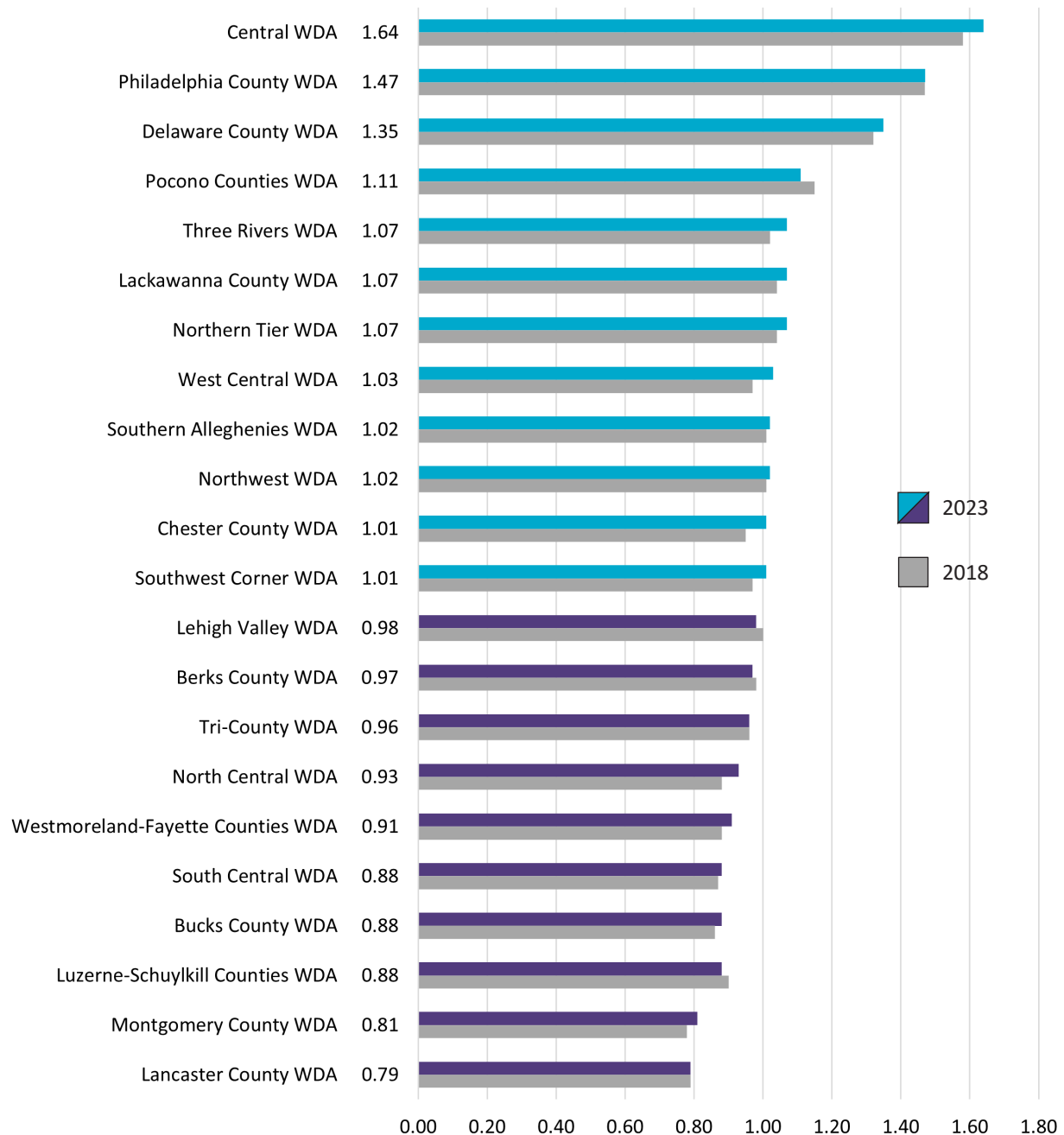
Top Industries Based on Employment

- | | |
|--|--|
| • Elementary & Secondary Schools | • Miscellaneous Schools & Instruction |
| • Colleges & Universities | • Management Training |
| • Child Day Care Services | • Apprenticeship Training |
| • School & Employee Bus Transportation | • Administration Of Education Programs |
| • Junior Colleges | • Cosmetology & Barber Schools |
| • Educational Support Services | • Computer Training |
| • Libraries & Archives | • Automobile Driving Schools |
| • Fine Arts Schools | • Language Schools |
| • Exam Preparation & Tutoring | • Flight Training |
| • Other Technical & Trade Schools | • Business & Secretarial Schools |



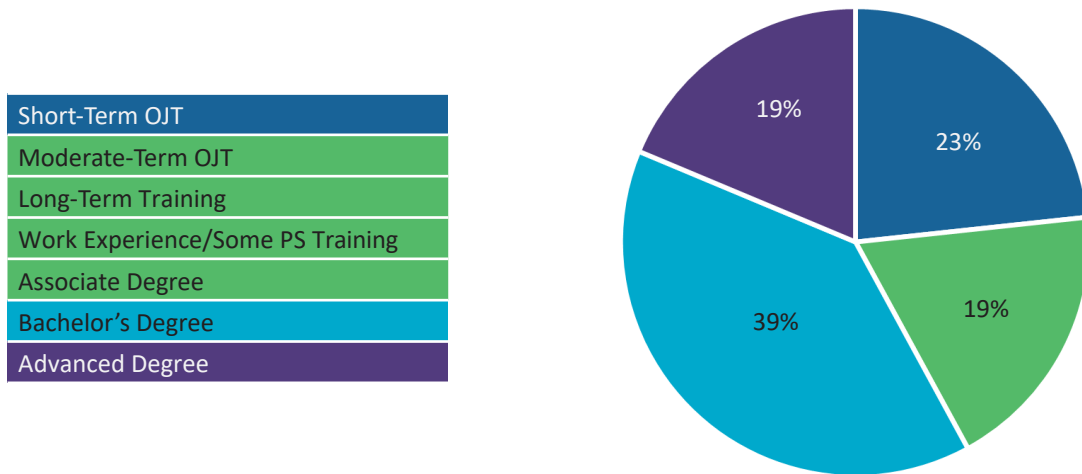
Employment Concentration

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. Twelve Workforce Development Areas (WDAs) all had an LQ greater than one while 15 experienced an increase in competitiveness since 2018.



Educational Requirements

This graph illustrates the minimum educational attainment levels for jobs found in this cluster's various industries. Not surprisingly, almost 60 percent of ED jobs require at least a Bachelor's Degree, making it the most educationally demanding industry cluster.



Occupations with Significant Employment

The following table lists occupations that employ at least 4,300 in the ED cluster.

			Annual Demand	
SOC Code	Occupation	Average Wage	All Industries	Industry Cluster
25-1000	Postsecondary Teachers	\$98,010	5,664	5,505
25-9045	Teaching Assistants	\$32,360	5,500	4,997
25-2021	Elementary School Teachers	\$71,000	3,670	3,632
53-3051	Bus Drivers, School	\$44,310	3,353	3,128
25-2031	Secondary School Teachers	\$76,150	3,137	3,098
39-9011	Childcare Workers	\$29,510	7,416	2,740
37-2011	Janitors & Cleaners	\$36,460	13,635	2,325
43-9061	Office Clerks, General	\$44,630	16,283	1,919
43-6014	Secretaries & Administrative Assistants	\$44,980	8,735	1,555
25-2011	Preschool Teachers	\$35,250	1,930	1,535
25-2022	Middle School Teachers	\$75,490	1,480	1,464
25-2058	Special Education Teachers, Secondary School	\$73,230	576	565
25-3031	Substitute Teachers, Short-Term	\$42,280	802	545
11-9032	Education Administrators, K-Secondary School	\$112,320	539	525
21-1012	Educational, Guidance & Career Counselors/Advisors	\$67,540	609	501

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