



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 83 percent of all employment in the commonwealth.

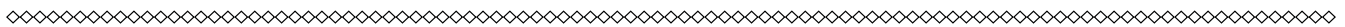
## Cluster Summary

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.

	2015	2019	2020
Employer Units	13,205	13,611	13,617
Number of Jobs	551,078	561,859	525,460
Percent of Total Pennsylvania Jobs	9.7%	9.5%	9.6%
Average Annual Wages	\$49,358	\$54,059	\$57,933
Location Quotient (LQ)	1.01	1.00	1.01

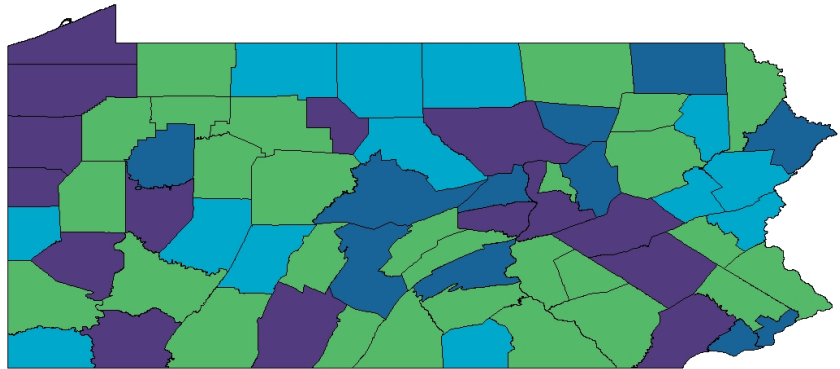
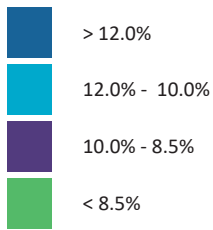
LQs greater than one suggest a competitive advantage.

Employment in this cluster has slightly decreased by 4.6% from 2015 to 2020 and is only slightly higher than the national average with a competitive Location Quotient (LQ) at 1.01. 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.



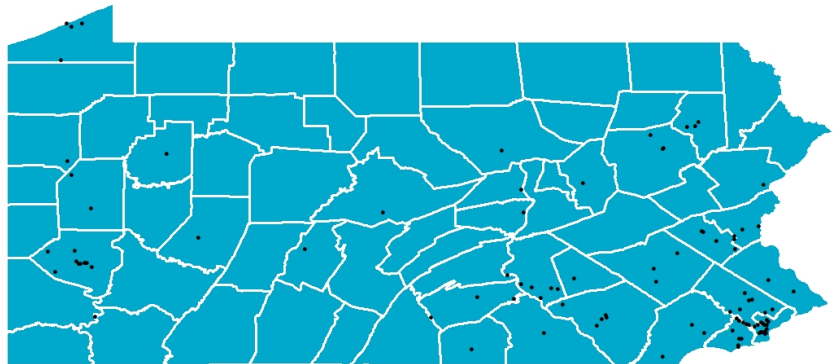
Note: The 2020 employment and wages data, as presented in this publication, reflect the effects of business and school closures implemented to mitigate the spread of Coronavirus (COVID-19).

## Percent Employment by County



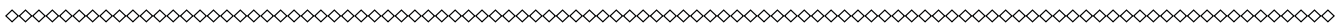
## Major Employers

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



## Top Industries Based on Employment

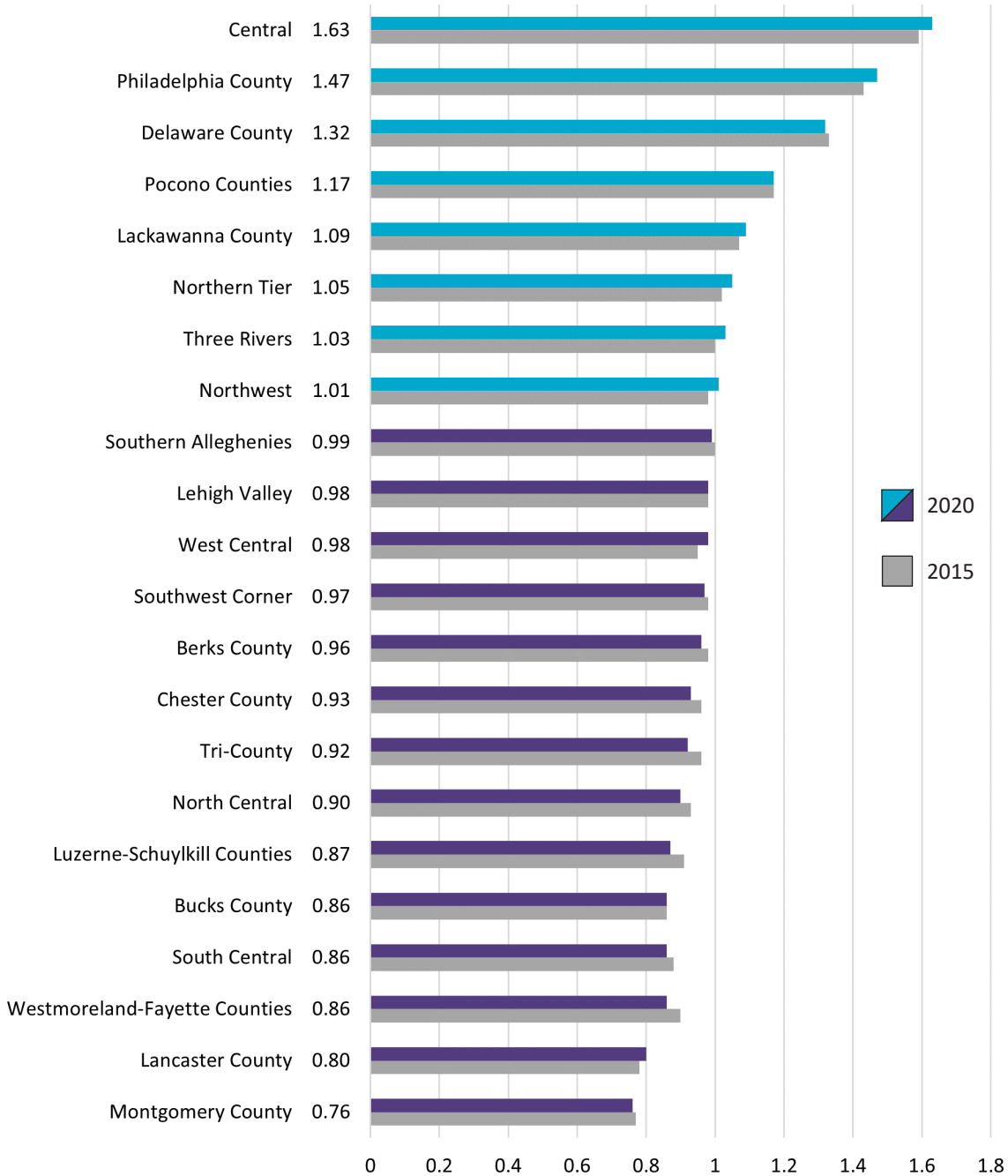
- Elementary & Secondary Schools
- Colleges & Universities
- Child Day Care Services
- School & Employee Bus Transportation
- Junior Colleges
- Educational Support Services
- Libraries & Archives
- Fine Arts Schools
- Exam Preparation & Tutoring
- Other Technical & Trade Schools
- Miscellaneous Schools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



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## Employment Concentration

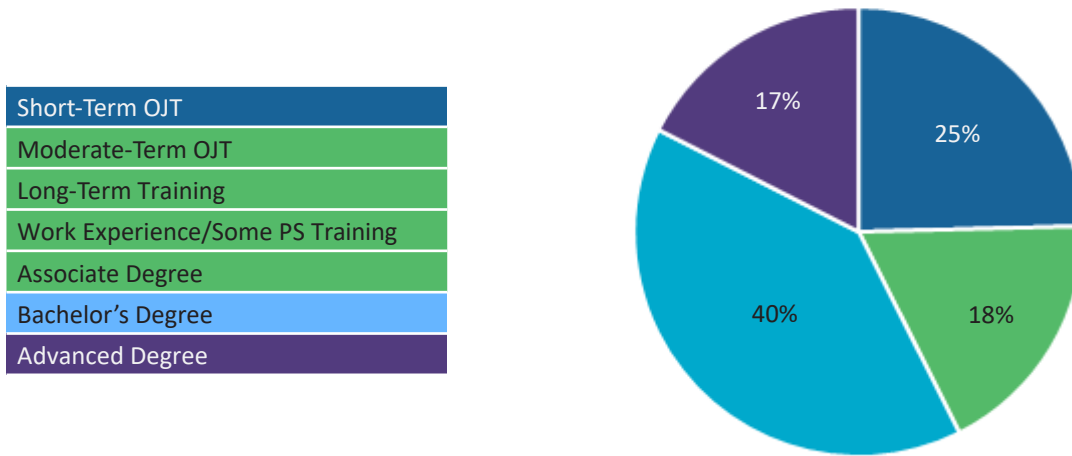
A location quotient, or LQ, compares a cluster's share of local employment to its share of national employment. This value can be used when evaluating the strength of an industry cluster within an area. An LQ greater than one indicates that the cluster has, on average, more employees locally than typically expected implying a possible competitive advantage. The Central, Philadelphia County, Pocono Counties, Lackawanna County, Northern Tier, Three Rivers and Northwest Workforce Development Areas (WDAs) all had an LQ greater than one and experienced an increase in competitiveness since 2015.



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## 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.

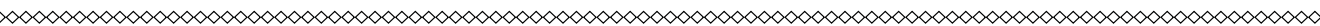


## Occupations with Significant Employment

The following table lists occupations that employ at least 7,400 in the ED cluster.

SOC Code	Occupation	Average Wage	Annual Demand	
			All Industries	Industry Cluster
25-9041	Teacher Assistants	\$27,920	5,439	4,951
25-2021	Elementary School Teachers	\$69,410	4,430	4,358
25-2031	Secondary School Teachers	\$69,530	3,868	3,761
53-3022	Bus Drivers, School or Special Client	\$32,490	4,216	3,271
39-9011	Childcare Workers	\$24,070	7,211	2,734
37-2011	Janitors & Cleaners	\$30,440	13,688	2,619
43-9061	Office Clerks, General	\$38,360	19,111	2,021
43-6014	Secretaries & Administrative Assistants	\$38,940	9,746	1,904
35-3021	Combined Food Preparation & Serving Workers	\$22,800	31,240	1,872
25-2022	Middle School Teachers	\$69,670	1,728	1,710
25-2011	Preschool Teachers	\$31,850	1,866	1,413
25-3098	Substitute Teachers	\$32,540	2,157	1,373
11-9032	Education Administrators, K-Secondary School	\$102,980	732	700
25-2054	Special Education Teachers, Secondary School	\$68,290	692	649
25-2052	Special Education Teachers, Kindergarten & Elementary	\$65,820	641	627

\*The 2020 average annual wage reflects wages across all industries and is not specific to the cluster.



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