



Industry Spotlight

Electric/Electronics Mfg. (Chmura Cluster)

Reading, PA MSA



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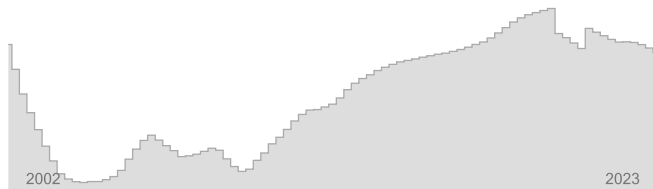
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Spotlight Summary

Electric/Electronics Mfg. (Chmura Cluster)
Reading, PA MSA – 2023Q3

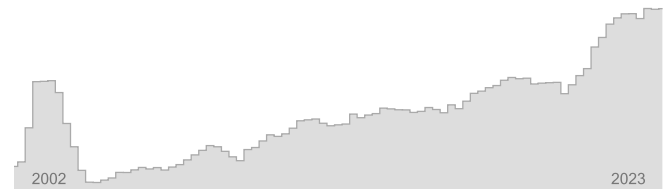
EMPLOYMENT



8,677

Regional employment / 1,735,640 in the nation

WAGES



\$70,804

Avg Wages per Worker / \$125,875 in the nation

0.7% ↑

Avg Ann % Change Last 10 Years / +0.6% in the U.S.



4.7%

% of Total Employment / 1.1% in the U.S.

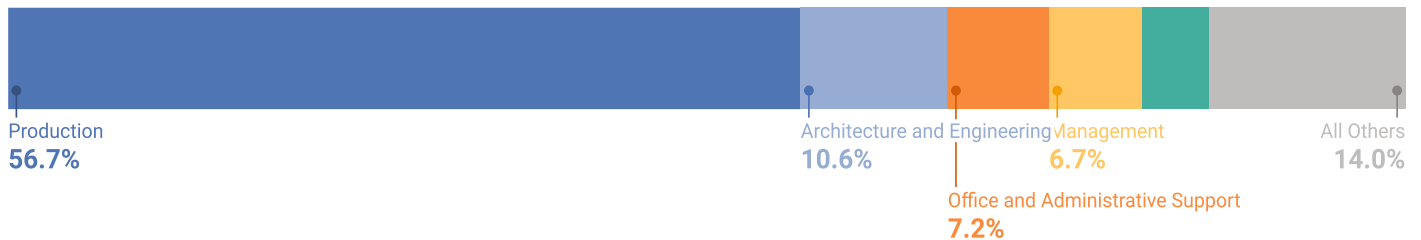


3.0% ↑

Avg Ann % Change Last 10 Years / +3.7% in the U.S.



TOP OCCUPATION GROUPS



TOP INDUSTRIES

Avg Ann % Change in Employment, Last 10 Years

1.2% ↑



Battery Manufacturing

-6.2% ↓



Printed Circuit Assembly (Electronic Assembly) Manufacturing

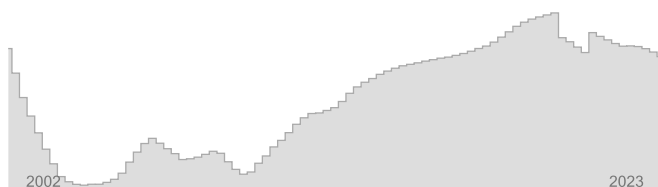
7.2% ↑



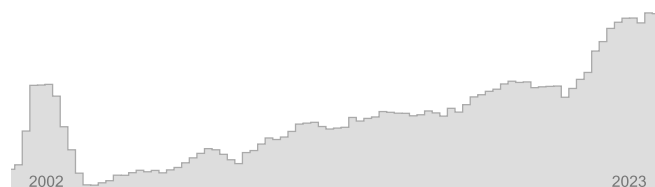
Major Household Appliance Manufacturing

Industry Snapshot

EMPLOYMENT



WAGES

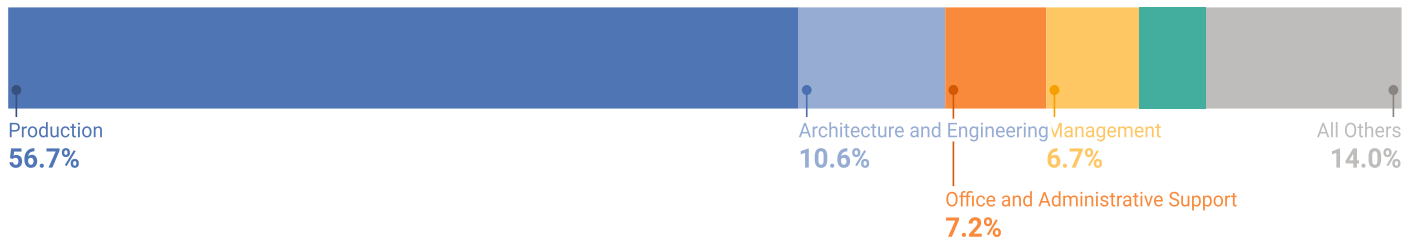


6-Digit Industry	Empl	Avg Ann Wages	LQ	5yr History	Annual Demand	Forecast Ann Growth
Battery Manufacturing	7,622	\$70,554	136.57		934	2.4%
Printed Circuit Assembly (Electronic Assembly) Manufacturing	166	\$77,492	2.49		15	0.0%
Major Household Appliance Manufacturing	147	\$55,149	2.47		12	-1.8%
Telephone Apparatus Manufacturing	121	\$82,811	6.99		9	-1.2%
All Other Industrial Machinery Manufacturing	119	\$69,698	1.52		11	-0.6%
Food Product Machinery Manufacturing	103	\$65,625	4.38		9	-0.6%
Motor and Generator Manufacturing	83	\$83,985	1.99		7	-0.7%
Switchgear and Switchboard Apparatus Manufacturing	75	\$65,417	1.78		6	-0.7%
Computer Terminal and Other Computer Peripheral Equipment Manufacturing	57	\$80,830	1.57		4	-0.6%
Current-Carrying Wiring Device Manufacturing	42	\$70,790	1.29		5	2.4%
Remaining Component Industries	139	\$50,759	0.34		13	-1.0%
Electric/Electronics Mfg. (Chmura Cluster)	8,677	\$70,804	4.48		957	2.1%

💡 Employment is one of the broadest and most timely measures of a region's economy. Fluctuations in the number of jobs shed light on the health of an industry. A growing employment base creates more opportunities for regional residents and helps a region grow its population.

💡 Since wages and salaries generally compose the majority of a household's income, the annual average wages of a region affect its average household income, housing market, quality of life, and other socioeconomic indicators.

Staffing Pattern



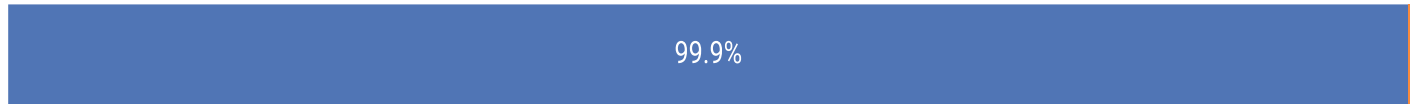
6-digit Occupation	Empl	Avg Ann Wages	Annual Demand
Electrical, Electronic, and Electromechanical Equipment Assemblers, Except Coil Winders, Tapers, and Finishers	2,119	\$41,500	299
Team Assemblers	784	\$40,600	101
Inspectors, Testers, Sorters, Samplers, and Weighers	312	\$48,600	40
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	285	\$45,500	37
First-Line Supervisors of Production and Operating Workers	270	\$71,700	34
Mechanical Engineers	212	\$96,400	19
Laborers and Freight, Stock, and Material Movers, Hand	210	\$42,600	34
Industrial Engineers	197	\$87,900	18
General and Operations Managers	173	\$166,700	19
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	163	\$92,500	19
Remaining Component Occupations	3,938	\$71,200	469
Total	8,663		



 The mix of occupations points to the ability of a region to support an industry and its flexibility to adapt to future demand. Industry wages are a component of the cost of labor for regional employers.

Employment Distribution by Type

The table below shows the employment mix by ownership type for Electric/Electronics Mfg. (Chmura Cluster) for the Reading, PA MSA. Four of these ownership types — federal, state, and local government and the private sector — together constitute “Covered Employment” (employment covered by the Unemployment Insurance programs of the United States and reported via the Quarterly Census of Employment and Wages).

“Self-Employment” refers to unincorporated self-employment and represents workers whose primary job is self-employment (that is, these data do not include workers whose primary job is a wage-and-salary position that is supplemented with self-employment).



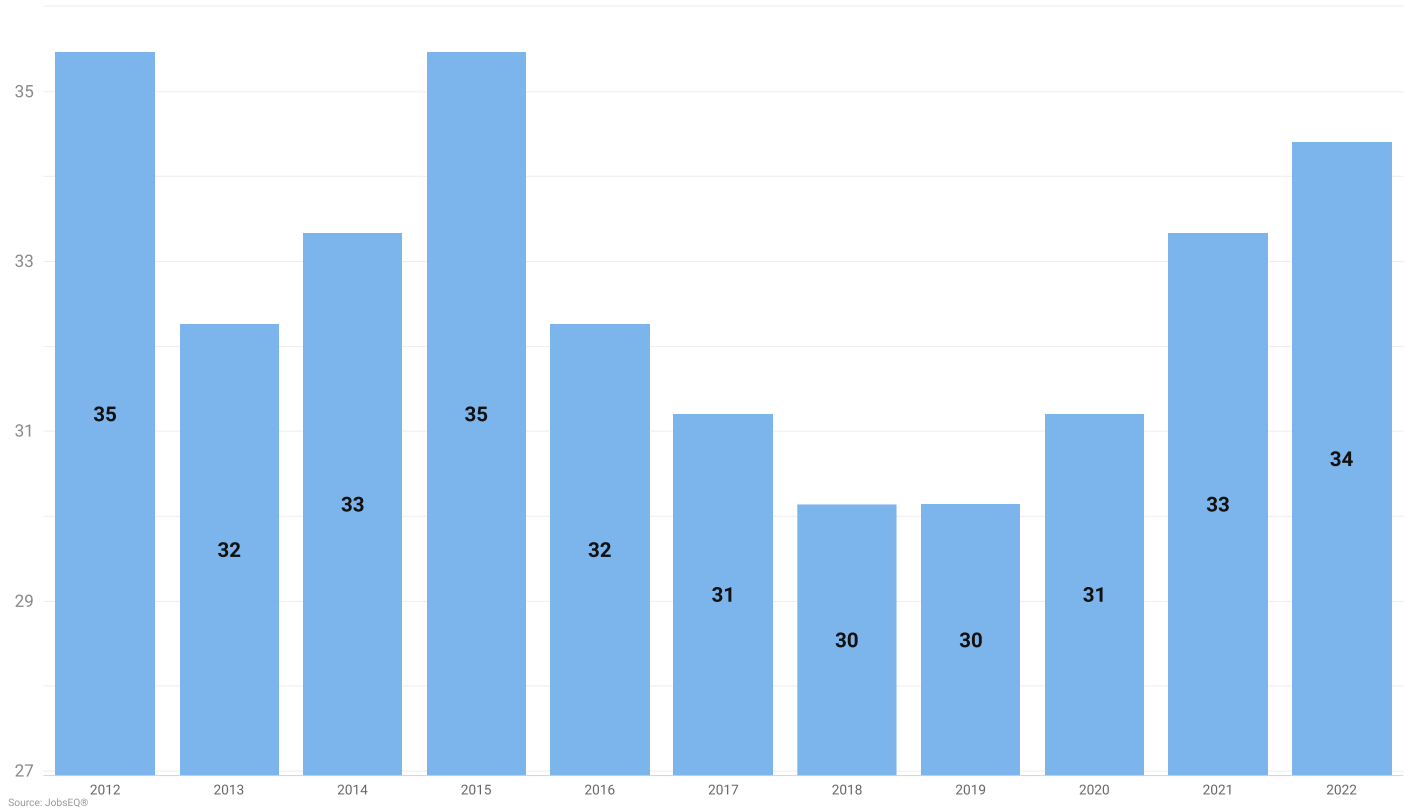
	Empl	%
 Private	8,667	99.9%
 Self-Employment	9	0.1%


Source: JobsEQ®

 Strong entrepreneurial activity is indicative of growing industries. Using self-employment as a proxy for entrepreneurs, a higher share of self-employed individuals within a regional industry points to future growth.

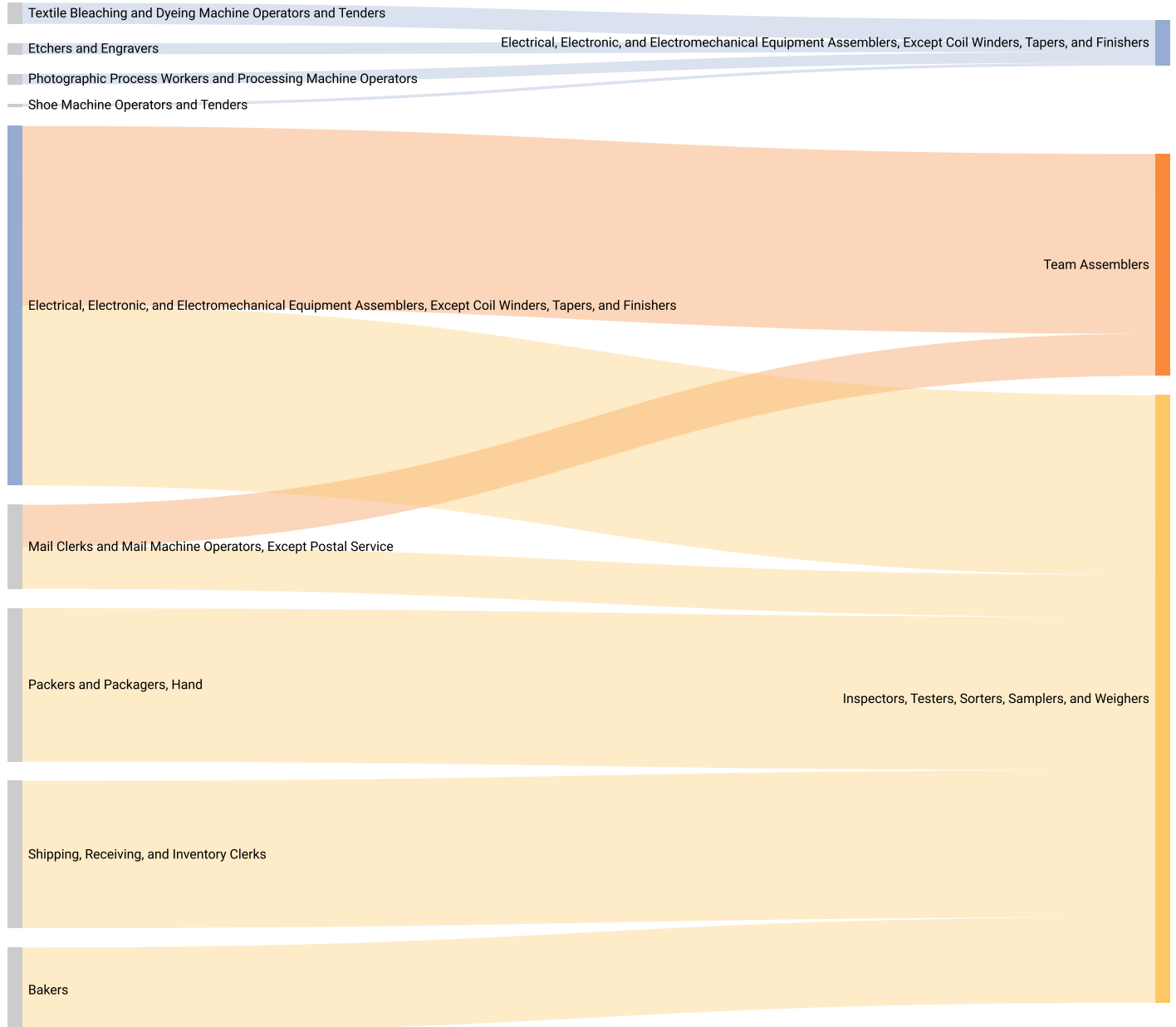
Establishments


In 2022, there were 34 Electric/Electronics Mfg. (Chmura Cluster) establishments in the Reading, PA MSA (per covered employment establishment counts), a decrease from 35 establishments ten years earlier in 2012.



 New business formations are an important source of job creation in a regional economy, spurring innovation and competition, and driving productivity growth. Establishment data can provide an indicator of growth in businesses by counting each single location (such as a factory or a store) where business activity takes place, and with at least one employee.

Sector Strategy Pathways




 The graphics on this page illustrate relationships and potential movement (from left to right) between occupations that share similar skill sets. Developing career pathways as a strategy promotes industry employment growth and workforce engagement.

Postsecondary Programs Linked to Electric/Electronics Mfg. (Chmura Cluster)

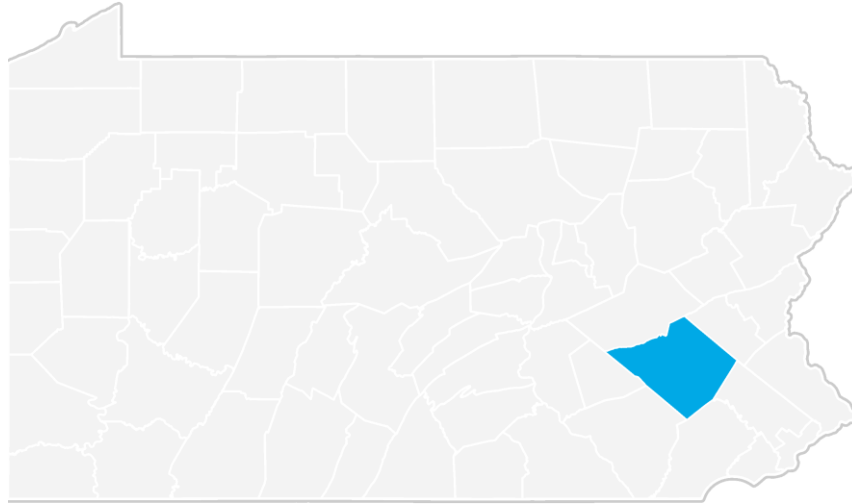
Program	Awards
Berks Career & Technology Center	
Welding Technology/Welder	8
Kutztown University of Pennsylvania	
Business Administration and Management, General	240
Commercial and Advertising Art	58
Computer and Information Sciences, General	67
Miller-Motte College-Berks Technical Institute	
Drafting and Design Technology/Technician, General	3
Mechatronics, Robotics, and Automation Engineering	9
Pennsylvania State University-Penn State Berks	
Electromechanical/Electromechanical Engineering Technology/Technician	39
Information Science/Studies	27
Mechanical Engineering	38
Reading Area Community College	
Computer/Computer Systems Technology/Technician	22

Source: [JobsEQ®](#)

 The number of graduates from postsecondary programs in the region identifies the pipeline of future workers as well as the training capacity to support industry demand.

 Among postsecondary programs at schools located in the Reading, PA MSA, the sampling above identifies those most linked to occupations relevant to Electric/Electronics Mfg. (Chmura Cluster). For a complete list see JobsEQ®, <http://www.chmuraecon.com/jobseq>

Reading, PA MSA Regional Map



Data Notes

- Industry employment and wages (including total regional employment and wages) are as of 2023Q3 and are based upon BLS QCEW data, imputed by Chmura where necessary, and supplemented by additional sources including Census ZBP data. Employment forecasts are modeled by Chmura and are consistent with BLS national-level 10-year forecasts.
- Occupation employment is as of 2023Q3 and is based on industry employment and local staffing patterns calculated by Chmura and utilizing BLS OEWS data. Wages by occupation are as of 2023, utilizing BLS OEWS data and imputed by Chmura.
- GDP is derived from BEA data and imputations by Chmura. Productivity (output per worker) is calculated by Chmura using industry employment and wages as well as GDP and BLS output data. Supply chain modeling including purchases by industry are developed by Chmura.
- Postsecondary awards are per the NCES and are for the 2021-2022 academic year.
- Establishment counts are per the BLS QCEW data.
- Figures may not sum due to rounding.

Industry Definition

Electric/Electronics Mfg. (Chmura Cluster) is defined as the following NAICS industries:

Code	Description
333241	Food Product Machinery Manufacturing
333242	Semiconductor Machinery Manufacturing
333243	Sawmill, Woodworking, and Paper Machinery Manufacturing
333248	All Other Industrial Machinery Manufacturing
333310	Commercial and Service Industry Machinery Manufacturing
334111	Electronic Computer Manufacturing
334112	Computer Storage Device Manufacturing
334118	Computer Terminal and Other Computer Peripheral Equipment Manufacturing
334210	Telephone Apparatus Manufacturing
334220	Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing
334290	Other Communications Equipment Manufacturing
334310	Audio and Video Equipment Manufacturing
334412	Bare Printed Circuit Board Manufacturing
334413	Semiconductor and Related Device Manufacturing
334416	Capacitor, Resistor, Coil, Transformer, and Other Inductor Manufacturing
334417	Electronic Connector Manufacturing
334418	Printed Circuit Assembly (Electronic Assembly) Manufacturing
334419	Other Electronic Component Manufacturing
334510	Electromedical and Electrotherapeutic Apparatus Manufacturing
334511	Search, Detection, Navigation, Guidance, Aeronautical, and Nautical System and Instrument Manufacturing
334512	Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use
334513	Instruments and Related Products Manufacturing for Measuring, Displaying, and Controlling Industrial Process Variables
334514	Totalizing Fluid Meter and Counting Device Manufacturing
334515	Instrument Manufacturing for Measuring and Testing Electricity and Electrical Signals
334516	Analytical Laboratory Instrument Manufacturing
334517	Irradiation Apparatus Manufacturing
334519	Other Measuring and Controlling Device Manufacturing
335131	Residential Electric Lighting Fixture Manufacturing
335132	Commercial, Industrial, and Institutional Electric Lighting Fixture Manufacturing
335139	Electric Lamp Bulb and Other Lighting Equipment Manufacturing
335210	Small Electrical Appliance Manufacturing
335220	Major Household Appliance Manufacturing
335311	Power, Distribution, and Specialty Transformer Manufacturing
335312	Motor and Generator Manufacturing
335313	Switchgear and Switchboard Apparatus Manufacturing
335314	Relay and Industrial Control Manufacturing
335910	Battery Manufacturing
335921	Fiber Optic Cable Manufacturing
335929	Other Communication and Energy Wire Manufacturing
335931	Current-Carrying Wiring Device Manufacturing
335932	Noncurrent-Carrying Wiring Device Manufacturing
335991	Carbon and Graphite Product Manufacturing
335999	All Other Miscellaneous Electrical Equipment and Component Manufacturing

Region Definition

Reading, PA MSA is defined as the following counties:

Berks County, Pennsylvania

FAQ

What is (LQ) location quotient?

Location quotient is a measurement of concentration in comparison to the nation. An LQ of 1.00 indicates a region has the same concentration of an industry (or occupation) as the nation. An LQ of 2.00 would mean the region has twice the expected employment compared to the nation and an LQ of 0.50 would mean the region has half the expected employment in comparison to the nation.

What is annual demand?

Annual demand is a of the sum of the annual projected growth demand and separation demand. Separation demand is the number of jobs required due to separations—labor force exits (including retirements) and turnover resulting from workers moving from one occupation into another. Note that separation demand does not include all turnover—it does not include when workers stay in the same occupation but switch employers. Growth demand is the increase or decrease of jobs expected due to expansion or contraction of the overall number of jobs.

What is the difference between industry wages and occupation wages?

Industry wages and occupation wages are estimated via separate data sets, often the time periods being reported do not align, and wages are defined slightly differently in the two systems (for example, certain bonuses are included in the industry wages but not the occupation wages). It is therefore common that estimates of the average industry wages and average occupation wages in a region do not match exactly.