JOBSeQ

Industry Spotlight

Primary Metal Manufacturing

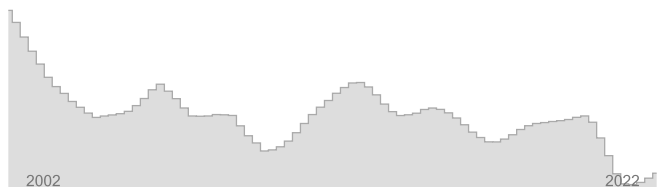## Reading, PA MSA

GRCA
GREATER READING
Chamber Alliance

Greater Reading Chamber Alliance
www.GreaterReading.org

Spotlight Summary

Primary Metal Manufacturing
Reading, PA MSA – 2022Q2

EMPLOYMENT

2002   2022

3,710

Regional employment / **356,997** in the nation

-2.2% ↓

Avg Ann % Change Last 10
Years / **-1.1%** in the U.S.

Region
Nation

2.1%

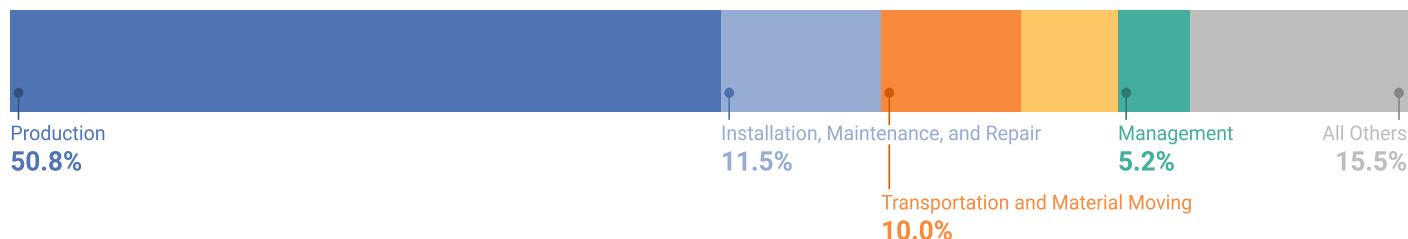% of Total Employment /
0.2% in the U.S.

Region
Nation

WAGES

2002   2022

$105,000

Avg Wages per Worker / **$83,327** in the nation

3.4% ↑

Avg Ann % Change Last 10
Years / **+3.1%** in the U.S.

Region
Nation

TOP OCCUPATION GROUPS

Production
50.8%

Installation, Maintenance, and Repair
11.5%

Transportation and Material Moving
10.0%

Management
5.2%

All Others
15.5%

TOP INDUSTRIES

Avg Ann % Change in Employment, Last 10 Years

-1.6 % ↓

Region
Nation

Iron and Steel Mills and Ferroalloy
Manufacturing

4.5 % ↑

Region
Nation

Copper Rolling, Drawing, Extruding,
and Alloying

-3.9 % ↓

Region
Nation
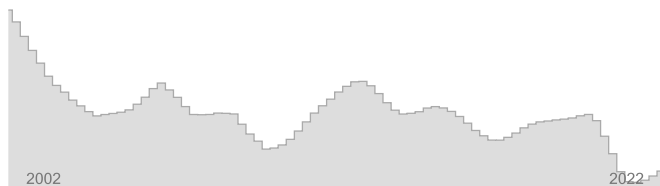
Nonferrous Metal (except Aluminum)
Smelting and Refining

Industry Snapshot

EMPLOYMENT

2002   2022
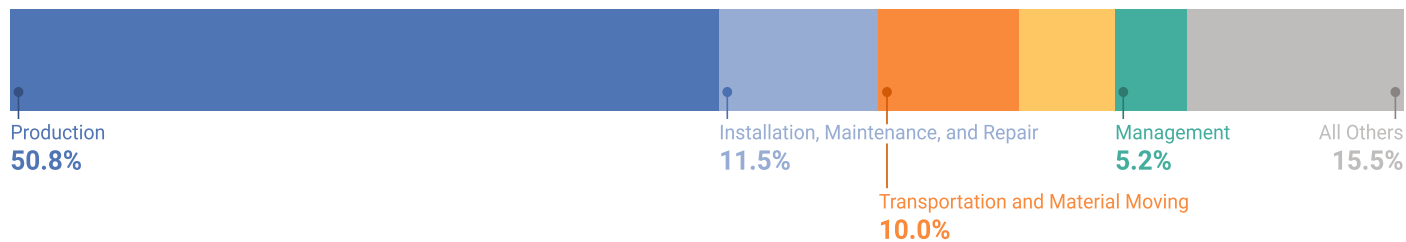
WAGES

2002   2022

6-Digit Industry	Empl	Avg Ann Wages	LQ	5yr History	Annual Demand	Forecast Ann Growth
Iron and Steel Mills and Ferroalloy Manufacturing	1,984	$143,016	21.73		185	-0.5%
Copper Rolling, Drawing, Extruding, and Alloying	663	$90,143	22.11		60	-0.7%
Nonferrous Metal (except Aluminum) Smelting and Refining	374	$106,705	44.00		34	-0.7%
Iron Foundries	220	$56,116	5.85		21	-0.7%
Aluminum Foundries (except Die-Casting)	130	$51,802	7.15		12	-0.7%
Steel Investment Foundries	116	$58,388	9.68		11	-0.7%
Rolled Steel Shape Manufacturing	97	$61,521	4.33		9	-1.1%
Nonferrous Metal (except Copper and Aluminum) Rolling, Drawing, and Extruding	72	$94,078	4.82		7	-0.7%
Secondary Smelting, Refining, and Alloying of Nonferrous Metal (except Copper and Aluminum)	32	$98,608	2.87		3	-0.7%
Iron and Steel Pipe and Tube Manufacturing from Purchased Steel	19	$103,271	0.73		2	-1.1%
Remaining Component Industries	0		0.00		0	-1.5%
Primary Metal Manufacturing	**3,710**	**$105,000**	**9.24**		**346**	**-0.6%**

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.
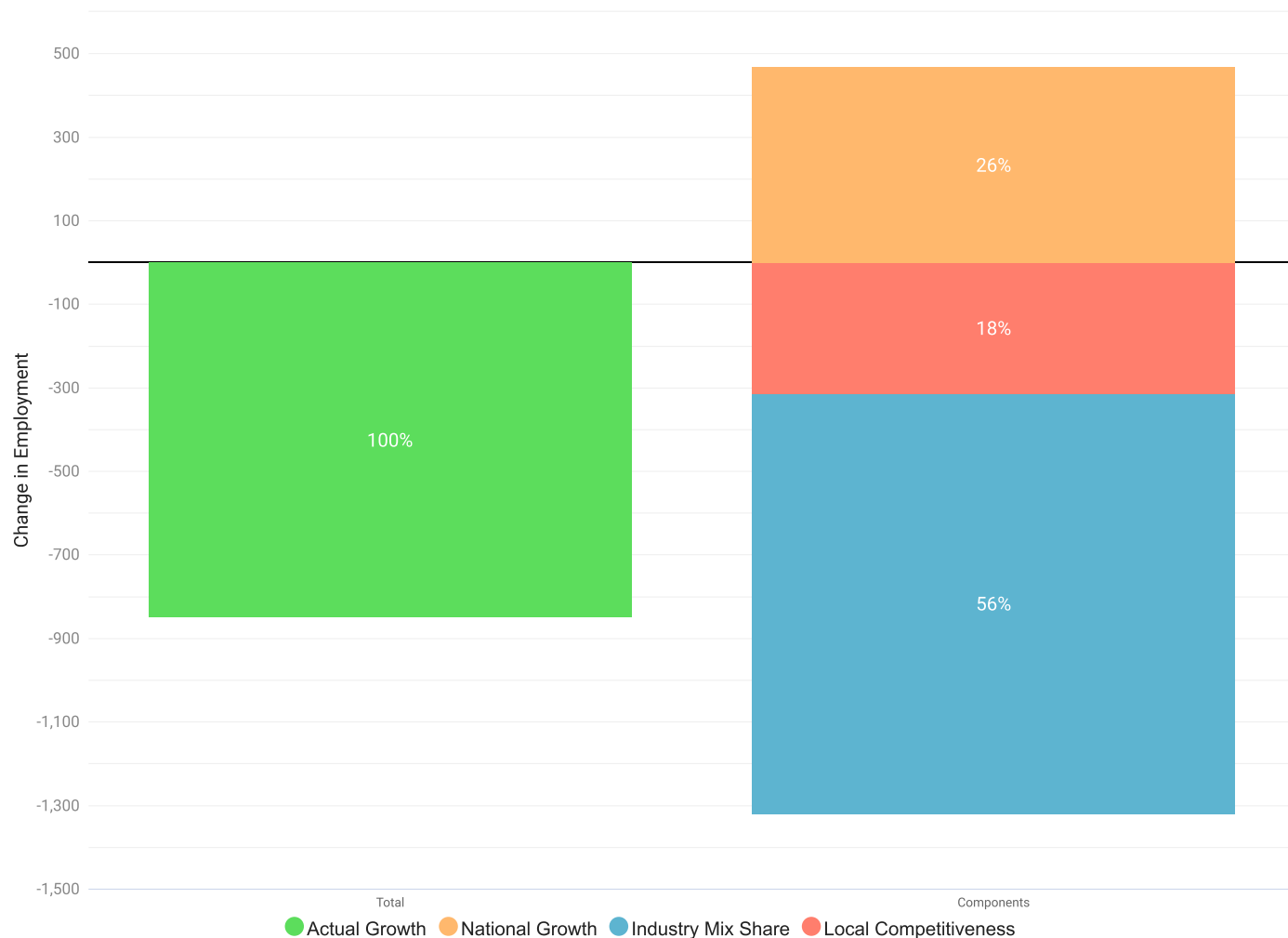
Staffing Pattern

Production **50.8%**

Installation, Maintenance, and Repair **11.5%**

Transportation and Material Moving **10.0%**

Management **5.2%**

All Others **15.5%**

6-digit Occupation	Empl	Avg Ann Wages	Annual Demand
Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	229	$52,700	18
Industrial Machinery Mechanics	198	$59,100	20
First-Line Supervisors of Production and Operating Workers	185	$71,400	17
Metal-Refining Furnace Operators and Tenders	167	$57,400	14
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	136	$43,000	13
Laborers and Freight, Stock, and Material Movers, Hand	134	$42,700	17
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	123	$47,700	10
Maintenance and Repair Workers, General	106	$51,400	9
Inspectors, Testers, Sorters, Samplers, and Weighers	104	$46,500	9
Machinists	95	$51,500	9
Remaining Component Occupations	2,216	$63,300	196
Total	**3,693**		

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.

Drivers of Employment Growth

Over the ten years ending 2021, employment in Primary Metal Manufacturing for the Reading, PA MSA shed 849 jobs. After adjusting for national growth during this period and industry mix share, the part of this employment change due to local competitiveness was a loss of 313 jobs—meaning this industry was less competitive than its national counterpart during this period.

Drivers of Employment Growth for Reading, PA MSA

Change in Employment

500
300
100
-100
-300
-500
-700
-900
-1,100
-1,300
-1,500

100%

26%

18%

56%

Total   Components

● Actual Growth   ● National Growth   ● Industry Mix Share   ● Local Competitiveness

Source: JobsEQ®,Data as of 2021Q4

Shift-share analysis sheds light on the factors that drive regional employment growth in an industry. A positive change in local competitiveness indicates advantages that may be due to factors such as superior technology, management, and labor pool, etc.

National growth is due to the overall growth or contraction in the national economy. Industry mix share is the growth attributable to the specific industries examined (based on national industry growth patterns and the industry mix of the region).

Employment Distribution by Type

The table below shows the employment mix by ownership type for Primary Metal Manufacturing 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).

|	99.9%
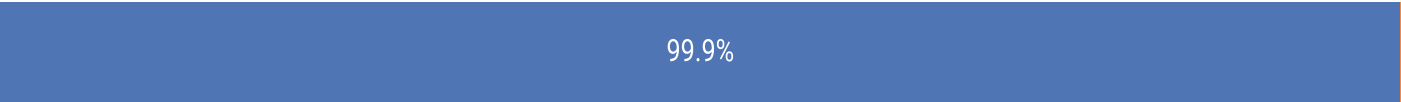
		Empl	%
■	Private	3,705	99.9%
■	Self-Employment	5	0.1%

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 2021, there were 29 Primary Metal Manufacturing establishments in the Reading, PA MSA (per covered employment establishment counts), a decrease from 37 establishments ten years earlier in 2011.

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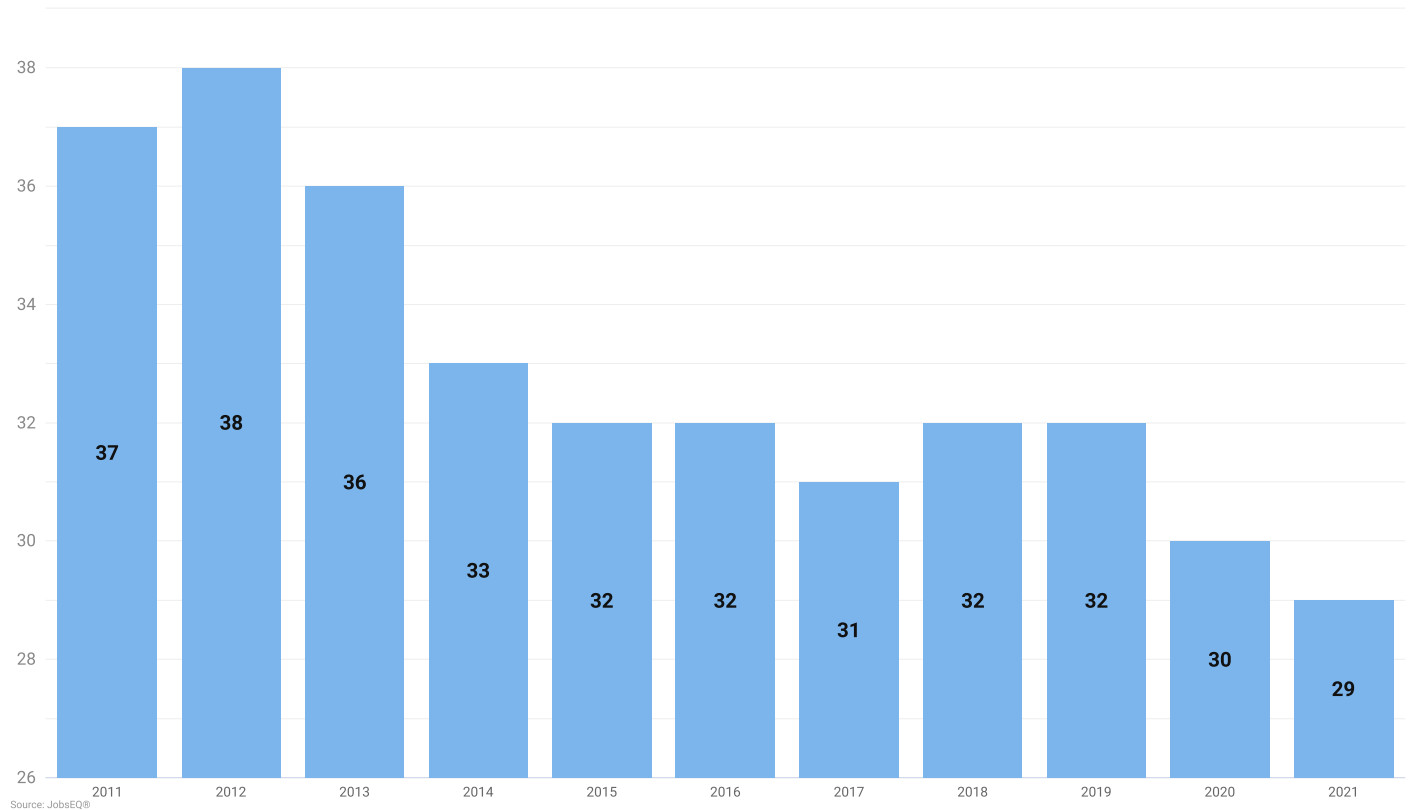
New business formations are an important source of job creation in a regional economy, spurring innovation and competition, and driving productivity growth. Establishment data can provide an indicator of growth in businesses by counting each single location (such as a factory or a store) where business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

GDP & Productivity

In 2021, Primary Metal Manufacturing produced $1.0 billion in GDP for the Reading, PA MSA.

GDP: Indexed 2011 = 100

Legend: ■ Reading, PA MSA GDP   ■ U.S. GDP

4.8 %
Industry Share of Total GDP /
0.3 % in the nation

Region	
Nation	

0.0 % ⬆
Avg Ann % Change Last 10 Yrs /
0.4 % in the nation

Region	
Nation	

$1,280k
Output per Worker /
$747k in the nation

Region	
Nation	

💡 Gross domestic product (GDP) is the most comprehensive measure of regional economic activity, and an industry's contribution to GDP is an important indicator of regional industry strength. It is a measure of total value-added to a regional economy in the form of labor income, proprietor's income, and business profits, among others. GDP values shown on this page are nominal GDP data.

💡 Growth in productivity (output per worker) leads to increases in wealth and higher average standards of living in a region.
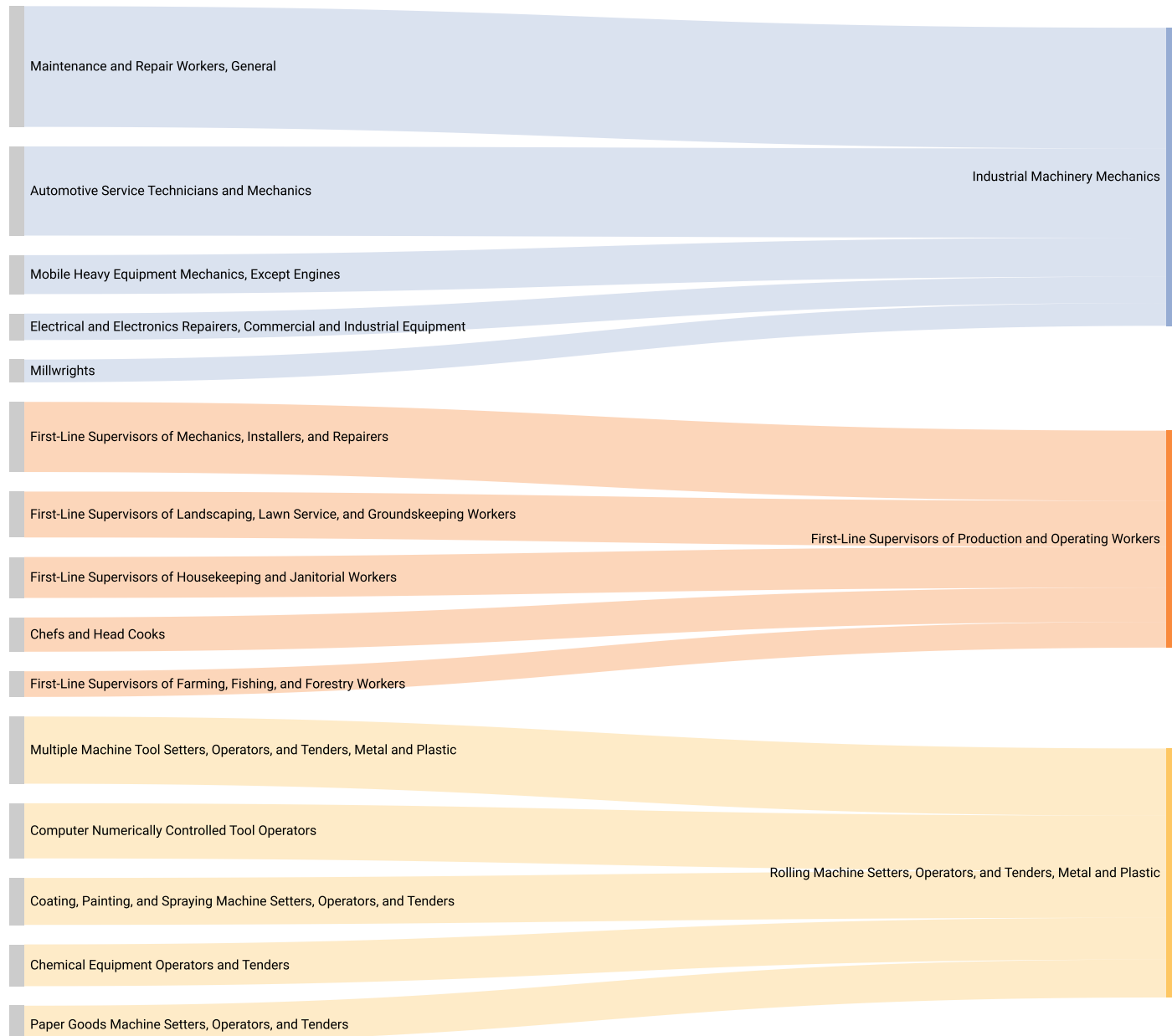
Supply Chain: Top Suppliers

As of 2022Q2, Primary Metal Manufacturing in the Reading, PA MSA are estimated to make $1.8 billion in annual purchases from suppliers in the United States with about 30% or $0.5 billion of these purchases being made from businesses located in the Reading, PA MSA.

6-digit Supplier Industries	Purchases from In-Region ($000s)	Purchases from Out-of-Region ($000s)
Iron and Steel Mills and Ferroalloy Manufacturing	$136,140.0	<$0.1
Copper Rolling, Drawing, Extruding, and Alloying	$87,505.0	$510.0
Copper, Nickel, Lead, and Zinc Mining	<$0.1	$87,898.0
Gold Ore and Silver Ore Mining	<$0.1	$76,541.0
Underground Coal Mining	<$0.1	$57,900.0
Remaining Supplier Industries	$304,130.0	$1,027,633.0
Total	**$527,775.0**	**$1,250,482.0**

Supplier-buyer networks can indicate local linkages between industries, regional capacity to support growth in an industry, and potential leakage of sales out of the region.

Sector Strategy Pathways

Maintenance and Repair Workers, General

Automotive Service Technicians and Mechanics

Mobile Heavy Equipment Mechanics, Except Engines

Electrical and Electronics Repairers, Commercial and Industrial Equipment

Millwrights

Industrial Machinery Mechanics

First-Line Supervisors of Mechanics, Installers, and Repairers

First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers

First-Line Supervisors of Housekeeping and Janitorial Workers

Chefs and Head Cooks

First-Line Supervisors of Farming, Fishing, and Forestry Workers

First-Line Supervisors of Production and Operating Workers

Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic

Computer Numerically Controlled Tool Operators

Coating, Painting, and Spraying Machine Setters, Operators, and Tenders

Chemical Equipment Operators and Tenders

Paper Goods Machine Setters, Operators, and Tenders

Rolling Machine Setters, Operators, and Tenders, Metal and Plastic

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 Primary Metal Manufacturing

| Program	Awards
Albright College	
Business Administration and Management, General	100
Chemistry, General	5
Kutztown University of Pennsylvania	
Business Administration and Management, General	275
Chemistry, General	12
Criminal Justice/Safety Studies	103
Miller-Motte College-Berks Technical Institute	
Mechatronics, Robotics, and Automation Engineering	7
Reading Area Community College	
Business Administration and Management, General	58
Computer/Computer Systems Technology/Technician	16
Electrical and Power Transmission Installation/Installer, General	24
Industrial Mechanics and Maintenance Technology/Technician	3

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 Primary Metal Manufacturing. For a complete list see JobsEQ®, http://www.chmuraecon.com/jobseq

Reading, PA MSA Regional Map
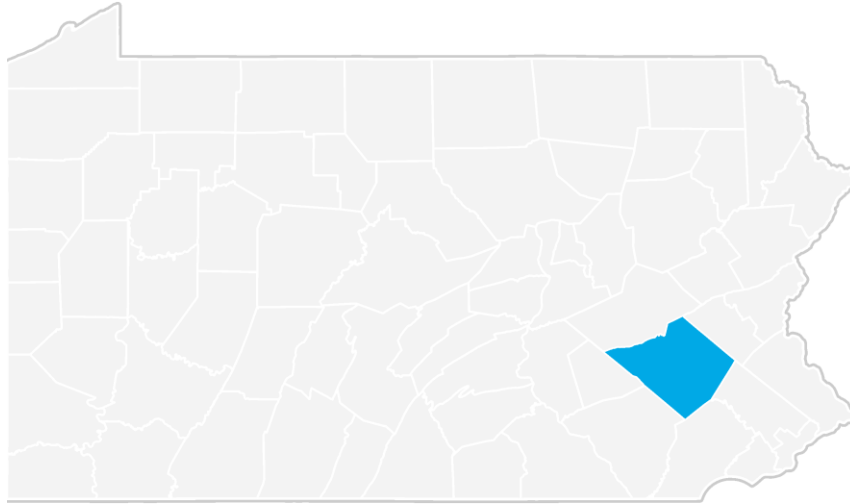
Region Definition

Reading, PA MSA is defined as the following counties:

Berks County, Pennsylvania

Data Notes

- Industry employment and wages (including total regional employment and wages) are as of 2022Q2 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 2022Q2 and is based on industry employment and local staffing patterns calculated by Chmura and utilizing BLS OES data. Occupation wages are per the BLS OES data and are as of 2021.
- 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 2020-2021 academic year.
- Establishment counts are per the BLS QCEW data.
- Figures may not sum due to rounding.

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.