

## Industry Spotlight

# Plastics and Rubber Products Manufacturing

Reading, PA MSA



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#### Plastics and Rubber Products Manufacturing Reading, PA MSA – 2023Q3



## 2,002

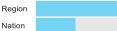
Regional employment / 740,525 in the nation





Avg Ann % Change Last 10 Years / **+1.2%** in the US

Region Nation % of Total Employment / 0.5% in the US



#### TOP OCCUPATION GROUPS



WAGES

2.5%

Region

Nation

\$70,149

Avg Ann % Change Last 10

Years / +3.3% in the US

Avg Wages per Worker / \$66,475 in the nation

---2002

Office and Administrative Suppo 7.3%



#### **Industry Snapshot**



		Avg Ann			Annual	Forecast Ann
3-Digit Industry	Empl	Wages	LQ	5yr History	Demand	Growth
Plastics and Rubber Products Manufacturing	2,002	\$70,149	2.42		185	-0.8%

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**

0.070	Office and Administrative Support 7.3%	1. 70
Production 58.0%	Transportation and Material Moving Management All O 12.6% 4.7% 11	Dthers
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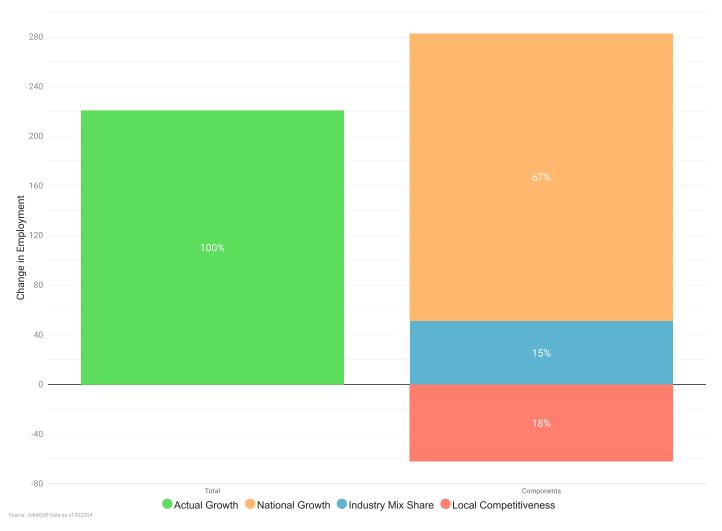
6-digit Occupation	Empl	Avg Ann Wages	Annual Demand
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	228	\$42,700	17
Team Assemblers	184	\$36,700	16
Inspectors, Testers, Sorters, Samplers, and Weighers	106	\$42,100	11
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	99	\$42,100	9
First-Line Supervisors of Production and Operating Workers	95	\$66,000	8
Laborers and Freight, Stock, and Material Movers, Hand	94	\$40,700	11
Packers and Packagers, Hand	80	\$37,700	11
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	71	\$44,400	6
Industrial Machinery Mechanics	51	\$59,600	5
Maintenance and Repair Workers, General	48	\$57,100	4
Remaining Component Occupations	927	\$65,000	79
Total	1,982		

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 2022, employment in Plastics and Rubber Products Manufacturing for the Reading, PA MSA added 221 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 62 jobs—meaning this industry was less competitive than its national counterpart during this period.



Drivers of Employment Growth for Reading, PA MSA

> 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 Plastics and Rubber Products 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 selfemployment (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	2,000	99.9%
	Self-Employment	2	0.1%
Courses John FOR			

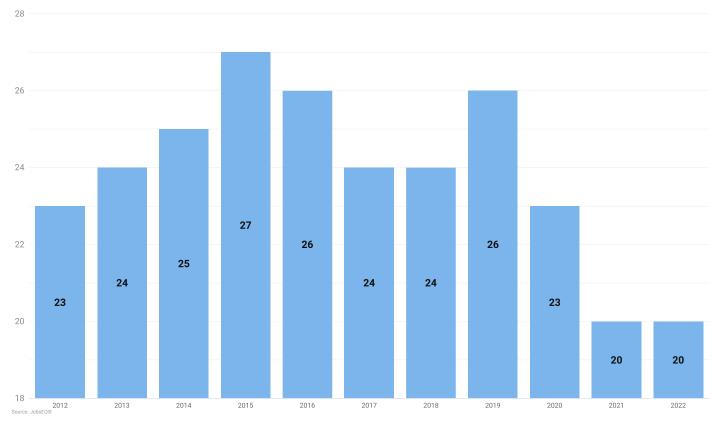
Source: JobsEQ®

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 20 Plastics and Rubber Products Manufacturing establishments in the Reading, PA MSA (per covered employment establishment counts), a decrease from 23 establishments ten years earlier in 2012.



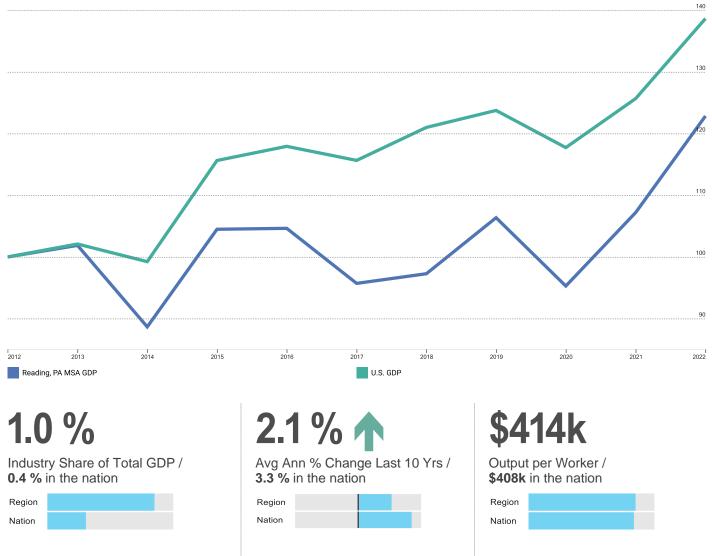
New business formations are an important source of job creation in a regional economy, spurring innovation and competition, and driving productivity growth. Establishment data can provide an indicator of growth in businesses by counting each single location (such as a factory or a store) where business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



### **GDP & Productivity**

In 2022, Plastics and Rubber Products Manufacturing produced \$0.2 billion in GDP for the Reading, PA MSA.

GDP: Indexed 2012 = 100



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 valueadded 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 2023Q3, Plastics and Rubber Products Manufacturing in the Reading, PA MSA are estimated to make \$509.0 million in annual purchases from suppliers in the United States with about 36% or \$183.6 million of these purchases being made from businesses located in the Reading, PA MSA.

3-digit Supplier Industries	Purchases from In- Region (\$M)	Purchases from Out-of-Region (\$M)
Chemical Manufacturing	\$85.5	\$71.5
Professional, Scientific, and Technical Services	\$5.2	\$32.0
Plastics and Rubber Products Manufacturing	\$16.0	\$19.5
Real Estate	\$2.5	\$18.6
Fabricated Metal Product Manufacturing	\$9.4	\$9.7
Remaining Supplier Industries	\$64.9	\$174.0
Total	\$183.6	\$325.4

) 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

Electrical, Electronic, and Electromechanical Equipment Assemblers, Except Coil Winders, Tap	ers, and Finishers Team Assemblers
Packaging and Filling Machine Operators and Tenders	
Woodworking Machine Setters, Operators, and Tenders, Except Sawing	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic
Mail Clerks and Mail Machine Operators, Except Postal Service	
Pourers and Casters, Metal	
Textile Knitting and Weaving Machine Setters, Operators, and Tenders	
Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	
Packers and Packagers, Hand	Inspectors, Testers, Sorters, Samplers, and Weighers
Shipping, Receiving, and Inventory Clerks	
Bakers	

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 Plastics and Rubber Products Manufacturing

Program	Awards
Albright College	
Industrial and Organizational Psychology	34
Kutztown University of Pennsylvania	
Business Administration and Management, General	240
Commercial and Advertising Art	58
Educational/Instructional Technology	26
Miller-Motte College-Berks Technical Institute	
Mechatronics, Robotics, and Automation Engineering	9
Pennsylvania State University-Penn State Berks	
Electromechanical/Electromechanical Engineering Technology/Technician	39
Mechanical Engineering	38
Reading Area Community College	
Computer/Computer Systems Technology/Technician	22
Electrical and Power Transmission Installation/Installer, General	14
Industrial Mechanics and Maintenance Technology/Technician	6

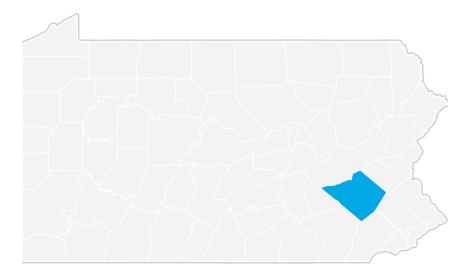
Source: JobsEQ®

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 Plastics and Rubber Products Manufacturing. 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.



#### **Region Definition**

#### Reading, PA MSA is defined as the following counties:

Berks County, Pennsylvania



#### 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.

