

Glass and Ceramics Cluster Drill-down

Section 01



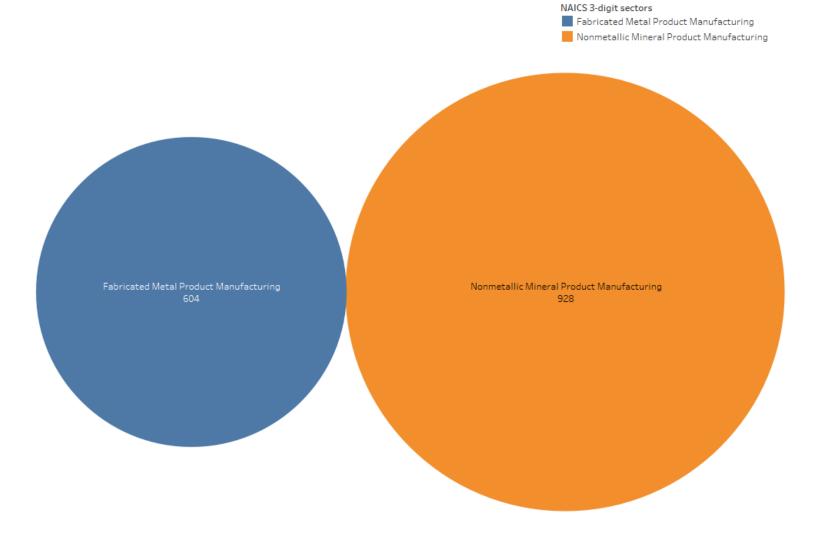
Economic indicators

Key Economic Indicators

Economic Indicators	Northwestern Indiana Regional Planning Commission (QCEW, non-QCEW, self-employed and proprietors)
Jobs 2023 (% of total jobs)	1,535 (0.4%)
Job change 2018-2023 (#, %)	39 (+3%)
Average total earnings per job 2023	\$86,634
Cost of Living (COL)	93.8
Est. Establishment 2023 (% of total est.)	51 (0.3%)
GRP (Gross Regional Product) 2023	\$ 282.4 Million
GRP per job 2023 (productivity)	\$183,966
Total purchases 2023	\$273 Million
Within region	47.4%
Imported from outside of region & state	52.6%
Number of sectors in chemicals and chemical-based cluster	11

Glass and Ceramics

NAICS-3 digit	Description	Jobs 2023
327	Nonmetallic Mineral Product Manufacturing	928
332	Fabricated Metal Product Manufacturing	604



Section 02

Competitiveness, economic leakages and Workforce

Regional Job Growth:

Three Key Components of the Shift-Share Analysis

Expected Change

The sum of the industrial mix and the national growth effects



Explains how much of the regional industry's growth is explained by the overall growth of the national economy

Industrial Mix Effect Share of regional industry growth explained by the growth of the specific industry sector at the national level

Note:

The calculations ensure no double counting of job change effects from national to regional levels



Explains how much of the change in a given industry is due to some unique competitive advantage that the region possesses

Shift-Share Analysis (Regional Performance) by Top Industry Sectors

Industries	Jobs 2023	National Trend 2018-2023 (A)	Industry Trend 2018-2023 (B)	Cumulative Expected Growth (C=A+B)	Actual Job Growth 2018-2023 (D)	Regional Performance 2018-2023 (D-C)
Clay Building Material and Refractories Manufacturing	557	42	-82	-41	80	121
Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	483	40	-37	3	28	25
Ground or Treated Mineral and Earth Manufacturing	280	29	-5	24	-51	-75
Electroplating, Plating, Polishing, Anodizing, and Coloring	122	18	-41	-23	-86	-64
All Other Miscellaneous Nonmetallic Mineral Product Manufacturing	67	1	-2	0	51	1 52
Glass Product Manufacturing Made of Purchased Glass	14	1	-1	-1	Insf. Data	1 6
Pottery, Ceramics, and Plumbing Fixture Manufacturing*	<10	0	0	0	Insf. Data	3
Other Pressed and Blown Glass and Glassware Manufacturing*	<10	0	0	0	Insf. Data	8

^{*} Pottery, ceramics and plumbing fixtures and Other pressed and brown glass and glassware manufacturing sectors have appeared during 2018-2023 period.

Shift-Share Analysis 2023

Industries that Outperformed

- Clay Building Material and Refractories
 Manufacturing
- Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers
- All Other Miscellaneous Nonmetallic Mineral Product Manufacturing
- Glass Product Manufacturing Made of Purchased Glass
- Pottery, Ceramics, and Plumbing Fixture Manufacturing
- Other Pressed and Blown Glass and Glassware Manufacturing

Industries that Underperformed

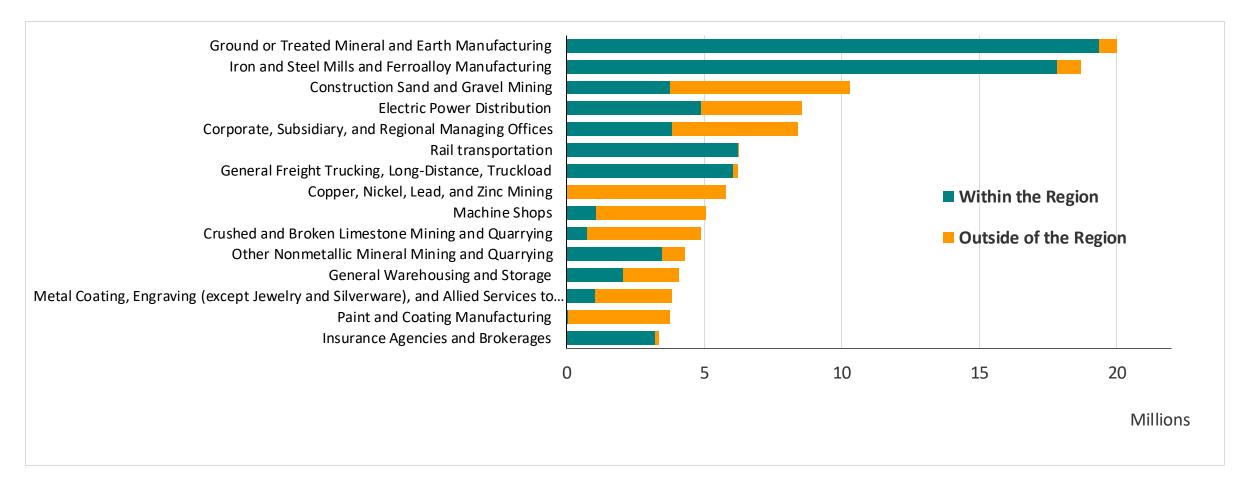
- Ground or Treated Mineral and Earth Manufacturing
- Electroplating, Plating, Polishing, Anodizing, and Coloring

 A few strong industry sectors include clay building material and refractories manufacturing, all other misc. nonmetallic mineral product manufacturing; metal coating, engraving (except jewelry and silverware), and allied services to manufacturers, etc.

Leakage analysis: Top 15 Industries by Inputs

Industries	Estimated Input (\$ Million), 2023	% In-Region	% Out of Region
Ground or Treated Mineral and Earth Manufacturing	\$20.02	96.8%	3.2%
Iron and Steel Mills and Ferroalloy Manufacturing	\$18.68	95.4%	4.6%
Construction Sand and Gravel Mining	\$10.30	36.5%	63.5%
Electric Power Distribution	\$8.54	57.4%	42.6%
Corporate, Subsidiary, and Regional Managing Offices	\$8.42	45.4%	54.6%
Rail transportation	\$6.27	99.4%	0.6%
General Freight Trucking, Long-Distance, Truckload	\$6.25	97.0%	3.0%
Copper, Nickel, Lead, and Zinc Mining	\$5.78	0.0%	100.0%
Machine Shops	\$5.05	21.2%	78.8%
Crushed and Broken Limestone Mining and Quarrying	\$4.87	15.2%	84.8%
Other Nonmetallic Mineral Mining and Quarrying	\$4.30	80.5%	19.5%
General Warehousing and Storage	\$4.08	50.3%	49.7%
Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers	\$3.82	26.9%	73.1%
Paint and Coating Manufacturing	\$3.77	1.8%	98.2%
Insurance Agencies and Brokerages	\$3.37	95.2%	4.8%

Leakage analysis 2023



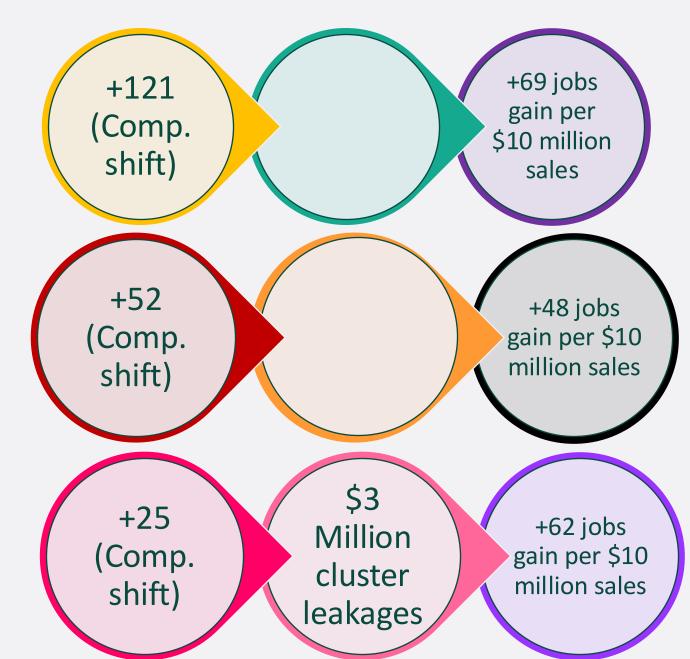
 Construction sand and gravel mining had \$6.5 million economic leakage in 2023. Copper, nickel, lead and zinc mining had \$5.8 million leakages in 2023.

Industry Competitive Shift, Leakages, and Multipliers

Clay Building Material and Refractories Mfg.

All other misc.
nonmetallic
mineral
product mfg.

Metal coating, engraving and allied services

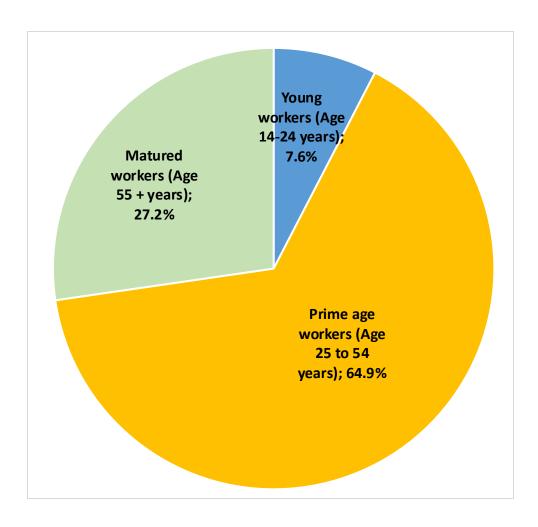




Top occupations

Occupations	Jobs 2023	% Change 2018-2023	% of Total Jobs in Cluster 2023	Median Hour Earnings	Entry level Education	Automation
Plating Machine Setters, Operators, and Tenders, Metal and Plastic	166	110%	10.8%	\$17.10	High school diploma or equivalent	122
Heavy and Tractor-Trailer Truck Drivers	135	28%	8.8%	\$28.66	Postsecondary nondegree award	110.1
Cutting and Slicing Machine Setters, Operators, and Tenders	70	676%	4.6%	\$24.61	No formal educational credential	116.6
Laborers and Freight, Stock, and Material Movers, Hand	70	40%	4.5%	\$18.00	No formal educational credential	117.2
Industrial Truck and Tractor Operators	69	215%	4.5%	\$21.54	High school diploma or equivalent	119.5
First-Line Supervisors of Production and Operating Workers	67	3%	4.3%	\$31.55	High school diploma or equivalent	88.6
Miscellaneous Assemblers and Fabricators	61	16%	4.0%	\$19.54	High school diploma or equivalent	112.6
Industrial Machinery Mechanics	53	36%	3.4%	\$37.37	High school diploma or equivalent	109.8
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	52	9%	3.4%	\$22.36	High school diploma or equivalent	117.3
Inspectors, Testers, Sorters, Samplers, and Weighers	38	52%	2.5%	\$23.55	High school diploma or equivalent	106.1
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	36	-13%	2.3%	\$22.81	High school diploma or equivalent	118.3
Mixing and Blending Machine Setters, Operators, and Tenders	31	-65%	2.0%	\$25.18	High school diploma or equivalent	117.1
Shipping, Receiving, and Inventory Clerks	29	45%	1.9%	\$20.64	High school diploma or equivalent	109.1
Maintenance and Repair Workers, General	26	-24%	1.7%	\$21.95	High school diploma or equivalent	109.6
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	25	-33%	1.7%	\$33.77	High school diploma or equivalent	91.5

Worker demographics 2023



- Hispanic workers (14.4%)
- Black or African-American workers (10.5%)
- Asian workers (0.7%)
- White workers (73.2%)
- American Indian or Alaska Native (0%)
- o Others (1.2%)

- Male workers (86%)
- Female workers (14%)

More than one in four workers (27.2%) are matured (aged 55 years or more) workers in NAICS in this cluster.

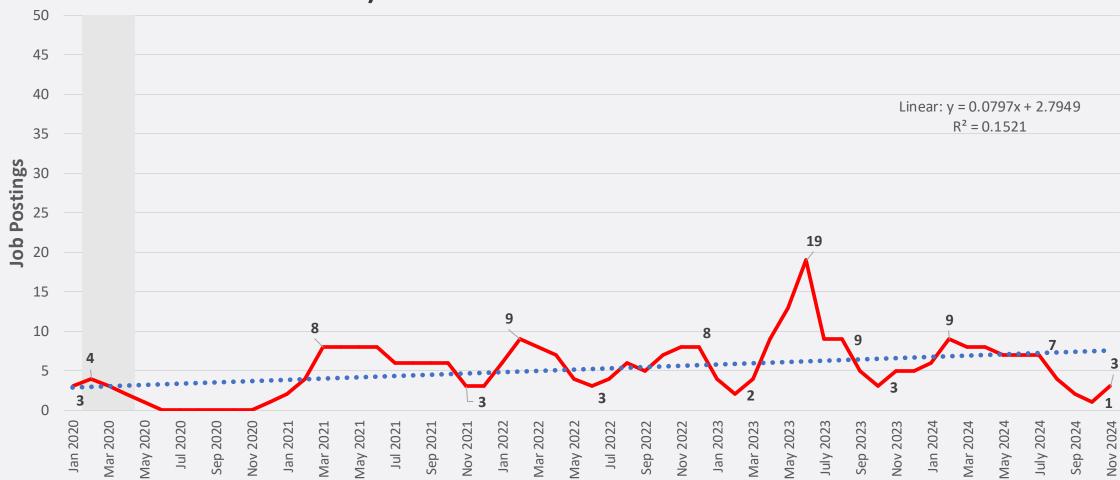
Section 03 Jobs Postings (Labor demand)

Glass and Ceramics Cluster Jobs Postings Overview

- From January 2020 to November 2024, a total of 738 unique jobs postings happened in industries within the Glass and Ceramics Cluster. The average monthly unique jobs postings was 3 per month.
- The median posting duration was 32 days. Posting intensity was 2:1.
- Percent change between January 2020 and November 2024 was 0% or no change.
- 28 employers in Glass and Ceramics Cluster competed for talent during this period.
- Hourly median advertised salary was \$20.49 per hour (31% postings included salaries)
- Job postings were advertised in 50 different industries within NIRPC Region. Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufactures and Clay Building Material and Refractories Manufacturing had more than 50 unique jobs postings during January 2020 and November 2024.
- Top companies in Glass and Ceramics cluster posting jobs include Precoat Metals, Nlmk
 International B.V., Minerals Technologies, Holcim, and Material Sciences Corporation



Glass and Ceramics Cluster: Job Postings Time Series (Jan 2020 to November 2024)



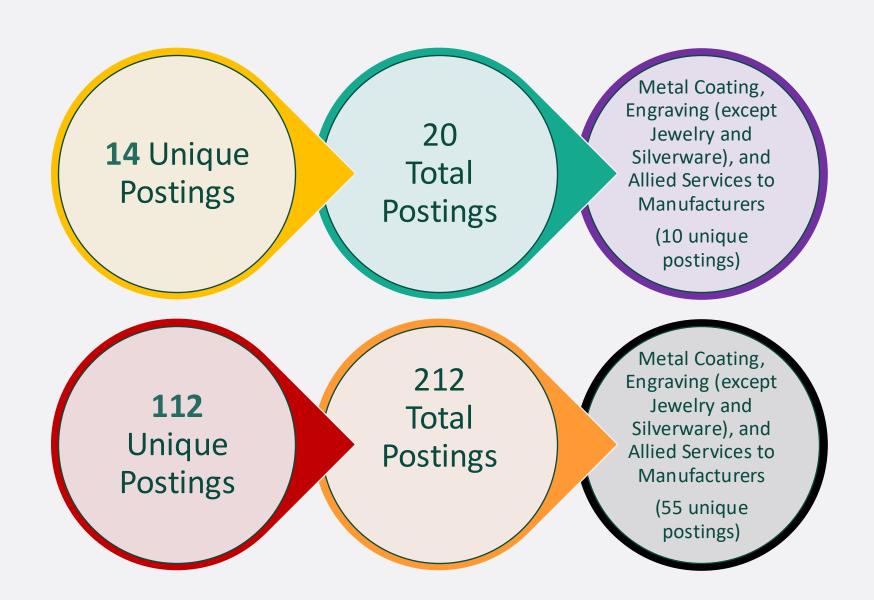
 Unique jobs postings are not seasonally adjusted and hence may show seasonal effects. Jobs postings are in a recovery mode following the COVID-19 induced recession (February 2020 to April 2020).



Glass and Ceramics Cluster Latest Unique Jobs Postings

Latest 1Month Unique
Jobs Postings
Oct 2024 - Nov
2024

Latest 12-Month Unique Jobs Postings Nov 2023 -Nov 2024



14. Chemcoaters

Top companies, industries and job title postings (January 2020 to November 2024)

Top Companies Postings

Top Industries

- 1. Precoat Metals 2. Nlmk International B.V. 3. Minerals Technologies 4. Holcim 5. Material Sciences Corporation 6. J&L Dimensional Services 7. Edw. C. Levy Co. 8. Midwest Pipe Coating 9. Refractory Service 10. Midwest Wheelcoaters 11. Glen-Gery Corporation 12. Super Products 13. Vesuvius USA
- 1. Metal Coating, Engraving (except Jewelry and Silverware), and Allied Services to Manufacturers
- 2. Clay Building Material and Refractories Manufacturing
- 3. Cement Manufacturing
- 4. Electroplating, Plating, Polishing, Anodizing, and Coloring
- 5. Ground or Treated Mineral and Earth Manufacturing
- 6. Pottery, Ceramics, and Plumbing Fixture Manufacturing
- 7. Glass Container Manufacturing
- 8. Other Pressed and Blown Glass and Glassware Manufacturing
- 9. Glass Product Manufacturing Made of Purchased Glass
- > Farmers, farm hand and manual worker jobs advertisements are based on analog and not online services.

Source: Lightcast— Q4 2024





U.S. Industry Economic Outlook

O Glass Product Manufacturing in the U.S. had \$29.9 bn revenue with a profit margin of 5.4% in 2024. The industry is expected to grow in revenue (2.2%) and employees (1%) during the 2024-2029 period. The industry has been affected by consumer shift to alternative packaging materials like plastics, aluminum and carboard, and the industry needs to innovate in design and products. The industry is affected by the environmental regulations. However, the demand for glass products has been increasing in the construction (residential and nonresidential) industries.

Report Contributors



Authors/Editors
Indraneel Kumar, Ph.D.
Ben St. Germain
Annie Cruz-Porter, Ph.D.
Taoyi Sun
Hyewon Shin



Data Analysis Indraneel Kumar, Ph.D. Ben St. Germain Taoyi Sun



Report Design

Tyler Wright



Purdue Center for Regional Development



Center for Regional Development

seeks to pioneer new ideas and strategies that contribute to regional collaboration, innovation and prosperity.

www.pcrd.purdue.edu

Contact Us

1341 Northwestern Avenue Purdue Schowe House West Lafayette, IN 47906 765-494-7273 pcrd@purdue.edu

