American Immigration Council

OHIO BUSINESS for IMMIGRATION SOLUTIONS

OCTOBER 2023

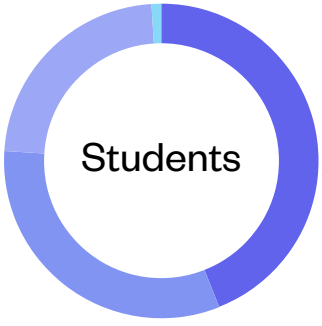
The Economic Contributions of Immigrants in Ohio's Manufacturing Sector

Ohio's manufacturing sector has long played a crucial role in the nation and state's economy, producing goods for American homes and for businesses that foster skill development, generate spending power, and help ensure the United States remains a global innovator. The manufacturing industry attracts a variety of workers whose unique experiences, knowledge, and perspectives contribute to a vibrant economy. In Ohio, manufacturers accounted for 16.1 percent of the total output of goods and services and generated more than $112 billion in produced goods and services in 2019.[1] Even during the pandemic, Ohio's manufacturing industry continued to attract talent from across the skills and education spectrums, spurring economic development and innovation throughout the state.

In 2019, nearly 550,000 immigrants[2] called the Buckeye State home, making up 4.7 percent of the state's total population.[3] Immigrants in Ohio help bolster the state's manufacturing workforce, bringing multicultural perspectives, multilingual skills, and talent across the skills spectrum that enriches the sector in a variety of ways. As of 2019, approximately 6.3 percent of workers in the manufacturing industry were immigrants.[4] Approximately 54,000 immigrant workers worked in the Ohio manufacturing industry.[5] As the state's economy grows and more businesses move to Ohio, immigrants are poised to play a critical role in manufacturing, complementing U.S.-born workers to help address the state's tight labor market.

Moreover, professionals in science, technology, engineering, and math (STEM) fields will be needed to advance research and development, operate complex machinery, and imagine new directions for the ever-evolving field. As companies move to Ohio and look to fill manufacturing jobs, attracting both U.S.-born and immigrant talent to Ohio colleges and universities will be as important as ever. In October 2021, 17,400 international students were enrolled in degree programs or were completing Optional Practical Training (OPT) in STEM fields in Ohio. Two-thirds of these international students were pursuing either a master's or a doctoral degree.[6]

In October 2021, **17,400** international students in Ohio enrolled in degree programs or OPT.



Of these students enrolled:

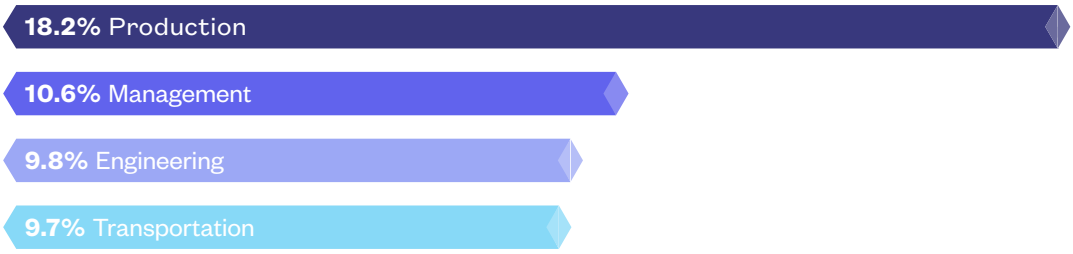
43.9% were seeking a Master's degree (7,600 students)
32.4% were seeking a Bachelor's Degree (5,600 students)
22.8% were seeking a Doctorate Degree (4,000 students)
0.9% were seeking an Associate Degree (200 students)

ONLINE JOB POSTINGS FOR MANUFACTURING AND PRODUCTION WORKERS

Despite an overall decline in the number of manufacturing jobs in the state since the 1970s—a decline further exacerbated by the COVID-19 pandemic[7]—Ohio saw a dramatic increase in the number of manufacturing and production online job postings between 2017 and 2021. The state will need to leverage both U.S.-born and immigrant talent to fill these jobs that power the Ohio economy.

The manufacturing industry includes occupations in production, management, engineering, and transportation. However, production occupations make up the largest proportion of workers.

In 2019, the share of manufacturing job postings by area was:



In 2021, production workers were in the highest demand in the manufacturing industry, with online job postings **tripling in five years**,[8] from

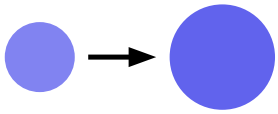
5,063 to 19,477

During that year, first-line supervisors of production workers were the second highest in demand, with number of online job postings **doubling in five years**,[9] from

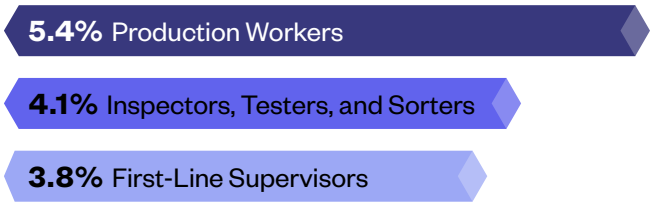
2,744 to 6,519

Inspectors and testers were also in high demand, with the number of online job postings between 2017 and 2021 increasing by[10]

+126.6%



The average share of workers from 2015 to 2019 who were immigrants:[11]

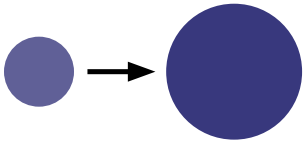


The manufacturing industry attracts a variety of talent to the state. In 2021, Ohio had the fourth-largest manufacturing gross domestic product (GDP) in the country, at nearly $118 billion.[12] The demand for workers in manufacturing occupations that require additional training, upskilling, and reskilling also continues to grow.[13]

From 2017 to 2021, the number of job postings in occupations that required at least six months of **specific vocational preparation**[14] increased by:

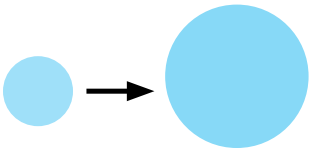
First-line supervisors of production and operating workers[15]

+277.8%



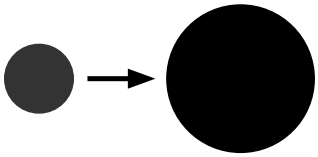
Power plant operators[16]

+320.0%



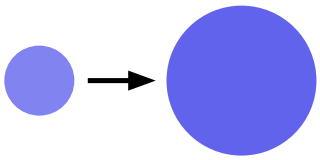
Production occupations[17]

+351.8%



Inspectors, testers, sorters, samplers, and weighers[18]

+360.0%



5.9%

of workers from 2015-2019 in high skilled manufacturing jobs[19] were immigrants[20]

Immigrants already contribute skills crucial to innovation, healthy living, and education. As demand for workers increases across the Buckeye State, Ohio has an opportunity to leverage the manufacturing workforce to expand economic opportunities for all Ohioans. If Ohio is to meet the growing demands of the labor market, it must create welcoming strategies to help ensure that immigrants can thrive and fully participate in the economy.

ENDNOTES

1. National Association of Manufacturers, "2021 Ohio Manufacturing Facts," 2021, https://www.nam.org/state-manufacturing-data/2021-ohio-manufacturing-facts/#:~:text=Manufacturers%20in%20Ohio%20account%20for,compensation%20of%20%2478%2C108.27%20in%202019.

2. We define "immigrant" as any non-citizen or any naturalized U.S. citizen. They include naturalized citizens, green card holders, temporary visa holders, refugees, asylees, and undocumented immigrants, among others.

3. American Immigration Council analysis of data from the 1-year 2019 American Community Survey. See American Immigration Council, "Map the Impact: Ohio," accessed on August 30, 2022, https://data.americanimmigrationcouncil.org/map-the-impact/.

4. American Immigration Council analysis of the IPUMS microdata from the 2019 American Community Survey, 5-Year Sample.

5. Ibid.

6. American Immigration Council analysis of data from the Student and Exchange Visitor Information System (SEVIS) maintained by the Department of Homeland Security (DHS), October 2021, https://studyinthestates.dhs.gov/sevis-data-mapping-tool.

7. Michael Shields and Annie Volker," A Better Bargain: State of Working Ohio 2022," Policy Matters Ohio, September 2022, https://www.policymattersohio.org/research-policy/fair-economy/work-wages/state-of-working-ohio/state-of-working-ohio-2022.

8. American Immigration Council analysis of data compiled by Lightcast 2022, https://kb.emsidata.com/methodology/emsi-data-basic-overview/.

9. Ibid.

10. Ibid.

11. American Immigration Council analysis of the IPUMS microdata from the 2019 American Community Survey, 5-Year Sample.

12. JobsOhio, "Ohio's Profile as Advanced Manufacturing Hub Continues to Grow," April 2022, https://www.jobsohio.com/news-press/ohios-profile-as-advanced-manufacturing-hub-continues-to-grow/.

13. American Immigration Council analysis of data compiled by Lightcast 2022, https://kb.emsidata.com/methodology/emsi-data-basic-overview/.

14. "Specific Vocational Preparation," as defined in the U.S. Department of Labor's 1991 *Dictionary of Occupational Titles*, Appendix C, is the "amount of lapsed time required by a typical worker to learn the techniques, acquire the information, and develop the facility needed for average performance in a specific job-worker situation," https://www.onetonline.org/help/online/svp.

15. American Immigration Council analysis of data compiled by Lightcast, 2022, https://kb.emsidata.com/methodology/emsi-data-basic-overview/.

16. Ibid.

17. Ibid.

18. Ibid.

19. This analysis defines "high-skilled" manufacturing occupations as those that require over six months of "Specific Vocational Preparation," or the amount of lapsed time required by a typical worker to learn the techniques, acquire the information, and develop the facility needed for average performance in a specific job-worker situation, https://www.onetonline.org/find/family?f=51.

20. American Immigration Council analysis of the IPUMS microdata from the 2019 American Community Survey, 5-Year Sample.