Manufacturing continues to play a pivotal role in Northeast Ohio’s economy. This Quarterly Economic Review explores the evolution of this industry, providing insights into the region’s manufacturing sector plus a snapshot of economic activity during the second quarter of 2018.

**ACROSS NORTHEAST OHIO:**

Manufacturing makes up **20%** of NEO’s Gross Regional Product

- **264,000+** Manufacturing Workers
- **21,000+** Manufacturing Openings Annually

**Chemical subsector**

- strong at **$7 Billion**

**Oil & Gas**

- averages **highest output** per worker

**Regional Exports**

- top **$87 Billion**
Technology & Productivity Drive Manufacturing’s Momentum

For decades, the decline in manufacturing employment in Northeast Ohio and other industrial Midwest regions has driven the manufacturing narrative around the so-called “Rust Belt.” Admittedly, this period of transition was painful, with Northeast Ohio losing nearly 200,000 jobs in manufacturing over the past several decades. That job loss, however, often masked an important development in Northeast Ohio’s manufacturing sector: At the same time, we were becoming much more productive and globally competitive as a manufacturing sector. Between 1990 and 2015, productivity grew by more than 90%, and is projected to nearly double in the coming decade. Today, advances in technology are changing the face of manufacturing in Northeast Ohio even more. As efficiencies improve, doors to new opportunities are opening for this evolving industry which, at $41 billion, accounts for 20% of our gross regional product (GRP).

Two of the forces with the strongest potential to push manufacturing forward are the Industrial Internet of Things (IIoT) and additive manufacturing, which are powering advances such as machine-to-machine communication and forward-thinking implementation strategies for automation technologies. As reported in the Smart Manufacturing IIoT Roadmap, released in late 2018 by a coalition led by Team NEO and in partnership with MAGNET: The Manufacturing Advocacy and Growth Network, IIoT could have an incremental economic impact on GRP of $4 billion to $13 billion annually by 2025.

Output by Manufacturing Subsector in Northeast Ohio: 2017

$41 Billion GRP Represents Diverse Subsectors

Manufacturing in Northeast Ohio encompasses a broad range of subsectors. Among the top subsectors in terms of output are chemical at just over $7 billion, fabricated metal product at $6.17 billion and transportation equipment at $6.12 billion.

Source: Economic Modeling Specialists International (EMSI)
Employment by Manufacturing Subsector in Northeast Ohio: 2017

Top Annual Openings in Production Occupations: 2018 - 2023

Manufacturing Employment Spread Over a Variety of Subsectors

While some traditional subsectors are at the top of the list for employment — fabricated metal product producers (51,000), machinery (nearly 33,000), and transportation and equipment (almost 31,000) — there are growth areas in diversifying subsectors such as food manufacturing (20,500) and computer & electronic product (9,500). These diversifying sectors within manufacturing reflect the evolving nature of the goods we produce, and opportunities to add net new manufacturing jobs to parts of the economy moving forward.

Source: EMSI

More Than 21,000 Annual Openings Through 2023

While manufacturing employment has declined as a result of improved efficiencies made possible by technological advances, there will be 21,000 annual job openings through 2023 across a wide range of positions due to retirements and other replacement opportunities. Many of these positions will require technological expertise, as noted in Team NEO's 2018 Aligning Opportunities in Northeast Ohio report. Additionally, as the adoption of new technologies grows, new and emerging types of work, like data science, will become increasingly important to the sector.

Source: EMSI
Productivity by Manufacturing Subsector: 2017

- Fabricated Metal Product
- Machinery
- Food
- Primary Metals
- Electrical Equipment & Appliance
- Beverage
- Computer & Electronic Product
- Transportation Equipment
- Chemical
- Petroleum & Coal Products

Productivity Strongest Among Oil and Gas Workers

Employees in the petroleum and coal products field contribute, on average, more than $630,000 each to the annual GRP, making this subsector the region’s most productive.

“This high level of productivity is possible because of continued strong advances in automation, robotics, and product and process innovation throughout the midstream and downstream manufacturing sector.”

- Paul Boulier
  Team NEO Industry and Innovation VP

The chemical subsector ranks second in productivity, at nearly $400,000 per worker, followed by transportation equipment, at $200,000.

Source: EMSI

Exports Add $87 Billion to GRP

Rounding out the manufacturing industry’s big picture are exports, which totaled more than $87 billion in 2017. Exports, in this sense, are the sales of manufactured products produced in Northeast Ohio but sold outside the region, bringing new dollars back into the economy. The transportation equipment ($16 billion), chemical ($14 billion) and fabricated metal product ($11 billion) subsectors are the strongest producers.

Source: EMSI
Rethinking Economic Vibrancy

As we think about what constitutes a healthy and vibrant manufacturing economy in Northeast Ohio moving forward, traditional economic measures like employment and output likely won’t be enough. Rapid changes in technology, combined with the automation or elimination of unskilled jobs, and complicated by the increase in high-skill, high-wage career paths, have changed manufacturing permanently.

Rather, we need to think about manufacturing in general, and for Northeast Ohio in particular, through a broader lens of vibrancy. This broader lens should reflect a sector that leads the world in the adoption of new technologies (IoT, Additive Manufacturing); a sector with rising wages, and a clear path to higher wages through education and hard work; a sector whose exports are in demand globally and competitive with foreign markets; a sector that continues to increase productivity while providing critical input that helps regional institutions train the workforce of the future; a sector that draws talent from all parts of our community, including those that are most distressed; and a sector that is diversifying into new and even more beneficial products that will keep Northeast Ohio’s manufacturing base competitive for decades to come.

Below is a sampling of recent manufacturing development projects in Northeast Ohio:

**GROWING MANUFACTURING COMPANY EXPANDS IN GEAUGA COUNTY**

Tarkett, a worldwide leader of innovative flooring and sports surface solutions, has invested several million dollars to expand its operations in Auburn Township. A new facility will complement Tarkett’s existing 140,000-square-foot plant, which produces Johnsonite vinyl resilient wall base and finishing borders, and will result in the addition of approximately 75 new jobs.

**RIMECO PRODUCTS TO INVEST $3.6 MILLION IN WILLOUGHBY**

Rimeco Products Inc., a precision CNC shop serving the aerospace, aviation and defense industries, is purchasing a new building in Willoughby to accommodate its expanding operations. The company plans to invest $3.6 million and add 38 new jobs while retaining another 38.

**IML CONTAINERS OF OHIO TO OPEN MANUFACTURING FACILITY IN CANTON**

IML Containers, manufacturers of plastic containers used in the food industry, recently announced plans to operate a manufacturing facility in Stark County, creating 80 new jobs and investing $21 million. The company cited proximity to some of its larger customers and the state’s business-friendly environment as reasons for choosing the Canton location.

**LEFTON METAL ENTERPRISES EXPANDS IN COLUMBIANA COUNTY TO SERVICE ELECTRIC VEHICLE MARKET**

Lefton Metal Enterprises Corporation, a leader in the aluminum parts manufacturing industry, specializes in recycling industrial aluminum to create unique finished products used in transportation and other industries. When the company sought to expand to accommodate the growing electronic vehicle market — one of the fastest-growing markets in the automotive sector — it considered other states but selected Ohio. Lefton will also expand its role here with a top supplier of lift gates, adding assembly to its current component manufacturing.

This report was compiled in partnership with MAGNET, whose mission is to help manufacturers grow and compete in Northeast Ohio, especially the 98% of startup to medium-sized manufacturers that drive our economy. MAGNET rolls up its sleeves to provide hands-on support ranging from new product design to operations and brings education and business together to create tomorrow’s manufacturers. Visit www.manufacturingsuccess.org for more information.
Total employment averaged 1.947 million workers in Q2 2018, up almost 9,000 jobs year-over-year.

Source: Quarterly Census of Employment and Wages (QCEW). This is the most current reliable data available for total jobs in Northeast Ohio.

In Q2 2018, the services sector added 1,900 jobs year-over-year, with more than 1.3 million workers. At almost 270,000 jobs, the manufacturing sector added more than 5,500 jobs year-over-year, while the construction sector added nearly 1,600 workers year-over-year.

Source: Quarterly Census of Employment and Wages (QCEW). This is the most current reliable data available for total jobs in Northeast Ohio.
Northeast Ohio’s GRP is projected to grow 2.3% in 2018, as set forth by Moody’s Economy.com, with GRP at 238.5 billion. Data for 2018 is subject to 12 to 18 months of revisions. 

Source: Moody’s Economy.com

In Q3 2018, the vacancy rate for industrial space is at 3.6%, while the vacancy rate for office space is at 6.9% – its lowest since Team NEO began tracking in Q1 2008. About 577 million square feet of industrial space and 163 million square feet of office space is currently occupied in Northeast Ohio.

Source: CoStar

This graph shows the status of Utica shale wells originally permitted, drilled and in production for each quarter. Since Q4 2012, when tracking began, 2,790 total permits have been issued, of which 1,895 have been drilled. Of those drilled, 1,032 are currently in production in the state.

Source: Ohio Department of Natural Resources
Team Northeast Ohio uses a number of data sources for the Regional Economic Review. One of the primary sources is Moody’s Economy.com (economy.com) data for Northeast Ohio. Moody’s Economy.com county-level output, employment and payroll historical data are estimated from several publicly available sources and are summarized into the Team NEO regional footprint. It is important to understand data provided by Economy.com are estimates of economic activity.

Team NEO also uses data from federal and state sources as part of this report. We rely heavily on data from the U.S. Bureau of Labor Statistics (bls.gov) and Ohio’s Labor Market Information (lmi.state.oh.us) for information on wages, unemployment and both general and industry-specific employment.

Industrial and office real estate data for this edition were derived from the CoStar Group. Due to market limits within the CoStar database, historic trend data for the Team NEO region are reflective of 14 of the 18 counties forming the regional footprint. These counties include: Ashland, Cuyahoga, Erie, Geauga, Huron, Lake, Lorain, Mahoning, Medina, Portage, Richland, Stark, Summit and Trumbull.

For a complete list of funders, visit clevelandplus.com/teamneo/invest-in-us/funders.

Team NEO is a business development organization focused on creating jobs for Northeast Ohio’s residents. In collaboration with our partners, it leads the region’s business attraction efforts, supports business retention and expansion work as Northeast Ohio’s JobsOhio affiliate, accelerates the impact of innovation in the region, and aligns strategies and resources within the economic development network to maximize its impact.

In addition, Team NEO provides tools to assist employers in attracting talent to the region.

Team NEO is part of the Northeast Ohio Economic Development network, providing business decision-makers with access to customized solutions that accelerate growth, foster innovation and mitigate risk through a connected and collaborative ecosystem.

ECONOMIC DEVELOPMENT PARTNERS ACROSS 18 COUNTIES OF NORTHEAST OHIO

- Ashland Area Economic Development
- Columbiana County Port Authority
- Erie County Economic Development Corporation
- Geauga Growth Partnership, Inc.
- Greater Akron Chamber
- Greater Cleveland Partnership
- Growth Partnership for Ashtabula County
- Huron County Development Council
- Lake County Ohio Port & Economic Development Authority
- Medina County Economic Development Corporation
- Portage Development Board
- Richland Community Development Group
- Stark Economic Development Board, Inc.
- Tuscarawas County Economic Development Corporation
- Youngstown/Warren Regional Chamber
- Wayne Economic Development Council