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# Northeast Ohio Front Runners: Groups of Regional Industry Drivers (GRIDs) Research Brief

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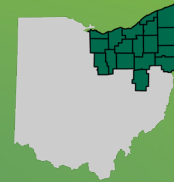
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# NORTHEAST OHIO FRONT RUNNERS: GROUPS OF REGIONAL INDUSTRY DRIVERS (GRIDs)



Wealth-creating industries are the backbone of the regional economy; they contribute to economic growth, personal wealth, and regional competitive advantage. For an economy to stay vibrant and competitive, it is essential to identify these industries so that strategic policies can foster and support regional growth. Three regional groups of drivers were identified in Northeast Ohio (NEO): **Professional Services**, **Growing Legacy Manufacturing**, and **Oil and Gas**. These groups, known as Groups of Regional Driver Industries (GRIDs) were identified using statistical analyses and data-driven insights for 2013 to 2017. GRIDs had strong regional specialization, growing output, rising productivity, and local competitive advantage. Overall, the three identified GRIDs contributed nearly 40% (\$86.5 billion) to NEO's total output and employed 20% (363,660 people) of NEO's workforce in 2017.

## NEO GROUPS OF REGIONAL INDUSTRY DRIVERS (GRIDs)

PROFESSIONAL  
SERVICES



71%  
OF GRIDs OUTPUT

GROWING LEGACY  
MANUFACTURING



22%  
OF GRIDs OUTPUT

OIL AND GAS



7%  
OF GRIDs OUTPUT

The **Professional Services GRID** provides the largest share of output (71%) among all GRIDs in NEO's regional economy. The core of this GRID is industries that include businesses in finance and insurance, headquarters, hospitals, and real estate. The growth of professional services is driven by increasing productivity and positive effects of having a high regional specialization in these industries. Insurance carriers, agencies, brokerages, and other insurance-related companies increased their productivity by nearly 50%, gaining regional specialization and growing employment over the last five years. The *General Medical and Surgical Hospitals* industry in NEO is becoming a national and international destination for healthcare services and biomedical research. This industry grew in productivity, had a high regional specialization, and employed over 106,000 in NEO in 2017.

The **Growing Legacy Manufacturing GRID** consists of 20 industries in steel-making, machine shops, chemical, and tools manufacturing. These industries illustrated strong growth and a high specialization in the NEO region compared to the U.S. These industries were responsible for 22% (\$19 billion) of all-GRIDs output

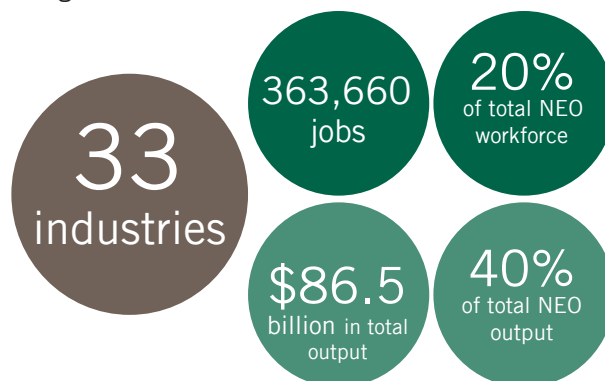
from 2013 to 2017. These Growing Legacy Manufacturing industries emerged from the recession restructured and competitive. Some industries of this GRID are super-performing manufacturing industries which showed double-digit output growth, moderate productivity growth, and strong export power—defined by 6 to 8 times higher concentrations in the region compared to the nation. Specific industries in this subgroup include the *Paint, Coating, and Adhesive Manufacturing; Steel Product Manufacturing from Purchased Steel; Nonferrous Metal (except Aluminum) Production and Processing; and Foundries*.

The **Oil and Gas GRID** is an emerging industry group, relatively small in employment but a sizeable contributor to the region's output. Being capital-intensive in nature, it contributes 7% (\$6 billion) of all-GRIDs output to the regional economy. *Oil and Gas Extraction* has seen significant growth in productivity and regional concentration since 2013. The largest employer in this GRID is *Petroleum and Coal Product Manufacturing* industry. The Oil and Gas GRID needs to significantly increase its size and supplier-customer chain to meaningfully impact overall regional performance.

Northeast Ohio is defined as the 18-county area including Ashland, Ashtabula, Columbiana, Cuyahoga, Erie, Geauga, Huron, Lake, Lorain, Mahoning, Medina, Portage, Richland, Stark, Summit, Trumbull, Tuscarawas, and Wayne counties.

## GRIDs AND THE REGIONAL SUPPLY CHAIN

It is not only the output and productivity that make these GRIDs important wealth-makers, but also their purchasing power which drives regional growth. The three identified GRIDs supply and purchase products from each other and support their cumulative growth. In addition, GRIDs contribute to the regional economy by selling \$31.8 billion of their products to non-GRID industries and purchasing \$66.1 billion in products and services from non-GRID industries. These transactions build regional chains of suppliers and customers around manufacturing, services, and oil and gas industries. In the case of the emerging Oil and Gas GRID, the creation of a local supply-chain can ultimately contribute and foster the growth and formation of this cluster.



This brief is a summary of the following report:



Levin.



Lendel, Iryna; Piazza, Merissa; and Demko, Iryna, "Northeast Ohio Front Runners: Groups of Regional Industry Drivers (GRIDs)" (2018). Urban Publications. 0 1 2 3 1585. [https://engagedscholarship.csuohio.edu/urban\\_facpub/1585](https://engagedscholarship.csuohio.edu/urban_facpub/1585)

## LOOKING FORWARD

Overall, NEO GRIDs show a driving force of our economy addressing industries that have high regional specialization, robust wealth creation, and strong purchasing power. However, GRID industries comprise only 33 out of 280 industries in our economy and do not illustrate the whole picture of the region. About half of NEO legacy manufacturing industries belong to GRIDs; another half are still struggling to regain their competitive advantage after the Great Recession. These declining industries are losing employment, output, and stagnate in their productivity. Many legacy manufacturers are struggling to adapt to new technology-driven markets and becoming less competitive regionally. Twenty-five (25) manufacturing industries are part of the declining economic base; they accounted for \$12.7 billion (5%) of regional output and over 110,000 jobs in 2017.

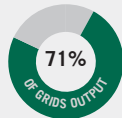
The NEO economy is becoming more aligned with the structure of the national economy, which can protect the region from recessionary pressures in the manufacturing sector. Manufacturing dropped from 35% of the NEO economy in 1970 to 13% in 2017. While expanding the regional economy to the service sector is

desired, a closer look reveals a significant gap in service sector productivity between NEO and the U.S. The gap may indicate a risk of falling behind in the future. Fostering infrastructure and innovation in these sectors can potentially recoup this gap.

Looking at what industries have a regional competitive advantage and are growing nationally can point to possible areas of intervention. The *Plastics Product Manufacturing* industry, for example, showed signs of regional and national growth, and it belongs to the supply chain for the Oil and Gas GRID. Both facts indicating that this industry should be regionally fostered.

Examining GRIDs provides decision-makers with a road-map of economic base industries which are growing, declining, or emerging in the regional economy. Regional leadership and governments can craft data-driven public policy informed by GRIDs to support and encourage economic growth and mitigate economic declines. These industries should be further discussed within the region on their inclusiveness, competitive wages, and employment dynamics. ■

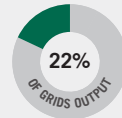
### PROFESSIONAL SERVICES



- Wholesale Electronic Markets
- Monetary Authority-Central Bank
- Depository Credit Intermediation
- Insurance Carriers
- Agencies, Brokerages, and Other Insurance Related Activities
- Lessors of Real Estate
- Offices of Real Estate Agents
- Activities Related to Real Estate
- Management of Companies & Enterprises
- General Medical & Surgical Hospitals



### GROWING LEGACY MANUFACTURING



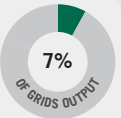
- Basic Chemical Mfg
- Resin, Synthetic Rubber, and Artificial Synthetic Fibers Mfg
- \*• Paint, Coating, and Adhesive Mfg
- Soap, Cleaning Compound and Toilet Preparation Mfg
- Other Chemical product and Preparation Mfg
- Clay Product and Refractory Mfg
- Iron and Steel Mills and Ferroalloy Mfg
- \*• Steel Product Mfg from Purchased Steel
- Alumina and Aluminum Production and Processing
- \*• Nonferrous Metal (except Aluminum) Production and Processing
- Coating, Engraving, Heat Treating, and Allied Activities
- Other Fabricated Metal Product Mfg
- Metalworking Machinery Mfg
- Other General-Purpose Machinery Mfg
- Metal and Mineral (except Petroleum) Merchant Wholesalers
- Cutlery and Handtool Mfg
- Boiler, Tank, and Shipping Container Mfg
- Machine Shops; Turned Product; and Screw Nut and Bolt Mfg
- \*• Foundries
- Forging and Stamping



#### \* SUPER-PERFORMING INDUSTRIES

are industries that show double-digit growth, moderate productivity and strong export power (6 to 8 times higher concentrations in the region compared to the nation)

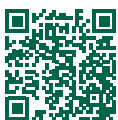
### OIL AND GAS



- Oil and Gas Extraction
- Petroleum and Coal Products Manufacturing
- Pipeline Transportation



*Pipeline Transportation* grew in kind due to an increase in the construction of pipelines carrying natural gas and products related to shale development. It grew by almost 300% over the last 5 years.



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Please share your comments with Dr. Iryna V. Lendel at [i.lendel@csuohio.edu](mailto:i.lendel@csuohio.edu)



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