The Future is Now: Akron's Dynamic and Inclusive Economy

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THE FUTURE IS NOW
AKRON’S DYNAMIC AND INCLUSIVE ECONOMY

CLEVELAND STATE UNIVERSITY
CENTER FOR ECONOMIC DEVELOPMENT

July 24, 2019 | Akron, Ohio
Dr. Iryna V. Lendel
INTRODUCTION

• The economic trends in Northeast Ohio (NEO) over the last 20 years are typical of the Midwest region, with a positive increase in output outpaced by the state of Ohio, and the United States

• The double recessions of 2001 and 2007-2009 show a deeper output decline in NEO than in comparable Midwest regions and the United States

• Traditionally, industries with high regional specialization that have a competitive advantage and drive regional economies are called economic base industries

• Groups of Regional Industry Drivers (GRIDs) are part of the economic base of a region
EMPLOYMENT AND OUTPUT TRENDS IN NEO
The 18-county Northeast Ohio labor market is composed of four metropolitan areas (MSAs) and eight non-MSA counties.

<table>
<thead>
<tr>
<th>Metropolitan Statistical Area</th>
<th>2017 Employment</th>
<th>2017 Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleveland MSA</td>
<td>1,069,941</td>
<td>$136.9B</td>
</tr>
<tr>
<td>Akron MSA</td>
<td>344,321</td>
<td>$36.7B</td>
</tr>
<tr>
<td>Non-MSA Counties</td>
<td>285,532</td>
<td>$27.3B</td>
</tr>
<tr>
<td>Canton MSA</td>
<td>176,893</td>
<td>$16.4B</td>
</tr>
<tr>
<td>Youngstown MSA</td>
<td>174,603</td>
<td>$16.4B</td>
</tr>
<tr>
<td>NEO 18-Counties*</td>
<td>2,051,290</td>
<td>$233.7B</td>
</tr>
</tbody>
</table>

Source: Moody’s Analytics

*Note: Carroll County is not included in JobsOhio’s 18-county NEO definition, but is included in the Canton-Massillon MSA, and therefore used in Canton-Massillon MSA’s calculations in this study.
NEO MSAs EMPLOYMENT TRENDS

• Employment trends for all four NEO MSAs show a picture of deep employment losses stemming from the last two recessions (2001 and 2007-2009)

• These recessions brought structural changes to the manufacturing sector, which is a significant employer in all MSAs, by slashing jobs while keeping output high increased the sector’s productivity

• The Akron MSA is the only metro area in NEO that recovered back to 2008 employment levels – even experiencing a 3% growth since 2013

Source: Moody’s Analytics
Despite considerable job losses, real output of NEO MSAs have shown an upward trend since 2000.

Output dove in 2008 due to the Great Recession but recovered relatively quickly within two years of the Recession’s onset.

Although output growth in the Youngstown MSA was positive, it remained significantly behind other metropolitan areas in NEO.

Source: Moody’s Analytics.
GROWING REGIONAL INDUSTRY DRIVERS (GRIDs)
DATA AND METHODOLOGY

• Using the wealth-creation variables of industries, we conducted statistical analyses to form, identify, and analyze the characteristics of industry groups to discern GRIDs

• Variables used in the model examined:
  • **competitiveness** of industries (change in wages, output, and productivity)
  • **importance to the regional economy** (share and concentration of output, wages, and employment in the regional economy)
  • **regional competitive advantage** (local competitiveness component of a shift-share analysis using output and employment)

• Variables are measured by the levels in 2017 or changes over the five-year period (2013 to 2017)
GROWING REGIONAL INDUSTRY DRIVERS (GRIDs)

• *Groups of Regional Industry Drivers (GRIDs)* are groups of industries with strong or increasing regional specialization and competitiveness, and growing output and productivity

• Some GRIDs combine labor intensive service industries and some are capital intensive and do not employ many people

• However, these industries contribute to the regional economy by paying high wages and creating jobs in companies of their supply chain

• The capital-intensive industries fuel population-serving industries due to people having higher disposable income

• Region of study – 18-County Northeast Ohio region
NEO GRIDs: GROUPS OF REGIONAL INDUSTRIAL DRIVERS

• NEO is re-balancing its economic structure to be less concentrated in manufacturing, which can better protect it from recessionary pressures in the manufacturing sector.

• Services GRID is led by finance, insurance and medical industries; it does not include R&D and has lower than the national productivity.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Employment Share</th>
<th>Share of GDP</th>
<th>Productivity (GDP/Employee)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>U.S.</td>
<td>NEO</td>
<td>U.S.</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>9%</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Service</td>
<td>89%</td>
<td>86%</td>
<td>87%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>2%</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Regional benchmarking initiative to identify growing and competitive industry groups in Northeast Ohio 18-Counties

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

- 363,660 jobs (20% of total NEO workforce)
- $86.5 billion in total output (40% of total NEO output)

Full Report - [https://engagedscholarship.csuohio.edu/urban_facpub/1585/](https://engagedscholarship.csuohio.edu/urban_facpub/1585/)
Research Brief - [https://engagedscholarship.csuohio.edu/urban_facpub/1594/](https://engagedscholarship.csuohio.edu/urban_facpub/1594/)
LOCAL FRONT RUNNERS: GRIDs IN THE 4 NORTHEAST OHIO METROPOLITAN AREAS

• Professional Services GRID provided highest output and most employment in both Cleveland and Akron MSAs
  • Cleveland MSA: $44.9B (77%) of GRIDs output; 164K (74%) of GRIDs employment
  • Akron MSA: $8.5B (57%) of GRIDs output; 61K (75%) of GRIDs employment
• Growing Legacy Manufacturing GRID shows upward trend in all 4 MSAs (Cleveland, Akron, Youngstown, and Canton)
  • Due to restructuring since the recession
  • Cleveland MSA contributed to over ½ of all employment and output to general NEO economy
  • Akron MSA: $2.9B (19%) of GRIDs output; 18K (22%) of GRIDs employment
• The Oil and Gas GRID has high growth in output and productivity
  • Akron MSA: industries seeing double-digit (26%) growth in output in 5 years
  • Akron MSA: $3.6B (24%) of GRIDs output; 2,400 (3%) of GRIDs employment
  • Oil and Gas Extraction industry doubled productivity in 5 years

• Full Report - https://engagedscholarship.csuohio.edu/urban_facpub/1609/

Good Jobs: Employment and Wages in Groups of Regional Industry Drivers (GRIDs) (forthcoming)
THE AKRON MSA GRIDS
THE AKRON ECONOMY

• 2nd largest contributor to NEO’s regional economy
• Totals $37 billion (16% of regional output)
• Rich history with major employers in rubber and polymer manufacturing (Goodyear and Firestone)
• Infrastructure assets include:
  • Akron-Canton Regional Airport
  • University of Akron
THE AKRON MSA GRIDs – BY THE NUMBERS

- Professional Services GRID: $8.5B (57%) of GRIDs output; 61K (75%) of GRIDs employment
- Growing Legacy Manufacturing GRID: $2.9B (19%) of GRIDs output; 18K (22%) of GRIDs employment
- The Oil and Gas GRID: $3.6B (24%) of GRIDs output; 2,400 (3%) of GRIDs employment

2017 Output (in $ Billions):
- Professional Services: $8,503 (57%)
- Growing Legacy Manufacturing: $2,885 (19%)
- Oil & Gas: $3,572 (24%)

2017 Employment:
- Professional Services: 60,910 (75%)
- Growing Legacy Manufacturing: 18,300 (22%)
- Oil & Gas: 2,420 (3%)
PROFESSIONAL SERVICES GRID

- Accounts for 23% of output & 20% employment in MSA
- This GRID is associated with increased productivity and share of regional output

<table>
<thead>
<tr>
<th>NAICS</th>
<th>Industry</th>
<th>2017 Output</th>
<th>2017 Emp</th>
</tr>
</thead>
<tbody>
<tr>
<td>2382</td>
<td>Building Equipment Contractors</td>
<td>$624 M</td>
<td>4,730</td>
</tr>
<tr>
<td>4234</td>
<td>Professional and Commercial Equipment &amp; Supplies Merchant Wholesalers</td>
<td>$549 M</td>
<td>2,240</td>
</tr>
<tr>
<td>4238</td>
<td>Machinery, Equipment, and Supplies Merchant Wholesalers</td>
<td>$403 M</td>
<td>3,460</td>
</tr>
<tr>
<td>4251</td>
<td>Wholesale Electronic Markets and Agents and Brokers</td>
<td>$669 M</td>
<td>2,080</td>
</tr>
<tr>
<td>4841</td>
<td>General Freight Trucking</td>
<td>$500 M</td>
<td>4,550</td>
</tr>
<tr>
<td>5221</td>
<td>Depository Credit Intermediation</td>
<td>$578 M</td>
<td>2,700</td>
</tr>
<tr>
<td>5241</td>
<td>Insurance Carriers</td>
<td>$893 M</td>
<td>4,640</td>
</tr>
<tr>
<td>5242</td>
<td>Agencies, Brokerages, and Other Insurance Related Activities</td>
<td>$507 M</td>
<td>2,410</td>
</tr>
<tr>
<td>5511</td>
<td>Management of Companies and Enterprises</td>
<td>$2,465 M</td>
<td>17,250</td>
</tr>
<tr>
<td>6221</td>
<td>General Medical and Surgical Hospitals</td>
<td>$1,315 M</td>
<td>16,850</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>$8,503 M</strong></td>
<td><strong>60,910</strong></td>
</tr>
</tbody>
</table>
PROFESSIONAL SERVICES GRID:
INDUSTRY DYNAMICS, PRODUCTIVITY, AND SPECIALIZATION

Source: Moody's Analytics

Change in GDP Location Quotient (2013 - 2017)

-0.1 0.0 0.1 0.2 0.3 0.4 0.5

-0.1 0.0 0.1 0.2 0.3 0.4 0.5

% Change in Productivity 2013 - 2017

-0.1 0.0 0.1 0.2 0.3 0.4 0.5

Professional and Commercial Equipment and Supplies Merchant Wholesalers, 2,240
Depository Credit Intermediation, 2,700
Management of Companies and Enterprises, 17,250
General Freight Trucking, 4,550
General Medical and Surgical Hospitals, 16,850
Building Equipment Contractors, 4,730
Machinery, Equipment, and Supplies Merchant Wholesalers, 3,460
Wholesale Electronic Markets and Agents and Brokers, 2,080
Insurance Carriers, 4,640

Agencies, Brokerages, and Other Insurance Related Activities, 2,410

= 2017 Emp (growing)
= 2017 Emp (declining)
Almost all industries in this GRID displayed an increase in productivity (9 of 11), signaling these industries are on their way to recovery from the recession.

<table>
<thead>
<tr>
<th>NAICS</th>
<th>Industry</th>
<th>2017 Output</th>
<th>2017 Emp</th>
</tr>
</thead>
<tbody>
<tr>
<td>3221</td>
<td>Pulp, Paper, and Paperboard Mills</td>
<td>$130 M</td>
<td>890</td>
</tr>
<tr>
<td>3252</td>
<td>Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Manufacturing</td>
<td>$319 M</td>
<td>720</td>
</tr>
<tr>
<td>3259</td>
<td>Other Chemical Product and Preparation Manufacturing</td>
<td>$156 M</td>
<td>570</td>
</tr>
<tr>
<td>3261</td>
<td>Plastics Product Manufacturing</td>
<td>$627 M</td>
<td>5,000</td>
</tr>
<tr>
<td>3262</td>
<td>Rubber Product Manufacturing</td>
<td>$234 M</td>
<td>2,070</td>
</tr>
<tr>
<td>3315</td>
<td>Foundries</td>
<td>$155 M</td>
<td>1,140</td>
</tr>
<tr>
<td>3322</td>
<td>Cutlery and Handtool Manufacturing</td>
<td>$40 M</td>
<td>340</td>
</tr>
<tr>
<td>3327</td>
<td>Machine Shops; Turned Product; and Screw, Nut, and Bolt Manufacturing</td>
<td>$232 M</td>
<td>1,710</td>
</tr>
<tr>
<td>3332</td>
<td>Industrial Machinery Manufacturing</td>
<td>$159 M</td>
<td>1,300</td>
</tr>
<tr>
<td>3335</td>
<td>Metalworking Machinery Manufacturing</td>
<td>$135 M</td>
<td>1,650</td>
</tr>
<tr>
<td>4235</td>
<td>Metal and Mineral (except Petroleum) Merchant Wholesalers</td>
<td>$167 M</td>
<td>1,150</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$2,885 M</strong></td>
<td><strong>18,300</strong></td>
<td></td>
</tr>
</tbody>
</table>
GROWING LEGACY MANUFACTURING GRID: INDUSTRY DYNAMICS, PRODUCTIVITY, AND SPECIALIZATION

Change in GDP Location Quotient (2013 - 2017)

Source: Moody’s Analytics

% Change in Productivity (2013 - 2017)

Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments Mfg
Other Chemical Product and Preparation Mfg
Foundries
Machine Shops; Turned Product; and Screw, Nut, and Bolt Mfg
Plastics Product Mfg
Rubber Product Mfg
Metalworking Machinery Mfg
Metal and Mineral (except Petroleum) Merchant Wholesalers
Cutlery and Handtool Mfg
Industrial Machinery Mfg

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THE GEORGE GUND FOUNDATION
OIL & GAS GRID

- Fast-growing, emerging economic base: Double-digit growth in output (26% from 2013 to 2017) & growing specialization
- Needs to increase in size and scale to impact overall regional performance
- One of the highest employment multipliers – supply chain; high wages in the supply chain companies – chemical and steel

### Industries in the Akron MSA Oil & Gas GRID

<table>
<thead>
<tr>
<th>NAICS</th>
<th>Industry</th>
<th>2017 Output</th>
<th>2017 Emp</th>
</tr>
</thead>
<tbody>
<tr>
<td>2111</td>
<td>Oil and Gas Extraction</td>
<td>$557 M</td>
<td>270</td>
</tr>
<tr>
<td>5311</td>
<td>Lessors of Real Estate</td>
<td>$1,231 M</td>
<td>970</td>
</tr>
<tr>
<td>5312</td>
<td>Offices of Real Estate Agents &amp; Brokers</td>
<td>$703 M</td>
<td>410</td>
</tr>
<tr>
<td>5313</td>
<td>Activities Related to Real Estate</td>
<td>$1,081 M</td>
<td>770</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>$3,572 M</strong></td>
<td><strong>2,420</strong></td>
</tr>
</tbody>
</table>

Source: Moody’s Analytics

**Change in GDP Location Quotient (2013 - 2017)**

- **0%** = 2017 Emp (growing)
- **0%** = 2017 Emp (declining)
TAKEAWAYS

• Our economy is re-balancing its structure to be less concentrated in manufacturing, which can better protect it from recessionary pressures in the manufacturing sector
  • In 2017, manufacturing was only 13% in NEO (down from 1/3 in 1970)
  • NEO still had 4% more manufacturing employment than the U.S.: 13% vs. 9%
  • U.S. had 12% higher productivity in manufacturing than NEO
  • The gap is three times smaller if measured without Computer and Electronic Product Manufacturing sectors

• Services GRID is led by finance, insurance and medical industries; it does not include R&D and has lower than the national productivity
DOMESTIC AND INTERNATIONAL TRADE POLICY

• Summer 2018 saw growing rhetoric from U.S. government officials about increasing tariffs on many foreign-produced products.

• Based on this threat, retaliatory tariffs from China, the European Union, and Canada were announced which may significantly impact manufacturing industries in NEO.

• While global and national policies are outside of local control, it is essential for regional economic development strategies to be responsive to global influences and risks.
MONITORING REGIONAL GROWTH PORTFOLIO STRATEGIES

Northeast Ohio Front Runners: Groups of Regional Industry Drivers (GRIDs)
• Full Report - https://engagedscholarship.csuohio.edu/urban_facpub/1585/
• Research Brief- https://engagedscholarship.csuohio.edu/urban_facpub/1594/

Local Front Runners: Local Front Runners: GRIDs in the 4 Northeast Ohio Metropolitan Areas
• Full Report - https://engagedscholarship.csuohio.edu/urban_facpub/1609/

Good Jobs: Employment and Wages in GRIDs
• Coming Soon

Other Publications:
https://engagedscholarship.csuohio.edu/urban_cecde/