NEO GRIDs Performance in 2020

Iryna Demko  
*Cleveland State University, i.demko@csuohio.edu*

Merissa Piazza  
*Cleveland State University, m.c.piazza83@csuohio.edu*

Iryna Lendel  
*Cleveland State University, i.lendel@csuohio.edu*

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The Center for Economic Development identified 33 driver industries in the 2019 report titled “Northeast Ohio Front Runners: Groups of Regional Industry Drivers (GRIDs).” GRIDs are wealth-creating industries that pay high wages, have a robust regional specialization, and contribute to the economy through regional supply chains. However, in this year alone, the U.S. and Ohio economies have seen a trade war with China, retaliatory tariffs on U.S. goods, the collapse of oil prices, and mandatory business closings due to the COVID-19 pandemic. These events contributed to the already ongoing cyclical repression, and impacted the wealth creation of Northeast Ohio’s (NEO) GRIDs. This research brief represents an update on the consequences of COVID-19 on GRIDs, specifically the Professional Services, Growing Legacy Manufacturing, and Oil and Gas GRIDs, to investigate what factors allowed for some industries to grow while others experienced a considerable downturn.

Overview
While the employment and output of the Professional Services, Growing Legacy Manufacturing, and Oil and Gas GRIDs were negatively affected by the COVID-19 pandemic to varying degrees (Table 1), the impact on these GRID industries was lower than all other NEO industries due to multiple factors:

- The Professional Services GRID played an essential role in NEO’s economy during COVID-19 closures; in particular, General Medical and Surgical Hospitals since they directly addressed the public health emergency.
- The Growing Legacy Manufacturing GRID adapted to produce Personal Protective Equipment (PPE), demonstrating the resiliency of their business models.
- Some industries in the Professional Services GRID successfully operated remotely during stay-at-home orders because they restructured their operational models.

Meanwhile, non-GRIDs, population-serving industries, and non-restructured manufacturing companies experienced a greater negative impact due to:

- An inability to conduct business activities remotely when federal guidance and state requirements mandated closing non-essential business and operations.
- COVID-19 exacerbating already weak performance.
- Changing consumer behaviors, particularly when it came to purchasing cars and large appliances.

### Table 1. GRIDs Economy Performance in 2020

<table>
<thead>
<tr>
<th>2019 OUTPUT</th>
<th>2020 Projected Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018 Change</td>
<td>2020 Projected Loss</td>
</tr>
<tr>
<td>▲ 0.3%</td>
<td>▲ $60.2 billion</td>
</tr>
<tr>
<td>▲ 0.5%</td>
<td>▲ $21.0 billion</td>
</tr>
<tr>
<td>▲ 0.8%</td>
<td>▲ $5.9 billion</td>
</tr>
<tr>
<td>▲ 0.4%</td>
<td>▲ $87.0 billion</td>
</tr>
<tr>
<td>TOTAL GRIDs</td>
<td>▲ $247.3 billion</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2019 EMPLOYMENT</th>
<th>2020 Projected Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018 Change</td>
<td>2020 Projected Loss</td>
</tr>
<tr>
<td>▲ 1.1%</td>
<td>▲ 250,291 jobs</td>
</tr>
<tr>
<td>▲ 0.5%</td>
<td>▲ 110,238 jobs</td>
</tr>
<tr>
<td>▲ 0.3%</td>
<td>▲ 3,331 jobs</td>
</tr>
<tr>
<td>▲ 0.4%</td>
<td>▲ 363,860 jobs</td>
</tr>
<tr>
<td>TOTAL GRIDs</td>
<td>▲ 2,074,329 jobs</td>
</tr>
</tbody>
</table>

Sources: Moody’s Analytics for pre-COVID Employment and Output; McKinsey Vulnerable Jobs tool for Ohio for Projected Employment Lost; IMPLAN Direct Effects of Value-Added from the NEO Model for Projected Output Loss; Center for Economic Development.

The **Professional Services GRID** is the most impactful NEO GRID, as it represents 69% of GRID employment and 70% of the total output. In 2019, output and employment of all ten industries in the Professional Services GRID increased, especially in General Medical and Surgical Hospitals and Insurance Carriers, Agencies, Brokerages, and Other Insurance-Related Activities. General Medical and Surgical Hospitals experienced the most significant rise in output (+5%) and employment (+2%) in this GRID. Insurance companies also showed substantial output growth (+5%), but employment remained almost unchanged.

Moreover, during the 2020 pandemic, the Professional Services GRID has had the lowest level of job and output loss among all other industries (including Non-GRIDs), which is attributable to these industries’ ability to work remotely and retain their workforce during Stay-At-Home orders (Table 2). The COVID-19 pandemic will continue to cause a high demand in the General Medical and Surgical Hospitals industry. In fact, since March 2020, the healthcare sector has accounted for the highest share of new job postings in Northeast Ohio with openings for registered nurses, respiratory therapists, clinical pharmacy residents, and patient care assistants to provide medical care for COVID-19 patients. Additionally, Cleveland Clinic has partnered with United Airlines and Clorox to enhance air travel safety and to provide advice on cleaning and disinfection protocols. Finally, $11.6 million of the Coronavirus Aid, Relief, and Economic Security (CARES) Act funding received by NEO hospitals established telehealth programs, likely increasing efficiency and accelerating labor productivity.

Another **Professional Services GRID** experiencing growth is the Wholesale Electronic Markets and Agents and Brokers sector. Employment in these industries is growing as Amazon continues to hire warehouse workers to assist with the increase in online deliveries. The company is expanding its presence in Northeast Ohio by building three new delivery stations in Cleveland, Bedford Heights, and Glenwillow. As a result of this investment, new full-time and part-time jobs will be created that include a $15 per hour minimum wage and competitive benefits packages.

### Growing Legacy Manufacturing GRID

In 2019, many industries in the Growing Legacy Manufacturing GRID experienced a decline in output and employment. While this GRID represents a much smaller proportion of output and employment, it was also more profoundly affected by the COVID-19 pandemic, losing 18% of its workforce (almost 20,000 jobs) and 16% in output ($3.4 billion). This drop is particularly unfortunate given that Growing Legacy Manufacturing was experiencing growth prior to the pandemic.

The Raw Steel Industry (Iron and Steel Mills, Ferroalloy Manufacturing, and Steel Product Manufacturing from Purchased Steel) has been affected the most because of decreased demand for automobiles and large appliances. Consequently, many of the steel industry’s customers closed their operations due to Stay-At-Home orders. Despite re-openings, business conditions continue to be depressed, with no significant improvement in demand for steel products. Companies responded to this downturn in various ways. TimkenSteel implemented unpaid rolling furloughs for 80% of salaried employees. Meanwhile, U.S. Steel permanently closed its Lorain Tubular Opera-

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### Table 2. GRIDs Resiliency to Social Distancing Measures

<table>
<thead>
<tr>
<th>NEO GRIDs Name</th>
<th>Vulnerable Jobs During Stay-at-Home Order</th>
<th>Estimated Percentage of Lost Jobs After Re-Opening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Services GRID</td>
<td>24%</td>
<td>5%</td>
</tr>
<tr>
<td>Growing Legacy Manufacturing GRID</td>
<td>47%</td>
<td>19%</td>
</tr>
<tr>
<td>Oil and Gas GRID</td>
<td>48%</td>
<td>32%</td>
</tr>
</tbody>
</table>

Note: Weighted by each industry’s employment in corresponding GRID

Sources: Moody’s Analytics for “Employment”; McKinsey’s “Vulnerable Jobs Tool for Ohio”; Center for Economic Development

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5 Based on data from the Greater Cleveland Partnership, OhioMeansjobs (https://jobseeker.ohiomeansjobs.monster.com/), and “Ohio Department Job and Family Services, Development Service Agency” (https://jobsearch.ohio.gov/) job search websites.
Oil and Gas GRID

In 2019, employment in the Oil and Gas GRID increased by 3%, mostly in the Oil and Gas Extraction industry. On April 20th, 2020, the oil price turned negative for the first time in U.S. history when traders paid buyers to remove them of the obligation to deliver oil. Negative oil prices occur when the price of oil is below production costs. In April, oil prices dropped due to a surplus of oil production and lack of storage capacity, combined with inadvertent benefits of an oil price war between Saudi Arabia and Russia. In 2020, oil prices will continue to be low, resulting in employment and production losses, especially in extraction industries. As a result, production costs for downstream oil, gas, and petrochemicals will decrease, and consumers will benefit from lower oil and gas prices.

In oil and gas extraction, 48% of all jobs are vulnerable to social distancing measures. Of the three GRIDs in NEO, the Oil and Gas GRID will see the greatest negative impact on employment and output due to the COVID-19 pandemic with a 26% decline in employment (nearly 900 jobs) and a 24% drop in output ($1.4 billion).

Final Thoughts

Based on our analysis, the NEO region may lose 10% of its total output ($25 billion) and 15% of all employment (317,000 jobs) in 2020. Direct financial assistance to the NEO region from the CARES Act, the Federal Reserve’s Main Street Lending Program, and JobsOhio’s loan programs aim to protect labor income, preserve jobs in industries adversely impacted by the spread of COVID-19, and put the economy in a better position to recover. Given that NEO’s GRIDs have accounted for 363,860 jobs and $87 billion in total output, continued growth in the Professional Services GRID may help offset some of the losses in other industries. Ultimately, industries able to adapt to remote business activities are prone to a faster recovery from the first and consequent waves of COVID-19, and reshoring could result in a substantial increase in manufacturing employment for the first time in decades.

Please share your comments with
Dr. Iryna Demko at i.demko@csuohio.edu

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14 Based on the Average RPC from the Social Accounting Matrix in the 2018 IMPLAN NEO Model.