Extension Area 11: Economic Overview
Darke, Mercer, Miami, Preble and Shelby Counties

Report prepared September 2022 by Nancy Bowen, Associate Professor, OSU Extension Community Development

Regional Overview

OSU Extension Area 11 is a five-county area in the far west part of the state, including Darke, Mercer, Miami, Preble, and Shelby counties. In 2020, the combined Area 11 footprint is 2,304 square miles (mi²) supporting a population of 290,893 residents and an overall population density of 126 residents per square mile. Population density is a ratio of total population to total land area, simply described as a count of residents per square mile. As illustrated in Image 1, Miami County has the highest population density of 265.7, followed by Shelby County with a population density of 118.8, while Darke, Mercer, and Preble counties ranged between 85.9 to 96.7 residents per square mile.

Overall, the combined population in Area 11 has increased only slightly by 2.4%, from 284,031 in 2001 to a total population of 290,893 in 2020. However, there were some notable differences in the population trends of individual counties between 2001 and 2020. Miami County experienced the greatest amount of growth as the population increased by 8.9% from 99,351 in 2001 to 108,157 in 2020. In contrast, two other counties, Mercer and Shelby, grew by only 1.5% and 0.9% respectively. Mercer County from 40,899 in 2001 to 41,520 in 2020 and Shelby County from 48,183 in 2001 to 48,625 in 2020. During this same period, two other counties decreased in population. Darke County experienced a decrease of 3% from 53,078 in 2001 to a total of 51,510 in 2020, and Preble County decreased by 3.4% from 42,520 in 2001 to 41,079 in 2020.
IMPLAN defines the total annual production value of each Industry or Commodity as Output. Total output represents the total production value of an industry including intermediate inputs, employee compensation, proprietor income, taxes on production and imports, and other property income.

Table 1 below ranks the top 10 industries in Area 12 by total output in 2020. Owner-occupied dwellings had the greatest total output at $1.17 billion. This sector also ranked 2nd in the 2019 Area Report. The owner-occupied dwellings sector represents the wealth generated from home ownership. Owning and maintaining a home is also a major area of spending and the owner-occupied dwellings sector captures that economic effect. However, there is no employment or labor income generated in the owner-occupied dwellings sector, as the employment positions such as property managers and real estate agents is captured in the other real estate sector.

Motor vehicle gasoline engine and engine parts manufacturing was the second highest ranked industry in 2020 with a total output of $1.1 billion, supporting 1,764 jobs, and an average employee compensation of $107,546. When comparing 2020 to 2019, the data shows the motor vehicle gasoline engine and engine parts manufacturing industry experienced an 8% decrease in total output and a reduction in total employment from 1,839 in 2019 to 1,764 jobs in 2020, or by 75 jobs. The air conditioning, refrigeration, and warm air heating equipment manufacturing industry ranked #3 in total output in both 2019 and 2020. The industry had an output of $909 million in 2019 and $785 million in 2020, a decrease of $124 million and 249 jobs.

Of the top 10 industries by total output, the sector with the most employees in the region was employment and payroll of local government and education with 6,817 employees. The average annual income for these workers was $71,798 per year.

### Table 1: Area 11 Top 10 Industries by Total Output

<table>
<thead>
<tr>
<th>Industry Description</th>
<th>Output</th>
<th>Employment</th>
<th>Average Employee Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner-occupied dwellings</td>
<td>$1,169,646,603</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Motor vehicle gasoline engine and engine parts manufacturing</td>
<td>$1,091,387,120</td>
<td>1,764</td>
<td>$107,546</td>
</tr>
<tr>
<td>Air conditioning, refrigeration, and warm air heating equipment manufacturing</td>
<td>$784,845,828</td>
<td>1,887</td>
<td>$95,095</td>
</tr>
<tr>
<td>Truck transportation</td>
<td>$740,454,148</td>
<td>4,417</td>
<td>$71,113</td>
</tr>
<tr>
<td>Other motor vehicle parts manufacturing</td>
<td>$722,665,725</td>
<td>1,554</td>
<td>$76,277</td>
</tr>
<tr>
<td>Other real estate</td>
<td>$641,574,477</td>
<td>4,412</td>
<td>$39,832</td>
</tr>
<tr>
<td>Monetary authorities and depository credit intermediation</td>
<td>$588,302,955</td>
<td>1,274</td>
<td>$64,886</td>
</tr>
<tr>
<td>* Employment and payroll of local govt, education</td>
<td>$561,945,115</td>
<td>6,817</td>
<td>$71,798</td>
</tr>
<tr>
<td>Other animal food manufacturing</td>
<td>$467,096,977</td>
<td>458</td>
<td>$63,815</td>
</tr>
<tr>
<td>Small electrical appliance manufacturing</td>
<td>$464,472,966</td>
<td>842</td>
<td>$69,247</td>
</tr>
</tbody>
</table>
Area 11 Annual Employment Trends

The Total Employment figure reported by IMPLAN represents a full and part-time annual average including the self-employed, all federal, state, and local government employment and military employment (including overseas military).

Chart 1 provides a visual reference of the Area 11 annual employment trends between 2001 and 2020. As shown in the chart, Area 11 experienced slight overall growth of 2.1%, with a notable drop off in growth between 2008-2011 when the U.S. housing market collapsed, stressing global financial markets, and ultimately triggering the U.S. economy into a period of recession. From 2011 through 2018, employment in Area 11 increased year to year, reaching a peak of 164,428 jobs in 2018. However, between 2018 and 2020 Area 11 experienced a loss of 5,130 jobs, leaving an annual employment of 159,299 in 2020.

When considering the long-term employment trends by county, Mercer County saw the greatest growth in total employment of 25.6%, increasing from 21,615 in 2001 to 27,140 in 2020. Similarly, Preble County’s total employment increased by 12.1%, from 31,337 jobs in 2001 to 35,134 in 2020. During the same period (2001–2020) the other three of the counties in Area 11 experienced a decline in total employment including Darke County (-3.6%), Shelby County (-1.9%), and Miami County (-0.2%).

Chart 1: Area 11 Annual Employment

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**Miami County, Ohio**

**Shelby County, Ohio**

**Darke County, Ohio**

**Mercer County, Ohio**

**Preble County, Ohio**
A location quotient (LQ) is a metric that compares the relative concentration of a local region's workers in a specific industry sector to the concentration of workers nationally in the same sector. An LQ equal to 1 signifies that the local share is equal to the national share, while an LQ greater than 1 means the local share is greater than the national share and is typically an exporter or perhaps has a specialization in that sector. Where there is an occupational concentration, there also tends to be higher core competencies relative to other areas, creating a competitive advantage. In addition, training and education opportunities associated with the occupation are often readily available to meet hiring demands.

Illustrated above, Chart 2 lists the top 15 occupations with the highest LQ in Area 11 demonstrating a significant concentration of workers relative to the nation. In 2020, the top occupation by LQ in Area 11 was metal and plastic workers, with an LQ of 4.60. This suggests the region has almost five times the number of metal and plastic workers compared to the national average. The second highest occupation by LQ in Area 11 was assemblers and fabricators at 4.00, followed by printing workers with an LQ of 3.12, and supervisors of production workers at 2.89.
Image 2 illustrates the average employee compensation by county for 2020. Employee Compensation is the total payroll cost of an employee including wages and salaries, all benefits, and payroll taxes. The average employee compensation is calculated as Employee Compensation divided by wage and salary Employment.

Of the counties in Area 11, Shelby County had the highest average employee compensation of $66,990, ranking mid-range among other Ohio counties. The next highest average employee compensation in Area 11 was Auglaize County ($59,510), followed by Miami County ($58,653), Darke County ($54,351), and Mercer County ($54,025).
IMPLAN® model, 2020 Data, using inputs provided by the user and IMPLAN Group LLC, IMPLAN System (data and software), 16905 Northcross Dr., Suite 120, Huntersville, NC 28078 www.IMPLAN.com

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OSU Extension Community Development IMPLAN Team
Nancy Bowen-Ellzey, Associate Professor and Field Specialist (bowen-ellzey.1@osu.edu)
Joe Lucente, Associate Professor, OSU Extension, CD, and Ohio Sea Grant College Program (lucente.6@osu.edu)
Amanda Osborne, Educator, CD, OSU Extension – Cuyahoga County (osborne.414@osu.edu)
Eric Romich, Associate Professor and Field Specialist (romich.2@osu.edu)

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