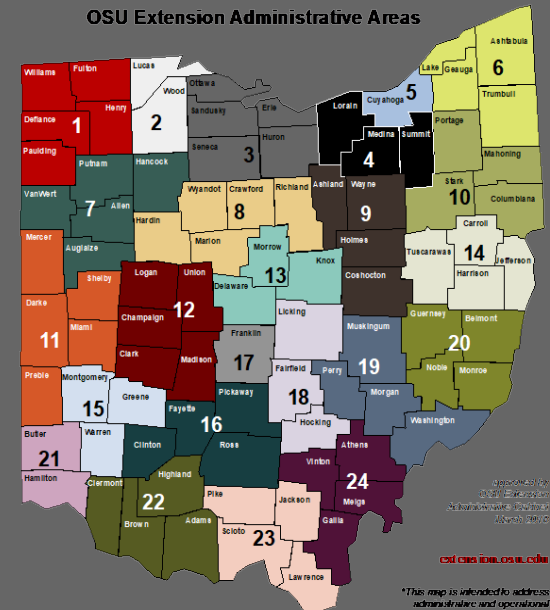


Extension Area Economic Reports (IMPLAN User Team Overview) 8/18/2021

CFAES

OHIO STATE UNIVERSITY EXTENSION

OSU Extension Administrative Areas



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Background and Purpose

- IMPLAN is an economic input-output tool licensed by the CD unit that offers unique data sets for counties and regions in Ohio.
- In addition to Nancy Bowen, the IMPLAN User Team consists of David Civittolo, Eric Romich, Gwynn Stewart, Joe Lucente and Amanda Osborne.
- The team is interested in sharing timely economic reports with Area Leaders and other County staff on county or regional economies.
- The reports will be updated annually or as needed to include relevant economic data and impacts related to demographics, industries, occupations, and the environment.
- Our first output is a report that accesses newly released data to provide insight on unique regional industry and occupational strengths.

Extension Area 11: Economic Overview

Darke, Mercer, Miami, Preble and Shelby Counties

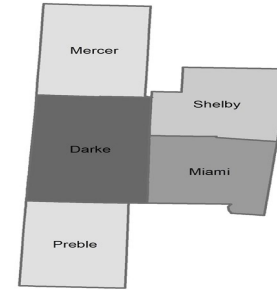
Report prepared by Nancy Bowen, Community Economics Field Specialist, OSU Extension Community Development

Regional Industry Sector Overview

Table 1 below ranks the top 10 industries in Area 11 by total 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. The motor vehicle gasoline engine and engine parts mfg. sector had the greatest total output in the region at \$1.18 billion. This sector has a total employment of 1,839, ranking it fourth among the 10 sectors. It has the highest average employee compensation at \$112k annually.

Owner-occupied dwellings had the second highest total output at \$1.133 billion. 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.

The employment and payroll of local govt, education sector supported the greatest number of jobs by a good margin at 7,163. These are primary teaching positions but include administrative positions, bus drivers and cafeteria workers.



Key Stats

Population 288,744

Total of 354 Industries

Total Employment 163,181

**Gross Domestic Product
\$13.4B**

Table 1: Top 10 Industry Sectors by Total Output

Industry Description	Output	Total Employment	Average Employee Compensation
Motor vehicle gasoline engine and engine parts manufacturing	\$1,178,502,612	1,839	\$111,941
Owner-occupied dwellings	\$1,133,165,854	N/A	N/A
Air conditioning, refrigeration, and warm air heating equipment manufacturing	\$908,835,619	2,136	\$92,863
Other motor vehicle parts manufacturing	\$855,773,541	1,851	\$72,755
Truck transportation	\$716,380,186	4,473	\$67,721
Other real estate	\$688,286,822	4,633	\$42,395
Monetary authorities and depository credit intermediation	\$571,548,257	1,290	\$61,278
* Employment and payroll of local govt, education	\$570,145,429	7,163	\$69,547
Plastics packaging materials and unlaminated film and sheet mfg	\$488,020,304	1,107	\$65,325
Frozen specialties manufacturing	\$463,891,133	1,349	\$56,087



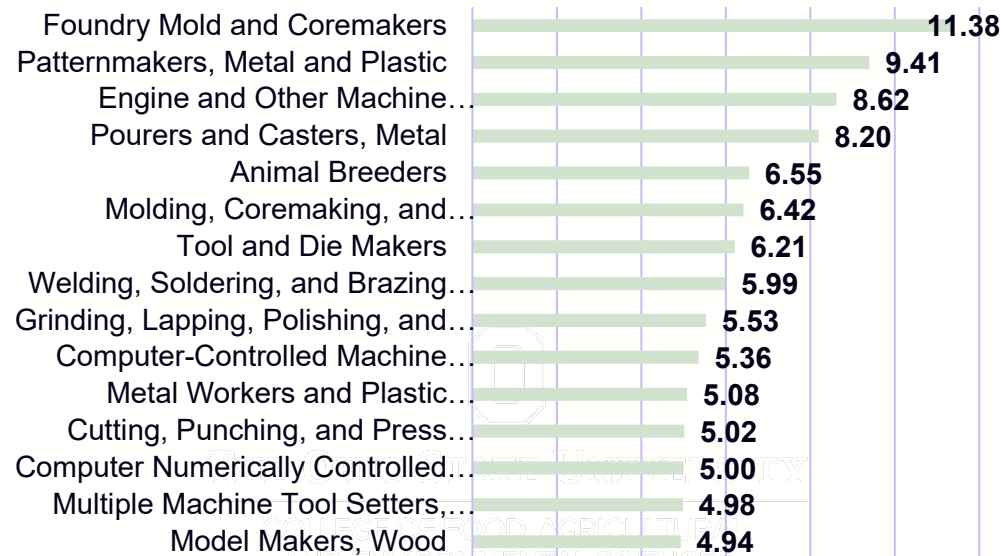
Area 11 Top 15 Occupations by Location Quotient

The chart below ranks the top 15 occupations by location quotient (LQ) in Area 11. An LQ is a measure of the concentration of workers in an industry sector relative to workers nationally in the same sector. An LQ of 1 is equal to the national average, with an LQ of 2 being double the national average. For example, with an LQ of over 11 for foundry mold and coremaker positions, this five-county area has eleven times the number of workers in that occupation than in the average area. This also means that the region has almost 10 times the number of exactly five times the number of computer numerically controlled machine tool operator, metal and plastic positions.

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. Thirteen of the fifteen occupations are situated in the primary metal manufacturing sector primarily engaged in smelting or refining ferrous and nonferrous metals, using electrometallurgical and other process techniques. These occupations are typically highly skilled and align with manufacturing sectors included in the top ten industry sectors listed on page #1, including motor vehicle parts manufacturing and HAVC equipment manufacturing sectors.

The occupation of animal breeder ranks number five in Area 11 with an LQ of 6.55. This is consistent with the area's high concentration of dairy and other livestock farming. The industry continues to grow within Area 11 with the addition in 2019 of MVP Dairy, a 4,500 cow, state-of-the-art dairy that supplies milk to Danone North America, maker of Dannon yogurt.

Chart 1: Occupation Location Quotient



OSU Extension Community Development Mission:

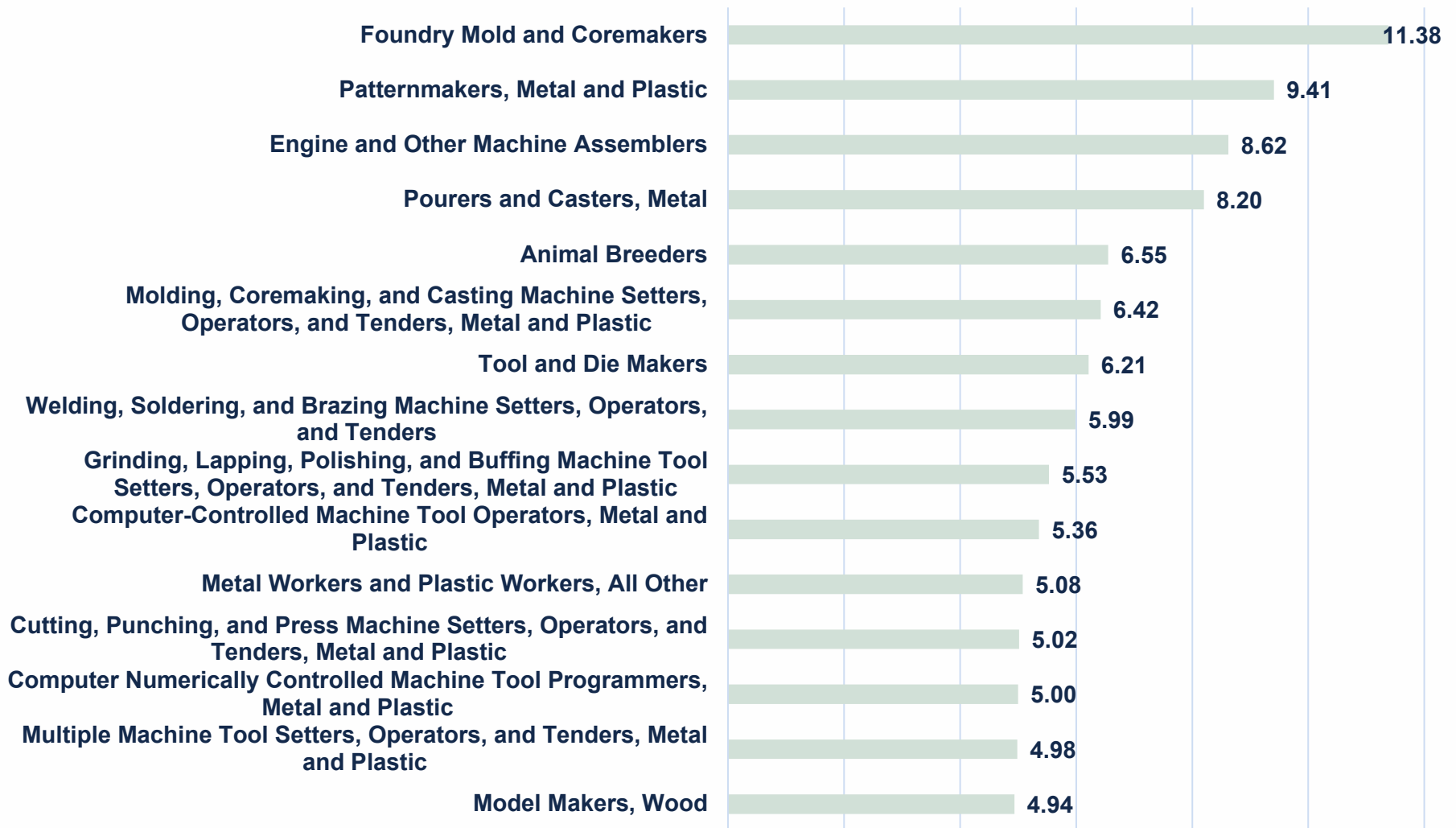
We help communities enhance their well-being and create social, economic and environmental conditions in which they can thrive.

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What is Output?

- Output is the value of production by industry in a calendar year. It can also be described as total sales.
- When looking at the contribution of industries in a region, output is a better indicator than employment because it considers the flow of revenue throughout the economy, positively impacting other businesses and the overall economy.
- In region 11, motor vehicle gasoline engine and engine parts manufacturing tops the list with the greatest output. Average wages are also highest, at almost 112k annually.
- Owner-occupied dwellings is second highest. This sector represents the wealth generated from home ownership, including property tax and ongoing maintenance. No jobs are associated with this sector.

Chart 1: Occupation Location Quotient



What is Location Quotient?

- LQ is a measure that is used to assess the concentration of an industry or occupation in a geographic area.
- An LQ of 1.00 indicates that the concentration of a particular occupation or industry in a locale is identical to the concentration in the U.S. as a whole.
- If an LQ exceeds 1.50, the occupation is considered significantly concentrated relative to the nation.
- For region 11, there is a large number of occupations that have LQ's well above average. Foundry mold and coremakers tops the list with an LQ of over 11, an unusually strong concentration suggesting a cluster of similar businesses supporting this occupation.
- This would explain the high output related to related to metalworking and machinery manufacturing, i.e. engine and engine parts and motor parts manufacturing. It is apparent there is a cluster of automotive parts related manufacturing businesses in region 11.

What is a Cluster?



A geographic concentration of interdependent, collaborating and/or competing businesses and related institutions that draw productive advantage from their mutual proximity and connections...



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Examples of Clusters

Wisconsin has a large energy and power cluster



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So What?

- Knowing your area demographics helps you better define your region/area. Population 288,744, total employment of 163,181, number of industries of 353 and total output of \$13.5 billion.
- Understanding occupational and industry strengths can help when assisting area leadership connect education and industry needs and to determine new directions for workforce development.
- Area leadership is very interested in understanding more about their economy so they can make informed decisions about programming and strategies. Knowing your industry strengths and possible clusters and sharing this information helps you help them.
- Updated area reports can become part of your repertoire of reporting within the county or region you serve.

Reports answer questions

- What is the economic impact of a new industry or expansion of existing industry?
 - Which other industries are most affected?
- What is the contribution of an existing industry sector, i.e., agriculture, on the overall economy?
- How significant is an industry or occupation in the economy relative to the nation?
- How does a gain or loss of jobs contribute to, or take away from, the local economy?
 - Does the change displace jobs in other industries?

Questions?

Ideas for next report?