Extension Area 21: Economic Overview
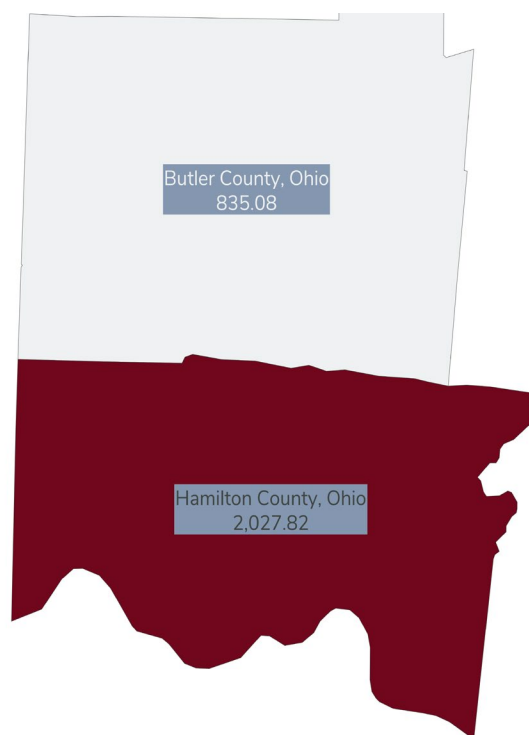
Butler and Hamilton Counties

Winter 2023 Edition

Regional Overview

OSU Extension Area 21 is a two-county area in the south-west part of the state, including Butler and Hamilton counties. In 2021, the combined Area 21 footprint is 874 square miles (mi2) supporting a population of 1,216,373 residents and an overall population density of 1,390 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, Hamilton County has the highest population density of 2,027 followed by Butler County with a population density of 835 residents per square mile.

Overall, the combined population in Area 21 has remained consistent increasing slightly by 3.8% from 1,171,567 in 2002 to a total population of 1,216,373509 in 2021. However, there were some notable shifts in the population trends of individual counties between 2002 and 2021. Butler County experienced the greatest amount of growth as the population increased by 14.8% from 339,828 in 2002 to 390,234 in 2021. During this period, Hamilton County underwent a population decrease of less than 1% to a total of 826,139 in 2021. Hamilton County is the third largest county by population in Ohio while Butler County is the seventh largest county by population.

Image 1: OSU Extension Area 21 Population Density

Butler County, Ohio
835.08

Hamilton County, Ohio
2,027.82

Key Stats

Population 1,216,373

Total of 434 Industries

Total Employment of 842,173

Gross Domestic Product $115.52B

Data retrieved from IMPLAN
(2021 data)

Regional Industry Sector Overview

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 21 by total output in 2021. Monetary authorities and depository credit intermediation was the highest ranked industry with a total output of $12.22 billion, supporting 13,783 jobs, and an average employee compensation of $110,704. However, when comparing 2021 to 2020, the data

shows the monetary authorities and depository credit intermediation industry experienced a 23.4% increase in total output and a decrease in total employment from 14,000 in 2020 to 13,783 jobs in 2021.

It is interesting to note that in 2019, the top total output industry in Area 21 was aircraft engine and engine parts manufacturing with $9.35 billion in total output. In 2021, this industry fell to sixth place in terms of total output in at $6.22 billion, a decrease of -33.4%.

The industry with the second highest total output in Area 21 was insurance carriers, except direct life

with a total output of $9.25 billion, supporting 13,026 jobs, and an average employee compensation of $111,238 per year.

The third highest industry by total output was the hospitals industry with total output of $8.04 billion, supporting 43,046 jobs, and an average employee compensation of $83,107 per year.

Of the top 10 industries by total output, the sector with the most employees in the region was again hospitals with 43,046 employees.

Table 1: Area 21 Top 10 Industries by Total Output

Industry Description	Output	Total Employment	Average Employee Compensation
Monetary authorities and depository credit intermediation	$12,222,491,612	13,783	$110,704
Insurance carriers, except direct life	$9,250,207,454	13,026	$111,238
Hospitals	$8,040,789,851	43,046	$83,107
Management of companies and enterprises	$7,690,686,215	28,095	$156,875
Soap and other detergent manufacturing	$7,524,856,958	3,002	$405,009
Aircraft engine and engine parts manufacturing	$6,228,885,879	8,598	$158,837
Other real estate	$5,870,741,303	25,685	$80,936
Owner-occupied dwellings	$5,803,822,124	N/A	N/A
Employment services	$3,071,710,748	24,876	$57,913
Offices of physicians	$3,059,798,768	17,688	$150,505

Area 21 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 21 annual employment trends between 2001 and 2021. As shown in the chart, Area 21 experienced consistent growth between 2002 and 2008 when the U.S. housing market collapsed, stressing global financial markets, and ultimately triggering the U.S.
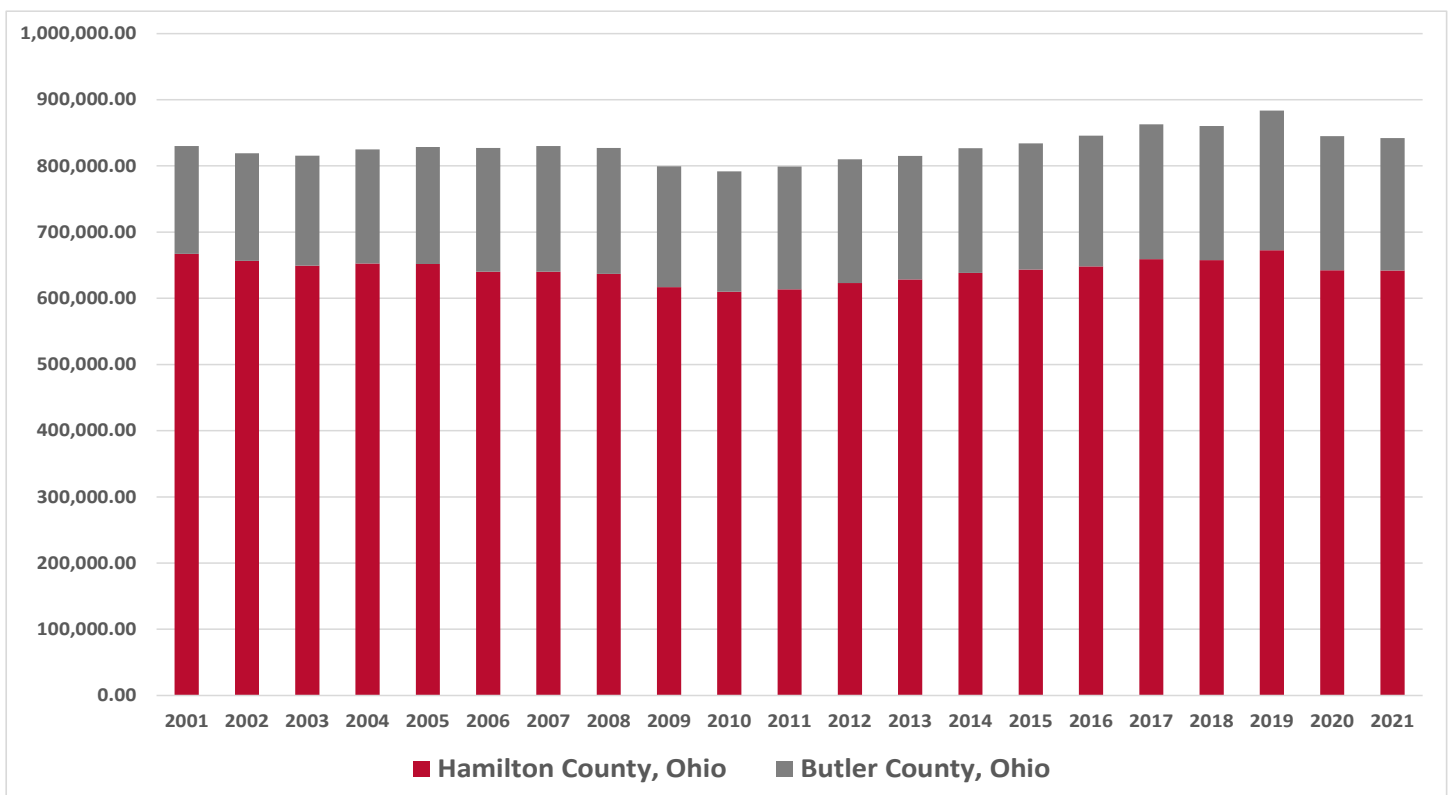
economy into a period of recession. Since 2010 annual employment in Area 21 increased by 6.4% reaching a peak employment of 883,715 jobs in 2019. However, between 2020 and 2021 Area 21 experienced year to year job loss, losing 2,958 jobs, leaving an annual employment of 842,173 in 2021.

When considering the long-term employment trends by county, Butler County saw the greatest growth in total employment of 22.8%, increasing from 162,995 in 2001 to 200,148 in 2021.

"Year-to-year, Area 21 total employment is down 2,958 jobs in 2021"

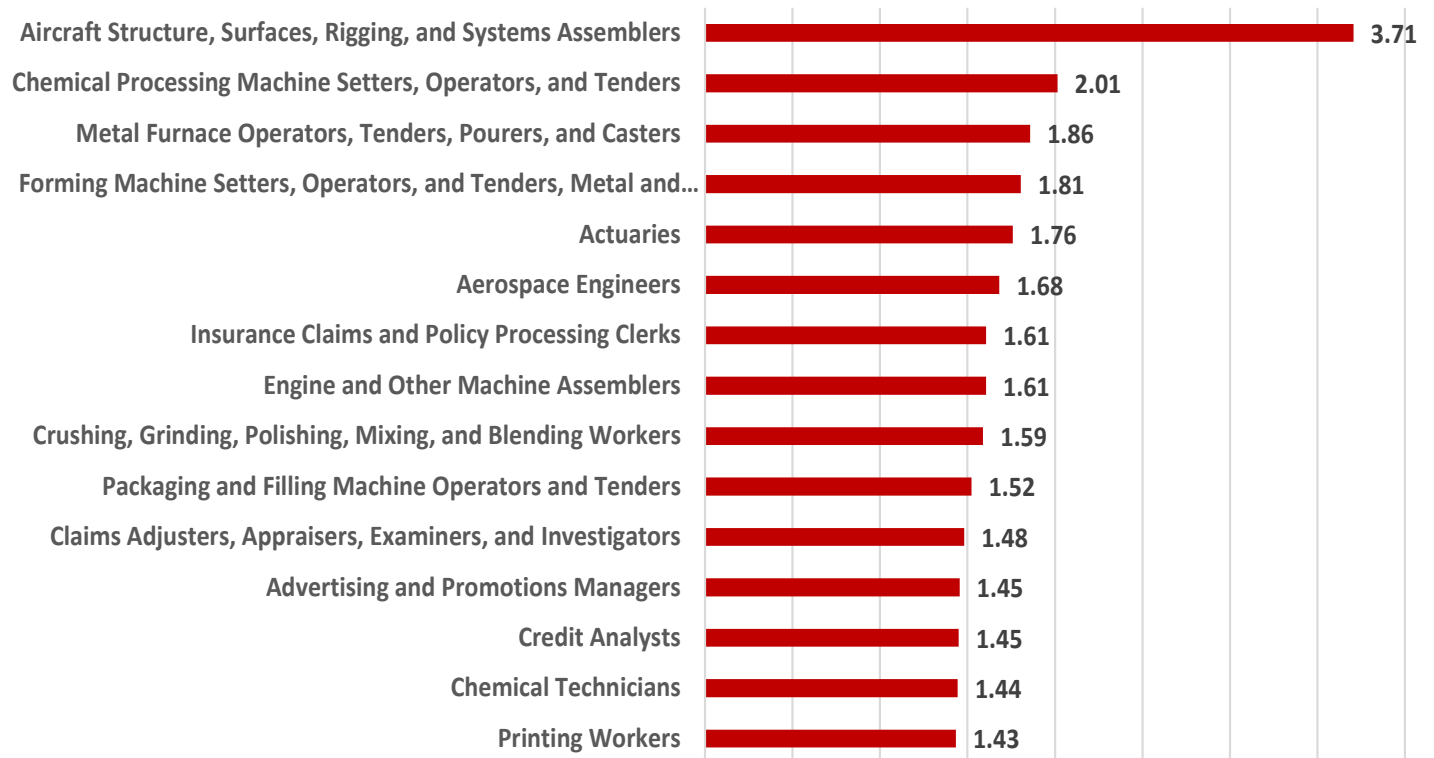Hamilton County total employment decreased by -3.8%, from 667,030 jobs in 2001 to 642,025 in 2021.

Chart 1: Area 21 Annual Employment

Chart showing Area 21 Annual Employment for Hamilton County, Ohio and Butler County, Ohio from 2001 to 2021.

Top 15 Occupations by Location Quotient

Chart 2: Occupation Location Quotient

Occupation	LQ
Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	3.71
Chemical Processing Machine Setters, Operators, and Tenders	2.01
Metal Furnace Operators, Tenders, Pourers, and Casters	1.86
Forming Machine Setters, Operators, and Tenders, Metal and…	1.81
Actuaries	1.76
Aerospace Engineers	1.68
Insurance Claims and Policy Processing Clerks	1.61
Engine and Other Machine Assemblers	1.61
Crushing, Grinding, Polishing, Mixing, and Blending Workers	1.59
Packaging and Filling Machine Operators and Tenders	1.52
Claims Adjusters, Appraisers, Examiners, and Investigators	1.48
Advertising and Promotions Managers	1.45
Credit Analysts	1.45
Chemical Technicians	1.44
Printing Workers	1.43

A location quotient (LQ) is a metric that compares the relative concentration of a local regions 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 21 demonstrating a significant concentration of workers relative to the nation. In 2021, the top occupation by LQ in Area 21 was aircraft structure, surfaces, rigging and systems assemblers with an LQ of 3.71. This suggests the region has nearly four times the number of these workers compared to the national average. The second highest occupation by LQ in Area 21 was chemical processing machine setters, operators and tenders at 2.01, followed by metal furnace operators, tenders, pourers and casters with an LQ of 1.86, and forming machine setters, operators, and tenders, metal and plastic workers at 1.81.

Image 2: Average Employee Compensation by County
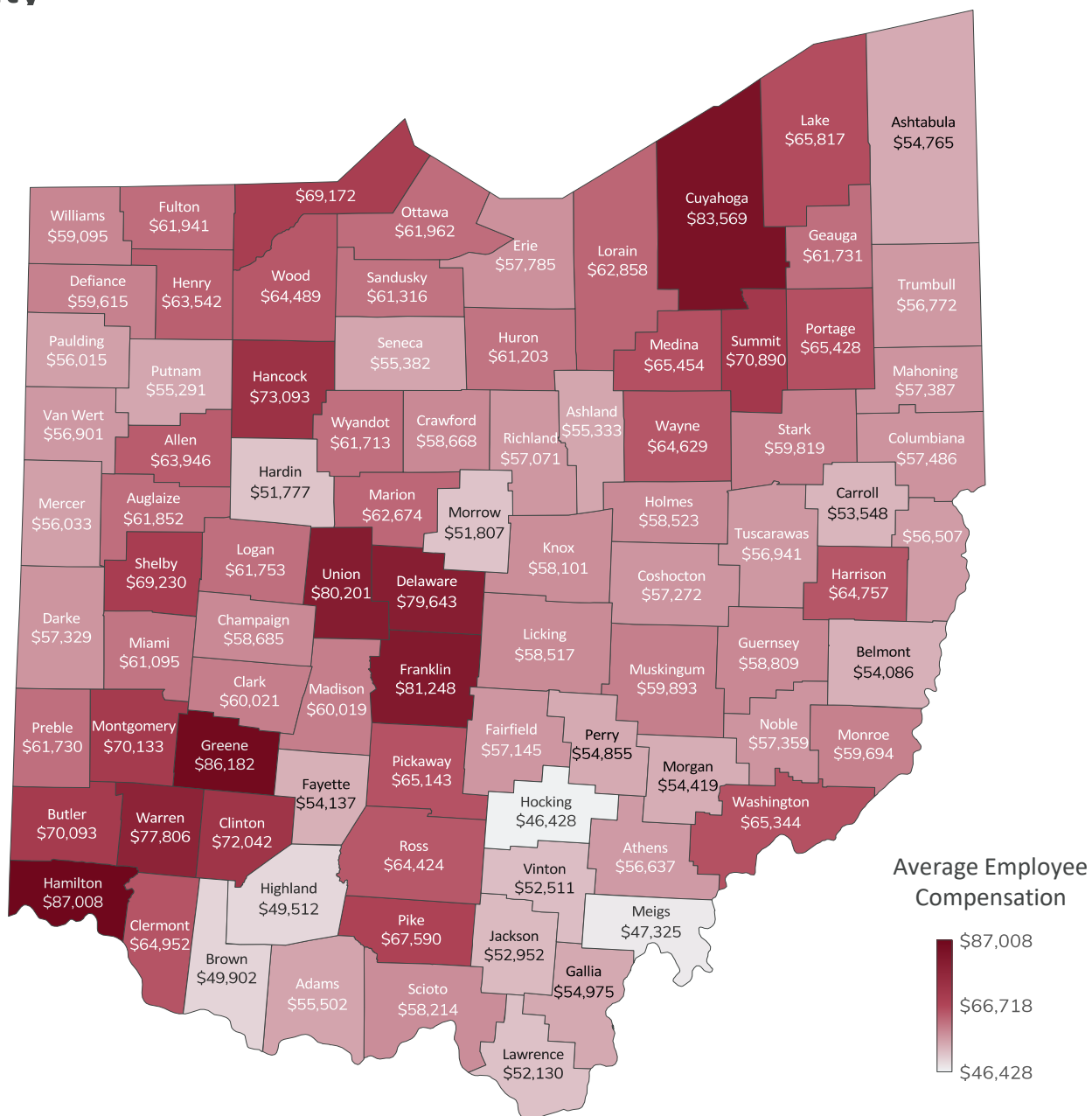
2021 Data and Dollar Year

Image 2 illustrates the average employee compensation by county for 2021. 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 21, Hamilton County had the highest average employee compensation of $87,008, also the highest of all Ohio counties. Butler County's average employee compensation in Area 21 was $70,093 in 2021.

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IMPLAN® model, 2021 Data, using inputs provided by the user and IMPLAN Group LLC. IMPLAN System (data and software). 16905 Northcross Drive, Suite 120, Huntersville, NC, 28078. www.implan.com

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

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