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Economic Vitality Index 2022: Disparate Recovery Across Ohio

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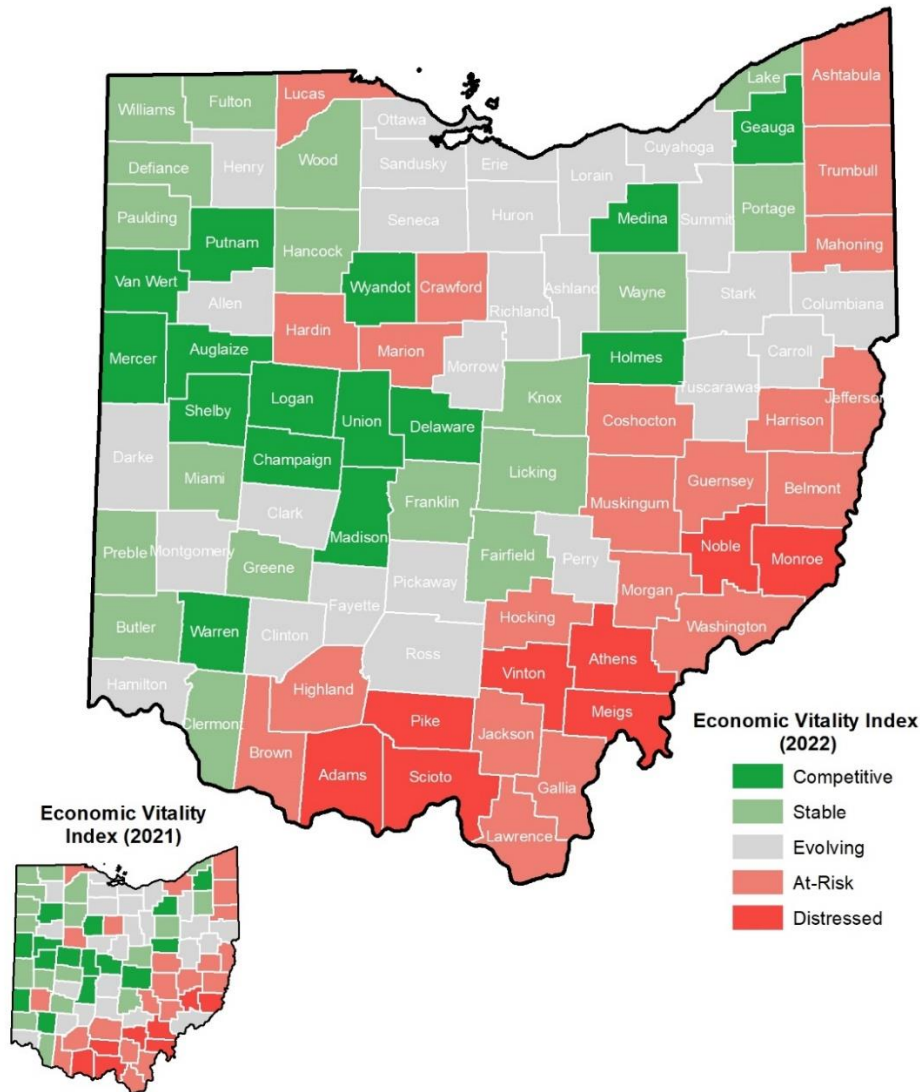


INTRODUCTION

The Center for Economic Development (Center) continues to track the state of the economy in each of the 88 counties in Ohio to provide an ongoing understanding of what areas are lagging and in need of particular policy attention. After establishing the Economic Vitality Index (EVI) baseline using 2019 data, the Center conducted a pandemic analysis with 2020 data and a post-pandemic analysis with 2021 data. These showed that the strong supply chain and investments

made in Ohio were able to keep the economy stable and even promote some growth in certain areas. The **EVI** is a single-factor composite of six variables evaluated through statistical analysis. This iteration of the EVI will examine whether Ohio counties were able to sustain the trend of recovery in 2022. Following the statistical factor analysis, a map displaying each county's EVI score for 2022 was generated, which can be seen in **Figure 1**.¹

Figure 1: Economic Vitality Index score, 2022



¹ Please refer to the above map (or visit <https://arcc.is/1C01qPO>) to view an interactive online map series of the Economic Vitality Index, all six associated variables, and related change-over-time maps that provide additional context.

METHODOLOGY AND VARIABLES

The research team used factor analysis results from 2019 to create the 2022 EVI and maintain the original factor-loading weight from the benchmark results.² Factor analysis is a data-reduction technique that finds commonalities across all selected data and “weights” them by their importance to the factor. The six variables that make up the EVI are assembled from a variety of state and federal sources. These six variables explained 44.9% of the data’s variance. Each variable’s factor loading weight is shown in parentheses.

- **Percent below poverty threshold** (48.9%): Data from the U.S. Census Bureau,³ defined as family units with an annual income before taxes (and not including capital gains or noncash benefits) below federally identified poverty thresholds (e.g., \$14,580 for a single individual or \$27,750 for a household with two adults and two children). (Latest available data: 2022).
- **Unemployment rate** (19.2%): Data from the U.S. Bureau of Labor Statistics,⁴ defined as the total number of unemployed divided by the civilian labor force (all people aged 16 or older either working or looking for work). (Latest available data: 2022)
- **Median household income** (15.0%): Data from the U.S. Census Bureau,⁵ defined as the middle point of the combined income of the householder and all other individuals 15 years and older in the household in the past 12 months. (Latest available data: 2022)
- **Percent employed in select traded industries** (10.7%): The percent of total employed working in one of Ohio’s specialized traded industries, as defined by the U.S. Cluster Mapping Project⁶ and calculated using Moody’s Analytics 4-digit NAICS⁷ employment figures. Specialized traded clusters illustrate each regional economy’s distinct portfolio of strongly performing groups of related industries that serve markets beyond their region; they are the “engines” that drive economic performance. As of 2020, the project outlined 13 such industry clusters in Ohio. (Latest Clusters update: 2020, using 2022 Moody’s data)
- **Change in average annual employment** (4.0%): Data from the U.S. Bureau of Labor Statistics,⁸ comparing 2022 annualized quarterly census data against the same data from 2021. Employment data reports those who worked during or received pay for the 12th day of the month. (Latest available data: 2022)
- **Net real estate taxes charged** (2.2%): Data from the Ohio Department of Taxation,⁹ compiled tax data on real estate and public utility property taxes charged. This data is viewed as a positive variable for this analysis, as property taxes partly support local schools and public programs. (Latest available data: 2022)

² Ellerbrock, M., Whitman, C., Lendel, I., & Piazza, M. (2020). *Economic Vitality Index: Mapping Ohio’s 88 Counties*. Urban Publications.

³ U.S. Census Bureau. (2024). *2017-2022 American Community Survey 5-year estimates; Poverty status in the past 12 months, Table B17001 [Data]*.

⁴ U.S. Bureau of Labor Statistics. (2024). *Local area unemployment statistics, labor force data by county, 2022 [Data]*.

⁵ U.S. Census Bureau. (2024). *2017-2022 American Community Survey 5-year estimates; Selected economic characteristics, Table DP03 [Data]*.

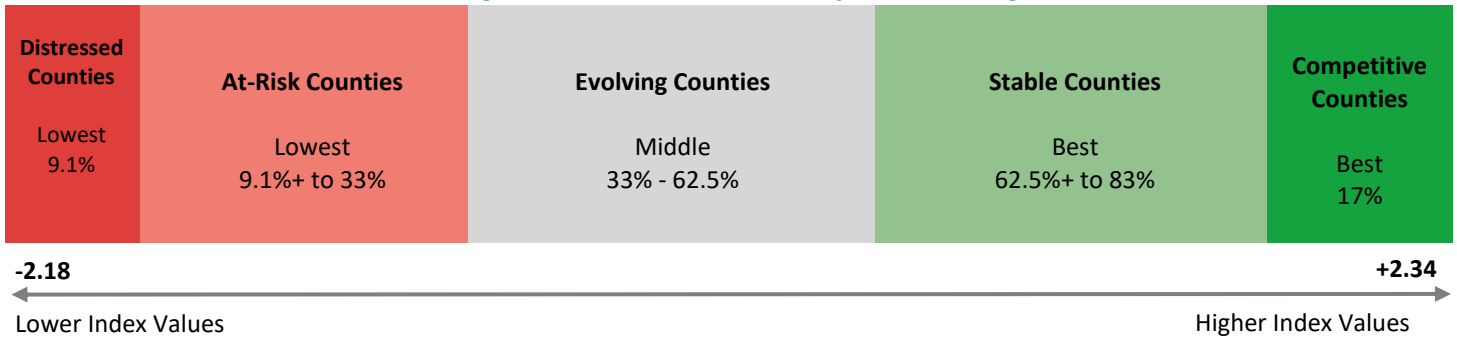
⁶ Institute for Strategy and Competitiveness. (2019). *Ohio | U.S. Cluster Mapping*. Harvard Business School.

⁷ The North American Industry Classification System (NAICS) is the standard used by federal statistical agencies to classify business establishments.

⁸ U.S. Bureau of Labor Statistics. (2024). *Quarterly census of employment and wages [Data]*.

⁹ Ohio Department of Taxation. (2024). *Real estate and public utility property taxes, Table PD23 [Data]*.

Figure 2: Ohio Economic Vitality Index rankings



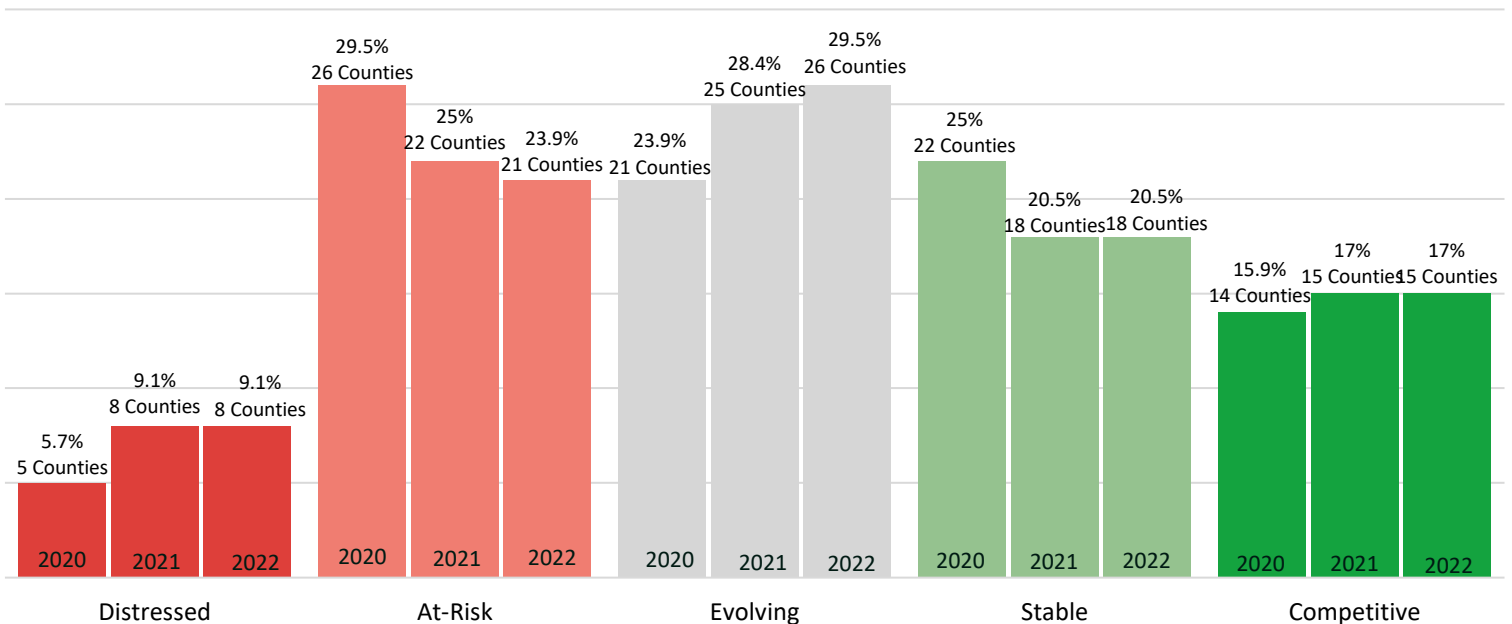
THE CLASSIFICATIONS OF THE EVI

The 2022 EVI ranks from as low as **-2.18** to as high as **+2.34** (a higher positive number indicates a greater economic vitality), and using the five intervals of the 2019 Economic Vitality Index as a consistent benchmark score, the 88 counties were classified from lowest to highest as follows:

- **Distressed counties** have the lowest EVI scores compared to their peers (the bottom eight counties – 9.1%). They often have a high poverty and unemployment rate and low representation in traded industries.
- **At-Risk counties** have a higher EVI score than distressed counties but are below Ohio’s median EVI score, presenting high poverty and unemployment rates. (21 counties – 23.9%).

- **Evolving counties** are at a crossroads in performance; with the right assistance programs in place, they may be able to bring their outlook in line with higher-performing counties (middle 26 counties – 29.5%).
- **Stable counties** have EVI scores above the state median, higher employment in traded industries, and lower poverty rates. (18 counties – 20.5%).
- **Competitive counties** are the top-performing; these counties have overall strong scores for many of the six variables, with low poverty levels and unemployment rates, high median household incomes, and high employment in traded industries (the top 15 counties – 17%).

Figure 3: Ohio Economic Vitality Index histogram (2022)



EVI COMPARISON

The various indicators used to create the EVI fluctuated in different directions during 2022 and because of this, the classification in certain counties changed. The largest category in 2022 was “Evolving” (29.5% - 26 counties), followed by “At-Risk” (23.9% - 21 counties). It is notable that the “At-Risk” category experienced a decline from 2021, while the “Evolving” category increased.

A total of 12 counties had a change in their classification from 2021 to 2022. Five counties were found to transition negatively. Hocking, Marion, and Washington went from “Evolving” in the last two years to “At-Risk.” Licking and Preble transitioned from “Competitive” to “Stable.”

On the positive side, seven counties experienced an upward move. Cuyahoga, Montgomery, Perry, and Ross transitioned from “At-Risk” to “Evolving”; Franklin went from “Evolving” to “Stable”; and Champaign and Van Wert moved from “Stable” to “Competitive.”

Overall, we observe that counties generally continued to shift in both directions, except for those in the “Distressed” category. These eight counties,

representing 9.1% of the total, remained the same as in 2021. As of 2022, the top two categories capture roughly 38% of all counties, while the bottom two categories capture 33%. The most significant shifts continue to be between the “At-Risk” and “Evolving” categories, as we can observe that the “At-Risk” category has continually gotten smaller over the years of the study.

With the United States facing unprecedented inflation levels and increased interest rates, the EVI once again demonstrates the resiliency of Ohio counties. The results from the 2022 EVI show that in particular, urban counties continue along an upward trend of recovery, with Cuyahoga, Franklin and Montgomery counties all transitioning to more positive EVI categories compared to the last couple of years. On the other hand, we can see that the Appalachian counties in Southern Ohio continue to struggle with negative employment and economic trends.

All 88 Ohio counties, their scores across these six variables, and their final Economic Vitality Index score can be seen in **Table 1**.

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Please share your comments with Molly Schnoke at m.s.schnoke@csuohio.edu

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Table 1: Variables and final Ohio Economic Vitality Index score, 2022

County	EVI (2020)	EVI (2021)	EVI (2022)	EVI change (2021-2022)	Below Poverty Threshold	Unemployment Rate	Median Household Income	Employed in Select Traded Industries	Change in Average Annual Employment*	Net Real Estate Taxes Charged
Adams	-1.57	-1.51	-1.71	-0.20	19.6%	5.4%	\$46,234	6.6%	3.2%	\$25,374
Allen	-0.22	-0.37	-0.14	0.22	12.3%	4.2%	\$58,976	17.1%	1.6%	\$128,359
Ashland	0.34	0.22	0.15	-0.07	11.7%	3.8%	\$62,254	18.6%	1.0%	\$82,931
Ashtabula	-0.72	-0.72	-0.58	0.14	18.0%	4.4%	\$53,663	21.6%	2.3%	\$120,909
Athens	-1.79	-1.79	-1.80	-0.01	24.4%	4.8%	\$48,750	5.2%	3.6%	\$79,961
Auglaize	1.36	1.50	1.53	0.03	6.6%	3.1%	\$75,231	32.0%	0.8%	\$55,363
Belmont	-1.16	-0.73	-1.08	-0.34	14.0%	5.2%	\$56,943	4.3%	2.1%	\$113,558
Brown	-0.57	-0.58	-0.59	-0.01	15.9%	4.5%	\$66,677	9.2%	2.0%	\$39,091
Butler	0.91	0.81	0.88	0.07	11.8%	3.5%	\$77,062	24.9%	2.4%	\$582,101
Carroll	-0.38	-0.44	-0.27	0.17	12.2%	4.3%	\$59,872	14.8%	0.2%	\$54,741
Washington	-0.49	-0.44	-0.54	-0.10	14.1%	4.7%	\$59,053	14.3%	2.3%	\$87,674
Clark	-0.32	-0.30	-0.21	0.08	15.6%	4.1%	\$58,954	19.8%	2.3%	\$180,007
Clermont	0.81	0.78	0.90	0.11	8.4%	3.6%	\$79,573	15.4%	3.4%	\$339,795
Clinton	-0.28	-0.23	-0.20	0.04	14.5%	4.4%	\$64,210	17.5%	2.8%	\$48,342
Columbiana	-0.59	-0.49	-0.48	0.01	13.2%	4.6%	\$55,473	17.6%	0.0%	\$117,448
Coshocton	-0.95	-1.10	-1.09	0.02	18.9%	4.9%	\$52,048	15.0%	2.3%	\$40,968
Crawford	-0.57	-0.63	-0.63	0.00	14.1%	4.8%	\$52,486	18.0%	0.8%	\$64,036
Preble	0.98	0.99	0.98	0.00	10.3%	3.4%	\$66,355	28.3%	4.9%	\$44,052
Darke	0.48	0.48	0.26	-0.21	11.0%	3.5%	\$60,237	17.3%	2.0%	\$59,581
Defiance	0.30	0.46	0.33	-0.13	10.5%	3.9%	\$69,302	17.9%	1.1%	\$58,452
Delaware	2.59	2.34	2.34	0.00	4.5%	3.0%	\$123,995	12.3%	4.1%	\$690,453
Erie	-0.75	-0.25	-0.29	-0.03	11.5%	4.9%	\$65,171	14.2%	1.7%	\$152,548
Fairfield	0.75	0.67	0.75	0.08	8.7%	3.5%	\$82,969	9.6%	2.5%	\$294,215
Fayette	-0.33	-0.46	-0.30	0.16	15.8%	3.9%	\$56,773	16.4%	2.4%	\$43,274
Marion	-0.10	-0.24	-0.64	-0.40	16.1%	4.4%	\$55,106	17.9%	-1.0%	\$71,337
Fulton	0.66	0.71	0.64	-0.07	8.5%	4.0%	\$71,453	22.9%	0.5%	\$75,898
Gallia	-0.98	-1.13	-1.13	0.00	17.2%	4.7%	\$55,533	4.5%	2.8%	\$37,406
Geauga	1.73	1.66	1.42	-0.24	5.8%	4.0%	\$97,162	22.6%	1.0%	\$231,288
Greene	0.54	0.35	0.34	0.00	10.6%	3.6%	\$81,243	4.6%	1.5%	\$349,158
Guernsey	-1.02	-0.92	-0.86	0.06	17.0%	4.9%	\$53,901	17.2%	2.0%	\$58,099
Hamilton	-0.12	-0.09	0.13	0.22	14.9%	3.6%	\$68,249	12.0%	2.7%	\$1,668,447
Hancock	0.79	0.70	0.79	0.08	10.5%	3.3%	\$67,006	26.1%	0.4%	\$110,885
Hardin	-0.32	-0.76	-0.79	-0.03	18.2%	4.2%	\$55,876	17.0%	-2.3%	\$32,955
Harrison	-0.91	-0.98	-0.85	0.13	15.4%	4.9%	\$54,056	13.1%	3.0%	\$56,921
Henry	0.46	0.22	0.25	0.03	9.5%	4.5%	\$71,616	17.7%	2.2%	\$55,856
Highland	-0.87	-0.76	-0.56	0.20	14.8%	4.9%	\$60,522	15.7%	3.3%	\$40,109
Licking	1.36	1.19	0.69	-0.50	9.8%	3.4%	\$78,505	20.0%	-4.4%	\$307,148
Holmes	1.54	1.24	1.01	-0.23	8.9%	2.8%	\$72,987	16.4%	3.7%	\$64,607
Huron	-0.38	-0.16	-0.19	-0.03	11.0%	5.1%	\$64,144	18.5%	2.8%	\$62,911
Jackson	-0.66	-1.11	-1.02	0.09	17.4%	5.0%	\$56,549	13.8%	0.3%	\$37,883
Jefferson	-1.30	-1.20	-1.36	-0.15	18.2%	5.4%	\$53,124	11.6%	1.8%	\$98,203
Knox	0.64	0.45	0.40	-0.05	12.9%	3.5%	\$71,246	18.2%	1.4%	\$87,090
Lake	0.54	0.69	0.67	-0.01	7.6%	4.3%	\$76,835	19.2%	1.7%	\$492,974
Lawrence	-1.08	-0.96	-1.18	-0.23	17.9%	4.6%	\$51,846	10.3%	-0.8%	\$62,155
Hocking	-0.12	-0.33	-0.65	-0.32	16.6%	4.1%	\$59,007	11.9%	-0.4%	\$57,845
Logan	0.65	1.16	1.03	-0.13	10.9%	3.5%	\$69,125	32.4%	3.3%	\$77,208
Lorain	-0.46	-0.18	-0.34	-0.17	13.5%	5.1%	\$67,272	17.3%	1.5%	\$543,834
Lucas	-1.31	-0.89	-0.68	0.22	17.8%	4.4%	\$57,265	15.9%	1.0%	\$711,137

County	EVI (2020)	EVI (2021)	EVI (2022)	EVI change (2020-2021)	Below Poverty Threshold	Unemployment Rate	Median Household Income	Employed in Select Traded Industries	Change in Average Annual Employment*	Net Real Estate Taxes Charged
Madison	1.60	1.54	1.70	0.16	10.2%	3.2%	\$77,062	29.5%	15.2%	\$62,603
Mahoning	-1.34	-1.09	-0.92	0.18	17.6%	4.8%	\$54,279	14.6%	1.8%	\$318,655
Champaign	0.86	0.80	1.00	0.20	9.2%	3.7%	\$70,486	31.6%	1.8%	\$53,054
Medina	1.19	1.33	1.17	-0.16	6.0%	4.0%	\$89,968	17.1%	3.0%	\$400,509
Meigs	-1.82	-1.92	-2.18	-0.26	19.6%	5.8%	\$46,255	2.8%	-1.4%	\$20,463
Mercer	1.64	1.47	1.45	-0.03	6.4%	2.7%	\$73,278	23.8%	2.1%	\$56,630
Miami	0.94	0.95	0.88	-0.07	8.5%	3.6%	\$71,440	22.9%	1.9%	\$145,770
Monroe	-1.22	-1.84	-1.77	0.08	13.9%	6.4%	\$55,381	2.6%	-1.1%	\$62,633
Cuyahoga	-0.87	-0.66	-0.45	0.21	16.5%	4.9%	\$60,074	16.8%	2.0%	\$2,990,339
Morgan	-1.13	-0.97	-0.94	0.03	16.6%	5.3%	\$51,056	18.6%	3.8%	\$18,424
Morrow	0.44	0.25	0.05	-0.20	10.6%	3.9%	\$70,412	11.6%	-2.3%	\$47,457
Muskingum	-0.60	-0.68	-0.67	0.01	15.6%	4.3%	\$56,810	9.8%	2.5%	\$113,863
Noble	-1.10	-1.46	-1.69	-0.23	16.6%	6.0%	\$51,547	6.4%	1.4%	\$36,264
Ottawa	-0.16	-0.12	-0.23	-0.11	8.8%	5.2%	\$69,515	10.8%	2.5%	\$107,253
Paulding	0.61	0.56	0.74	0.19	9.4%	3.5%	\$65,331	23.7%	2.8%	\$24,570
Franklin	0.28	0.19	0.47	0.29	14.5%	3.4%	\$71,070	15.4%	2.7%	\$2,669,531
Pickaway	0.23	0.22	0.24	0.02	12.5%	3.7%	\$67,600	14.7%	3.8%	\$86,189
Pike	-1.45	-1.57	-1.45	0.12	19.8%	5.1%	\$50,832	5.7%	5.4%	\$25,200
Portage	0.43	0.41	0.54	0.13	11.3%	3.8%	\$69,796	21.3%	3.7%	\$263,747
Montgomery	-0.55	-0.51	-0.24	0.27	15.1%	4.1%	\$61,942	14.5%	1.9%	\$974,556
Putnam	1.56	1.68	1.55	-0.12	6.6%	3.0%	\$79,453	27.1%	2.5%	\$43,220
Richland	-0.47	-0.33	-0.36	-0.03	13.9%	4.5%	\$56,557	20.1%	0.7%	\$168,132
Perry	-0.65	-0.53	-0.39	0.13	15.3%	4.4%	\$62,899	14.1%	3.2%	\$50,432
Sandusky	0.35	0.30	0.00	-0.30	13.0%	4.7%	\$60,814	28.8%	0.6%	\$89,281
Scioto	-1.66	-1.90	-1.93	-0.03	23.8%	5.1%	\$46,360	6.0%	2.6%	\$72,745
Seneca	-0.12	0.10	0.09	-0.01	11.6%	4.2%	\$62,476	20.7%	1.0%	\$79,540
Shelby	1.22	1.31	1.32	0.01	10.9%	3.5%	\$73,502	41.3%	0.9%	\$59,627
Stark	-0.11	-0.12	-0.04	0.08	13.2%	4.0%	\$63,130	16.0%	1.4%	\$577,387
Summit	0.07	0.01	0.19	0.18	12.4%	4.1%	\$68,360	17.6%	1.4%	\$1,028,154
Trumbull	-1.30	-1.04	-0.87	0.17	17.1%	4.9%	\$53,537	14.9%	4.2%	\$240,566
Tuscarawas	0.05	0.10	0.16	0.07	12.5%	3.8%	\$61,953	18.4%	2.9%	\$130,600
Union	2.29	2.29	2.25	-0.04	5.2%	3.0%	\$104,496	28.6%	1.8%	\$154,023
Ross	-0.66	-0.58	-0.49	0.10	16.1%	3.8%	\$58,048	10.1%	2.5%	\$82,613
Vinton	-1.36	-1.40	-1.39	0.01	19.1%	5.0%	\$50,967	10.3%	0.3%	\$20,225
Warren	1.88	1.84	1.80	-0.05	5.1%	3.3%	\$103,128	16.1%	3.3%	\$535,685
Van Wert	0.74	0.92	1.02	0.10	8.4%	3.3%	\$64,841	29.8%	1.4%	\$34,468
Wayne	0.86	0.89	0.94	0.06	8.8%	3.2%	\$70,320	21.6%	1.8%	\$190,857
Williams	0.52	0.62	0.70	0.08	11.2%	3.4%	\$60,632	30.5%	0.8%	\$46,714
Wood	0.63	0.66	0.78	0.12	12.9%	3.5%	\$70,537	23.6%	7.5%	\$264,362
Wyandot	1.08	1.45	1.59	0.14	6.9%	2.9%	\$68,552	31.5%	5.5%	\$24,535
MEDIAN	-0.12	-0.12	-0.09	0.03	12.9%	4.1%	\$63,015	17.1%	2.0%	\$79,751

*Change in Average Annual Employment is from 2021 to 2022