



Ohio Employment Status Dashboard Desk Aid

(American Community Survey Data)

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Background

The Ohio Employment Status Dashboard is another way to view labor market data from the American Community Survey (ACS) (<https://data.census.gov/mdat/#/>). With this dashboard, you can explore demographic categories such as Race/Ethnicity, Age, Sex, Poverty/Disability, and Education for various labor market measures. These labor market measures include the unemployment rate, the labor force participation rate, and the employment/population ratio.

Throughout this guide, you will learn more about ACS data and how to interpret visualizations based on the graph types and filters selected. This guide also attempts to clarify dashboard data caveats such as differences between 1-Year/5-Year estimates and how the dashboard's underlying data are organized.

The American Community Survey – Employment Status Data and Yearly Estimates

This dashboard uses a subset of the ACS to visualize data across various demographic groups and labor market measures in Ohio. The ACS is a nationwide survey that collects and produces information on social, economic, and housing characteristics about our nation's population every year.

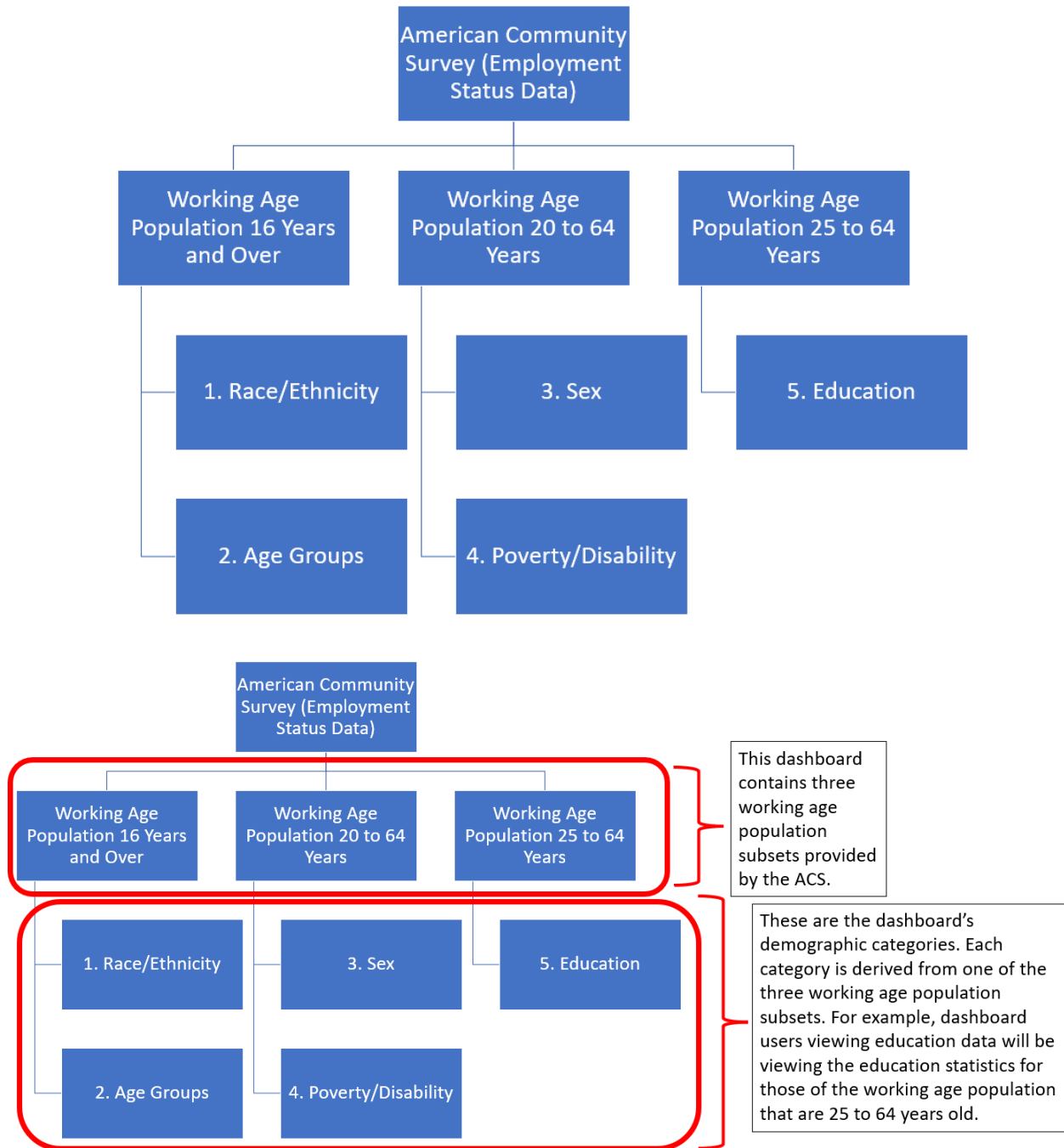
Data used in the dashboard are derived from an ACS table known as the Employment Status or S2301 table. The table's data contain information on our nation's employment characteristics and is subdivided by location, demographic group, and labor market measure.

Employment Status table data are further subdivided into two types of yearly estimates – 1-Year Estimates and 5-Year Estimates. Annual ACS data are available for all geographies down to census tracts and block groups with a minimum population of 65,000. The 5-year ACS estimates have no population size restriction; these estimates are also available for all geographies like annual ACS data. For example, the 5-Year Estimate for 2015 will include data collected in 2011, 2012, 2013, 2014, and 2015. The advantage of using multiyear estimates is increased statistical reliability of the data for less populated areas and small population subgroups.



Dashboard Data Organization

In the ACS, different demographic characteristics refer to specific working age groups as shown in this diagram:



To correctly interpret dashboard data, you must understand how dashboard data are structured.

For example, when viewing education statistics within the dashboard, be aware that those data are derived from the working age population that is 25 to 64 years of age.



Data Caveats (Yearly Estimates, Filtered Data, and Institutionalized/Noninstitutionalized Populations)

Yearly Estimates

<ul style="list-style-type: none">• *1 Year Estimate<ul style="list-style-type: none">• 2014 and prior • 2015 • 2016 • 2017 • 2018 • 2019 • 2020 ***• 2021 • 2022 	<ul style="list-style-type: none">• 5 Year Estimate<ul style="list-style-type: none">• 2014 and prior • 2015 • 2016 • 2017 • 2018 • 2019 • 2020 • 2021 • 2022 	<ul style="list-style-type: none">• Incorporated in dashboard• No plans to incorporate in dashboard due to collapsed demographic categories (age groups). This makes it difficult to compare data between the 2010 – 2014 period and the 2015 – 2022 periods.• * The ACS 1 Year Survey does not include data for all of Ohio's 88 counties.• *** The ACS 1 Year Survey does not include data for 2020.
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Concerning the dashboard's yearly estimates, you should know the dashboard contains a specific range of yearly data. For the 1-Year survey, all years between 2015 and 2022, except 2020 are reported. For the 5-Year survey, all years between 2015 and 2022 are reported. For both estimates, any year 2014 and prior is not reported due to inconsistencies in how demographic categories were defined and reported.

Another caveat about the 1-Year estimate is that not all of Ohio's 88 counties are reported in the dashboard. Only counties with a population larger than 65,000 are reported within the 1-Year survey.

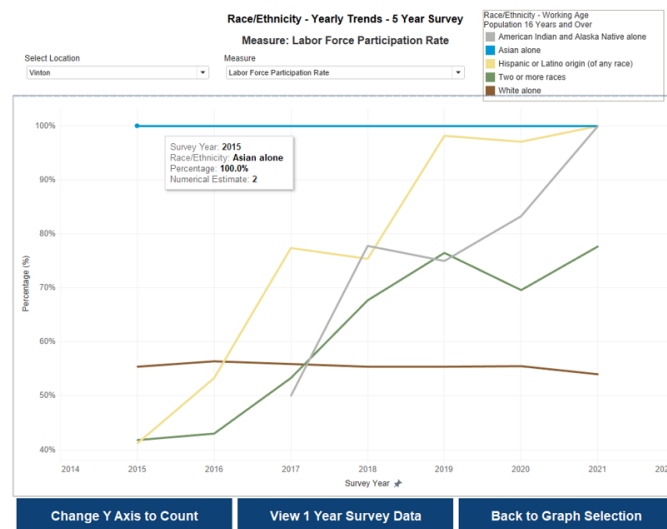


Filtered Data

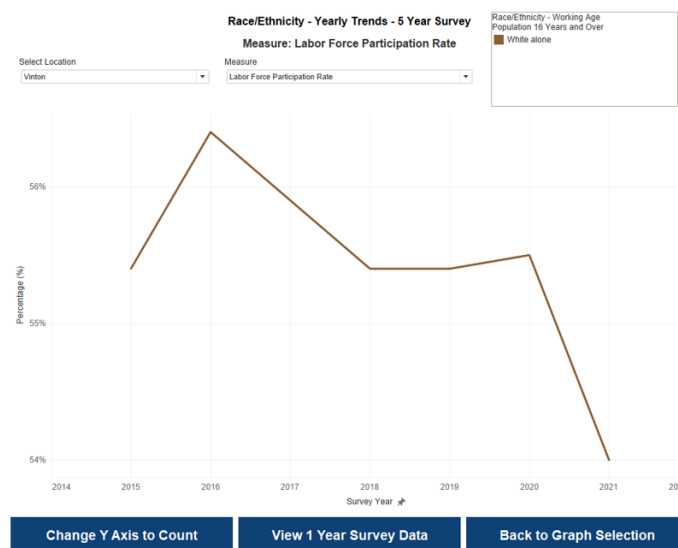
Dashboard data are available for demographic groups greater than or equal to 250.

The image below shows labor force participation rates for different race/ethnicity groups in Vinton County in the 5-Year Survey. Before the filter was applied, we see certain demographic groups had unusually high labor force participation rates. For example, the Asian alone group in blue has a labor force participation rate of 100% between 2015 and 2021. When the composition of this labor force participation rate is investigated, we find that the Asian alone group only accounts for around two individuals.

- Counts with less than 250 individuals have been filtered out



Before filter is applied



After filter is applied



Institutionalized/Noninstitutionalized Populations

When viewing dashboard data, it is important to realize ACS data contain both institutionalized and noninstitutionalized populations. This means counties with large, institutionalized populations, like prisons or care homes, may have different estimates when compared to similar survey data.

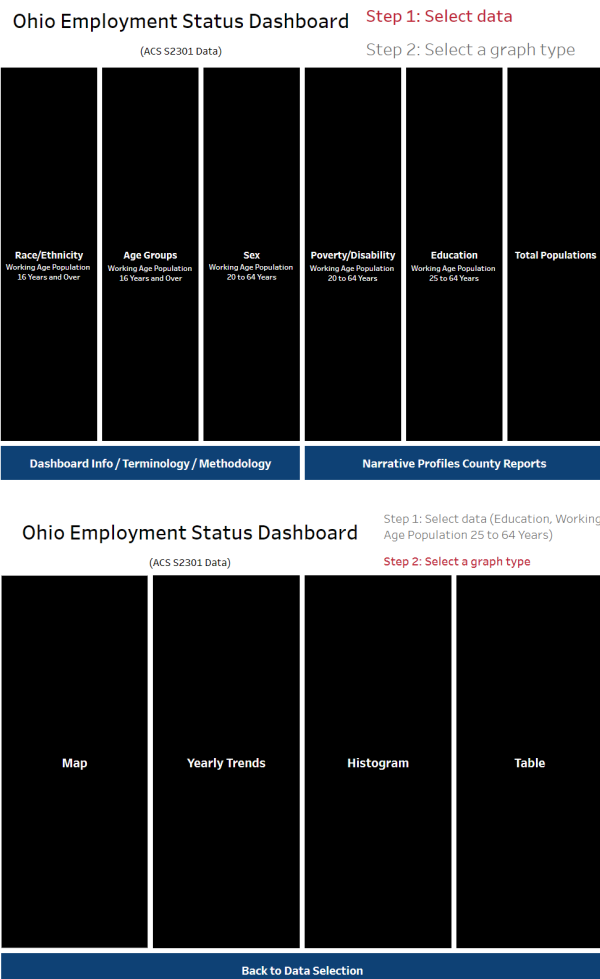
Dashboard Home Screen and Navigation

Dashboard navigation is based on a two-step process where you will select the demographic group and type of visualization you want to view.

First, select one of the demographic categories on the home screen. There are several options: Race/Ethnicity, Age Groups, Sex, Poverty/Disability, Education, and Total Populations. The last option, Total Populations contains data on the three main working age population subsets in the dashboard. Those are the working age population 16 years and over, the working age population 20 to 64 years old, and the working age population 25 to 64 years old.

After you have selected a demographic category, you will be brought to a new screen where a type of visualization can be selected. The data visualizations supported include maps, yearly trends (line graphs), histograms (bar charts), and tables.

Dashboard visualizations default to the 5-Year survey and will show percentage estimates. You can switch to 1-Year survey data and view data expressed as counts instead of percentages.





Dashboard Example #1 -- Education Data -- Table -- Percentage/Count Conversions, Switching Survey Estimates

Complete the following steps to view education data in a table format:

- From the home screen, select the “Education” button.
- On the next screen, select the “Table” button.

Education (Working Age Population 25 to 64 Years) - Table - 5 Year Survey

Measure: Numerical Estimate

Location: (All) Survey Year: 2022 Measure: Numerical Estimate

Location	Total Population - Working Age Population 25 to 64 Yea...	Less than high school graduate	High school graduate (includes equivalency)	Some college or associate's degree	Bachelor's degree or higher
Nationwide	100.0%	10.1%	25.1%	29.0%	35.8%
Ohio	100.0%	7.7%	30.1%	29.8%	32.4%
Adams	100.0%	12.3%	43.7%	27.6%	16.3%
Allen	100.0%	7.2%	37.2%	35.9%	19.7%
Ashland	100.0%	9.5%	39.4%	28.5%	22.7%
Ashtabula	100.0%	12.7%	41.6%	30.1%	15.7%
Athens	100.0%	8.1%	29.9%	27.9%	34.1%
Auglaize	100.0%	4.4%	39.0%	32.4%	24.1%
Belmont	100.0%	7.5%	43.6%	30.7%	18.0%
Brown	100.0%	11.2%	44.6%	29.4%	14.9%
Butler	100.0%	7.7%	30.9%	27.4%	34.1%
Carroll	100.0%	10.1%	44.8%	31.5%	13.6%
Champaign	100.0%	8.1%	38.2%	34.8%	18.9%
Clark	100.0%	10.8%	34.8%	35.3%	19.1%
Clermont	100.0%	7.1%	30.3%	29.8%	32.8%
Clinton	100.0%	7.3%	37.1%	34.2%	21.4%
Columbiana	100.0%	9.2%	43.0%	31.0%	16.8%
Coshocton	100.0%	15.1%	40.8%	26.8%	17.3%
Crawford	100.0%	8.8%	43.9%	32.1%	15.2%
Cuyahoga	100.0%	8.1%	25.3%	29.3%	37.3%
Darke	100.0%	7.9%	42.9%	31.7%	17.5%
Defiance	100.0%	6.8%	37.5%	34.9%	20.9%
Delaware	100.0%	2.3%	14.1%	22.6%	61.0%
Erie	100.0%	7.1%	33.1%	32.4%	27.4%
Fairfield	100.0%	4.8%	29.7%	31.3%	34.1%
Fayette	100.0%	14.6%	45.9%	25.6%	13.9%
Franklin	100.0%	7.9%	22.6%	26.0%	43.4%
Fulton	100.0%	5.2%	39.1%	35.7%	20.0%
Gallia	100.0%	11.2%	37.2%	32.3%	19.4%

View Breakdown by Count View 1 Year Survey Data Back to Graph Selection Back to Home

For this visualization, we are viewing 5-Year 2022 percentage estimates for the working age population that is 25 to 64 years old by educational attainment. To convert the percentage estimates to counts click the “View Breakdown by Count” button located at the bottom left of the scene.

Measure: Numerical Estimate

Location: (All) Survey Year: 2022 Measure: Numerical Estimate

Location	Total Population - Working Age Population 25 to 64 Yea...	Less than high school graduate	High school graduate (includes equivalency)	Some college or associate's degree	Bachelor's degree or higher
Nationwide	171,863,344	17,373,867	43,176,248	49,803,873	61,509,356
Ohio	6,029,142	463,899	1,817,235	1,795,339	1,952,669
Adams	13,775	1,697	6,021	3,808	2,249
Allen	49,714	3,586	18,510	17,841	9,777
Ashland	25,499	2,420	10,039	7,257	5,783
Ashtabula	49,486	6,262	20,579	14,877	7,768
Athens	27,351	2,226	8,169	7,627	9,329
Auglaize	22,805	1,011	8,892	7,397	5,505
Belmont	34,817	2,662	15,191	10,683	6,281
Brown	22,416	2,506	9,987	6,582	3,341
Butler	190,631	14,742	58,814	52,148	64,927
Carroll	13,388	1,348	6,000	4,223	1,817
Champaign	19,943	1,610	7,610	6,950	3,773
Clark	66,605	7,209	23,188	23,488	12,720
Clermont	108,882	7,717	32,976	32,458	35,731
Clinton	20,826	1,518	7,729	7,123	4,456
Columbiana	52,318	4,806	22,478	16,232	8,802
Coshocton	18,075	2,724	7,375	4,851	3,125
Crawford	20,804	1,830	9,137	6,683	3,154
Cuyahoga	654,802	52,770	165,954	191,933	244,145
Darke	24,990	1,974	10,718	7,917	4,381
Defiance	19,030	1,285	7,131	6,646	3,968
Delaware	112,258	2,586	15,785	25,414	68,473
Erie	37,313	2,648	12,344	12,102	10,219
Fairfield	82,127	3,982	24,400	25,707	28,038
Fayette	14,695	2,146	6,738	3,768	2,043
Franklin	719,368	56,593	162,932	187,329	312,514
Fulton	21,331	1,115	8,397	7,617	4,262
Gallia	14,376	1,607	5,347	4,639	2,783

View Percentage Breakdown View 1 Year Survey Data Back to Graph Selection Back to Home



Within this modified visualization, we are viewing 5-Year 2022 count estimates for the working age population that is 25 to 64 years old by educational attainment. To switch these estimates to 1-Year survey results, click the “View 1 Year Survey Data” button.

* Education (Working Age Population 25 to 64 Years) - Table - *1 Year Survey

Measure: Numerical Estimate

Location: (All) Survey Year: 2022 Measure: Numerical Estimate

Location (1 Year ACS)	Total Population - Working Age Population 25 to 64 Years	Less than high school graduate	High school graduate (includes equivalency)	Some college or associate's degree	Bachelor's degree or higher
Nationwide	171,884,822	16,768,327	42,722,358	48,301,462	64,092,675
Ohio	5,962,264	454,345	1,759,798	1,705,417	2,042,704
Allen	48,458	2,709	16,120	19,576	10,053
Ashtabula	48,204	6,212	19,901	14,832	7,259
Belmont	33,576	2,785	13,433	9,611	7,747
Butler	189,774	17,325	53,598	51,531	67,320
Clark	65,716	7,341	20,137	23,960	14,278
Clermont	108,549	5,834	36,869	30,043	35,803
Columbiana	51,085	6,048	21,443	15,350	8,244
Cuyahoga	639,209	50,161	155,270	175,912	257,866
Delaware	117,810	4,346	16,877	26,846	69,741
Erie	35,937	1,952	11,321	12,723	9,941
Fairfield	83,715	5,151	27,583	24,468	26,513
Franklin	714,727	58,669	168,128	171,571	316,359
Geauga	45,302	4,165	9,145	10,649	21,343
Greene	82,261	4,905	17,580	24,941	34,835
Hamilton	421,927	30,803	98,789	101,939	190,396
Hancock	37,745	1,248	12,981	9,975	13,541
Lake	118,312	7,459	34,166	33,971	42,716
Licking	91,615	5,807	28,487	25,486	31,835
Lorain	158,485	12,976	47,321	48,801	49,387
Lucas	215,594	14,321	60,590	71,184	69,499
Mahoning	109,116	8,856	33,834	30,794	35,632
Marion	33,339	3,848	13,344	10,054	6,093
Medina	93,831	3,883	23,480	29,382	37,086
Miami	55,535	3,929	15,917	18,361	17,328
Montgomery	267,861	16,590	65,946	94,642	90,683
Muskingum	43,152	3,627	16,116	12,686	10,723
Portage	78,006	3,408	23,808	19,574	31,216

View Percentage Breakdown View 5 Year Survey Data Back to Graph Selection Back to Home

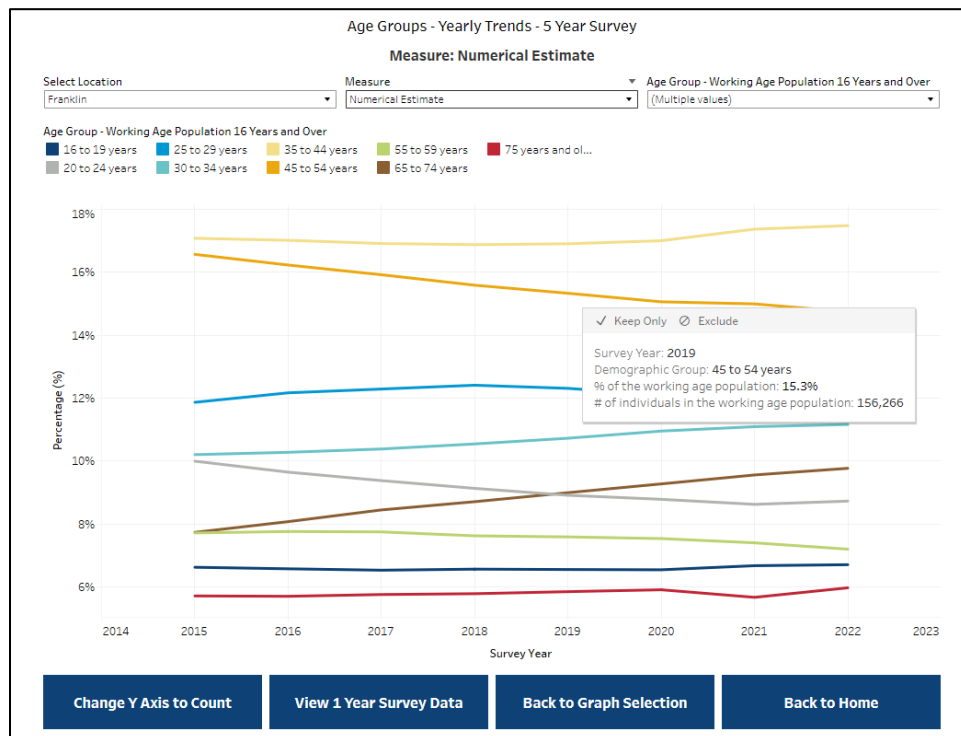
Within this visualization, we are viewing 1-Year 2022 count estimates for the working age population that is 25 to 64 years old. To return to the home screen, click the “Back to Home” button.



Dashboard Example #2 -- Age Group Data -- Yearly Trends -- Viewing and Interpreting Dynamic Tooltips

Complete the following steps to view Age Group data in a yearly trend format:

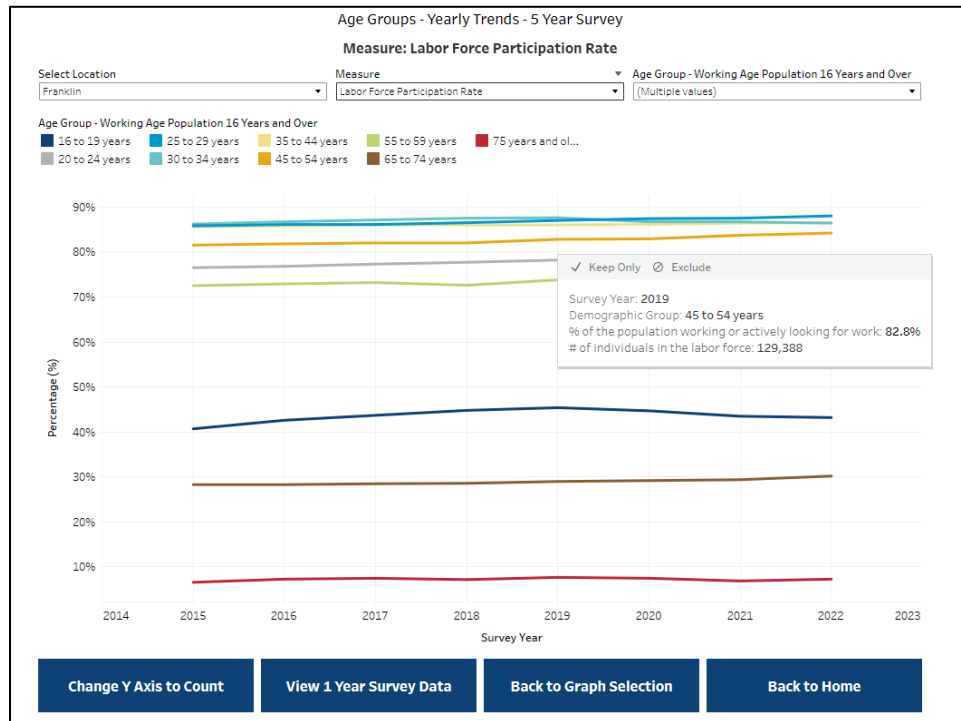
- From the home screen, select the “Age Groups” button.
- On the next screen, select the “Yearly Trends” button.
- Once the visualization appears, change the location filter from “Nationwide” to “Franklin”.



Within this visualization, we are viewing Franklin County 5-Year percentage estimates from 2015 to 2022 for the working age population 16 years and over by age group.



Next, hover over the orange line where it passes over the 2019 survey year. You should see a tooltip giving more information on the survey year, the demographic group, and the percent and count breakdown for the data point. Tooltips within this dashboard can help you interpret the data.



To demonstrate how tooltips change dynamically within this visualization, change the “Measure” dropdown filter above to “Labor Force Participation Rate”. Once this new measure has been selected, the visualization will change as well as the measure title near the top of the screen. You should now try hovering over the orange line again where it passes over the 2019 survey year. A similar tooltip will appear, but the tooltip’s text will have changed. Specifically, the last two lines of the tooltip describing the count and percentage have changed to describe the labor force participation rate for that data point.

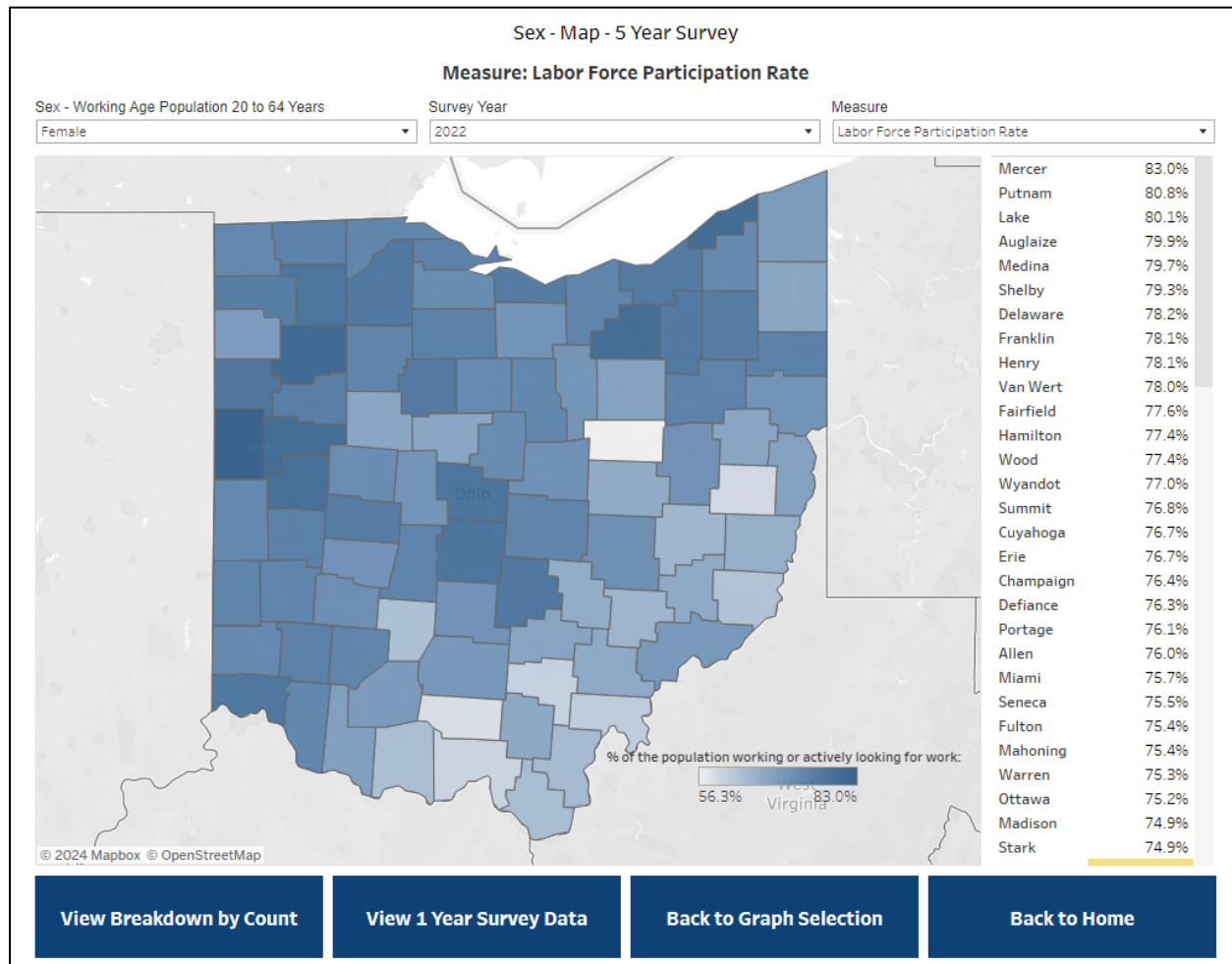
This tooltip change assists you in interpreting data based on the measure filter selected. To return to the home screen, click the “Back to Home” button.



Dashboard Example #3 -- Sex Data -- Map -- Interpreting Map Data

Complete the following steps to view sex data in a map format:

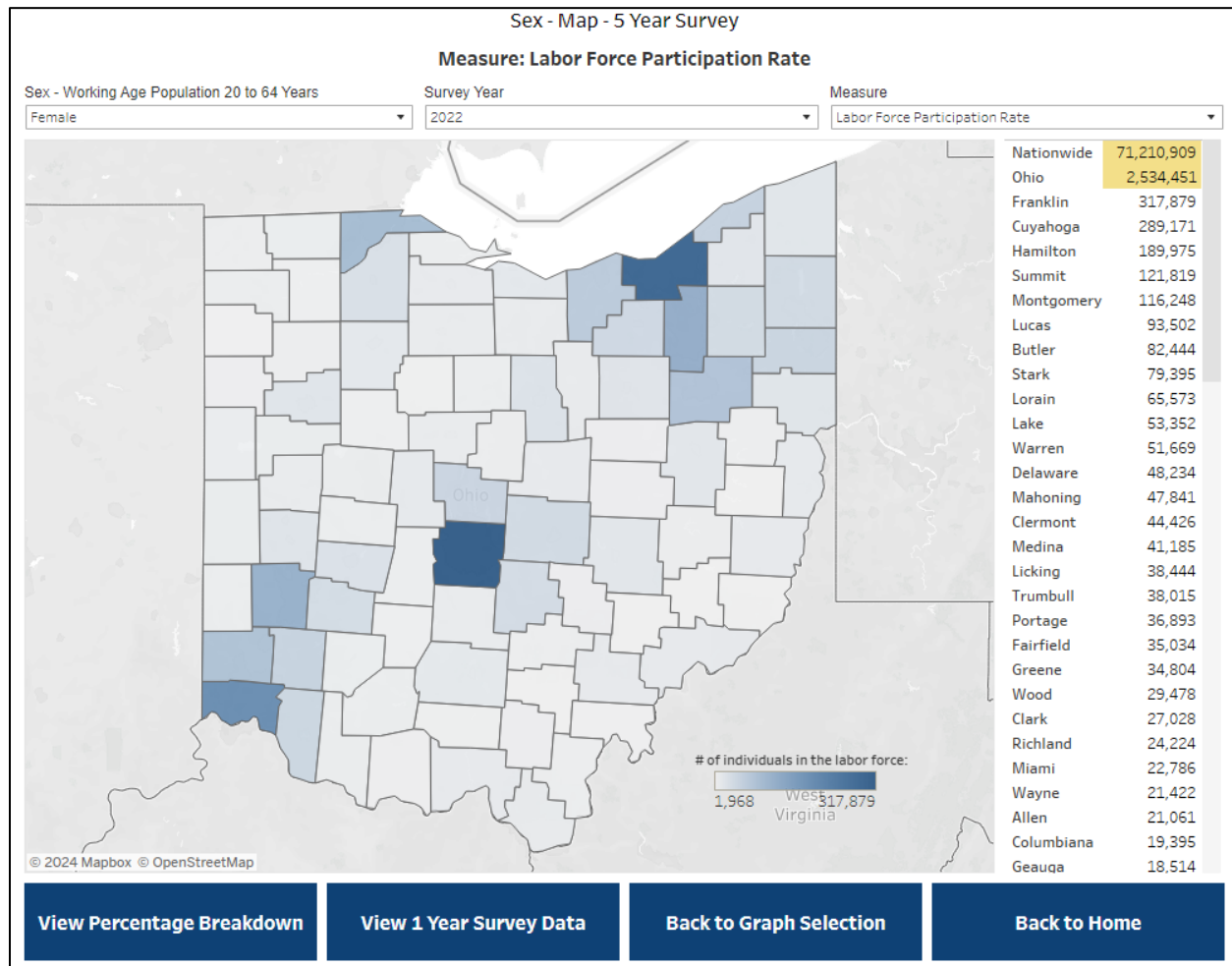
- From the home screen, select the “Sex” button.
- On the next screen, select the “Map” button.
- Once the visualization appears, change the measure filter from “Numerical Estimate” to “Labor Force Participation Rate”.



Within this visualization, we are viewing statewide 5-Year 2022 percentage estimates for the female working age population that is 20 to 64 years old. To the right of the map, you will find a list of counties to easily compare labor force participation rates. In addition, you will also find highlighted list items where nationwide and statewide data are reported.



Next, click the “View Breakdown by Count” button. The visualization will change from reporting labor force participation rates as percentages to counts.



This new map helps to demonstrate differences in displaying percentages versus counts. In the new map showing count distributions, we see that Ohio’s largest counties from a population standpoint have the highest number of women participating in the labor force.



Narrative Profile Reports

Select a county to view a Census Bureau Narrative Profile report.



Narrative Profiles are short, analytic reports derived from the ACS 5-year estimates. Each Narrative Profile covers 18 different topic areas and provides text and bar charts to display highlights of selected social, economic, housing and demographic estimates for a selected geographic area.

The Ohio Employment Status Dashboard also provides additional ACS data apart from those found in the Employment Status tables. From the home screen, clicking the “Narrative Profiles County Reports” button will take you to a map where counties are selected to view Narrative Profile reports produced by the Census Bureau. In this example, I’ve selected Franklin County from the map to view its corresponding report. Once a county is selected, its report will appear and load in a web browser.

Narrative Profiles are short reports derived from ACS 5-Year estimates and cover a variety of topics including social, economic, housing, and demographic estimates for a selected geographic area.

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**Bureau of Labor Market Information
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- Partner with the workforce and economic development community.
- Develop and deploy new information solution tools and systems for the workforce and economic development community.
- Provide products and services that are customer-and demand-driven.
- Be known as an important and reliable source for information solutions that support workforce development goals and outcomes.

Acknowledgments: The ACS Dashboard and accompanying materials were developed by Data Analytics Specialist, Richard Banks, under the direction of Bureau Chief, Nick Wallace. For further information, visit OhioLMI.com or call the Ohio Bureau of Labor Market Information at (614) 752-9494.

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