

USDA Rural Economic Development Innovation Program

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<https://buckeyehills.org/redi>



Buckeye Hills Regional Council

Serves 8 Counties in Southeast Ohio:

*Athens, Hocking, Meigs, Monroe,
Morgan, Noble, Perry & Washington*

- Rural Appalachian Region of Ohio
- 260,000 Residents
- 10,340 Businesses
- 99% of businesses have fewer than 99 employees
- 71,083 Jobs

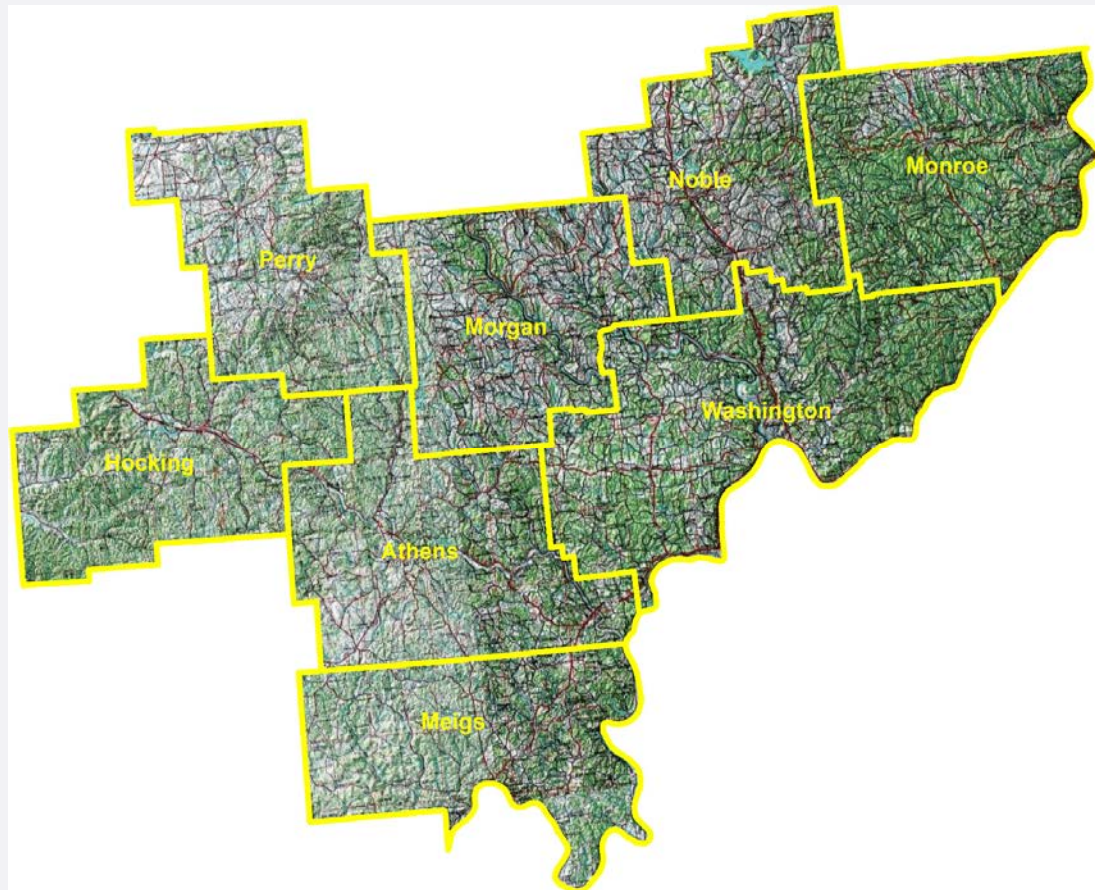


Data Snapshot

Buckeye Hills Region Southeast Ohio

<https://noble.osu.edu/program-areas/community-development/noble-county-resources/data-snapshot>

 Regional Data Snapshot
May 2020 Update

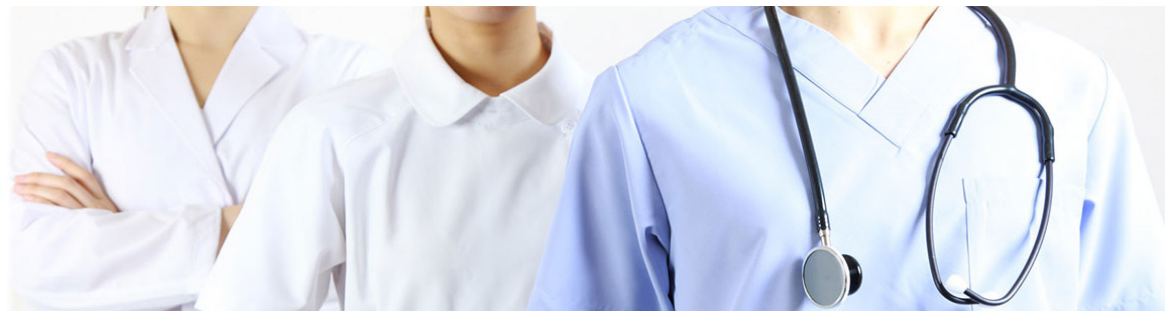


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UNIVERSITY

 **Center for Regional Development**
Advancing Collaboration : Energizing Regions

Types of Data

- Quality of Life
- Economic Development
- Workforce Development
- Technological Innovation & e-Connectivity

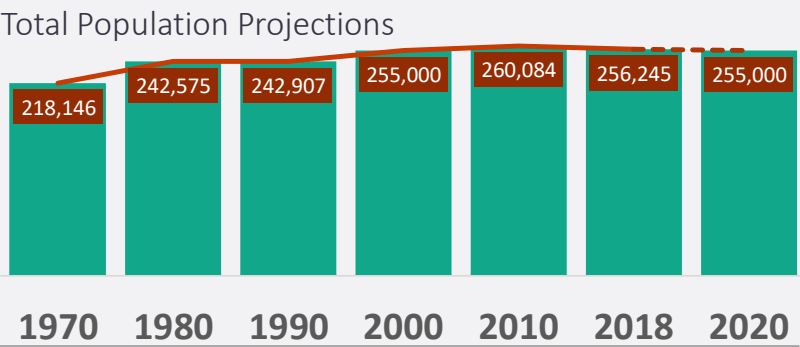




Healthcare

Quality of Life

Population Change



The region’s population increased steadily from 1970 to 2010 followed by a slight decline estimated for 2018 and projected for 2020. Domestic migration (in migrants minus out migrants) caused the maximum decline in the 18 year period.

The total population is projected to decrease by 0.5 percent between 2018 and 2020.

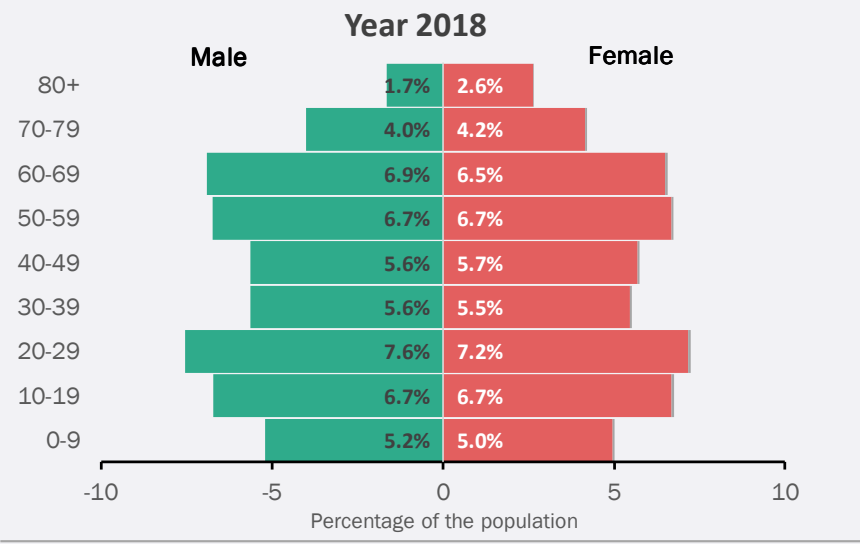
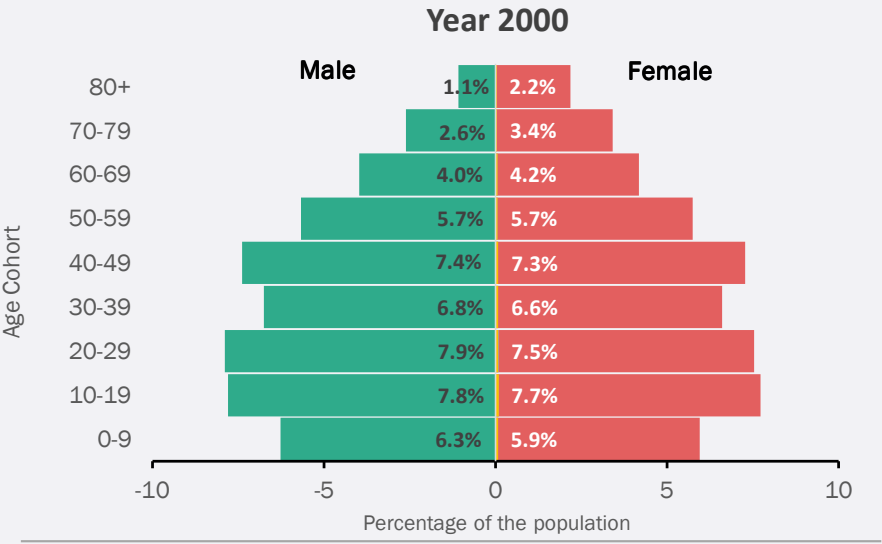
Components of Population Change, 2000-2018

	2000-2010	2010-2018
Natural Increase	3,531	-471
International Migration	1,616	2,624
Domestic Migration	-5,700	-6,335
Total Change	-553	-4,182

Note: Sum of components may not match with the total population change because of residuals

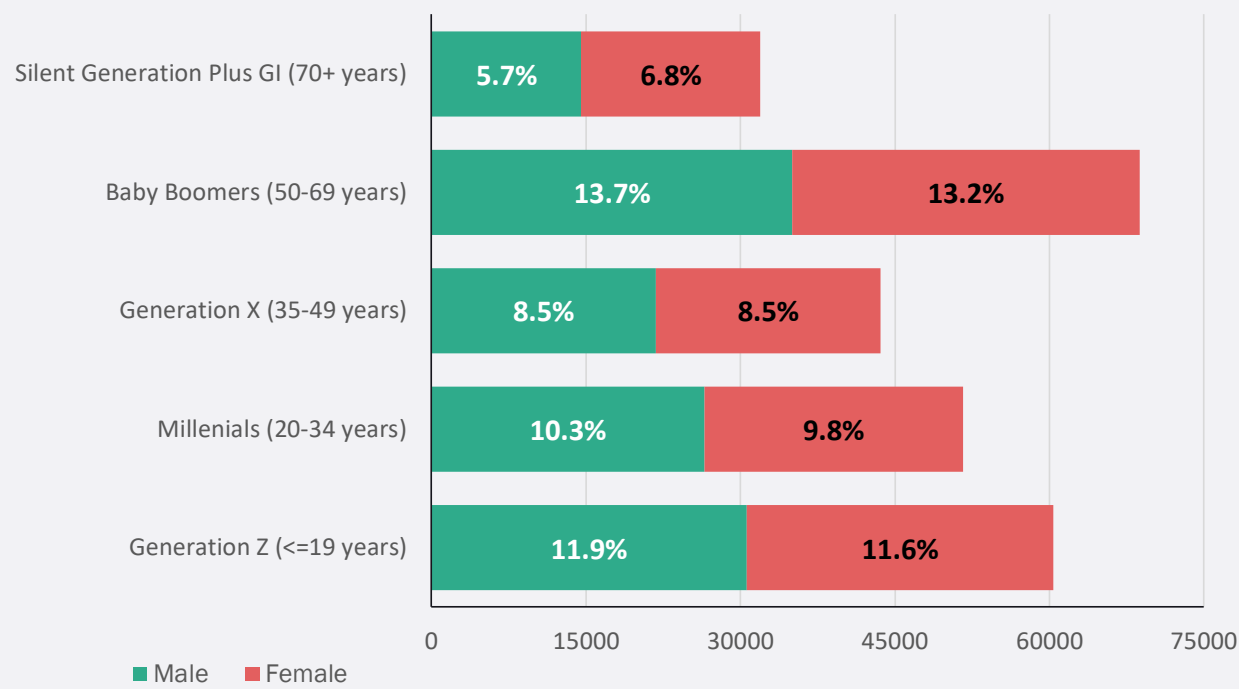
Sources: U.S. Census Bureau – 1990 Census, 2000 Decennial Census, 2010 Decennial Census, 2018 Estimates, Estimates of the Components of Resident Population Change

Population Pyramids



The proportion of males and females in the Buckeye Hill Region changed marginally between 2000 and 2018. The female population declined from 50.5 percent (128,825 persons) in 2000 to 49.9 percent (127,831 persons) in 2018. Bigger changes, however, occurred in specific age-groups. Population aged 50-years or more increased from nearly 29 to 39 percent, a 10 percentage point increase. The younger population under 20-years old decreased from nearly 28 to 23 percent in the 18 years period. Prime working age, residents 30 to 49 years, declined from 28 to 22 percent from 2000 to 2018.

Generational Chart, 2018



Members of the Silent Generation are 70 years and above. Some of them fought in Word Wars and experienced the Great Depression of 1930s.

Baby Boomers is the generation after World War II. They are now 50 to 70 years old and nearing retirement age. They experienced the U.S. economic growth and prosperity. This is a large generational cohort with a strong work ethic.

Generation X is now 35 to 50 years old. This generation has experienced technological advances (Internet and automation) and tries to keep up with the new technology.

Millennials are now 20 to 34 years old. This generation is diverse and has adapted to technology.

Generation Z are teenagers and the most technologically savvy generation. They have never known life without cell phones.

Monthly Housing Costs as a Percentage of Income, 2018

Income	Less than 20 percent (Housing units)		20 to 29 percent (Housing units)		30 percent or more (Housing units)	
Less than \$20,000	1,802	1.8%	2968	3.0%	14748	14.9%
\$20,000 to \$34,499	5,711	5.8%	6022	6.1%	4596	4.7%
\$35,000 to \$49,999	8,069	8.2%	4175	4.2%	1946	2.0%
\$50,000 to \$74,999	12,199	12.4%	3835	3.9%	1341	1.4%
\$75,000 or more	23,515	23.8%	2816	2.9%	562	0.6%
Zero or negative income	1,620 (1.6%)					
No cash rent	2,753 (2.8%)					

Note: Total Occupied (owner and renter) housing units in 2018: 98,678

In 2018, 23.6 percent of housing units were cost-burdened and unaffordable given that **30 percent or more** of their monthly income was being spent on housing costs.

Income and Poverty

	2001	2009	2018
Total Population in Poverty	15.3%	20.7%	19.5%
Minors (Under Age 18) in Poverty	19.8%	27.2%	23.2%
Real Median Household Income (\$2018)*	\$44,808	\$43,540	\$46,900
Real Per Capita Income (\$2018)*	\$30,379	\$31,718	\$36,531

*Real median household income is the middle-income value in the county. Half of the county's households fall above this line and half below. Real per capita personal income is the average income per person in the county.

Individual and minor poverty rates have varied in Buckeye Hills Region. In 2018, individual poverty rate was 19.5 percent, close to the high-poverty threshold of 20%. In 2009, poverty rate was nearly 21%, thus exceeding the high-poverty threshold. Minor poverty rates have been above the high poverty thresholds in both 2009 and 2018. Specifically, almost a quarter of population 18 years of age or younger were below the federal poverty line threshold in 2018. Real median household income has fluctuated but increased by \$2,092 from 2001 to 2018, while the real per capita income increased by \$6,152 during this same period of time.

Health Outcomes

	Life Expectancy
Buckeye Hills Region	76.95
Ohio	77.0

County	Athens, OH	Hocking, OH	Meigs, OH	Monroe, OH	Morgan, OH	Noble, OH	Perry, OH	Washington, OH
Life Expectancy	77.4	76.7	74.1	78.7	77.4	81.4	76.6	76.3

Note: Life Expectancy indicates the average number of years a person can expect to live. The 2019 County Health Rankings used data from 2015-2017 for this measure.

County	Athens, OH	Hocking, OH	Meigs, OH	Monroe, OH	Morgan, OH	Noble, OH	Perry, OH	Washington, OH
Poor or Fair Health	22%	19%	20%	19%	20%	15%	18%	18%

Note: Poor or Fair Health data are from the year 2016

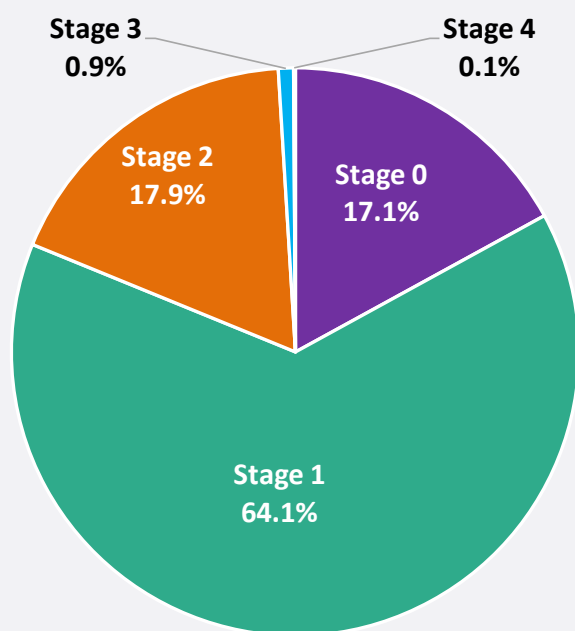
Life expectancy in Buckeye Hills Region varies from the maximum of more than 81 years in Noble County to 74 years in Meigs County. Noble County also has the lowest proportion of population in poor or fair health.



Economic Development



Company Stages



Establishment Distribution by Stages
Buckeye Hills Region, 2018



An establishment is a physical business location. Branches, standalones and headquarters are all considered types of establishments.

Definition of Company Stages

Stage 0	Self-employed
Stage 1	2-9 employees
Stage 2	10-99 employees
Stage 3	100-499 employees
Stage 4	500+ employees



Number of Establishments, Jobs, Sales by Stage/Employment Category in the County

Stage	Establishments 2018	% Change (2013-2018)	Jobs* 2018	% Change (2013-2018)	Sales 2018 (\$ 2018, Million)	% Change (2013-2018, \$ 2018)
Stage 0	1,763	14.4%	1,763	14.4%	225.3	-13.2%
Stage 1	6,631	8.6%	25,362	11.5%	3,709.3	-25.3%
Stage 2	1,848	7.5%	43,958	8.5%	6,823.9	1.8%
Stage 3	89	8.5%	16,321	9.6%	2,123.0	-14.0%
Stage 4	9	-66.7%	16,890	-59.3%	95.0	-58.8%
Total	10,340	9.2%	104,294	-13.9%	12,976.5	-11.3%

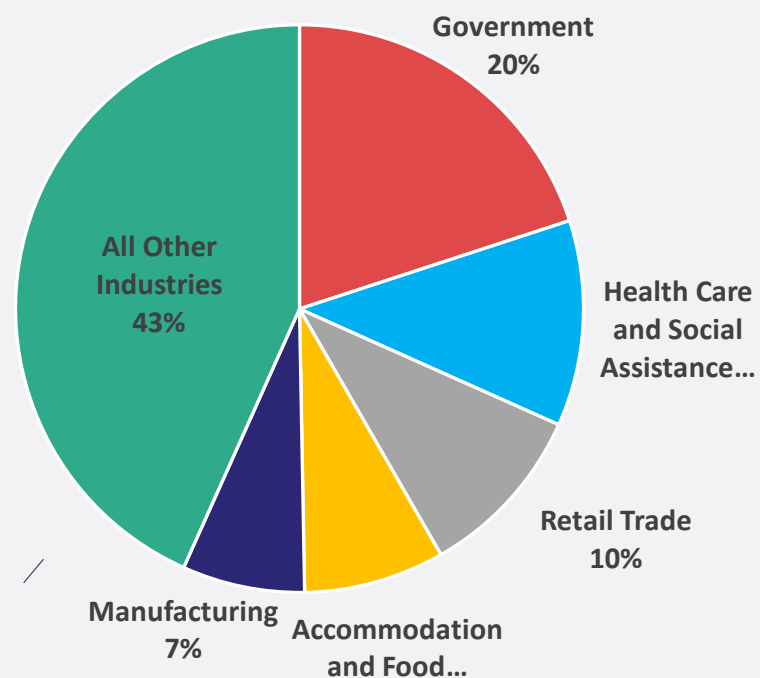
Note: The change in jobs from 2010 to 2018 might not match with the components of change in jobs because of residuals.



Top Five Industries

More than half of all jobs are tied to one of the top five industries in the Buckeye Hills Region.

- **Government** is the largest sector providing nearly 21,500 jobs and more than \$77,000 in average annual earnings.
- **Manufacturing** remains in the top five employers despite losing 3,700 jobs from 2003 to 2018, providing \$72,000 in average annual earnings.
- **Health care & social assistance,**
- **Retail & accommodation**
- **Food services** complete the top five industries.





Industry distribution and change

Industries with the largest gains and losses in employment numbers between 2003 & 2018



The largest percentage gains in employment occurred in

Management of Companies and Enterprises (+442%)
Mining, Quarrying, and Oil and Gas Extraction (+92%)

The largest percentage losses in employment occurred in

Manufacturing (-34%)
Construction (-15%)





Buckeye Hills Region	2017
Number of Farms	5,888
Land in Farms (Acres)	949,802
Total Farm Production Expenses	241,370,000
Market Value of Products Sold	278,977,000



Top Five Crops & Livestock Acreage, 2017

Crops	Acres
Soybeans for beans	168,863
Forage (hay/haylage), all	137,635
Corn for grain	107,351
Wheat for grain, all	19,179
Corn for silage or green chop	4,954

Livestock	Number
Cattle and calves	91,113
Hogs and pigs	69,029
Layers	23,335
Sheep and lambs	13,281
Horses and ponies	6,039

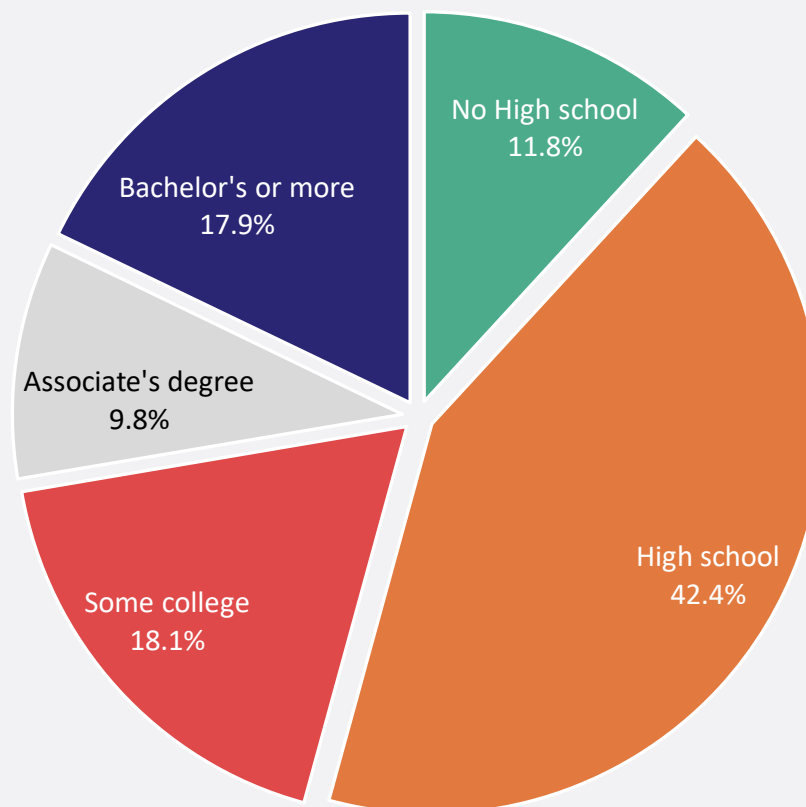


Workforce Development

Buckeye Hills Region's share of adults (25 years and older) with **bachelor's or higher degree increased by 4.4 % points** from 2000 to 2018.

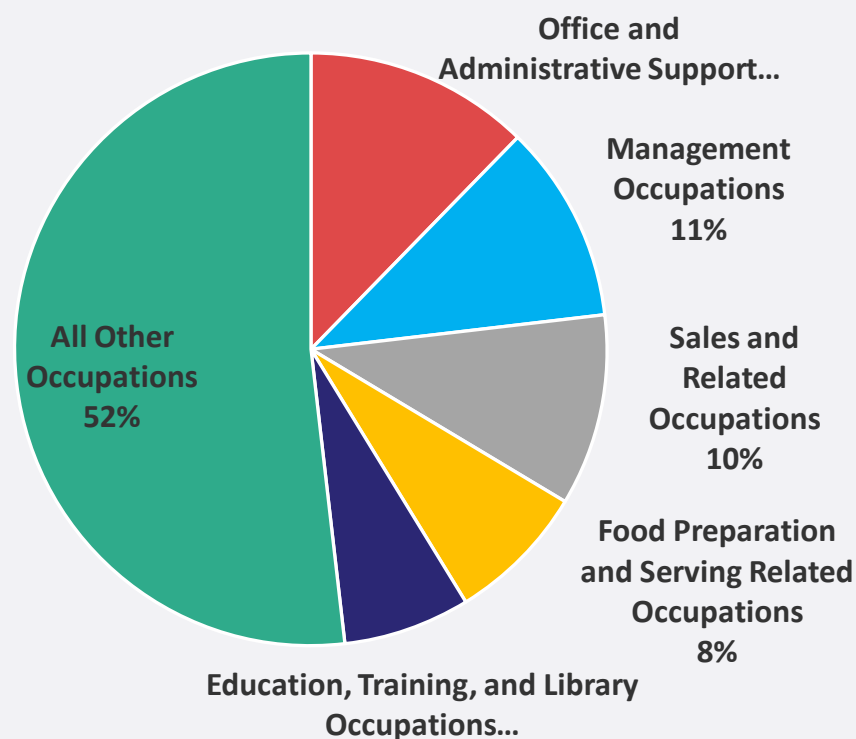
The adults with **associate's degree grew by 3.5 % points** (6,881 more individuals), while adults with some college degree increased by 1.5 percentage points (4,751 more individuals) from 2000 to 2018.

Despite impressive improvements in educational attainment, **more than half of the adult population (54.2%) had a high school education or less** in 2018.



Top Five Occupations

- **Office and administrative support** is the largest occupation group, providing 13,200 jobs median hourly wages of \$15.
- **Management** is the second highest occupation group providing a decent median wage of \$20 per hour.
- **Sales and food preparation and serving** occupations are third and fourth ranked providing lower median wages of \$12 and \$9, respectively.
- **Education, training and library occupations** providing hourly wages of \$23 complete the top five occupation groups.



Labor Force and Unemployment

	2010	2018
Labor Force	117,921	109,208
Unemployment Rate	12.2%	5.9%
Labor Force Participation Rate*	67.8%	65.0%

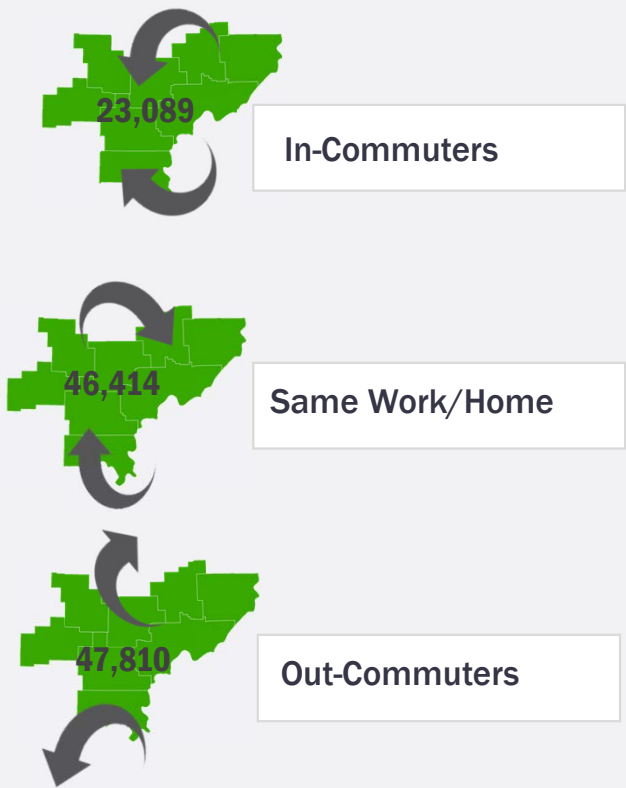
The number of individuals in the labor force in Buckeye Hills Region decreased by 8,713 workers from 2010 to 2018.

Unemployment rate dropped by 6.3 percentage points in 8-year period. In 2018, Buckeye Hills had 5.9 percent unemployment rate compared to 12.2 percent unemployment in 2010.

Labor participation rate declined by 2.8 percentage points; a trend observed after the Great Recession of 2007 to 2009.

*Note: Labor Force Participation age range 16 to 64 years

Journey to Work



Buckeye Hills Region has more workers commuting out than commuting into the region for work.

Net commuting is negative in the Buckeye Hills Region with a deficit of 24,721 commuters. About 49.3 percent of the region’s residents both live and work in the Buckeye Hills Region. For every 100 residents, there are 74 jobs in the Buckeye Hills Region, which suggests the region is not serving as a job center.

	2017 Count	Proportion
Living in Buckeye Hills Region	69,503	100.0%
• Both living and employed in the region	46,414	66.8%
• Living in the region but employed outside	23,089	33.2%
Employed in Buckeye Hills Region	94,224	100.0%
• Both employed and living in the region	46,414	49.3%
• Employed in the region but living outside	47,810	50.7%

Commuteshed in 2017

75% of employed Buckeye Hills residents commute to Washington, Athens, Franklin (Columbus), Wood, Fairfield, Hocking, Perry, Muskingum, Meigs and Licking counties. Increasing the commuter shed threshold to 80 percent results in the inclusion of Morgan, Noble and Guernsey counties in Ohio. At the 85 percent threshold, Monroe, Belmont, Gallia, Cuyahoga (Cleveland), and Hamilton (Cincinnati) counties in Ohio are included.

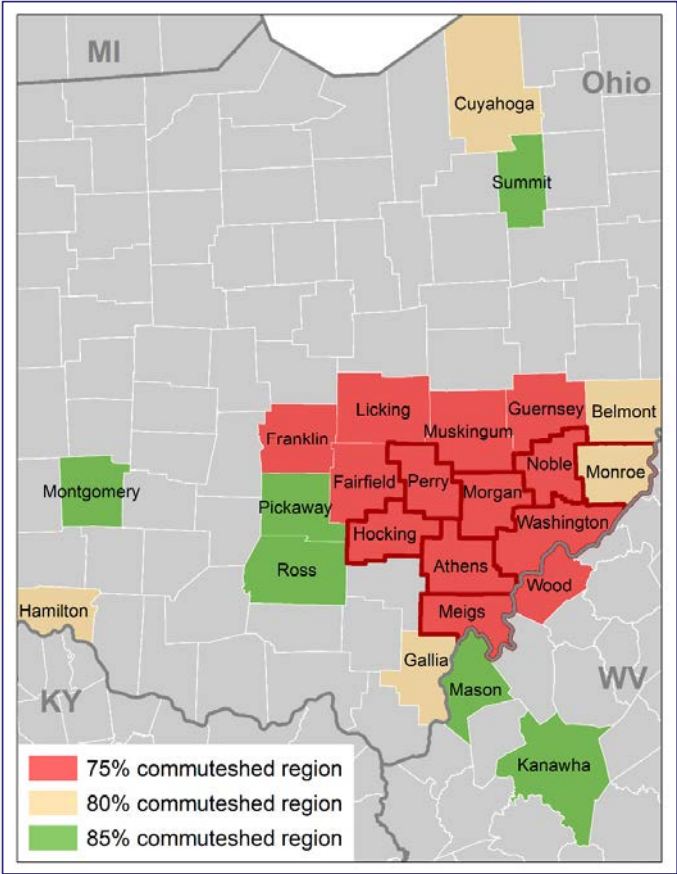
Collectively, these 18 counties represent roughly 85 percent of the commuteshed for the Buckeye Hills Region. The key counties are highlighted below.

A region's **commuteshed** is the geographic area to which its resident work force travels to work.

	Commuters	Proportion
Washington County, OH	16,121	17.1%
Athens County, OH	14,231	15.1%
Franklin County, OH	6,908	7.3%
Wood County, OH	5,524	5.9%
Fairfield County, OH	4,877	5.2%

Commuteshed in 2017

47,810



Laborshed in 2017

75% of the region's workers live in Buckeye Hills counties, Washington, Athens, Hocking, Wood, Perry, Meigs, Morgan, Noble and Monroe counties of Ohio and Franklin County (Columbus). Muskingum, Fairfield and Vinton counties are included in the labor shed when the threshold is extended to 80 percent.

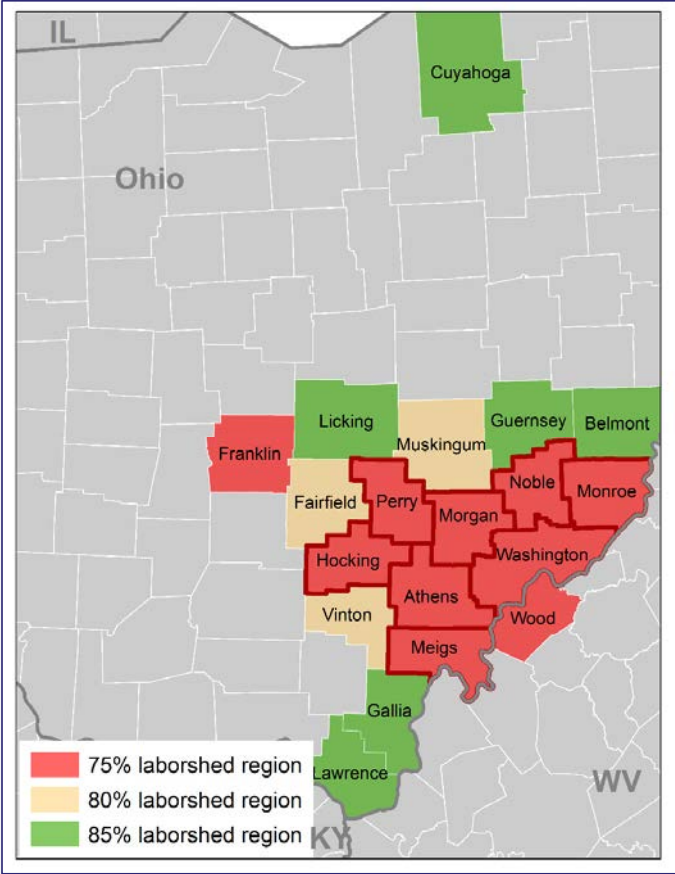
Adjacent Licking, Gallia, Belmont, Cuyahoga (Cleveland), Lawrence and Guernsey counties of Ohio are part of the 85 percent labor shed.

A region's **laborshed** is the geographic area from which it draws employees.

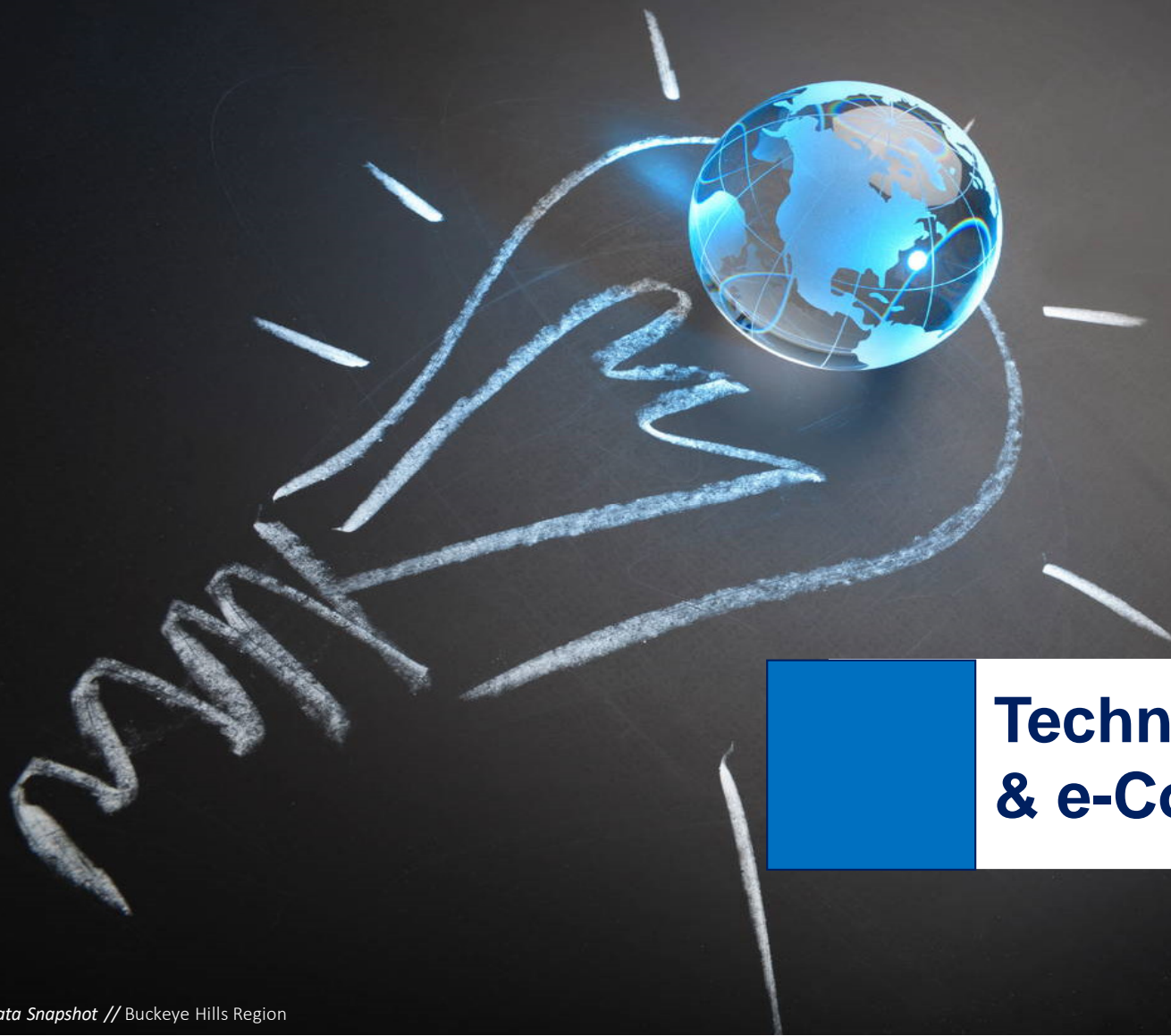
Combined, these 19 counties represent 85 percent of the Buckeye Hills Region's laborshed. The key counties are listed below.

	Commuters	Proportion
Washington County, OH	14,314	20.6%
Athens County, OH	12,664	18.2%
Hocking County, OH	4,403	6.3%
Wood County, OH	4,209	6.1%
Perry County, OH	4,051	5.8%

Laborshed in 2017



23,089



Technological Innovation & e-Connectivity

Computing Devices and Connectivity

2018	Number of Households	Percent (%)
Has one or more types of computing devices	80,449	81.53%
No computer	18,229	18.47%
With an internet subscription	70,253	71.19%
Without an internet subscription	28,425	28.81%

Note: Total number of households: 98,678

Over 81 percent of households in Buckeye Hills Region had access to at least **one computing** device in 2018. In comparison, 18 percent households did not have access to any type of computing device.

Nearly 3 out of 10 (28.81%) of the households did not have an internet subscription in 2018 in Buckeye Hills Region. The un-subscription rate for Buckeye Hills Region is higher than the statewide average rate of 19.8 % in 2018.

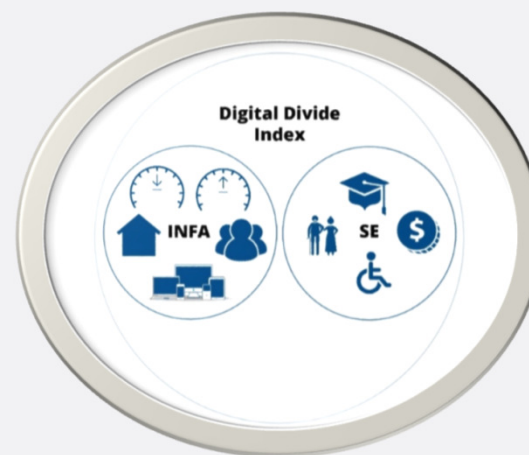
The Digital Divide Index or DDI ranges in value from 0 to 100, where 100 indicates the highest digital divide. It is composed of two scores, also ranging from 0 to 100: the infrastructure/adoption (INFA) score and the socioeconomic (SE) score.

The INFA score groups five variables related to broadband infrastructure and adoption:

1. percentage of total 2010 population without access to fixed broadband of at least 25 Mbps download and 3 Mbps upload
2. households with no internet access (not subscribing)
3. households without a computing device
4. average maximum advertised download speeds; and
5. average maximum advertised upload speeds.

The SE score groups four variables known to impact technology adoption:

1. percent population ages 65 and over
2. percent population 25 and over with less than high school
3. individual poverty rate; and
4. percent of noninstitutionalized civilian population with a disability.



In other words, these variable indirectly measure adoption since they are potential predictors of lagging technology adoption. These two scores are combined to calculate the overall DDI score. If a particular county or census tract has a higher INFA score versus a SE score, efforts should be made to improve broadband infrastructure. If on the other hand, a particular geography has a higher SE score versus an INFA score, efforts should be made to increase digital literacy and exposure to the technology's benefits.

Digital Divide Profile

Buckeye Hills Region	Digital Divide Index	Infrastructure Score	Socioeconomic Score
Athens County	55.555	37.015	66.904
Hocking County	62.793	50.343	66.724
Meigs County	85.619	62.212	97.707
Monroe County	100.000	93.634	92.182
Morgan County	84.590	62.704	95.237
Noble County	93.862	84.296	90.280
Perry County	69.713	56.424	73.520
Washington County	69.088	52.065	76.893

Report Contributors

This report was prepared by the Purdue Center for Regional Development in partnership with CEDIK at the University of Kentucky. The report was updated by the Purdue Center for Regional Development on May 2020.



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REDI Plan:

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Regional Data Snapshot:

<https://noble.osu.edu/program-areas/community-development/noble-county-resources/data-snapshot>





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Community Development:

IMPLAN Economic Modeling Team

Extension Region Reports



CFAES

COLLEGE of FOOD, AGRICULTURAL, and ENVIRONMENTAL SCIENCES

Extension Area 20: Economic Overview

Belmont, Guernsey, Monroe, and Noble Counties

Report prepared September 2021 by Nancy Bowen-Eltzrey, Associate Professor and Field Specialist, OSU Extension Community Development

Regional Industry Sector Overview

Table 1 below ranks the top 10 industries in Area 20 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. Oil and gas extraction and support activities for oil and gas operations were the highest ranked industries based on total output. Together, the sectors employed 1,857 with a combined output of \$1.278 billion and an average combined annual compensation of almost \$100k. Of the top 10 industries by total output, the sector with the most employees in the region was truck transportation with 1,602 employees. The average annual income for truck drivers was \$40,962 per year.

Owner-occupied dwellings had the third greatest total output at \$497 million. 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.



Key Stats

Population 133,959

Total of 271 Industries

Total Employment of 58,831

Gross Domestic Product \$6.5B

Data retrieved from IMPLAN
(2018 & 2019 data)

Table 1: Top 10 Industry Sectors by Total Output

Industry Description	Output	Total Employment	Average Employee Compensation
Oil and gas extraction	\$1,142,242,538	292	\$106,843
Support activities for oil and gas operations	\$136,986,756	1,565	\$90,903
Owner-occupied dwellings	\$496,872,283	N/A	N/A
Drilling oil and gas wells	\$360,759,038	376	\$110,618
Other nonmetallic minerals services	\$321,389,064	185	\$198,737
Other basic organic chemical manufacturing	\$305,871,695	197	\$87,535
Other engine equipment manufacturing	\$291,586,573	317	\$60,408
Monetary authorities and depository credit	\$269,665,300	626	\$58,234
Truck transportation	\$269,665,300	1,602	\$74,052
Hospitals	\$235,339,516	1,524	\$139,845



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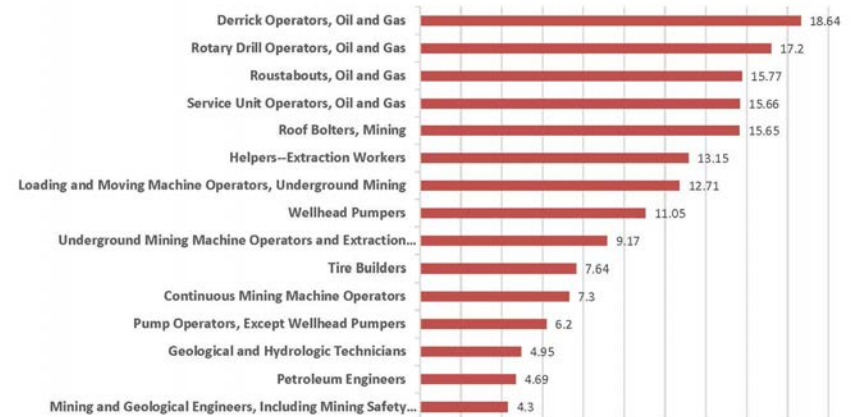


Top 15 Occupations by Location Quotient

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. Chart 1 below lists the top 15 occupations in Area 20 with the highest LQ, demonstrating a significant concentration of workers relative to the nation.

For example, with an LQ of 18.64 for oil and gas derrick operator's engine Area 20, the region has over eighteen times the number of workers in that occupation compared to the national average. 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. The average hourly wages for derrick operator jobs in 2018 was \$27.57 per hour.

Chart 1 - Occupation Location Quotient



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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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