

Data Snapshot

Noble County, Ohio



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Center for Regional Development



County Data Snapshot
October 2020 Update

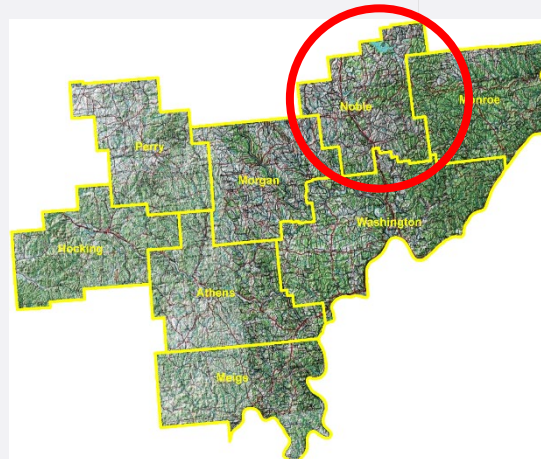
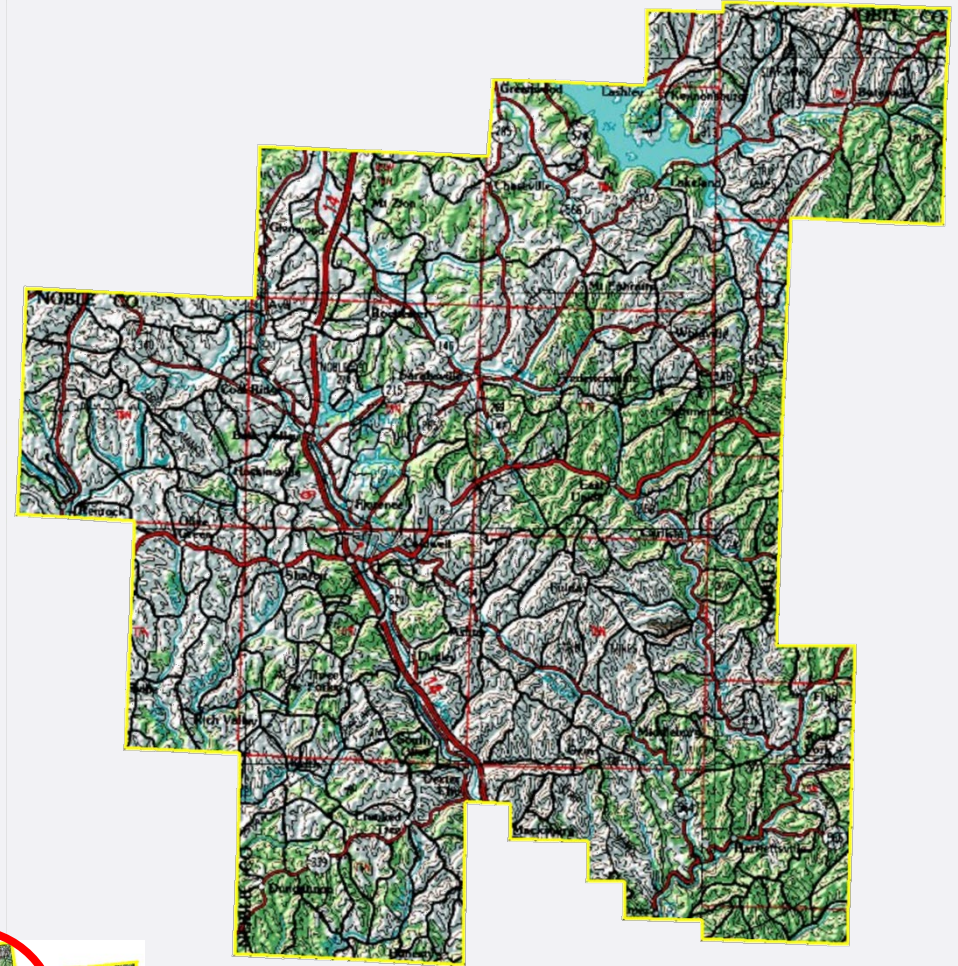


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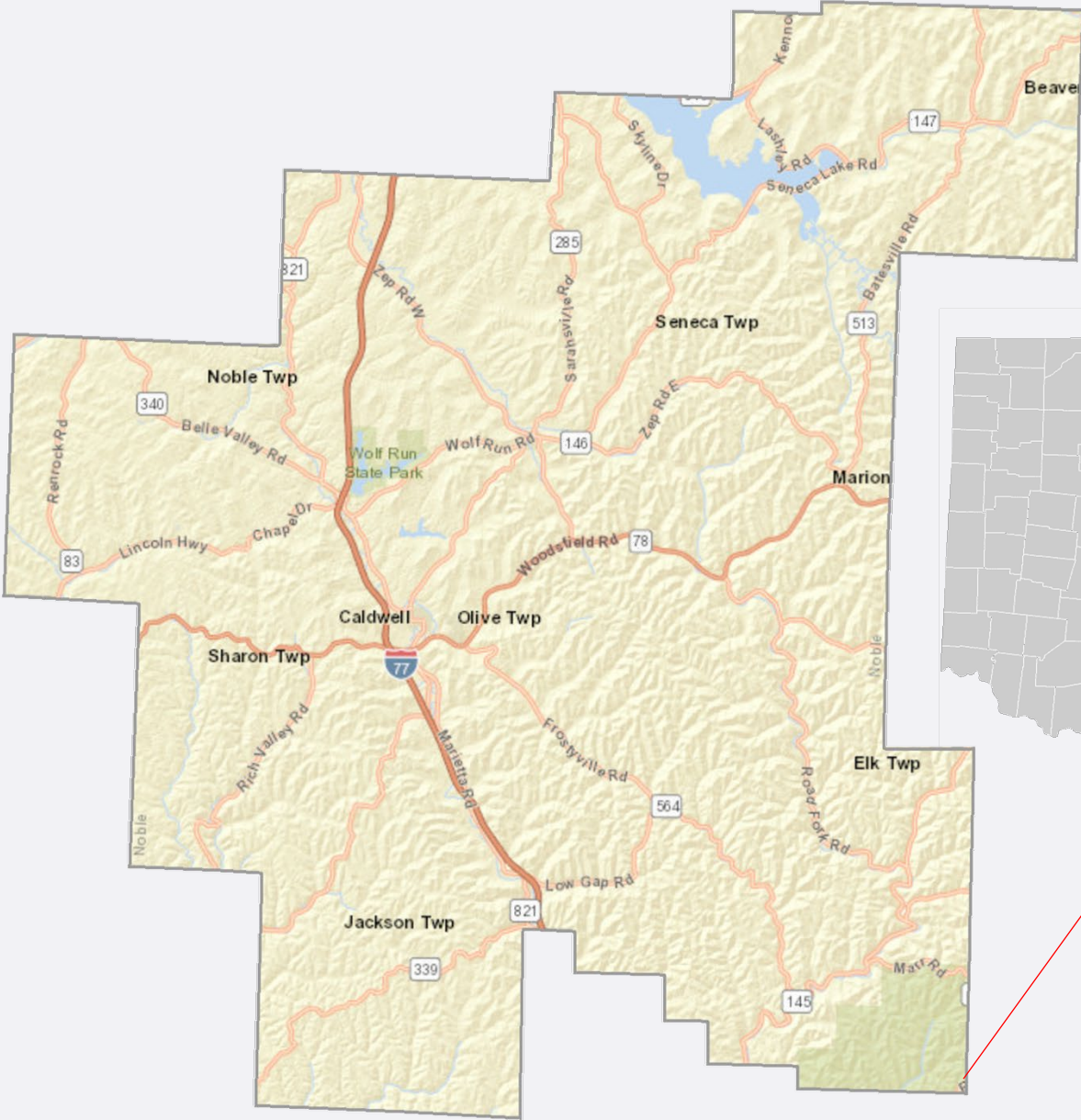
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& e-Connectivity



About Noble County	
Established	1851
County Seat	Caldwell
Area	405 sq. mi.
Neighboring Counties	Belmont County, OH Guernsey County, OH Monroe County, OH Morgan County, OH Muskingum County, OH Washington County, OH
Metropolitan Classification	Nonmetro Statistical Area



Section 01

Introduction



Purpose

This document provides information and data about Noble that can be used to guide decision-making.

The Data Snapshot showcases a variety of demographic, economic and labor market information that local leaders, community organizations and others can use to gain a better perspective on current conditions and opportunities in Noble County.

To strengthen the value and usability of the information, we showcase the data using a variety of visual tools, such as charts, graphs and tables. In addition, we offer key points about the data as a way of assisting the user with the interpretation of the information presented.

Finally, short takeaway messages are offered at the end of each section in order to highlight some of the more salient findings.

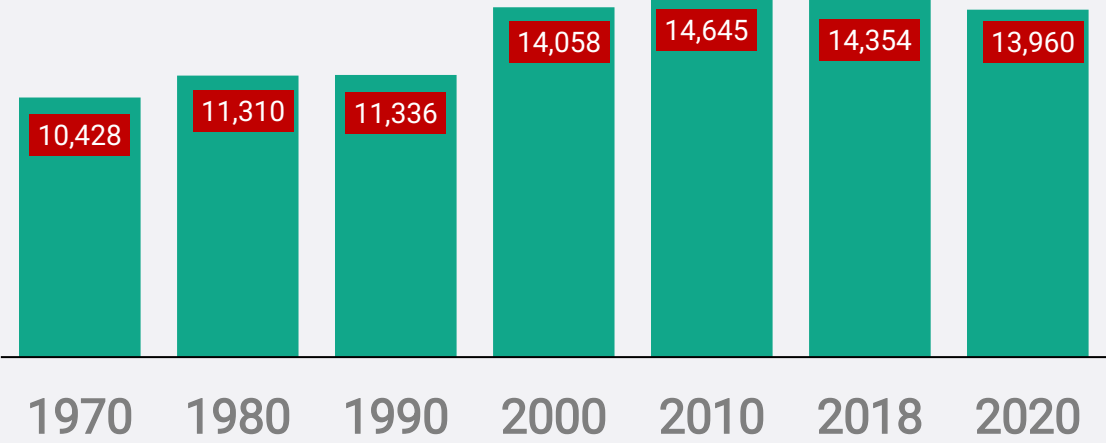


Section 02

Quality of Life

Population Change

Total Population Projections



The total population is projected to decrease by 2.74 percent between 2018 and 2020 and 4.68 percent between 2010 and 2020.

Noble County’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. In contrast, international migration added populations. Natural increase (births minus deaths) was 267 from 2000 to 2018. Noble County is losing population as a result of outmigration to other counties and states.

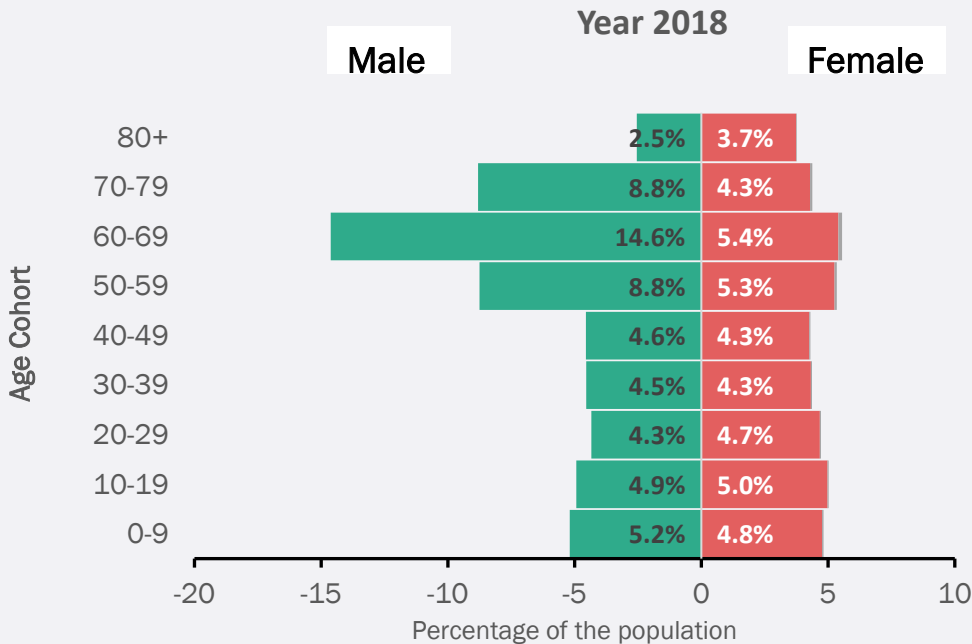
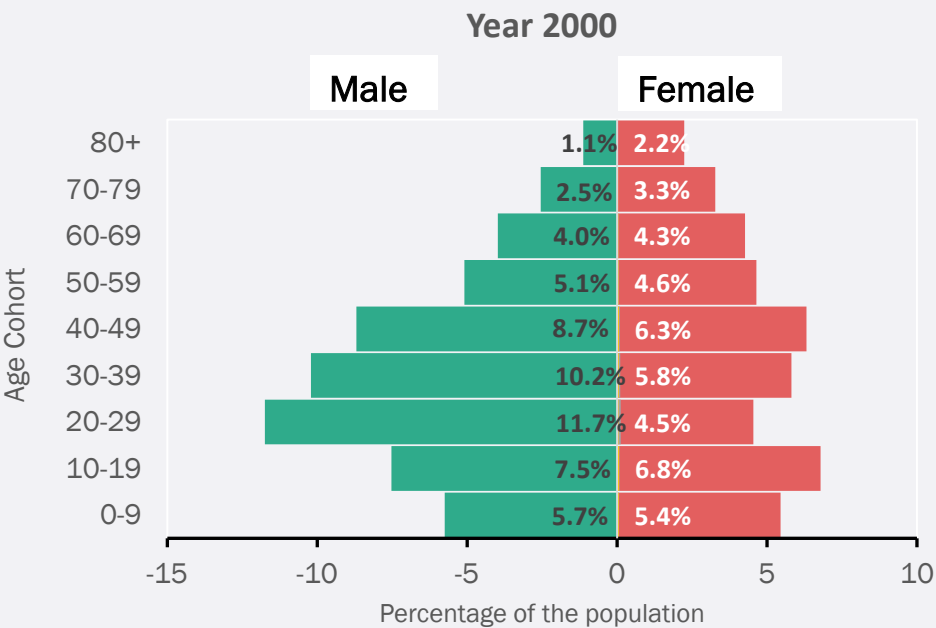
Components of Population Change, 2000-2018

	2000-2010	2010-2018
Natural Increase	206	61
International Migration	7	17
Domestic Migration	67	-377
Total Change	222	-307

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

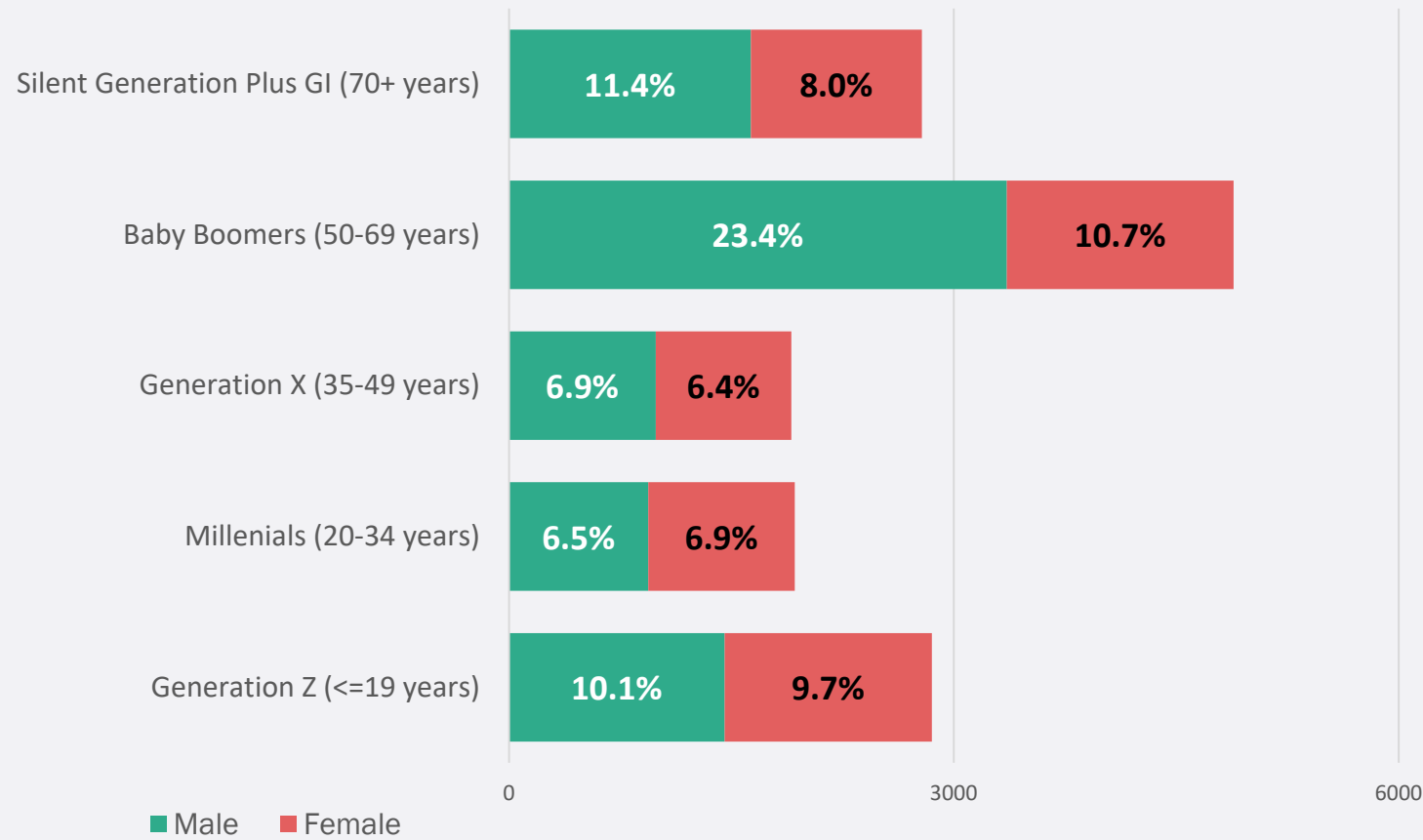
Sources: U.S. Census Bureau – 1990 Census, 2000 Decennial Census, 2010 Decennial Census, 2018 Estimates, Estimates of the Components of Resident Population Change

Population Pyramids



The proportion of males and females in Noble County changed between 2000 and 2018. The female population declined from 43.3 percent (6,092 persons) in 2000 to 41.7 percent (5,983 persons) in 2018. Bigger changes, however, occurred in specific age-groups. Population aged 50-years or more doubled from nearly 27 to 53 percent, a 26 percentage points increase. Young population below 20-years decreased from nearly 26 to 20 percent in the 18 years period. Prime working age, residents 30 to 49 years declined from 31 to 18 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.

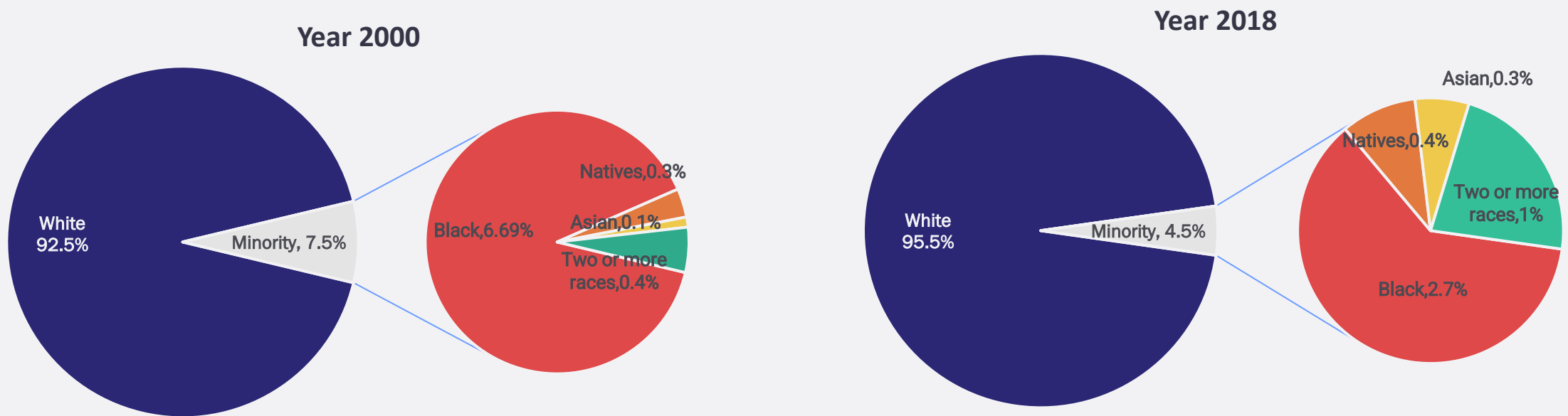
Baby Boomers is the generation after World War II. They are now 50 to 70 years old and nearing retirement age. They experienced the U.S. economic growth and prosperity. This is a large generational cohort with a strong work ethic.

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.

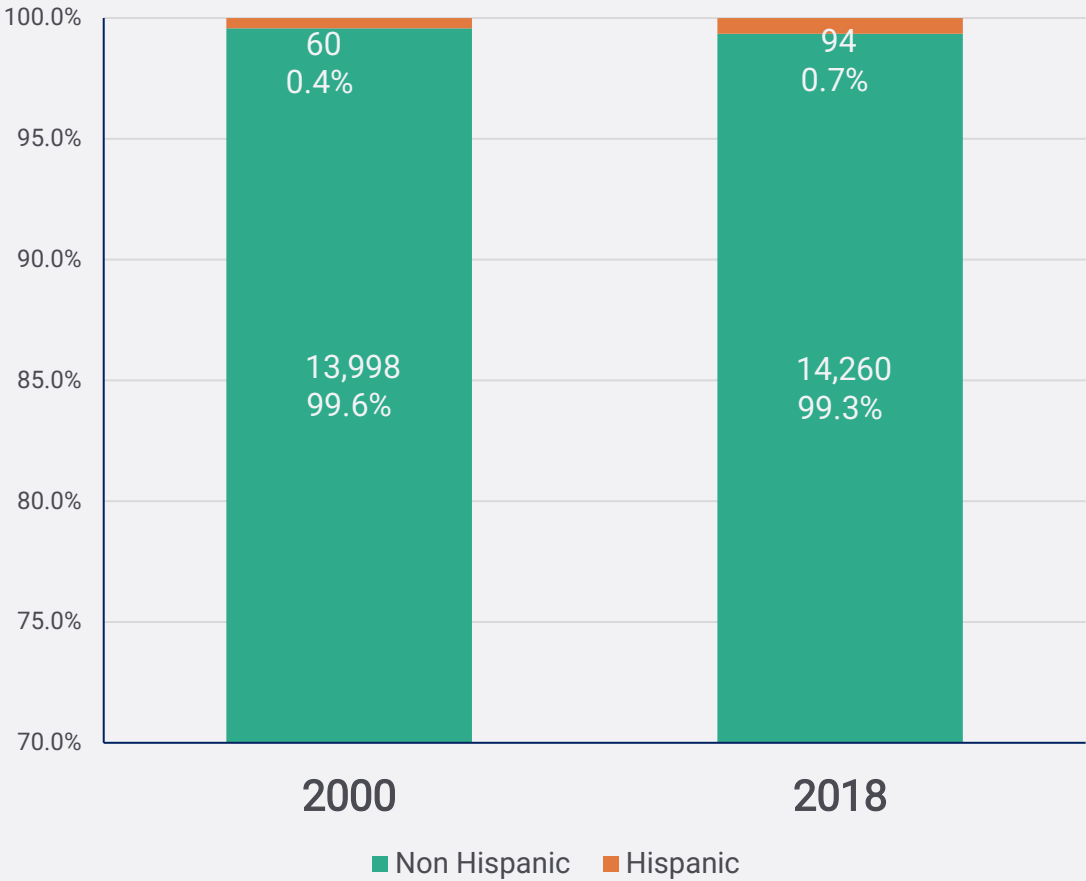
Race



Note: Natives are comprised of American Indian and Alaskan Native, and Native Hawaiian and Other Pacific Islander.

The number of white residents in Noble County increased marginally from 92.5 percent to 95.5 percent between 2000 and 2018. As a result minority population decreased from 7.5 percent to only 4.5 percent in the 18 year period. Asians and two or more races increased by 29 and 86 individuals, respectively. Within minority, Black populations have the largest presentation with 394 individuals in 2018, however it decreased by 546 individuals in the 18-year period.

Ethnicity



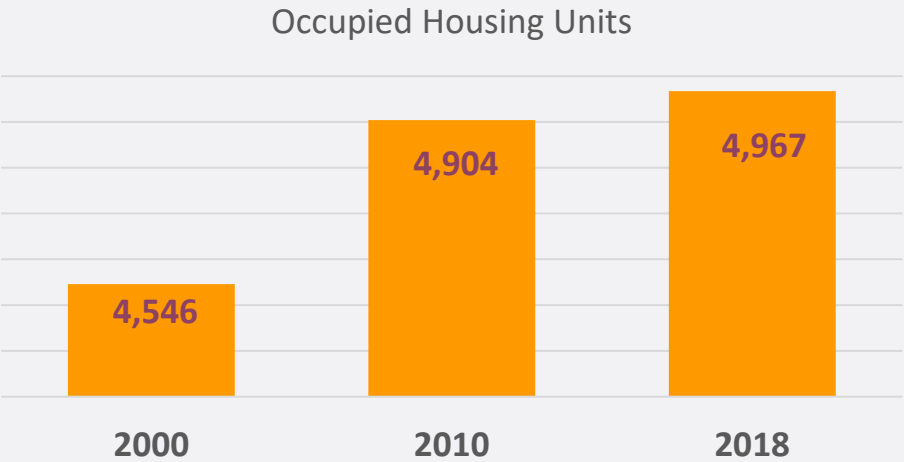
Hispanics are individuals of any race whose ancestors are from Mexico, Puerto Rico, Cuba, Spain, the Dominican Republic or any other Spanish-speaking Central or South American country.

There were 60 Hispanics in 2000 which increased to 94 individuals in 2018.

Housing Units by Tenure

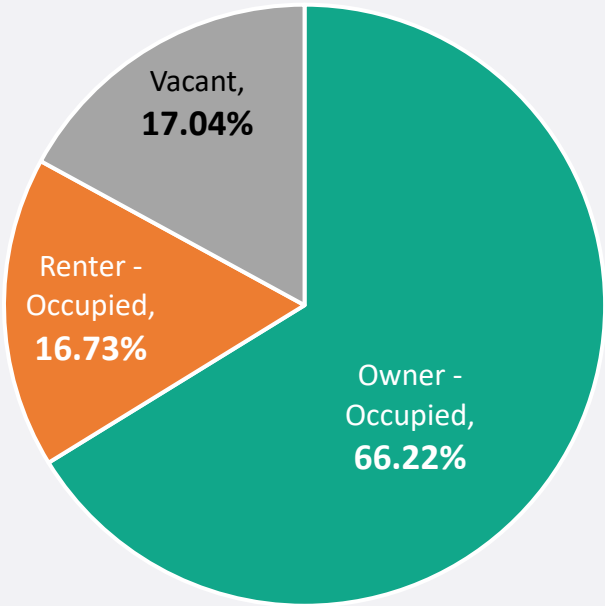
	2000		2018	
Total Occupied Housing Units	4,546	82.96%	4,967	80.84%
Owner-Occupied	3,629	66.22%	4,172	67.90%
Renter-Occupied	917	16.73%	795	12.94%
Total Vacant Housing Units	934	17.04%	1,177	19.16%

In 2018, slightly more than one tenth of housing units in Noble County were renter-occupied. At the same time, nearly 7 in 10 housing units were owner-occupied. Approximately 2 in 10 housing units were vacant in 2018, which was slightly higher than 2000.

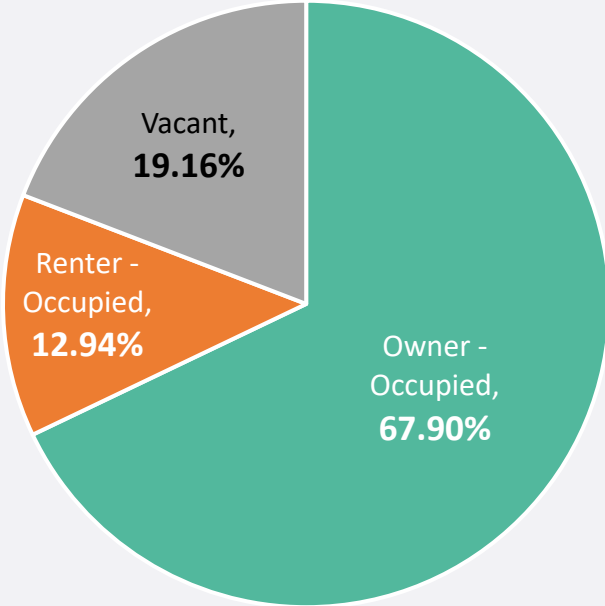


Housing Units by Tenure

2000



2018



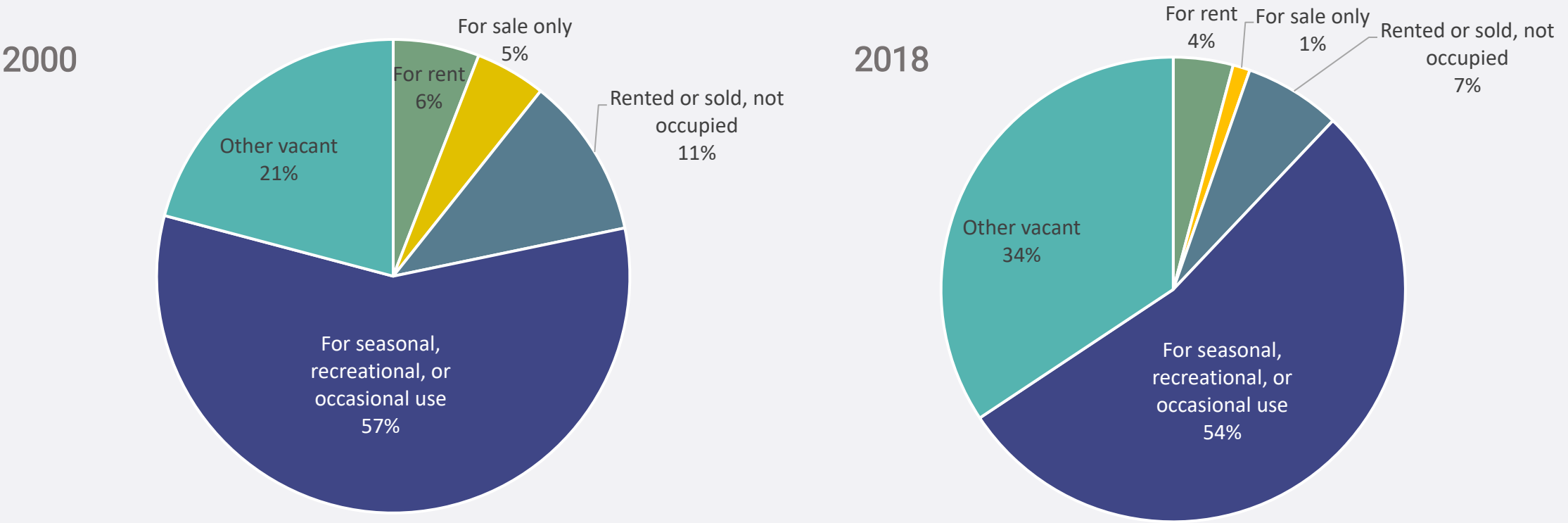
From 2000 to 2018, owner occupied housing units marginally increased (gain of 543 units), vacant housing units also marginally increased (increased by 243 units) whereas, renter occupied housing units decreased (loss of 122 units) in both, proportion and in numbers.

Type of Housing Structures

	2000		2010		2018	
1 detached	3,981	72.6%	3,908	79.7%	4,662	75.9%
1 attached	34	0.6%	44	0.9%	54	0.9%
2 apartments	73	1.3%	49	1.0%	112	1.8%
3-4 apartments	67	1.2%	108	2.2%	170	2.8%
5-9 apartments	69	1.3%	59	1.2%	55	0.9%
10 or more apartments	81	1.5%	34	0.7%	66	1.1%
Mobile or other types (boat, RV)	1,175	21.4%	696	14.2%	1,025	16.7%
Total	5,480	100.0%	4,904	99.9%	6,144	100.0%

Owner Occupied housing units (ownership) have increased from 2000 to 2018, however rented and vacant housing units were decreased. The share of mobile homes, 5-9 apartments, and 10 or more apartments decreased in 2018 compared to 2000. Single family detached housing units remain the predominant housing type with 75.9% of total units. It is followed by mobile homes housing units with 16.7% share.

Housing Units by Vacancy Type



Housing units in other vacant category increased proportionately and in numbers from 2000 to 2018. There were 195 other vacant units in 2000, which increased to 404 units in 2018, a 13-percentage point increase in 18 years. Seasonal, recreational or occasional housing units decreased by 3 percentage points between 2000 and 2018. Housing units of other category like for rent, for sale, rented or sold (not occupied) also decreased between 2000 and 2018.



Monthly Housing Costs, 2018

	Occupied Housing Units	Percent (%)
Less than \$300	972	19.57%
\$300 - \$499	1,311	26.39%
\$500 - \$799	1,310	26.37%
\$800 - \$999	457	9.20%
\$1000 - \$1499	438	8.82%
\$1500 and more	313	6.30%
No cash rent	166	3.34%



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	113	2.3%	150	3.0%	477	9.6%
\$20,000 to \$34,999	397	8.0%	245	4.9%	238	4.8%
\$35,000 to \$49,999	480	9.7%	242	4.9%	28	0.6%
\$50,000 to \$74,999	883	17.8%	116	2.3%	95	1.9%
\$75,000 or more	1,182	23.8%	115	2.3%	26	0.5%
Zero or negative income	14 (0.3%)					
No cash rent	166 (3.3%)					

Note: Total Occupied (owner and renter) housing units in 2018: 4,967

In 2018, 17.4 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	15.0%	18.4%	19.5%
Minors (Under Age 18) in Poverty	16.7%	23.5%	23.2%
Real Median Household Income (\$2018)	\$45,389	\$49,754	\$48,792
Real Per Capita Income (\$2018)	\$27,343	\$25,777	\$27,211

Individual and minor poverty rates have varied in Noble County. In 2018, individual poverty rate was 19.5 percent, close to the high-poverty threshold of 20%. In 2009, poverty rate was 18.4% slightly less than the high-poverty threshold. Minor poverty rates exceeded high poverty thresholds in 2009 and 2018. In 2018, almost a quarter of population 18 years of age or younger were below the federal poverty line threshold. Real median household income (RMHI) has fluctuated but increased by \$3,403 from 2001 to 2018, however it decreased by \$962 from 2009 to 2018. Furthermore, the real per capita income decreased by \$1,566 and increased by \$1,434 from 2001 to 2009 and from 2009 to 2018, respectively. In the 18-year period from 2001 to 2018, the real per capita income decreased by \$132.

Health Outcomes

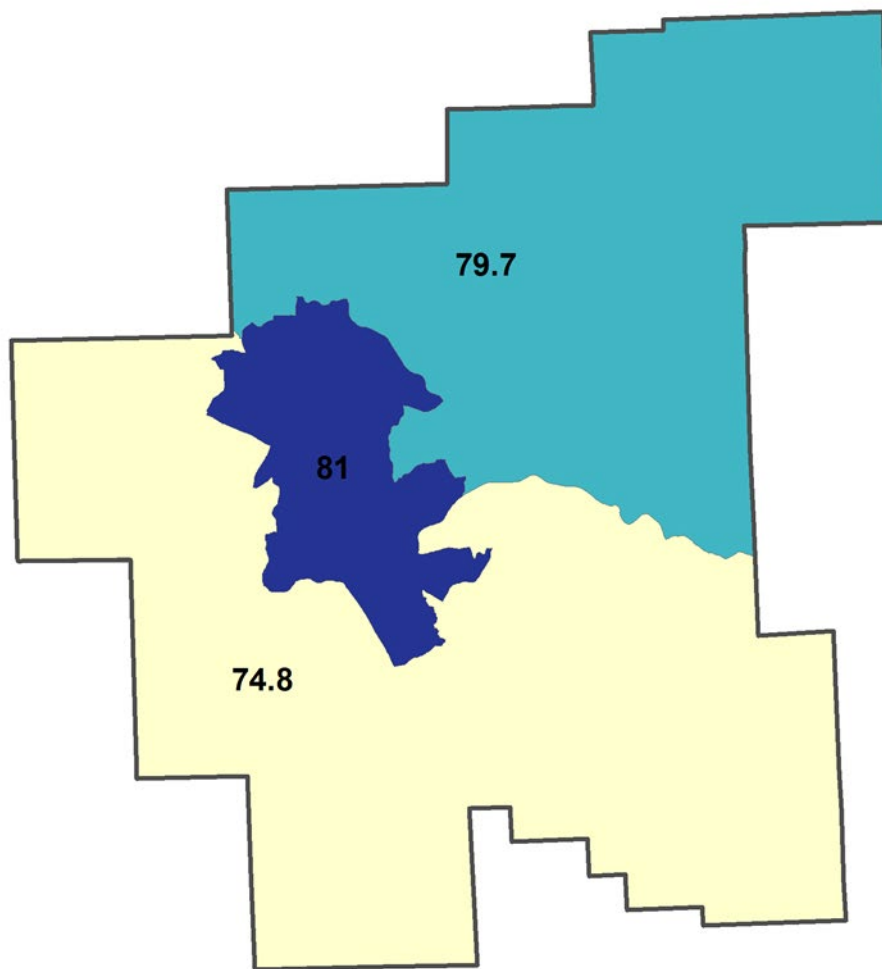
	Life Expectancy	Poor or Fair Health
Noble County	81.4	15%
Ohio	77.0	

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.

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

Life expectancy is more than 81 years in Noble County. Noble County also has the lowest proportion of population in poor or fair health (15%) in the Buckeye Hills Region.

Life Expectancy by Census Tracts



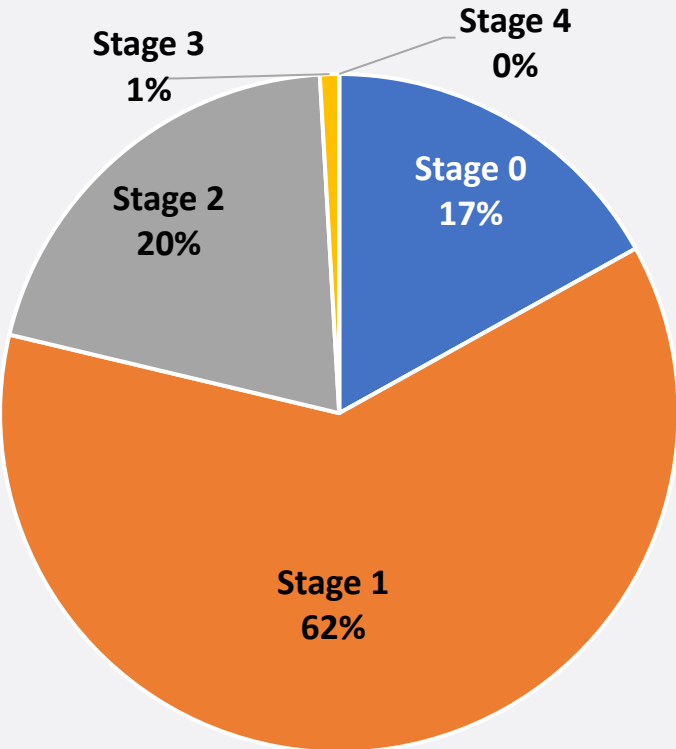
Life expectancy at the census tract level in Noble County, Ohio varies from the maximum of 81 years to the minimum of 74.8 years.



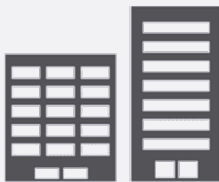
Section 03

Economic Development

Company Stages



Establishment Distribution by Stages
Noble County, 2019



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 2019	% Change (2013-2019)	Jobs* 2019	% Change (2013-2019)
Stage 0	74	-8.64%	74	-8.64%
Stage 1	270	-1.82%	961	-3.51%
Stage 2	89	17.11%	2,125	19.58%
Stage 3	4	33.33%	1,051	36.49%
Stage 4	0		0	
Total	437	0.46%	4,211	16.20%

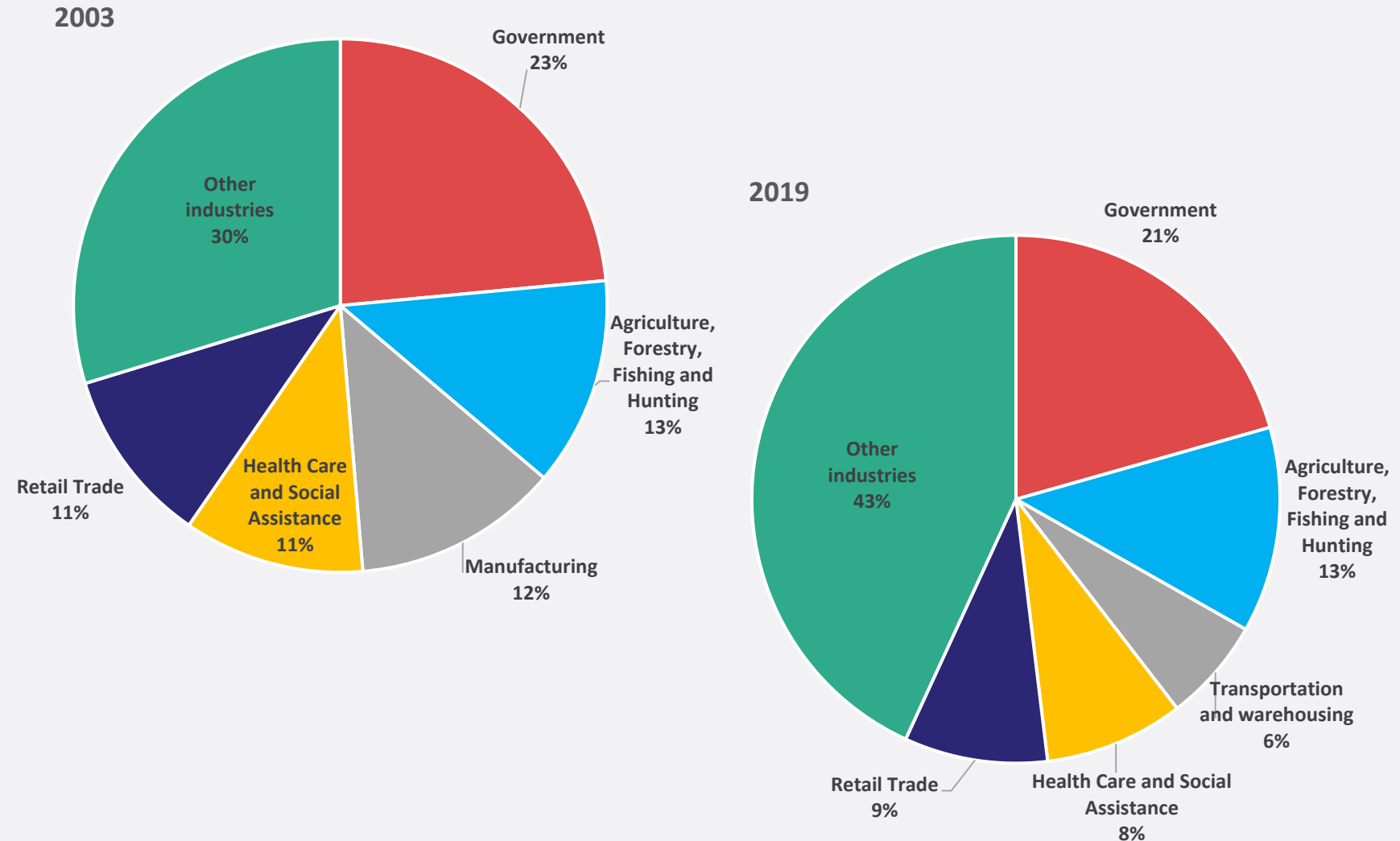
*Includes both full-time and part-time jobs

Note: The change in jobs from 2013 to 2019 might not match with the components of change in jobs because of residuals.



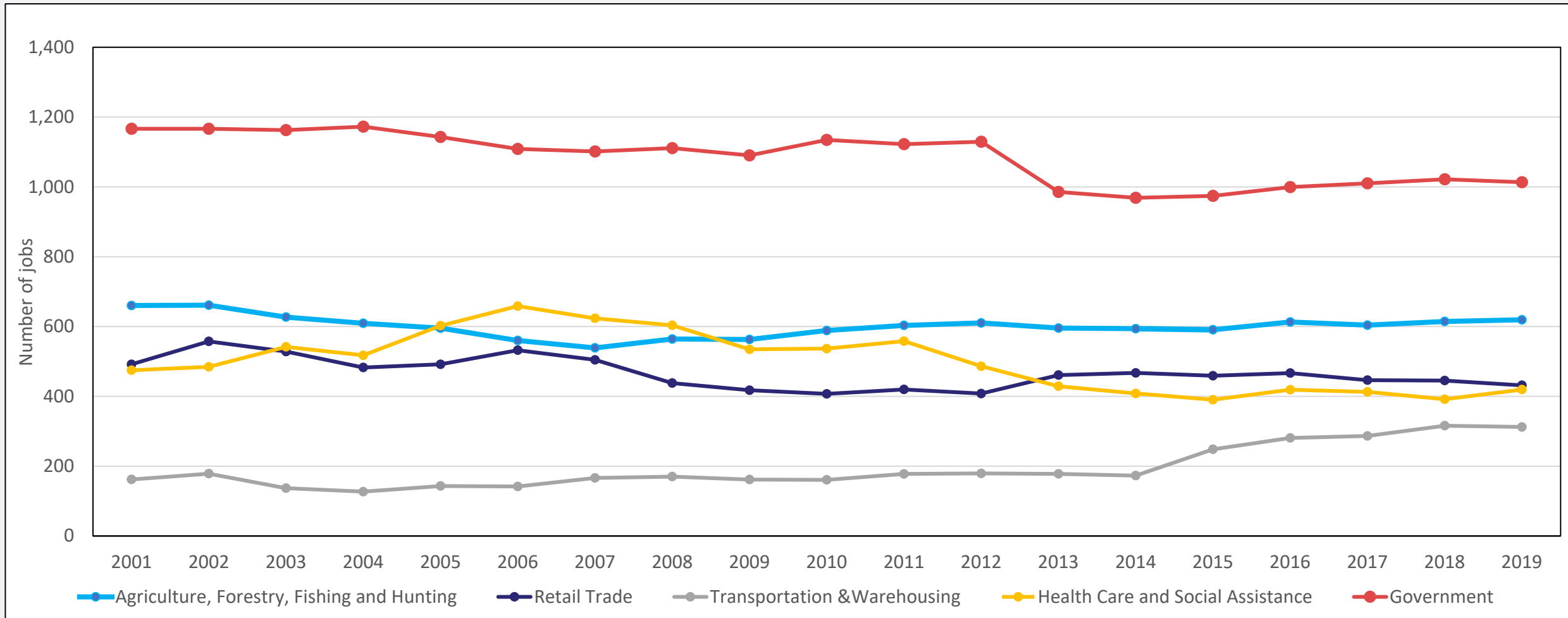
Top Five Industries

Government is the largest sector providing nearly 1,013 jobs and more than \$66,419 in average annual earnings. Manufacturing is one of the top five industries in 2003, however the sector lost 337 jobs in 2019. Agriculture, forestry, fishing and hunting; Health care and social assistance; retail trade; and transportation complete the top five industries in 2019.





Top Five Industries Jobs Trend (2001-2019)





Industry distribution and change

Industries with the largest gains and losses in employment numbers between 2003 & 2019





NAICS Code	Description	Jobs 2003	Jobs 2019	Change (2003-2019)	% Change (2003-2019)	Average Total Earnings (\$) 2019
11	Agriculture, Forestry, Fishing and Hunting	627	619	-8	-1.3%	\$13,626
21	Mining, Quarrying, and Oil and Gas Extraction	169	195	26	15.4%	\$45,818
22	Utilities	19	16	-3	-15.8%	\$30,637
23	Construction	228	255	27	11.8%	\$40,206
31	Manufacturing	617	280	-337	-54.6%	\$68,241
42	Wholesale Trade	97	117	20	20.6%	\$41,694
44	Retail Trade	528	432	-96	-18.2%	\$24,776
48	Transportation and Warehousing	137	312	175	127.7%	\$53,429
51	Information	19	30	11	57.9%	\$33,810
52	Finance and Insurance	137	203	66	48.2%	\$38,610
53	Real Estate and Rental and Leasing	61	91	30	49.2%	\$36,051
54	Professional, Scientific, and Technical Services	97	225	128	132.0%	\$61,434
55	Management of Companies and Enterprises	0	87	87		\$32,852
56	Administrative and Support and Waste Management and Remediation Services	58	84	26	44.8%	\$23,969
61	Educational Services	23	33	10	43.5%	\$5,292
62	Health Care and Social Assistance	542	419	-123	-22.7%	\$27,569
71	Arts, Entertainment, and Recreation	34	36	2	5.9%	\$15,328
72	Accommodation and Food Services	188	234	46	24.5%	\$17,319
81	Other Services (except Public Administration)	201	237	36	17.9%	\$21,153
90	Government	1,163	1,013	-150	-12.9%	\$66,419
		4,947	4,918	-29	0.6%	\$40,454



NAICS Code	Description	QCEW 2003 Jobs	QCEW 2019 Jobs	QCEW Jobs % Change (2003-2019)	QCEW Average Total Earnings 2019
11	Agriculture, Forestry, Fishing and Hunting	30	0	-100%	\$0
21	Mining, Quarrying, and Oil and Gas Extraction	101	79	-22%	\$67,543
22	Utilities	19	12	-37%	\$28,893
23	Construction	84	122	45%	\$47,729
31	Manufacturing	589	249	-58%	\$71,084
42	Wholesale Trade	82	100	22%	\$42,490
44	Retail Trade	348	280	-20%	\$25,944
48	Transportation and Warehousing	54	154	185%	\$75,548
51	Information	18	16	-11%	\$31,402
52	Finance and Insurance	72	85	18%	\$53,039
53	Real Estate and Rental and Leasing	<10	<10	Insufficient Data	Insufficient Data
54	Professional, Scientific, and Technical Services	25	138	452%	\$79,527
55	Management of Companies and Enterprises	0	85	Insufficient Data	\$32,429
56	Administrative and Support and Waste Management and Remediation Services	17	27	59%	\$35,640
61	Educational Services	0	0	0%	\$0
62	Health Care and Social Assistance	457	350	-23%	\$27,126
71	Arts, Entertainment, and Recreation	<10	<10	Insufficient Data	Insufficient Data
72	Accommodation and Food Services	176	214	22%	\$16,149
81	Other Services (except Public Administration)	59	69	17%	\$25,791
90	Government	1,129	984	-13%	\$67,778
		3,267	2,973	-9%	\$51,682



Non-employer Statistics

Noble County	2010	2017
Number of Establishments	829	740
Receipts or \$ Sales (thousands, \$2017)	32,159.80	32,265.00
Receipts per Establishments (thousands, \$2017)	38.79	43.60

Non-employer statistics indicates entrepreneurship and ventures in the county. Compared to 2010, establishments without any paid employees but paying federal income taxes decreased by 89 establishments. In contrast, sales in real value and sales per establishment increased marginally from 2010 to 2017.



Noble County, OH	2012 (\$ 2017)	2017	% Change (2012-2017)
Number of Farms	595	593	-0.34%
Land in Farms (Acres)	85,733	80,124	-7.0%
Total Farm Production Expenses	\$10,124,000	\$9,195,000	-9.0%
Market Value of Products Sold	\$15,380	\$12,304	-25.0%



Top Five Crops & Livestock Acreage, 2017

Crops	Acres
Forage (Hay/Haylage)	19,172
Corn for grain	521
Corn for silage or greenchop	153
Vegetables	43
Cultivated Christmas Trees	Data Suppressed

Livestock	Number
Cattle and calves	10,301
Sheep and lambs	2,740
Layers	1,635
Horses and ponies	704
Goats	522



Workforce Development

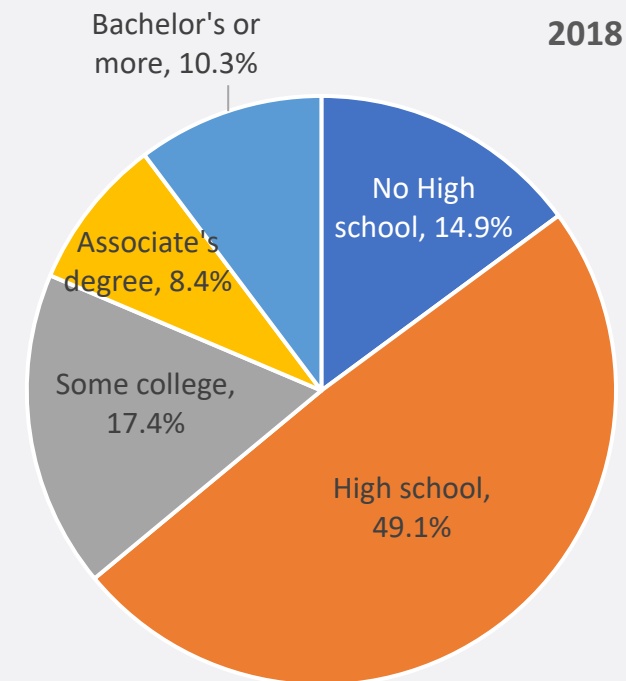
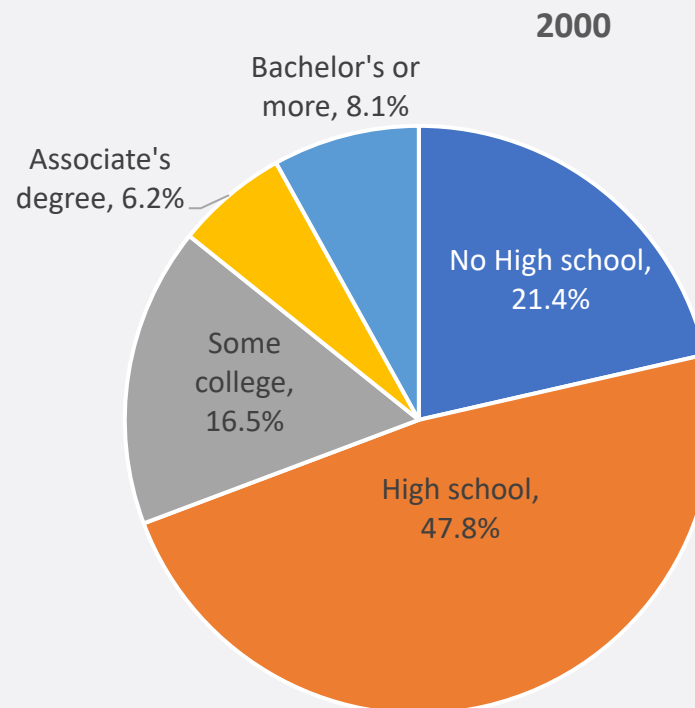
Section 04



Noble County share of adults (25 years and older) with bachelor's or higher degree increased by 2.2 percentage points from 2000 to 2018.

The adults with associate's degree expanded by 2.2 percentage points (6,881 more individuals), while adults with some college degree increased by 0.9 percentage point (4,751 more individuals) from 2000 to 2018.

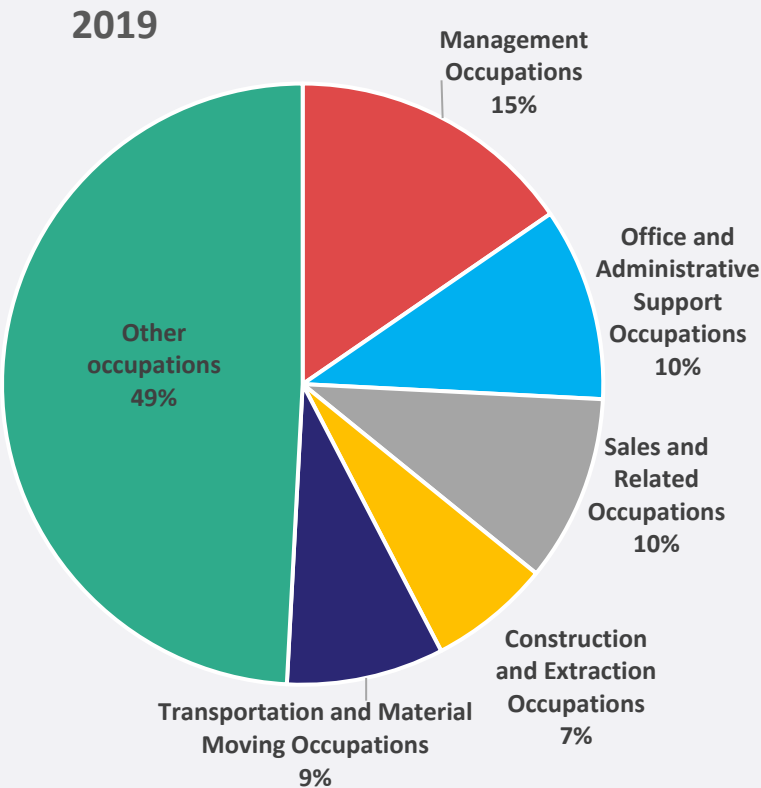
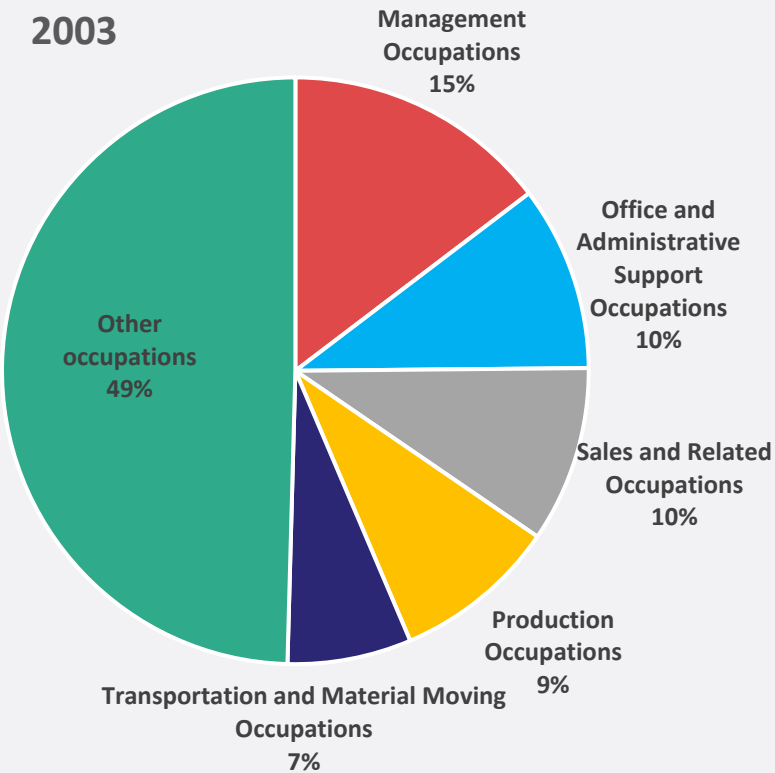
Despite impressive improvements in educational attainment, nearly half of the adult population (49.2%) had a high school education in 2018.



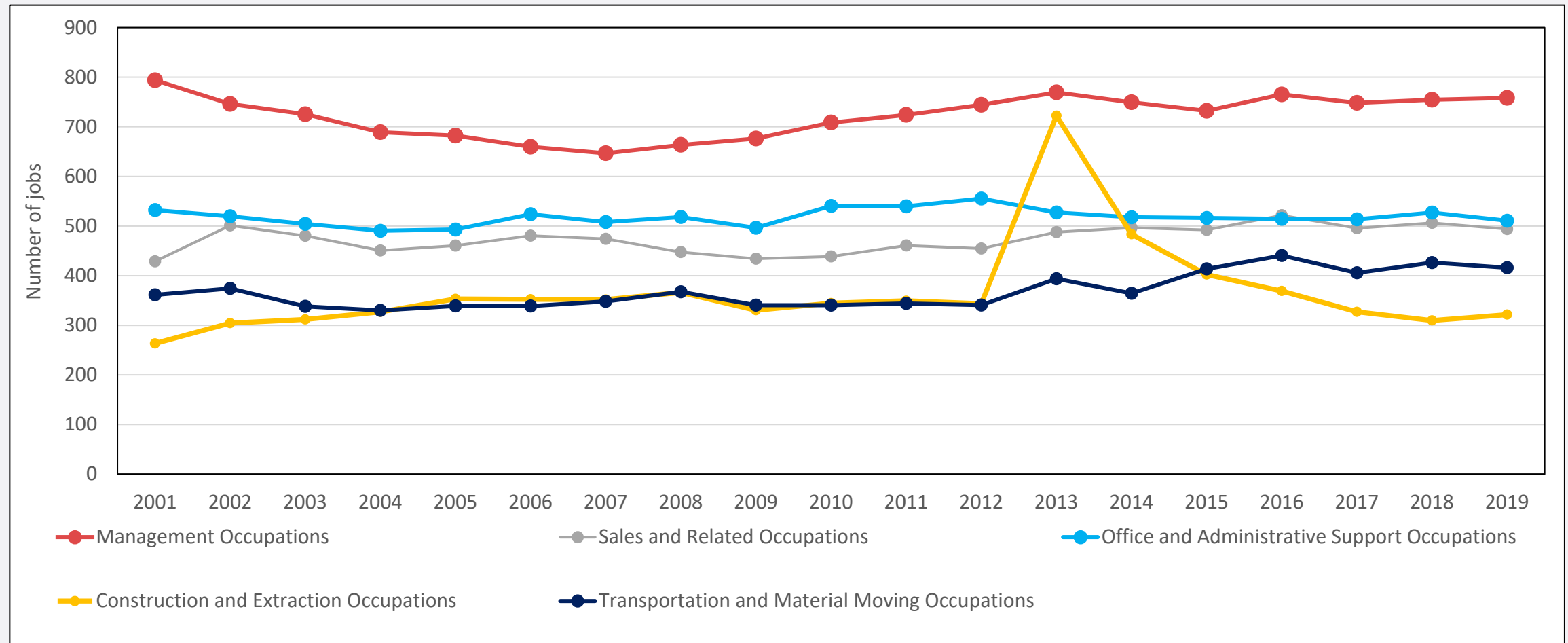
Top Five Occupations

The management is the largest occupation group, providing 758 jobs followed by office and administrative support occupations (providing 511 jobs) in 2019.

Sales and related occupations (providing 494 jobs); transportation and material moving operations (providing 416 jobs); and construction and extraction occupations (providing 322 jobs) complete the top five occupation groups.



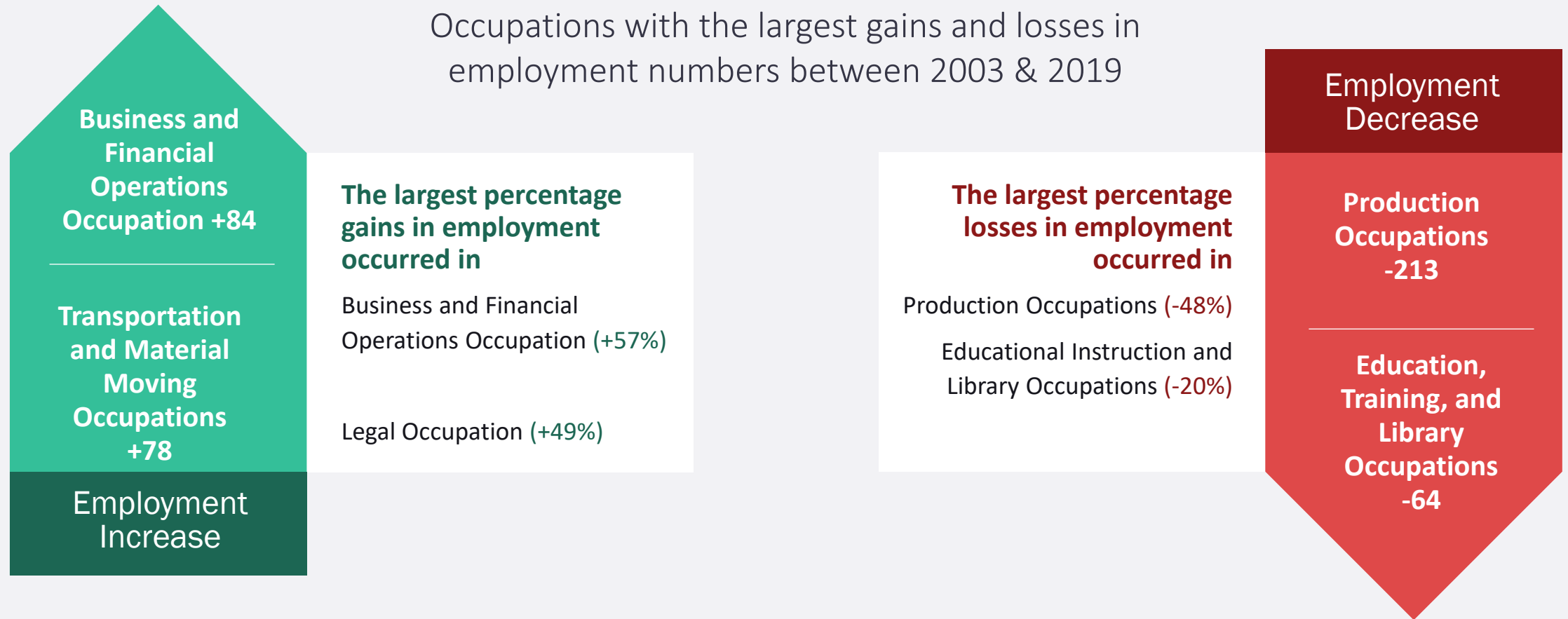
Occupation distribution and change (2001-2019)





Occupation distribution and change

Occupations with the largest gains and losses in employment numbers between 2003 & 2019





Economy - Occupation Distribution and Change

SOC	Description	Jobs 2003	Jobs 2019	Change (2003-2019)	% Change (2003-2019)	Median Hourly Earnings 2019 (Total Jobs)
11	Management Occupations	725	758	33	5%	\$31,671.35
13	Business and Financial Operations Occupations	147	231	84	57%	\$54,359.69
15	Computer and Mathematical Occupations	39	45	6	15%	\$56,916.63
17	Architecture and Engineering Occupations	81	65	-16	-20%	\$78,102.41
19	Life, Physical, and Social Science Occupations	41	47	6	15%	\$63,525.15
21	Community and Social Service Occupations	116	110	-6	-5%	\$38,369.21
23	Legal Occupations	35	52	17	49%	\$52,916.97
25	Education, Training, and Library Occupations	323	259	-64	-20%	\$47,032.16
27	Arts, Design, Entertainment, Sports, and Media Occupations	82	98	16	20%	\$30,608.11
29	Healthcare Practitioners and Technical Occupations	153	153	0	0%	\$46,403.96
31	Healthcare Support Occupations	176	189	13	7%	\$22,682.92
33	Protective Service Occupations	146	131	-15	-10%	\$42,477.06
35	Food Preparation and Serving Related Occupations	244	231	-13	-5%	\$19,621.49
37	Building and Grounds Cleaning and Maintenance Occupations	112	131	19	17%	\$22,357.44
39	Personal Care and Service Occupations	166	148	-18	-11%	\$22,814.22
41	Sales and Related Occupations	480	494	14	3%	\$26,229.22
43	Office and Administrative Support Occupations	504	511	7	1%	\$30,082.12
45	Farming, Fishing, and Forestry Occupations	80	94	14	18%	\$22,177.68
47	Construction and Extraction Occupations	312	322	10	3%	\$36,840.31
49	Installation, Maintenance, and Repair Occupations	182	181	-1	-1%	\$36,323.08
51	Production Occupations	447	234	-213	-48%	\$35,526.26
53	Transportation and Material Moving Occupations	338	416	78	23%	\$38,171.65
55	Military-only occupations	16	15	-1	-6%	\$50,433.73
All		4,947	4,918	-29	-1%	



Economy - Occupation Distribution and Change

SOC	Description	QCEW 2003 Jobs	QCEW 2018 Jobs	QCEW Jobs % Change (2003-2018)	Median Hourly Earnings 2018 (QCEW Jobs)
11	Management Occupations	109	117	7%	\$76,839.78
13	Business and Financial Operations Occupations	87	119	37%	\$52,848.69
15	Computer and Mathematical Occupations	29	38	31%	\$57,621.66
17	Architecture and Engineering Occupations	71	51	-28%	\$79,945.96
19	Life, Physical, and Social Science Occupations	28	34	21%	\$61,724.24
21	Community and Social Service Occupations	99	90	-9%	\$37,956.75
23	Legal Occupations	31	41	32%	\$50,070.63
25	Education, Training, and Library Occupations	295	227	-23%	\$48,699.50
27	Arts, Design, Entertainment, Sports, and Media Occupations	22	20	-9%	\$26,607.17
29	Healthcare Practitioners and Technical Occupations	138	133	-4%	\$45,590.19
31	Healthcare Support Occupations	152	157	3%	\$22,361.40
33	Protective Service Occupations	143	127	-11%	\$42,531.29
35	Food Preparation and Serving Related Occupations	237	221	-7%	\$19,587.34
37	Building and Grounds Cleaning and Maintenance Occupations	80	79	-1%	\$22,333.34
39	Personal Care and Service Occupations	60	41	-32%	\$21,827.08
41	Sales and Related Occupations	226	234	4%	\$23,168.87
43	Office and Administrative Support Occupations	453	439	-3%	\$30,324.51
45	Farming, Fishing, and Forestry Occupations	39	0	Insufficient Data	Insufficient Data
47	Construction and Extraction Occupations	184	199	8%	\$39,088.59
49	Installation, Maintenance, and Repair Occupations	138	137	-1%	\$37,485.84
51	Production Occupations	411	197	-52%	\$36,024.96
53	Transportation and Material Moving Occupations	237	263	11%	\$40,530.00
55	Military occupations	0	0	0%	
All	Total	3,267	2,973	-25%	

Labor Force and Unemployment

	2010	2019
Labor Force	5,253	4,699
Unemployment Rate	16.0%	6.9%

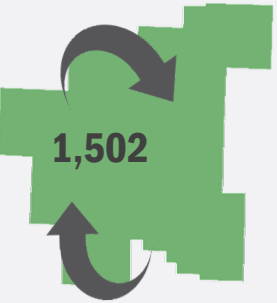
The number of individuals in the labor force in Noble county decreased by 524 workers from 2010 to 2019.

Unemployment rate dropped by 9.1 percentage points in 9-year period. In 2019, Noble County had 6.9 percent unemployment rate.

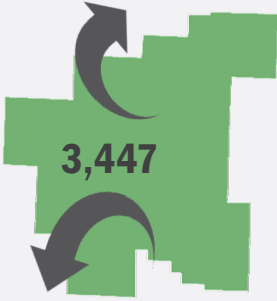
Journey to Work



In-Commuters



Same Work/Home



Out-Commuters

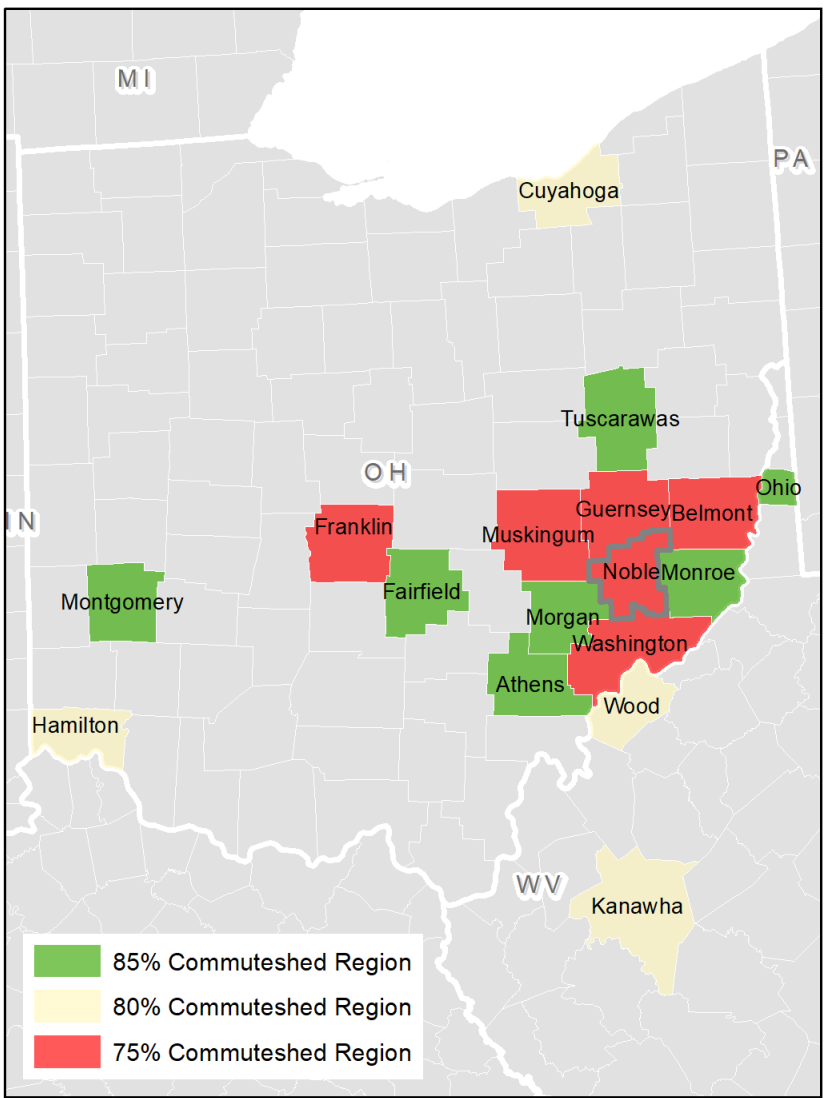
Noble County, Ohio has more workers commuting out than commuting into the county for work.

Net commuting is negative in the Noble County, Ohio with a deficit of 2,101 commuters. For every 100 residents, there are 57 jobs in the Noble County, Ohio, which suggests the county is not serving as a job center.

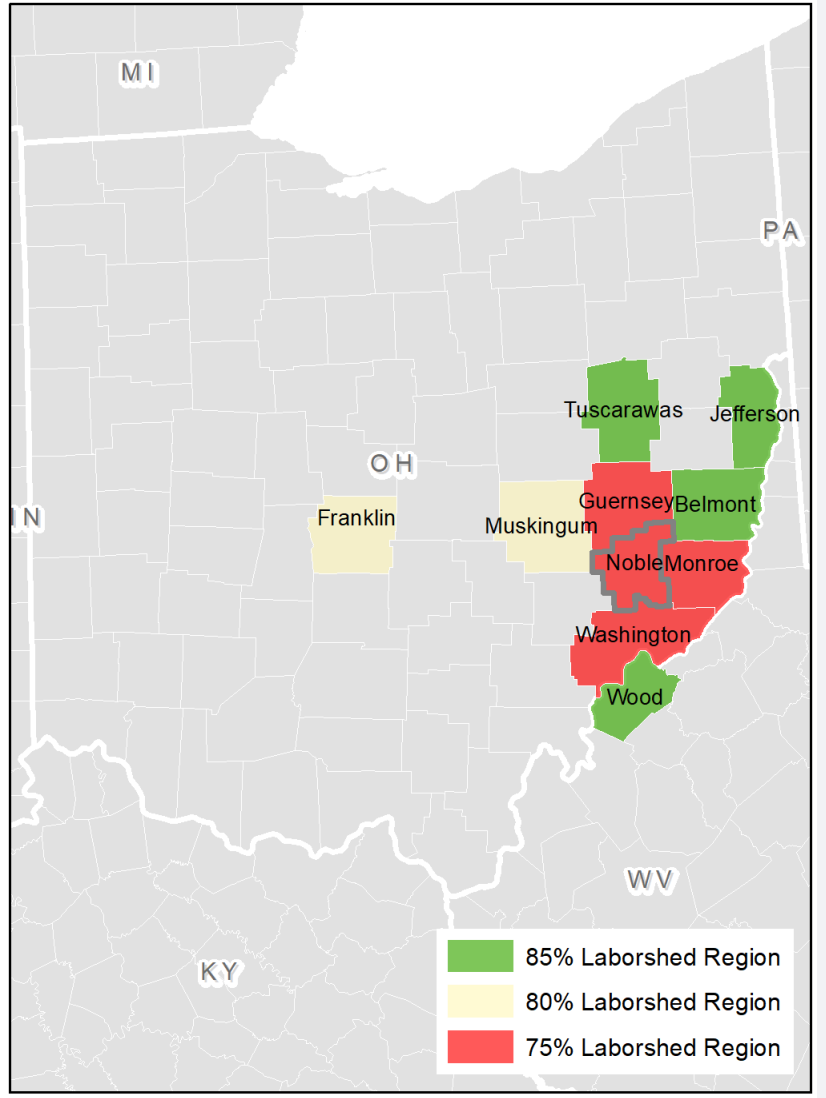
	2017 Count	Proportion
Living in Noble County, Ohio	4,949	100.0%
• Both living and employed in the region	1,502	30.3%
• Living in the region but employed outside	3,447	69.7%
Employed in Noble County, Ohio	2,848	100.0%
• Both employed and living in the region	1,502	52.7%
• Employed in the region but living outside	1,346	47.3%

Commuteshed & Laborshed in 2017

3,447



1,346



Commuteshed in 2017

Seventy-five percent of employed Noble County residents commute to Noble, Guernsey, Washington, Muskingum, and Belmont counties. Increasing the commuter shed threshold to 80 percent results in the inclusion of Wood and Kanawha counties in West Virginia and Cuyahoga (Cleveland) and Hamilton (Cincinnati) counties in Ohio. At the 85 percent threshold, Monroe, Fairfield, Montgomery, Tuscarawas, Morgan and Athens in Ohio are included as well as Ohio County in West Virginia.

A county’s commuteshed is the geographic area to which its resident work force travels to work.

Collectively, these 17 counties represent roughly 85 percent of the commuteshed for the Noble County, Ohio.

	Commuters	Proportion
Noble County, OH	1,502	30.3%
Guernsey County, OH	940	19.0%
Washington County, OH	547	11.1%
Muskingum County, OH	296	6.0%
Belmont County, OH	196	4.0%

Laborshed in 2017

Seventy-five percent of the region’s workers live in Noble, Guernsey, Washington and Monroe counties of Ohio. Muskingum and Franklin (Columbus) counties are included in the labor shed when the threshold is extended to 80 percent. Belmont, Tuscarawas, and Jefferson counties of Ohio and Wood County in West Virginia are part of the 85 percent labor shed.

Combined, these 10 counties represent 85 percent of the Noble County, Ohio’s laborshed.

A county’s laborshed is the geographic area from which it draws employees.

	Commuters	Proportion
Noble County, OH	1,502	52.7%
Guernsey County, OH	233	8.2%
Washington County, OH	209	7.3%
Monroe County, OH	149	5.2%
Muskingum County, OH	86	3.0%

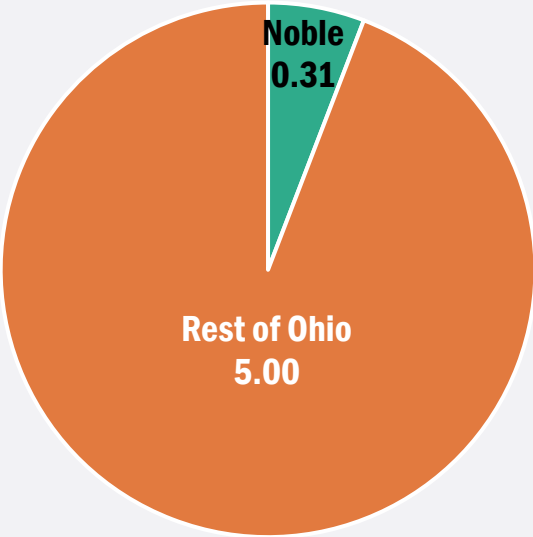


Section 04

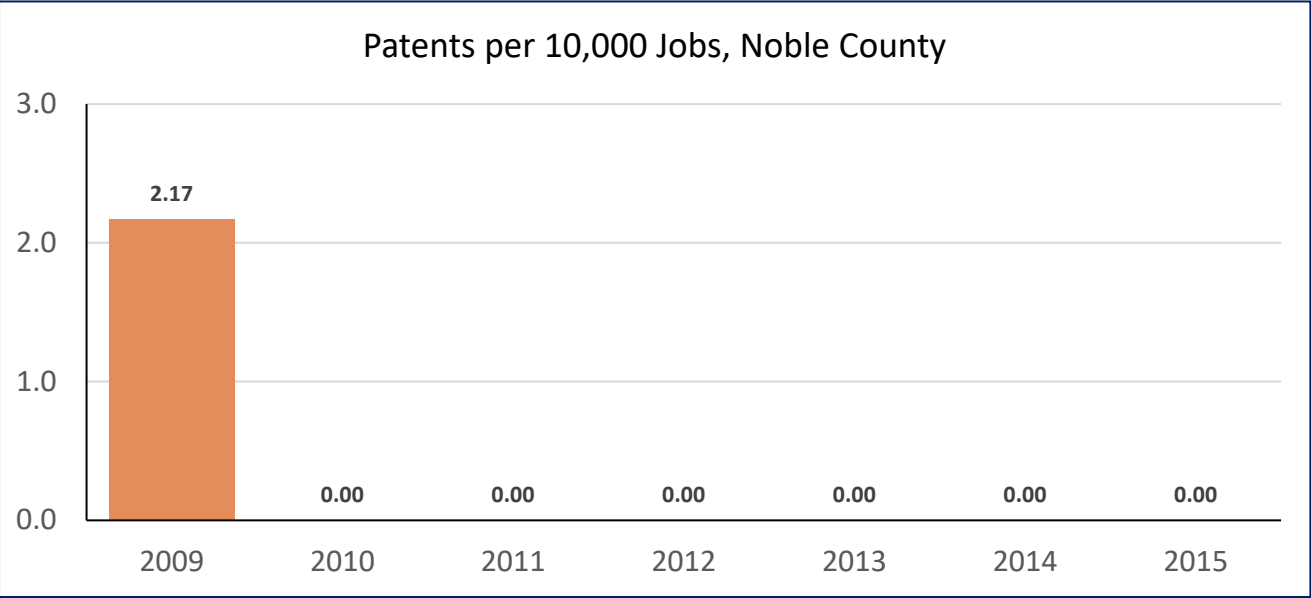
Technological Innovation & e-Connectivity

Patents

Patents per 10,000 Jobs
2009-2015



Patenting trends are important to assess the level of innovation in a county. Commercializing this innovation can lead to long-term growth for regional economies.



*Note: Patent origin is determined by the residence of the first-named inventor. A single patent can have multiple inventors.

Computing Devices and Connectivity

2018	Number of Households	Percent (%)
Has one or more types of computing devices	3,609	72.7%
No computer	1,358	27.3%
With an internet subscription	3,234	65.1%
Without an internet subscription	1,733	34.9%

Note: Total number of households: 4,967

Over 72 percent of households in Noble County had access to at least one computing device. In comparison, 27 percent households did not have access to a computing device.

Nearly 3 out of 10 (34.9%) of the households did not have an internet subscription in 2018 in Noble County. The un-subscription rate for Noble County is higher than the statewide average rate of 19.8 % in 2018.

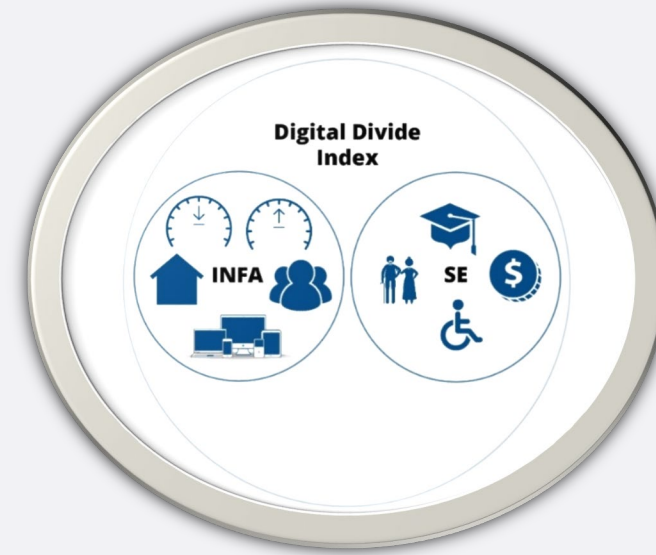
The Digital Divide Index or DDI ranges in value from 0 to 100, where 100 indicates the highest digital divide. It is composed of two scores, also ranging from 0 to 100: the infrastructure/adoption (INFA) score and the socioeconomic (SE) score.

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.

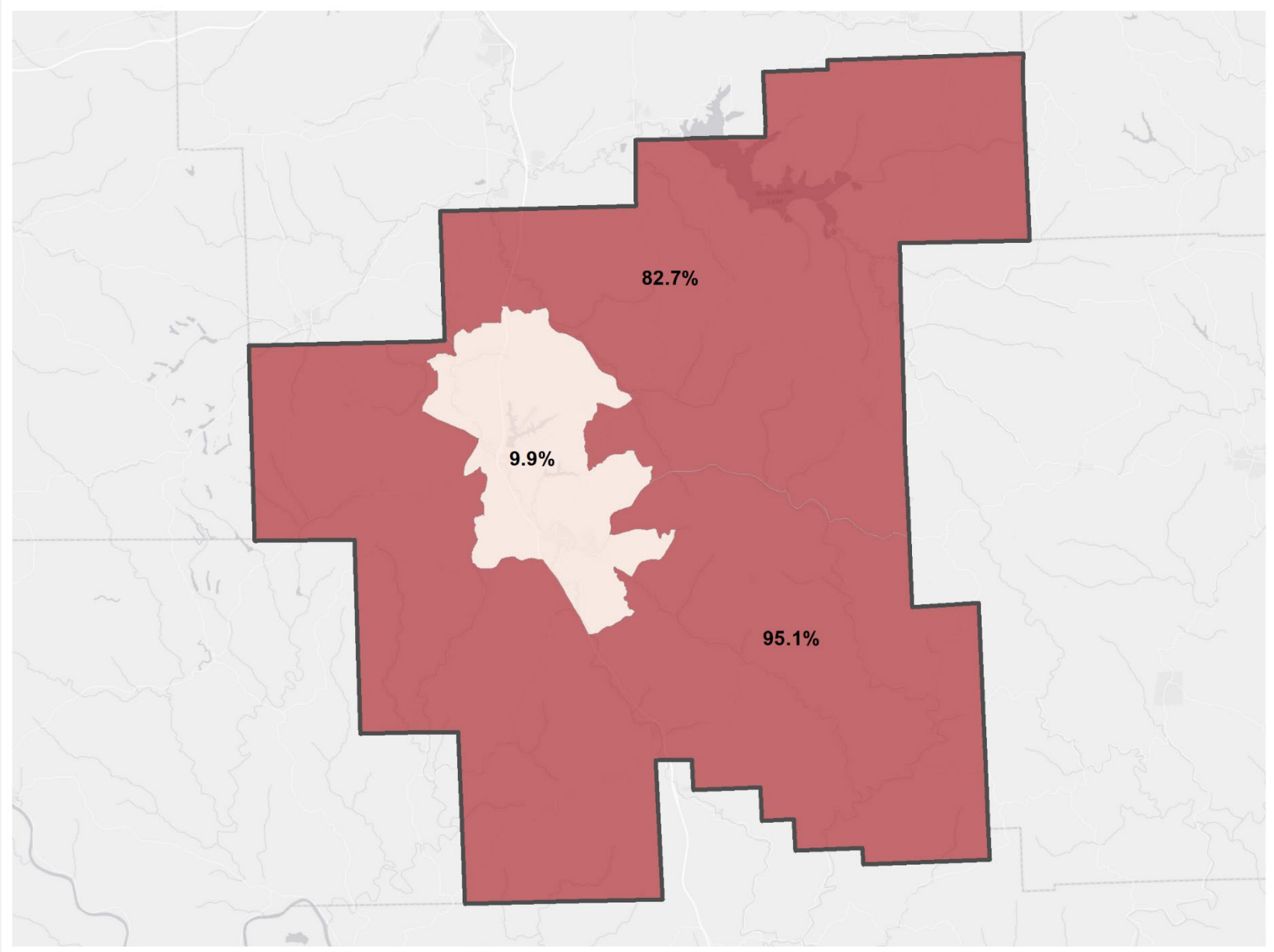
The SE score groups four variables known to impact technology adoption:

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.

Population with no access to broadband 25/3



2018 Digital Divide Profile

Score	
Digital Divide Index	37.6

Score	
Infrastructure/Adoption Score	26.7
Average maximum advertised download speed in Mbps	24.0
Average maximum advertised upload speeds in Mbps	2.0
People without access to fixed broadband of at least 25/3 Mbps	54.5%

Score	
Socioeconomic Score	58.0
Population ages 65 and older	25.9%
Ages 25 and older with less than a high school degree	14.9%
Individuals in poverty	15.4%
Noninstitutionalized civilian population with a disability	20.3%

Notes

LAUS (Local Area Unemployment Statistics):

LAUS is a U.S. Bureau of Labor Statistics (BLS) program that provides monthly and annual labor force, employment and unemployment data by place of residence at various geographic levels. LAUS utilizes statistical models to estimate data values based on household surveys and employer reports. These estimates are updated annually. Annual county-level LAUS estimates do not include seasonal adjustments.

LEHD (Longitudinal Employer-Household Dynamics):

LEHD is a partnership between U.S. Census Bureau and State Department of Workforce Development (DWD) to provide labor market and journey to work data at various geographic levels. LEHD uses Unemployment Insurance earnings data and Quarterly Census of Employment and Wages from DWDs and census administrative records related to individuals and businesses.

SAIPE (Small Area Income and Poverty Estimates):

SAIPE is a U.S. Census Bureau program that provides annual data estimates of income and poverty statistics at various geographic levels. The estimates are used in the administration of federal and state assistance programs. SAIPE utilizes statistical models to estimate data from sample surveys, census enumerations, and administrative records.

EMSI (Economic Modeling Specialists International):

The jobs, earnings and labor market data for Industries and occupations are obtained from EMSI. It provides unsuppressed data at North American Industry Classification System (NAICS) 6-digit and Standard Occupation Classification (SOC) at 5-digit level for every county in the U.S.

OTM (On the Map):

OTM, a product of LEHD program, is used in the county snapshot report to develop commuting patterns for a geography from two perspectives: place of residence and place of work. At the highly detailed level of census blocks, some of the data are synthetic to maintain confidentiality of the worker. However, for larger regions mapped at the county level, the commuter shed and labor shed data are fairly reasonable.

OTM includes jobs for a worker employed in the reference as well as previous quarter. Hence, job counts are based on two consecutive quarters (six months) measured at the “beginning of a quarter.” OTM data can differ from commuting patterns developed from state annual income tax returns, which asks a question about “county of residence” and “county of work” on January 1 of the tax-year. OTM can also differ from American Community Survey data, which is based on a sample survey of the resident population.

YourEconomy.org (YE):

YE, an online tool by the Business Dynamics Research Consortium at the University of Wisconsin – Extension, provides data on the employment, sales, and number of establishments at numerous geographic levels in the United States.

A major data source for YE is the Infogroup Historical Database and additional Infogroup data files on establishments. This means that each entry is a different physical location, and company-level information must be created by adding the separate establishment components.

Report Contributors

The report was developed by the Purdue Center for Regional Development on October 2020.



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