

SECTION 1: INTRODUCTION

1.1 STATE PROFILE

INTRODUCTION

Ohio was the 17th state to become part of the United States of America on March 1, 1803. Ohio is an Iroquoian word meaning “great river.” Located in the north-central region of the United States, Ohio has been home to eight of the forty-six Presidents of the United States including Presidents W.H. Harrison, Grant, Hayes, Garfield, B. Harrison, McKinley, Taft, and Harding.

GEOGRAPHY

The state is divided into two broad geographic regions, loosely following a diagonal line running from the south-western corner to the north-eastern corner. The portion of the state above the line was repeatedly inundated by glaciers and is generally flat with glacial sediments conducive to agriculture and large population centers. One notable exception is a region in west central Ohio where an outcropping of large hills exists. The areas south and west of the line consist of the foothills to the Appalachian Mountains, which start in southeastern Ohio.

Ohio borders the states of Pennsylvania, Kentucky, West Virginia, Indiana, and Michigan while sharing an international border with the Canadian province of Ontario. A large portion of the state’s border is associated with bodies of water including West Virginia and Kentucky along the Ohio River and Ontario near the center of Lake Erie. The majority of Ohio’s northern border is encompassed by Lake Erie which was created by and subsequently filled with water from glaciers. River systems in the northern third of Ohio flow north into Lake Erie. The remainder of the waterways in the state flow south into the Ohio River. Ohio covers 40,952 square miles of land. Land use percentages range from a high of 39.08 percent for cultivated crops to a low of .23 percent for barren (See Chart 1.1.a).

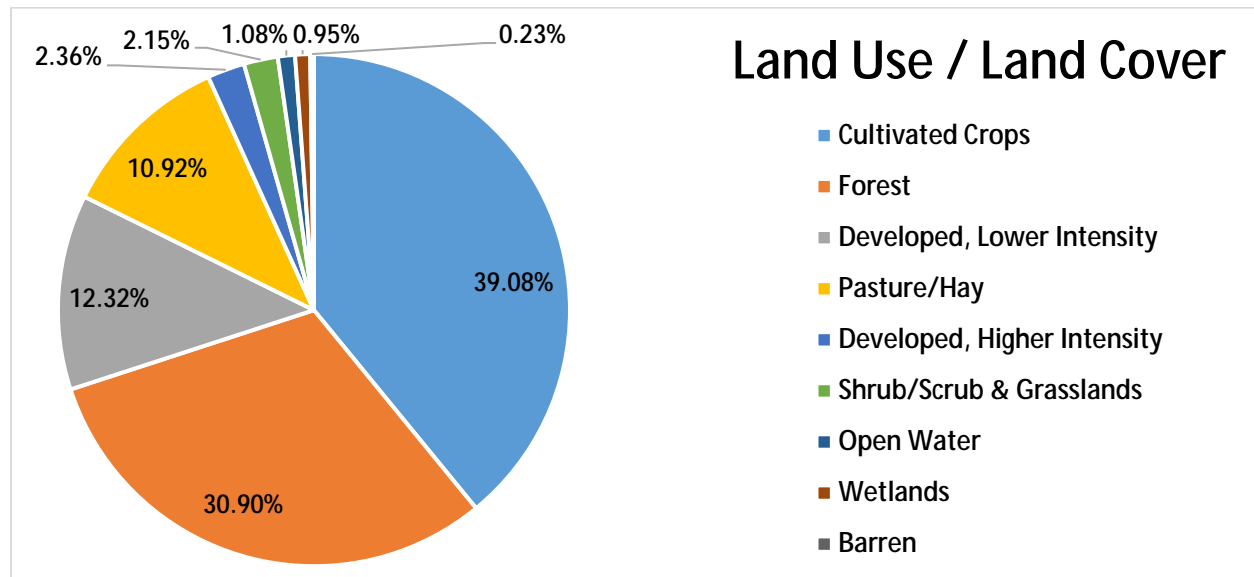


Chart 1.1.a

From the perspective of taxable land value, the distribution varies significantly from land use. Per the Ohio Department of Development – Ohio County Indicators Study for 2022, the State has approximately 304 billion dollars of taxable real property (See Chart 1.1.b).

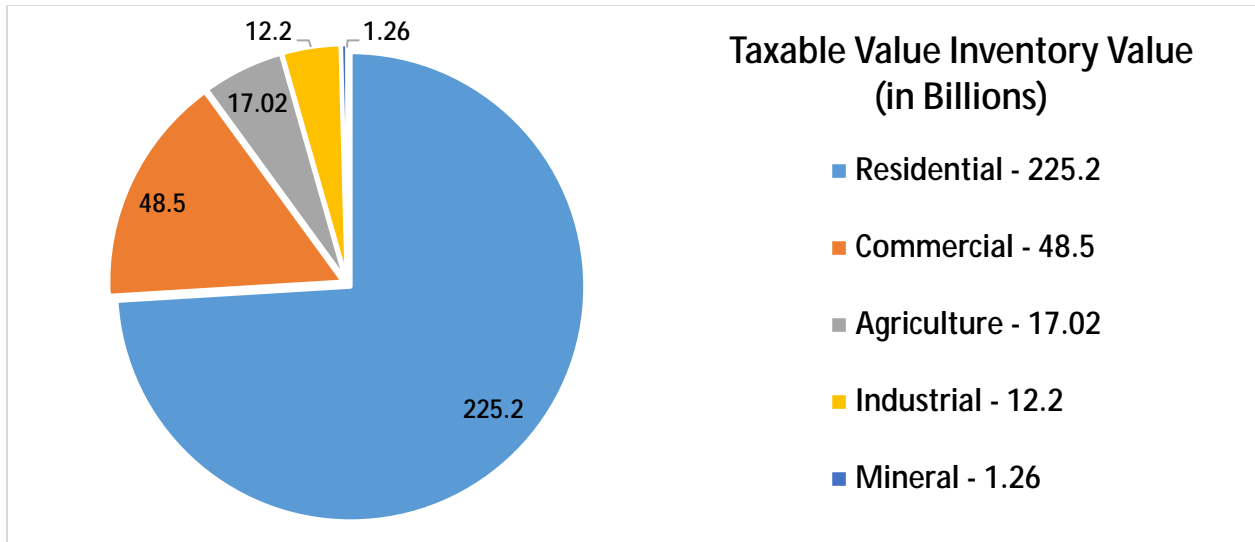
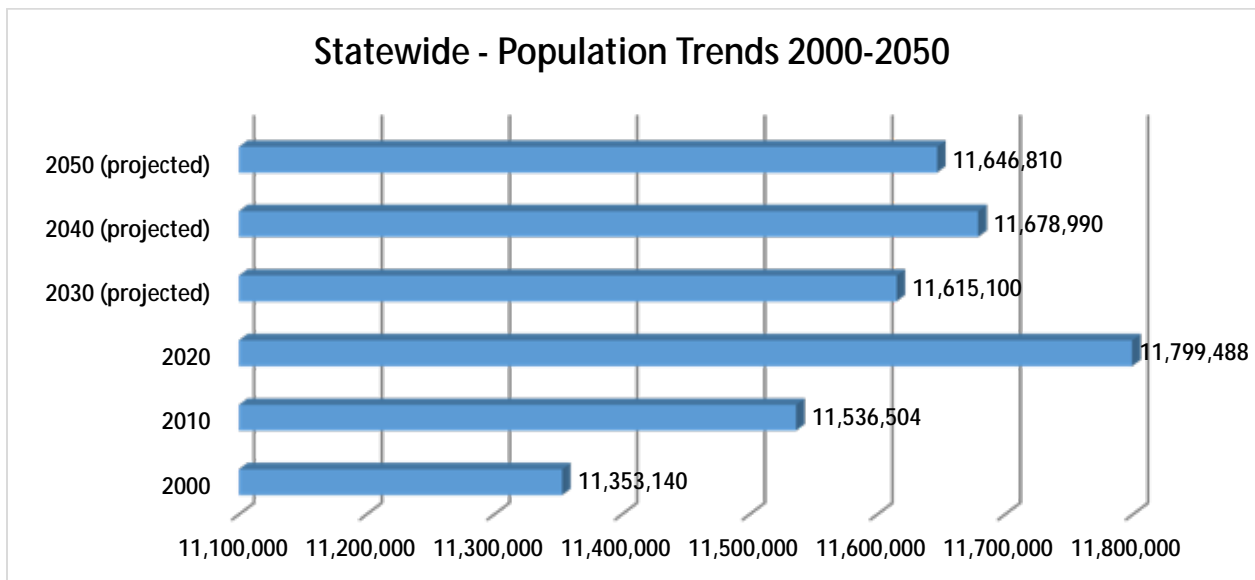


Chart 1.1.b

DEMOGRAPHY

The 2020 U.S. Census placed Ohio’s population at 11,799,488, and the 2017 American Community Survey (ACS) projected the population in 2030 to be 11,615,100 (See Graph 1.1.c).



Graph 1.1.c

Based on 2022 Department of Development statewide data, the largest racial group in Ohio is Caucasian followed by African-American. There are a total of 2,845,313 persons falling into minority categories making up 24.1 percent of the population (See Chart 1.1.d).

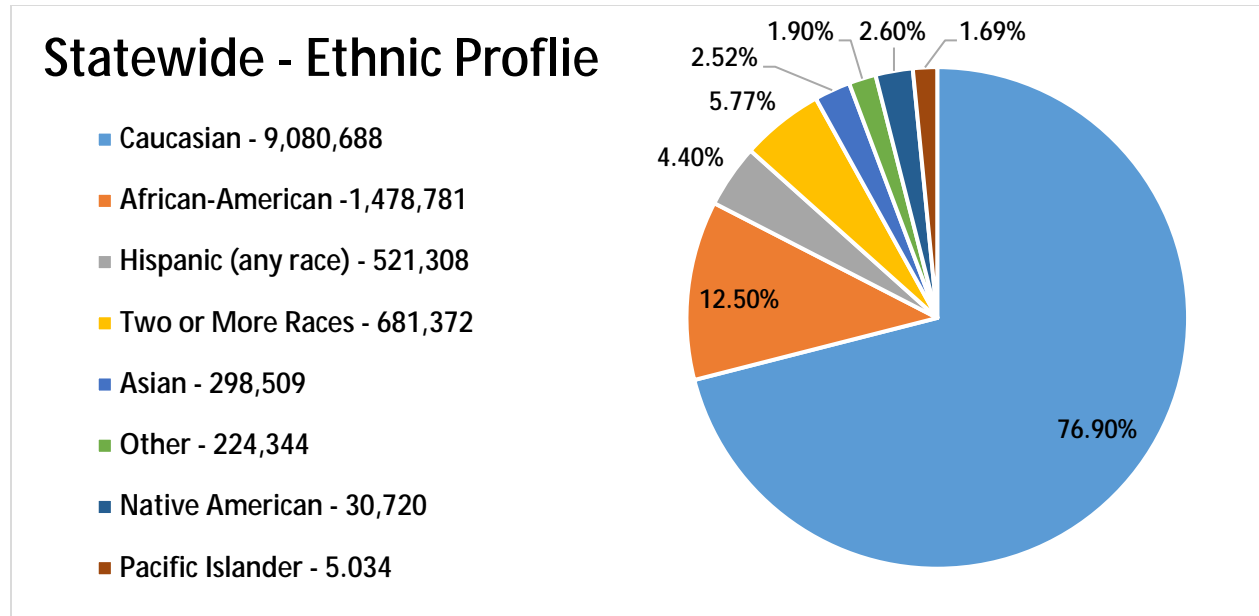


Chart 1.1.d

AGE PROFILES

The age categories which require the most care after a disaster event are those under 5 years of age and over 65 years of age. Statewide 5.85 percent of the population is under the age of 5 and 17.03 percent of the population is 65 years of age or greater. The median age of Ohioans is 39.4 years (see Chart 1.1.e).

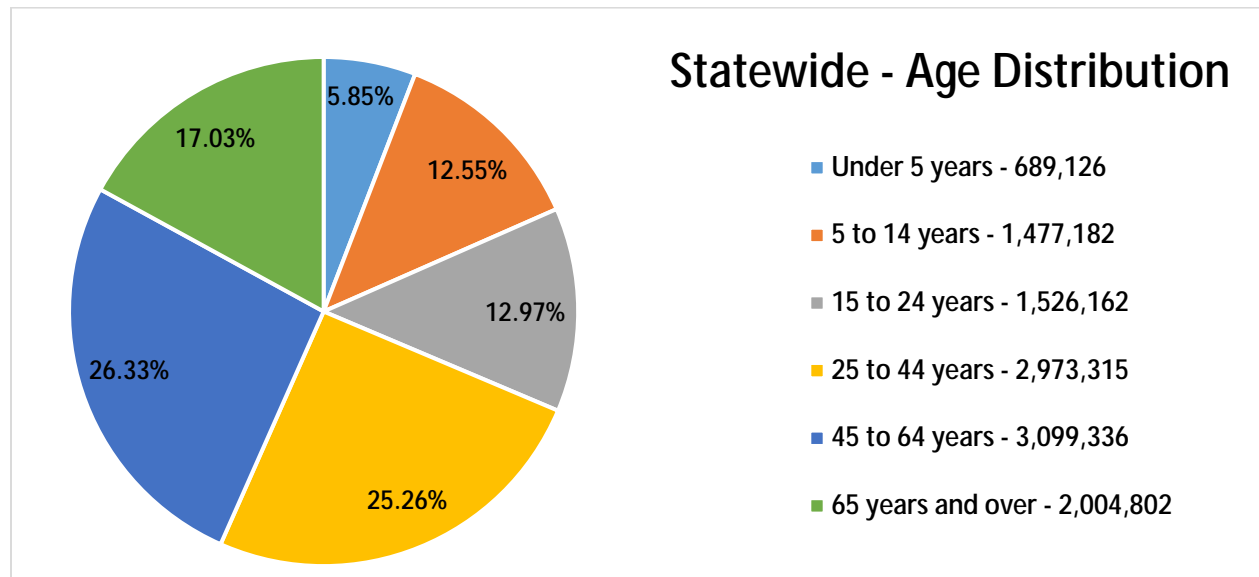
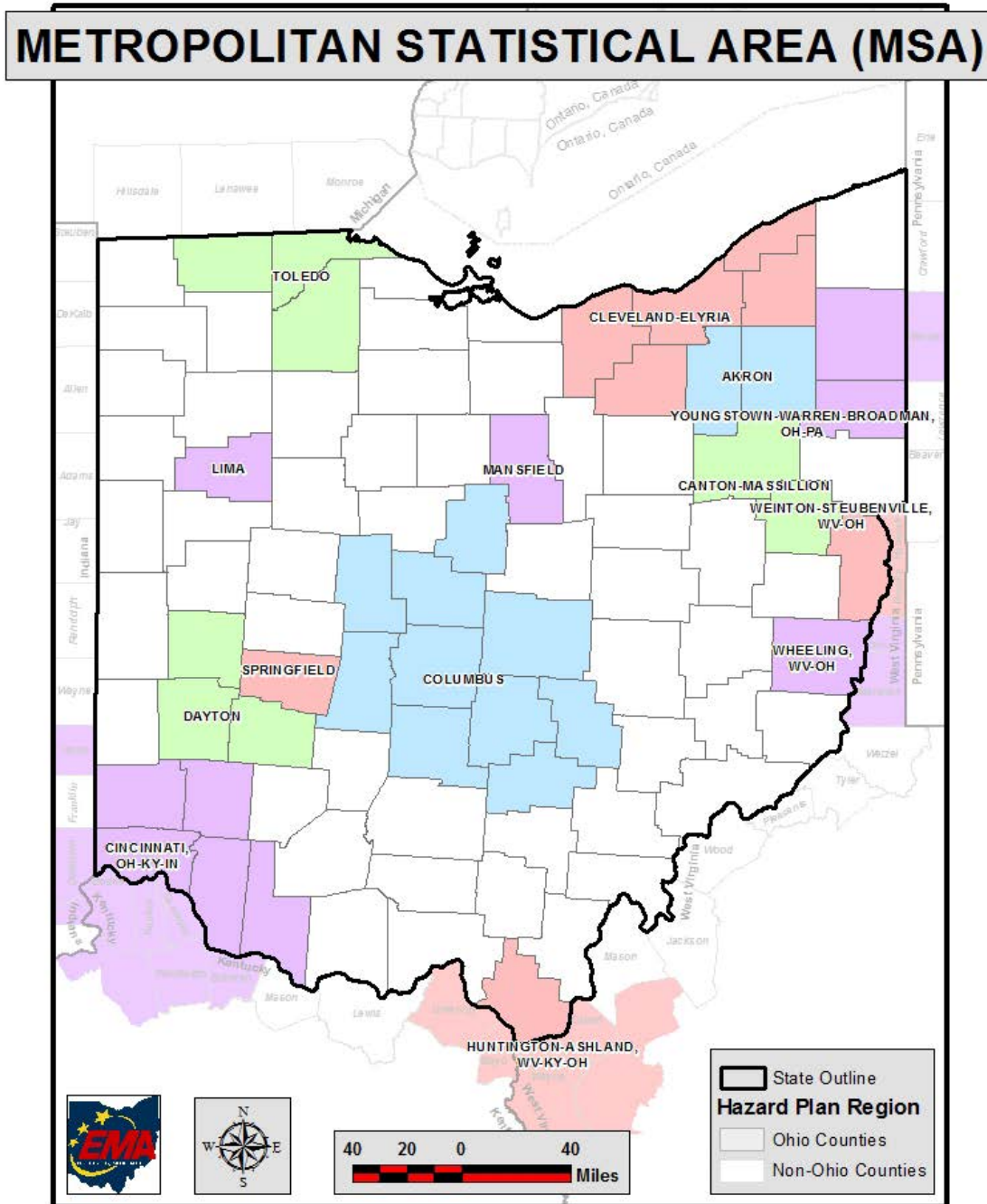


Chart 1.1.e

METROPOLITAN AREAS

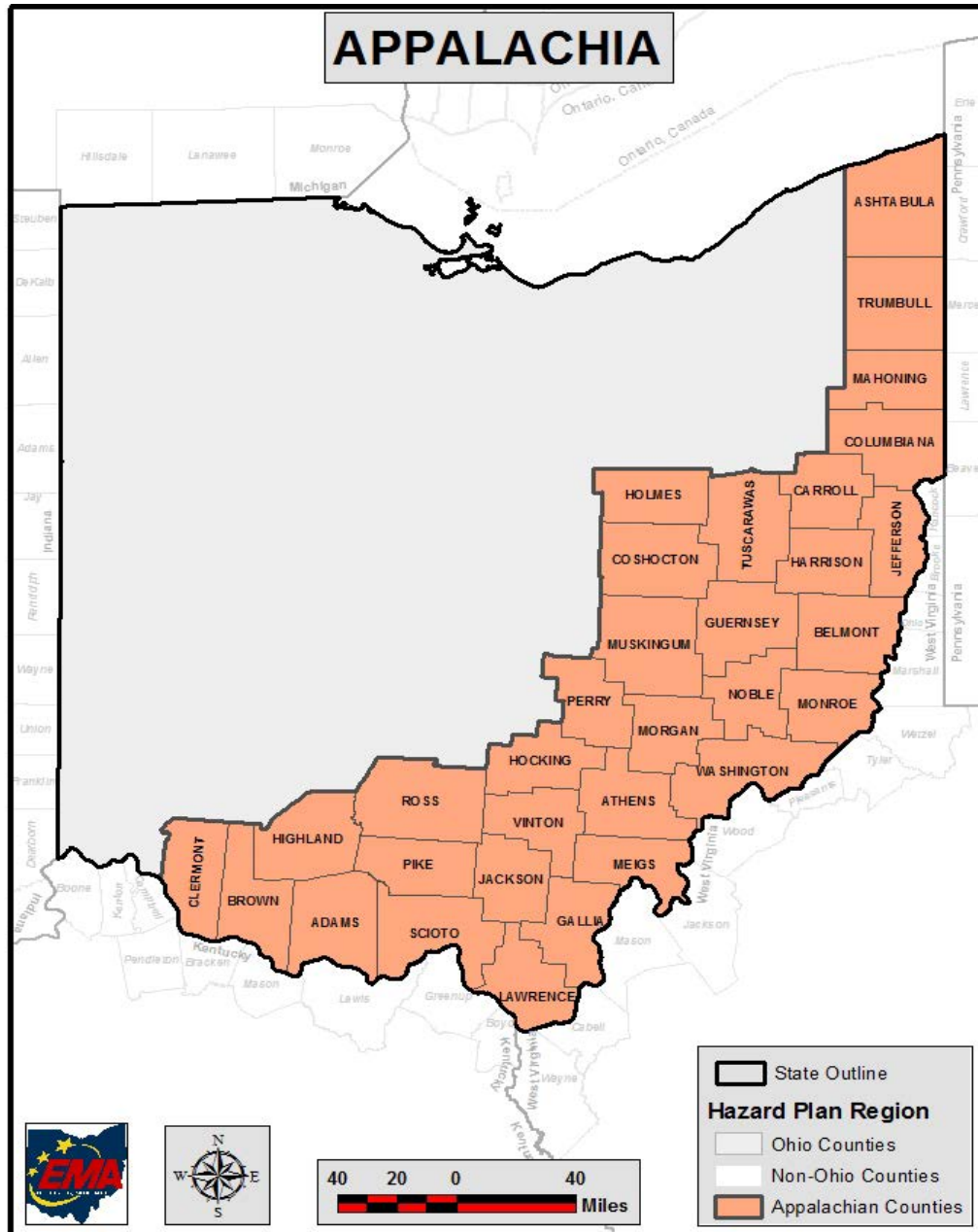
Ohio is home to three large metropolitan statistical areas (MSA) located around the cities of Cleveland (2,088,251), Columbus (2,138,92) and Cincinnati (1,715,610) based on the 2020 Census. There are an additional four moderate-sized MSAs located around the cities of Akron (702,219), Dayton (814,049), Toledo (646,604), and Youngstown (430,591), see Map 1.1.f. Combined, these MSAs account for 8,937,824 people or 75.7% of the state's population. Individual county populations range from a low of 12,800 in Vinton County to a high of 1,323,807 in Franklin County.



Map 1.1.F

APPALACHIA

Ohio contains a federally and state recognized region known as Appalachia. In 1965, the U.S. Congress identified counties in thirteen states along the Appalachian Mountain Range as part of the Appalachian Regional Commission. The Governor's Office of Appalachia represents the interests of the 32 counties comprising the Appalachia Region in southern and eastern Ohio (See Map 1.1.g).



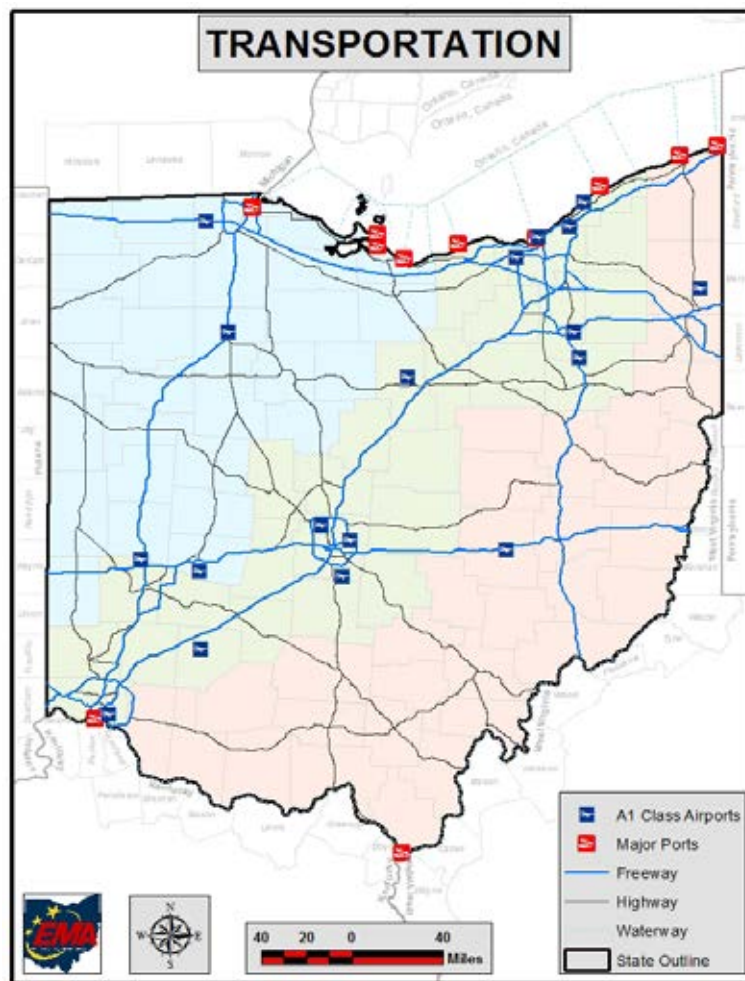
Map 1.1.g

TRANSPORTATION

Ohio has been dubbed the heart of it all, connecting the eastern seaboard with the Midwest and South (See Map 1.1.h). Three major east-west interstates (I-70, I-80, and I-90) and three north-south interstates (I-75, I-71, and I-77) run through the state. Additionally, the State has a robust system of railways, airports, and sea/river ports which serve all 88 counties. Ohio’s extensive rail line system ranks 4th in total rail miles (5,187 miles) and has the highest concentration of rail lines per square mile in the nation.

Ohio is the birthplace of aviation and enjoys to this day a strong aviation system. Part of the State’s aviation heritage is the publicly-owned airport system. The system consists of seven commercial service and 97 general aviation airports and owes much of its development to a 1960’s program championed by Governor Jim Rhodes.

Ohio’s Maritime Transportation System (MTS) is a key component of the state’s multimodal transportation system. It is comprised of two major waterways Lake Erie and the Ohio River. The total MTS includes 736 navigable miles of waterway with eight principal ports on Lake Erie, 162 commercial docks, the majority of which are along the Ohio River and 9 locks and dams on the Ohio portion of the Ohio River. The ports, terminals, and docks that provide connectivity to Ohio’s MTS handle between 80 million and 100 million short tons of freight per year (2011-2015), valued at over \$12 billion (2015).



Map 1.1.h

EQUITY

The Biden Administration, under Executive Order 14008, committed to investing in disadvantaged, marginalized, and underserved communities through the Justice40 Initiative, which has a goal of directing 40% of Federal investment to disadvantaged populations. The Justice40 Initiative Guidance asks agencies to consider appropriate data, indices, and screening tools to determine whether a specific community is disadvantaged based on a combination of variables. FEMA has selected the Center for Disease Control and Prevention's (CDC) [Social Vulnerability Index \(SVI\)](#) as the dataset to determine if a community is disadvantaged. This Index utilizes external stressors, such as natural or human-caused disasters and diseases, to demonstrate the impact on human health.

The SVI database helps emergency response planners and public health officials identify and map communities that will most likely need support before, during, and after a hazardous event (CDC).

The Social Vulnerability Index database can be used to:

- Estimate the amount of needed supplies like food, water, medicine, and bedding
- Help decide how many emergency personnel are required to assist people
- Identify areas in need of emergency shelters
- Plan the best way to evacuate people, accounting for those who have special needs, such as people without vehicles, the elderly, or people who do not understand English well
- Identify communities that will need continued support to recover following an emergency or natural disaster
- Identify communities where federal grant funds can be allocated to achieve equitable mitigation activities

The SVI demonstrates social vulnerability by the census tract level based on the U.S. Census data. Census tracts are ranked on 16 social factors, such as poverty, lack of vehicle access, and crowded housing, and groups them into four related themes. Each tract receives a rating for vulnerability, as well as an overall ranking. The database ranks census tracts at national and state levels so that data users can identify how a census tract ranks compared to the national and state context. Census tracts are ranked against all other tracts in either the state or nation and receive a score from 0 to 1, which corresponds to the percentile a census tract is in. A higher score indicates that a census tract is ranked more vulnerable than other census tracts while a lower score indicates the census tract is less vulnerability.

The CDC SVI's four themes and 16 social factors are detailed in below.

CDC SVI Themes and Social Factors	
Themes	Social Factors
Socioeconomic Status	Below 150% poverty, unemployed, housing cost burden, no high school diploma, no health insurance
Household Characteristics	Aged 65 or older, aged 17 or younger, civilian with a disability, single-parent households, English language proficiency
Racial and Ethnic Minority Status	Hispanic or Latino (of any race); Black and African American, Not Hispanic or Latino; American Indian and Alaska Native, Not Hispanic or Latino; Asian, Not Hispanic or Latino; Native Hawaiian and Other Pacific Islander, Not Hispanic or Latino; Two or More Races, Not Hispanic or Latino; Other Races, Not Hispanic or Latino
Housing Type and Transportation	Multi-unit structures, mobile homes, crowding, no vehicle, group quarters

Table 1.1.i

In 2022, FEMA released new State and Local Hazard Mitigation Planning Policy Guides which encourages State and Local communities to consider equity and social vulnerability in the Hazard Mitigation Planning process. Two of FEMA's Hazard Mitigation Assistance (HMA) programs Building Resilient Infrastructure and Communities (BRIC) and Flood Mitigation Assistance (FMA) programs were chosen to undertake the Justice40 Initiative to maximize the benefits that are directed to disadvantaged communities. FEMA has incorporated the Social Vulnerability Index into the BRIC and FMA competitive criteria in the 2021 and 2022 program cycles. FEMA is offering additional support as well as awarding additional points to projects for communities with located in an area with a high Social Vulnerability.

To find out more about the opportunities for mitigation projects in high SVI locations, please contact the Ohio EMA Mitigation Branch, or to find out the SVI score of where your project is located, please see [Ohio EMA's SVI Map](#).

SOCIAL VULNERABILITY IN OHIO

There are 3,162 census tracts in the State of Ohio, of which 1,258 (~40%) have an Overall SVI of 0.5 or greater; 22.58% of Ohio census tracts have an Overall SVI score between 0.5 and 0.75, and 17.2% of census tracts in the state have an Overall SVI score of 0.75 or greater. Ohio has an average Overall SVI score of 0.43; the average score for census tracts in the state in each theme are 0.46 in Socioeconomic Status, 0.47 in Household Characteristics, 0.34 in Racial and Ethnic Minority Status, and 0.43 in Housing Type and Transportation.

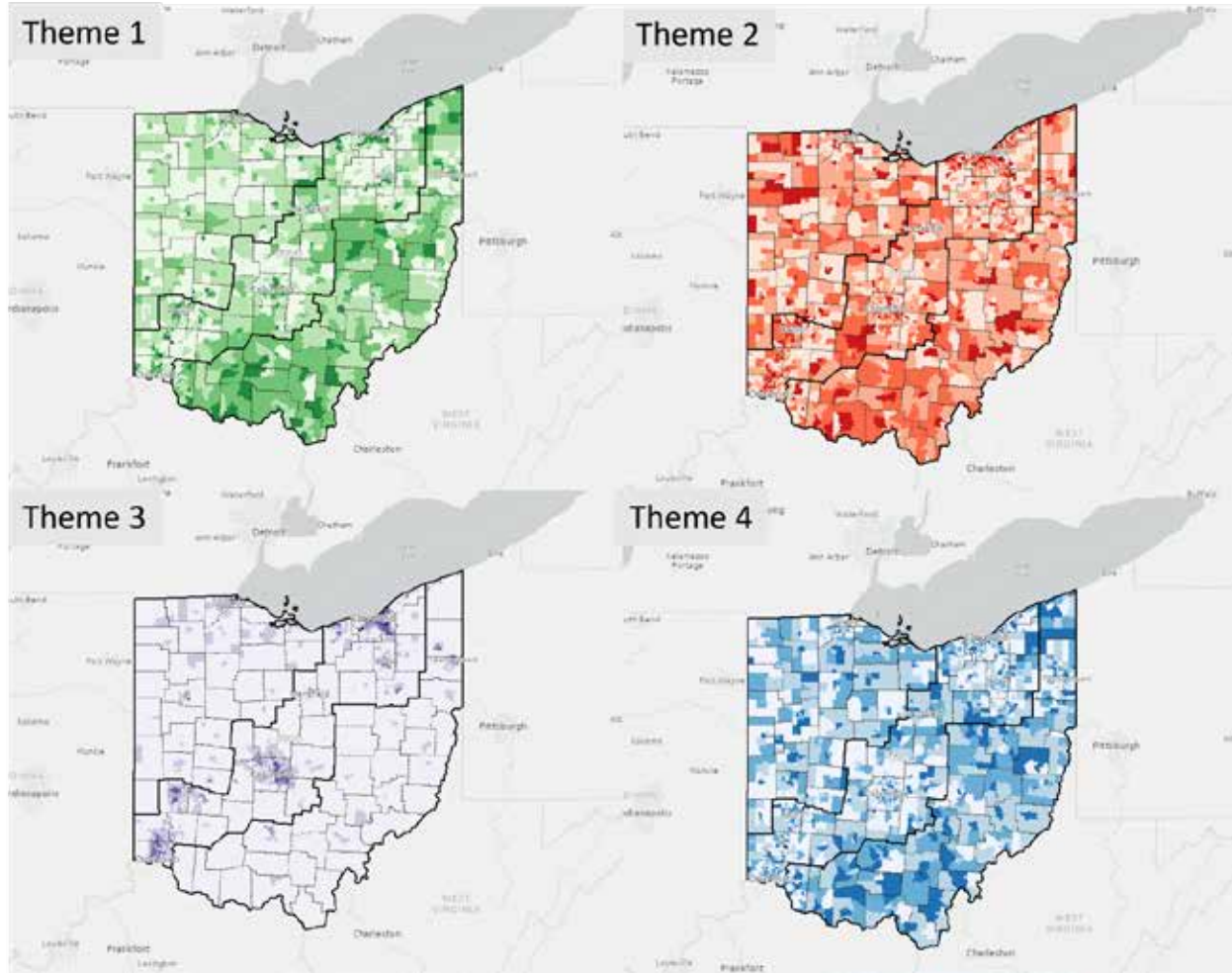


Table 1.1.j

An analysis of SVI scores in the Hazard Planning Regions shows regional differences in Overall and Thematic SVI scores. The Hazard Planning Regions are discussed in greater detail in the next section.

Themes	Region 1 Averages	Region 2 Averages	Region 3 Averages
Socioeconomic Status (theme 1)	0.43	0.45	0.52
Household Characteristics (theme 2)	0.48	0.46	0.48
Racial and Ethnic Minority Status (theme 3)	0.27	0.38	0.16
Housing Type and Transportation (theme 4)	0.43	0.41	0.50
Overall	0.41	0.42	0.46

Table 1.1.k

REGIONAL LEVEL ANALYSIS

Ohio has elected to address hazard mitigation planning using three regions which have similar geographic, socio-economic, and land use characteristics. While the general trends within the regions are fairly consistent there will be variations. An example would be a region as a whole experiencing population growth, but certain counties within the region experiencing significant population decline. Analyses of these types of differences are a necessary process in the development of the risk and vulnerability assessments for each hazard as well as for the development of the hazard mitigation strategies.



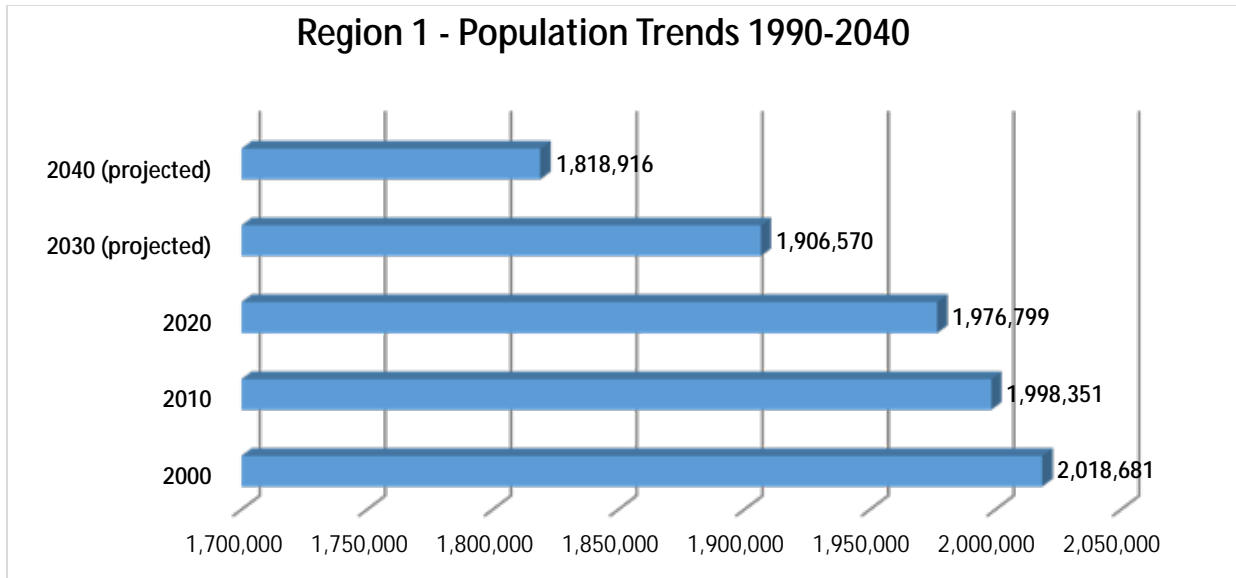
Map 1.1.1

REGION 1

Region 1 is characterized by largely rural, agricultural counties with flat to gently rolling topography. It is the western and northwestern portions of the state including portions of the state located on Lake Erie.

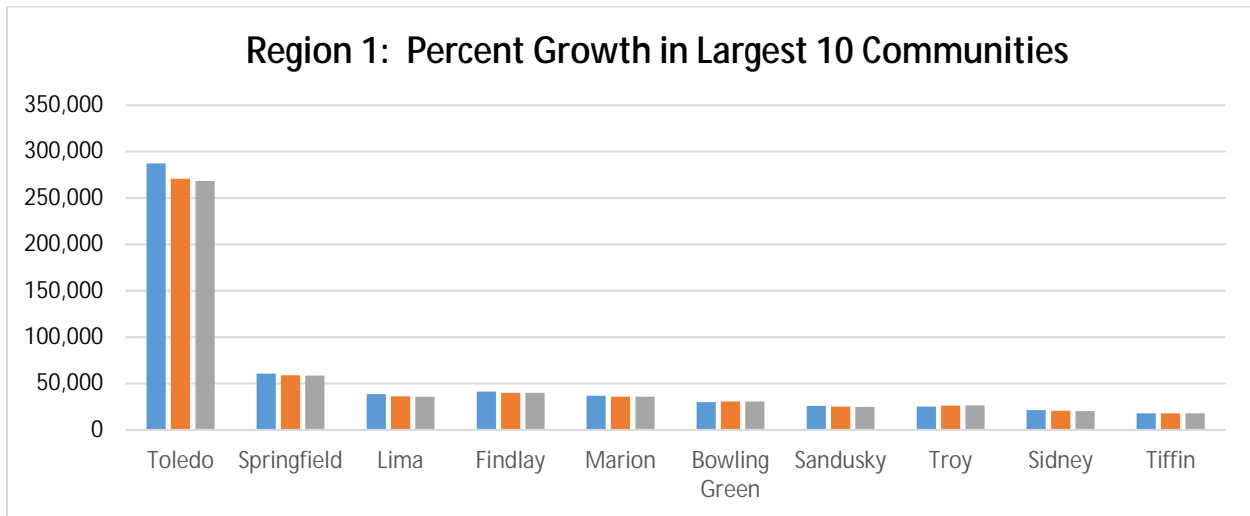
GENERAL POPULATION

The population in Region 1, according to the 2020 Census, was 1,976,799. Region 1 experienced population decreases between 2000 and 2020, with the average population decrease between these two dates being 2.11%. Regional contraction is expected to continue based upon current projections (See Graph 1.1.m).

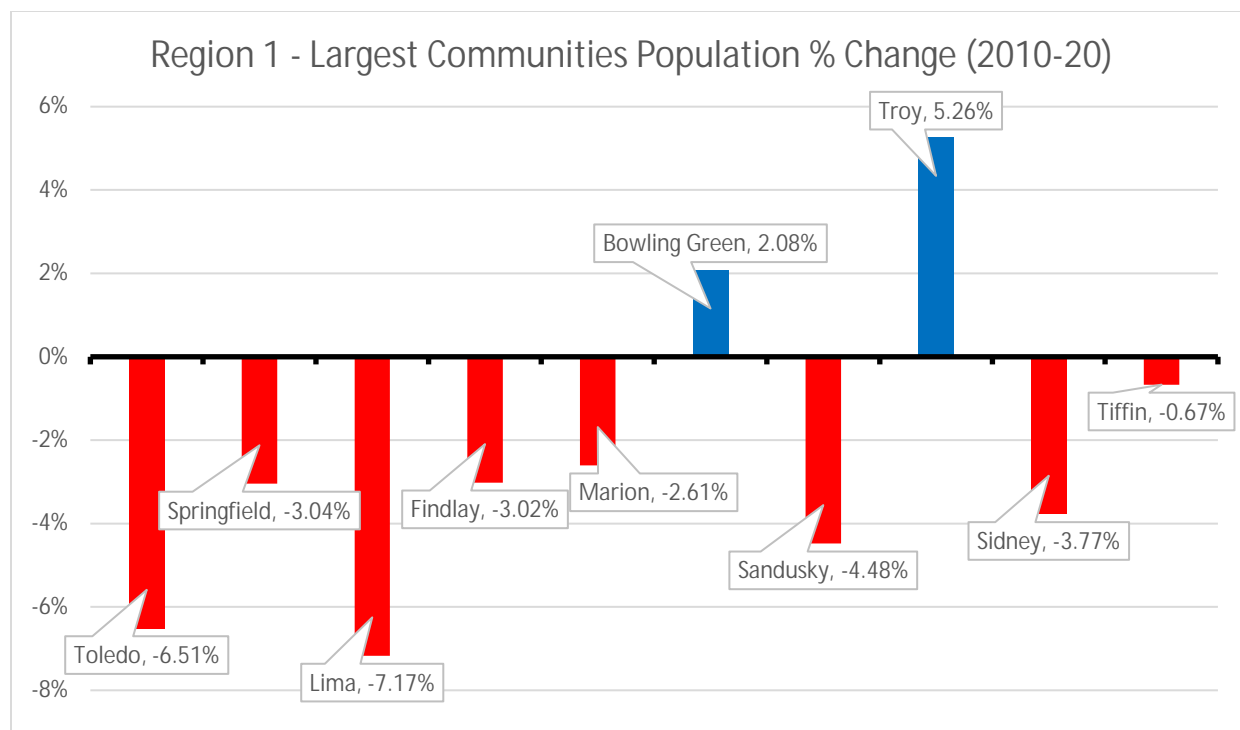


Graph 1.1.m

Over half of the ten largest communities experienced population decreases between 2010 and 2020 with Lima (Auglaize County) having the largest decrease at -7.17%. Four of the largest ten communities saw an increase with the most significant increase of 5.26% in Troy (Miami County) (See Graphs 1.1.n & 1.1.o).



Graph 1.1.n



Graph 1.1.o

SPECIAL POPULATIONS

The number of people within the special population category generally increases with the size of the county or community. These special population groups include: infant children, elderly, non-English speaking, convalescing, assisted living, and inmate populations.

CONVALESCING AND ASSISTED LIVING POPULATIONS

There are a number of facilities in Region 1 that house special or disabled populations. They include 119 nursing homes and 52 hospitals with a total of 24,610 beds. Although these facilities have their own contingency plans, they coordinate with state, county, and local hazard mitigation planning efforts.

INMATE POPULATIONS

There are four correctional facilities in Region 1 including a facility in Allen County, Lucas County, and two in Marion County. As of the first quarter of 2023, the combined inmate population in these facilities totals 6,591.

ETHNIC / POVERTY LEVEL CONSIDERATIONS

Caucasians comprise 83 percent of the region’s ethnic mix compared to the state’s average of 78 percent. The region’s largest minority demographic is African-American (6.5 percent) and is more concentrated in urbanized areas such as Lucas, Allen, and Clark counties (Chart 1.1.p). The Hispanic population (4.53 percent) encompasses the region’s third largest ethnic group. The main cores of Hispanic inhabitants are located in northwestern Ohio counties such as Lucas, Wood, and Sandusky.

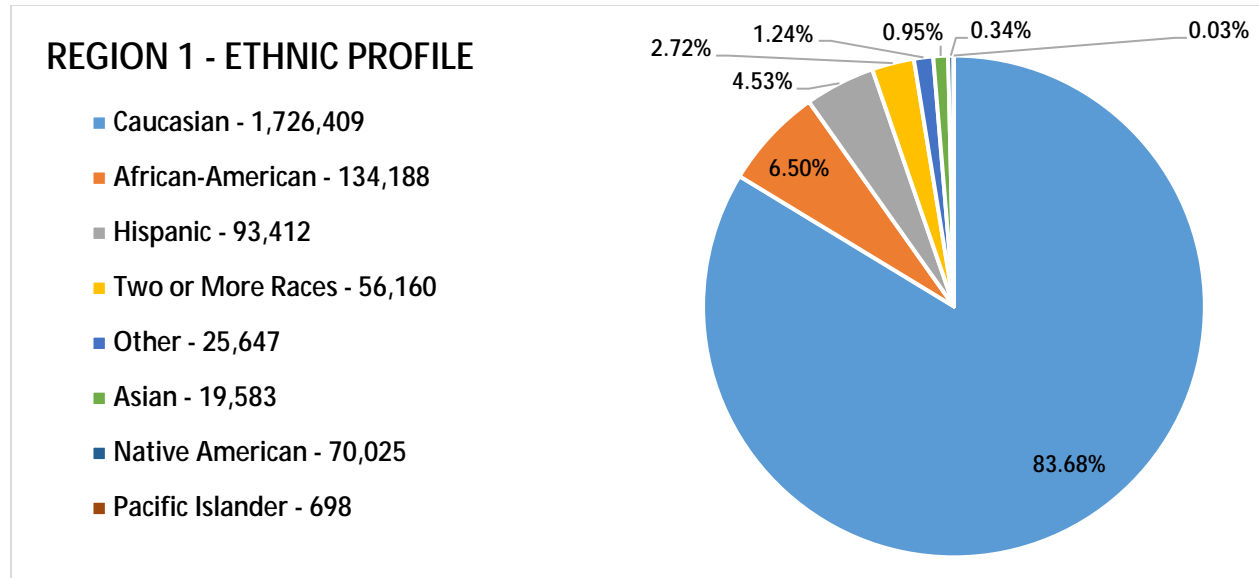


Chart 1.1.p

AGE PROFILES

The age categories which require the most care after a disaster event are the under 5 years of age and over 65 years of age. The percentage of children under the age of 5 is about the same throughout Region 1 counties, ranging from a low 3.99 percent (Ottawa) to a high 7.35 percent (Mercer). The percentage of people 65 years of age and older is also consistent with percentages ranging from a low of 15.31 percent in Wood County to a high of 25.51 percent in Ottawa county (Chart 1.1.q). The median age group in Region 1 is 41.1 and the highest median age for any of Ohio’s counties occurs in Region 1 (49.3 in Ottawa).

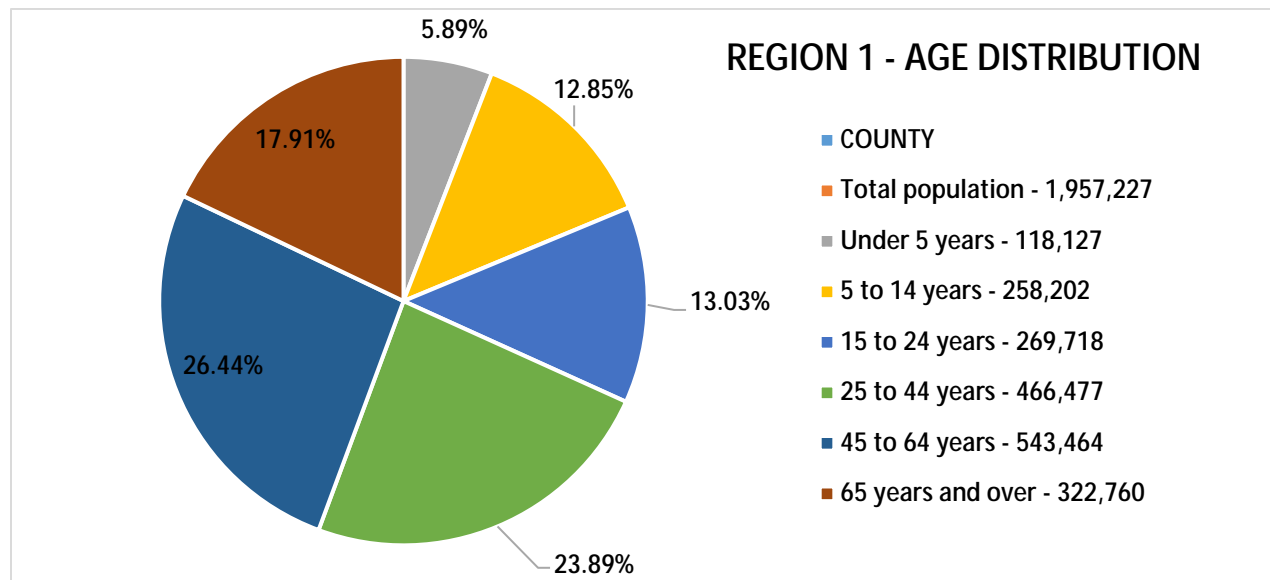


Chart 1.1.q

REGIONAL ECONOMY

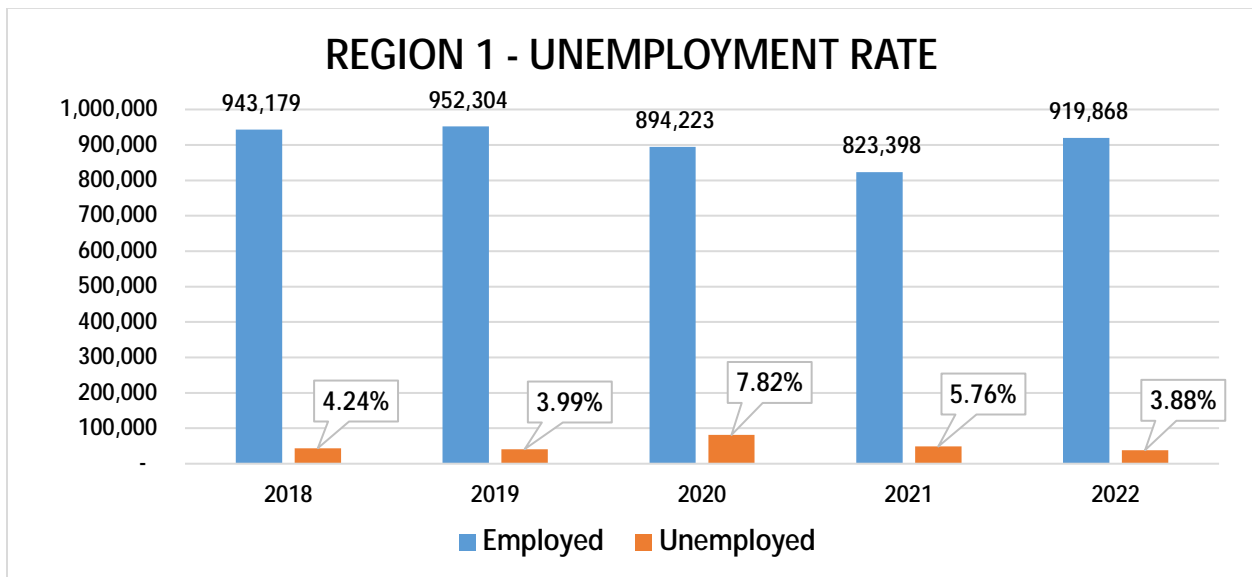
The economy in Region 1 is firmly based in manufacturing both in terms of workforce and wages. Other economic sectors ranked in terms of workforce and wages include: (2) trade, transportation, and utilities,

(3) education & health services, (4) leisure & hospitality, and (5) professional & business services (Table 1.1.r). While not addressed in the Bureau of Labor Statistics data, agriculture is an incredibly important economic driver in Region 1.

REGION 1 EMPLOYMENT AND WAGES BY SECTOR - 2022					
Industry	Avg. Establishment #	Average Employment	Total Wages	Avg. Weekly Wage	Annual Avg. Pay
Private	42,448	710,218	\$ 35,563,061,808.00	\$ 917.72	\$ 47,722.62
Goods-producing	7,544	227,282	\$ 14,292,390,863.00	\$ 1,150.17	\$ 59,810.83
Natural resources and mining	745	8,063	\$ 387,745,263.00	\$ 909.62	\$ 47,304.10
Construction	3,941	34,720	\$ 2,258,353,362.00	\$ 1,130.72	\$ 58,799.66
Manufacturing	2,864	184,501	\$ 11,646,292,238.00	\$ 1,158.90	\$ 60,261.72
Service-providing	34,909	482,935	\$ 21,270,670,945.00	\$ 769.79	\$ 40,030.69
Trade, transportation, and utilities	10,133	156,190	\$ 6,964,744,653.00	\$ 830.31	\$ 43,178.41
Information	596	5,517	\$ 297,764,633.00	\$ 943.62	\$ 49,065.62
Financial activities	4,028	25,867	\$ 1,625,270,836.00	\$ 1,124.90	\$ 58,497.28
Professional and business services	6,001	69,548	\$ 3,982,412,820.00	\$ 920.07	\$ 47,845.03
1025 Education and health services	5,447	119,575	\$ 6,048,042,512.00	\$ 853.38	\$ 44,373.07
Leisure and hospitality	4,991	82,486	\$ 1,598,973,441.00	\$ 325.90	\$ 16,945.10
Other services	3,686	23,646	\$ 749,611,579.00	\$ 548.55	\$ 28,520.66
Unclassified	45	112	\$ 3,850,471.00	\$ 654.45	\$ 34,033.48
Federal Government	468	5,271	\$ 360,552,288.00	\$ 1,228.93	\$ 63,902.29
State Government	304	14,124	\$ 956,532,512.00	\$ 1,293.07	\$ 67,237.75
Local Government	2,714.00	86,734.00	\$ 4,262,568,287.00	\$ 916.25	\$ 47,643.61
Total	45,919	816,272	\$ 41,137,871,721.00	\$ 951.64	\$ 49,487.04

Table 1.1.r

While the regional economic situation suffered during the COVID-19 pandemic, the regional unemployment rates have fallen significantly from a high in 2020 of 7.82 percent to a low of 3.88 in 2022 (Graph 1.1.s).



Graph 1.1.s

The median annual income for Region 1 households is \$55,767, which slightly exceeds that of the State of Ohio \$53,975 (see table 1.1.u). 10.8 percent of the people residing in Region 1 live below the poverty level, which is less than the state average (13.2 percent). The Region 1 counties that have comparatively high numbers of people living below the poverty level include: Lucas, Crawford, Marion, and Clark. These counties may warrant special consideration in pre- and post- disaster planning.

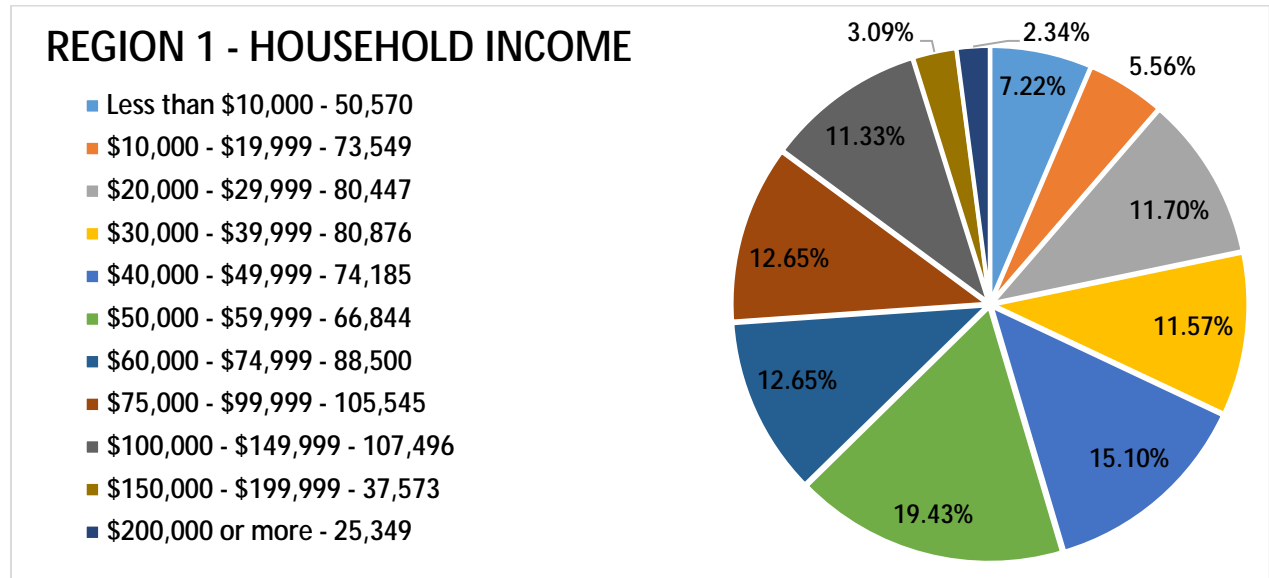


Chart 1.1.t

HOUSING

2020 Census statistics indicate that there are approximately 889,257 housing units in Region 1, of which 94,577 (10.5 percent) are vacant (Chart 1.1.u). Ottawa and Logan counties have a surprisingly high number of vacant units. The reasons for such high vacancy rates are likely caused by housing used as seasonal and vacation property on Lake Erie, Grand Lake St. Marys and Indian Lake. More than half of the houses in Region 1 were constructed before the implementation of the National Flood Insurance Program, which has important mitigation implications. It is likely that a majority of homes built in the region’s floodplains do not provide adequate flood protection.

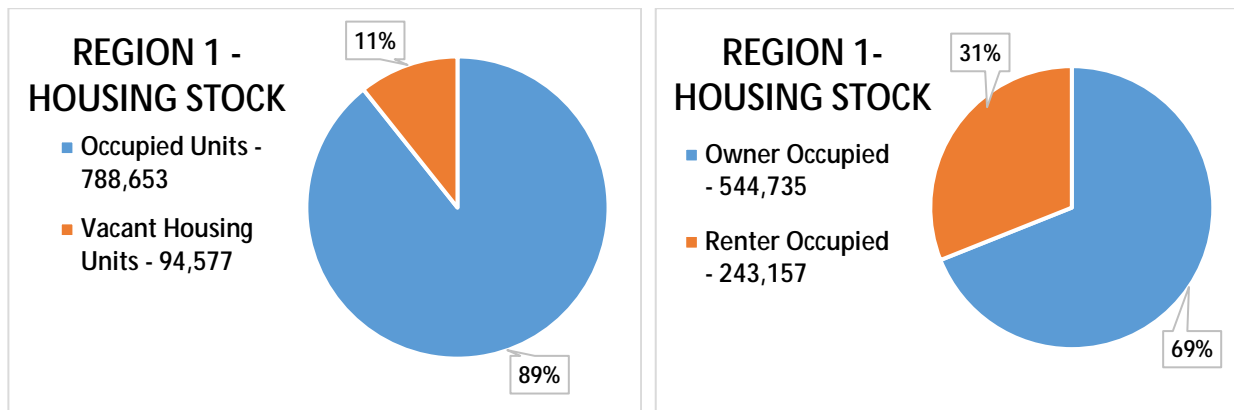


Chart 1.1.u

TRANSPORTATION

Region 1 has a well-developed transportation system, despite the fact that 15 of its 29 counties do not have interstate highways. State and U.S. highways coupled with extensive rail networks help meet the ground transportation needs in Region 1. Every county but two in Region 1 have at least 1 commercial airport and three of the counties boarding Lake Erie have ports (Table 1.1.v).

REGION 1 TRANSPORTATION SYSTEMS						
Counties	Interstate Highways	U.S. Highways	Rail Lines	Class A Airports	Total Airports	Lake Ports
Allen	X	X	4		1	
Auglaize	X	X	3		1	
Champaign		X	2		2	
Clark	X	X	3	1	1	
Crawford		X	3		1	
Darke		X	2		1	
Defiance		X	2		1	
Erie	X	X	1		3	2
Fulton	X	X	2		1	
Hancock	X	X	2	1	2	
Hardin		X	1		3	
Henry		X	3		1	
Huron		X	3		2	
Logan		X	2		1	
Lucas	X	X	3	1	2	1
Marion		X	2		1	
Mercer		X	1		2	
Miami	X	X	1		3	
Morrow	X	X	1		3	
Ottawa	X	X	2		5	1
Paulding		X	2			
Preble	X	X	1			
Putnam		X	3		2	
Sandusky	X	X	2		2	
Seneca		X	3		4	
Shelby	X		2		1	
Van Wert		X	2		1	
Williams	X	X	2		1	
Wood	X	X	2		4	
Wyandot		X	2		1	

Table 1.1.v

REGION 1 SOCIAL VULNERABILITY

Hazard Planning Region 1 includes the Western and North Western areas of the state. Only 34% of census tracts in Region 1 have an Overall SVI score of 0.5 or greater, and only 11% of census tracts with an Overall SVI score of 0.75 or more.



Region 1 SVI Overall Scores

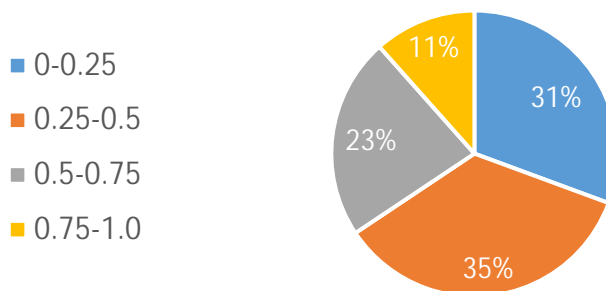


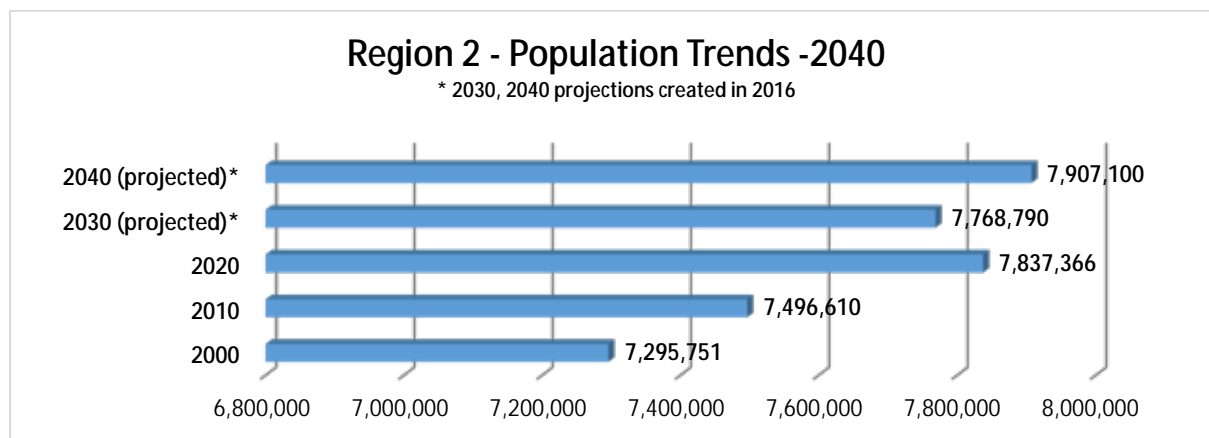
Table 1.1.w

REGION 2

Region 2 is defined by the I-71 corridor and contains Ohio’s three largest cities: Cleveland, Columbus, and Cincinnati. Geographically it is the boundary between the previously glaciated portion of the state and the unglaciated Appalachian region.

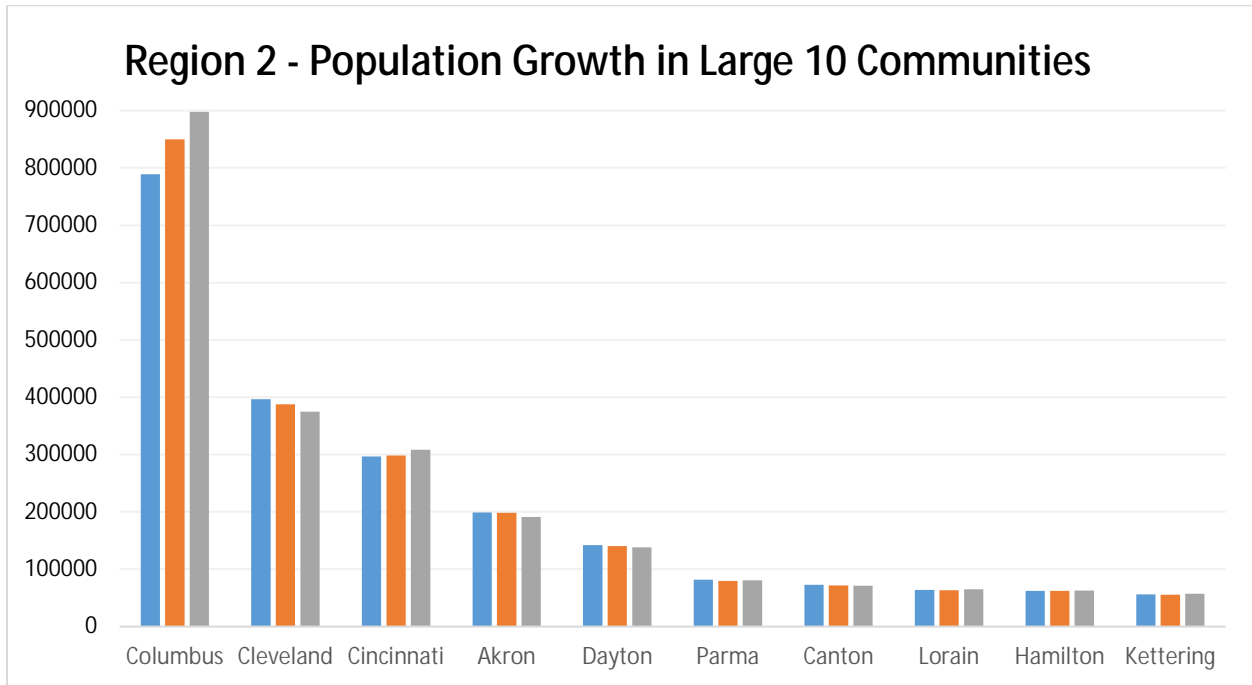
GENERAL POPULATION

The population in Region 2, according to the 2020 census was 7,837,366. The Region has experienced consistent population growth since 2000. The regional growth rate between 2000 and 2020 was 7.42% and this regional growth is expected to continue through 2040 (Graph 1.1.x). The projections for 2030 and 2040 were last updated in 2016, and do not fully represent the growth in Region 2 that occurred between 2016-2020. The majority of counties in Region 2 experienced minor changes in their population size, but there were several outliers. Delaware grew at a 22.9% while Ashland declined by -1.3% in the same time period

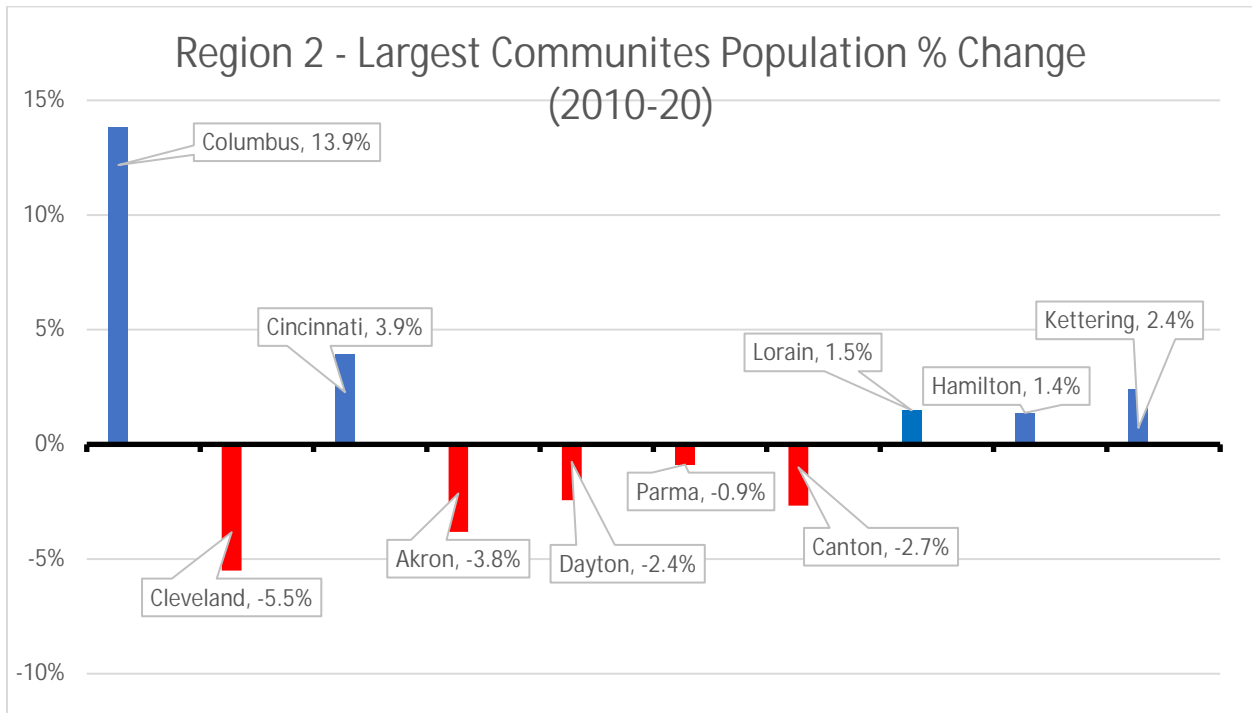


Graph 1.1.x

Six of the ten largest communities experienced population decreases between 2000 and 2022 with the Cleveland (Cuyahoga County) having the largest decrease at -5.5 percent. The community that saw the largest increase was the Columbus (Franklin) with an increase of 13.9 percent (Graphs 1.1.y & 1.1.z).



Graph 1.1.y



Graph 1.1.z

SPECIAL POPULATIONS

The number of people within the special population category generally increases with the size of the county or community. These special population groups include: infant children, elderly, non-English speaking, convalescing, assisted living, and inmate populations. Eight of the ten most-populated counties of Ohio are in Region 2. Emergency managers and mitigation planners must pay particular attention to counties having larger numbers of special populations (Cuyahoga, Hamilton, and Franklin counties).

CONVALESCING AND ASSISTED LIVING POPULATIONS

There are a large number of hospitals (122) and nursing homes (547) in Region 2 and they account for 85,306 beds. Although these facilities have their own contingency plans, they must be coordinated with state, county, and local hazard mitigation planning efforts.

INMATE POPULATIONS

There are 15 prisons within Region 2 with a total inmate population of 22,915. The follow counties have prisons: Pickaway, Montgomery Franklin, Lorain, Warren, Madison, Lorain, Madison, Richland, Cuyahoga, Union, Pickaway, Richland, and Fairfield, and Warren. Each prison has a contingency plan that addresses a variety of circumstances. The challenge then is coordination with prison officials.

ETHNIC / POVERTY LEVEL CONSIDERATIONS

The minority population in Region 2 is 1,981,623 or 25.3 percent of the total population in Region 2 (See Chart 1.1.bb). African-Americans are the largest minority (15.6 percent) followed by Hispanics (3.9 percent), and Asians (2.9 percent). Their concentrations within the largest communities may be linked to the availability of jobs in the area. The greatest concentration of people with limited English skills is in those counties with the greatest Hispanic populations (Lorain, Cuyahoga, and Franklin).

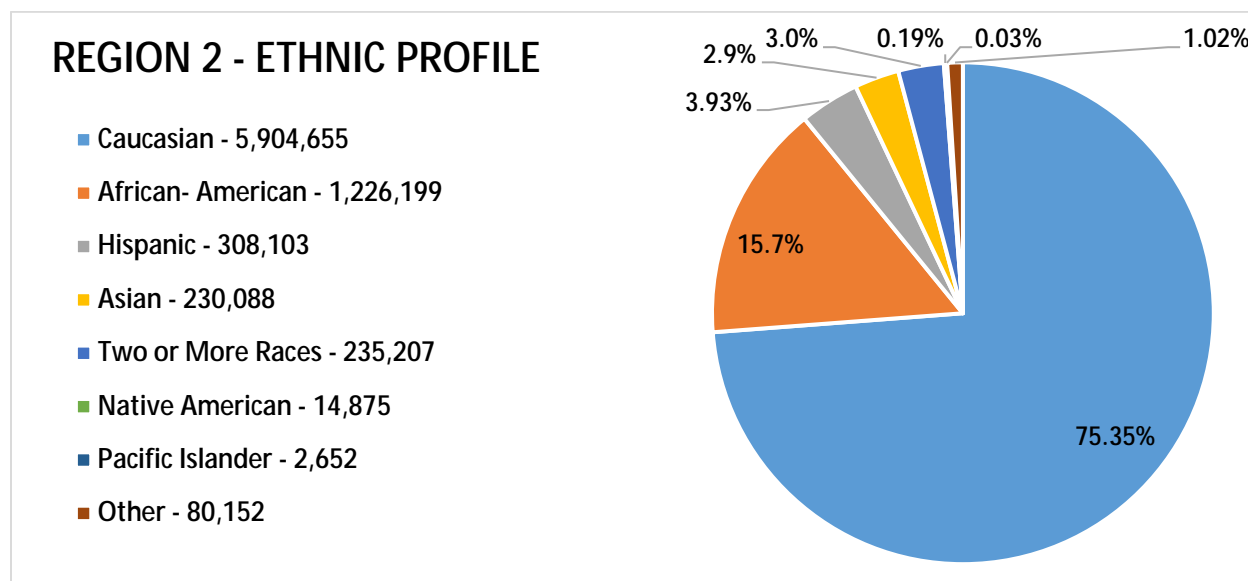


Chart 1.1.aa

AGE PROFILES

The median age in Region 2 is 39.7. The age population categories which require the most care after a disaster event are the under 5 years of age and over 65 years of age. The percentage of children under the age of 5 is about the same throughout Region 2 counties with percentages ranging from a low of 4.6

percent in Portage County to a high of 6.9 percent in Franklin County. The percentage of people 65 years of age and older is also consistent with percentages ranging from a low of 12.03 percent in Franklin County to a high of 20.5 percent in Geauga County (Chart 1.1.bb).

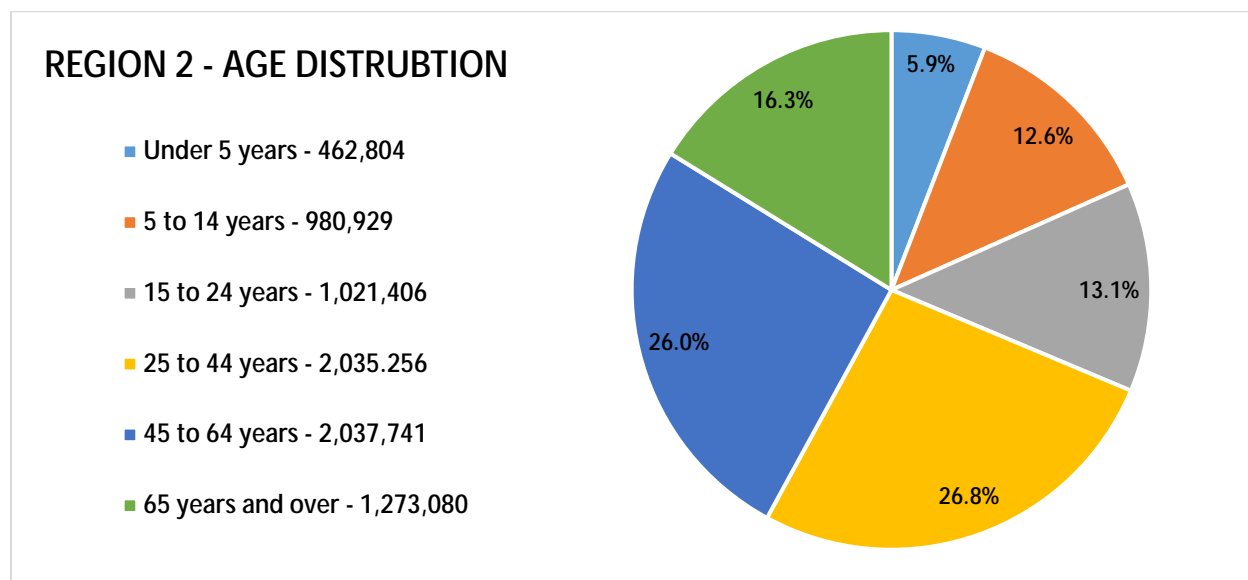


Chart 1.1.bb

REGIONAL ECONOMY

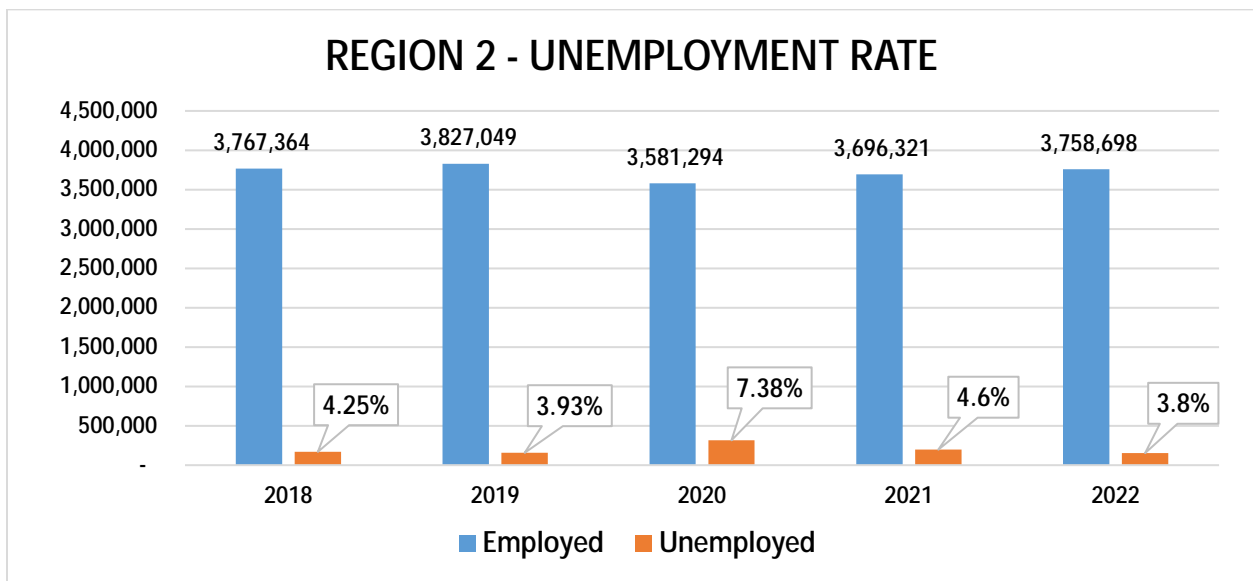
Trade, transportation, and utilities are the region’s principal economic sector. Other sectors, in order of economic importance, include (2) education & health services, (3) professional & business services, (4) manufacturing, and (5) leisure & hospitality (Table 1.1.cc).

REGION 2 EMPLOYMENT AND WAGES BY SECTOR - 2022					
Industry	Avg. Establishment #	Average Employment	Total Wages	Avg. Weekly Wage	Annual Avg. Pay
Private	593,914	9,555,055	\$ 576,211,907,952.00	\$ 1,031.58	\$ 53,380.87
Goods-producing	9,951	559,636	\$ 38,829,874,599.00	\$ 1,145.17	\$ 59,550.07
Natural resources and mining	1,018	10,689	\$ 518,167,862.00	\$ 810.24	\$ 42,133.38
Construction	15,210	152,945	\$ 10,515,664,942.00	\$ 1,122.34	\$ 58,362.24
Manufacturing	9,951	396,000	\$ 27,796,041,795.00	\$ 1,163.69	\$ 60,513.62
Service-providing	171,792	2,625,653	\$ 153,256,990,881.00	\$ 872.41	\$ 45,363.66
Trade, transportation, and utilities	43,064	707,044	\$ 36,144,754,351.00	\$ 827.62	\$ 43,034.76
Information	4,085	47,980	\$ 4,213,469,192.00	\$ 1,327.14	\$ 69,012.17
Financial activities	21,220	227,608	\$ 20,514,388,825.00	\$ 1,236.07	\$ 64,274.97
Professional and business services	40,739	552,779	\$ 43,959,232,927.00	\$ 1,160.45	\$ 60,340.66
1025 Education and health services	25,331	631,798	\$ 35,194,384,972.00	\$ 871.62	\$ 45,325.28
Leisure and hospitality	20,002	354,492	\$ 8,802,820,000.00	\$ 365.03	\$ 18,987.97
Other services	16,993	102,561	\$ 4,354,997,591.00	\$ 662.21	\$ 34,439.34
Unclassified	374	584	\$ 24,254,535.00	\$ 836.03	\$ 43,471.93
Federal Government	811	65,503	\$ 5,734,029,048.00	\$ 1,379.67	\$ 71,738.37
State Government	577	96,533	\$ 7,294,969,751.00	\$ 1,289.70	\$ 67,063.89
Local Government	5,812	326,178	\$ 18,790,968,044.00	\$ 1,006.85	\$ 52,358.41
Total	201,505	3,598,870	\$ 220,376,777,751.00	\$ 997.85	\$ 51,885.41

Table 1.1.cc

The region contains the Cleveland-Columbus Cincinnati corridor which follows Interstate 71. Interstate 71 bisects the region from southwest to northeast and links to other freeways leading to both the Midwestern parts of the county and the eastern seaboard. Region 2 has a strong logistics industry and contains the majority of the state’s rail lines with several intermodal sites. Region 2 also is home to many of the largest universities and colleges, which are typically clustered near the larger metropolitan statistical areas. This accounts for the slight employment increase in the education and health sectors as many of the universities are associated with the hospitals which are also teaching facilities. The region is home to aerospace and defense industries such as General Electric Aircraft Engines in Cincinnati, and Wright-Patterson Air Force Base in Dayton. While not addressed in the Bureau of Labor Statistics data, agriculture is an important economic driver in Region 2.

Region 2’s unemployment rates have decreased from a high in 2020 of 7.38 percent to a low of 3.8 percent in 2022 (Graph 1.1.dd).



Graph 1.1.dd

The median annual household income in Region 2 is \$59,452, which exceeds that of the state (\$53,975). There are 11.5 percent of people living at or below the poverty level in Region 2, this is less than the state on average (13.4 percent). The Region 2 counties that have comparatively high numbers of people living below the poverty level include: Cuyahoga, Montgomery, Fayette, and Hamilton. These counties may warrant special consideration in pre- and post- disaster planning (Chart 1.1.ee).

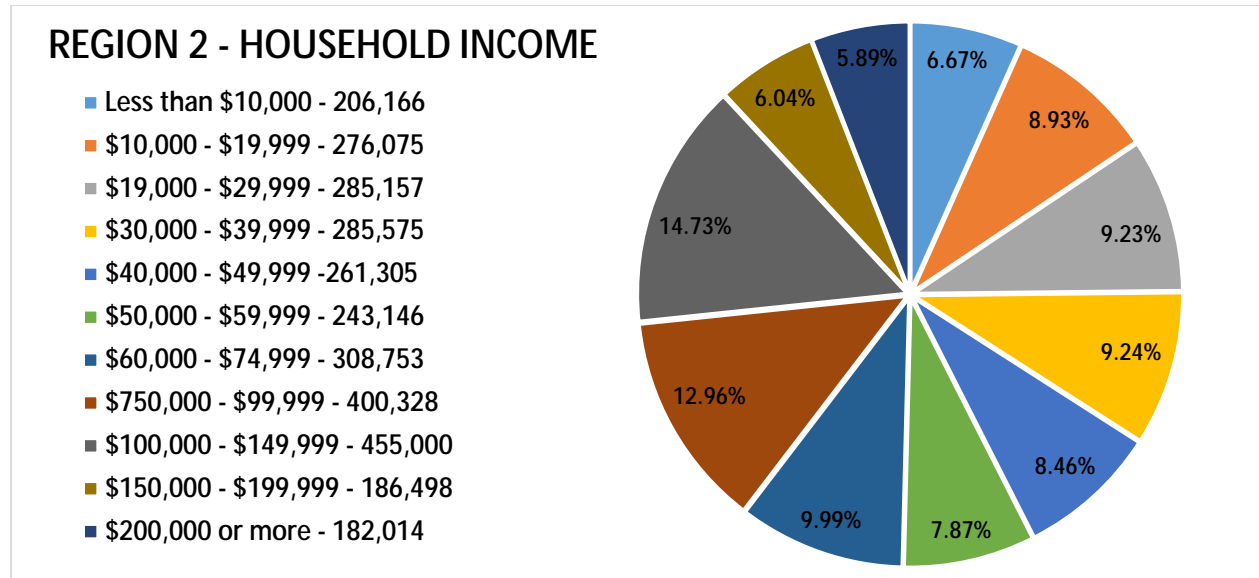


Chart 1.1. ee

HOUSING

About one half of Region 2’s housing stock was constructed prior to 1968, when the National Flood Insurance Program was created. This implies that a large number of houses constructed in the region’s floodplains do not have adequate flood protection. Most of the homes in Region 2 are owner occupied (63.98 percent), as opposed to those occupied by renters (36.1 percent). The number of vacant homes is relatively low (8.0 percent), but livability of these vacant homes is unknown (Chart 1.1. ff).

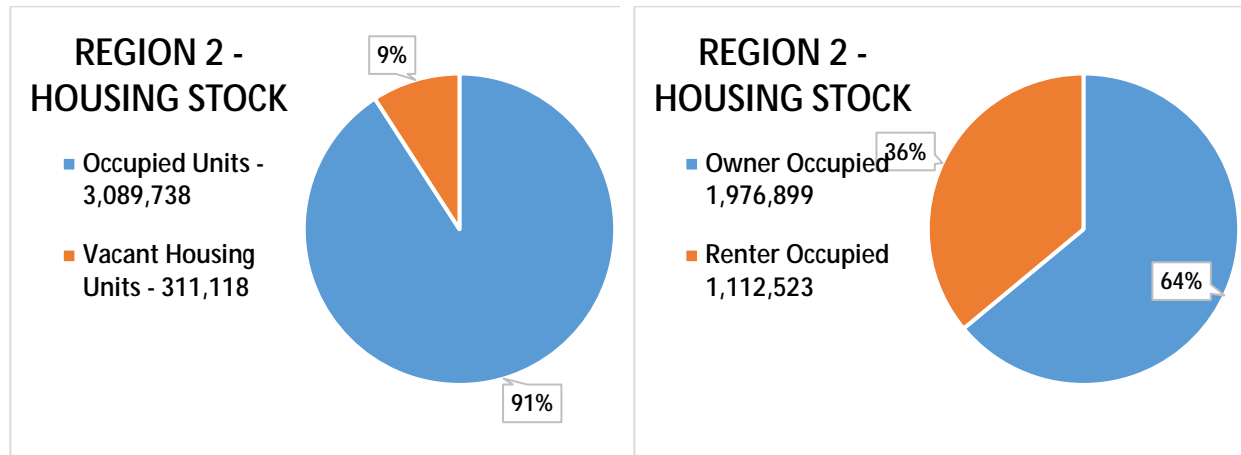


Chart 1.1. ff

TRANSPORTATION

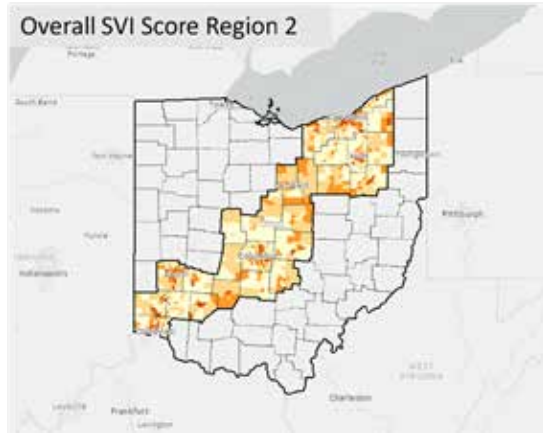
Region 2 has a well-developed transportation system, which includes 14 Class A airports and at least one commercial airport in every county. Geauga and Knox Counties are the only Region 2 counties that do not have interstate highways. All counties are served by the U.S. Highway system and a variety of rail lines. The region possesses both lake and river port facilities (Table 1.1. gg).

REGION 2 TRANSPORTATION SYSTEMS						
Counties	Interstate Highways	U.S. Highways	Rail Lines	Class A Airports	Total Airports	Lake ports/ River ports
Ashland	X	X	3		2	
Butler	X	X	3		3	
Clinton	X	X	1	1	3	
Cuyahoga	X	X	7	3	4	1
Delaware	X	X	2		2	
Fairfield	X	X	2		2	
Franklin	X	X	4	3	7	
Geauga		X	1		2	
Green	X	X	1	*	1	
Hamilton	X	X	6	1	2	6
Knox		X	1		3	
Lake	X	X	2	1	2	1
Licking	X	X	3		2	
Lorain	X	X	4		5	1
Madison	X	X	4		1	
Medina	X	X	3		3	
Montgomery	X	X	3	1	7	
Pickaway	X	X	3		2	
Portage	X	X	4		2	
Richland	X	X	4	1	4	
Stark	X	X	5	1	3	
Summit	X	X	6	2	5	
Union		X	1		1	
Warren	X	X	5		2	
Wayne	X	X	5		1	

Table 1.1.gg – * Wright Patterson Airforce Base is not a commercial airport

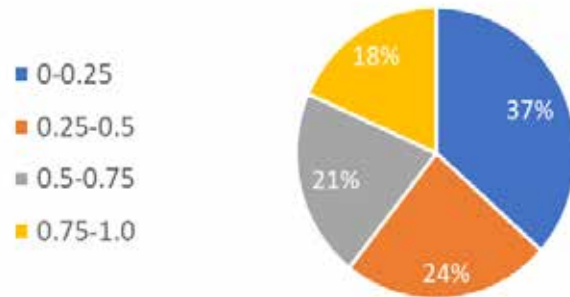
REGION 2 SOCIAL VULNERABILITY

Hazard Planning Region 2 includes Southwestern, Central, and Northeastern areas of the state. Only 39% of census tracts in Region 2 have an Overall SVI score of 0.5 or greater, and 18% of census tracts have an Overall SVI score of 0.75 or more.



Map 1.1.hh

Region 2 SVI Overall Scores

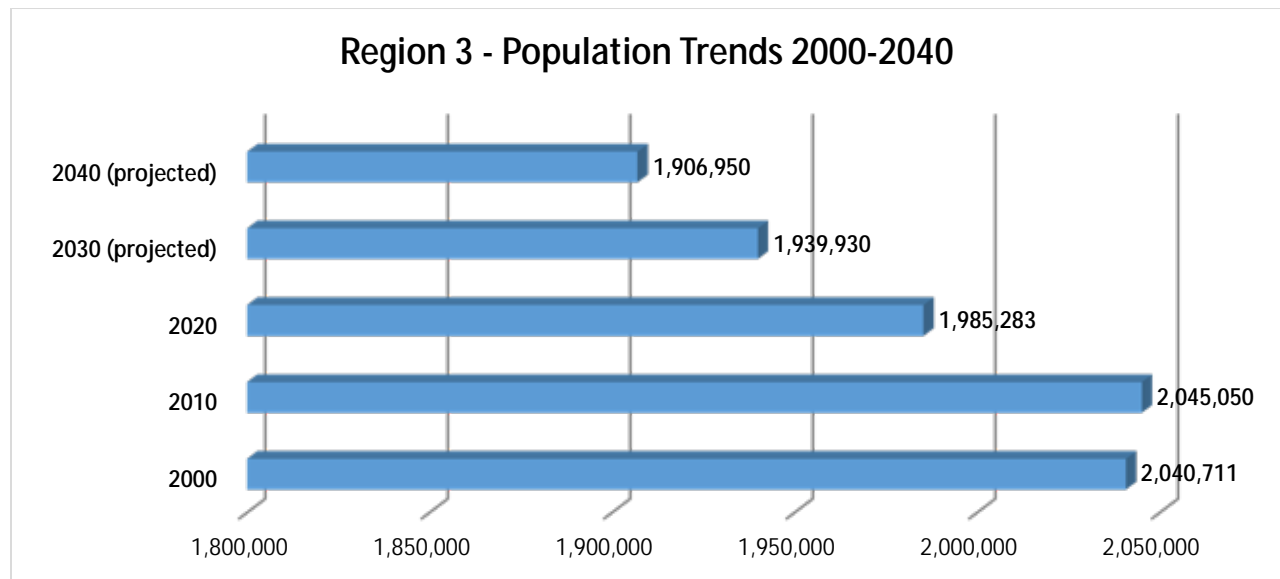


REGION 3

Region 3 is defined largely as the Appalachian region of Ohio. This region consists largely of the Appalachian foothills, and also is the area of the state that has the most exposure to the Ohio River, a significant flooding source in the state.

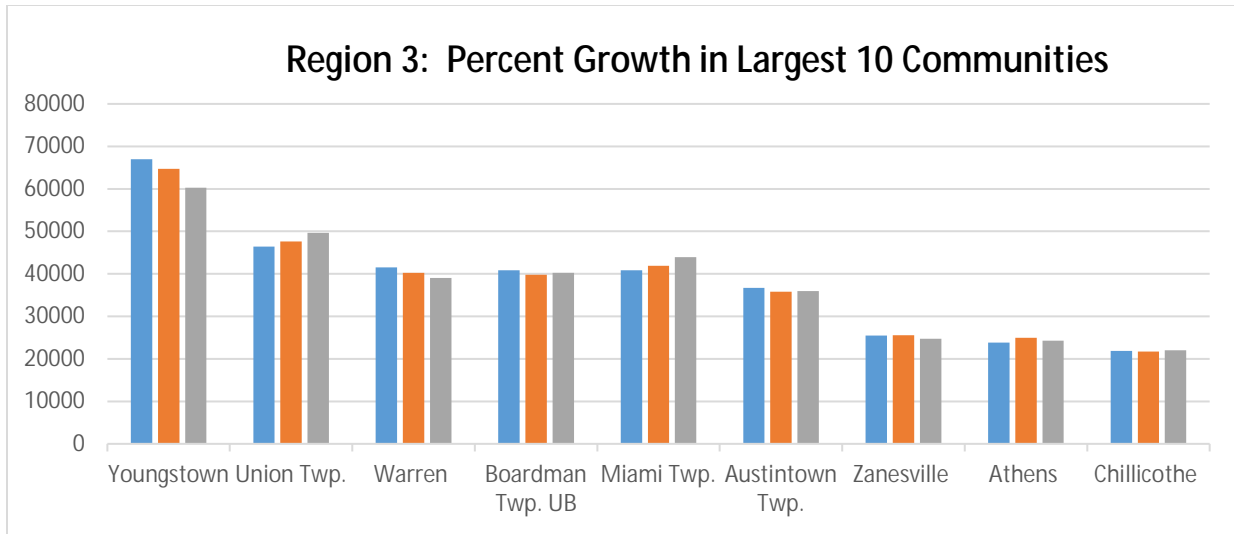
GENERAL POPULATION

The population of Region 3 in 2020 was 2,040,711 per the 2020 Census. The region experienced a decrease of 55,428 people over a 20-year period (Graph 1.1.ii).

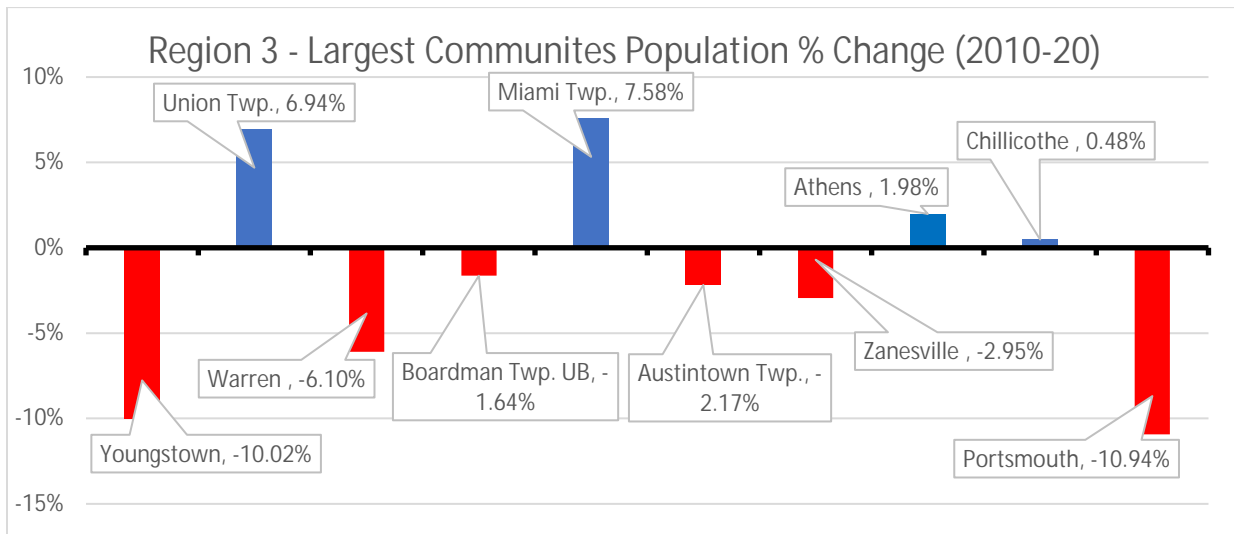


Graph 1.1.ii

The region as a whole has seen a minor decrease in population, the majority of the region’s largest cities and areas have experienced larger losses in population between 2000 and 2016 (see Graph 1.1.dd). The greatest percentage loss of population occurred in Youngstown (Mahoning) with the city losing 21.6 percent of its population, while the greatest percentage increase in population occurred in Athens (Athens) gaining 18.7 percent (Graphs 1.1.jj & 1.1.kk).



Graph 1.1.jj



Graph 1.1.kk

SPECIAL POPULATIONS

There is a significant part of the population in Region 3 that could require higher levels of assistance before and after a disaster occurs. These special population groups include: infant children, elderly, non-English speaking, convalescing, assisted living, and inmate populations.

CONVALESCING AND ASSISTED LIVING POPULATIONS

The convalescing and assisted living populations include hospitals, and nursing homes. There are 209 nursing homes and 49 hospitals in Region 3 with a total of 24,654 beds. There also are three psychiatric hospitals in the region. Although these facilities have their own contingency plans, they coordinate with state, county, and local hazard mitigation planning efforts.

INMATE POPULATIONS

Region 3 also contains nine prisons, which are spread across the region. The inmate population is 14,285 with Ross and Belmont Counties holding the largest percentage of inmates.

ETHNIC / POVERTY LEVEL CONSIDERATIONS

Approximately 92.9% of the Region 3 is Caucasian. This leaves a total minority population of 181,988, the total minorities category is computed by subtracting the non-Hispanic-one-race-only whites from the total population. The African-American (4.3 percent) and Hispanic (2.1 percent) populations in Region 3 are comparatively small. The largest percentages of African Americans reside in Mahoning, Trumbull, and Ross counties. The majority of Hispanics reside in Mahoning, Ashtabula, and Clermont counties. Twenty-six of the thirty-two counties within the region exceed the state’s average poverty level (13.4 percent) with Athens County having highest poverty level in the state (30.2 percent). Counties that are below the poverty level face potentially severe implications of ensuring that mitigation actions are implemented and often must depend on outside resources (Chart 1.1.II).

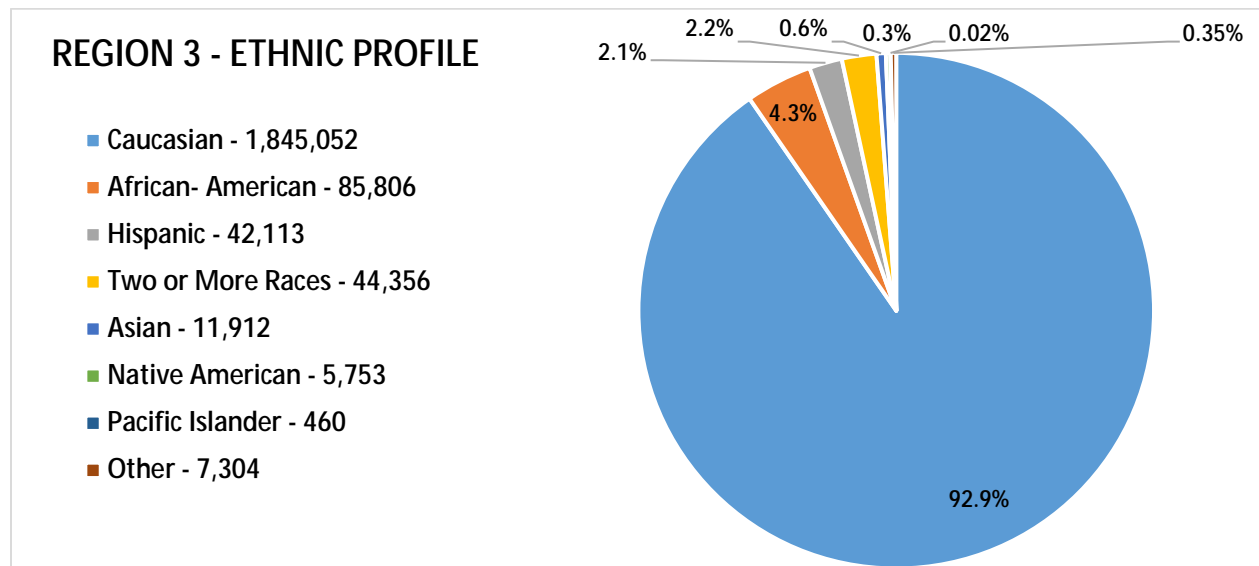


Chart 1.1.II

AGE PROFILES

The median age in Region 3 is 42.1 years, which does not vary significantly from that in Region 1 or Region 2. The two populations, which often require special attention during disaster times are children under the age of 5 and those over the age or 65. At present, approximately 5.5 percent of the region’s population is less than 5 years of age and 19 percent of the population is 65 or older. Within the region Trumbull and Mahoning counties contain the largest population 65 years or older. Mahoning County contains the largest number of population under the age of 5 (Chart 1.1.mm).

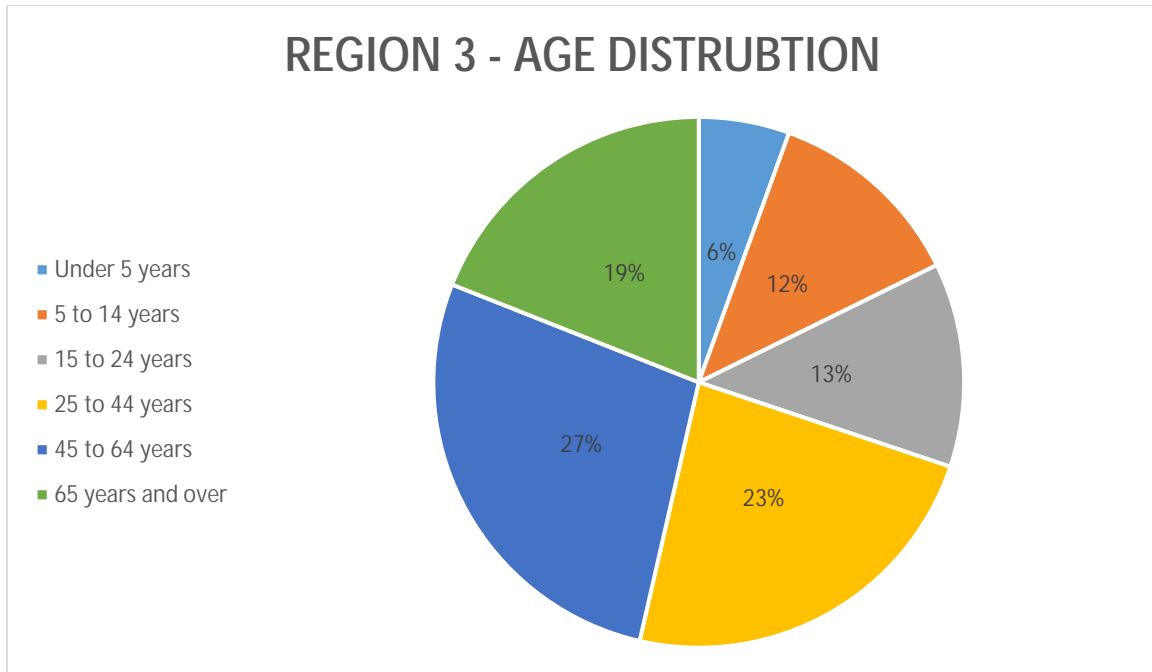


Chart 1.1.mm

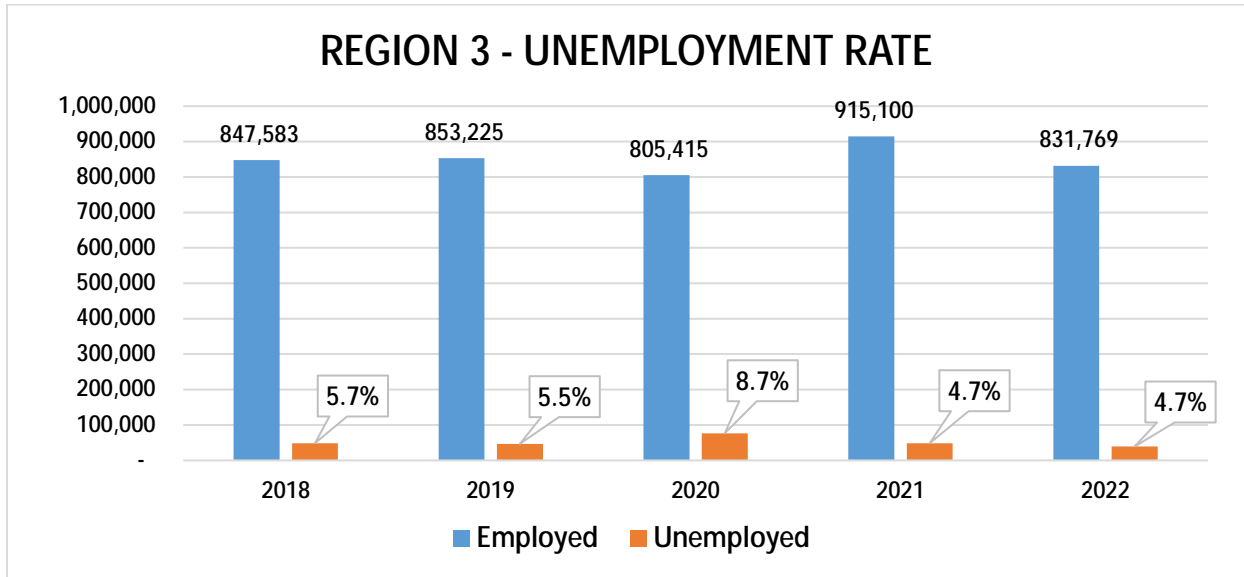
REGIONAL ECONOMY

Trade, transportation, and utilities are the region’s principal economic sector. Other sectors, in order of economic importance, include (2) health care, (3) professional & business services, (4) leisure and hospitality, and (5) construction (Table 1.1.nn).

REGION 3 EMPLOYMENT AND WAGES BY SECTOR - 2022					
Industry	Avg. Establishment #	Average Employment	Total Wages	Avg. Weekly Wage	Annual Avg. Pay
Private	120,537	1,549,565	69,581,454,530.00	\$ 796.08	\$ 41,396.00
Goods-producing	2,464	119,624	7,053,058,964.00	\$ 1,224.52	\$ 63,669.21
Natural resources and mining	745	5,258	312,044,993.00	\$ 916.41	\$ 47,650.62
Construction	4,188	26,844	1,571,792,463.00	\$ 1,088.14	\$ 56,583.38
Manufacturing	2,464	83,415	4,894,386,107.00	\$ 1,162.55	\$ 60,453.21
Service-providing	32,776	398,695	16,275,265,381.00	\$ 814.28	\$ 42,340.62
Trade, transportation, and utilities	9,973	130,758	5,448,261,956.00	\$ 837.72	\$ 43,561.90
Information	491	3,898	212,329,213.00	\$ 1,058.21	\$ 55,029.79
Financial activities	3,558	20,028	1,144,519,734.00	\$ 1,070.72	\$ 55,680.24
Professional and business services	5,599	47,483	2,460,353,722.00	\$ 1,019.59	\$ 53,018.00
1025 Education and health services	5,414	110,320	412,034,291.00	\$ 892.93	\$ 46,432.21
Leisure and hospitality	4,319	67,962	1,198,438,381.00	\$ 340.41	\$ 17,704.72
Other services	3,402	16,884	546,285,865.00	\$ 619.00	\$ 32,188.34
Unclassified	45	78	2,893,756.00	\$ 334.76	\$ 17,409.86
Federal Government	535	6,892	469,145,790.00	\$ 1,142.94	\$ 59,436.25
State Government	332	11,521	702,411,409.00	\$ 1,148.42	\$ 59,714.13
Local Government	2,856	77,535	3,500,373,560.00	\$ 840.90	\$ 43,729.48
Total	47,538	695,832	31,945,420,977.00	\$ 878.94	\$ 47,177.87

Table 1.1.nn

Regional unemployment rates fluctuated between 2018 and 2022, from a high of 8.74% in 2020 to a low of 4.71% in 2021 (Graph 1.1.oo).



Graph 1.1.oo

In 2020, the median household income in Region 3 was \$48,240 which is considerably lower than the state (\$53,975) median income. (Chart 1.1.pp).

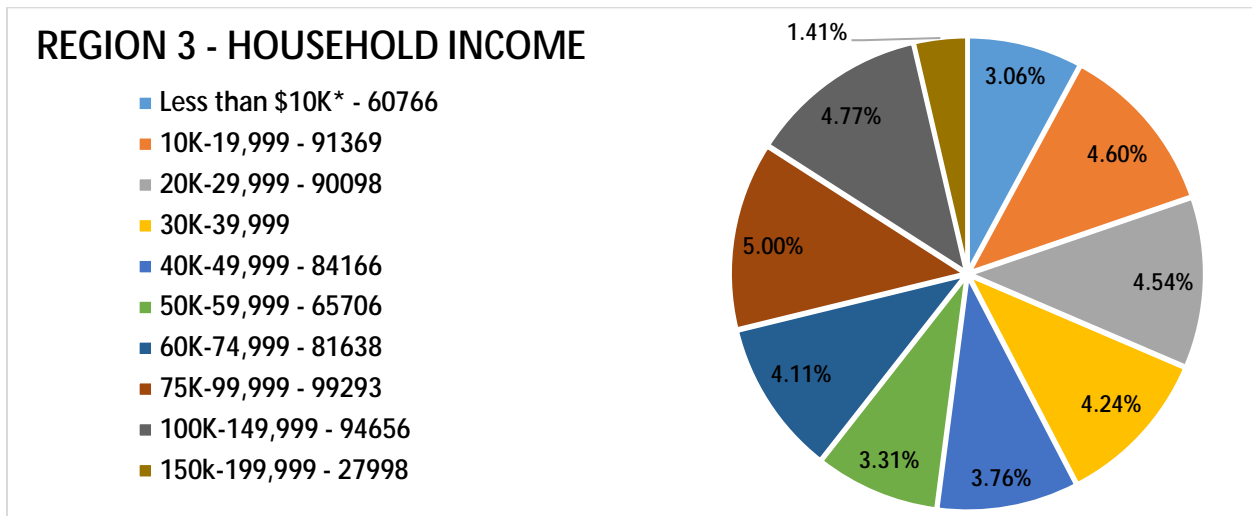


Chart 1.1.pp

HOUSING

There were 908,191 housing units in Region 3 (Chart 1.1.qq). The majority of the homes (71 percent) are owner-occupied and about 29 percent are rentals. Of the housing stock 14.8 percent of the region’s stock was vacant. According to the Ohio DSA, 71 percent of the region’s housing stock was built before 1970, which indicates most construction occurred prior to the creation of the National Floodplain Insurance Program (NFIP).

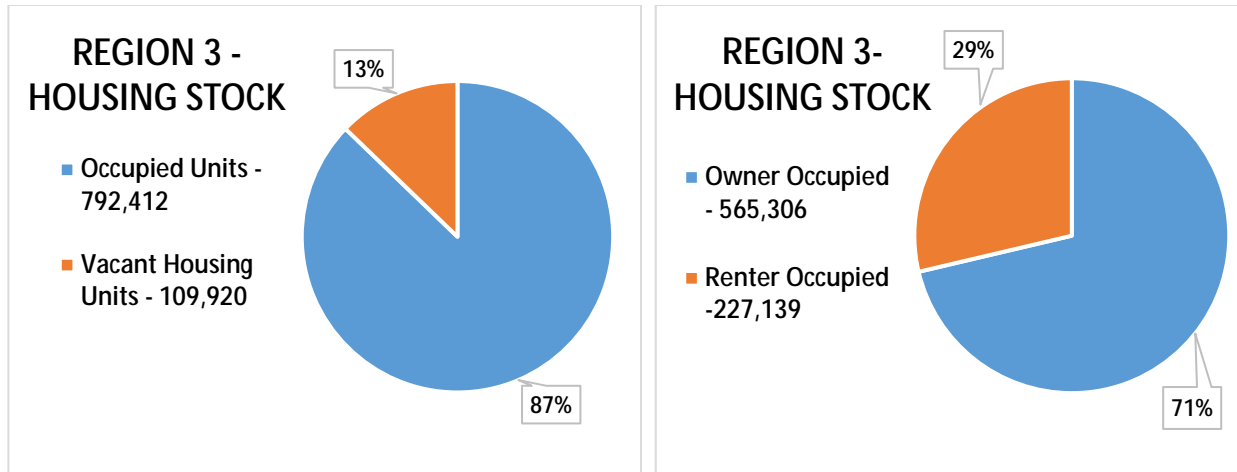


Chart 1.1.qq

TRANSPORTATION

Table 1.1.ss provides a general overview of Region 3 transportation systems, which include interstate highways, U.S. highways, rail lines, airports, and river ports. There is one Class A airport in the Region located in Trumbull County. Nine of thirty-two counties are served by the interstate system, but most counties have at least one U.S. highway. A major rail line serves all counties except Noble and Morgan counties. Seven counties have ports along the Ohio River and one county (Ashtabula) has Lake Erie Ports.

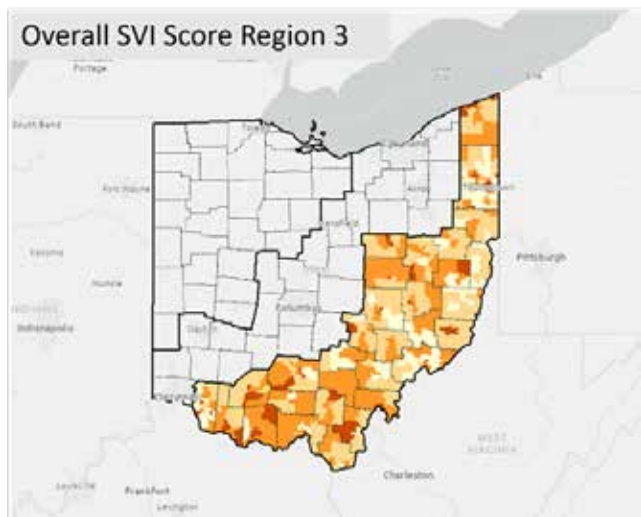
REGION 3 TRANSPORTATION SYSTEMS						
Counties	Interstate Highways	U.S. Highways	Rail Lines	Class A Airports	Total Airports	Lake ports/ River ports
Adams		X	1		1	
Ashtabula	X	X	4		2	2
Athens		X	2		1	
Belmont	X	X	2		3	1
Brown		X	1		1	
Carroll			3		2	
Clermont	X	X	2		1	
Columbiana		X	3		2	4
Coshocton		X	1		2	
Gallia		X	2		1	1
Guernsey	X	X	1		2	
Harrison		X	3		1	
Highland		X	1		1	
Hocking		X	3			
Holmes		X	2		1	
Jackson		X	1		1	
Jefferson		X	4		2	1
Lawrence		X	1		1	2
Mahoning	X	X	4		5	
Meigs		X	2			

Monroe			1		1	
Morgan					1	
Muskingum	X	X	4		2	
Noble	X				1	
Perry		X	3		1	
Pike		X	3		1	
Ross		X	4		1	
Scioto		X	2		1	3
Trumbull	X	X	4	1	3	
Tuscarawas	X	X	4		1	
Vinton		X	1		1	
Washington	X	X	1			2

Table 1.1.rr

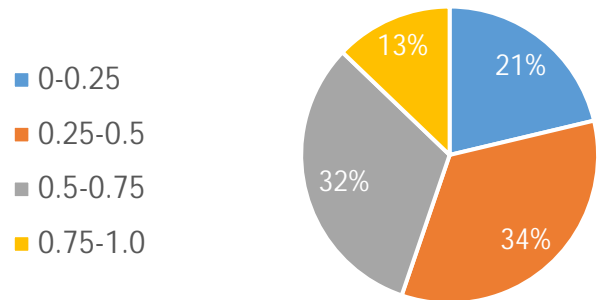
REGION 3 SOCIAL VULNERABILITY

Hazard Planning Region 3 includes Southeastern, Central, and Northeastern areas of the state. Only 45% of census tracts in Region 2 have an Overall SVI score of 0.5 or greater, and 13% of census tracts have an Overall SVI score of 0.75 or more.



Map 1.1.ss

Region 3 SVI Overall Scores



1.2 PLANNING PROCESS

According to 44CRF 201.4(c)(1) Ohio’s hazard mitigation plan must provide a “Description of the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how other agencies participated.”

The SOHMP was initially developed in 2005 and was subsequently updated in 2008, 2011, 2012, 2014 and 2019. The process used for the initial plan development and subsequent updates are summarized in the 2014 version of the SOHMP. The 2024 SOHMP update process is summarized below.

The Ohio EMA Mitigation Branch is the primary author of the plan. The team that authored the 2019 plan update includes:

2024 State of Ohio Hazard Mitigation Plan Primary Authors	
Name	Title
Steve Ferryman, CFM	Mitigation Branch Chief, State Hazard Mitigation Officer
Jacob Hoover, AICP, CFM	Mitigation Branch Supervisor
Luan Nguyen	State Hazard Mitigation Planner
Linda Slattery	GIS Administrator
Kenneth See	Mitigation Branch Intern

Although this team was primarily responsible for the authoring the plan text, many different people, organizations and agencies contributed to the plan direction, content, and review. These contributors and their role in the plan update process is outlined below.

STATE HAZARD MITIGATION TEAM (SHMT)

Prior to DMA 2000, Ohio had created a mitigation team, the SHMT, which serves two primary functions: to provide input / score applications for FEMA mitigation programs and to provide general input on the State of Ohio’s hazard mitigation policies. Today the SHMT continues to meet and is the lead advisory group involving mitigation project scoring and mitigation policy – which includes mitigation planning issues. The SHMT members provided general direction, review/editing of text, and contributed to mitigation action items within the plan.

Currently, the SHMT includes the following entities:

State Hazard Mitigation Team (2024)	
Agency	Name
Ohio EMA - Recovery Branch	Brigitte Bouska
Ohio DNR - Division of Water Resources	Katherine Goepner
Ohio DNR - Division of Water Resources	Alicia Silverio
Ohio Development Services Agency	Shana Garrett
Ohio Public Works Commission	Linda Bailiff
Muskingum Watershed Conservancy District	Boris Slogar
US Army Corps of Engineers-Buffalo	Laura Ortiz
US Army Corps of Engineers-Huntington	Ashley Stephens
US Army Corps of Engineers-Huntington	JoAnn Combs
US Army Corps of Engineers-Louisville	Brandon Brummett
FEMA Region V	Steve Greene
Emergency Management Association of Ohio	Vacant
US Geological Survey	Dave Straub
Ohio EMA - Mitigation Branch (non-voting)	Steve Ferryman
Ohio EMA - Mitigation Branch (non-voting)	Jacob Hoover
Ohio EMA - Mitigation Branch (non-voting)	Dan Clevidence
Ohio EMA - Mitigation Branch (non-voting)	Sharon Rolf
Ohio EMA - Mitigation Branch (non-voting)	Luan Nguyen
Ohio Voluntary Organizations Active in Disaster	Erin Cordle

EMERGENCY SUPPORT FUNCTION (ESF) PARTNERS

ESF Partners meet quarterly to discuss emergency management issues and concerns. The Mitigation Branch staff participate in these meetings and for this plan update, the ESF Partner Leads were:

Emergency Support Function Leads (2024)		
Emergency Support Function	Agency	Name
#1 - Transportation	Ohio Dept. of Transportation	Carl Merckle
#2 – Communications & I.T.	Ohio EMA	Brian Castner
#3 – Engineering & Public Works	Ohio DNR	Doug Johnson
#4 – Firefighting	Commerce/State Fire Marshall	Kevin Reardon
#5 – Information & Planning	Ohio EMA	Mustafa Wardak
#6 – Mass Care	Ohio EMA	Robin Ulrich
#7 – Resources & Logistics	Ohio Dept. of Admin. Services	Susan Traylor
#8 – Public Health & Medical	Ohio Dept. of Health	Tamara McBride
#9 – Search & Rescue	Ohio DNR	Doug Johnson
#10 – Hazardous Materials	Ohio EPA	Jim Mehl
#11 – Agriculture	Ohio Dept. of Agriculture	Jason Davis
#12 – Energy	Public Utilities Comm. of Ohio	Bob Wolfe
#13 – Law Enforcement	Dept. of Public Safety	Kristin Wickman
#14 – Recovery & Mitigation	Ohio EMA	Laura Adcock-Elder
#15 – External Affairs	Ohio EMA	Sandy Mackey

The ESF Leads serve as guides for their respective agencies as the Mitigation Branch planning team updates each agencies mitigation actions and capability assessments. The ESF Leads help the Mitigation Branch planning team to get the appropriate personnel to the plan update meetings and navigate their agencies bureaucracies.

The table below lists the date of the initial meeting with each agency to update their mitigation actions and capability assessment. Documentation of follow-up meetings and other correspondence is on file in the Mitigation Branch and available upon request.

State Agency Coordination Documentation	
Agency	Meeting Date
Office of Budget and Management	February 2, 2024
Department of Administrative Services	January 25, 2024
Department of Agriculture	August 4, 2023
Department of Commerce	December 7, 2024
Department of Development	February 15, 2024
Department of Health	October 4, 2023
Department of Insurance	October 18, 2023
Department of Natural Resources	November 22, 2023
Department of Transportation	June 1, 2023
Ohio Environmental Protection Agency	February 13, 2024
Ohio Facilities Construction Commission	September 15, 2023
Ohio Homeland Security	February 8, 2024
Ohio History Connection	October 5, 2023
Ohio Public Works Commission	February 2, 2024
Ohio Public Utilities Commission	February 5, 2024
State Climate Office of Ohio	September 26, 2023

Below is a sample agenda that was used to guide the discussion with each agency.

Agency Data and Input Collection for 2024 SOHMP Update Meeting

- Update of 2019 mitigation actions items and identification of new items
- Update of agency capability assessment table
- Documentation of agency climate change initiatives
- Documentation of underserved/socially vulnerable populations initiatives
- Opportunities for state mitigation plan integration into existing plans/processes or vice-versa
- Risk assessment data

The results of these meetings and subsequent follow-up are captured in Sections 3.2 and 3.3 of this plan. The agencies that are part of ESF #14 have authority, programs, funding and expertise to supplement local mitigation and recovery actions after an event. The SOHMP update was coordinated with ESF #14 Partners. These agencies provided data that was incorporated into the state mitigation capability assessment. ESF#14 support agencies also contributed mitigation action items to the plan and provided review and comment on the document.

Current ESF #14 Partners are:

ESF #14 – Mitigation and Recovery Partners (2024)	
Adjutant General	Ohio Facilities Construction Commission
American Red Cross	Ohio Homeland Security
Board of Regents/Dept. of Education	Ohio Hospital Association
Corporation for National and Community Service	Ohio Housing Finance Agency
Department of Administrative Services	Ohio Public Works Commission
Ohio Attorney General’s Office	Ohio Rail Development Commission
Department of Aging	Ohio Rural Electric Cooperatives
Department of Agriculture	Ohio Statewide Independent Living Council
Department of Commerce	Ohio Treasurer of State
Department of Developmental Disabilities	Secretary of State
Department of Health	Ohio VOAD
Department of Insurance	Ohio Water Development Authority
Department of Job and Family Services	Public Utilities Commission of Ohio
Department of Medicaid	Salvation Army
Department of Mental Health & Addiction	U.S. Small Business Administration
Ohio Department of Natural Resources	State Historic Preservation Office
Ohio Department of Public Safety	U.S. Army Corps of Engineers
Ohio Department of Rehabilitation and	U.S. EPA
Ohio Department of Transportation	National Oceanic and Atmospheric Adm.
Department of Veteran’s Services	U.S. Department of Interior
Development Services Agency	U.S. Coast Guard
Ohio Emergency Management Agency	U.S. Fish and Wildlife
Emergency Management Association of Ohio	U.S. Geological Survey
Ohio Environmental Protection Agency	U.S. Housing and Urban Development
FEMA	U.S.D.A. Nat. Res. Conservation Service
Ohio Arts Council	U.S.D.A. Farm Services Agency
Office of Budget and Management	U.S.D.A. Rural Development
Ohio Commission on Service and Volunteerism	

THE OHIO SILVER JACKETS TEAM

The Ohio Silver Jackets Team is an interagency team dedicated to creating a collaborative environment to bring together all levels of government and other stakeholders to mitigate natural hazards by effectively combining available agency resources, programs, and technical expertise. The Ohio Silver Jackets team has funded multiple projects that were prioritized in the 2014 SOHMP. Some examples include: loss avoidance studies, HAZUS runs, and floodplain mapping projects. The Ohio Silver Jackets Team meets quarterly and for the 2024 SOHMP update provided hazard specific technical expertise, mitigation action items, and overall plan review.

2024 PLAN UPDATE AND ADOPTION PROCESS

Agencies from all levels of government and multiple non-profits participated in the 2024 SOHMP. The public was given multiple opportunities to review and comment on the draft plan. Efforts were also made to solicit input and comments from businesses and the private sector through the Ohio Public Private Partnership. Following is a brief outline of the process followed to update and adopt the 2024 SOHMP.

STEP 1: REVIEW THE EXISTING STATE MITIGATION PLAN, OTHER PLANS, AGENCY GOALS AND OBJECTIVES, TRENDS, ETC.

The 2019 Enhanced SOHMP was reviewed to determine areas of focus for the 2024 SOHMP update. It was determined that the entire document would be updated with a focus on:

- Reducing the size of the plan by eliminating outdated and extraneous information,
- Incorporating agreed upon changes resulting from the recent revision to FEMA's state planning guidance, and
- Updating the interactive digital summary of the SOHMP to increase public awareness of the document.

STEP 2: APPLY FOR PRE-DISASTER MITIGATION GRANT

The Ohio EMA Mitigation Branch used state set-aside funds from the Building Resilient Infrastructure and Communities (BRIC) grant program to help pay for the cost to update the plan and digital plan summary.

STEP 3: RESEARCH AND GATHER DATA

Significant time and effort was invested by the Ohio EMA Mitigation Branch to research data needed for the comprehensive plan update. In addition, subject matter experts in specific hazards were consulted and provided data and/or wrote portions of the plan's risk analysis. Extensive research of current state mitigation laws, policies, and programs was also conducted to update the state capability portion of the plan document.

STEP 4: CREATE DRAFT PLAN AND OBTAIN STAKEHOLDER INPUT

Ohio EMA Mitigation Branch staff updated plan text based on information and data gathered from research and subject matter experts. Meetings to gather input on the draft document were held with the Ohio EMA Executive Office, the SHMT, ESF partners, and the Ohio Public Private Partnership. A draft version of the plan was also posted on the Ohio EMA website, in conjunction with a press release requesting public review and comment of the draft plan. Public input was evaluated and incorporated into the plan document.

STEP 5: SUBMIT DRAFT SOHMP TO FEMA FOR REVIEW

The draft SOHMP was submitted to FEMA for review and approval as meeting enhanced state mitigation plan requirements. Comments provided by FEMA on their review of the draft plan were incorporated into the final plan document.

STEP 6: SOHMP ADOPTION AND FINAL APPROVAL

The final SOHMP document was adopted according to state law and sent to FEMA for final review and approval. The SOHMP document was approved as meeting FEMA enhanced plan requirements in 44 CFR 201.5. The FEMA approval of the SOHMP as an enhanced plan enables the state to access additional mitigation funds after a major disaster declaration.

1.3 PLAN INTEGRATION WITH OTHER INITIATIVES

Effective state mitigation programs coordinate with various programs and agencies at all levels of government and the private sector to help achieve risk reduction. The Code of Federal Regulations 44 Part 201.4(b)(1) and Part 201.5(b)(1) recommends that state mitigation plans be integrated to the extent possible with 1) ongoing state and/or regional planning efforts, 2) FEMA mitigation programs, and 3) other initiatives that provide guidance to state and regional agencies. The list below identifies some of the many ways the SOHMP and programs are integrated.

INTEGRATION WITH OTHER PLANNING EFFORTS

LOCAL HAZARD MITIGATION PLANNING

Local entities are encouraged to review the State of Ohio Hazard Mitigation Plan (SOHMP); the state mitigation planner reviews all local plans for consistency with state plan and federal planning requirements. Local plan data will be reviewed and integrated into state plan.

OHIO HOMELAND SECURITY STRATEGIC PLAN

Ohio EMA Mitigation Branch continues to participate in the development of the Ohio Homeland Security strategic plan by ensuring that the plan was consistent with the SOHMP. The Mitigation Branch currently participates on the OHS Strategic Plan Infrastructure and Structural Recovery Advisory Committees.

OHIO EMA STRATEGIC PLAN

The Ohio EMA updates its strategic plan on an annual basis. Different branches, including the Mitigation Branch, formulate branch strategic goals, objectives, and actions. The Ohio EMA Mitigation Branch strategic plan is partially based on actions in SOHMP.

STATE EMERGENCY OPERATIONS PLAN

The Ohio EOP is structured on 15 Emergency Support Functions (ESF) that correspond to the format of the National Response Framework. ESF-14 is titled, Recovery and Mitigation and is updated and maintained by the respective branches.

STATE RECOVERY STRATEGIES

State agencies, along with our federal, local and non-governmental organization partners developed five state recovery strategies covering the following areas: 1) economy, 2) infrastructure, 3) housing, 4) health and social services, and 5) natural and cultural resources. All disasters, whether natural or human-caused, require some level of recovery for the impacted survivors, businesses and local governments. These strategies are intended to document the roles and capabilities of local, state, federal and non-governmental agencies in support of recovery efforts. Roles and capabilities can include financial assistance and/or technical assistance. The Mitigation Branch participated in the development of these strategies.

OHIO THREAT HAZARD IDENTIFICATION AND RISK ASSESSMENT

The Ohio EMA Plans Branch is responsible for the development and maintenance of the Ohio Threat Hazard Identification and Risk Assessment (THIRA) and the State Preparedness Report. The Ohio EMA Mitigation Branch participates in the annual update of both documents.

OHIO HAZARD IDENTIFICATION AND RISK ASSESSMENT

The Ohio EMA Plans Branch is responsible for the development and maintenance of the Ohio Hazard Identification and Risk Assessment (HIRA). The Mitigation Branch participates in the review and update of the HIRA. Data from the Risk Analysis in Section 2 of the SOHMP is used to inform the HIRA.

INTEGRATION WITH OTHER MITIGATION PROGRAMS**CDC SOCIAL VULNERABILITY INDEX (SVI)**

The CDC/ATSDR SVI is a database that helps emergency response planners and public health officials identify, map, and plan support for communities that will most likely need support before, during, and after a public health emergency. The CDC/ATSDR SVI uses U.S. Census data to determine the social vulnerability of every census tract. Census tracts are subdivisions of counties for which the Census collects statistical data. The CDC/ATSDR SVI ranks each tract on 16 social factors, including poverty, lack of vehicle access, and crowded housing, and groups them into four related themes: Socioeconomic Status, Household Characteristics, Racial and Minority Status, and Housing Type and Transportation. This database was assessed, and integrated into the 2024 State of Ohio Hazard Mitigation under Section 1.1, State Profile. The 2024 State of Ohio Hazard Mitigation Plan also utilizes FEMA's National Risk Index (NRI) which also incorporates the CDC SVI as a major Risk Index Contributor.

FEMA NATIONAL RISK INDEX (NRI)

The FEMA National Risk Index is a dataset and online tool to help illustrate the United States communities most at risk for 18 natural hazards. It was designed and built by FEMA in close collaboration with various stakeholders and partners in academia; local, state and federal government; and private industry. The Risk Index leverages available source data for natural hazard and community risk factors to develop a baseline risk measurement for each United States county and Census tract. 2024 State of Ohio Hazard Mitigation utilizes the FEMA NRI to further assess the natural hazards experienced in the state and to integrate the dataset into Section 2, Risk Analysis where applicable.

CDBG AND HUD SUPPLEMENTAL FUNDS/ OHIO DEVELOPMENT SERVICES AGENCY

The Ohio Development Services Agency (ODSA) works both independently and with Ohio's mitigation programs to provide funding for non-structural mitigation projects in communities with populations of low to moderate income individuals. Such funds may match FEMA mitigation programs or may be used for projects independently. ODSA program staff are members of the SHMT.

OHIO SILVER JACKETS TEAM

Silver Jackets is a U.S. Army Corps of Engineers program that began in Ohio in 2006 and the program is now active in majority states around the country. Silver Jackets is a strategic and collaborative initiative of Federal and state agencies to advance natural hazard risk reduction activities that align with state priorities. The initiative seeks to leverage resources available through all levels of government, the private sector, and Non-Governmental Organizations (NGO's) to identify and implement local solutions to risk vulnerability. The USACE participates on the SHMT and has recently funded multiple action items identified as priorities in the SOHMP with the annual Silver Jackets Program funding. The following link to the Ohio Silver Jackets website contains additional details: <https://silverjackets.nfrmp.us/State-Teams/Ohio>.

NATIONAL FLOOD INSURANCE PROGRAM/ ODNR DIVISION OF WATER RESOURCES, FLOODPLAIN MANAGEMENT PROGRAM

The ODNR Division of Water Resources is the state coordinating entity for the National Flood Insurance Program as well as state floodplain management office. ODNR Coordinates closely with the Ohio EMA Mitigation Branch, and participates on the SHMT. The Floodplain Management Program participates extensively on SOHMP updates. They are responsible for working with Ohio EMA during events and post-flood issues, and coordinating education and outreach for community floodplain administrators.

Staff from ODNR and OHIO EMA collaborate on facilitating Risk MAP in the state. Risk Mapping, Assessment, and Planning (Risk MAP) is the Federal Emergency Management Agency (FEMA) Program that provides communities with flood information and tools they can use to enhance their mitigation plans and take action to better protect their citizens. Through more precise flood mapping products, risk assessment tools, planning and outreach support, Risk MAP strengthens local ability to make informed decisions about reducing risk.

ODNR DIVISON OF WATER RESOURCES/DAM SAFETY PROGRAM

The Dam Safety Program has statutory authority for permitting/monitoring dams and levees in Ohio. The DSP provides data for the state plan HIRA and action items into the state mitigation strategy. The DSP coordinates closely with the National Dam Safety Program (NDSP) and has used NDSP grant funds to train state personnel and conduct dam safety awareness workshops. The DSP also coordinates with the Ohio EMA Mitigation Branch on implementation of the FEMA High Hazard Potential Dam Program in Ohio.

OHIO BUILDING CODE/ OHIO DEPARTMENT OF COMMERCE

The Ohio Department of Commerce – Board of Building Standards and the Ohio Building Officials Association work on state building codes and issues related to hazards in Ohio. The Ohio Residential Code of Ohio includes provisions for flood hazards and the ODNR – Floodplain Management Program coordinates closely with them to ensure the Ohio RCO meets federal requirements. The state has utilized information provided in the “Flood Resistant Construction” section of the OBBC to outline expectations of the local jurisdictions, post-disaster, to help them achieve the flood reduction goals.

In 2013, the Ohio Board of Building Standards adopted reference standards in the Residential Building Code of Ohio specific to the construction and/or installation of tornado safe rooms. In 2015, the Ohio EMA Mitigation Branch hired experts from the National Storm Shelter Association to provide training to local and state building code officials on implementation of the ICC 500 standards and FEMA safe room design and construction requirements. Local and state building code officials review plans and inspect construction/installation of residential and community safe rooms. In 2017, the Board of Building Standards adopted the 2017 Ohio Building Code, which included Section 423, which now requires the construction of storm shelters in critical emergency operations structures and Group E occupancies.

OHIO MINE SUBSIDENCE INSURANCE/ OHIO MINE SUBSIDENCE INSURANCE UNDERWRITING ASSOCIATION

Underground mines, some of which have been abandoned for years, can be found in many parts of the state, particularly eastern Ohio. When buildings are constructed above mines, major damage to walls and foundations can occur if the mine collapses. The Ohio Legislature authorized the establishment of the Ohio Mine Subsidence Insurance Underwriting Association (OMSIUA), the Mine Subsidence Governing Board and the Mine Subsidence Insurance Fund in 1985. Ohio Mine Subsidence Insurance is a regional mitigation tool.

FIREWISE/ODNR DIVISION OF FORESTRY

The ODNR – Division of Forestry administers the Firewise program, which is a multi-organizational initiative designed to include not only fire safety professionals, but also homeowners, community leaders, planners, developers, and others in localized efforts to lessen the risk of interface with wildfires. The ultimate goal of this program is to reduce the susceptibility of homes, communities, and structures to wildfire through cooperative education and mitigation techniques. The Division of Forestry contributed to the wildfire portion of the HIRA.

HAZARD MITIGATION ASSISTANCE/ FEMA

FEMA's hazard mitigation programs are closely coordinated with and consistent with state hazard mitigation efforts. The Ohio EMA Mitigation Branch coordinates the HMA programs at the state level. The HMA programs provide a significant portion of the mitigation funding resources to implement mitigation activities. HMA funds are used to partially pay for state and local mitigation plan updates. FEMA Hazard Mitigation Assistance Branch staff are invited to all SHMT meetings.

FLOOD GAUGING AND WARNING/ U.S. GEOLOGICAL SURVEY

The USGS's Ohio-Kentucky-Indiana Water Science Center assists local entities by entering into cooperative agreements for stream gauging and warning system development. These mitigation activities are identified in numerous local hazard mitigation plans and factor into the state mitigation strategy. The USGS also attends the SHMT meetings and assist the Ohio EMA Mitigation Branch with data development for benefit cost analyses. Finally, the USGS also produces reports on significant flood events in cooperation with Ohio DNR and Ohio EMA. In 2022, Ohio EMA coordinated with USGS to gather input on the replacement of rain gauges that are part of the State of Ohio Rain/Snow Monitoring System (STORMS).

EMERGENCY MANAGEMENT ACCREDITATION PROGRAM

Emergency Management Accreditation Program (EMAP) is a standard-based voluntary assessment and accreditation process for state and local government. In June 2008, Ohio EMA received EMAP Accreditation for requirements pertaining to a state mitigation program. Ohio EMA received EMAP Re-Accreditation in 2014, 2019 and is preparing for the next Re-Accreditation in 2024.

RURAL ELECTRIC COOPERATIVES

Rural electric cooperatives (RECs) are customer owned organizations whose purpose is to deliver electricity to its members. Twenty-five different electric cooperatives serve more than 380,000 homes and businesses in 77 of Ohio's 88 counties. In the 2014 plan update, the Ohio EMA Mitigation Branch worked with the Ohio Rural Electric Cooperative, Inc. to develop an appendix to the SOHMP that includes a risk assessment and identification of projects that will reduce risk to electric infrastructure and expedite recovery efforts. That appendix is no longer required in order for the RECs to be eligible for HMA grants and has since been deleted from the plan.

THE OHIO STATE UNIVERSITY

The Ohio EMA Mitigation Branch has partnered with the Ohio State University, Austin E. Knowlton School of Architecture City and Regional Planning program on many successful initiatives. Every two years, a graduate level planning studio is offered at the university that provides students with an opportunity to work directly with a county emergency management agency to update their countywide hazard mitigation plan. The students gain real world planning experience, and the county gets needed help to update their

plan. Five counties have developed FEMA-approved mitigation plans as a result of this collaboration, and a sixth county will begin the local plan update process in the fall of 2024.

EMERGENCY MANAGEMENT GRAND PROGRAM (EMPG)

Ohio EMA Mitigation Branch staff participate in EMPG exercise requirements and as such can be paid for certain mitigation related activities through the grant. Mitigation Branch staff have helped review applications for EMPG funding in the past and coordinates closely with the Ohio EMA Grants Branch to ensure that there is no duplication of programs and/or benefits.

COMMUNITY RATING SYSTEM (CRS)

The Ohio EMA Mitigation Branch staff recognize the value of the National Flood Insurance Programs CRS as mitigation tool to reward communities that take steps to exceed NFIP minimum standards. The CRS is promoted by Mitigation Branch staff as part of the Introduction to Emergency Management in Ohio Course, Local Mitigation Planning Course, and multiple other trainings throughout the year. Mitigation Branch staff also coordinate closely with the state coordinator for the CRS program at ODNR.

PUBLIC ASSISTANCE CATEGORIES C-G

At the onset of a disaster, the State Recovery Officer and the State Hazard Mitigation Officer coordinate with FEMA staff on how integration of mitigation through the 406 Program will occur for that disaster. If it appears that there will be mitigation opportunities as part of the recovery process, the state requests that 406 Specialists are sent to the joint field office to ensure that 406 mitigation opportunities are considered in all Public Assistance worksheets. The need for assistance is outlined in the hazard mitigation strategy for that specific event.

1.4 PLAN MAINTENANCE AND MITIGATION PROJECT MONITORING

44 CFR 201.4(c)(5) requires that state mitigation plans have a maintenance process that includes an established method and schedule for monitoring, evaluating, and updating the plan. The Ohio EMA Mitigation Branch Chief is responsible for the maintenance of the SOHMP. The plan is a living document that is reviewed and updated constantly. The plan is revised if conditions under which the plan was developed change, such as new or revised state policy or a major disaster. In the circumstance where substantial changes are made to the SOHMP, an official re-adoption will be made at the discretion of the Governor's Authorized Representative (G.A.R). At a minimum, the plan is revised and resubmitted for approval to the FEMA Region V Administrator every five years in accordance with 44 CFR 201.4(d).

Since the first SOHMP was developed in 2005, the document has been updated and approved by FEMA five times. The 2019 SOHMP update was authored by multiple staff members of the Ohio EMA Mitigation Branch, with input from state agencies, the State Hazard Mitigation Team (SHMT), the Ohio Silver Jackets Team, and Emergency Operations Center Emergency Support Function (ESF) partners. The SHMT meets 2-4 times per year depending on the number of major disasters. The Ohio Silver Jackets Team and the ESF partners meet quarterly and on an as-needed basis. These meetings provide Ohio EMA Mitigation Branch staff the opportunity to solicit and incorporate updated information from partners into the SOHMP.

MONITORING PROJECT IMPLEMENTATION

44 CFR 201.4(c)(5)(ii) requires that a state mitigation plan maintenance process include a description of the system used for monitoring implementation of mitigation measures and project closeouts. In the three years that follow the state mitigation plan being approved by FEMA, the Ohio EMA Mitigation Branch conducts annual outreach to agencies to monitor implementation of mitigation actions identified in the plan. Changes in mitigation action status are documented and available upon request. The final status of mitigation action items identified in the previous version of the SOHMP can be found in Appendix E.

The Ohio EMA Mitigation Branch is also responsible for monitoring implementation of mitigation projects funded under the FEMA Hazard Mitigation Assistance programs. Review of implementation progress occurs quarterly with the submission of quarterly reports. These reports are verified by monitoring visits conducted by Ohio EMA Mitigation Branch staff. Details of the extensive monitoring and project closeout process program can be found in the Administrative Plan attached in Appendix H.

FEMA has determined that the SOHMP meets enhanced plan criteria in 44 CFR 201.5. Since the enhanced plan designation results in additional mitigation funds being made available to the state after a disaster, the enhanced plan criteria includes an evaluation of the state's grant management performance. The last FEMA Region V evaluation of Ohio's HMA grant management performance determined that Ohio EMA:

- Effectively uses existing mitigation programs to achieve mitigation goals,
- Meets grant application deadlines,
- Maintains the capability to prepare and submit accurate environmental reviews and benefit-cost analyses,
- Submits complete and accurate quarterly progress and financial reports, and
- Completes projects within established performance periods, including financial reconciliation.

The MIP contains an inventory of mitigation projects completed in the State of Ohio with HMA grant funding: <https://services.dps.ohio.gov/MIP/PublicSite/PublicSite>.

1.5 COMPLIANCE WITH FEDERAL LAWS AND REGULATIONS

44 CFR 201.4(c)(7) indicates that the SHMP must include assurances that the state will comply with all applicable Federal statutes and regulations in effect with respect to the periods for which it receives grant funding, in compliance with 2 CFR Parts 200 and 3002. Through the development and enforcement of this plan, the State of Ohio will comply with all provisions in 44 Code of Federal Regulations, Part 200 and 3002. Additionally, the assurances listed below are provided as documentation that the state or any subsequent sub-recipients that receive federal grant funds will comply with all applicable Federal statutes and regulations. The state will amend the plan whenever necessary to reflect changes in federal statutes and regulations or material changes in state law, organization, policy or state agency operations.

To the extent the following provisions apply to the award of assistance:

- a) Recipient possesses legal authority to enter into agreements and to execute the proposed programs;
- b) Recipient's governing body has duly adopted or passed as an official act a resolution, motion or similar action authorizing the execution of hazard mitigation agreements, including all understandings and assurances contained therein, and directing and authorizing the Recipient's chief administrative officer or designee to act in connection with any application and to provide such additional information as may be required;
- c) No member of or delegate to the Congress of the United States, and no Resident Commissioner, shall be admitted to any share or part of any agreement or to any benefit to arise from the same. No member, officer, or employee of the Recipient or its designees or agents, no member of the governing body of the locality in which the program is situated, and no other public official of such locality or localities who exercises any functions or responsibilities with respect to the program during his tenure or for one year thereafter, shall have any interest direct or indirect, in any contract or subcontract, or the proceeds thereof, for work to be performed in connection with the program assisted under this plan. The Recipient shall incorporate or cause to be incorporated, in all such contracts or subcontracts, a provision prohibiting such interest pursuant to the purpose stated above;
- d) All Recipient contracts for which the State Legislature is in any part a funding source, shall contain language to provide for termination with reasonable costs to be paid by the Recipient for eligible contract work completed prior to the date the notice of suspension of funding was received by the Recipient. Any cost incurred after the Recipient receives a notice of suspension or termination may not be funded with funds provided under a grant agreement unless previously approved in writing by the Department. All Recipient contracts shall contain provisions for termination for cause or convenience and shall provide for the method of payment in such event;
- e) Recipient will comply with:
 - a. Contract Work Hours and Safety Standards Act of 1962, 40 U.S.C. 327 et seq., requiring that mechanics and laborers (including watchmen and guards) employed on federally assisted contracts be paid wages of not less than one and one-half times their basic wage rates for all hours worked in excess of forty hours in a work week; and
 - b. Federal Fair Labor Standards Act, 29 U.S.C. Section 201 et seq., requiring that covered employees be paid at least the minimum prescribed wage, and also that they be paid one and one-half times their basic wage rates for all hours worked in excess of the prescribed work-week.

- f) Recipient will comply with:
 - a. Title VI of the Civil Rights Act of 1964 (P.L. 88-352), and the regulations issued pursuant thereto, which provides that no person in the United States shall on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Recipient receives Federal financial assistance and will immediately take any measures necessary to effectuate this assurance. If any real property or structure thereon is provided or improved with the aid of Federal financial assistance extended to the Recipient, this assurance shall obligate the Recipient, or in the case of any transfer of such property, any transferee, for the period during which the real property or structure is used for a purpose for which the Federal financial assistance is extended, or for another purpose involving the provision of similar services or benefits;
 - b. Any prohibition against discrimination on the basis of age under the Age Discrimination Act of 1975, as amended (42 U.S.C.: 6101-6107), which prohibits discrimination on the basis of age or with respect to otherwise qualified handicapped individuals as provided in Section 504 of the Rehabilitation Act of 1973;
 - c. Executive Order 11246 as amended by Executive Orders 11375 and 12086, and the regulations issued pursuant thereto, which provide that no person shall be discriminated against on the basis of race, color, religion, sex or national origin in all phases of employment during the performance of federal or federally assisted construction contracts; affirmative action to insure fair treatment in employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff/termination, rates of pay or other forms of compensation; and election for training and apprenticeship;
- g) The Recipient agrees to comply with the Americans With Disabilities Act (Public Law 101-336, 42 U.S.C. Section 12101 et seq.), where applicable, which prohibits discrimination by public and private entities on the basis of disability in the areas of employment, public accommodations, transportation, state and local government services, and in telecommunications;
- h) Recipient will comply with Title IX of the Education Amendments of 1972, as amended (20 U.S.C.: 1681-1683 and 1685 - 1686), which prohibits discrimination on the basis of sex;
- i) Recipient will comply with the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970, (42 U.S.C. 4521-45-94) relating to nondiscrimination on the basis of alcohol abuse or alcoholism;
- j) Recipient will comply with 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records;
- k) Recipient will comply with Title VIII of the Civil Rights Act of 1968, 42 U.S.C. 2000c and 42 3601-3619, as amended, relating to non- discrimination in the sale, rental, or financing of housing, and Title VI of the Civil Rights Act of 1964 (P.L. 88-352), which prohibits discrimination on the basis of race, color or nation origin;
- l) Recipient will comply with the Intergovernmental Personnel Act of 1970, 42 U.S.C. 4728-4763;
- m) Recipient will comply with the Rehabilitation Act of 1973, Section 504, 29 U.S.C. 794, regarding non-discrimination;
- n) Recipient will establish safeguards to prohibit employees from using positions for a purpose that is, or gives the appearance of, being motivated by a desire for private gain for themselves or others, particularly those with whom they have family, business, or other ties pursuant to Section 112.313 and Section 112.3135, FS;
- o) Recipient will comply with the Anti-Kickback Act of 1986, 41 U.S.C. Section 51 which outlaws and prescribes penalties for "kickbacks" of wages in federally financed or assisted construction activities;

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- p) Recipient will comply with the Hatch Act (18 USC 594, 598, 600-605), which limits the political activities of employees;
 - q) Recipient will comply with the flood insurance purchase and other requirements of the Flood Disaster Protection Act of 1973 as amended, 42 USC 4002-4107, including requirements regarding the purchase of flood insurance in communities where such insurance is available as a condition for the receipt of any Federal financial assistance for construction or acquisition purposes for use in any area having special flood hazards. The phrase "Federal financial assistance" includes any form of loan, grant, guaranty, insurance payment, rebate, subsidy, disaster assistance loan or grant, or any other form of direct or indirect Federal assistance;
 - r) Recipient will require every building or facility (other than a privately owned residential structure) designed, constructed, or altered with funds provided under a grant agreement to comply with the "Uniform Federal Accessibility Standards," (AS) which is Appendix A to 41 CFR Section 101-19.6 for general type buildings and Appendix A to 24 CFR Part 40 for residential structures. The Recipient will be responsible for conducting inspections to ensure compliance with these specifications by the contractor;
 - s) Recipient will, in connection with its performance of environmental assessments under the National Environmental Policy Act of 1969, comply with Section 106 of the National Historic Preservation Act of 1966 (U.S.C. 470), Executive Order 11593, 24 CFR Part 800, and the Preservation of Archaeological and Historical Data Act of 1966 (16 U.S.C. 469a-1, et seq.) by:
 - a. Consulting with SHPO to identify properties listed in or eligible for inclusion in the National Register of Historic Places that are subject to adverse effects (see 36 CFR Section 800.8) by the proposed activity; and
 - b. Complying with all requirements established by the State to avoid or mitigate adverse effects upon such properties.
 - c. Notifying FEMA and the state if any project may affect a historic property. When any of Recipient's projects funded under a grant agreement may affect a historic property, as defined in 36 CFR 800. (2)(e), FEMA may require Recipient to review the eligible scope of work in consultation with SHPO and suggest methods of repair or construction that will conform with the recommended approaches set out in the Secretary of Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings 1992 (Standards), the Secretary of the Interior's Guidelines for Archeological Documentation (Guidelines) (48 Federal Register 44734-37), or any other applicable Secretary of Interior standards. If FEMA determines that the eligible scope of work will not conform with the Standards, Recipient agrees to participate in consultations to develop, and, after execution by all parties, to abide by, a written agreement that establishes mitigation and recondition measures, including but not limited to, impacts to archeological sites, and the salvage, storage, and reuse of any significant architectural features that may otherwise be demolished.
 - d. Notifying FEMA and the state if any project funded under a grant agreement will involve ground disturbing activities, including, but not limited to: subsurface disturbance; removal of trees; excavation for footings and foundations; and installation of utilities (such as water, sewer, storm drains, electrical, gas, leach lines and septic tanks) except where these activities are restricted solely to areas previously disturbed by the installation, replacement or maintenance of such utilities. FEMA will request the SHPO's opinion on the potential that archeological properties may be present and be affected by such activities. The SHPO will advise Recipient on any feasible steps to be accomplished to avoid any National Register eligible archeological property or will make recommendations for the development of a treatment plan for the recovery of

- archeological data from the property.
- e. If Recipient is unable to avoid the archeological property, it will develop, in consultation with the SHPO, a treatment plan consistent with the Guidelines and take into account the Advisory Council on Historic Preservation (Council) publication "Treatment of Archeological Properties". Recipient shall forward information regarding the treatment plan to FEMA, the SHPO and the Council for review. If the SHPO and the Council do not object within 15 calendar days of receipt of the treatment plan, FEMA may direct Recipient to implement the treatment plan. If either the Council or the SHPO object, Recipient shall not proceed with the project until the objection is resolved.
 - f. Notifying the state and FEMA as soon as practicable: (a) of any changes in the approved scope of work for a National Register eligible or listed property; (b) of all changes to a project that may result in a supplemental DSR or modify an HMGP project for a National Register eligible or listed property; (c) if it appears that a project funded under a grant agreement will affect a previously unidentified property that may be eligible for inclusion in the National Register or affect a known historic property in an unanticipated manner. Recipient acknowledges that FEMA may require Recipient to stop construction in the vicinity of the discovery of a previously unidentified property that may be eligible for inclusion in the National Register or upon learning that construction may affect a known historic property in an unanticipated manner. Recipient further acknowledges that FEMA may require Recipient to take all reasonable measures to avoid or minimize harm to such property until FEMA concludes consultation with the SHPO. Recipient also acknowledges that FEMA will require, and Recipient shall comply with, modifications to the project scope of work necessary to implement recommendations to address the project and the property.
 - g. Acknowledging that, unless FEMA specifically stipulates otherwise, it shall not receive funding for projects when, with intent to avoid the requirements of the PA or the NHPA, Recipient intentionally and significantly adversely affects a historic property, or having the legal power to prevent it, allowed such significant adverse effect to occur.
- t) Recipient will assist the awarding agency in assuring compliance with the National Historic Preservation Act of 1966, as amended, 16 U.S.C. 270;
 - u) Recipient will assist the awarding agency in assuring compliance with the Preservation of Archeological and Historical Preservation Act of 1966, 16 U.S.C. 469a, et seq;
 - v) Recipient will comply with the requirements of Titles II and III of the Uniform Relocation Assistance and Property Acquisition Policies Act of 1970, 42 U.S.C. 4621-4638, which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally assisted programs;
 - w) Recipient will assure project consistency with the approved State program developed under the Coastal Zone Management Act of 1972, 16 U.S.C. 1451-1464; and
 - x) With respect to demolition activities, recipient will:
 - a. Create and make available documentation sufficient to demonstrate that the Recipient and its demolition contractor have sufficient manpower and equipment to comply with the obligations as outlined in a grant agreement.
 - b. Return the property to its natural state as though no improvements had ever been contained thereon.
 - c. Furnish documentation of all qualified personnel, licenses and all equipment necessary to inspect buildings located in Recipient's jurisdiction to detect the presence of asbestos and lead in accordance with requirements of the U.S. E.P.A., the Ohio E.P.A. and the County Health Department.

- d. Provide documentation of the inspection results for each structure to indicate:
 - i. Safety Hazards Present
 - ii. Health Hazards Present
 - iii. Hazardous Materials Present
- e. Provide supervision over contractors or employees employed by Recipient to remove asbestos and lead from demolished or otherwise applicable structures.
- f. Leave the demolished site clean, level and free of debris.
- g. Notify the department promptly of any unusual existing condition which hampers the contractors work.
- h. Obtain all required permits.
- i. Provide addresses and marked maps for each site where water wells and septic tanks are to be closed, along with the number of wells and septic tanks located on each site. Provide documentation of closures.
- j. Comply with mandatory standards and policies relating to energy efficiency that are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Public Law 94-163).
- k. Comply with all applicable standards, orders, or requirements issued under Section 112 and 306 of the Clean Air Act (42 U.S.C. 1857 (h), Section 508 of the Clean Water Act (33 U.S. 1368), Executive Order 11738, and the U.S. Environmental Protection Agency regulations (40 CFR Part 15 and 61). This clause shall be added to any subcontracts.
- l. Provide documentation of public notices for demolition activities.
- y) Recipient will comply with Lead-Based Paint Poison Prevention Act (42 U.S.C.: 4821 et seq.), which prohibits the use of lead based paint in construction of rehabilitation or residential structures;
- z) Recipient will comply with the Energy Policy and Conservation Act (P.L. 94-163; 42 U.S.C. 6201-6422), and the provisions of the state Energy Conservation Plan adopted pursuant thereto;
- aa) Recipient will comply with the Laboratory Animal Welfare Act of 1966, 7 U.S.C. 2131 2159, pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by an award of assistance under this agreement;
- bb) Recipient will comply with the Clean Air Act of 1955, as amended, 42 U.S.C. 7401-7642;
- cc) Recipient will comply with the Clean Water Act of 1977, as amended, 42 U.S.C. 7419-7626;
- dd) Recipient will comply with the Endangered Species Act of 1973, 16 U.S.C. 1531-1544;
- ee) Recipient will comply with environmental standards which may be prescribed pursuant to the National Environmental Policy Act of 1969, 42 U.S.C. 4321-4347;
- ff) Recipient will comply with the environmental standards that may be prescribed pursuant to the Safe Drinking Water Act of 1974, 42 U.S.C. 300f-300j, regarding the protection of underground water sources;
- gg) Recipient will comply with the Wild and Scenic Rivers Act of 1968, 16 U.S.C.1271-1287, related to protecting components or potential components of the national wild and scenic rivers system;
- hh) Recipient will comply with the following Executive Orders: EO 11514 (NEPA); EO 11738 (violating facilities); EO 11988 (FM); EO 11990 (Wetlands); and EO 12898 (Environmental Justice);
- ii) Recipient will comply with the Coastal Barrier Resources Act of 1977, 16 U.S.C. 3510; Recipient will comply with the Fish and Wildlife Coordination Act of 1958; 16 U.S.C. 661-666.

1.6 ASSURANCES / PROMULGATION

The State of Ohio Hazard Mitigation Plan meets the standard requirements of Section 409 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988, 42 United States Code Sections 5121 and following (commonly referred to as the Stafford Act - Public Law 93-288). Additionally, this plan meets the SRL planning requirements of 44 Code of Federal Regulations, Part 79.4.

It is intended that this plan also meet the requirements of the Section 322 of the Stafford Act which requires that States, as a condition of receiving federal disaster mitigation funds, have a mitigation plan in place that describes the planning process for identifying hazards, risk and vulnerabilities, identifies and prioritizes mitigation actions, encourages the development of local mitigation plans and projects, and provides technical support for these efforts. In addition, the Act requires local and tribal governments to also have mitigation plans as a condition of receiving disaster mitigation funds.

The development and implementation of this strategy is authorized and/or required by the following state statutes:

- Ohio Revised Code Section 5502.22, which establishes the Ohio Emergency Management Agency and requires plan development), and
- Ohio Revised Code Sections 5502.26, 5502.27, and 5502.271, which require the establishment of county emergency management agencies and plan development.

The adoption and promulgation of the 2008, 2011 and 2014, 2019, and 2024 update is being done by the Executive Director of the Ohio EMA in her capacity as the Governor's Authorized Representative (GAR). The original SHMP was promulgated by Governor Taft in 2005.

State of Ohio Hazard Mitigation Plan

STATEMENT OF ADOPTION

The State of Ohio Hazard Mitigation Plan (SOHMP) is a comprehensive description of the State's commitment to reduce or eliminate the impacts of natural and human-caused hazards. The Disaster Mitigation Act of 2000 requires that states have a natural hazard mitigation plan to maintain eligibility for federal disaster assistance and mitigation funds. The SOHMP is coordinated and maintained by the Ohio Emergency Management Agency, however, the plan is the culmination of input and recommendations from numerous stakeholders from local, state and federal government agencies, private sector organizations, and residents of Ohio.

The SOHMP was initially approved by FEMA on January 17, 2005 and has been updated in 2008, 2011, 2012, 2014, and 2019. The 2024 plan update meets "enhanced" plan criteria, which is a testament to the state's commitment to mitigation and enables Ohio to qualify for additional funds following future disaster declarations.

In adopting the 2024 update of the SOHMP, the State of Ohio agrees to comply with all applicable state and federal statutes and regulations, as stipulated in previously documented assurances, and will update the plan at least every five years as required. The SOHMP has been amended to reflect emerging hazard conditions and risks as well as new or revised state and federal statutes and regulations. Further amendments will also reflect changes to State organization or policy as appropriate.



Sima S. Merick, Executive Director

Ohio Emergency Management Agency

Date: APRIL 29, 2024