

Central Ohio Rural Planning Organization

Transportation Plan 2018 - 2040





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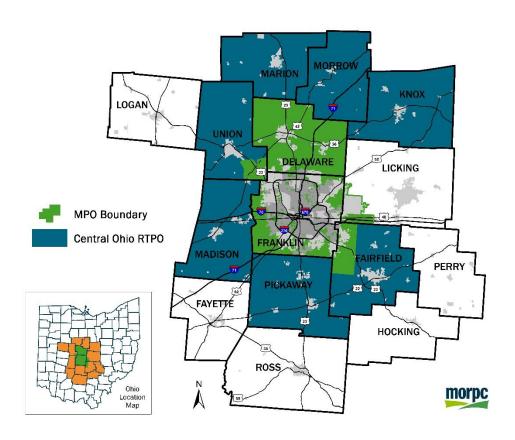
CORPO

1 - Overview



Introduction

The 2018 – 2040 CORPO Transportation Plan documents the transportation planning process carried out by the newly formed Central Ohio Rural Planning Organization which consists of the following members: Knox, Fairfield, Madison, Marion, Morrow, Pickaway and Union Counties. The plan also identifies goals, objectives and projects to maintain and improve the transportation system between 2018 and 2040.



Planning for a transportation system that includes roadways, transit, bicycle and pedestrian facilities, rail and air must reflect federal and local priorities. This plan, is the first to be developed and adopted by the members of CORPO and is intended to fulfil the requirements of a long-range transportation plan as laid out in both state and federal legislation. The plan and subsequent county level sections were developed with guidance from a set of goals and objectives established and adopted by CORPO's members to advance the quality of life for residents in their study area. The Goals and Objectives for the CORPO plan are outlined in Section 2.



CORPO Background and Purpose

On July 1, 2013, ODOT began a two-year pilot program with five multi-county planning organizations (or councils of government) providing them with funding to conduct regional transportation planning in coordination with local stakeholders, Ohio MPOs, and ODOT. Much of Ohio's non-metropolitan local official coordination occurs between ODOT and these organizations. The five organizations cover 34 non-metropolitan counties in Ohio.

On January 27, 2016, Governor John Kasich formally designated each of these five agencies as an Ohio Regional Transportation Planning Organization (RTPO). These designations formalize the program that started as a pilot and will help spur better and more informed transportation decision making in Ohio.

Following the Ohio Department of Transportation's (ODOT) two-year pilot program to establish RTPO's, local governments in Central Ohio began discussing the opportunity to form a sixth Rural Transportation Planning Organization around the Mid-Ohio Regional Planning Commission (MORPC) which is the Metropolitan Planning Organization (MPO) for the Columbus urban area. MORPC's role as MPO and mentor in the pilot program encouraged its member governments outside the MPO to consider forming an RTPO. In response, MORPC began to work with the interested Central Ohio counties to form a Rural Planning Organization (RPO) area, a precursor to being a fully recognized RTPO. A designation that requires the submission of a long-range transportation plan to ODOT. The seven member counties include Fairfield, Knox, Madison, Marion, Morrow, Pickaway and Union. MORPC organized the counties to engage as an RPO, CORPO was created, and in preparation to become a state-designated RTPO this CORPO Transportation Plan was completed.

By July 2016 each member county passed resolutions to join the Central Ohio Rural Planning Organization (CORPO). Once approved to move forward with the development of CORPO, staff began the process of forming the CORPO Committee. The CORPO Committee is the guiding body for the development of the CORPO Transportation Plan. All seven CORPO member counties also established RPO subcommittees and designated representatives from each county at CORPO Committee. These decision were governed by a set of bylaws previously adopted by the CORPO Committee. The CORPO Committee convened on numerous occasions to establish an overarching vision for the RPO transportation plan. This vision was used to develop the overarching goals and objectives of the plan. Staff, in cooperation with the CORPO Committee and county-level RPO subcommittees went to work on a transportation plan which includes seven county-level sections. These sections were then merged into a unified plan for CORPO, culminating in a list of transportation projects for the region.



Document Organization

The 2016 – 2040 CORPO Transportation Plan document is divided into the following five chapters:

Chapter 1

Chapter 1 provides general overview information on the Central Ohio Rural Planning Organization and what the CORPO Transportation Plan is and how it was developed.

Chapter 2

Chapter 2 discusses the regional transportation goals and objectives that guided the CORPO Transportation Plan.

Chapter 3

Chapter 3 summarizes the demographic characteristics of the region as well as the existing multimodal transportation system, including roadway, transit, bikeway, pedestrian and freight and intermodal facilities. Chapter 3 also summarizes population and economic trends and forecasts for the region. The way in which the region grows plays a key role in shaping the needs of the transportation system. Knowing who the users of the system are, and where they will be traveling lays the groundwork for identifying future transportation needs. This chapter describes the data and analyses used to develop these assumptions. This chapter is broken up into seven CORPO member county-level sections.

Chapter 4

Chapter 4 summarizes the funding mechanisms and opportunities related to transportation projects in Ohio.

Chapter 5

Chapter 8 provides a list of CORPO identified projects with descriptions, types, and cost estimates for all seven of the CORPO member counties.

CORPO

2 - Goals & Objectives

2.0 GOALS AND OBJECTIVES



Goals & Objectives

The CORPO Transportation plan was developed around goals and objectives created by CORPO's members. These goals and objectives were adopted with the purpose of guiding the committee when making decisions regarding regionally based investments in the transportation system. Six goals were developed based on feedback from the CORPO Committee as well as additional review from CORPO Member County Subcommittees.

Although not currently required to do so, the content of the goals was checked against federal and state initiatives to ensure goals were in alignment with federal and state goals.

The six goals and related objectives are listed on the next page.

2.0 GOALS AND OBJECTIVES



Goals & Objectives

Preserve and Maintain the Existing Transportation System in a State of Good Repair

- Minimize the number of bridges structurally deficient or functionally obsolete
- Maximize the miles of pavement in acceptable condition
- Maximize resources dedicated to maintain and improve the condition of the transportation system

A Safe Transportation System for All Users

- Minimize crashes including pedestrian and bicycle related crashes
- Promote system user education to minimize unsafe driving behaviors such as a lack of seatbelt use, distracted driving, impaired driving and others

Accessibility and Mobility Options for all Users

- Build facilities that accommodate all users such as those using transit, walking and bicycling
- Expand public transportation within and between communities
- Expand the bicycle and pedestrian networks
- Expand options that assist those living in poverty or in areas with lower accessibility in reaching employment, healthcare or services

An Integrated, Connected and Coordinated Transportation System

- Increase outreach to advocacy and community groups including area residents, local governments, agencies and organizations
- Improve connections between regions by utilizing various modes of transportation, including passenger rail
- Increase local community collaboration and coordination efforts to achieve mutually beneficial outcomes

• A Transportation System that Promotes a Collaborative and Focused Approach to support Economic Vitality

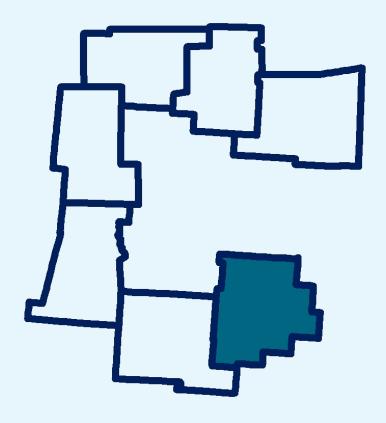
- Improve strategic freight related facilities (e.g. highway, rail, intermodal, etc.)
- Develop priority multipurpose corridors (e.g. utilities, water, broadband, fiber, etc.)
- Maximize return on investment to position the region to compete globally and efficiently
- Provide transportation facilities that enhance the transition between rural and urban areas
- Enhance engagement with regional partners and voices

Preserve and Enhance Environmental Resources and Sustainability through the Transportation System

- Increase use of non-single occupant vehicles (local transit, intercity transit, ridesharing, biking, walking)
- Provide transportation facilities consistent with local land use, environmental and sustainability plans

CORPO 3 - County Transportation Plan Sections

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Fairfield County

Transportation Plan 2018-2040

Section 3A of CORPO 2018 - 2040 Transportation Plan







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CORPO Background and Purpose

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2.0 GOALS AND OBJECTIVES



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3.1 Demographics

Population

According to Census population estimates, Fairfield County's population was 152,598 in July 2016. This represents a 4 percent increase from the 2010 Census estimated population of 146,408. There are a number of factors contributing to this change such as increased employment opportunities, access to the US 33 corridor, new residential developments and Fairfield County's proximity to the Greater Columbus area.

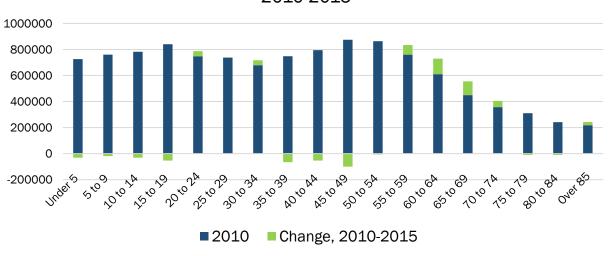
Fairfield County Population Estimates		
Year	Population	2010 - 2016 % Change
2010	146,408	
2011	147,328	
2012	147,500	
2013	148,900	
2014	150,492	
2015	151,326	
2016	152,597	4%

Age

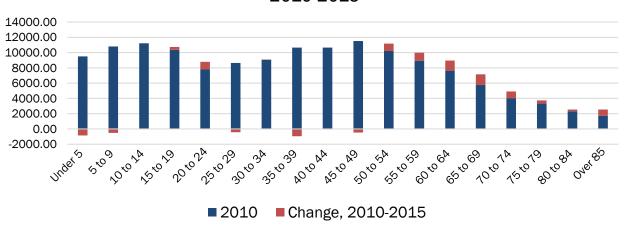
Fairfield County's median age of 39 years is comparable to that of the State of Ohio, at 38 years. Neighboring Franklin County has historically been a younger county with a median age of 35, because of the large population of university students. However, like the rest of Ohio, Fairfield County residents are aging and will face challenges in the future as this population leaves the workforce and enters retirement. The 55+ age cohort of both Ohio and Fairfield County is increasing. This is consistent with the findings in insight2050, a collaborative initiative among public and private partners designed to help communities proactively plan for development and population growth over the next 30+ years that is expected to be dramatically different from the past.



Change in Population by Age Cohort in Ohio 2010-2015



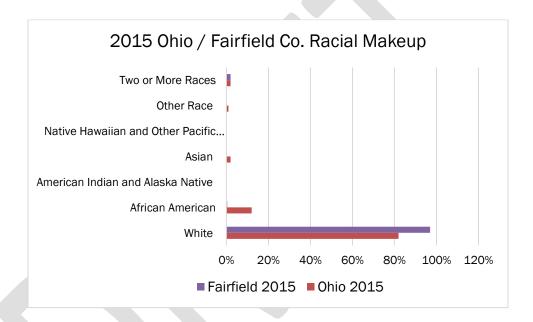






Diversity

Central Ohio is primarily white and Fairfield County is no exception. In 2015 Fairfield County's population was 89 percent white. Fairfield County is less diverse when compared to Ohio as a whole. That same year it was estimated that Ohio was 82 percent white, 12 percent African-American and roughly the same comparatively for other races.





Families and Households

The users of a transportation system come from diverse backgrounds, socioeconomic statuses and household structures. Of all the households in Fairfield County, 73 percent are family households and 15 percent are single parent families. Fairfield County households are balanced as they include as many people over 60 years of age as those under 18.

Fairfield County Households (HH)		
HH Type	%	Average
Families	73%	
Non-Family	25%	
Single Parent	15%	
HH Size		2.66
Family Size		3.12
HH with 60+	36%	
HH with under 18	36%	



Home Ownership

Homeownership has traditionally been a goal for most Americans and a factor in determining wealth in the United States, but recently there have been changes to these societal norms. For decades the suburbs exploded as people moved out of urbanized areas and utilized highways to get to and from work. Now, with increased traffic, higher fuel prices, a recovering housing market and more environmentally conscious commuters who would like to be closer to amenities, the demand for denser, centrally located housing options has increased. Because of this demand, mixed-use developments have begun to pop up in metro areas across the state, increasing the number of available rental options with them.

Ohio Housing Tenure		
Year	% Rent	% Own
2010	31%	69%
2015	34%	66%
10 to 15 Change	+3%	-3%

Fairfield County Housing Tenure		
Year	% Rent	% Own
2010	24%	76%
2015	29%	71%
10 to 15 Change	+5%	-5%

Both Ohio and Fairfield County appear to have seen an overall increase in renters from 2010 to 2015. In comparison, Fairfield County has seen a greater increase than nearby Franklin County, where denser development has occurred over the last five years the increase in residents who rent went from 43 to 46 percent.



Employment

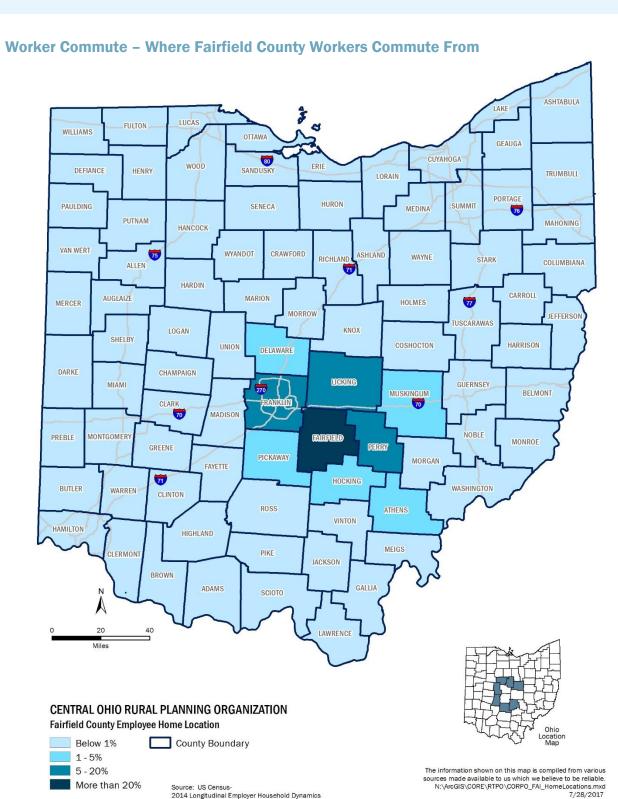
As of April 2017, Fairfield County's unemployment rate was 3.6 percent. This rate is low when compared to the State of Ohio, where the rate was 4.4 percent. Ohio's rate was higher than the national rate of 4.1 percent that same month. Fairfield County's unemployment rate is a positive, not only because it is low but because it has steadily declined over the last five years.

The labor participation rate in the county, a measure of those who are currently working or actively looking for work was 62.7 percent in 2016.

Fairfield County Unemployment Rates		
2013	6.6%	
2014	5.2%	
2015	4.3%	
2016	4.2%	
April 2017	3.6%	
13 to 17 Change	- 3%	

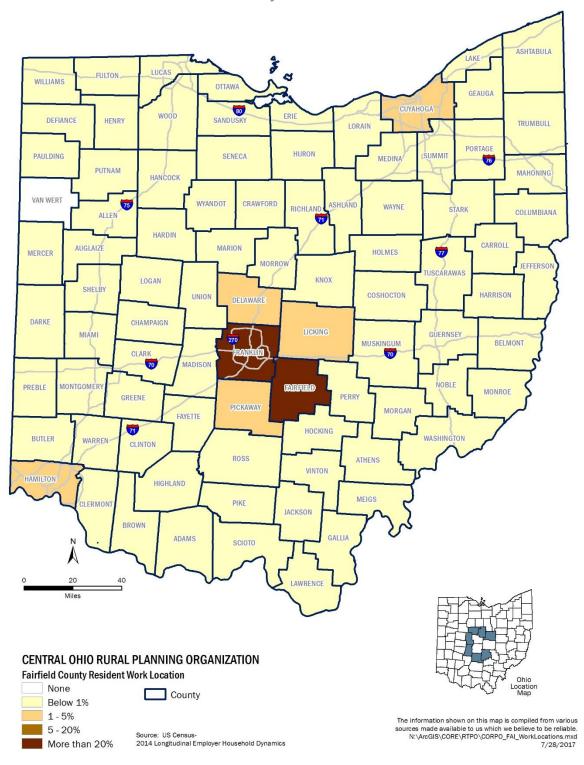
When considering employment, knowing the number of people in your community who are employed and how they get to work is very important. To make appropriate transportation planning decisions, knowing where they work is vital. The majority of workers employed in Fairfield County live primarily in Fairfield, Franklin, Licking and Perry counties. Fairfield County residents are primarily employed in Fairfield and Franklin counties. In 2014, 1.2 percent of Fairfield County residents work in other states, while 1.7 percent work in Fairfield County and live in another state.







Worker Commute - Where Fairfield County Residents Commute To

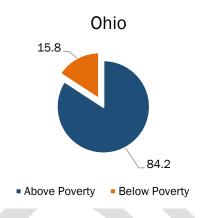




Income and Poverty

Unfortunately, a low unemployment rate does not mean that there are not residents struggling with poverty in Fairfield County. According to Census data, the percentage of Fairfield County residents living below the poverty line in 2015 was estimated to be 10 percent. The percentage decreased from the 11.4 percent estimated in 2012. However, the rate is comparatively low to that of the state, which is currently 15.8 percent, and neighboring Franklin County, where the percentage is estimated to be 17.5. Minority populations in Fairfield County appear to make up a slightly higher percentage of those living in poverty. In the county, just under 14 percent of those living in poverty are children 18 years of age and under, compared to 22.8 percent at the state level.

In Lancaster, the largest city in Fairfield County, 21 percent of residents live below the poverty line.



10%

of Fairfield Co. residents are living in poverty.

12%

of minorities in Fairfield Co are living in poverty. **10%**

of whites in Fairfield Co are living in poverty.

As the percentage of those living in poverty has increased, the median income for Fairfield County residents decreased. In 2015 the median household income in Fairfield County was \$55,032, a small reduction from the estimated \$56,792 in 2010. Fairfield County's median income is considerably higher than that of the state however, which in 2015 was \$49,429, an increase from the 2010 median income of \$47, 358.



Vehicle Access

Little or no access to reliable personal or public transportation can create a multitude of daily challenges. Of the 55,032 households in Fairfield County, 5 percent reported no vehicle in the home in 2015. This is a slightly smaller percentage than that of the state, which reported 8 percent that same year. In 2015, 26% of households reported access to one vehicle, considerably lower than at the state level which reported 34%. That means the almost 3,000 households in Fairfield County with no vehicle access, have to plan trips to work, school or medical appointments in advance and may be dependent upon others to make it to any of those. In a county with limited public transit options, this can create real obstacles.

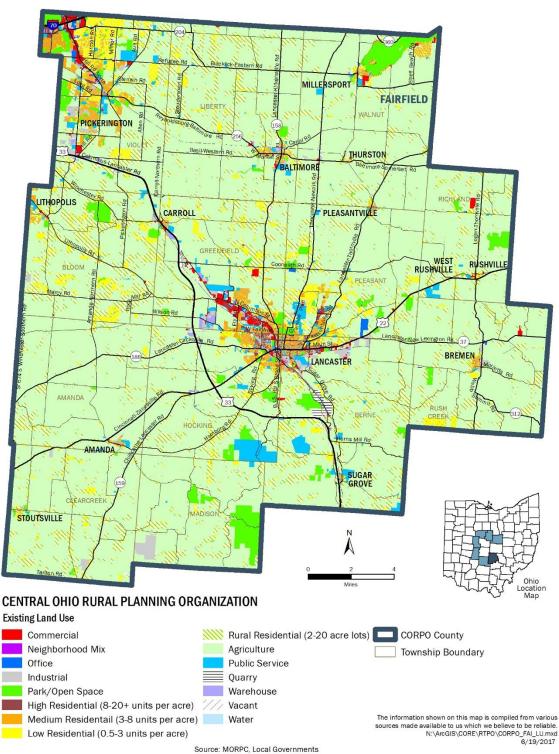
3.2 Land Use / Development

Fairfield County continues to attract new residents and jobs. Changes to the marketplace include an aging population and an increase in young adults. This typically means there is a desire for multiple transportation options. The way the county develops directly influences the CORPO plan's goals and objectives. Local land use decisions can affect access to amenities, employment and attractions and transportation systems can affect development decisions.

Recognizing how land use decisions affect the quality of place and how well it attracts and retains workers is important. These decisions can support economic opportunity by accommodating businesses' needs for transportation capacity and reliability. As a part of large metropolitan area, Fairfield County may benefit from seamless transitions between communities through coordinated development approaches, which would allow the transportation system of roads, bikeways, and pedestrian ways to be continuous for regional connectivity. The following two maps display the existing land uses as well and the various points of interest and for Fairfield County. ("Public Places" in the points of interest map includes locations such as historical sites, fairgrounds, community and recreation centers, theaters and concert halls, museums and libraries.)

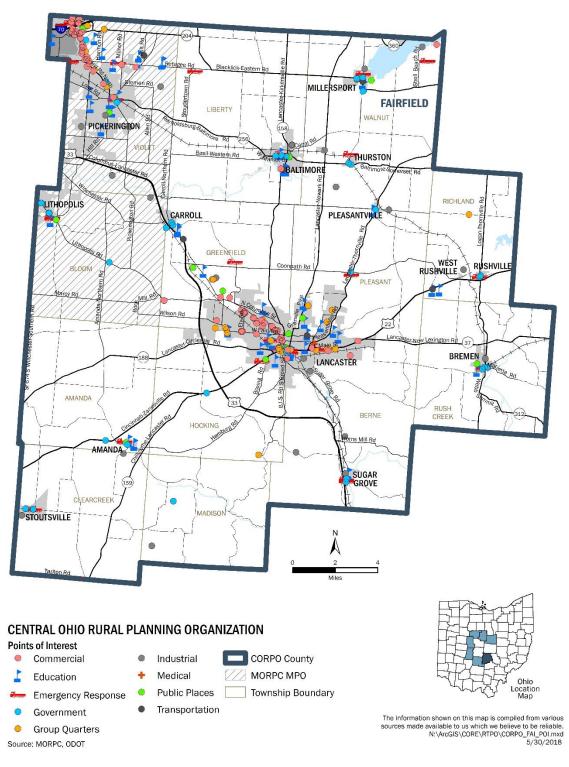


Existing Land Use





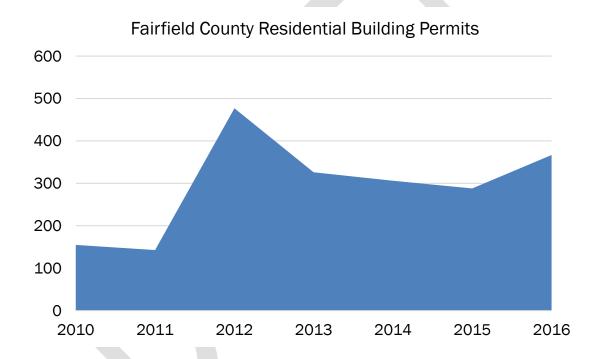
Points of Interest





Residential Permits

One way to track an area's growth is to look at the number of building permits being requested. This data are not always reliable as it is based on whether or not a locality is reporting these permits to the Census. Utilizing data from *Censtats* (US Census), it is safe to suggest that Fairfield County's annual number of requested building permits has increased greatly. Since 2010 there has been at least a 237 percent increase in annual Census reported residential permits in Fairfield County. This, coupled with the increase in population, shows that Fairfield County is growing.





3.3 Current Transportation Network

The purpose of Fairfield County's transportation system to safely accommodate the travel needs of its users. Fairfield County's transportation system is made up of several components or sub-systems that should be seamlessly connected to provide fluid movement of people and goods across the system and the region. These include roadways, transit, railroads, bikeways, pedestrian facilities, and the unique intermodal facilities that interface these surface modes with ground and air freight. These components each serve their own particular role in moving people and goods throughout the region. This section describes these individual systems and intermodal connections that make up the county's surface transportation system.

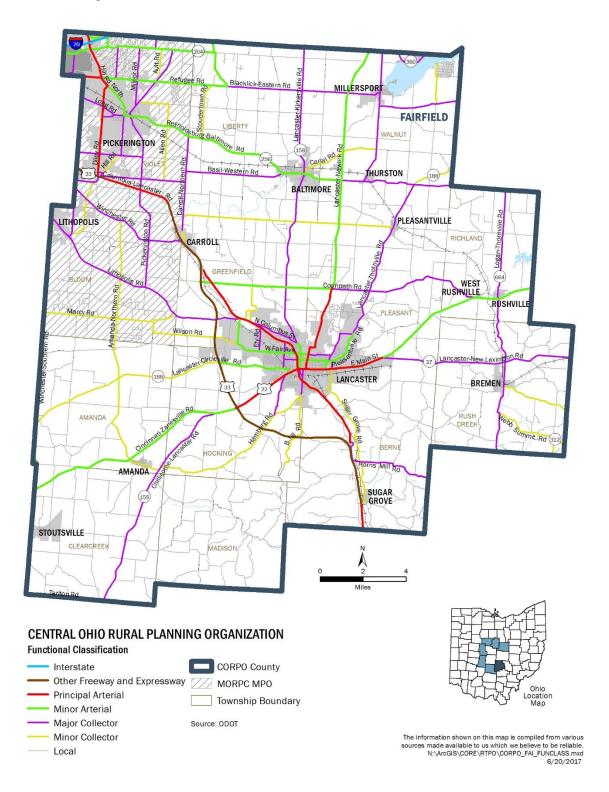
Non-personal vehicle modes serve the transportation needs of few Fairfield County residents. However, the need and demand for transit and bikeways is changing in response to both underlying demographic changes in central Ohio's population and cultural preferences. Changing cultural preferences for transportation are evident from foreign born populations, younger and older generations. Recently, these populations have expressed a desire to live in communities with access to transit and that are pedestrian and bike friendly.

Individuals may be unable to afford a motor vehicle, or lack the ability or interest to drive. Public transit and adequate bike and pedestrian paths may provide the only independent means of transportation. These modes preserve the connection to work, daily living needs, medical appointments and other destinations. For riders of choice, alternative transportation options may offer a more convenient, economical and or environmentally friendly choice over other modes of transportation. The very presence of convenient and accessible alternative transportation options may help attract and retain a skilled workforce and enhance the quality of life.

The first of the following three maps displays the functional classification of roadways in Fairfield County. Roadways are classified based on the role and function each roadway serves within the larger system. Interstates and expressways have very limited access and carry a high volume of vehicles making regional trips. Arterials primarily provide mobility, but also provide access to abutting land uses, unlike interstates and expressways. Collectors carry lower volumes of traffic and provide more access points to local roads and destinations. Local roads generally are not intended for long distance travel. Their main function is to provide access to homes and businesses. For this reason, the information and projects presented in the CORPO plan focus on interstates, expressways, arterials, and collectors only, as they make up the most important roadways in the roadway network. The second map displays existing bike and pedestrian paths within Fairfield County while the third shows potential future paths. The maps in this section were compiled using MORPC data sets, additional trail related information may be found in The Fairfield County Regional Planning Commission's *Rolling Forward* plan, completed in 2013.

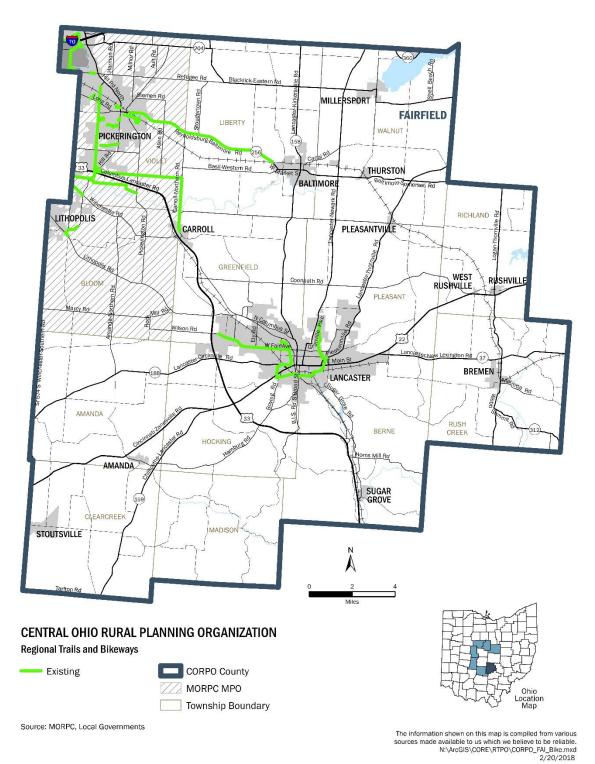


Current Roadway Network





Bike and Pedestrian - Existing





Travel Demand Management Services

Limited funding for expanded highways, unstable fuel prices, increased congestion, and concern for our air quality emphasize the need for reducing driving alone in urban and suburban areas. For many years now, transportation demand management (TDM) strategies have shown effectiveness in reducing traffic congestion and environmental pollution caused by motor vehicles.

Managing transportation demand should not be relegated to just urban areas. The TDM strategies and projects focus on the opportunities to rideshare, use transit, bike, or walk to meet some of the travel needs of the region. Alternatives that reduce travel demand also include telecommuting and alternate work schedules that compress the work week or allow for commuting at non-peak hours. The table below outlines the modes Fairfield County commuters utilize.

Fairfield County Gohio Commuter Data	
Year	2015 5YR ACS
Total Commuters	68,320
Drive Alone	85%
Alternative	15%
Carpool	7.6%
Transit	0.3%
Walk	1.5%
Telecommute	4.1%
Other	1.1%

Due to decades of sprawling urban and exurban growth, Central Ohio commuters have become primarily dependent on the vehicular transportation. Fairfield County, which is a mix between urbanized and rural areas, is no exception to this. Of the 68,320 commuters in Fairfield County, 85 percent drive alone and 15 percent utilize an alternative method. This percentage may seem low, but comparatively, 81 percent of commuters in Franklin County, a larger and more urbanized county with 25 times the number of commuters, 81 percent are driving alone while 19 percent utilize alternative transportation options. For example, 7.6 percent of commuters in Fairfield County participate in carpool services alone.



Travel Demand Management Services - Continued

In order to identify the needs of people with mobility access issues, local governments develop coordinated public transit - human services transportation plans, or *Coordinated Plans*. The purpose of coordinated plans is to identify community resources for transportation and mobility, understand the gaps and unmet needs within those resources and to determine the approach to addressing those gaps and unmet needs. Although ODOT does not require local governments to produce a coordinated plan, it is required for eligibility for the Federal Transit Administration's Section 5310 program funds. The purpose of the 5310 grant program is to enhance the mobility of seniors and individuals with disabilities. ODOT makes 5310 project selections for small and rural Ohio counties. Private nonprofit organization or state or local governments may apply for the grant if they are approved to coordinate services for senior and individuals with disabilities. Therefore, ODOT must ensure that coordinated plans are in compliance with federal transit law. ODOT encourages coordinated plans to go beyond the requirements of Section 5310 funding to include analysis of needs and development projects to address the mobility needs of the general public.

Fairfield County published a coordinated plan in January 2015. The plan's goal is to cooperatively provide cost effective, accessible transportation throughout Fairfield County. The plan has not undergone an update at this time.



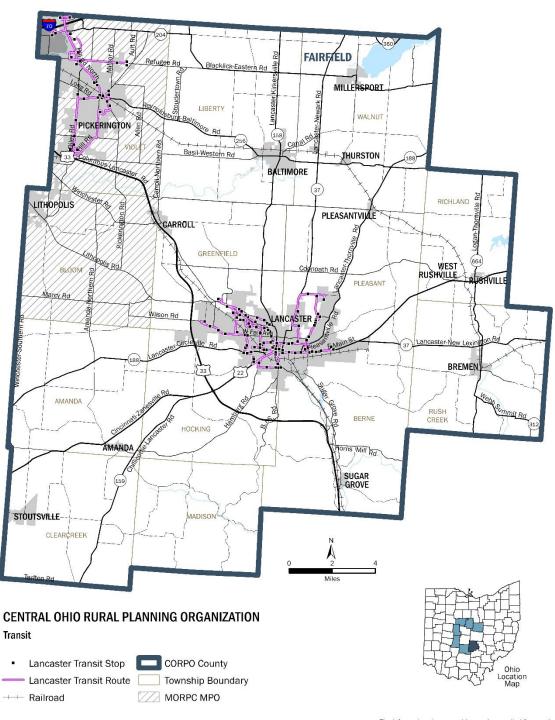
Transit Services

Transit services in Fairfield County are provided by the Lancaster – Fairfield Public Transit System. Currently the service operates five deviated loop routes that operate Monday through Friday with numerous stops along the route. The looped routes charge a cash fare of anywhere from ten to fifty cents, with children riding for free. On-demand transportation services are also available to all individuals. Longer distance and rural trips may be scheduled in advance and are charge based on the miles of travel. Fees for longer distance travel can range anywhere from two to sixty dollars. The following map displays fixed routes within the City of Lancaster.





Transit Services - Contd.



Source: ODOT

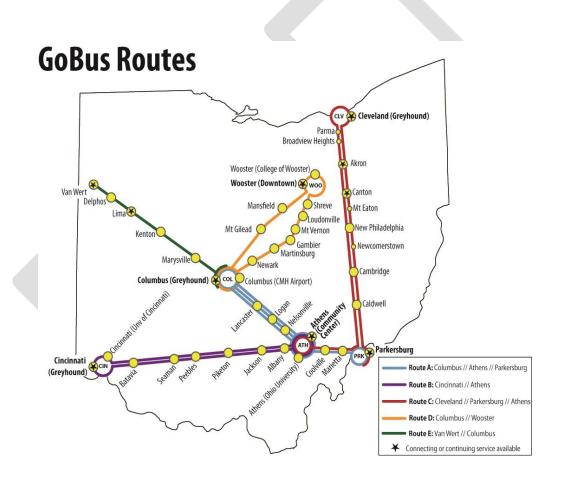
The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Transit Services - Contd.

Rural inter-city bus service is provided by Gobus. This service is designed to address low cost and geographically accessible intercity bus transportation needs of the entire state by supporting projects that provide transportation between non-urbanized areas and urbanized areas that result in connections of greater regional, statewide, and national significance. Funding for the rural inter-city bus is administered by ODOT, and the service is currently operated by Barons Bus Lines.





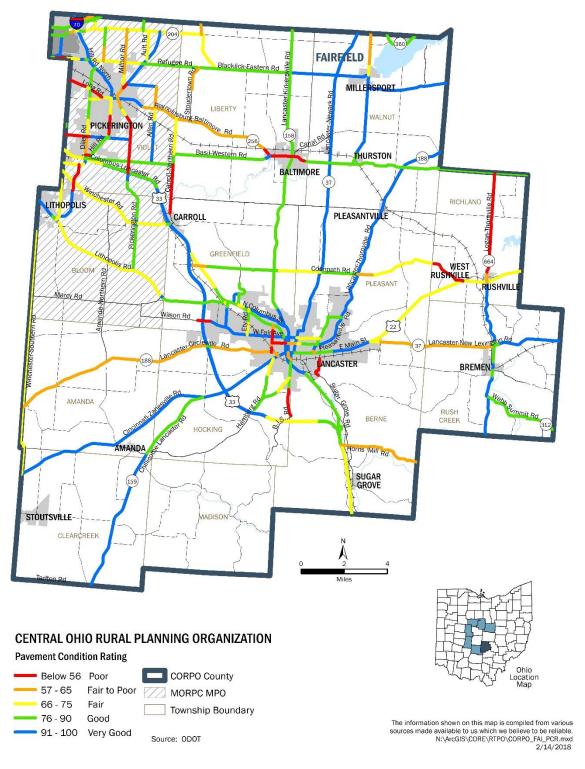
Transportation Infrastructure Conditions

Understanding the physical condition of a transportation is vital to resource management and the two following maps display the physical condition of both the roadway network (pavement) and bridges in Fairfield County.



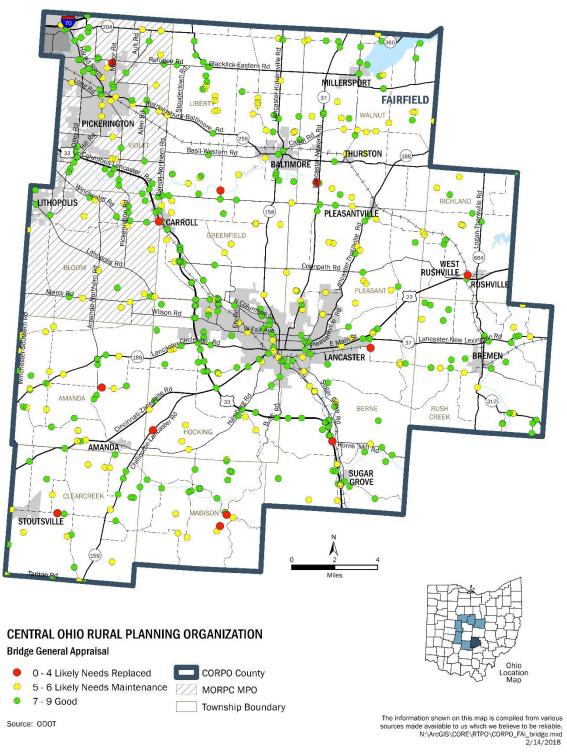


Transportation Infrastructure Conditions





Transportation Infrastructure Conditions Cont.





Freight

Goods are moved, transferred, and distributed from Fairfield County to destinations across the United States and around the world. Whether by truck, rail, or air, Fairfield County's efficiency in the movement of goods is an important part of the region's economic competitiveness, trade, and commodity flow. Fairfield County and our region's economy as a whole have benefited from its multimodal transportation assets for many decades. Today, Fairfield County is home to an airport and is crossed by arterial rail corridors as well as US 33 and 22 that provide access to nearby interstate 270 in the northwest portion of the county. Fairfield County is strategically located within a 10-hour truck drive of 47 percent of the United States population and 61 percent of its manufacturing. US 33 is the designated National Highway System (NHS) route in Fairfield County. The NHS routes are deemed to be the most important routes for freight movement throughout the country. The first of the following four maps details freight related infrastructure in Fairfield County.

Congestion

There are a couple of aspects of the roadway system condition to consider. First is the physical condition — are the roadways and bridges in good repair? Section 3.3 outlined that aspect. Second, how does the roadway operate in terms of level of congestion? Using average daily traffic count data as well as travel time data covering all weekdays of 2016 except federal holidays. CORPO was able to map traffic volumes as well as congested areas within Fairfield County. The second, third and fourth of the following maps display the, average daily traffic volumes and the percentage of congested days, separated into AM and PM periods.

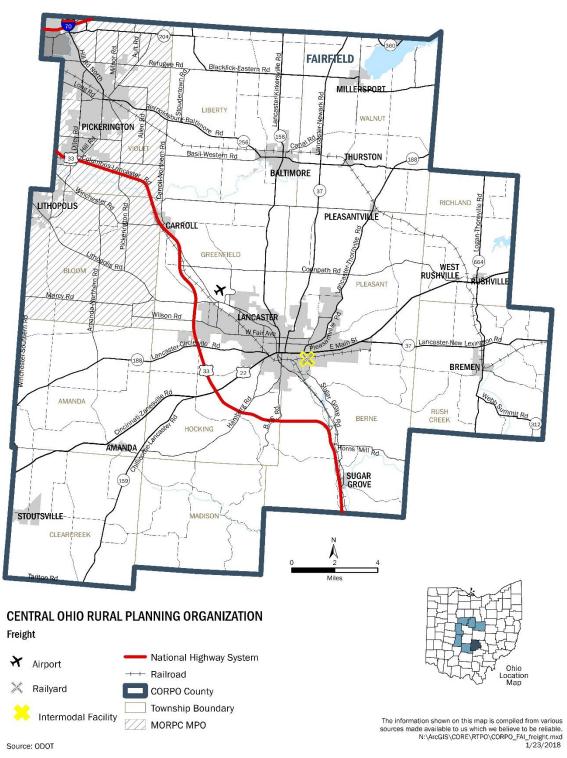
The percentage of congested days is identified if the travel time in at least three 5-minute intervals during the peak period of the day considered is 50 percent greater than the travel time under free-flow condition. That means, for at least fifteen minutes each AM or PM period, travelers would spend more than 50 percent extra travel time on the segment. The percentage of congested days is then calculated by dividing the total number of congested days by the total numbers of the non-federal-holiday weekdays in the period of interest.

Basically, this "percentage" measure can be interpreted approximately as below:

<=20%: 1 day or less per week 20 - 60%: 2 to 3 days per week > 60%: 3 + days per week

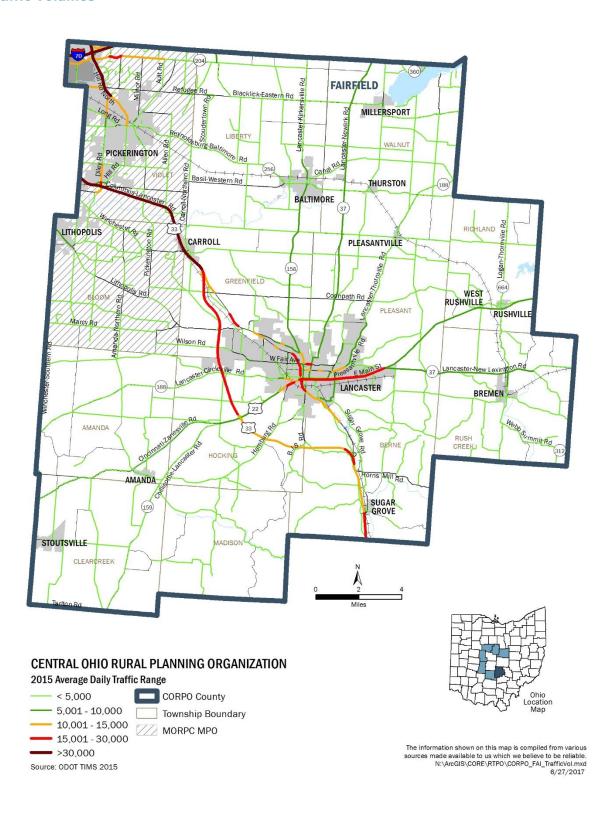


Freight



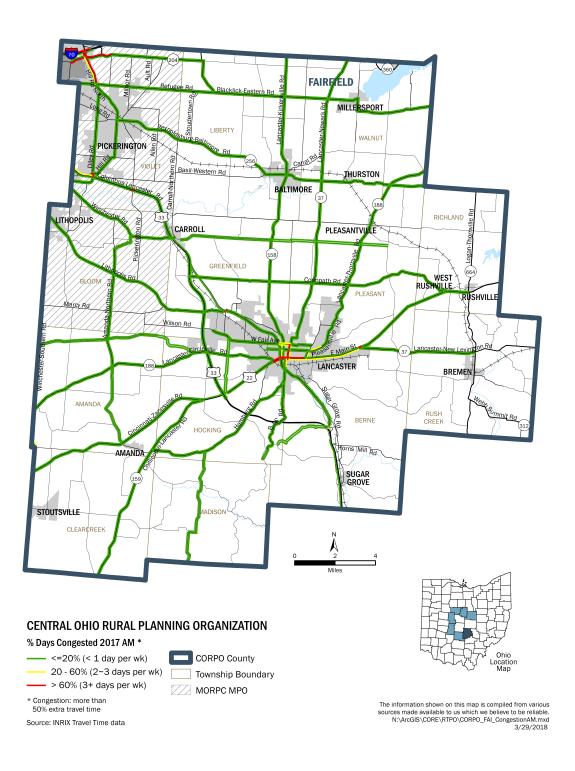


Traffic Volumes



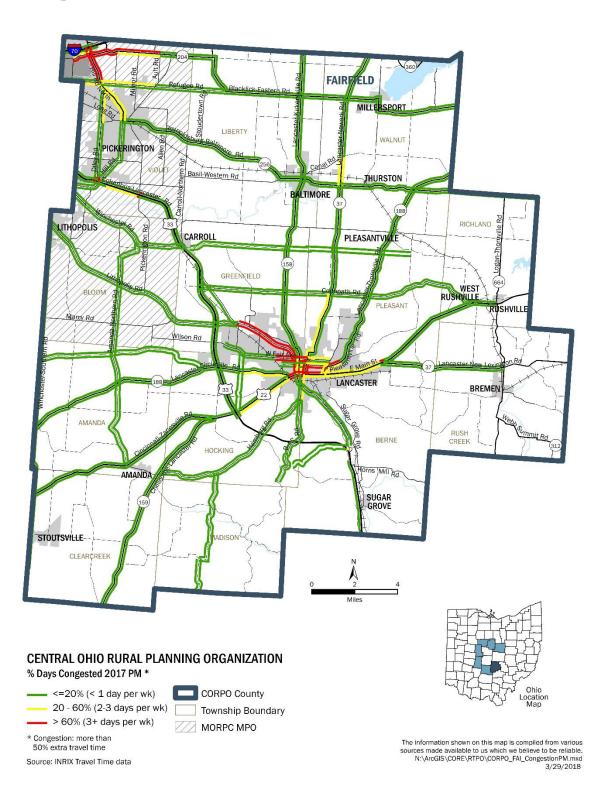


Traffic Congestion - 6:00 - 9:00 AM





Traffic Congestion - 3:30 - 6:30 PM





Safety - (Please reference the summary and table on the following page.)

The primary function of a transportation network is to move people and goods from their origin to destination as safely as possible. If a network is unsafe, its utility is greatly diminished. One way to determine which areas of the network may have a safety issue or where these issues may one day arise is to collect and analyze crash data. Please see the Fairfield County Safety Summary on the next page.

Safety - Crash Statistics

Fairfield County is one of the more populated counties in the CORPO study area and is becoming a destination for jobs and commercial development. Similar to state and national trends, the total number of reported crashes and fatal crashes in Fairfield County has been trending slowly upward in recent years. In Fairfield County, from 2012 to 2016, the total number of crashes increased by 8 percent. The number of crash resulting injuries in Fairfield County decreased by -2 percent yet crashes resulting in property damage only increased by 12 percent.

Safety - Occupant Statistics

The table below outlines the crash related occupant statistics for Fairfield County between 2012 and 2016. There was a 9 percent decrease in the injury rate from 2012 to 2016. This could be related to the development of new safety measures in vehicles, such as cameras and vehicle assist notifications.

Safety - Crash Locations and Types

Utilizing crash data collected by both the Ohio Department of Transportation and the Ohio Department of Public Safety, high crash areas of the transportation network are able to be identified. These areas are potential areas of focus for safety improvements.

Identifying these locations will allow law enforcement, emergency responders, transportation officials, government and the general public to target them directly through strategies and planning. The map reflects the denser areas of Fairfield County, such as Canal Winchester, Lancaster and the busy U.S. 33 corridor.

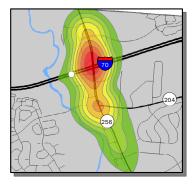
Safety - Rail Crossings

In many areas of the county, different modes of transportation converge. These areas can present significant safety challenges, especially where railroads cross roadways. CORPO with assistance from ODOT has compiled a list, identifying and ranking rail crossings in the county that may be in need of safety improvements. These crossings may be eligible for non-local funds intended to improve safety related infrastructure such as signals, gates and grade. Please reference the full list of identified rail crossings in the appendices.

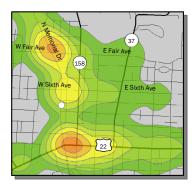
RELATIVE COUNTY CRASH DENSITY & SAFETY SUMMARY (2012 - 2016):

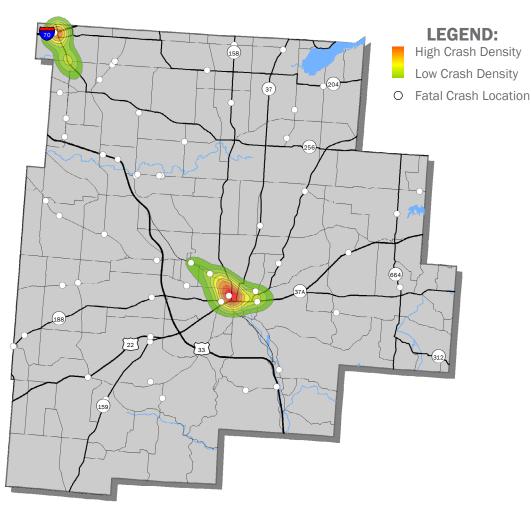
FAIRFIELD Count y











CRASH TRENDS BY YEAR (2012 - 2016)

	CRASH STATISTICS				TRUCK-	OCCUPANT STATISTICS					
YEAR	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	INJURY RATE	INVOLVED CRASHES	Fatalities	Serious Injuries	Minor Injuries	No Visible Injuries	Total Injuries
2012	11	800	1,981	2,792	29.0%	128	13	113	500	538	1,164
2013	9	674	1,973	2,656	25.7%	136	9	100	372	458	939
2014	14	684	2,117	2,815	24.8%	133	16	69	354	558	997
2015	13	766	2,229	3,008	25.9%	155	14	114	399	630	1,157
2016	12	781	2,214	3,007	26.4%	163	13	129	410	602	1,154
5-Year Total	59	3,705	10,514	14,278	26.4%	715	65	525	2,035	2,786	5,411
Annual Average	11.8	741.0	2,102.8	2,855.6	26.4%	143.0	13.0	105.0	407.0	557.2	1,082.2
Percent Change (2012 to 2016)	9%	-2%	12%	8%	-9%	27%	0%	14%	-18%	12%	-1%

- Shaded orange cells indicate the year with the highest value for each respective column.
 Injury Rate is calculated using the following formula: [(#Fatal Crashes+#Injury Crashes)/Total Crashes]



4.1 Population and Employment

Population Projections

One of the ways to predict the stresses a transportation system will endure in the future is to determine the number of people currently living and working in the region and how many will be in the future. Getting an idea of future population gains or losses will assist local governments in responding to these changes. An increase in population typically means more daily commuters on the County's roadways, transit system and trails. More people also mean that there will be an increased demand for goods and services, therefore an increase of trucks on the roads.

According to estimates developed by MORPC, Fairfield County's total population is expected to increase significantly by 2040. Fairfield County's 2015 population was 151,326 while the 2040 population is projected to be 178,501. This is an 18 percent increase in population over 25 years in Fairfield County. This percentage is considerably greater than the State's projected population change of one percent. Comparatively, nearby Franklin County is expected to grow by 32 percent.

Year	Fairfield Co.	Ohio	Franklin Co.
2015	151,326	11,549,120	1,250,269
2040	178,501	11,679,010	1,648,891
10 to 40 % Change	18%	1%	32%

Workforce & Employment

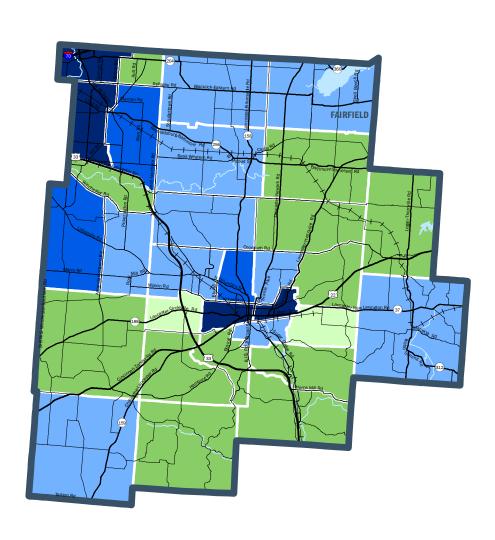
Projections for Fairfield County indicate that not only will there be an increase in population but also in both workforce and jobs as well. The workforce population living within Fairfield County is projected to increase 22 percent while the number of jobs located within the county are projected to increase 21 percent by 2040. To better visualize how an increase in workers and jobs will affect the county, they were distributed into Statewide Transportation Analysis Zones (TAZ).

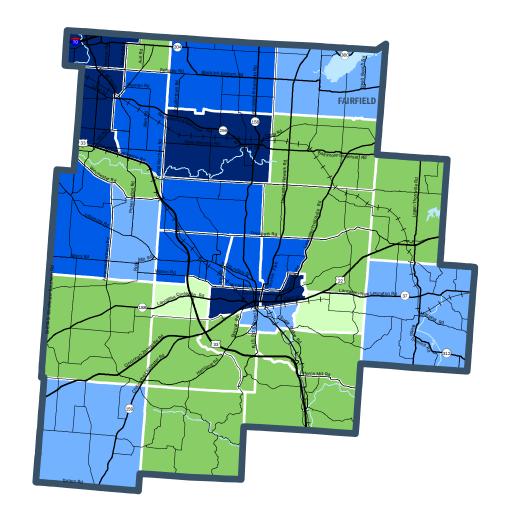
The following series of maps reflect possible future outcomes in the county.

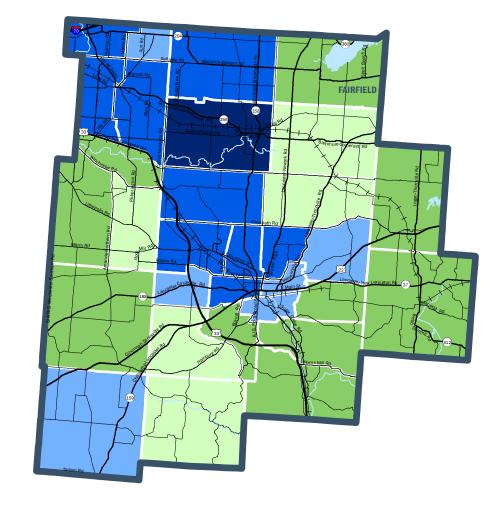
2015 Population

2040 Population

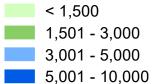
2015-2040 Population Growth





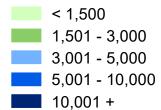


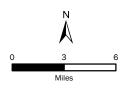
Total Population by TAZ



10,001 +

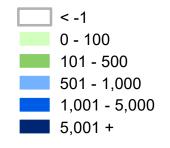
Total Population by TAZ







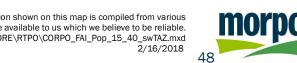
Population Growth by TAZ





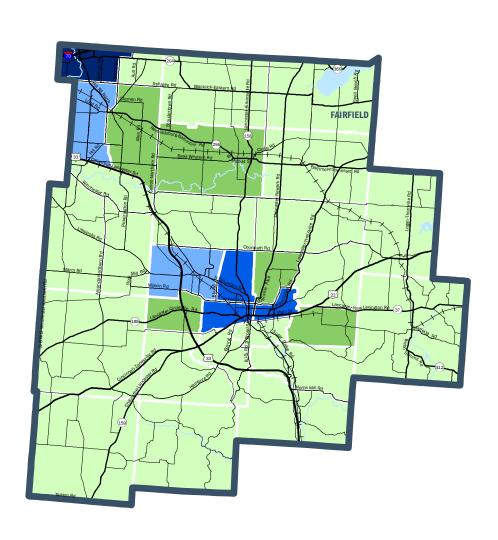
Source: MORPC

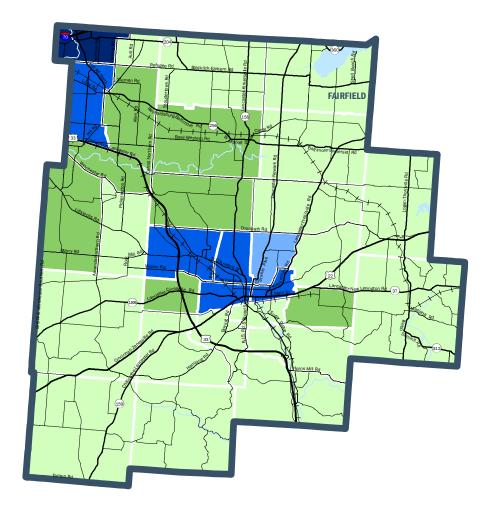
The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\ArcGIS\CORE\RTPO\CORPO_FAI_Pop_15_40_swTAZ.mxd 2/16/2018

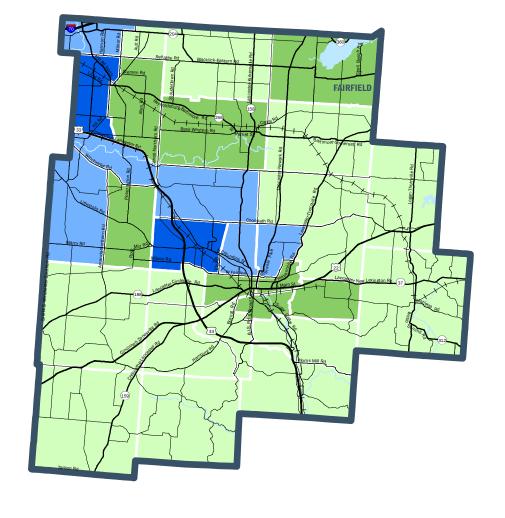


Fairfield County - Total Population

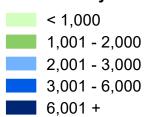
2015 Jobs **2040** Jobs 2015-2040 Job Growth

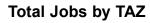


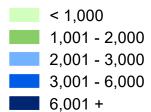


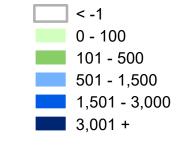


Total Jobs by TAZ

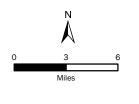








Job Growth by TAZ





Fairfield County - Total Jobs

2015: 41,840 2040: 50,590 Growth: 8,750



Source: MORPC

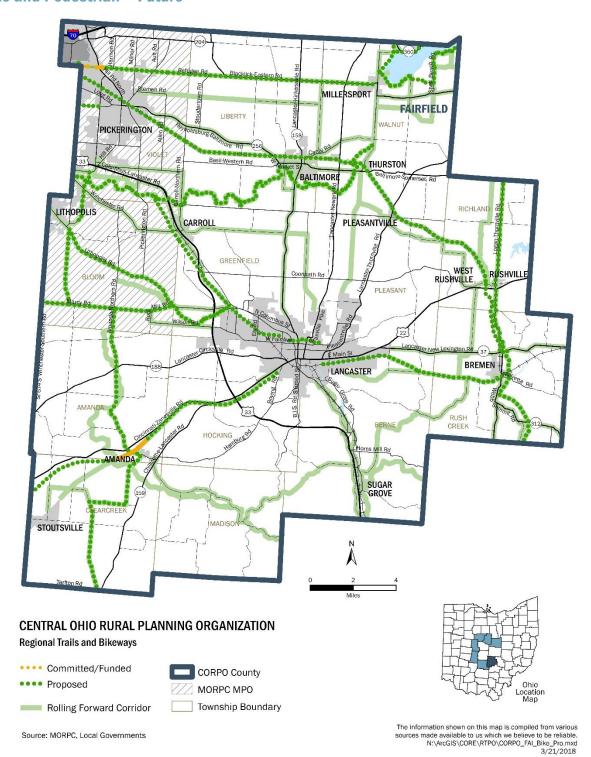


corpo



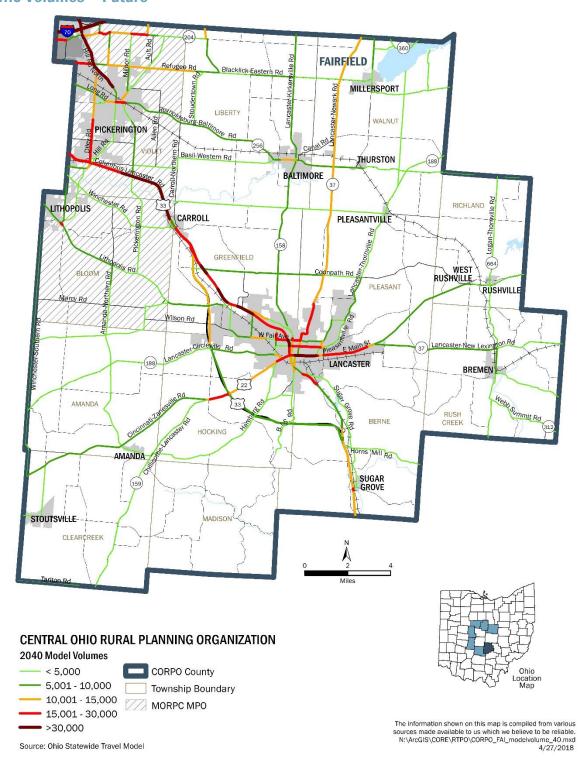
4.2 Travel Demand

Bike and Pedestrian - Future



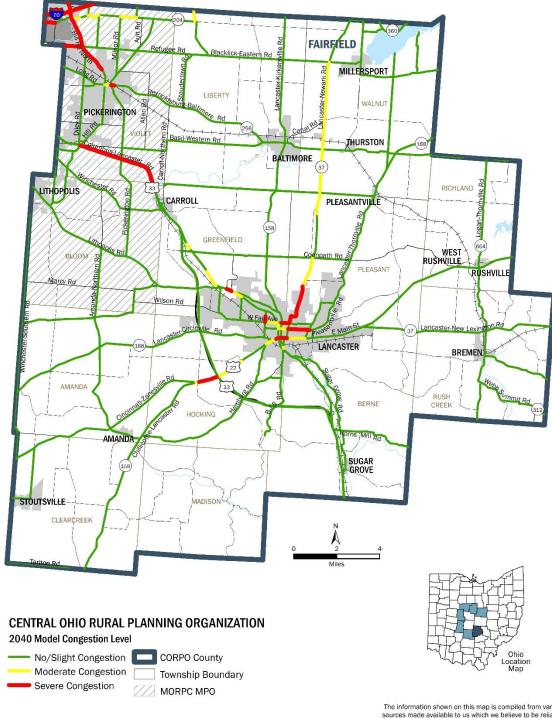


Traffic Volumes - Future





Traffic Congestion - Future



Source: Ohio Statewide Travel Model

The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_FAI_modelcongestion. 40.mxd 4/27/2018



4.3 Project List – Fairfield County

One of the primary purposes of the CORPO Transportation Plan is for CORPO members to identify transportation projects of importance in their county. The projects listed on the next few pages include those that add roadway capacity, expand the transit system or provide bicycle and pedestrian facilities. Some of the identified projects encompass the ongoing operation, maintenance and preservation of the existing transportation system. This may include the study, operation and expansion of transit service. However, most of the items listed are projects to expand physical components of the transportation system.

Each project listing provides a brief project description and identifies cost estimates for each project. The associated cost estimates are in construction dollars. The following list includes both short and long term projects that may occur between 2018 and 2040.

2018 - 2040 CORPO Transportation Plan Project Listing Mapped Projects - Sorted by County

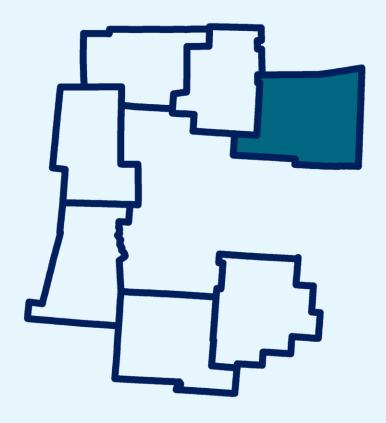
			Coet
Colling	2	Project Description	(Millions)
Fairfield	TBD	Little Walnut Creek Trail from Gender Road to Carroll-Northern Road; multi-use path	\$3 - \$4
Fairfield	TBD	Refugee Rd. from Woodstock Avenue to Saylor Road; multi-use path	\$1
Fairfield	TBD	Buckey Lake Dam Path from northern to southern Buckeye Lake State Park; multi-use path	\$1.20
Fairfield	TBD	Buckeye Lake Bikeway Connector to connect Buckeye Lake area at Millersport to state bikeway on SR 40; multi-use path	\$73 - \$93
Fairfield	TBD	US 22 Trail from from Amanda to Lancaster; multi-use path	\$4
Fairfield	TBD	Lithopolis Rd. from Elder Lane to SR 674; mutli-use path	\$0.6 - \$1
Fairfield	TBD	Smith Rd. from Stoney Bluff Way to Rolling Acres Dr; multi-use path	\$0.3 - \$0.6
Fairfield	TBD	Elder Lane from Penny Dr. to Columbus St.; multi-use path	\$0.3 - \$0.7
Fairfield	TBD	Lithopolis Winchester Rd. from Red Tail Dr. to Walnut St.; multi-use path	\$0.3 - \$0.7
Fairfield	TBD	Lithopolis Winchester Rd. from Winchester Rd. to Columbus St.; bikelane	\$1-\$3
Fairfield	TBD	Wright Rd from Diley Rd to Pickerington Ponds; multi-use path	\$0.7 - \$1
Fairfield	TBD	Conrail Trail from Allen Rd to Hill Rd; multi-use path	\$2 - \$4
Fairfield	TBD	I-70 (East Freeway) at SR 256 and at Taylor Road/SR 204; Interchange modification	\$9-\$12
Fairfield	TBD	Columbus Street (Wright Rd) from Diley Rd to Hill Rd (SR 256); Minor widening	\$24-\$30
Fairfield	TBD	Busey Road from Bowen Rd to Allen Rd; Minor widening	\$ 3
Fairfield	TBD	Long Road from Columbus Street to Diley Road; Minor widening	\$4 - \$5
Fairfield	TBD	Hill Rd from Hill Road relocation (north of Busey Road) to Columbus Street (SR 256)Hill Road; Minor widening	\$10-\$12
Fairfield	TBD	Minor Rd from Pickerington Road to Refugee Road Milnor Road; Minor widening	\$2
Fairfield	TBD	Hill Road (SR 256) / Refugee Road; Intersection modification	\$3 - \$4
Fairfield	TBD	Pickerington Road (Center Street) / Milnor Road / Meadows Boulevard; Intersection modification	\$1 - \$2
Fairfield	TBD	SR 204 / Harmon Road; Intersection modification	\$1 - \$2
Fairfield	TBD	SR 204 / Taylor Road; Intersection modification	\$93-\$121
Fairfield	TBD	I-70 (East Freeway) from Alum Creek Dr to SR 310; Access management	28 - \$7
Fairfield	TBD	Refugee Road / Pickerington Road; Roundabout, Intersection modification	8 3
Fairfield	TBD	Hill Road / Basil-Western Road; Roundabout, Intersection modification	\$1
Fairfield	TBD	SR 204 / Milnor Road; Roundabout, Intersection modification	\$3 - \$4
Fairfield	TBD	US 33 (Southeast Freeway) from Gender Rd (SR 674) to Hill Road/Diley Road; New freeway	\$3-\$4
Fairfield	TBD	US 33 (Southeast Freeway) from Hamilton Rd (SR 317) to Gender Road (SR 674) does not include Bixby Interchange; New freeway	\$57 - 72
Fairfield	TBD	US 33 (Columbus-Lancaster Road) from Hill Rd/Diley Rd to Carroll Interchange does not include Pickerington Road Interchange; New freeway	4
Fairfield	TBD	US 33 (Southeast Freeway) / Bixby Road; New interchange	61
Fairfield	TBD	US 33 (Southeast Freeway) / Pickerington Road; New interchange	\$4 - \$6
Fairfield	TBD	Courtright Dr from SR 256 (Hill Road) to Milnor Road Courtright Drive extension (west section); New Roadway	\$2
Fairfield	TBD	Courtright Dr from Milnor Road to Pickerington Road Courtright Drive extension (east section); New Roadway	\$6 - \$8
Fairfield	TBD	Allen Road extension from Stemen Road to Ault Road; New Roadway	\$109 - \$140
Fairfield	TBD	I-70 to US 33 Connector (Pickerington Bypass); New roadway	\$6
Fairfield	TBD		TBD
Fairfield	TBD	I-70 (East Freeway) from SR 256 (Baltimore-Reynoldsburg Road) to SR 310 (Hazelton-Etna Road); Major widening	\$24 - \$30
Fairfield	TBD	Tussing Road from Brice Road to SR 256; Major Widening	\$23-\$29
Fairfield	TBD	SR 256 (Hill Road) from Diley Road to Town Square Drive; Major widening	\$0.90
Fairfield	TBD	Basil-Western Rd Realignment Phase 1; Roundabout at Hill/Kings Crossing; Other roadway modification	\$2
Fairfield	TBD	Basil-Western Rd Realignment Phase 2; Extension of Kings Crossing to the eastern edge of Parcel #0370211900; Other roadway modification	TBD
Fairfield	TBD	Basil- Western Rd Connection to Carroll Northern; New roadway	TBD
Fairfield	TBD	Hill Rd Relocation from Busey Rd at Hill Rd (south leg) to Hill Rd north of Busey Rd; New roadway	\$2 - \$4
Fairfield	TBD	Refugee Rd / Hines Rd; Intersection modification	\$0.4 - \$0.8
Fairfield	TBD	SR 674 Realignment from Gender Rd to Winchester Southern Rd; New Roadway	\$7 - \$15
Fairfield	TBD	I-70 from Brice to SR 256; Major widening	\$70 - \$135
Fairfield	TBD	Lockville Rd Connector; New roadway	\$9 - \$17
Fairfield	TBD	Hill-Lockville Rd Connector; New roadway	\$5 - \$10

2018 - 2040 CORPO Transportation Plan Project Listing Mapped Projects - Sorted by County

Cost

County	□	Project Description	(Millions)
Fairfield	TBD	Lehman Rd extension from Bowen Rd NW to Busey Rd; New roadway	\$4 - \$8
Fairfield	TBD	Commerce Dr realignment from Hill Rd to Diley Rd; New roadway	\$1-\$3
Fairfield	TBD	Pickerington-Allen connector; New roadway	\$7 - \$14
Fairfield	TBD	Camp Ground Road Improvements; Other roadway modification	\$1
Fairfield	TBD	Fair Avenue / Collins Ave; Intersection modification	\$1 - \$4
Fairfield	TBD	Ewing Street and Old US 22 Connector from South end of Ewing to US 33-Bypass / Old U.S. 33; New roadway	\$2
Fairfield	TBD	Commerce Street Extension from West end of Commerce Street that ends before Graceland; New roadway	\$22 - \$28
Fairfield	TBD	Study a high-capacity transit corrdor from Lancaster to Columbus.	66\$ -92\$
Fairfield	TBD	Coonpath Road from SR 158 to CR 33; Other roadway modification	\$ 2
Fairfield	TBD	CR 33A / Election House Rd; Intersection modification	\$1
Fairfield	TBD	Ety Road and Bridge Improvements; Other roadway modification	\$ 2
Fairfield	TRD	TBD Columbus Rd from Fleetion House Rd to Whittier Rd. Other roadway modification	TRD

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Knox County

Transportation Plan 2018-2040

Section 3B of CORPO 2018 - 2040 Transportation Plan







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1.0 CORPO OVERVIEW



CORPO Background and Purpose

On July 1, 2013, ODOT began a two-year pilot program with five multi-county planning organizations (or councils of government) providing them with funding to conduct regional transportation planning in coordination with local stakeholders, Ohio MPOs, and ODOT. Much of Ohio's non-metropolitan local official coordination occurs between ODOT and these organizations. The five organizations cover 34 non-metropolitan counties in Ohio.

On January 27, 2016, Governor John Kasich formally designated each of these five agencies as an Ohio Regional Transportation Planning Organization (RTPO). These designations formalize the program that started as a pilot and will help spur better and more informed transportation decision making in Ohio.

Following the Ohio Department of Transportation's (ODOT) two-year pilot program to establish RTPO's, local governments in Central Ohio began discussing the opportunity to form a sixth Rural Transportation Planning Organization around the Mid-Ohio Regional Planning Commission (MORPC) which is the Metropolitan Planning Organization (MPO) for the Columbus urban area. MORPC's role as MPO and mentor in the pilot program encouraged its member governments outside the MPO to consider forming an RTPO. In response, MORPC began to work with the interested Central Ohio counties to form a Rural Planning Organization (RPO) area, a precursor to being a fully recognized RTPO. A designation that requires the submission of a long-range transportation plan to ODOT. The seven member counties include Fairfield, Knox, Madison, Marion, Morrow, Pickaway and Union. MORPC organized the counties to engage as an RPO, CORPO was created, and in preparation to become a state-designated RTPO this CORPO Transportation Plan was completed.

By July 2016 each member county passed resolutions to join the Central Ohio Rural Planning Organization (CORPO). Once approved to move forward with the development of CORPO, staff began the process of forming the CORPO Committee. The CORPO Committee is the guiding body for the development of the CORPO Transportation Plan. All seven CORPO member counties also established RPO subcommittees and designated representatives from each county at CORPO Committee. These decision were governed by a set of bylaws previously adopted by the CORPO Committee. The CORPO Committee convened on numerous occasions to establish an overarching vision for the RPO transportation plan. This vision was used to develop the overarching goals and objectives of the plan. Staff, in cooperation with the CORPO Committee and county-level RPO subcommittees went to work on a transportation plan which includes seven county-level sections. These sections were then merged into a unified plan for CORPO, culminating in a list of transportation projects for the region. Section 3B represents the county-level section for Knox County.

2.0 GOALS AND OBJECTIVES



Goals & Objectives

Preserve and Maintain the Existing Transportation System in a State of Good Repair

- Minimize the number of bridges structurally deficient or functionally obsolete
- Maximize the miles of pavement in acceptable condition
- Maximize resources dedicated to maintain and improve the condition of the transportation system

A Safe Transportation System for All Users

- Minimize crashes including pedestrian and bicycle related crashes
- Promote system user education to minimize unsafe driving behaviors such as a lack of seatbelt use, distracted driving, impaired driving and others

Accessibility and Mobility Options for all Users

- Build facilities that accommodate all users such as those using transit, walking and bicycling
- Expand public transportation within and between communities
- Expand the bicycle and pedestrian networks
- Expand options that assist those living in poverty or in areas with lower accessibility in reaching employment, healthcare or services

An Integrated, Connected and Coordinated Transportation System

- Increase outreach to advocacy and community groups including area residents, local governments, agencies and organizations
- Improve connections between regions by utilizing various modes of transportation, including passenger rail
- Increase local community collaboration and coordination efforts to achieve mutually beneficial outcomes

• A Transportation System that Promotes a Collaborative and Focused Approach to support Economic Vitality

- Improve strategic freight related facilities (e.g. highway, rail, intermodal, etc.)
- Develop priority multipurpose corridors (e.g. utilities, water, broadband, fiber, etc.)
- Maximize return on investment to position the region to compete globally and efficiently
- Provide transportation facilities that enhance the transition between rural and urban areas
- Enhance engagement with regional partners and voices

Preserve and Enhance Environmental Resources and Sustainability through the Transportation System

- Increase use of non-single occupant vehicles (local transit, intercity transit, ridesharing, biking, walking)
- Provide transportation facilities consistent with local land use, environmental and sustainability plans



3.1 Demographics

Population

According to Census population estimates, Knox County's population was 60,814 in July 2016. This represents a -1 percent decrease from the 2010 Census estimated population of 61,087.

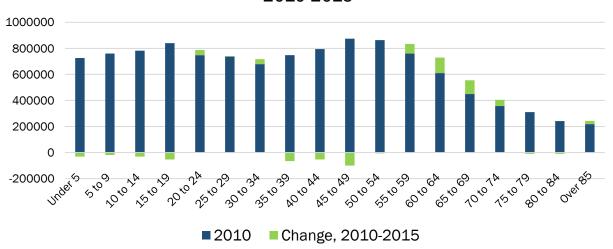
Knox County Population Estimates						
Year	Population	2010 - 2016 % Change				
2010	60,087					
2011	61,285					
2012	61,790					
2013	60,843					
2014	60,970					
2015	60,973					
2016	60,814	-1%				

Age

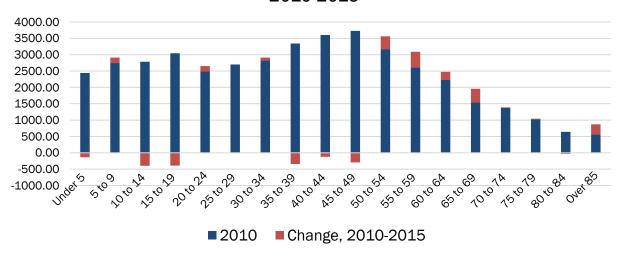
Knox County's median age of 39 years is comparable to that of the State of Ohio, at 38 years. Neighboring Franklin County has historically been a younger county with a median age of 35, because of the large population of university students. However, like the rest of Ohio, Knox County residents are aging and will face challenges in the future as this population leaves the workforce and enters retirement. The 55+ age cohort of both Ohio and Knox County is increasing. This is consistent with the findings in insight2050, a collaborative initiative among public and private partners designed to help communities proactively plan for development and population growth over the next 30+ years that is expected to be dramatically different from the past.



Change in Population by Age Cohort in Ohio 2010-2015



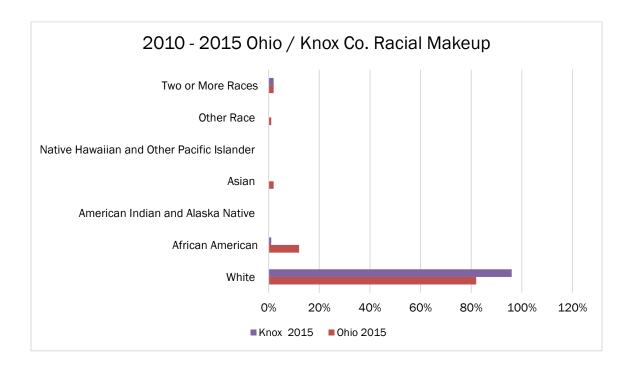
Change in Population by Age Cohort in Knox County 2010-2015





Diversity

Central Ohio is primarily white and Knox County is no exception. In 2015 Knox County's population was 96 percent white. Knox County is less diverse when compared to Ohio as a whole. That same year it was estimated that Ohio was 82 percent white, 12 percent African-American and roughly the same comparatively for other races.





Families and Households

The users of a transportation system come from diverse backgrounds, socioeconomic statuses and household structures. Of all the households in Knox County, 67 percent are family households and 13 percent of households are single parent families. Knox County households have a significant number of households with at least one person over 60 years of age in the home.

Knox County Households (HH)						
HH Type	%	Average				
Families	67%					
Non-Family	33%					
Single Parent	13%					
HH Size		2.53				
Family Size		3.09				
HH with 60+	40%					
HH with under 18	31%					



Home Ownership

Homeownership has traditionally been a goal for most Americans and a factor in determining wealth in the United States, but recently there have been changes to these societal norms. For decades the suburbs exploded as people moved out of urbanized areas and utilized highways to get to and from work. Now, with increased traffic, higher fuel prices, a recovering housing market and more environmentally conscious commuters who would like to be closer to amenities, the demand for denser, centrally located housing options has increased. Because of this demand, mixed-use developments have begun to pop up in metro areas across the state, increasing the number of available rental options with them.

Ohio Housing Tenure				
Year	% Rent	% Own		
2010	31%	69%		
2015	34%	66%		
10 to 15 Change	+3%	-3%		

Knox County Housing Tenure					
Year	% Rent	% Own			
2010	25%	75%			
2015	29%	71%			
10 to 15 Change	+4%	-4%			

Although Ohio appears to have seen an overall increase in renters, Knox County has increased its percentage of renters from 2010 to 2015. In comparison, Franklin County, where denser development has occurred over the last five years the increase in residents who rent went from 43 to 46 percent.



Employment

As of April 2017, Knox County's unemployment rate was 3.6 percent. This rate is low when compared to the State of Ohio, where the rate was 4.4 percent. Ohio's rate was higher than the national rate of 4.1 percent that same month. Knox County's unemployment rate is a positive, not only because it is low but because it has steadily declined over the last five years.

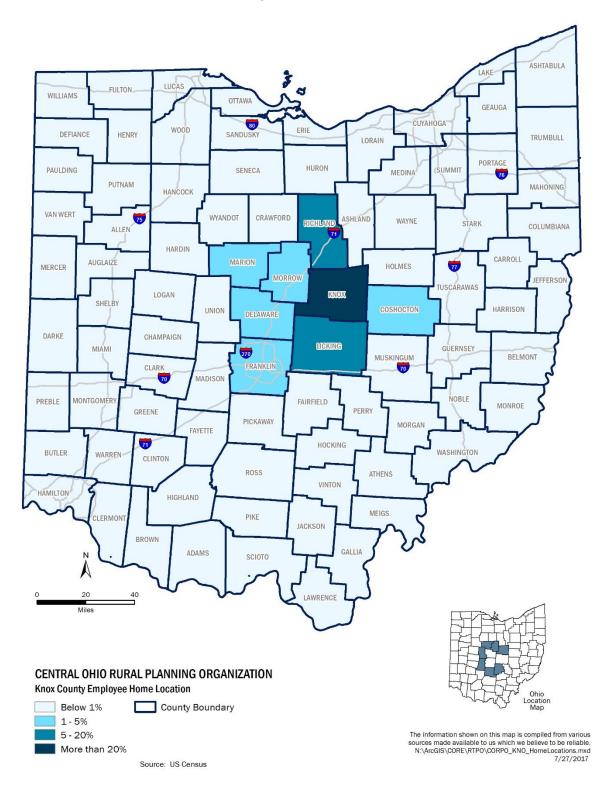
The labor participation rate in the county, a measure of those who are currently working or actively looking for work was 64.7 percent in 2016.

Knox County	Unemployment Rates
2013	6.9%
2014	5.3%
2015	4.6%
2016	4.5%
April 2017	3.6%
13 to 17 Change	- 3.3%

When considering employment, knowing the number of people in your community who are employed and how they get to work is very important. To make appropriate transportation planning decisions, knowing where they work is vital. The majority of workers employed in Knox County live primarily in Knox, Licking and Highland counties. Knox County residents are primarily employed in Knox, Licking and Franklin counties.

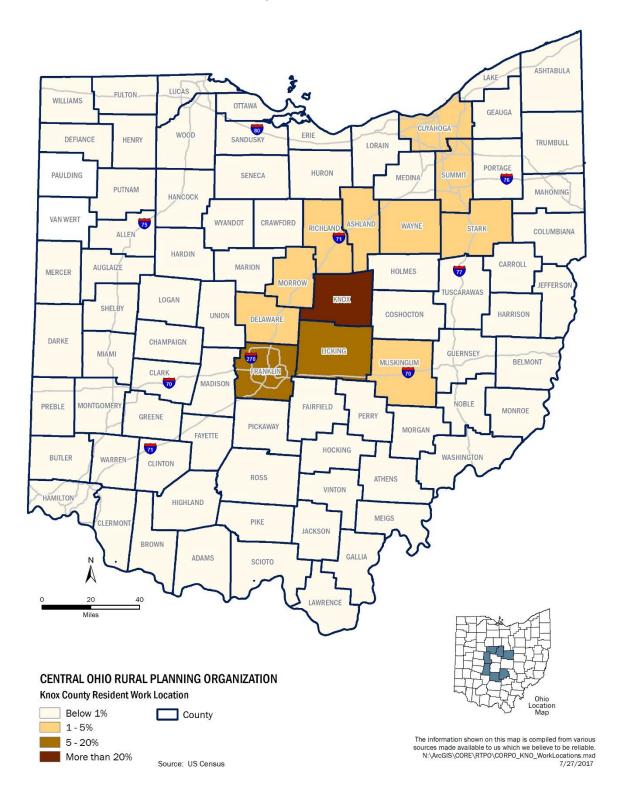


Worker Commute - Where Knox County Workers Commute From





Worker Commute - Where Knox County Residents Commute To

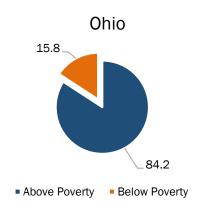




Income and Poverty

Unfortunately, a low unemployment rate does not mean that there are not residents struggling with poverty in Knox County. According to Census data, the percentage of Knox County residents living below the poverty line in 2015 was estimated to be 15.3 percent. The percentage increased from the 14.6 percent estimated in 2012. However, the rate is comparatively low to that of the state, which is currently 15.8 percent, and neighboring Franklin County, where the percentage is estimated to be 17.5. Minority populations in Knox County appear to make up a disproportionate percentage of those living in poverty. Additionally, 23 percent of those living in poverty are children 18 years of age and under, compared to 22.8 percent at the state level.

In Mount Vernon, the largest jurisdiction in Knox County, 21.2 percent of residents live below the poverty line.



15.3%

of Knox Co. residents are living in poverty.

28%

of minorities in Knox Co are living in poverty.

15%

of whites in Knox Co are living in poverty.

As the percentage of those living in poverty has increased, the median income for Knox County residents decreased. In 2015 the median household income in Knox County was \$48,533, an increase from the estimated \$45,655 in 2010. Knox County's median income is lower than that of the state however, which in 2015 was \$49,429, an increase from the 2010 median income of \$47, 358.



Vehicle Access

Little or no access to reliable personal or public transportation can create a multitude of daily challenges. Of the 18,431 households in Knox County, 8 percent reported no vehicle in the home in 2015. This is the same percentage as the state, which also reported 8 percent that same year. That means just under 1,200 households in Knox County have to plan trips to work, school or medical appointments in advance and may be dependent upon others to make it to any of those. In a county with limited public transit options, this can create real obstacles.

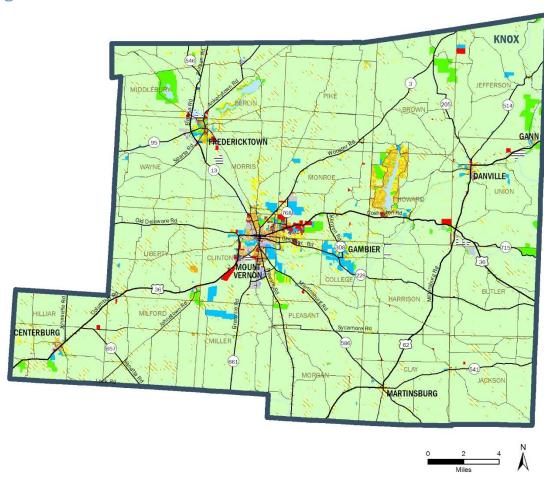
3.2 Land Use / Development

Knox County continues to attract new residents and jobs. Changes to the marketplace include an aging population and an increase in young adults. This typically means there is a desire for multiple transportation options. The way the county develops directly influences the CORPO plan's goals and objectives. Local land use decisions can affect access to amenities, employment and attractions and transportation systems can affect development decisions.

Recognizing how land use decisions affect the quality of place and how well it attracts and retains workers is important. These decisions can support economic opportunity by accommodating business' needs for transportation capacity and reliability. As a part of large metropolitan area, Knox County may benefit from seamless transitions between communities through coordinated development approaches, which would allow the transportation system of roads, bikeways, and pedestrian ways to be continuous for regional connectivity. The following two maps display the existing land uses as well and the various points of interest and for Knox County. ("Public Spaces" in the points of interest map includes locations such as historical sites, fairgrounds, community and recreation centers, theaters and concert halls, museums and libraries.)



Existing Land Use

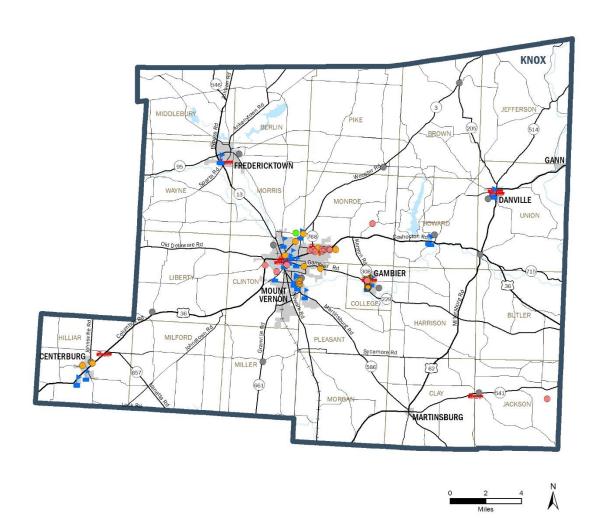


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Points of Interest



CENTRAL OHIO RURAL PLANNING ORGANIZATION





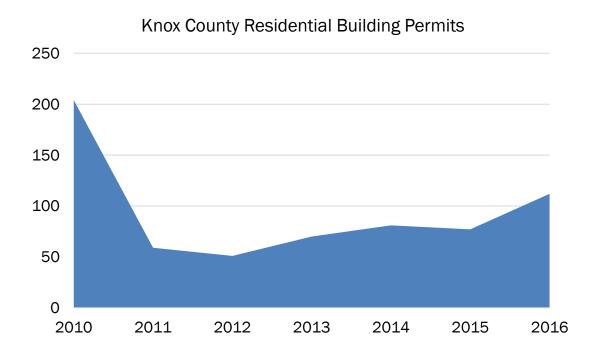
The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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6/19/2017



Residential Permits

One way to track an area's is growth is to look at the number of building permits being requested. This data are not always reliable as it is based on whether or not a locality is reporting these permits to the Census. Utilizing data from *Censtats* (US Census), it is safe to suggest that Knox County's annual number of requested building permits has increased greatly. Since 2010 there has been at least a - 45 percent decrease in annual Census reported residential permits in Knox County.





3.3 Current Transportation Network

The purpose of Knox County's transportation system to safely accommodate the travel needs of its users. Knox County's transportation system is made up of several components or sub-systems that should be seamlessly connected to provide fluid movement of people and goods across the system and the region. These include roadways, transit, railroads, bikeways, pedestrian facilities, and the unique intermodal facilities that interface these surface modes with ground and air freight. These components each serve their own particular role in moving people and goods throughout the region. This section describes these individual systems and intermodal connections that make up the county's surface transportation system.

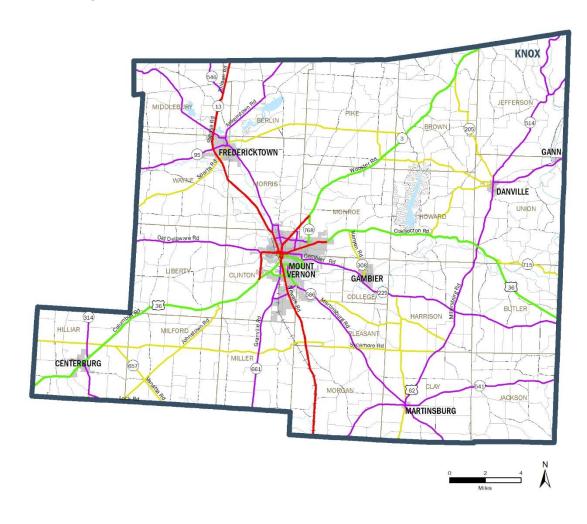
Non-personal vehicle modes serve the transportation needs of few Knox County residents. However, the need and demand for transit and bikeways is changing in response to both underlying demographic changes in central Ohio's population and cultural preferences. Changing cultural preferences for transportation are evident from foreign born populations, younger and older generations. Recently, these populations have expressed a desire to live in communities with access to transit and that are pedestrian and bike friendly.

Individuals may be unable to afford a motor vehicle, or lack the ability or interest to drive. Public transit and adequate bike and pedestrian paths may provide the only independent means of transportation. These modes preserve the connection to work, daily living needs, medical appointments and other destinations. For riders of choice, alternative transportation options may offer a more convenient, economical and or environmentally friendly choice over other modes of transportation. The very presence of convenient and accessible alternative transportation options may help attract and retain a skilled workforce and enhance the quality of life.

The first of the following two maps displays the functional classification system of roadways in Knox County. Roadways are classified based on the role and function each roadway serves within the larger system. Interstates and expressways have very limited access and carry a high volume of vehicles making regional trips. Arterials primarily provide mobility, but also provide access to abutting land uses, unlike interstates and expressways. Collectors carry lower volumes of traffic and provide more access points to local roads and destinations. Local roads generally are not intended for long distance travel. Their main function is to provide access to homes and businesses. For this reason, the information and projects presented in the CORPO plan focus on interstates, expressways, arterials, and collectors only, as they make up the most important roadways in the roadway network. The second map displays bike and pedestrian paths within Knox County.



Current Roadway Network



CENTRAL OHIO RURAL PLANNING ORGANIZATION

Functional Classification

Principal Arterial

Minor Arterial

Major Collector

Minor Collector

Local

CORPO County

Township Boundary



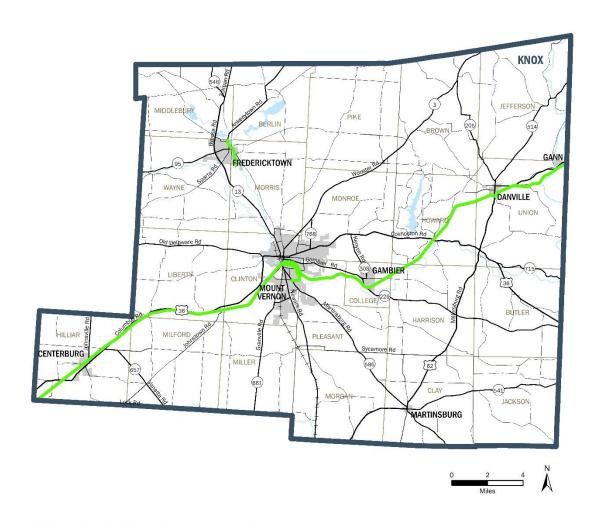
The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Source: ODOT



Bike and Pedestrian - Existing



CENTRAL OHIO RURAL PLANNING ORGANIZATION

Regional Trails and Bikeways ---- Existing CORPO County Township Boundary Ohio Location Map Source: MORPC, Local Governments

The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Travel Demand Management Services

Limited funding for expanded highways, unstable fuel prices, increased congestion, and concern for our air quality emphasize the need for reducing driving alone in urban and suburban areas. For many years now, transportation demand management (TDM) strategies have shown effectiveness in reducing traffic congestion and environmental pollution caused by motor vehicles.

Managing transportation demand should not be relegated to just urban areas. The TDM strategies and projects focus on the opportunities to rideshare, use transit, bike, or walk to meet some of the travel needs of the region. Alternatives that reduce travel demand also include telecommuting and alternate work schedules that compress the work week or allow for commuting at non-peak hours. The table below outlines the modes Knox County commuters utilize.

Knox County Gohio Commuter Data				
Year	2015 5YR ACS			
Total Commuters	27,444			
Drive Alone	78%			
Alternative	22%			
Carpool	10%			
Transit	0.3%			
Walk	4.9%			
Telecommute	5.5%			
Other	1.4%			

Due to decades of sprawling urban and exurban growth, Central Ohio commuters have become primarily dependent on the vehicular transportation. Knox County, which is a primarily rural area, is no exception to this. Of the nearly 28,000 commuters in Knox County, 78 percent drive alone and 22 percent utilize an alternative method. This percentage may seem high, but comparatively, 81 percent of commuters in Franklin County, a larger and more urbanized county with 25 times the number of commuters, 81 percent are driving alone while 19 percent utilize alternative transportation options. For example, 10 percent of commuters in Knox County participate carpool services alone.



Travel Demand Management Services - Continued

In order to identify the needs of people with mobility access issues, local governments develop coordinated public transit - human services transportation plans, or *Coordinated Plans*. The purpose of coordinated plans is to identify community resources for transportation and mobility, understand the gaps and unmet needs within those resources and to determine the approach to addressing those gaps and unmet needs. Although ODOT does not require local governments to produce a coordinated plan, it is required for eligibility for the Federal Transit Administration's Section 5310 program funds. The purpose of the 5310 grant program is to enhance the mobility of seniors and individuals with disabilities. Private nonprofit organization or state or local governments may apply for the grant if they are approved to coordinate services for senior and individuals with disabilities. ODOT makes 5310 project selections for small and rural Ohio counties. Therefore, ODOT must ensure that coordinated plans are in compliance with federal transit law. ODOT encourages coordinated plans to go beyond the requirements of Section 5310 funding to include analysis of needs and development projects to address the mobility needs of the general public.

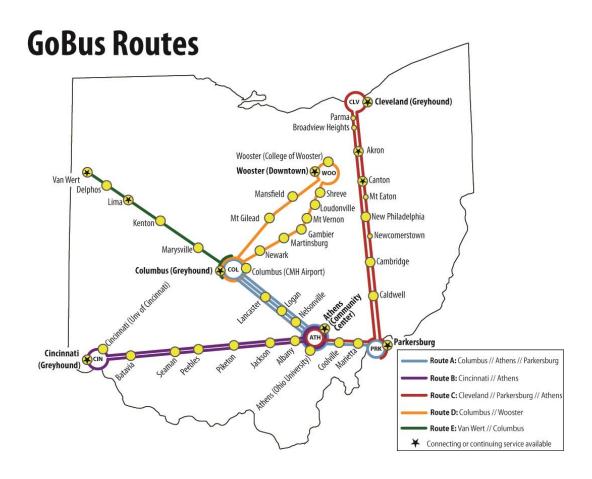
Knox County completed a coordinated plan in April 2017.



Transit Services

Transit services in Knox County are provided by the Knox Area Transit (KAT). Currently Knox Area Transit provides on-demand and scheduled shuttle service within the City of Mount Vernon. Rural or out of county transportation services are provided for a fee. Fares ranges from \$4.50 to \$7.50 for on demand services while the shuttle fare is \$1.00 and \$0.50 for the disabled and the elderly.

Rural inter-city bus service is provided by Gobus. This service is designed to address low cost and geographically accessible intercity bus transportation needs of the entire state by supporting projects that provide transportation between non-urbanized areas and urbanized areas that result in connections of greater regional, statewide, and national significance. Funding for the rural inter-city bus is administered by ODOT, and the service is currently operated by Baron Bus Lines.



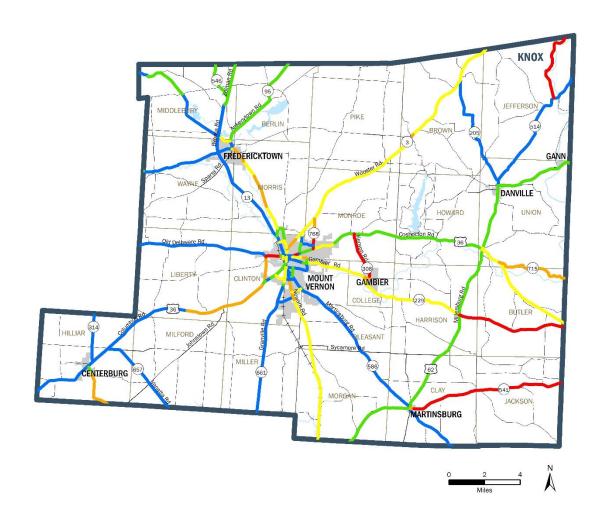


Transportation Infrastructure Conditions

Understanding the physical condition of a transportation is vital to resource management and the two following maps display the physical condition of both the roadway network (pavement) and bridges in Knox County.



Transportation Infrastructure Conditions



CENTRAL OHIO RURAL PLANNING ORGANIZATION Pavement Condition Rating Below 56 Poor CORPO County 57 - 65 Fair to Poor Township Boundary 66 - 75 Fair 76 - 90 Good 91 - 100 Very Good Source: ODOT

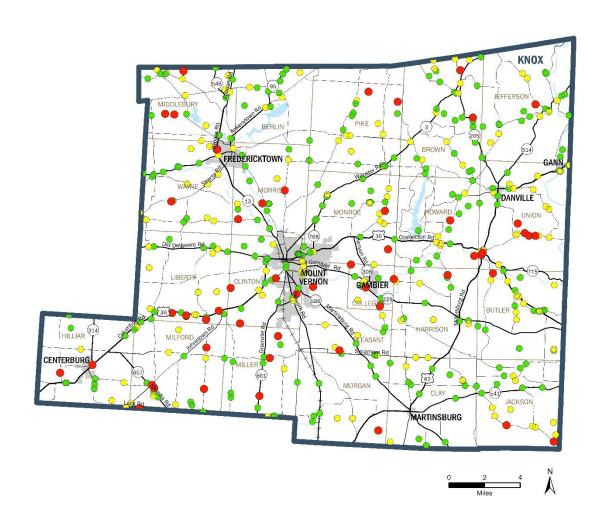


The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Transportation Infrastructure Conditions Cont.





5 - 6 Likely Needs Maintenance 7 - 9 Good

Township Boundary

Source: ODOT



The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Freight

Goods are moved, transferred, and distributed from Knox County to destinations across the United States and around the world. Whether by truck, rail, or air, Knox County's efficiency in the movement of goods is an important part of the region's economic competitiveness, trade, and commodity flow. Knox County and our region's economy as a whole have benefited from its multimodal transportation assets for many decades. Today, Knox County is home to an airport and is crossed by arterial rail corridors as well as US 36 and SR 13. State Route 13 provides access to interstate 71. Knox County is strategically located within a 10-hour truck drive of 47 percent of the United States population and 61 percent of its manufacturing. The first of the following four maps details freight related infrastructure in Knox County.

Congestion

There are a couple of aspects of the roadway system condition to consider. First is the physical condition — are the roadways and bridges in good repair? Section 3.3 outlined that aspect. Second, how does the roadway operate in terms of level of congestion? Using average daily traffic count data as well as travel time data covering all weekdays of 2016 except federal holidays. CORPO was able to map traffic volumes as well as congested areas within Knox County. The second, third and fourth of the following maps display the, average daily traffic volumes and the percentage of congested days, separated into AM and PM periods.

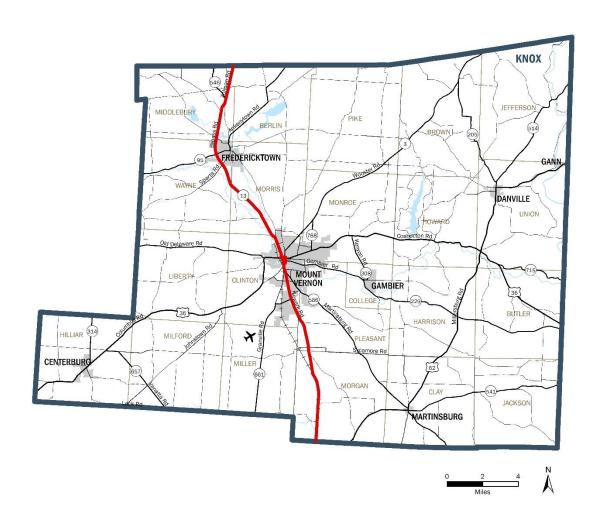
The percentage of congested days is identified if the travel time in at least three 5-minute intervals during the peak period of the day considered is 50 percent greater than the travel time under free-flow condition. That means, for at least fifteen minutes each AM or PM period, travelers would spend more than 50 percent extra travel time on the segment. The percentage of congested days is then calculated by dividing the total number of congested days by the total numbers of the non-federal-holiday weekdays in the period of interest.

Basically, this "percentage" measure can be interpreted approximately as below:

<=20%: 1 day or less per week 20 - 60%: 2 to 3 days per week > 60%: 3 + days per week



Freight



CENTRAL OHIO RURAL PLANNING ORGANIZATION

Freight

Airport
CORPO County
Township Boundary
Railroad
Source: ODOT

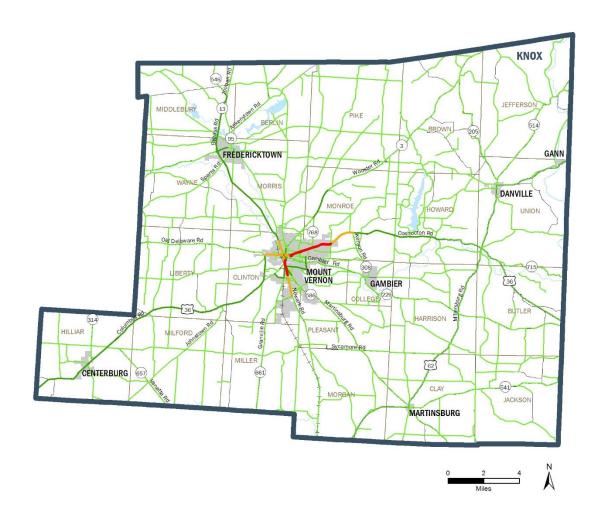


The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Traffic Volumes



CENTRAL OHIO RURAL PLANNING ORGANIZATION

Ohlo
Location
Map

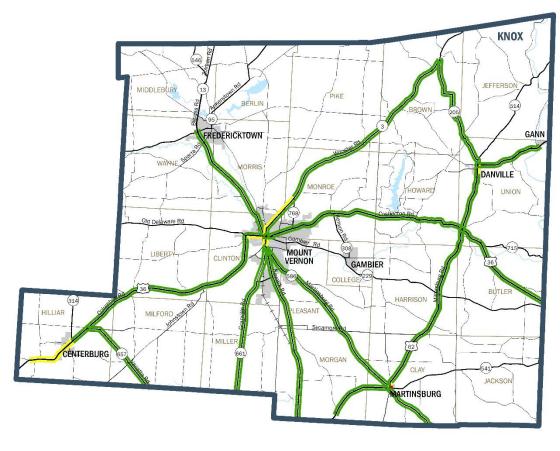
The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Source: ODOT TIMS 2015



Traffic Congestion - 6:00 - 9:00 AM







CENTRAL OHIO RURAL PLANNING ORGANIZATION

% Days Congested 2017 AM *

CORPO County

Township Boundary

* Congestion: more than 50% extra travel time

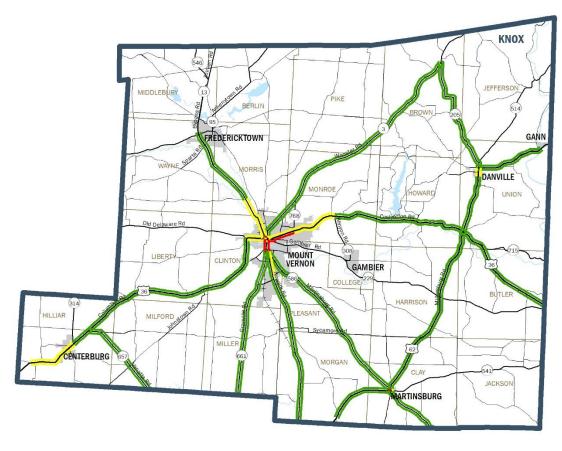
Source: INRIX Travel Time data



The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_KNO_CongestionAM.mxd 3/29/2018



Traffic Congestion - 3:30 - 6:30 PM







CENTRAL OHIO RURAL PLANNING ORGANIZATION

% Days Congested 2016 PM *

CORPO County

Township Boundary

* Congestion: more than 50% extra travel time

Source: INRIX Travel Time data



The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Safety - (Please reference the summary and table on the following page.)

The primary function of a transportation network is to move people and goods from their origin to destination as safely as possible. If a network is unsafe, its utility is greatly diminished. One way to determine which areas of the network may have a safety issue or where these issues may one day arise is to collect and analyze crash data. Please see the Knox County Safety Summary on the next page.

Safety - Crash Statistics

Unlike state and national trends, the number of reported crashes and fatal crashes in Knox County has decreased in recent years. In Knox County, from 2012 to 2016, the total number of crashes decreased by -11 percent. However, the total number of fatal crashes in Knox County increased from 3 in 2012 to 7 in 2016. On the other hand, the number of crash resulting injuries in Knox County decreased by -9 percent and crashes resulting in property damage decreased by -12 percent.

Safety - Occupant Statistics

The table below outlines the crash related occupant statistics for Knox County between 2012 and 2016. There is was a 4 percent increase in the injury rate from 2012 to 2016.

Safety - Crash Locations and Types

Utilizing crash data collected by both the Ohio Department of Transportation and the Ohio Department of Public Safety, high crash areas of the transportation network are able to be identified. These areas are potential areas of focus for safety improvements.

Identifying these locations will allow law enforcement, emergency responders, transportation officials, government and the general public to target them directly through strategies and planning. The map reflects the denser area of Knox County, such as Mount Vernon, busy intersections like that of US 36 and SR 768 and where SR 13 and 586 meet in the southern side of Mount Vernon.

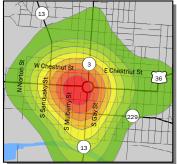
Safety - Rail Crossings

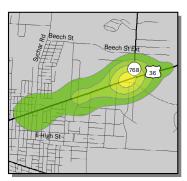
In many areas of the county, different modes of transportation converge. These areas can present significant safety challenges, especially where railroads cross roadways. CORPO with assistance from ODOT has compiled a list, identifying and ranking rail crossings in the county that may be in need of safety improvements. These crossings may be eligible for non-local funds intended to improve safety related infrastructure such as signals, gates and grade. Please reference the full list of identified rail crossings in the appendices.

RELATIVE COUNTY CRASH DENSITY & SAFETY SUMMARY (2012 - 2016):

KNOX COuNty







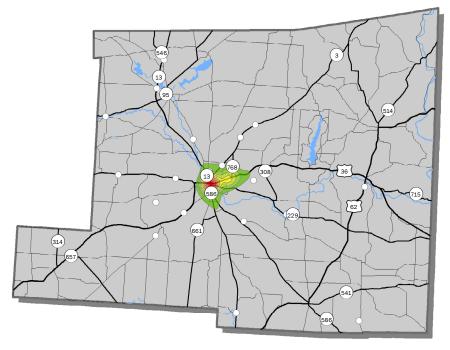






High Crash Density Low Crash Density

O Fatal Crash Location



CRASH TRENDS BY YEAR (2012 - 2016)

	CRASH STATISTICS			TRUCK-	OCCUPANT STATISTICS						
YEAR	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	INJURY RATE	INVOLVED CRASHES	Fatalities	Serious Injuries	Minor Injuries	No Visible Injuries	Total Injuries
2012	3	347	1,088	1,438	24.3%	100	4	75	223	196	498
2013	2	298	944	1,244	24.1%	69	3	60	188	178	429
2014	6	310	1,063	1,379	22.9%	76	6	73	174	212	465
2015	6	297	877	1,180	25.7%	76	6	49	171	197	423
2016	7	316	959	1,282	25.2%	60	8	55	193	206	462
5-Year Total	24	1,568	4,931	6,523	24.4%	381	27	312	949	989	2,277
Annual Average	4.8	313.6	986.2	1,304.6	24.4%	76.2	5.4	62.4	189.8	197.8	455.4
Percent Change (2012 to 2016)	133%	-9%	-12%	-11%	4%	-40%	100%	-27%	-13%	5%	-7%

- Shaded orange cells indicate the year with the highest value for each respective column.
 Injury Rate is calculated using the following formula: [(#Fatal Crashes+#Injury Crashes)/Total Crashes]



4.1 Population and Employment

Population Projections

One of the ways to predict the stresses a transportation system will endure in the future is to determine the number of people currently living and working in the region and how many will be in the future. Getting an idea of future population gains or losses will assist local governments in responding to these changes. An increase in population typically means more daily commuters on the County's roadways, transit system and trails. More people also mean that there will be an increased demand for goods and services, therefore an increase of trucks on the roads.

According to estimates developed by MORPC, Knox County's total population is expected to remain relatively stable. The county's population is expected to decrease slightly by 2040. Knox County's 2015 population was 60,973 while the 2040 population is projected to be 59,983. This is a 2 percent decrease in population over 25 years in Knox County. This percentage is comparable to the State's population, which is only expected to grow by one percent. Nearby Franklin County is expected to grow by 32 percent.

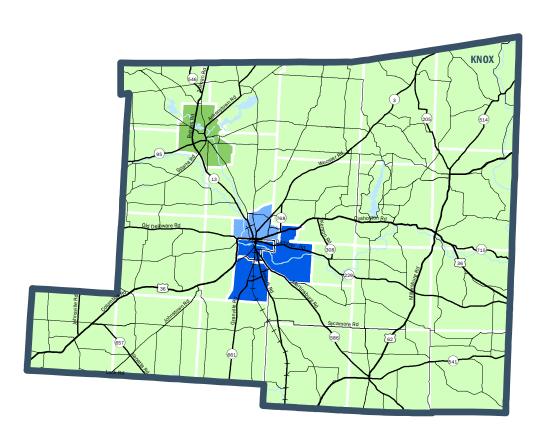
Year	Knox Co.	Ohio	Franklin Co.
2015	60,973	11,549,120	1,250,269
2040	59,983	11,679,010	1,648,891
10 to 40 % Change	-2%	1%	32%

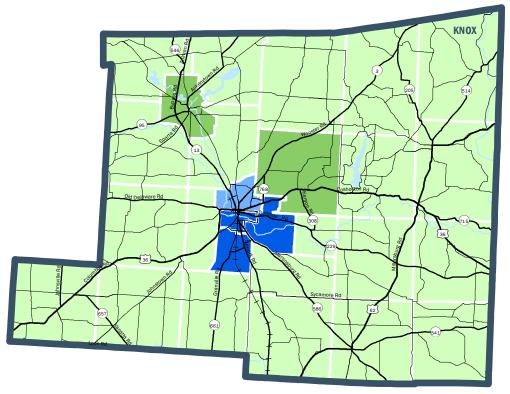
Workforce & Employment

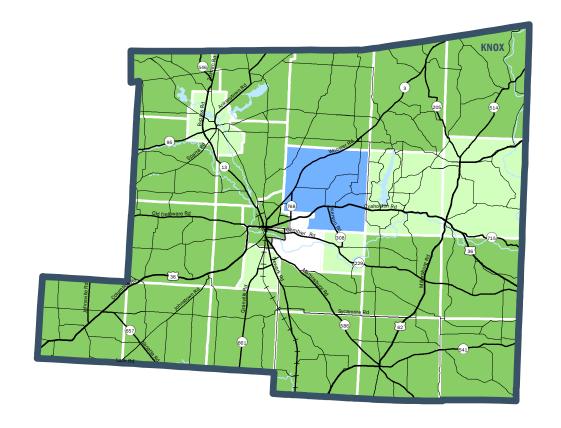
A decrease in population does not imply that there will be a decrease in workforce and jobs. Projections for Knox County indicate that there will be an increase in both. The workforce population living within Knox County and the number of jobs located within the county are both projected to increase by 22 percent by 2040. To better visualize how an increase in workers and jobs will affect the county, they were distributed into Statewide Transportation Analysis Zones (TAZ).

The following series of maps reflect possible future outcomes in the county.

2040 Jobs **2015** Jobs 2015-2040 Job Growth







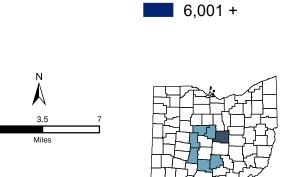
Total Jobs by TAZ

0 - 1,000 1,001 - 2,000 2,001 - 3,000 3,001 - 6,000 6,001 +

Total Jobs by TAZ

< 1,000 1,001 - 2,000

2,001 - 3,000 3,001 - 6,000



Job Growth by TAZ

<-1 0 - 100 101 - 500 501 - 1,500 1,501 - 3,000 3,001 +



Source: MORPC

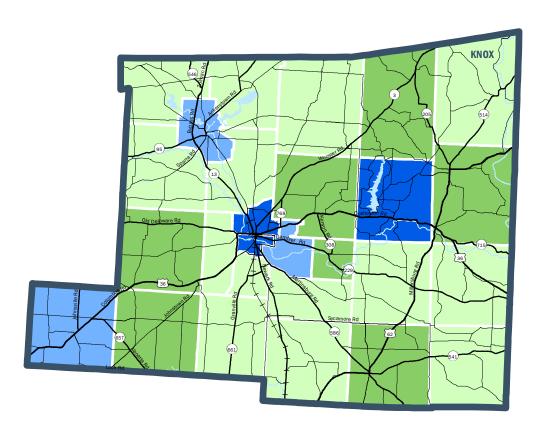
The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\ArcGIS\CORE\RTPO\CORPO_KNO_Job_15_40_swTAZ.mxd 2/16/2018 92

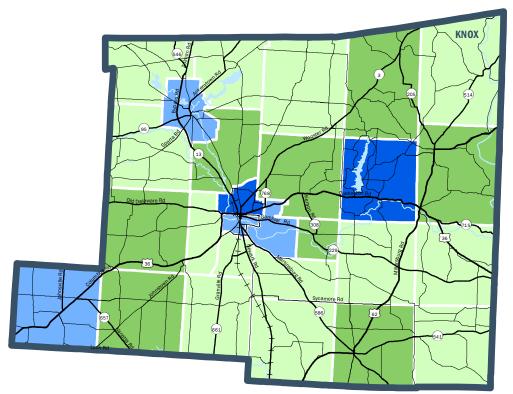
2015: 19,660 2040: 23,900 Growth: 4,240

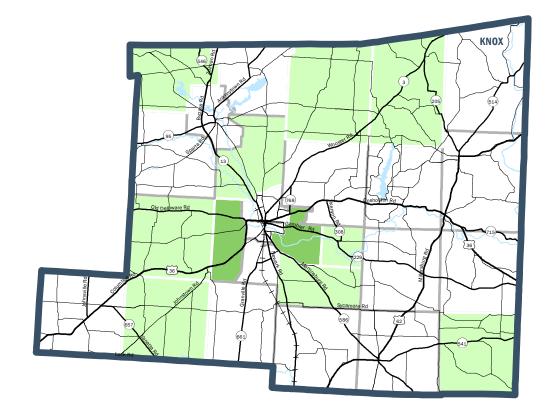
Knox County - Total Jobs



2015 Population 2040 Population







2015-2040 Population Growth

Total Population by TAZ

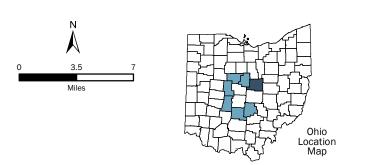
< 1,500 1,501 - 3,000 3,001 - 5,000 5,001 - 10,000 10,001 +

Knox County - Total Population

2015: 60,790 2040: 59,980 Growth: (990)

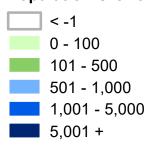
Total Population by TAZ

< 1,500 1,501 - 3,000 3,001 - 5,000 5,001 - 10,000 10,001 +



CENTRAL OHIO RURAL PLANNING ORGANIZATION

Population Growth by TAZ





Source: MORPC

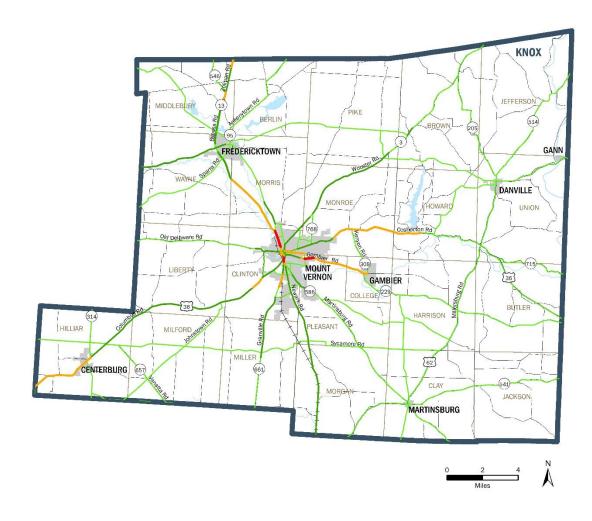
The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\ArcGIS\CORE\RTPO\CORPO_KNO_Pop_15_40_swTAZ.mxd 2/16/2018





4.2 Travel Demand

Traffic Volumes - Future



CENTRAL OHIO RURAL PLANNING ORGANIZATION 2040 Model Volumes

< 5,000
 5,001 - 10,000
 10,001 - 15,000
 15,001 - 30,000

CORPO County
Township Boundary

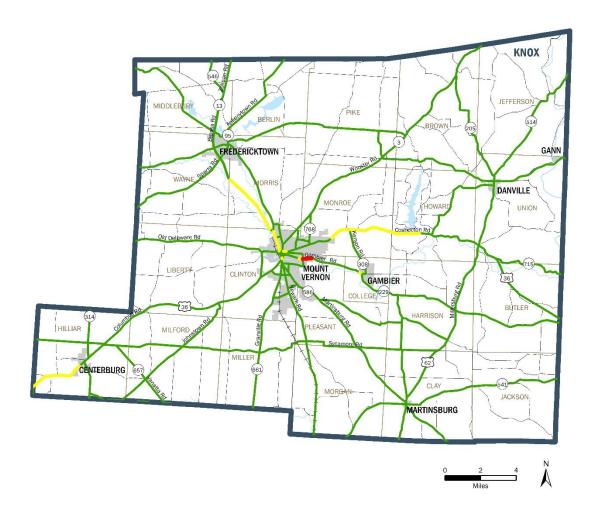
Source: Ohio Statewide Travel Model



The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_KNO_modelvolume_40.mxd 4/27/2018



Traffic Congestion - Future







The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\ArcGIS\CORE\RTPO\CORPO_KNO_modelcongestion_40.mxd 4/27/2018



4.3 Project List – Knox County

One of the primary purposes of the CORPO Transportation Plan is for CORPO members to identify transportation projects of importance in their county. The projects listed on the next few pages include those that add roadway capacity, expand the transit system or provide bicycle and pedestrian facilities. Some of the identified projects encompass the ongoing operation, maintenance and preservation of the existing transportation system. This may include the study, operation and expansion of transit service. However, most of the items listed are projects to expand physical components of the transportation system.

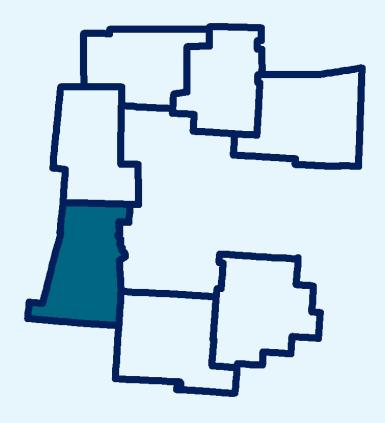
Each project listing provides a brief project description and identifies cost estimates for each project. The associated cost estimates are in construction dollars. The following list includes both short and long term projects that may occur between 2018 and 2040.

2018 - 2040 CORPO Transportation Plan Project Listing Mapped Projects - Sorted by County

Cost

County	□ ¦	Project Description	(Millions)
Knox	I BD	Study improvements and corridors to better connect Mount Vernon and Knox County to I-/1, I-/0, and I-//	IBU
Knox	KN0 5		\$31-\$40
Knox	KNO 7	KNO 7 Oliver Road at US 36/SR 3; Intersection modification	\$1-\$4
Knox	KNO 8	KNO 8 Updike Road at US 36/SR 3; Intersection modification	\$1-\$4
Knox	KN03	KNO 3 Beech Street extenstion from Sychar Road to Mansfield Avenue, also includes alignment of Fairgrounds and Clinton Roads at Old Mansfield Road and	\$9-\$12
Knox	KN0 2	KNO 2 Sandusky St Corridor to SR 13; Other roadway modifications	TBD
Knox	KN0 4	KNO 4 Study Upper Gilchrist Road Extenstion from New Gamibier Rd to Eastern Star Rd	TBD
Knox	TBD	Edgewood Rd. from SR 229 to US 36; Connection and Major Widening	\$7-\$10
Knox	TBD	Murray Rd Improvements from SR 586 to SR 13; Other roadway modifications	TBD

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Madison County

Transportation Plan 2018-2040

Section 3C of CORPO 2018 - 2040 Transportation Plan







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1.0 CORPO OVERVIEW



CORPO Background and Purpose

On July 1, 2013, ODOT began a two-year pilot program with five multi-county planning organizations (or councils of government) providing them with funding to conduct regional transportation planning in coordination with local stakeholders, Ohio MPOs, and ODOT. Much of Ohio's non-metropolitan local official coordination occurs between ODOT and these organizations. The five organizations cover 34 non-metropolitan counties in Ohio.

On January 27, 2016, Governor John Kasich formally designated each of these five agencies as an Ohio Regional Transportation Planning Organization (RTPO). These designations formalize the program that started as a pilot and will help spur better and more informed transportation decision making in Ohio.

Following the Ohio Department of Transportation's (ODOT) two-year pilot program to establish RTPO's, local governments in Central Ohio began discussing the opportunity to form a sixth Rural Transportation Planning Organization around the Mid-Ohio Regional Planning Commission (MORPC) which is the Metropolitan Planning Organization (MPO) for the Columbus urban area. MORPC's role as MPO and mentor in the pilot program encouraged its member governments outside the MPO to consider forming an RTPO. In response, MORPC began to work with the interested Central Ohio counties to form a Rural Planning Organization (RPO) area, a precursor to being a fully recognized RTPO. A designation that requires the submission of a long-range transportation plan to ODOT. The seven member counties include Fairfield, Knox, Madison, Marion, Morrow, Pickaway and Union. MORPC organized the counties to engage as an RPO, CORPO was created, and in preparation to become a state-designated RTPO this CORPO Transportation Plan was completed.

By July 2016 each member county passed resolutions to join the Central Ohio Rural Planning Organization (CORPO). Once approved to move forward with the development of CORPO, staff began the process of forming the CORPO Committee. The CORPO Committee is the guiding body for the development of the CORPO Transportation Plan. All seven CORPO member counties also established RPO subcommittees and designated representatives from each county at CORPO Committee. These decision were governed by a set of bylaws previously adopted by the CORPO Committee. The CORPO Committee convened on numerous occasions to establish an overarching vision for the RPO transportation plan. This vision was used to develop the overarching goals and objectives of the plan. Staff, in cooperation with the CORPO Committee and county-level RPO subcommittees went to work on a transportation plan which includes seven county-level sections. These sections were then merged into a unified plan for CORPO, culminating in a list of transportation projects for the region. Section 3C represents the county-level section for Madison County.

2.0 GOALS AND OBJECTIVES



Goals & Objectives

Preserve and Maintain the Existing Transportation System in a State of Good Repair

- Minimize the number of bridges structurally deficient or functionally obsolete
- Maximize the miles of pavement in acceptable condition
- Maximize resources dedicated to maintain and improve the condition of the transportation system

A Safe Transportation System for All Users

- Minimize crashes including pedestrian and bicycle related crashes
- Promote system user education to minimize unsafe driving behaviors such as a lack of seatbelt use, distracted driving, impaired driving and others

Accessibility and Mobility Options for all Users

- Build facilities that accommodate all users such as those using transit, walking and bicycling
- Expand public transportation within and between communities
- Expand the bicycle and pedestrian networks
- Expand options that assist those living in poverty or in areas with lower accessibility in reaching employment, healthcare or services

An Integrated, Connected and Coordinated Transportation System

- Increase outreach to advocacy and community groups including area residents, local governments, agencies and organizations
- Improve connections between regions by utilizing various modes of transportation, including passenger rail
- Increase local community collaboration and coordination efforts to achieve mutually beneficial outcomes

A Transportation System that Promotes a Collaborative and Focused Approach to support Economic Vitality

- Improve strategic freight related facilities (e.g. highway, rail, intermodal, etc.)
- Develop priority multipurpose corridors (e.g. utilities, water, broadband, fiber, etc.)
- Maximize return on investment to position the region to compete globally and efficiently
- Provide transportation facilities that enhance the transition between rural and urban areas
- Enhance engagement with regional partners and voices

Preserve and Enhance Environmental Resources and Sustainability through the Transportation System

- Increase use of non-single occupant vehicles (local transit, intercity transit, ridesharing, biking, walking)
- Provide transportation facilities consistent with local land use, environmental and sustainability plans



3.1 Demographics

Population

According to Census population estimates, Madison County's population was 43,419 in July 2016. Madison County's population has remained relatively the same since 2010.

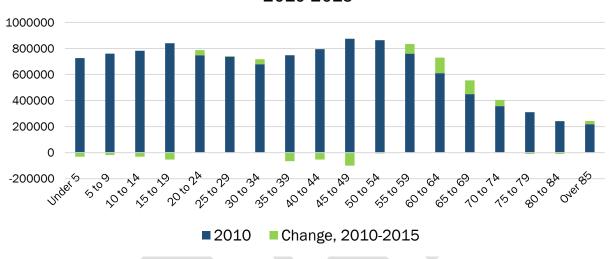
Madisor	n County Population Es	stimates
Year	Population	2010 - 2016 % Change
2010	43,393	
2011	43,065	
2012	42,968	
2013	43,242	
2014	43,954,	
2015	44,103	
2016	43,419	0%

Age

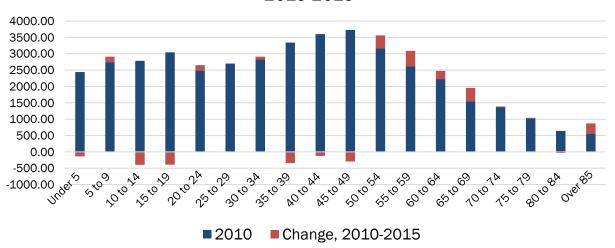
Madison County's median age of 38 years is comparable to that of the State of Ohio, also at 38 years. Neighboring Franklin County has historically been a younger county with a median age of 35, because of the large population of university students. However, like the rest of Ohio, Madison County residents are aging and will face challenges in the future as this population leaves the workforce and enters retirement. The 55+ age cohort of both Ohio and Madison County is increasing. This is consistent with the findings in insight2050, a collaborative initiative among public and private partners designed to help communities proactively plan for development and population growth over the next 30+ years that is expected to be dramatically different from the past.



Change in Population by Age Cohort in Ohio 2010-2015



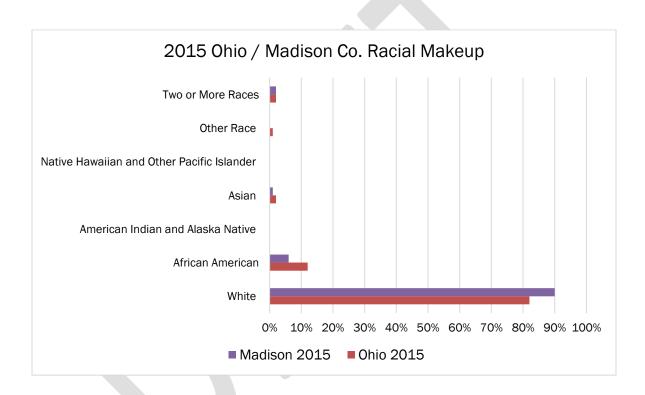






Diversity

Central Ohio is primarily white and Madison County is no exception. In 2015 Madison County's population was 90 percent white. Madison County is less diverse when compared to Ohio as a whole. That same year it was estimated that Ohio was 82 percent white, 12 percent African-American and roughly the same comparatively for other races.





Families and Households

The users of a transportation system come from diverse backgrounds, socioeconomic statuses and household structures. Of all the households in Madison County, 71 percent are family households and 16 percent of those are single parent families. Madison County households are balanced as they include almost as many people over 60 years of age as those under 18.

Madison County Households (HH)				
HH Type	%	Average		
Families	71%			
Non-Family	29%			
Single Parent	23%			
HH Size		2.57		
Family Size		3.05		
HH with 60+	38%			
HH with under 18	34%			



Home Ownership

Homeownership has traditionally been a goal for most Americans and a factor in determining wealth in the United States, but recently there have been changes to these societal norms. For decades the suburbs exploded as people moved out of urbanized areas and utilized highways to get to and from work. Now, with increased traffic, higher fuel prices, a recovering housing market and more environmentally conscious commuters who would like to be closer to amenities, the demand for denser, centrally located housing options has increased. Because of this demand, mixed-use developments have begun to pop up in metro areas across the state, increasing the number of available rental options with them.

Ohio Housing Tenure			
Year	% Rent	% Own	
2010	31%	69%	
2015	34%	66%	
10 to 15 Change	+3%	-4%	

Madison County Housing Tenure				
Year	% Rent	% Own		
2010	29%	71%		
2015	30%	70%		
10 to 15 Change	+1%	-1%		

Although Ohio appears to have seen an overall increase in renters, Madison County has maintained its tenure breakdown from 2010 to 2015. In comparison, in nearby Franklin County where denser development has occurred over the last five years. The increase in residents who rent went from 43 to 46 percent.



Employment

As of April 2017, Madison County's unemployment rate was 3.2 percent. This rate is low when compared to the State of Ohio, where the rate was 4.4 percent. Yet, Ohio's rate was slightly higher than the national rate of 4.1 percent that same month. Madison County's unemployment rate is a positive, not only because it is low but because it has steadily declined over the last five years.

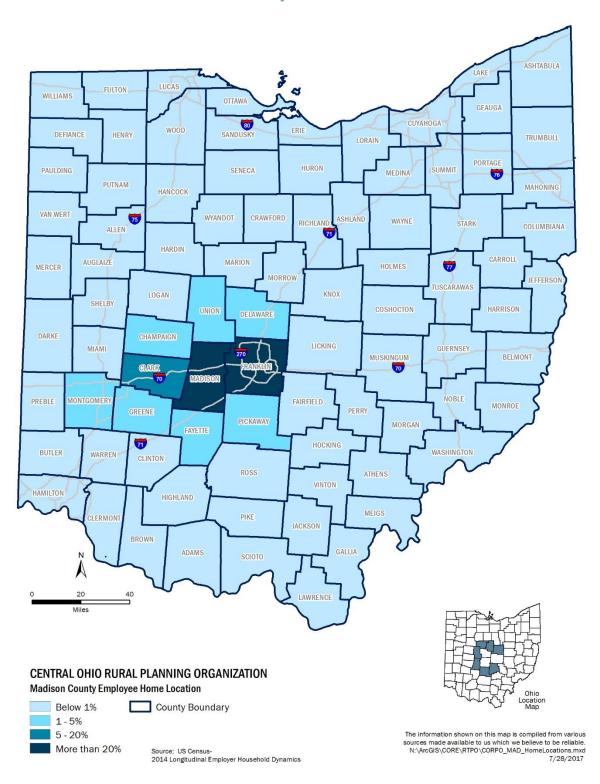
The labor participation rate in the county, a measure of those who are currently working or actively looking for work was 58.6 percent in 2016.

Madison Cour	nty Unemployment Rates
2013	6.3%
2014	4.7%
2015	4.0%
2016	3.8%
April 2017	3.2%
13 to 17 Change	- 3.1%

When considering employment, knowing the number of people in your community who are employed and how they get to work is very important. To make appropriate transportation planning decisions, knowing where they work is vital. The majority of workers employed in Madison County live primarily in Madison, Franklin and Clark counties. Madison County residents are primarily employed in Madison and Franklin counties.

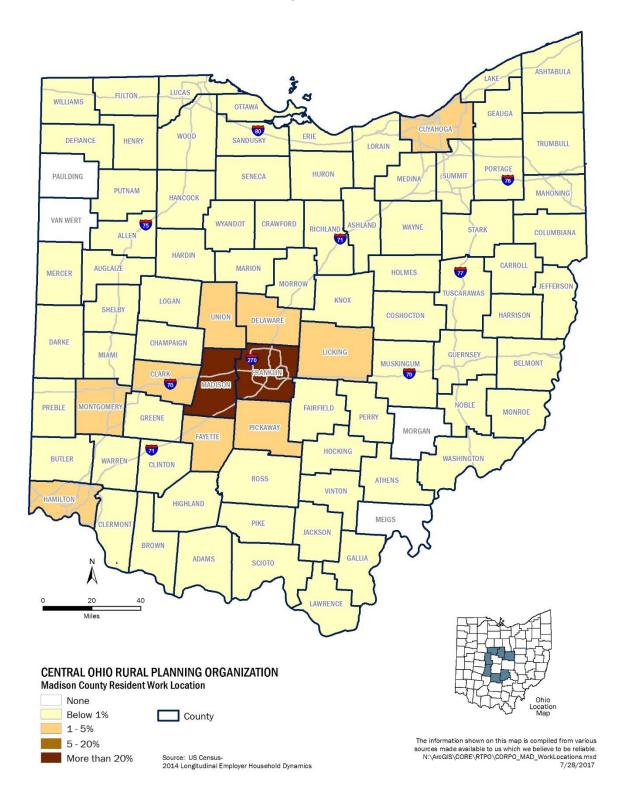


Worker Commute - Where Madison County Workers Commute From





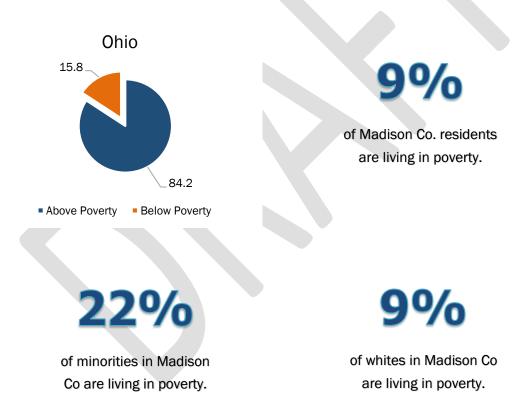
Worker Commute - Where Madison County Residents Commute To





Income and Poverty

Unfortunately, a low unemployment rate does not mean that there are not residents struggling with poverty in Madison County. According to Census data, the percentage of Madison County residents living below the poverty line in 2015 was estimated to be 9 percent. The percentage decreased from the 11 percent estimated in 2012. Also, the rate is comparatively low to that of the state, which is currently 15.8 percent, and neighboring Franklin County, where the percentage is estimated to be 17.5. Minority populations in Madison County appear to make up a disproportionate percentage of those living in poverty. In Madison County, 22 percent of minorities are living below the poverty line while 9 percent of whites are. Additionally, 14 percent of those living in poverty are children 18 years of age and under, compared to 22.8 percent at the state level. In London, the largest jurisdiction in Madison County, 13.3 percent of residents live below the poverty line.



As the percentage of those living in poverty has decreased, the median income for Madison County residents increased. In 2015 the median household income in Madison County was \$57,406, a significant increase from the estimated \$50,533 in 2010. Madison County's median income is considerably higher than that of the state however, which in 2015 was \$49,429, an increase from the 2010 median income of \$47, 358.



Vehicle Access

Little or no access to reliable personal or public transportation can create a multitude of daily challenges. Of the 14,906 households in Madison County, 6 percent reported no vehicle in the home in 2015. This is a slightly smaller percentage than that of the state, which reported 8 percent that same year. That means just under 1,000 households in Madison County have to plan trips to work, school or medical appointments in advance and may be dependent upon others to make it to any of those. In a county with limited public transit options, this can create real obstacles.

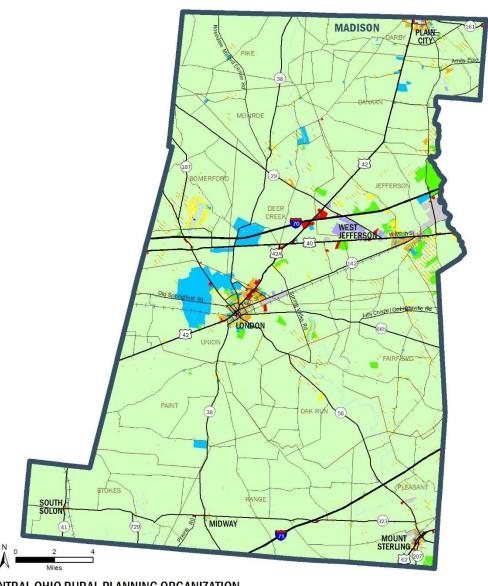
3.2 Land Use / Development

Madison County continues to attract new residents and jobs. Changes to the marketplace include an aging population and an increase in young adults. This typically means there is a desire for multiple transportation options. The way the county develops directly influences the CORPO plan's goals and objectives. Local land use decisions can affect access to amenities, employment and attractions and transportation systems can affect development decisions.

Recognizing how land use decisions affect the quality of place and how well it attracts and retains workers is important. These decisions can support economic opportunity by accommodating businesses' needs for transportation capacity and reliability. As a part of large metropolitan area, Madison County may benefit from seamless transitions between communities through coordinated development approaches, which would allow the transportation system of roads, bikeways, and pedestrian ways to be continuous for regional connectivity. The following two maps display the existing land uses as well and the various points of interest and for Madison County. ("Public Places" in the points of interest map includes locations such as historical sites, fairgrounds, community and recreation centers, theaters and concert halls, museums and libraries.)



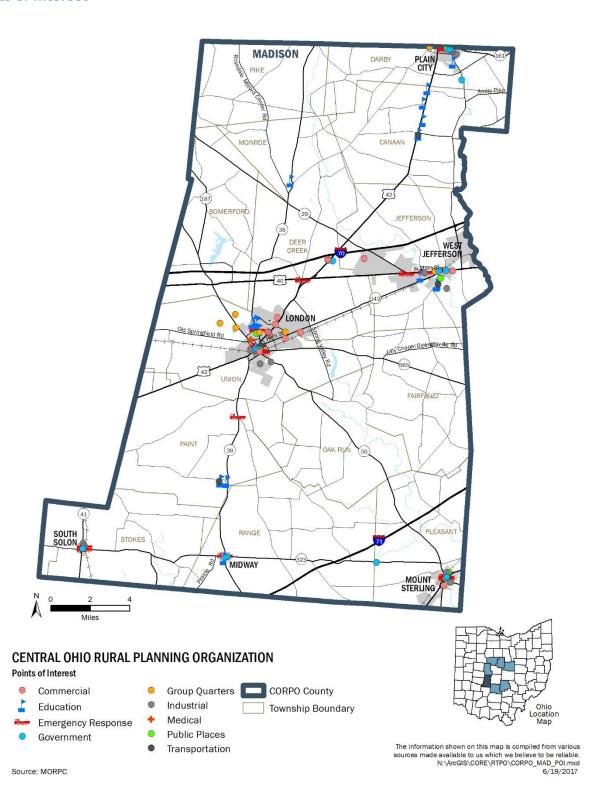
Existing Land Use



CENTRAL OHIO RURAL PLANNING ORGANIZATION **Existing Land Use** Commercial Rural Residential (2-20 acre lots) Office Agriculture Industrial **Public Service** Park/Open Space Quarry High Residential (8-20+ units per acre) Warehouse Medium Residentail (3-8 units per acre) Vacant Low Residential (0.5-3 units per acre) Water The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_MAD_LU.mxd CORPO County Township Boundary Source: MORPC, Local Governments



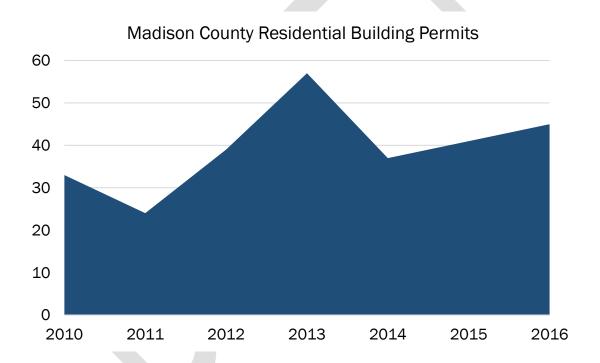
Points of Interest





Residential Permits

One way to track an area's growth is to look at the number of building permits being requested. This data are not always reliable as it is based on whether or not a locality is reporting these permits to the Census. Utilizing data from *Censtats* (US Census), it is safe to suggest that Madison County's annual number of requested building permits has increased significantly. Since 2010 there has been at least a 73 percent increase in annual Census reported residential permits in Madison County.





3.3 Current Transportation Network

The purpose of Madison County's transportation system to safely accommodate the travel needs of its users. Madison County's transportation system is made up of several components or sub-systems that should be seamlessly connected to provide fluid movement of people and goods across the system and the region. These include roadways, transit, railroads, bikeways, pedestrian facilities, and the unique intermodal facilities that interface these surface modes with ground and air freight. These components each serve their own particular role in moving people and goods throughout the region. This section describes these individual systems and intermodal connections that make up the county's surface transportation system.

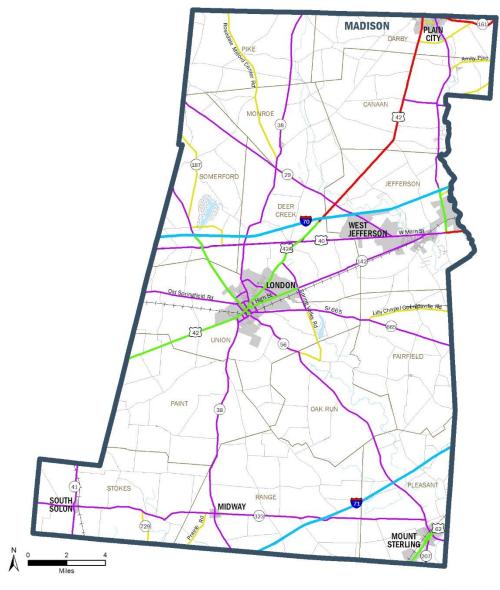
Non-personal vehicle modes serve the transportation needs of few Madison County residents. However, the need and demand for transit and bikeways is changing in response to both underlying demographic changes in central Ohio's population and cultural preferences. Changing cultural preferences for transportation are evident from foreign born populations, younger and older generations. Recently, these populations have expressed a desire to live in communities with access to transit and that are pedestrian and bike friendly.

Individuals may be unable to afford a motor vehicle, or lack the ability or interest to drive. Public transit and adequate bike and pedestrian paths may provide the only independent means of transportation. These modes preserve the connection to work, daily living needs, medical appointments and other destinations. For riders of choice, alternative transportation options may offer a more convenient, economical and or environmentally friendly choice over other modes of transportation. The very presence of convenient and accessible alternative transportation options may help attract and retain a skilled workforce and enhance the quality of life.

The first of the following two maps displays the functional classification system of roadways in Madison County. Roadways are classified based on the role and function each roadway serves within the larger system. Interstates and Expressways have very limited access and carry a high volume of vehicles making regional trips. Arterials primarily provide mobility, but also provide access to abutting land uses, unlike interstates and expressways. Collectors carry lower volumes of traffic and provide more access points to local roads and destinations. Local roads generally are not intended for long distance travel. Their main function is to provide access to homes and businesses. For this reason, the information and projects presented in the CORPO plan focus on interstates, expressways, arterials, and collectors only, as they make up the most important roadways in the roadway network. The second map displays bike and pedestrian paths within Madison County.



Current Roadway Network



CENTRAL OHIO RURAL PLANNING ORGANIZATION



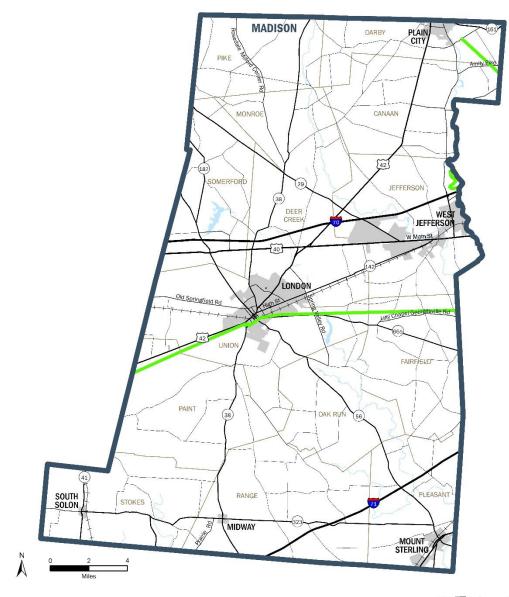


The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Bike and Pedestrian



CENTRAL OHIO RURAL PLANNING ORGANIZATION Regional Trails and Bikeways



Ohio Location Map

Source: MORPC, Local Governments

The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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2/20/2018



Travel Demand Management Services

Limited funding for expanded highways, unstable fuel prices, increased congestion, and concern for our air quality emphasize the need for reducing driving alone in urban and suburban areas. For many years now, transportation demand management (TDM) strategies have shown effectiveness in reducing traffic congestion and environmental pollution caused by motor vehicles.

Managing transportation demand should not be relegated to just urban areas. The TDM strategies and projects focus on the opportunities to rideshare, use transit, bike, or walk to meet some of the travel needs of the region. Alternatives that reduce travel demand also include telecommuting and alternate work schedules that compress the work week or allow for commuting at non-peak hours. The table below outlines the modes Madison County commuters utilize.

Madison County Gohio Commuter Data				
Year	2015 5YR ACS			
Total Commuters	18,113			
Drive Alone	84%			
Alternative	16%			
Carpool	9.4%			
Transit	0.2%			
Walk	1.2%			
Telecommute	3.9%			
Other	1.1%			

Due to decades of sprawling urban and exurban growth, Central Ohio commuters have become primarily dependent on the vehicular transportation. Madison County, which is a mix between urbanized and rural areas, is no exception to this. Of the 18,113 commuters in Madison County, 84 percent drive alone and 16 percent utilize an alternative method. This percentage may seem low, but comparatively, 81 percent of commuters in Franklin County, a larger and more urbanized county with 25 times the number of commuters, 81 percent are driving alone while 19 percent utilize alternative transportation options. For example, 9.4 percent of commuters in Madison County participate carpool services.



Travel Demand Management Services - Continued

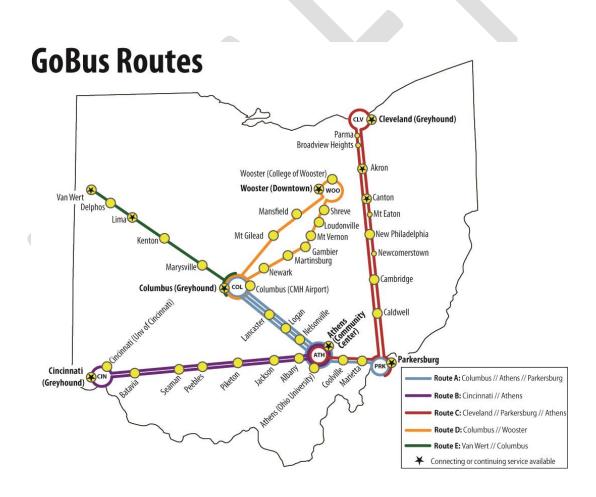
In order to identify the needs of people with mobility access issues, local governments develop coordinated public transit - human services transportation plans, or *Coordinated Plans*. The purpose of coordinated plans is to identify community resources for transportation and mobility, understand the gaps and unmet needs within those resources and to determine the approach to addressing those gaps and unmet needs. Although ODOT does not require local governments to produce a coordinated plan, it is required for eligibility for the Federal Transit Administration's Section 5310 program funds. The purpose of the 5310 grant program is to enhance the mobility of seniors and individuals with disabilities. Private nonprofit organizations or state or local governments may apply for the grant if they are approved to coordinate services for senior and individuals with disabilities. ODOT does make 5310 project selections for small and rural Ohio counties. Therefore, ODOT must ensure that coordinated plans are in compliance with federal transit law. ODOT encourages coordinated plans to go beyond the requirements of Section 5310 funding to include analysis of needs and development projects to address the mobility needs of the general public. Madison County published a coordinated plan in September 2008 and it is currently undergoing an update.



Transit Services

At this time there is no transit service in Madison County.

Rural inter-city bus service is provided by Gobus. This service is designed to address low cost and geographically accessible intercity bus transportation needs of the entire state by supporting projects that provide transportation between non-urbanized areas and urbanized areas that result in connections of greater regional, statewide, and national significance. Funding for the rural inter-city bus is administered by ODOT, and the service is currently operated by Barons Bus Lines.





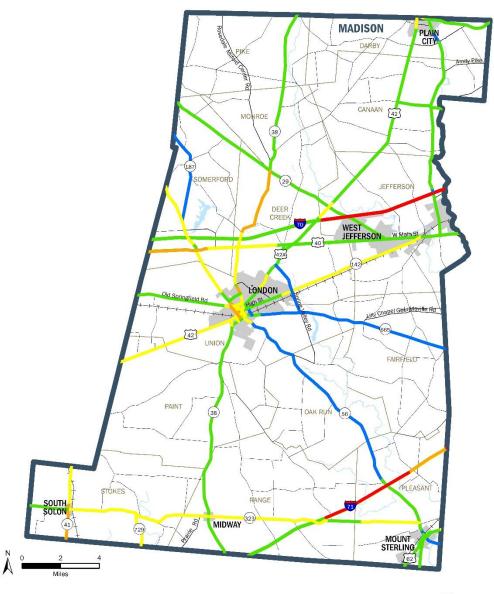
Transportation Infrastructure Conditions

Understanding the physical condition of a transportation is vital to resource management and the two following maps display the physical condition of both the roadway network (pavement) and bridges in Madison County.





Transportation Infrastructure Conditions



CENTRAL OHIO RURAL PLANNING ORGANIZATION



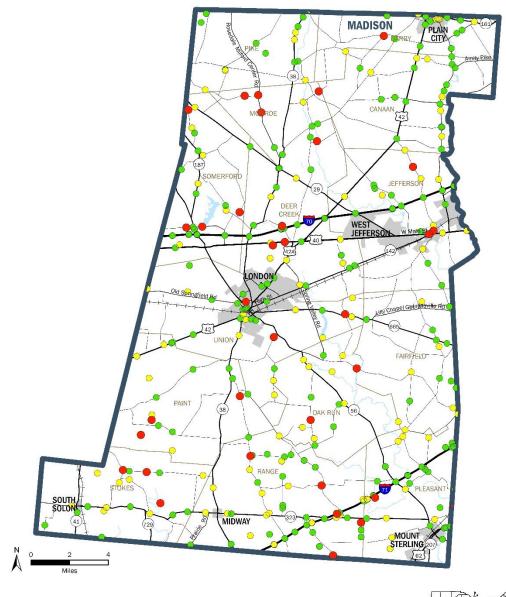


The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Transportation Infrastructure Conditions Cont.



CENTRAL OHIO RURAL PLANNING ORGANIZATION



The Information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_MAD_bridge.mxd 7/25/2017



Freight

Goods are moved, transferred, and distributed from Madison County to destinations across the United States and around the world. Whether by truck, rail, or air, Madison County's efficiency in the movement of goods is an important part of the region's economic competitiveness, trade, and commodity flow. Madison County and our region's economy as a whole have benefited from its multimodal transportation assets for many decades. Today, Madison County is home to an airport and is crossed by arterial rail corridors as well as I-71, I-70 and US 42. Madison County is strategically located within a 10-hour truck drive of 47 percent of the United States population and 61 percent of its manufacturing. The first of the following four maps details freight related infrastructure in Madison County.

Congestion

There are a couple of aspects of the roadway system condition to consider. First is the physical condition — are the roadways and bridges in good repair? Section 3.3 outlined that aspect. Second, how does the roadway operate in terms of level of congestion? Using average daily traffic count data as well as travel time data covering all weekdays of 2016 except federal holidays. CORPO was able to map traffic volumes as well as congested areas within Madison County. The second, third and fourth of the following maps display the, average daily traffic volumes and the percentage of congested days, separated into AM and PM periods.

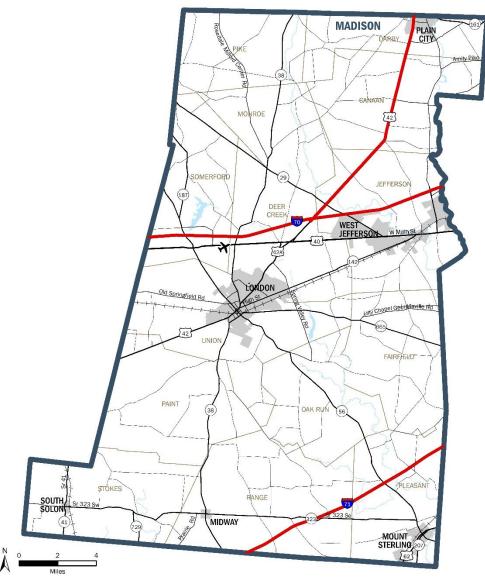
The percentage of congested days is identified if the travel time in at least three 5-minute intervals during the peak period of the day considered is 50 percent greater than the travel time under free-flow condition. That means, for at least fifteen minutes each AM or PM period, travelers would spend more than 50 percent extra travel time on the segment. The percentage of congested days is then calculated by dividing the total number of congested days by the total numbers of the non-federal-holiday weekdays in the period of interest.

Basically, this "percentage" measure can be interpreted approximately as below:

<=20%: 1 day or less per week 20 - 60%: 2 to 3 days per week > 60%: 3 + days per week



Freight



CENTRAL OHIO RURAL PLANNING ORGANIZATION



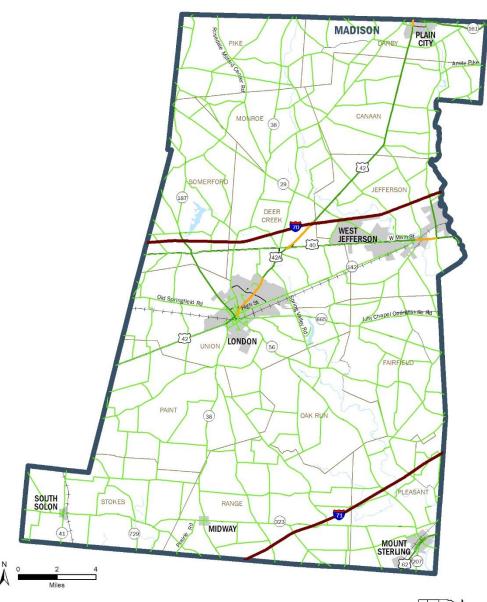


The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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1/23/2018



Traffic Volumes



CENTRAL OHIO RURAL PLANNING ORGANIZATION

2015 Average Daily Traffic Range

< 5,000</p>
5,001 - 10,000
10,001 - 15,000
15,001 - 30,000
>30,000
Source: ODOT TIMS 2015

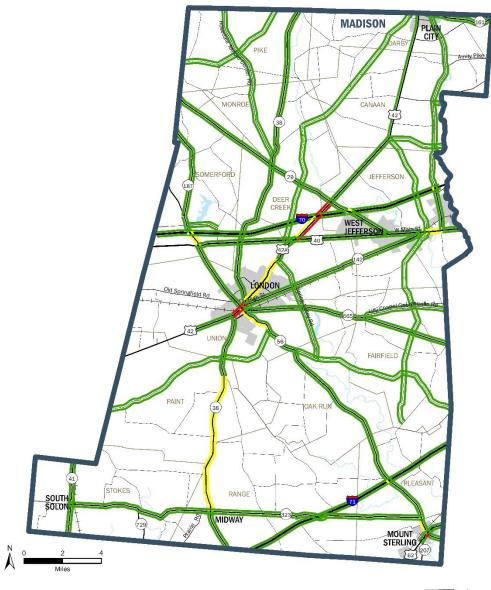


The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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6/28/2017

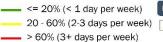


Traffic Congestion - 6:00 - 9:00 AM



CENTRAL OHIO RURAL PLANNING ORGANIZATION

% Days Congested 2017 AM*



CORPO County

k) Township Boundary

Source: INRIX Travel Time data



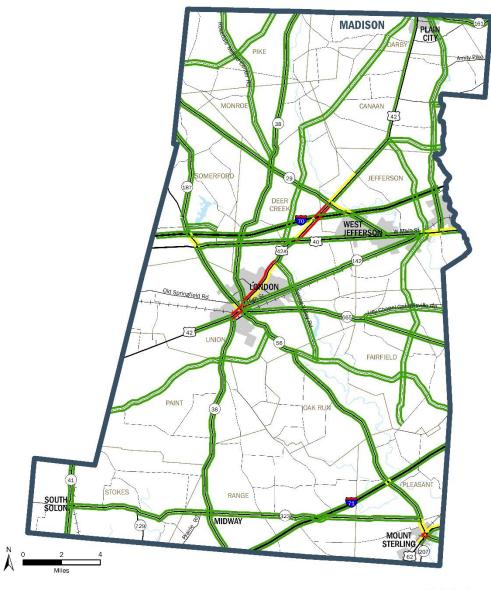
The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_MAD_CongestionAM.mxd 3/29/2018

^{*} Congestion: more than 50% extra travel time

<u>3.0</u> **INVENTORY OF EXISTING CONDITIONS**



Traffic Congestion - 3:30 - 6:30 PM



CENTRAL OHIO RURAL PLANNING ORGANIZATION

% Days Congested 2017 PM*

<=20% (< 1 day per wk)</p> 20 - 60% (2-3 days per wk) Township Boundary > 60% (3+ days per wk)

CORPO County

* Congestion: more than 50% extra travel time

Source: INRIX Travel Time data



The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_MAD_CongestionPM.mxd 3/29/2018



Safety

The primary function of a transportation network is to move people and goods from their origin to destination as safely as possible. If a network is unsafe, its utility is greatly diminished. One way to determine which areas of the network may have a safety issue or where these issues may one day arise is to collect and analyze crash data. Please see the Madison County Safety Summary on the next page.

Safety - Crash Statistics

Similar to state and national trends, the number of reported crashes and fatal crashes in Madison County has been trending slowly upward in recent years. In Madison County, from 2012 to 2016, the total number of crashes increased by 27 percent. Madison County is home to a number of large roadways in the CORPO study area. The number of crash resulting injuries in Madison County increased by 39 percent and crashes resulting in property damage only increased by 22 percent.

Safety - Occupant Statistics

The table and summary on the following page outlines the crash related occupant statistics for Madison County between 2012 and 2016. There is was a 10 percent increase in the injury rate from 2012 to 2016.

Safety - Crash Locations and Types

Utilizing crash data collected by both the Ohio Department of Transportation and the Ohio Department of Public Safety, high crash areas of the transportation network are able to be identified. These areas are potential areas of focus for safety improvements.

Identifying these locations will allow law enforcement, emergency responders, transportation officials, government and the general public to target them directly through strategies and planning. The map reflects the denser areas of Madison County, such as London, West Jefferson and interchanges like that of U.S. 42 and I-70.

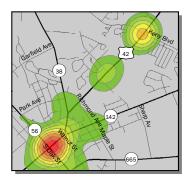
Safety - Rail Crossings

In many areas of the county, different modes of transportation converge. These areas can present significant safety challenges, especially where railroads cross roadways. CORPO with assistance from ODOT has compiled a list, identifying and ranking rail crossings in the county that may be in need of safety improvements. These crossings may be eligible for non-local funds intended to improve safety related infrastructure such as signals, gates and grade. Please reference the full list of identified rail crossings in the appendices

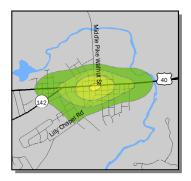
RELATIVE COUNTY CRASH DENSITY & SAFETY SUMMARY (2012 - 2016):

MADISON COuNty











CRASH TRENDS BY YEAR (2012 - 2016)

	CRASH STATISTICS					TRUCK-	OCCUPANT STATISTICS				
YEAR	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	INJURY RATE	INVOLVED CRASHES	Fatalities	Serious Injuries	Minor Injuries	No Visible Injuries	Total Injuries
2012	4	211	633	848	25.4%	129	5	59	120	133	317
2013	4	255	631	890	29.1%	126	4	64	168	138	374
2014	9	252	720	981	26.6%	158	9	54	164	132	359
2015	6	261	637	904	29.5%	122	6	77	205	150	438
2016	5	293	775	1,073	27.8%	179	5	86	208	126	425
5-Year Total	28	1,272	3,396	4,696	27.7%	714	29	340	865	679	1,913
Annual Average	5.6	254.4	679.2	939.2	27.7%	142.8	5.8	68.0	173.0	135.8	382.6
Percent Change (2012 to 2016)	25%	39%	22%	27%	10%	39%	0%	46%	73%	-5%	34%

- Shaded orange cells indicate the year with the highest value for each respective column.
 Injury Rate is calculated using the following formula: [(#Fatal Crashes+#Injury Crashes)/Total Crashes]



4.1 Population and Employment

Population Projections

One of the ways to predict the stresses a transportation system will endure in the future is to determine the number of people currently living and working in the region and how many will be in the future. Getting an idea of future population gains or losses will assist local governments in responding to these changes. An increase in population typically means more daily commuters on the County's roadways, transit system and trails. More people also mean that there will be an increased demand for goods and services, therefore an increase of trucks on the roads.

According to estimates developed by MORPC, Madison County's total population is expected to remain relatively stable. The county's population is expected to decrease slightly by 2040. Madison County's 2015 population was 44,103 while the 2040 population is projected to be 44,939. This is a 2 percent decrease in population over 25 years in Madison County. This percentage is comparable to the State's population, which is only expected to grow by one percent. Nearby Franklin County is expected to grow by 32 percent.

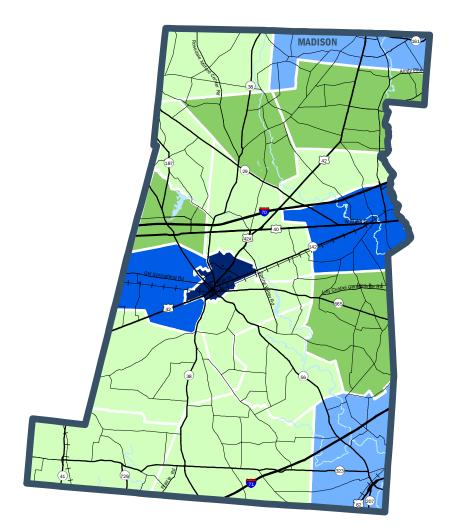
Year	Madison Co.	Ohio	Franklin Co.
2015	44,103	11,549,120	1,250,269
2040	44,939	11,679,010	1,648,891
10 to 40 % Change	2%	1%	32%

Workforce & Employment

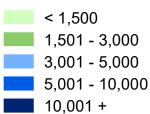
Projections for Madison County indicate the workforce population living within Madison County will decrease by -7 percent while the number of jobs located within the county are projected to increase by 13 percent by 2040. To better visualize how an increase in workers and jobs will affect the county, they were distributed into Statewide Transportation Analysis Zones (TAZ).

The following series of maps reflect potential outcomes in the county.

2015 Population



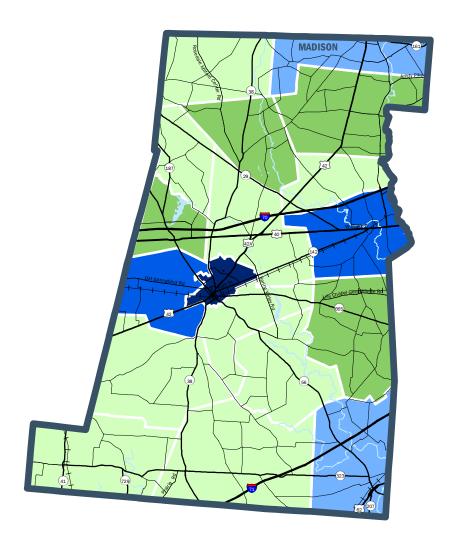
Total Population by TAZ



Madison County - Total Population

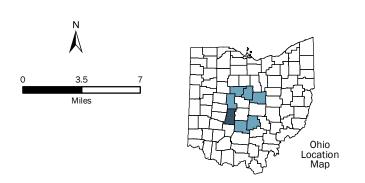
2015: 44,100 2040: 44,940 Growth: 840

2040 Population



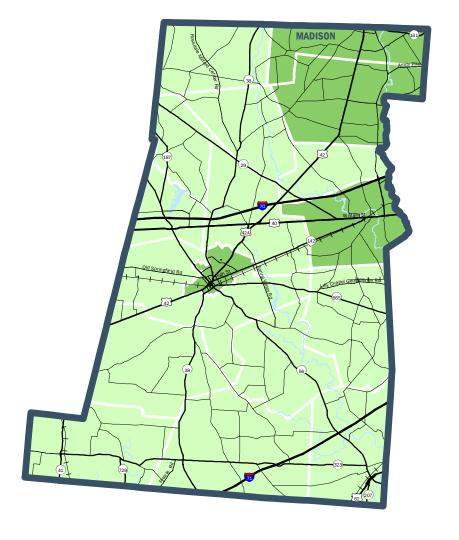
Total Population by TAZ



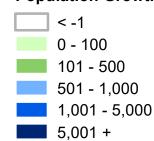


CENTRAL OHIO RURAL PLANNING ORGANIZATION

2015-2040 Population Growth



Population Growth by TAZ



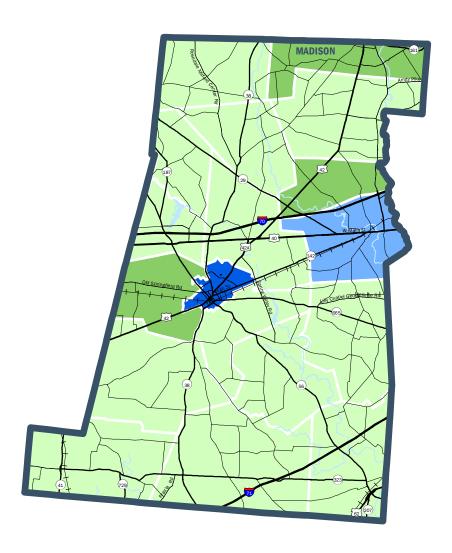


Source: MORPC

The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\ArcGIS\CORE\RTPO\CORPO_MAD_Pop_15_40_swTAZ.mxd 2/16/2018

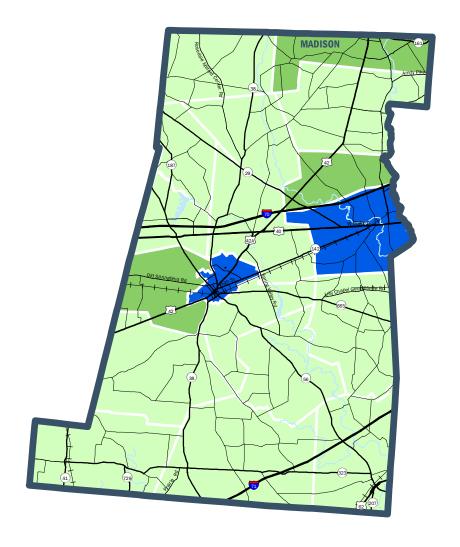


2015 Jobs 2015-2040 Job Growth



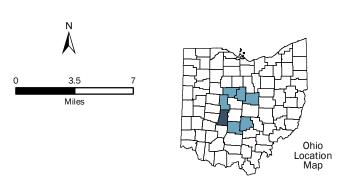


< 1,000 1,001 - 2,000 2,001 - 3,000 3,001 - 6,000 6,001 +



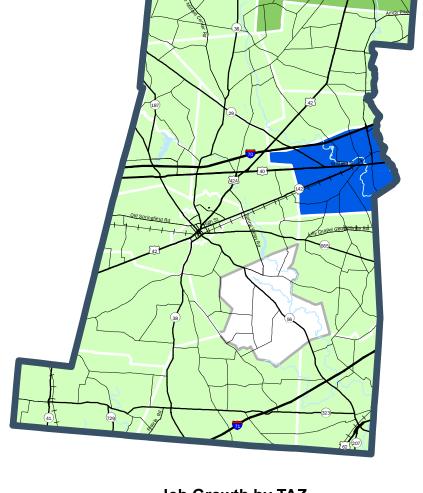
Total Jobs by TAZ

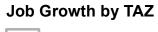
< 1,000 1,001 - 2,000 2,001 - 3,000 3,001 - 6,000 6,001 +

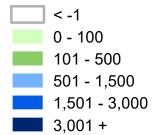


Madison County - Total Jobs

2015: 14,700 2040: 16,650 Growth: 1,950









Source: MORPC

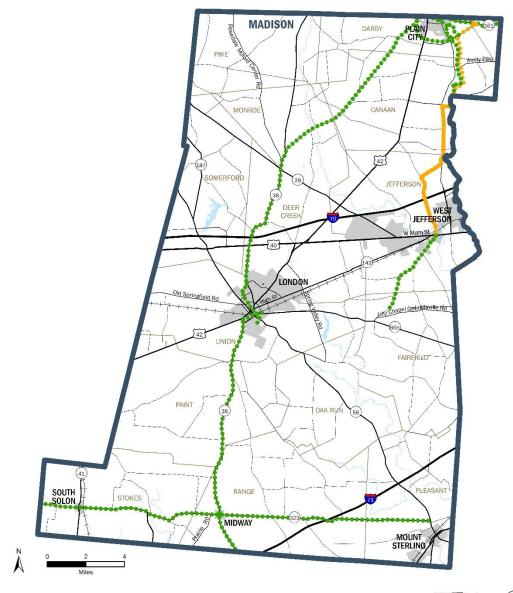
The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\ArcGIS\CORE\RTPO\CORPO_MAD_Job_15_40_swTAZ.mxd 2/16/2018





4.2 Travel Demand

Bike and Pedestrian - Future



CENTRAL OHIO RURAL PLANNING ORGANIZATION Regional Trails and Bikeways

CORPO County
Proposed Township Boundary

Ohio

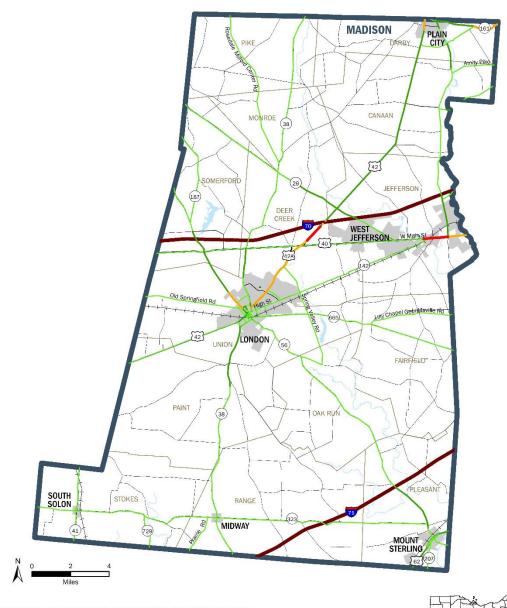
Source: MORPC, Local Governments

The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Traffic Volumes - Future



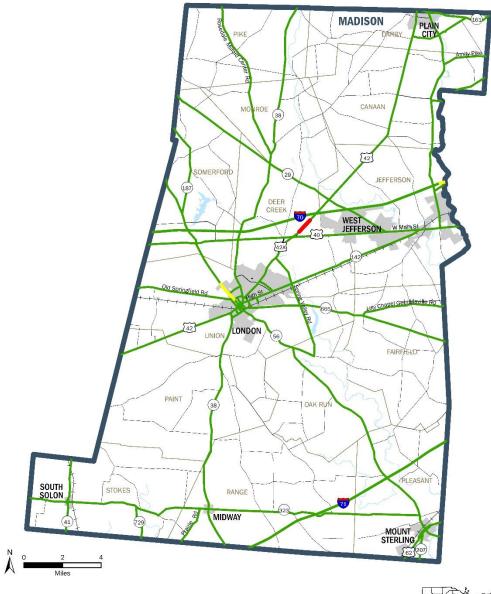
CENTRAL OHIO RURAL PLANNING ORGANIZATION

The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\ArcGIS\CORE\RTPO\CORPO_MAD_modelvolume_40.mxd 4/27/2018

Source: Ohio Statewide Travel Model



Traffic Congestion - Future



CENTRAL OHIO RURAL PLANNING ORGANIZATION

2040 Model Congestion Level

No/Slight Congestion CORPO County

Moderate Congestion Township Boundary

Severe Congestion

Source: Ohio Statewide Travel Model



The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_MAD_modelcongestion. 40.mxd 4/27/2018



4.3 Project List – Madison County

One of the primary purposes of the CORPO Transportation Plan is for CORPO members to identify transportation projects of importance in their county. The projects listed on the next few pages include those that add roadway capacity, expand the transit system or provide bicycle and pedestrian facilities. Some of the identified projects encompass the ongoing operation, maintenance and preservation of the existing transportation system. This may include the study, operation and expansion of transit service. However, most of the items listed are projects to expand physical components of the transportation system.

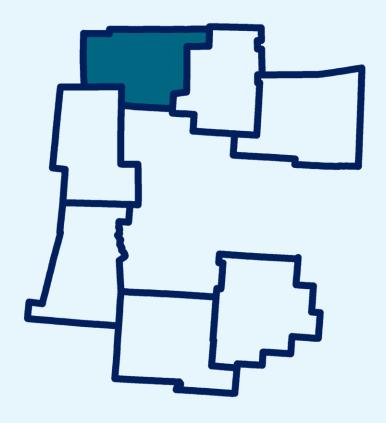
Each project listing provides a brief project description and identifies cost estimates for each project. The associated cost estimates are in construction dollars. The following list includes both short and long term projects that may occur between 2018 and 2040.

2018 - 2040 CORPO Transportation Plan Project Listing Mapped Projects - Sorted by County

County	₽	Project Description	(Millions)
Madison	MAD 2	MAD 2 US 42 from CR 135 (Betty Wilson Road) to CR 104 (Simpson Road); Minor widening	\$10-\$15
Madison	MAD 3	MAD 3 US 42 from CR104 (Simpson Rd) to SR 29; Access Management	\$2 - \$3
Madison	MAD 4	MAD 4 SR 29 from I-70 to north of Main St; Major widening	\$13-\$16
Madison	MAD 8	MAD 8 US 42 / I-70 Expansion; Interchange modification	\$14-\$16
Madison	MAD 9	MAD 9 US 29 / US 40 Realignment; Intersection modification	\$23
Madison	MAD 10	Madison MAD 10 ODOT Study of SR 29 / I-70 Interchange	TBD

Cost

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Marion County

Transportation Plan 2018-2040

Section 3D of CORPO 2018 - 2040 Transportation Plan







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4.2 Travel Demand	178
4.3 Project List	181

1.0 CORPO OVERVIEW



CORPO Background and Purpose

On July 1, 2013, ODOT began a two-year pilot program with five multi-county planning organizations (or councils of government) providing them with funding to conduct regional transportation planning in coordination with local stakeholders, Ohio MPOs, and ODOT. Much of Ohio's non-metropolitan local official coordination occurs between ODOT and these organizations. The five organizations cover 34 non-metropolitan counties in Ohio.

On January 27, 2016, Governor John Kasich formally designated each of these five agencies as an Ohio Regional Transportation Planning Organization (RTPO). These designations formalize the program that started as a pilot and will help spur better and more informed transportation decision making in Ohio.

Following the Ohio Department of Transportation's (ODOT) two-year pilot program to establish RTPO's, local governments in Central Ohio began discussing the opportunity to form a sixth Rural Transportation Planning Organization around the Mid-Ohio Regional Planning Commission (MORPC) which is the Metropolitan Planning Organization (MPO) for the Columbus urban area. MORPC's role as MPO and mentor in the pilot program encouraged its member governments outside the MPO to consider forming an RTPO. In response, MORPC began to work with the interested Central Ohio counties to form a Rural Planning Organization (RPO) area, a precursor to being a fully recognized RTPO. A designation that requires the submission of a long-range transportation plan to ODOT. The seven member counties include Fairfield, Knox, Madison, Marion, Morrow, Pickaway and Union. MORPC organized the counties to engage as an RPO, CORPO was created, and in preparation to become a state-designated RTPO this CORPO Transportation Plan was completed.

By July 2016 each member county passed resolutions to join the Central Ohio Rural Planning Organization (CORPO). Once approved to move forward with the development of CORPO, staff began the process of forming the CORPO Committee. The CORPO Committee is the guiding body for the development of the CORPO Transportation Plan. All seven CORPO member counties also established RPO subcommittees and designated representatives from each county at CORPO Committee. These decision were governed by a set of bylaws previously adopted by the CORPO Committee. The CORPO Committee convened on numerous occasions to establish an overarching vision for the RPO transportation plan. This vision was used to develop the overarching goals and objectives of the plan. Staff, in cooperation with the CORPO Committee and county-level RPO subcommittees went to work on a transportation plan which includes seven county-level sections. These sections were then merged into a unified plan for CORPO, culminating in a list of transportation projects for the region. Section 3D represents the county-level section for Marion County.

2.0 GOALS AND OBJECTIVES



Goals & Objectives

Preserve and Maintain the Existing Transportation System in a State of Good Repair

- Minimize the number of bridges structurally deficient or functionally obsolete
- Maximize the miles of pavement in acceptable condition
- Maximize resources dedicated to maintain and improve the condition of the transportation system

A Safe Transportation System for All Users

- Minimize crashes including pedestrian and bicycle related crashes
- Promote system user education to minimize unsafe driving behaviors such as a lack of seatbelt use, distracted driving, impaired driving and others

Accessibility and Mobility Options for all Users

- Build facilities that accommodate all users such as those using transit, walking and bicycling
- Expand public transportation within and between communities
- Expand the bicycle and pedestrian networks
- Expand options that assist those living in poverty or in areas with lower accessibility in reaching employment, healthcare or services

An Integrated, Connected and Coordinated Transportation System

- Increase outreach to advocacy and community groups including area residents, local governments, agencies and organizations
- Improve connections between regions by utilizing various modes of transportation, including passenger rail
- Increase local community collaboration and coordination efforts to achieve mutually beneficial outcomes

A Transportation System that Promotes a Collaborative and Focused Approach to support Economic Vitality

- Improve strategic freight related facilities (e.g. highway, rail, intermodal, etc.)
- Develop priority multipurpose corridors (e.g. utilities, water, broadband, fiber, etc.)
- Maximize return on investment to position the region to compete globally and efficiently
- Provide transportation facilities that enhance the transition between rural and urban areas
- Enhance engagement with regional partners and voices

Preserve and Enhance Environmental Resources and Sustainability through the Transportation System

- Increase use of non-single occupant vehicles (local transit, intercity transit, ridesharing, biking, walking)
- Provide transportation facilities consistent with local land use, environmental and sustainability plans



3.1 Demographics

Population

According to Census population estimates, Marion County's population was 65,096 in July 2016. Marion County's population decreased -2 percent from the estimated 66,454 in 2010.

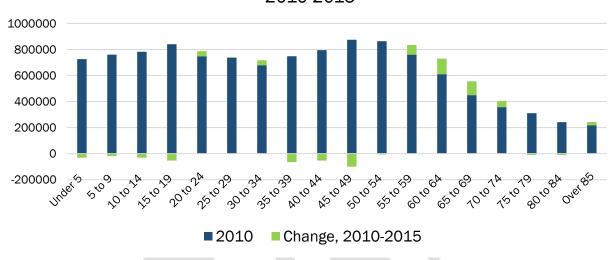
Marion County Population Estimates						
Year	Population	2010 - 2016 % Change				
2010	66,454					
2011	66,547					
2012	66,229					
2013	65,885					
2014	65,656					
2015	65,232					
2016	65,096	-2%				

Age

Marion County's median age of 40 years is comparable to that of the State of Ohio, also at 38 years. Neighboring Franklin County has historically been a younger county with a median age of 35, because of the large population of university students. However, like the rest of Ohio, Marion County residents are aging and will face challenges in the future as this population leaves the workforce and enters retirement. The 55+ age cohort of both Ohio and Marion County is increasing. This is consistent with the findings in insight2050, a collaborative initiative among public and private partners designed to help communities proactively plan for development and population growth over the next 30+ years that is expected to be dramatically different from the past.



Change in Population by Age Cohort in Ohio 2010-2015



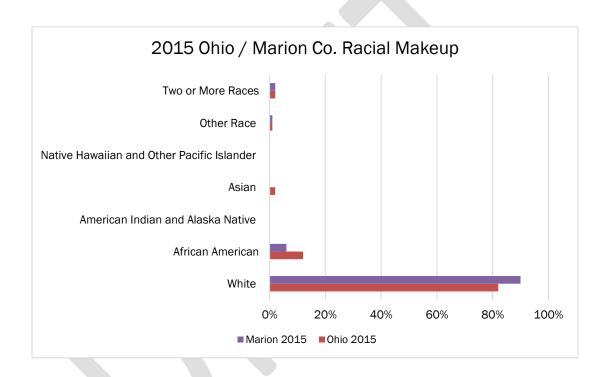






Diversity

Central Ohio is primarily white and Marion County is no exception. In 2015 Marion County's population was 90 percent white. Marion County is less diverse when compared to Ohio as a whole. That same year it was estimated that Ohio was 82 percent white, 12 percent African-American and roughly the same comparatively for other races.





Families and Households

The users of a transportation system come from diverse backgrounds, socioeconomic statuses and household structures. Of all the households in Marion County, 68 percent are family households and 18 percent of those are single parent families. In Marion County, 40 percent of households include at least one person over 60 years of age while only 30% include one under 18.

Marion County Households (HH)							
HH Type	%	Average					
Families	68%						
Non-Family	32%						
Single Parent	18%						
HH Size		2.43					
Family Size		2.90					
HH with 60+	40%						
HH with under 18	30%						



Home Ownership

Homeownership has traditionally been a goal for most Americans and a factor in determining wealth in the United States, but recently there have been changes to these societal norms. For decades the suburbs exploded as people moved out of urbanized areas and utilized highways to get to and from work. Now, with increased traffic, higher fuel prices, a recovering housing market and more environmentally conscious commuters who would like to be closer to amenities, the demand for denser, centrally located housing options has increased. Because of this demand, mixed-use developments have begun to pop up in metro areas across the state, increasing the number of available rental options with them.

Ohio Housing Tenure					
Year	% Rent	% Own			
2010	31%	69%			
2015	34%	66%			
10 to 15 Change	+3%	-4%			

Marion County Housing Tenure						
Year	% Rent	% Own				
2010	29%	71%				
2015	32%	68%				
10 to 15 Change	+3%	-3%				

Both Ohio and Marion County have experienced an overall increase in renters. In comparison, nearby Franklin County where denser development has occurred over the last five years the increase in residents who rent went from 43 to 46 percent.



Employment

As of April 2017, Marion County's unemployment rate was 4.3 percent. This rate is comparable to the State of Ohio, where the rate was 4.4 percent. Ohio's rate was slightly higher than the national rate of 4.1 percent that same month. Marion County's current unemployment rate is a good one, because it has steadily declined over the last five years.

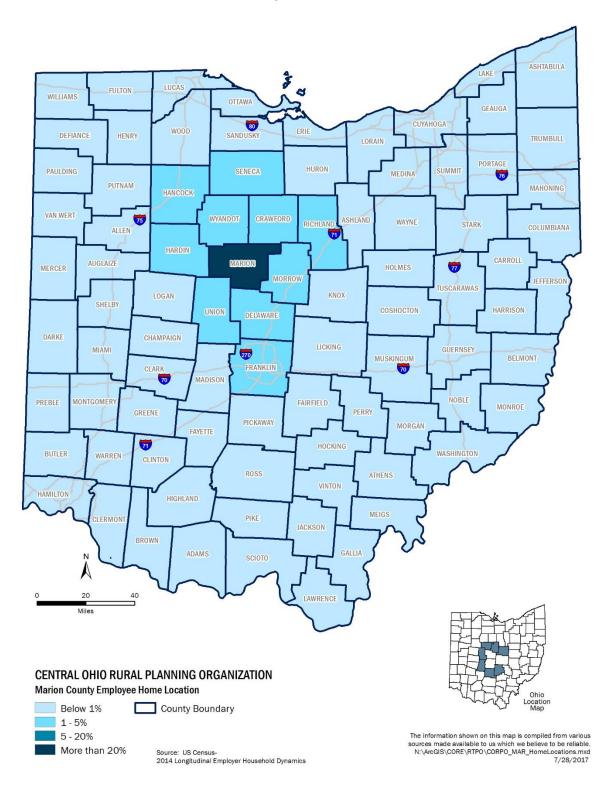
The labor participation rate in the county, a measure of those who are currently working or actively looking for work was 52 percent in 2016.

Marion County Unemployment Rates					
2013	7.9%				
2014	6.0%				
2015	5.1%				
2016	5.0%				
April 2017	4.3%				
13 to 17 Change	- 3.6%				

When considering employment, knowing the number of people in your community who are employed and how they get to work is very important. To make appropriate transportation planning decisions, knowing where they work is vital. The majority of workers employed in Marion County live primarily in Marion County. Marion County residents are primarily employed in Marion, Delaware and Franklin counties.

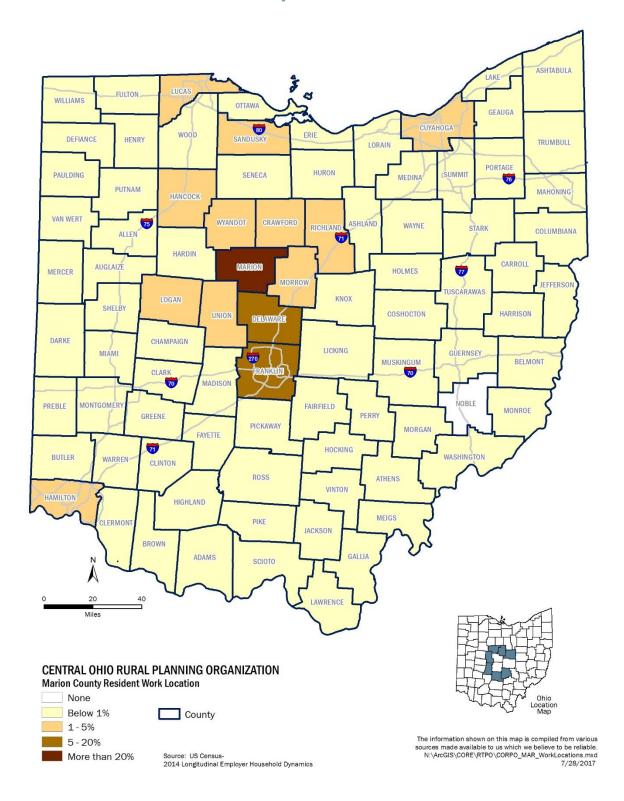


Worker Commute - Where Marion County Workers Commute From





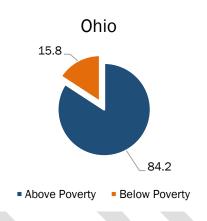
Worker Commute - Where Marion County Residents Commute To





Income and Poverty

Unfortunately, a decreasing unemployment rate does not mean that there are not residents struggling with poverty in Marion County. According to Census data, the percentage of Marion County residents living below the poverty line in 2015 was estimated to be 18.8 percent. However, the percentage decreased from the 19.6 percent estimated in 2012. Also, the rate is comparatively high to that of the state, which is currently 15.8 percent, and neighboring Franklin County, where the percentage is estimated to be 17.5. Minority populations in Marion County appear to make up a disproportionate percentage of those living in poverty. In Madison County, 34 percent of minorities are living below the poverty line while 17.8 percent of whites are. Additionally, 28.6 percent of those living in poverty are children 18 years of age and under, compared to 22.8 percent at the state level. In Marion, the largest jurisdiction in Marion County, 25 percent of residents live below the poverty line.



18.8%

of Marion Co. residents are living in poverty.

34%

of minorities in Marion Co are living in poverty. **17.8%**

of whites in Marion Co are living in poverty.

As the percentage of those living in poverty has decreased, the median income for Marion County residents increased. In 2015 the median household income in Marion County was \$42,966, an increase from the estimated \$40,511 in 2010. Marion County's median income is considerably lower than that of the state however, which in 2015 was \$49,429, an increase from the 2010 median income of \$47, 358.



Vehicle Access

Little or no access to reliable personal or public transportation can create a multitude of daily challenges. Of the 24,478 households in Marion County, 8 percent reported no vehicle in the home in 2015. This is comparable that of the state, which reported 8 percent that same year. That means just under 2,000 households in Marion County have to plan trips to work, school or medical appointments in advance and may be dependent upon others to make it to any of those. In a county with limited public transit options, this can create real obstacles.

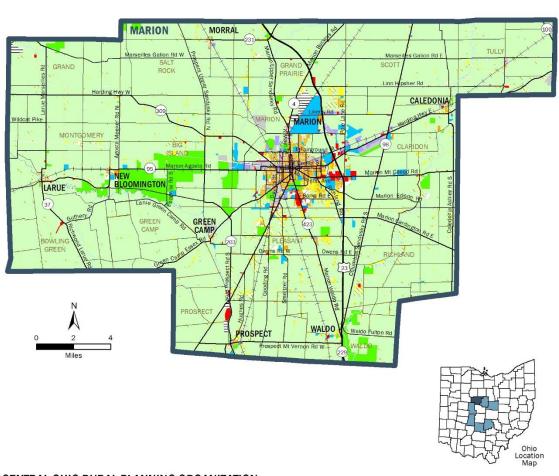
3.2 Land Use / Development

Changes to the marketplace include an aging population and an increase in young adults. This typically means there is a desire for multiple transportation options. The way the county develops directly influences the CORPO plan's goals and objectives. Local land use decisions can affect access to amenities, employment and attractions and transportation systems can affect development decisions.

Recognizing how land use decisions affect the quality of place and how well it attracts and retains workers is important. These decisions can support economic opportunity by accommodating businesses' needs for transportation capacity and reliability. As a part of large metropolitan area, Marion County may benefit from seamless transitions between communities through coordinated development approaches, which would allow the transportation system of roads, bikeways, and pedestrian ways to be continuous for regional connectivity. The following two maps display the existing land uses as well and the various points of interest and for Marion County. ("Public Places" in the points of interest map includes locations such as historical sites, fairgrounds, community and recreation centers, theaters and concert halls, museums and libraries.)



Existing Land Use



CENTRAL OHIO RURAL PLANNING ORGANIZATION

Existing Land Use Commercial Res Rural (2-20 acre lots) CORPO County Neighborhood Mix Agriculture Township Boundary Office Public Service Industrial Quarry Park/Open Space Warehouse Urban (8-20+ units per acre) /// Vacant Res High Suburban (3-8 units per acre) Water Res Suburban (0.5-3 units per acre)

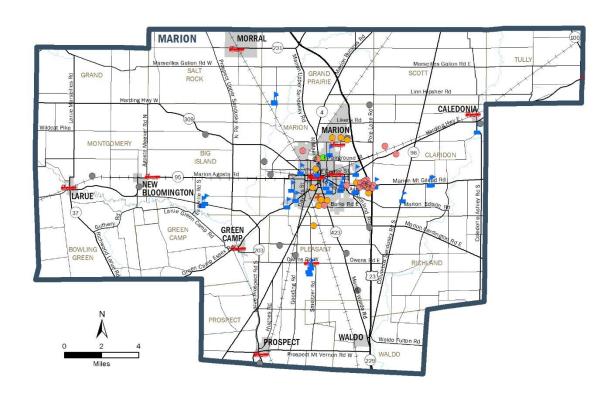
Source: MORPC, 2014

The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Points of Interest



CENTRAL OHIO RURAL PLANNING ORGANIZATION





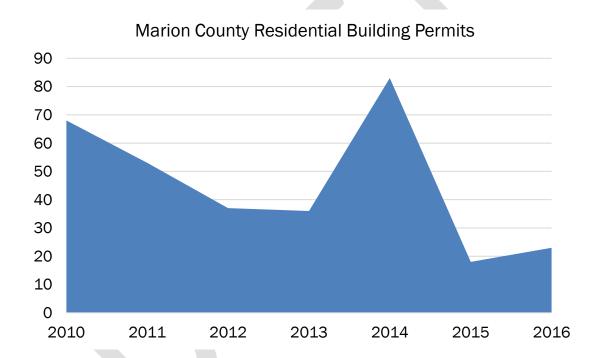
The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Residential Permits

One way to track an area's growth is to look at the number of building permits being requested. This data is not always reliable as it is based on whether or not a locality is reporting these permits to the Census. Utilizing data from *Censtats* (US Census), it is safe to suggest that Marion County's annual number of requested building permits has decreased significantly. Since 2010 there has been at least a -66 percent decrease in annual Census reported residential permits in Marion County.





3.3 Current Transportation Network

The purpose of Marion County's transportation system to safely accommodate the travel needs of its users. Marion County's transportation system is made up of several components or sub-systems that should be seamlessly connected to provide fluid movement of people and goods across the system and the region. These include roadways, transit, railroads and the unique intermodal facilities that interface these surface modes with ground and air freight. These components each serve their own particular role in moving people and goods throughout the region. This section describes these individual systems and intermodal connections that make up the county's surface transportation system.

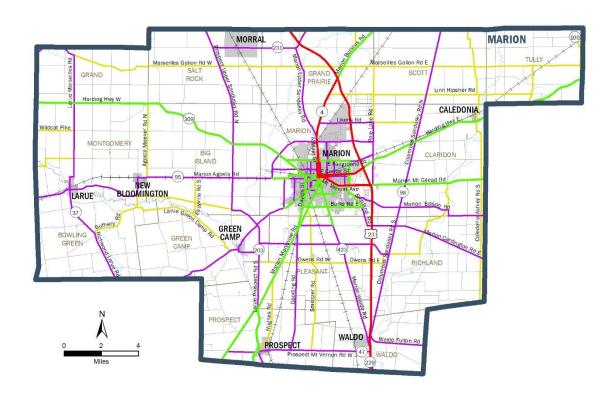
Non-personal vehicle modes serve the transportation needs of few Marion County residents. However, the need and demand for transit and bikeways is changing in response to both underlying demographic changes in central Ohio's population and cultural preferences. Changing cultural preferences for transportation are evident from foreign born populations, younger and older generations. Recently, these populations have expressed a desire to live in communities with access to transit and that are pedestrian and bike friendly.

Individuals may be unable to afford a motor vehicle, or lack the ability or interest to drive. Public transit and adequate bike and pedestrian paths may provide the only independent means of transportation. These modes preserve the connection to work, daily living needs, medical appointments and other destinations. For riders of choice, alternative transportation options may offer a more convenient, economical and or environmentally friendly choice over other modes of transportation. The very presence of convenient and accessible alternative transportation options may help attract and retain a skilled workforce and enhance the quality of life.

The first of the following two maps displays the functional classification system of roadways in Marion County. Roadways are classified based on the role and function each roadway serves within the larger system. Interstates and Expressways have very limited access and carry a high volume of vehicles making regional trips. Arterials primarily provide mobility, but also provide access to abutting land uses, unlike interstates and expressways. Collectors carry lower volumes of traffic and provide more access points to local roads and destinations. Local roads generally are not intended for long distance travel. Their main function is to provide access to homes and businesses. For this reason, the information and projects presented in the CORPO plan focus on interstates, expressways, arterials, and collectors only, as they make up the most important roadways in the roadway network. The second map displays bike and pedestrian paths within Marion County.



Current Roadway Network



CENTRAL OHIO RURAL PLANNING ORGANIZATION





The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Travel Demand Management Services

Limited funding for expanded highways, unstable fuel prices, increased congestion, and concern for our air quality emphasize the need for reducing driving alone in urban and suburban areas. For many years now, transportation demand management (TDM) strategies have shown effectiveness in reducing traffic congestion and environmental pollution caused by motor vehicles.

Managing transportation demand should not be relegated to just urban areas. The TDM strategies and projects focus on the opportunities to rideshare, use transit, bike, or walk to meet some of the travel needs of the region. Alternatives that reduce travel demand also include telecommuting and alternate work schedules that compress the work week or allow for commuting at non-peak hours. The table below outlines the modes Marion County commuters utilize.

Marion County Gohio Commuter Data							
Year	2015 5YR ACS						
Total Commuters	24,917						
Drive Alone	85%						
Alternative	15%						
Carpool	10%						
Transit	0.7%						
Walk	1.4%						
Telecommute	1.7%						
Other	1.4%						

Due to decades of sprawling urban and exurban growth, Central Ohio commuters have become primarily dependent on the vehicular transportation. Marion County, which is a mix between urbanized and rural areas, is no exception to this. Of the nearly 25,000 commuters in Marion County, 85 percent drive alone and 15 percent utilize an alternative method. This percentage may seem low, but comparatively, 81 percent of commuters in Franklin County, a larger and more urbanized county with 25 times the number of commuters, 81 percent are driving alone while 19 percent utilize alternative transportation options. For example, 10 percent of commuters in Marion County participate carpool services.



Travel Demand Management Services - Continued

In order to identify the needs of people with mobility access issues, local governments develop coordinated public transit - human services transportation plans, or *Coordinated Plans*. The purpose of coordinated plans is to identify community resources for transportation and mobility, understand the gaps and unmet needs within those resources and to determine the approach to addressing those gaps and unmet needs. Although ODOT does not require local governments to produce a coordinated plan, it is required for eligibility for the Federal Transit Administration's Section 5310 program funds. The purpose of the 5310 grant program is to enhance the mobility of seniors and individuals with disabilities. Private nonprofit organizations or state or local governments may apply for the grant if they are approved to coordinate services for senior and individuals with disabilities. ODOT does make 5310 project selections for small and rural Ohio counties. Therefore, ODOT must ensure that coordinated plans are in compliance with federal transit law. ODOT encourages coordinated plans to go beyond the requirements of Section 5310 funding to include analysis of needs and development projects to address the mobility needs of the general public.

Marion County currently has not published a Coordinated Plan but stakeholders within Marion County have inquired about the process.

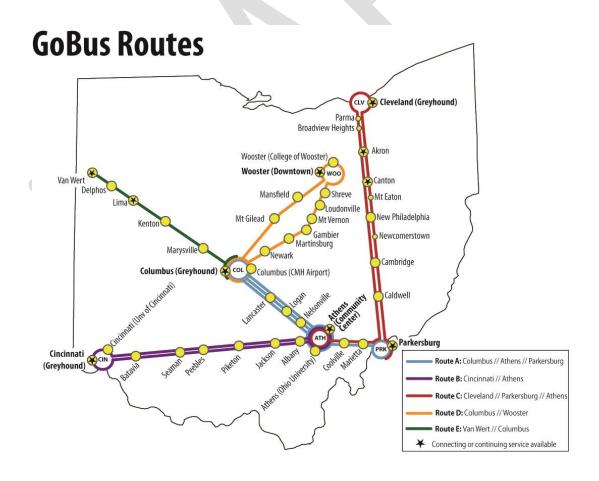


Transit Services

Transit service in Marion County is provided by Marion Area Transit (MAT). MAT provides both curb to curb and demand response transit services to the general public with fares ranging from \$0.60 to \$6.25 depending on the mileage. Reduced rates are available to student, disabled and senior citizen riders and children under five years of age ride for free.

Rural inter-city bus service in Ohio is provided by Gobus. This service is designed to address low cost and geographically accessible intercity bus transportation needs of the entire state by supporting projects that provide transportation between non-urbanized areas and urbanized areas that result in connections of greater regional, statewide, and national significance. Funding for the rural inter-city bus is administered by ODOT, and the service is currently operated by Baron Bus Lines.

At this time Gobus does not offer a stop in Marion County.





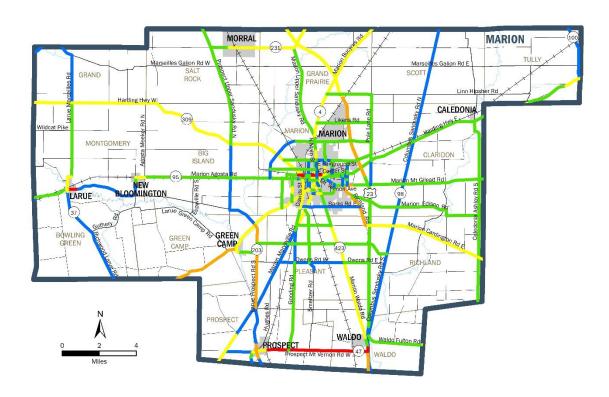
Transportation Infrastructure Conditions

Understanding the physical condition of a transportation is vital to resource management and the two following maps display the physical condition of both the roadway network (pavement) and bridges in Marion County.





Transportation Infrastructure Conditions



CENTRAL OHIO RURAL PLANNING ORGANIZATION

Pavement Condition Rating

Below 56 Poor CORPO County

57 - 65 Fair to Poor Township Boundary

66 - 75 Fair

76 - 90 Good

91 - 100 Very Good Source: ODOT



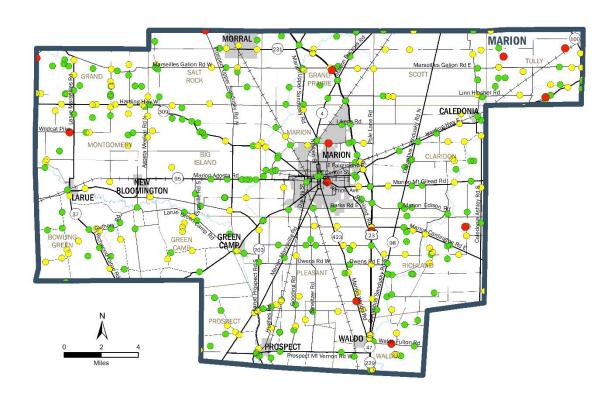
The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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<u>3.0</u> **INVENTORY OF EXISTING CONDITIONS**



Transportation Infrastructure Conditions Cont.



CENTRAL OHIO RURAL PLANNING ORGANIZATION

Bridge General Appraisal

0 - 4 Likely Needs Replaced

CORPO County 5 - 6 Likely Needs Maintenance

Township Boundary

9 7 - 9 Good

Source: ODOT



The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_MAR_bridge.mxd 2/14/2018



Freight

Goods are moved, transferred, and distributed from Marion County to destinations across the United States and around the world. Whether by truck, rail, or air, Marion County's efficiency in the movement of goods is an important part of the region's economic competitiveness, trade, and commodity flow. Marion County and our region's economy as a whole have benefited from its multimodal transportation assets for many decades. Today, Marion County is home to an airport, an intermodal facility and is crossed by arterial rail corridors as well as US 23 and numerous state routes. Marion County is strategically located within a 10-hour truck drive of 47 percent of the United States population and 61 percent of its manufacturing. The first of the following four maps details freight related infrastructure in Marion County.

Congestion

There are a couple of aspects of the roadway system condition to consider. First is the physical condition — are the roadways and bridges in good repair? Section 3.3 outlined that aspect. Second, how does the roadway operate in terms of level of congestion? Using average daily traffic count data as well as travel time data covering all weekdays of 2016 except federal holidays. CORPO was able to map traffic volumes as well as congested areas within Marion County. The second, third and fourth of the following maps display the, average daily traffic volumes and the percentage of congested days, separated into AM and PM periods.

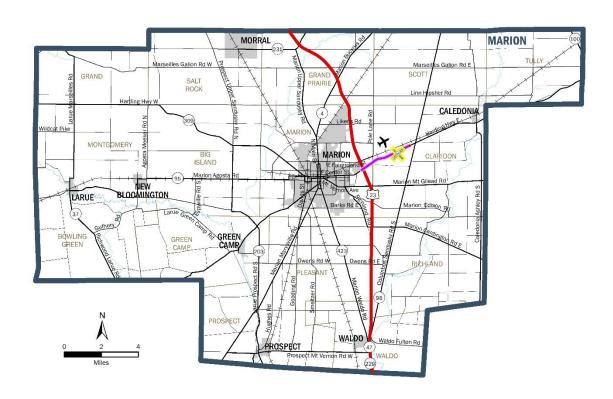
The percentage of congested days is identified if the travel time in at least three 5-minute intervals during the peak period of the day considered is 50 percent greater than the travel time under free-flow condition. That means, for at least fifteen minutes each AM or PM period, travelers would spend more than 50 percent extra travel time on the segment. The percentage of congested days is then calculated by dividing the total number of congested days by the total numbers of the non-federal-holiday weekdays in the period of interest.

Basically, this "percentage" measure can be interpreted approximately as below:

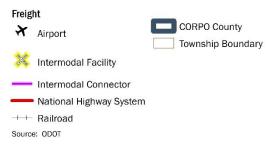
<=20%: 1 day or less per week 20 - 60%: 2 to 3 days per week > 60%: 3 + days per week



Freight



CENTRAL OHIO RURAL PLANNING ORGANIZATION

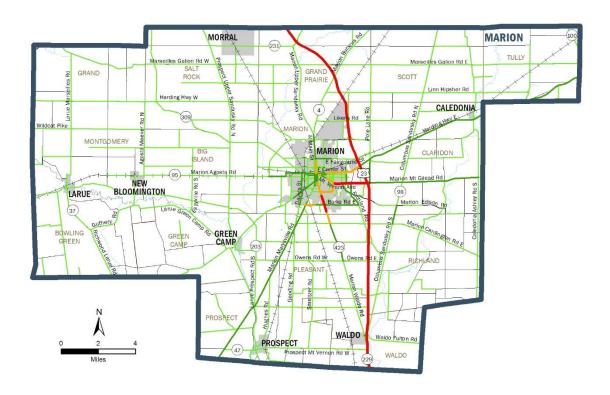




The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_MAR_freight.mxd 1/23/2018



Traffic Volumes



CENTRAL OHIO RURAL PLANNING ORGANIZATION

2015 Average Daily Traffic Range



Ohio Location Map

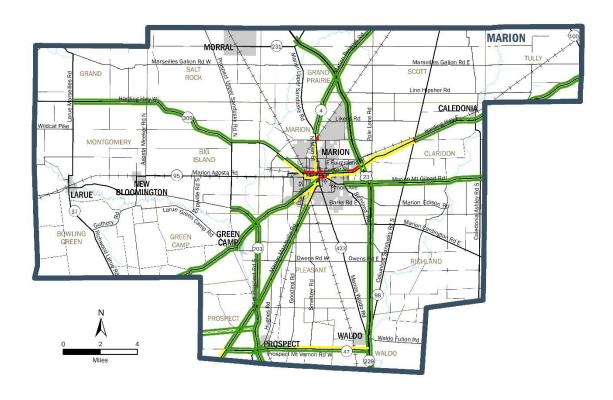
The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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6/28/2017

Source: ODOT TIMS 2015



Traffic Congestion - 6:00 - 9:00 AM



CENTRAL OHIO RURAL PLANNING ORGANIZATION

% Days Congested 2017 AM*

CORPO County

Township Boundary

* Congestion: more than 50% extra travel time

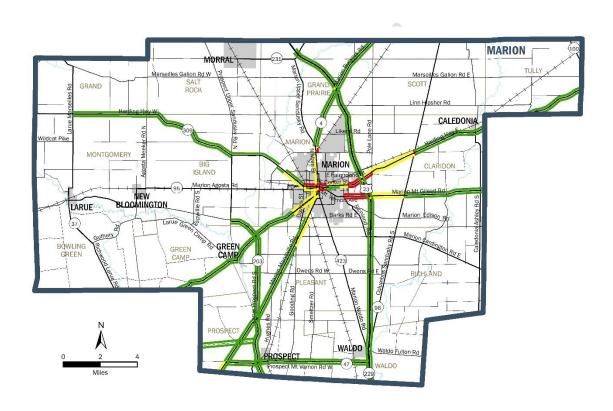
Source: INRIX Travel Time data



The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_MAR_CongestionAM.mxd 3/29/2018



Traffic Congestion - 3:30 - 6:30 PM







The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_MAR_CongestionPM.mxd 3/29/2018



Safety

The primary function of a transportation network is to move people and goods from their origin to destination as safely as possible. If a network is unsafe, its utility is greatly diminished. One way to determine which areas of the network may have a safety issue or where these issues may one day arise is to collect and analyze crash data. Please see the Marion County Safety Summary on the next page.

Safety - Crash Statistics

Similar to state and national trends, the number of reported crashes and fatal crashes in Marion County has been trending upward in recent years. In Marion County, from 2012 to 2016, the total number of crashes increased by 14 percent. The number of crashes resulting in both property damage and injuries in Marion County increased by only 1 percent.

Safety - Occupant Statistics

The table and summary on the following page outlines the crash related occupant statistics for Marion County between 2012 and 2016. There is was a 0 percent increase in the injury rate from 2012 to 2016.

Safety - Crash Locations and Types

Utilizing crash data collected by both the Ohio Department of Transportation and the Ohio Department of Public Safety, high crash areas of the transportation network are able to be identified. These areas are potential areas of focus for safety improvements.

Identifying these locations will allow law enforcement, emergency responders, transportation officials, government and the general public to target them directly through strategies and planning. The map reflects the denser areas of Marion County, such as downtown Marion and the interchange at U.S. 23 and SR 95 and the intersection of SR 423 at Barks Rd.

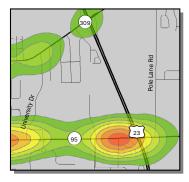
Safety - Rail Crossings

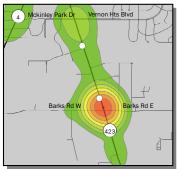
In many areas of the county, different modes of transportation converge. These areas can present significant safety challenges, especially where railroads cross roadways. CORPO with assistance from ODOT has compiled a list, identifying and ranking rail crossings in the county that may be in need of safety improvements. These crossings may be eligible for non-local funds intended to improve safety related infrastructure such as signals, gates and grade. Please reference the full list of identified rail crossings in the appendices.

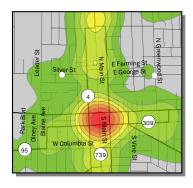
RELATIVE COUNTY CRASH DENSITY & SAFETY SUMMARY (2012 - 2016):

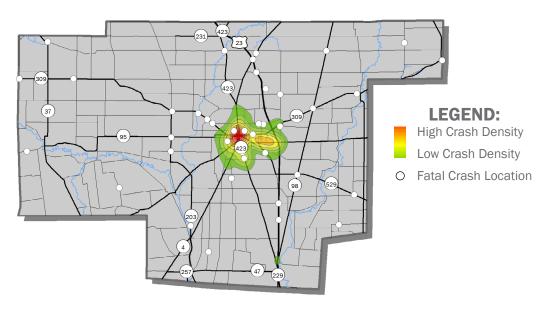
MARION COuNty











CRASH TRENDS BY YEAR (2012 - 2016)

		CRASH S	TATISTICS		TRUCK-		OCCUPANT STATISTICS				
YEAR	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	INJURY RATE	INVOLVED CRASHES	Fatalities	Serious Injuries	Minor Injuries	No Visible Injuries	Total Injuries
2012	7	422	1,158	1,587	27.0%	119	7	64	310	249	630
2013	10	441	1,100	1,551	29.1%	103	11	78	279	287	655
2014	10	385	1,132	1,527	25.9%	100	13	68	251	233	565
2015	6	421	1,217	1,644	26.0%	119	7	54	282	293	636
2016	8	427	1,169	1,604	27.1%	106	8	72	262	292	634
5-Year Total	41	2,096	5,776	7,913	27.0%	547	46	336	1,384	1,354	3,120
Annual Average	8.2	419.2	1,155.2	1,582.6	27.0%	109.4	9.2	67.2	276.8	270.8	624.0
Percent Change (2012 to 2016)	14%	1%	1%	1%	0%	-11%	14%	13%	-15%	17%	1%

- Shaded orange cells indicate the year with the highest value for each respective column.
 Injury Rate is calculated using the following formula: [(#Fatal Crashes+#Injury Crashes)/Total Crashes]

4.0 PROJECTIONS AND IDENTIFICATION OF NEEDS



4.1 Population and Employment

Population Projections

One of the ways to predict the stresses a transportation system will endure in the future is to determine the number of people currently living and working in the region and how many will be in the future. Getting an idea of future population gains or losses will assist local governments in responding to these changes. An increase in population typically means more daily commuters on the County's roadways, transit system and trails. More people also mean that there will be an increased demand for goods and services, therefore an increase of trucks on the roads.

According to estimates developed by MORPC, Marion County's total population is expected to decrease by 2040. Marion County's 2015 population was 65,232 while the 2040 population is projected to be 59,315. This is a -9 percent decrease in population over 25 years in Marion County. This decrease in population is considerable when compared to the State's projected population, which is only expected to grow by one percent. Nearby Franklin County is expected to grow by 32 percent.

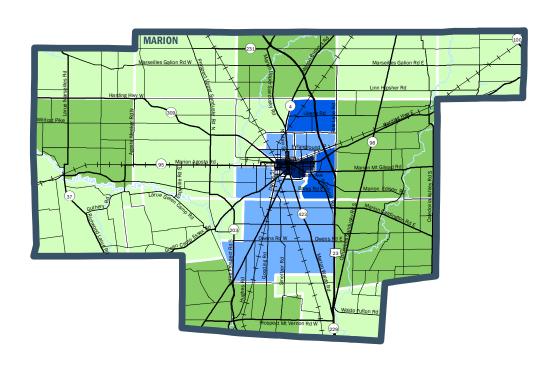
Year	Marion Co.	Ohio	Franklin Co.
2015	65,232	11,549,120	1,250,269
2040	59,315	11,679,010	1,648,891
10 to 40 % Change	-9%	1%	32%

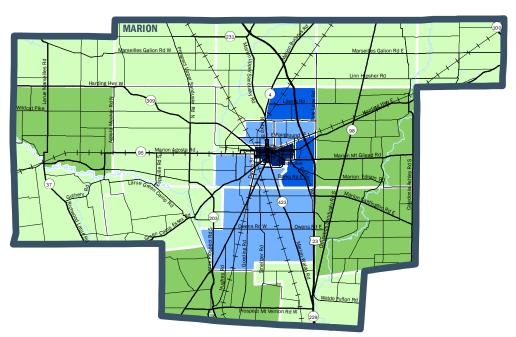
Workforce & Employment

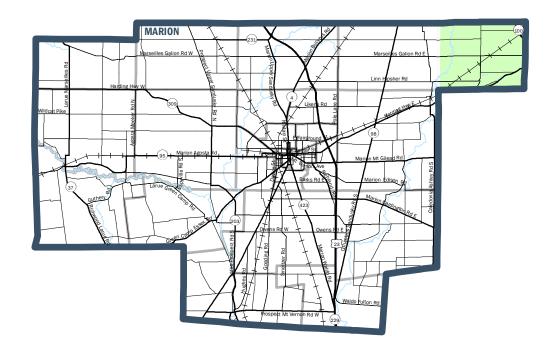
Projections for Marion County indicate the workforce population living within Marion County will decrease by -17 percent while the number of jobs located within the county are projected to increase by 3 percent by 2040. To better visualize how an increase in workers and jobs will affect the county, they were distributed into Statewide Transportation Analysis Zones (TAZ).

The following series of maps reflect possible future outcomes in the county.

2015 Population 2040 Population 2015-2040 Population Growth







Total Population by TAZ

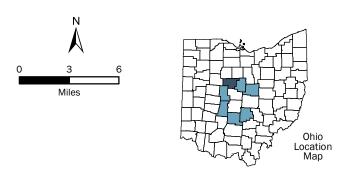
< 1,500 1,501 - 3,000 3,001 - 5,000 5,001 - 10,000 10,001 +

Marion County - Total Population

2015: 65,230 2040: 59,320 Growth: (5,910)

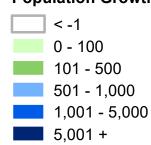
Total Population by TAZ

< 1,500 1,501 - 3,000 3,001 - 5,000 5,001 - 10,000 10,001 +



CENTRAL OHIO RURAL PLANNING ORGANIZATION

Population Growth by TAZ

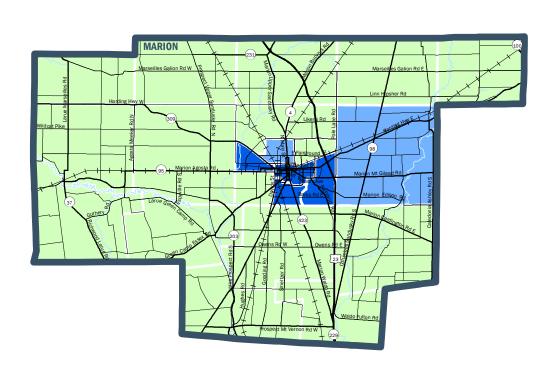


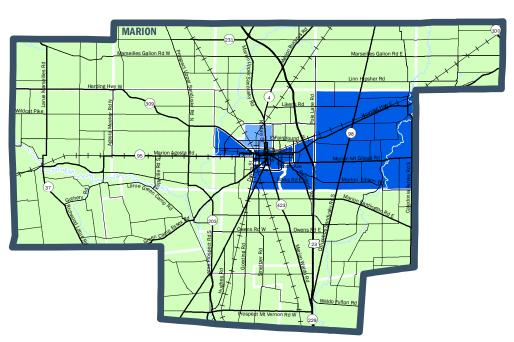


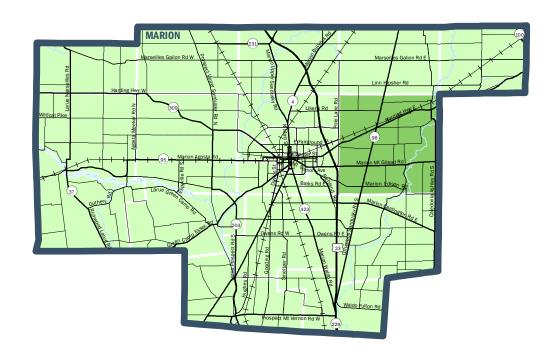
Source: MORPC

The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\ArcGIS\CORE\RTPO\CORPO_MAR_Pop_15_40_swTAZ.mxd 2/12/2018







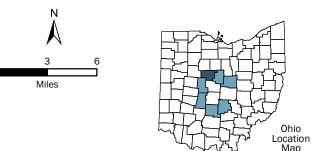


Total Jobs by TAZ

< 1,000 1,001 - 2,000 2,001 - 3,000 3,001 - 6,000 6,001 +

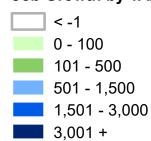
Total Jobs by TAZ

< 1,000 1,001 - 2,000 2,001 - 3,000 3,001 - 6,000 6,001 +



CENTRAL OHIO RURAL PLANNING ORGANIZATION

Job Growth by TAZ





Source: MORPC

The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\ArcGIS\CORE\RTPO\CORPO_MAR_Job_15_40_swTAZ.mxd 2/16/2018



2015: 23,840

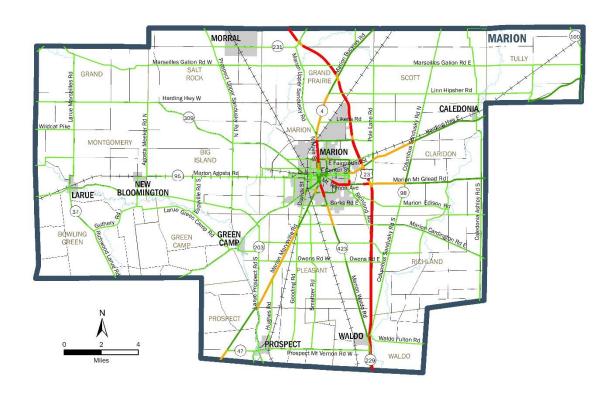
Marion County - Total Jobs

4.0 PROJECTIONS AND IDENTIFICATION OF NEEDS



4.2 Travel Demand

Traffic Volumes - Future



CENTRAL OHIO RURAL PLANNING ORGANIZATION



Source: Ohio Statewide Travel Model

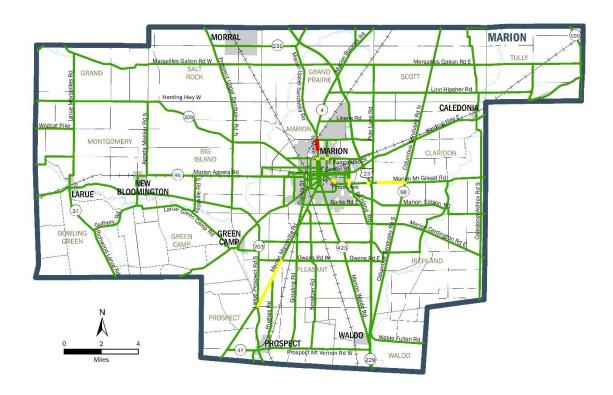


The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_MAR_modelvolume_40.mxd 4/27/2018

4.0 PROJECTIONS AND IDENTIFICATION OF NEEDS



Traffic Congestion - Future



CENTRAL OHIO RURAL PLANNING ORGANIZATION 2040 Model Congestion Level No/Slight Congestion CORPO County Moderate Congestion Township Boundary Severe Congestion Source: Ohio Statewide Travel Model



The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_MAR_modelcongestion_40.md 4/27/2018

4.0 PROJECTIONS AND IDENTIFICATION OF NEEDS



4.3 Project List – Marion County

One of the primary purposes of the CORPO Transportation Plan is for CORPO members to identify transportation projects of importance in their county. The projects listed on the next few pages include those that add roadway capacity, expand the transit system or provide bicycle and pedestrian facilities. Some of the identified projects encompass the ongoing operation, maintenance and preservation of the existing transportation system. This may include the study, operation and expansion of transit service. However, most of the items listed are projects to expand physical components of the transportation system.

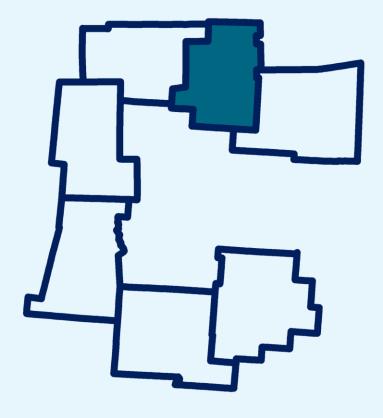
Each project listing provides a brief project description and identifies cost estimates for each project. The associated cost estimates are in construction dollars. The following list includes both short and long term projects that may occur between 2018 and 2040.

2018 - 2040 CORPO Transportation Plan Project Listing Mapped Projects - Sorted by County

County	Ω	Project Description	(Millions)
Marion	MAR1	SR 4 / SR 423 at Marion-Williamsport Road; Instersection Modification	\$1.5 - \$4.5
Marion	MAR2	Barks Road and SR 423; Intersection modification	\$1-\$4
Marion	MAR3	McMahan Boulevard extension, from existing McMahan end to University Drive; New roadway	\$3 - \$2
Marion	MAR4	SR 423 / Barks Road; Intersection modification	\$1-\$4
Marion	TBD	SR 529 / US 23; New Interchange	\$22 - \$29
Marion	TBD	Study the US 23 Marion Southern Bypass	TBD
Marion	TBD	Railroad overpasses at various locations within Marion City	TBD
Marion	TBD	I-71 Access / Delaware County Bypass; New roadway	TBD

Cost

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Morrow County

Transportation Plan 2018-2040

Section 3E of CORPO 2018 - 2040 Transportation Plan







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1.0 CORPO OVERVIEW



CORPO Background and Purpose

On July 1, 2013, ODOT began a two-year pilot program with five multi-county planning organizations (or councils of government) providing them with funding to conduct regional transportation planning in coordination with local stakeholders, Ohio MPOs, and ODOT. Much of Ohio's non-metropolitan local official coordination occurs between ODOT and these organizations. The five organizations cover 34 non-metropolitan counties in Ohio.

On January 27, 2016, Governor John Kasich formally designated each of these five agencies as an Ohio Regional Transportation Planning Organization (RTPO). These designations formalize the program that started as a pilot and will help spur better and more informed transportation decision making in Ohio.

Following the Ohio Department of Transportation's (ODOT) two-year pilot program to establish RTPO's, local governments in Central Ohio began discussing the opportunity to form a sixth Rural Transportation Planning Organization around the Mid-Ohio Regional Planning Commission (MORPC) which is the Metropolitan Planning Organization (MPO) for the Columbus urban area. MORPC's role as MPO and mentor in the pilot program encouraged its member governments outside the MPO to consider forming an RTPO. In response, MORPC began to work with the interested Central Ohio counties to form a Rural Planning Organization (RPO) area, a precursor to being a fully recognized RTPO. A designation that requires the submission of a long-range transportation plan to ODOT. The seven member counties include Fairfield, Knox, Madison, Marion, Morrow, Pickaway and Union. MORPC organized the counties to engage as an RPO, CORPO was created, and in preparation to become a state-designated RTPO this CORPO Transportation Plan was completed.

By July 2016 each member county passed resolutions to join the Central Ohio Rural Planning Organization (CORPO). Once approved to move forward with the development of CORPO, staff began the process of forming the CORPO Committee. The CORPO Committee is the guiding body for the development of the CORPO Transportation Plan. All seven CORPO member counties also established RPO subcommittees and designated representatives from each county at CORPO Committee. These decision were governed by a set of bylaws previously adopted by the CORPO Committee. The CORPO Committee convened on numerous occasions to establish an overarching vision for the RPO transportation plan. This vision was used to develop the overarching goals and objectives of the plan. Staff, in cooperation with the CORPO Committee and county-level RPO subcommittees went to work on a transportation plan which includes seven county-level sections. These sections were then merged into a unified plan for CORPO, culminating in a list of transportation projects for the region. Section 3E represents the county-level section for Morrow County.

2.0 GOALS AND OBJECTIVES



Goals & Objectives

Preserve and Maintain the Existing Transportation System in a State of Good Repair

- Minimize the number of bridges structurally deficient or functionally obsolete
- Maximize the miles of pavement in acceptable condition
- Maximize resources dedicated to maintain and improve the condition of the transportation system

A Safe Transportation System for All Users

- Minimize crashes including pedestrian and bicycle related crashes
- Promote system user education to minimize unsafe driving behaviors such as a lack of seatbelt use, distracted driving, impaired driving and others

Accessibility and Mobility Options for all Users

- Build facilities that accommodate all users such as those using transit, walking and bicycling
- Expand public transportation within and between communities
- Expand the bicycle and pedestrian networks
- Expand options that assist those living in poverty or in areas with lower accessibility in reaching employment, healthcare or services

An Integrated, Connected and Coordinated Transportation System

- Increase outreach to advocacy and community groups including area residents, local governments, agencies and organizations
- Improve connections between regions by utilizing various modes of transportation, including passenger rail
- Increase local community collaboration and coordination efforts to achieve mutually beneficial outcomes

A Transportation System that Promotes a Collaborative and Focused Approach to support Economic Vitality

- Improve strategic freight related facilities (e.g. highway, rail, intermodal, etc.)
- Develop priority multipurpose corridors (e.g. utilities, water, broadband, fiber, etc.)
- Maximize return on investment to position the region to compete globally and efficiently
- Provide transportation facilities that enhance the transition between rural and urban areas
- Enhance engagement with regional partners and voices

Preserve and Enhance Environmental Resources and Sustainability through the Transportation System

- Increase use of non-single occupant vehicles (local transit, intercity transit, ridesharing, biking, walking)
- Provide transportation facilities consistent with local land use, environmental and sustainability plans



3.1 Demographics

Population

According to Census population estimates, Morrow County's population was 35,063 in July 2016. This represents a 0 percent change from the 2010 Census estimated population of 34,818.

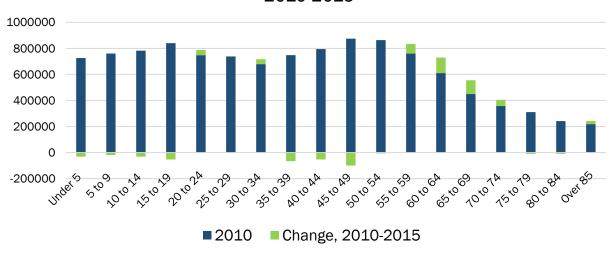
Morrow County Population Estimates								
Year	Population	2010 - 2016 % Change						
2010	34,818							
2011	34,901							
2012	34,972							
2013	34,973							
2014	35,089							
2015	35,091							
2016	35,036	0%						

Age

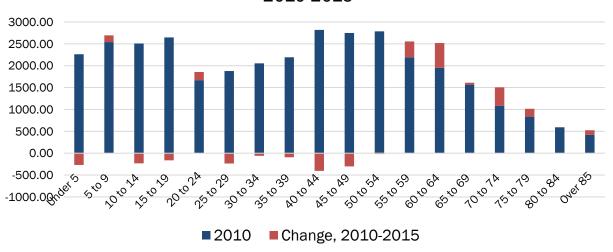
Morrow County's median age of 41 years is higher than that of the State of Ohio, at 38 years. Neighboring Franklin County has historically been a younger county with a median age of 35, because of the large population of university students. However, like the rest of Ohio, Morrow County residents are aging and will face challenges in the future as this population leaves the workforce and enters retirement. The 55+ age cohort of both Ohio and Morrow County is increasing. This is consistent with the findings in insight2050, a collaborative initiative among public and private partners designed to help communities proactively plan for development and population growth over the next 30+ years that is expected to be dramatically different from the past.



Change in Population by Age Cohort in Ohio 2010-2015



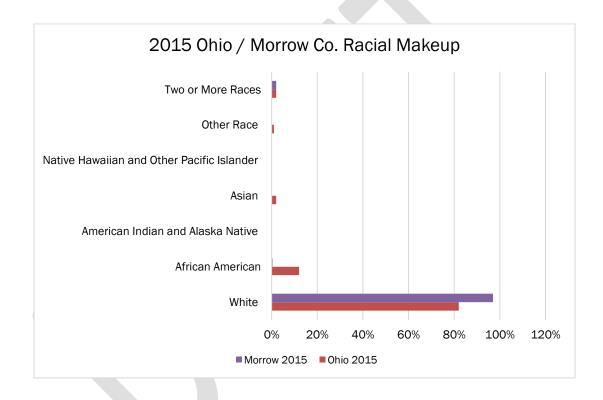
Change in Population by Age Cohort in Morrow County 2010-2015





Diversity

Central Ohio is primarily white and Morrow County is no exception. In 2015 Morrow County's population was 97.5 percent white. Morrow County is less diverse when compared to Ohio as a whole. That same year it was estimated that Ohio was 82 percent white, 12 percent African-American and roughly the same comparatively for other races.





Families and Households

The users of a transportation system come from diverse backgrounds, socioeconomic statuses and household structures. Of all the households in Morrow County, 74 percent are family households and 15 percent of households are single parent families. Morrow County households have a significant number of households with at least one person over 60 years of age in the home.

Morrow County Households (HH)									
HH Type	%	Average							
Families	74%								
Non-Family	26%								
Single Parent	15%								
HH Size		2.73							
Family Size		3.19							
HH with 60+	41%								
HH with under 18	35%								



Home Ownership

Homeownership has traditionally been a goal for most Americans and a factor in determining wealth in the United States, but recently there have been changes to these societal norms. For decades the suburbs exploded as people moved out of urbanized areas and utilized highways to get to and from work. Now, with increased traffic, higher fuel prices, a recovering housing market and more environmentally conscious commuters who would like to be closer to amenities, the demand for denser, centrally located housing options has increased. Because of this demand, mixed-use developments have begun to pop up in metro areas across the state, increasing the number of available rental options with them.

Ohio Housing Tenure							
Year % Rent % Own							
2010	31%	69%					
2015	34%	66%					
10 to 15 Change	+3%	-3%					

	Morrow County Housing Tenure								
Year	% Rent	% Own							
2010	18%	82%							
2015	19%	81%							
10 to 15 Change	+1%	-1%							

Although Ohio appears to have seen an overall increase in renters, Morrow County has relatively maintained its percentage of renters from 2010 to 2015. In comparison, Franklin County, where denser development has occurred over the last five years the increase in residents who rent went from 43 to 46 percent.



Employment

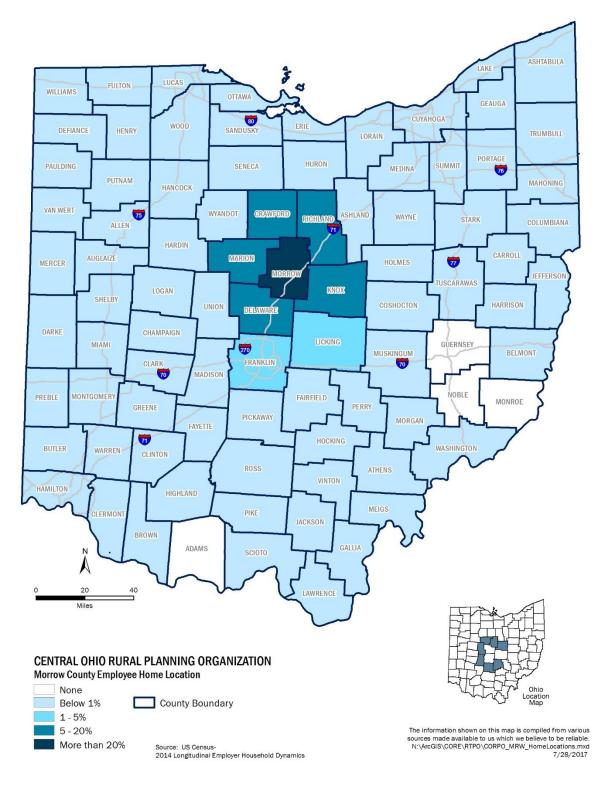
As of April 2017, Morrow County's unemployment rate was 4.2 percent. This rate is comparable to the State of Ohio, where the rate was 4.4 percent. Ohio's rate was higher than the national rate of 4.1 percent that same month. While Morrow County's unemployment rate is higher than some other Ohio counties, it has steadily declined over the last five years from 7.4% in 2013 to 4.2% in 2017.

Morrow County Unemployment Rates							
2013	7.4%						
2014	5.9%						
2015	5.0%						
2016	4.9%						
April 2017	4.2%						
13 to 17 Change	- 3.2%						

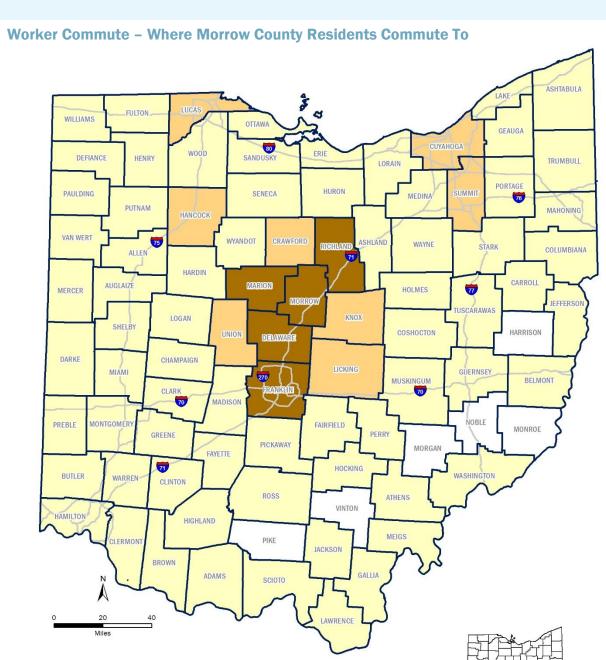
When considering employment, knowing the number of people in your community who are employed and how they get to work is very important. To make appropriate transportation planning decisions, knowing where they work is vital. The majority of workers employed in Morrow County live primarily in Morrow, Knox, Delaware, Marion, Richland and Crawford counties. Morrow County residents are primarily employed in Morrow, Delaware, Franklin, Marion and Richland counties.

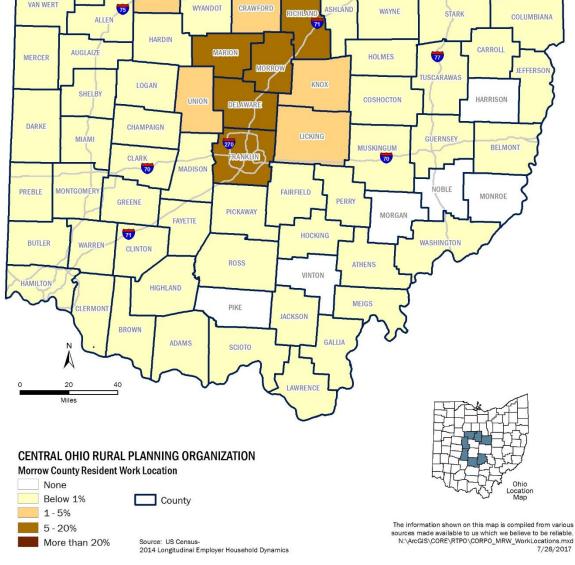


Worker Commute - Where Morrow County Workers Commute From







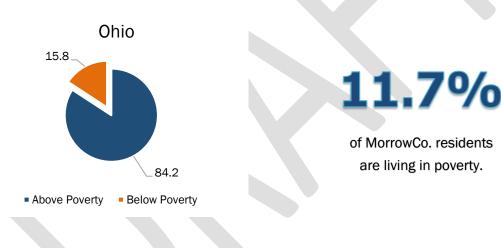




Income and Poverty

Unfortunately, a decreasing unemployment rate does not mean that there are not residents struggling with poverty in Morrow County. According to Census data, the percentage of Morrow County residents living below the poverty line in 2015 was estimated to be 11.7 percent. The percentage decreased from the 13.8 percent estimated in 2012. The current percentage is still comparatively low to that of the state, which is currently 15.8 percent, and nearby Franklin County, where the percentage is estimated to be 17.5. Additionally, 17 percent of those living in poverty are children 18 years of age and under, compared to 22.8 percent at the state level.

In Mount Gilead, the largest jurisdiction in Morrow County, 16.6 percent of residents live below the poverty line.



of minorities in Morrow

Co are living in poverty.

11.8%

of whites in Morrow Co are living in poverty.

As the percentage of those living in poverty has decreased, the median income for Morrow County residents has remained relatively the same. In 2015 the median household income in Morrow County was \$51,993, an increase from the estimated \$49,891 in 2010. Morrow County's median income is comparable to that of the state however, which in 2015 was \$49,429, an increase from the 2010 median income of \$47, 358.



Vehicle Access

Little or no access to reliable personal or public transportation can create a multitude of daily challenges. Of the 12,700 households in Morrow County, 6 percent reported no vehicle in the home in 2015. This is a smaller percentage than that of the state, which reported 8 percent that same year. That means that over 700 households in Morrow County have to plan trips to work, school or medical appointments in advance and may be dependent upon others to make it to any of those. In a county with limited public transit options, this can create real obstacles.

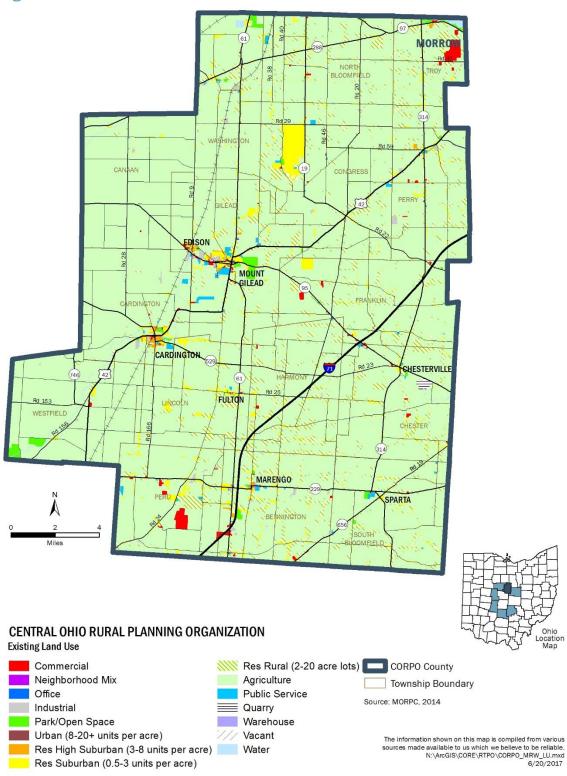
3.2 Land Use / Development

Changes to the marketplace in Central Ohio include an aging population and an increase in young adults. This typically means there is a desire for multiple transportation options. The way the county develops directly influences the CORPO plan's goals and objectives. Local land use decisions can affect access to amenities, employment and attractions and transportation systems can affect development decisions.

Recognizing how land use decisions affect the quality of place and how well it attracts and retains workers is important. These decisions can support economic opportunity by accommodating business' needs for transportation capacity and reliability. As a part of large metropolitan area, Morrow County may benefit from seamless transitions between communities through coordinated development approaches, which would allow the transportation system of roads, bikeways, and pedestrian ways to be continuous for regional connectivity. The following two maps display the existing land uses as well and the various points of interest and for Morrow County. ("Public Spaces" in the points of interest map includes locations such as historical sites, fairgrounds, community and recreation centers, theaters and concert halls, museums and libraries.)

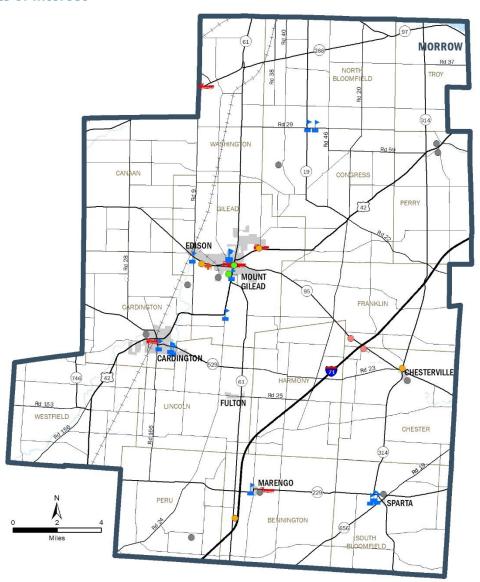


Existing Land Use





Points of Interest



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The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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6/16/2017



Residential Permits

One way to track an area's is growth is to look at the number of building permits being requested. This data are not always reliable as it is based on whether or not a locality is reporting these permits to the Census. Utilizing data from *Censtats* (US Census), it is safe to suggest that Morrow County's annual number of requested building permits has decreased. There has been a -23 percent decrease in annual permits from 2010 to 2016.

Morrow County Residential Building Permits



3.3 Current Transportation Network

The purpose of Morrow County's transportation system to safely accommodate the travel needs of its users. Morrow County's transportation system is made up of a network of roadways and railroads and the facilities that interface these surface modes with ground and air freight. These components each serve their own particular role in moving people and goods throughout the region. This section describes these individual systems and intermodal connections that make up the county's surface transportation system.

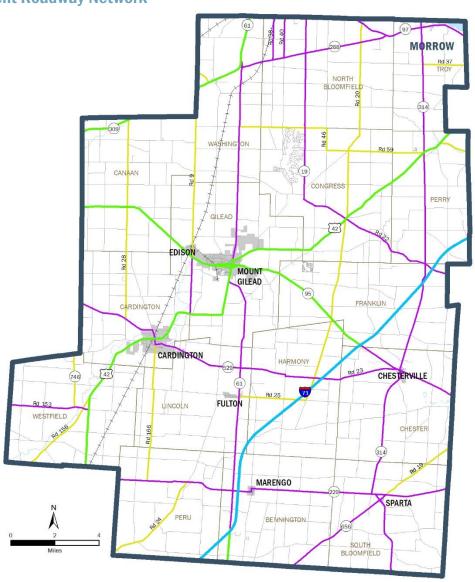
Non-personal vehicle modes serve the transportation needs of few Morrow County residents. However, the need and demand for transit and bikeways is changing in response to both underlying demographic changes in central Ohio's population and cultural preferences. Changing cultural preferences for transportation are evident from foreign born populations, younger and older generations. Recently, these populations have expressed a desire to live in communities with access to transit and that are pedestrian and bike friendly.

Individuals may be unable to afford a motor vehicle, or lack the ability or interest to drive. Public transit and adequate bike and pedestrian paths may provide the only independent means of transportation. These modes preserve the connection to work, daily living needs, medical appointments and other destinations. For riders of choice, alternative transportation options may offer a more convenient, economical and or environmentally friendly choice over other modes of transportation. The very presence of convenient and accessible alternative transportation options may help attract and retain a skilled workforce and enhance the quality of life.

The following map displays the functional classification system of roadways in Morrow County. Roadways are classified based on the role and function each roadway serves within the larger system. Interstates and expressways have very limited access and carry a high volume of vehicles making regional trips. Arterials primarily provide mobility, but also provide access to abutting land uses, unlike interstates and expressways. Collectors carry lower volumes of traffic and provide more access points to local roads and destinations. Local roads generally are not intended for long distance travel. Their main function is to provide access to homes and businesses. For this reason, the information and projects presented in the CORPO plan focus on interstates, expressways, arterials, and collectors only, as they make up the most important roadways in the roadway network.



Current Roadway Network



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Functional Classification

Interstate CORPO County

Minor Arterial Township Boundary

Major Collector

Minor Collector

Local

Source: ODOT



The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Travel Demand Management Services

Limited funding for expanded highways, unstable fuel prices, increased congestion, and concern for our air quality emphasize the need for reducing driving alone in urban and suburban areas. For many years now, transportation demand management (TDM) strategies have shown effectiveness in reducing traffic congestion and environmental pollution caused by motor vehicles.

Managing transportation demand should not be relegated to just urban areas. The TDM strategies and projects focus on the opportunities to rideshare, use transit, bike, or walk to meet some of the travel needs of the region. Alternatives that reduce travel demand also include telecommuting and alternate work schedules that compress the work week or allow for commuting at non-peak hours. The table below outlines the modes Morrow County commuters utilize.

Morrow County Gohio Commuter Data									
Year 2015 5YR ACS									
Total Commuters	15,843								
Drive Alone	86%								
Alternative	14%								
Carpool	9.0%								
Transit	0.5%								
Walk	1.0%								
Telecommute	3.2%								
Other	0.7%								

Due to decades of sprawling urban and exurban growth, Central Ohio commuters have become primarily dependent on the vehicular transportation. Morrow County, which is a primarily rural area, is no exception to this. Of the 15,843 commuters in Morrow County, 86 percent drive alone and 14 percent utilize an alternative method. This percentage may seem high, but comparatively, 81 percent of commuters in Franklin County, a larger and more urbanized county with 25 times the number of commuters, 81 percent are driving alone while 19 percent utilize alternative transportation options. For example, 9 percent of commuters in Morrow County participate carpool services alone.



Travel Demand Management Services - Continued

In order to identify the needs of people with mobility access issues, local governments develop coordinated public transit - human services transportation plans, or *Coordinated Plans*. The purpose of coordinated plans is to identify community resources for transportation and mobility, understand the gaps and unmet needs within those resources and to determine the approach to addressing those gaps and unmet needs. Although ODOT does not require local governments to produce a coordinated plan, it is required for eligibility for the Federal Transit Administration's Section 5310 program funds. The purpose of the 5310 grant program is to enhance the mobility of seniors and individuals with disabilities. Private nonprofit organization or state or local governments may apply for the grant if they are approved to coordinate services for senior and individuals with disabilities. ODOT makes 5310 project selections for small and rural Ohio counties. Therefore, ODOT must ensure that coordinated plans are in compliance with federal transit law. ODOT encourages coordinated plans to go beyond the requirements of Section 5310 funding to include analysis of needs and development projects to address the mobility needs of the general public.

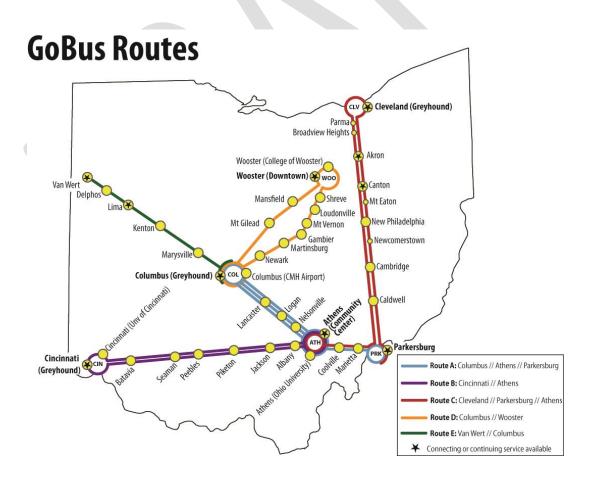
Morrow County completed a coordinated plan in January of 2008 and are in the process of updating it.



Transit Services

Transit services in Morrow County are provided by the Morrow County Transportation Collaborative (MCTC). Currently MCTC provides on-demand transportation and ride sharing services with fares starting at \$3.20 per mile.

Rural inter-city bus service in Morrow County is provided by Gobus. This service is designed to address low cost and geographically accessible intercity bus transportation needs of the entire state by supporting projects that provide transportation between non-urbanized areas and urbanized areas that result in connections of greater regional, statewide, and national significance. Funding for the rural inter-city bus is administered by ODOT, and the service is currently operated by Barons Bus Lines. Currently, Mt. Gilead is home to a Gobus stop.





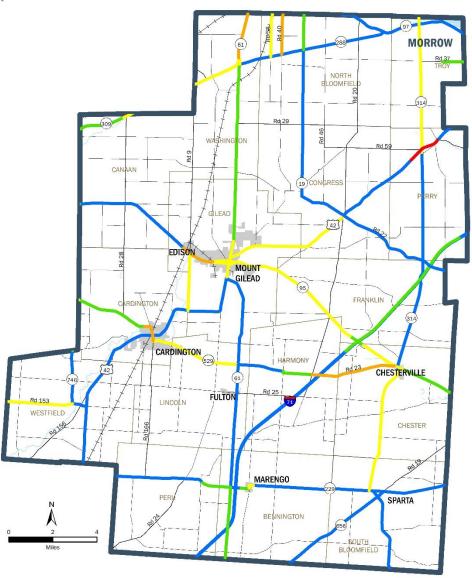
Transportation Infrastructure Conditions

Understanding the physical condition of a transportation is vital to resource management and the two following maps display the physical condition of both the roadway network (pavement) and bridges in Morrow County.

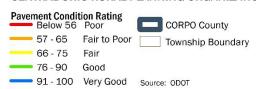




Transportation Infrastructure Conditions



CENTRAL OHIO RURAL PLANNING ORGANIZATION





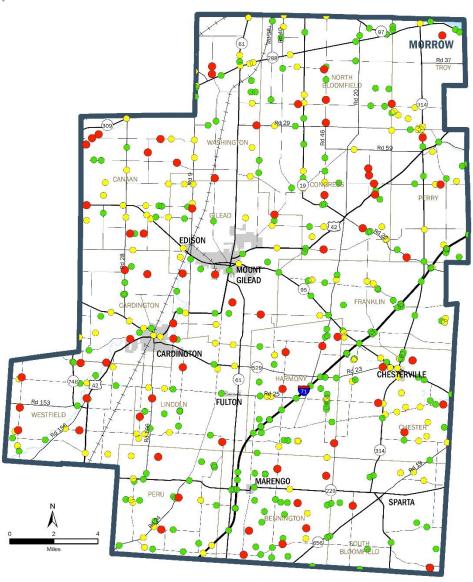
The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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2/14/2018

<u>3.0</u> **INVENTORY OF EXISTING CONDITIONS**



Transportation Infrastructure Conditions Cont.



CENTRAL OHIO RURAL PLANNING ORGANIZATION

Bridge General Appraisal CORPO County 0 - 4 Likely Needs Replaced 5 - 6 Likely Needs Maintenance Township Boundary 9 7 - 9 Good Source: ODOT



The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_MRW_bridge.mxd 2/14/2018



Freight

Goods are moved, transferred, and distributed from Morrow County to destinations across the United States and around the world. Whether by truck, rail, or air, Morrow County's efficiency in the movement of goods is an important part of the region's economic competitiveness, trade, and commodity flow. Morrow County and our region's economy as a whole have benefited from its multimodal transportation assets for many decades. Today, Morrow County is home to an airport and is crossed by arterial rail corridors as well as I-71, US 42 and multiple state routes including. Morrow County is strategically located within a 10-hour truck drive of 47 percent of the United States population and 61 percent of its manufacturing. The first of the following four maps details freight related infrastructure in Morrow County.

Congestion

There are a couple of aspects of the roadway system condition to consider. First is the physical condition — are the roadways and bridges in good repair? Section 3.3 outlined that aspect. Second, how does the roadway operate in terms of level of congestion? Using average daily traffic count data as well as travel time data covering all weekdays of 2016 except federal holidays. CORPO was able to map traffic volumes as well as congested areas within Morrow County. The second, third and fourth of the following maps display the, average daily traffic volumes and the percentage of congested days, separated into AM and PM periods.

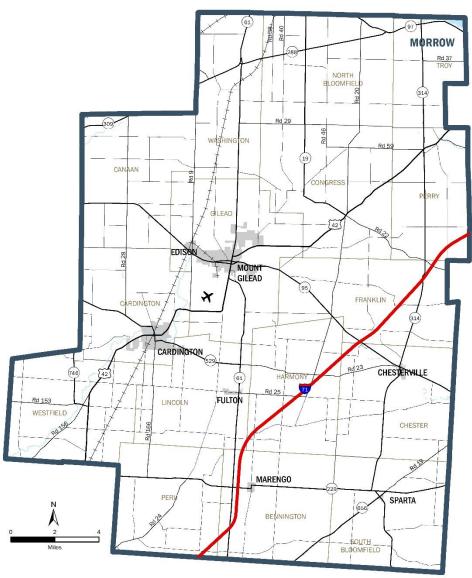
The percentage of congested days is identified if the travel time in at least three 5-minute intervals during the peak period of the day considered is 50 percent greater than the travel time under free-flow condition. That means, for at least fifteen minutes each AM or PM period, travelers would spend more than 50 percent extra travel time on the segment. The percentage of congested days is then calculated by dividing the total number of congested days by the total numbers of the non-federal-holiday weekdays in the period of interest.

Basically, this "percentage" measure can be interpreted approximately as below:

<=20%: 1 day or less per week 20 - 60%: 2 to 3 days per week > 60%: 3 + days per week



Freight



CENTRAL OHIO RURAL PLANNING ORGANIZATION

Freight

Airport

CORPO County

National Highway System

Township Boundary



The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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1/23/2018

Source: ODOT



Traffic Volumes



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2015 Average Daily Traffic Range

< 5,000

5,001 - 10,000

10,001 - 15,000

15,001 - 30,000

>30,000



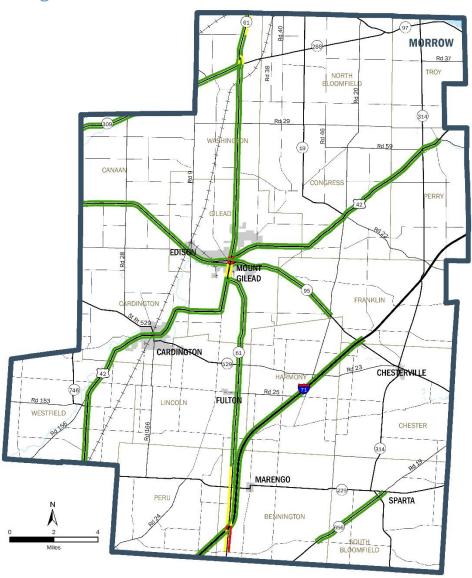
The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Source: ODOT TIMS 2015



Traffic Congestion - 6:00 - 9:00 AM



CENTRAL OHIO RURAL PLANNING ORGANIZATION

% Days Congested 2017 AM*

CORPO County

Township Boundary

* Congestion: more than 50% extra travel time

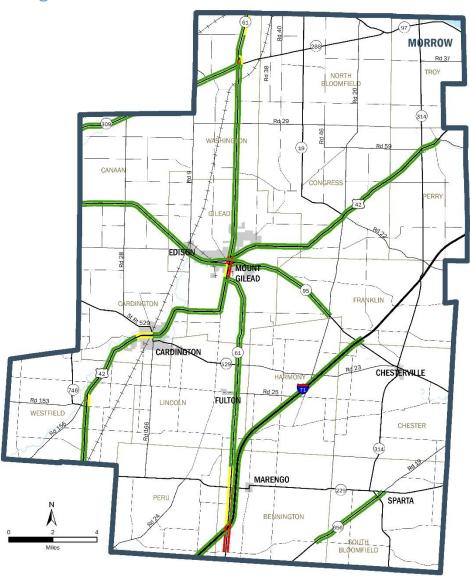
Source: INRIX Travel Time data



The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_MRW_CongestionAM.mxd 3/29/2018



Traffic Congestion - 3:30 - 6:30 PM



CENTRAL OHIO RURAL PLANNING ORGANIZATION



The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_MRW_CongestionPM.mxd 3/29/2018

50% extra travel time

Source: INRIX Travel Time data



Safety - (Please reference the summary and table on the following page.)

The primary function of a transportation network is to move people and goods from their origin to destination as safely as possible. If a network is unsafe, its utility is greatly diminished. One way to determine which areas of the network may have a safety issue or where these issues may one day arise is to collect and analyze crash data. Please see the Morrow County Safety Summary on the next page.

Safety - Crash Statistics

Like state and national trends, the number of reported crashes and fatal crashes in Morrow County has increased in recent years. In Morrow County, from 2012 to 2016, the total number of crashes increased by 15 percent. The total number of fatal crashes in Morrow County also increased by 29 percent from 2012 to 2016. Additionally, the number of crash resulting injuries in Morrow County decreased by -1 percent while crashes resulting in property damage increased by 20 percent.

Safety - Occupant Statistics

The table below outlines the crash related occupant statistics for Morrow County between 2012 and 2016. There is was a -14 percent decrease in the injury rate from 2012 to 2016.

Safety - Crash Locations and Types

Utilizing crash data collected by both the Ohio Department of Transportation and the Ohio Department of Public Safety, high crash areas of the transportation network are able to be identified. These areas are potential areas of focus for safety improvements.

Identifying these locations will allow law enforcement, emergency responders, transportation officials, government and the general public to target them directly through strategies and planning. The map reflects the denser area of Morrow County, such as Circleville, Ashville, South Bloomfield and busy intersections like that of I-71 and SR 95, I-71 and SR 61 and along multiple locations on I-71, especially at the southern portion of the county in Bennington Township.

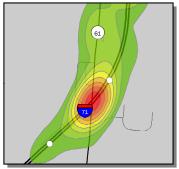
Safety - Rail Crossings

In many areas of the county, different modes of transportation converge. These areas can present significant safety challenges, especially where railroads cross roadways. CORPO with assistance from ODOT has compiled a list, identifying and ranking rail crossings in the county that may be in need of safety improvements. These crossings may be eligible for non-local funds intended to improve safety related infrastructure such as signals, gates and grade. Please reference the full list of identified rail crossings in the appendices

RELATIVE COUNTY CRASH DENSITY & SAFETY SUMMARY (2012 - 2016):

MORROW Count y

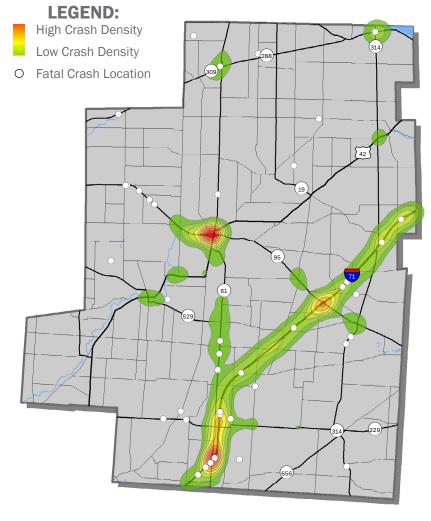












CRASH TRENDS BY YEAR (2012 - 2016)

	CRASH STATISTICS				TRUCK-	OCCUPANT STATISTICS					
YEAR	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	INJURY RATE	INJURY INVOLVED	Fatalities	Serious Injuries	Minor Injuries	No Visible Injuries	Total Injuries
2012	7	202	631	840	24.9%	101	7	39	137	102	285
2013	11	227	767	1,005	23.7%	130	11	61	131	153	356
2014	4	238	692	934	25.9%	108	5	49	145	139	338
2015	12	234	767	1,013	24.3%	109	12	41	164	147	364
2016	9	199	760	968	21.5%	85	10	31	131	135	307
5-Year Total	43	1,100	3,617	4,760	24.0%	533	45	221	708	676	1,650
Annual Average	8.6	220.0	723.4	952.0	24.0%	106.6	9.0	44.2	141.6	135.2	330.0
Percent Change (2012 to 2016)	29%	-1%	20%	15%	-14%	-16%	43%	-21%	-4%	32%	8%

- Shaded orange cells indicate the year with the highest value for each respective column.
 Injury Rate is calculated using the following formula: [(#Fatal Crashes+#Injury Crashes)/Total Crashes]



4.1 Population and Employment

Population Projections

One of the ways to predict the stresses a transportation system will endure in the future is to determine the number of people currently living and working in the region and how many will be in the future. Getting an idea of future population gains or losses will assist local governments in responding to these changes. An increase in population typically means more daily commuters on the County's roadways, transit system and trails. More people also mean that there will be an increased demand for goods and services, therefore an increase of trucks on the roads.

According to estimates developed by MORPC, Morrow County's total population is expected to remain relatively stable. The county's population is expected to decrease slightly by 2040. Morrow County's 2015 population was 35,091 while the 2040 population is projected to be 35,668. This is a 2 percent decrease in population over 25 years in Morrow County. This percentage is comparable to the State's population, which is only expected to grow by one percent. Nearby Franklin County is expected to grow by 32 percent.

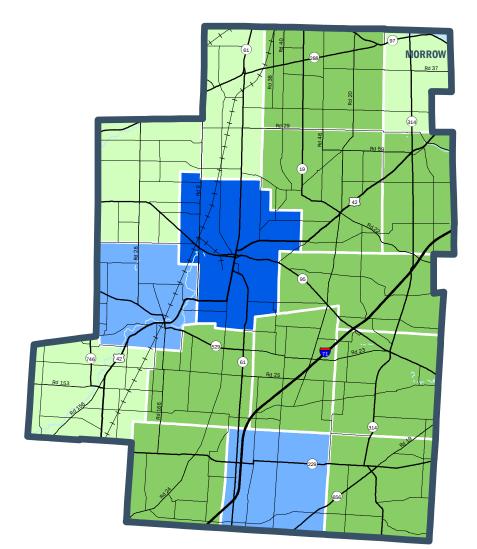
Year	Morrow Co.	Ohio	Franklin Co.
2015	35,091	11,549,120	1,250,269
2040	35,668	11,679,010	1,648,891
10 to 40 % Change	2%	1%	32%

Workforce & Employment

Projections for Morrow County indicate that there will be an increase in both workforce and jobs by 2040. The workforce population living within Morrow County is projected to increase by 23 percent while the number of jobs located within the county is projected to increase 20 percent. To better visualize how an increase in workers and jobs will affect the county, they were distributed into Statewide Transportation Analysis Zones (TAZ).

The following series of maps reflect possible future outcomes in the county.

2015 Population



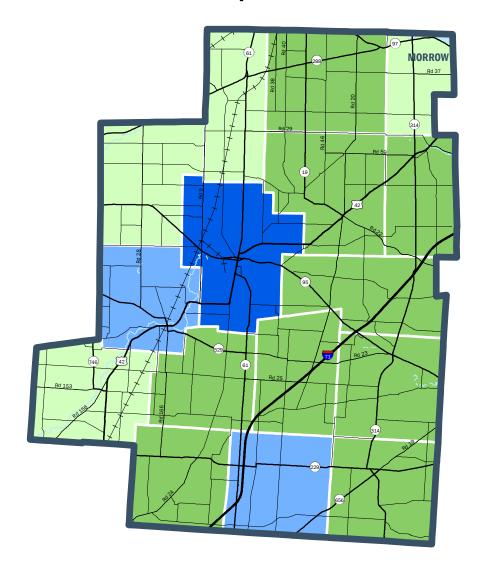
Total Population by TAZ



Morrow County - Total Population

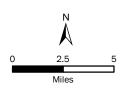
2015: 35,090 2040: 35,670 Growth: 580

2040 Population



Total Population by TAZ

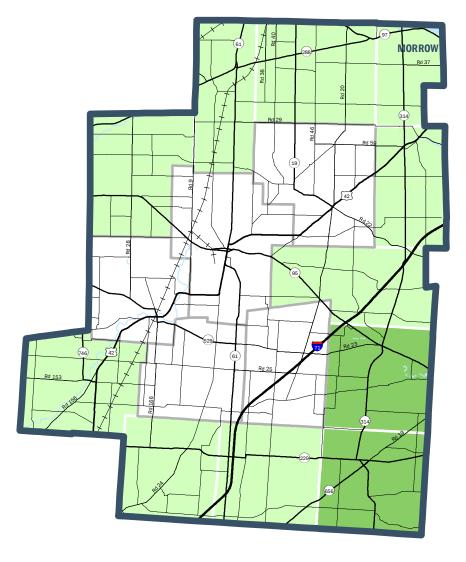




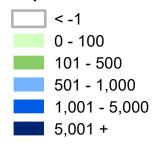


CENTRAL OHIO RURAL PLANNING ORGANIZATION

2015-2040 Population Growth



Population Growth by TAZ

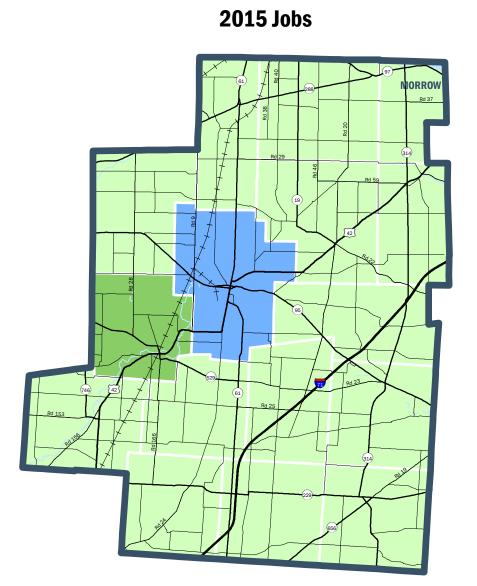




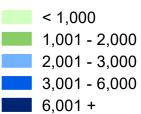
Source: MORPC

The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\ArcGIS\CORE\RTPO\CORPO_MRW_Pop_15_40_swTAZ.mxd 2/16/2018





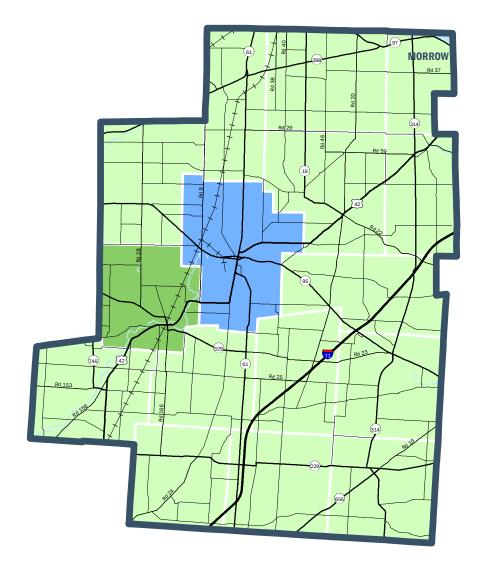
Total Jobs by TAZ



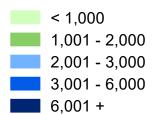
Morrow County - Total Jobs

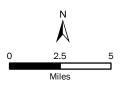
2015: 5,120 2040: 6,160 Growth: 1,040

2040 Jobs



Total Jobs by TAZ

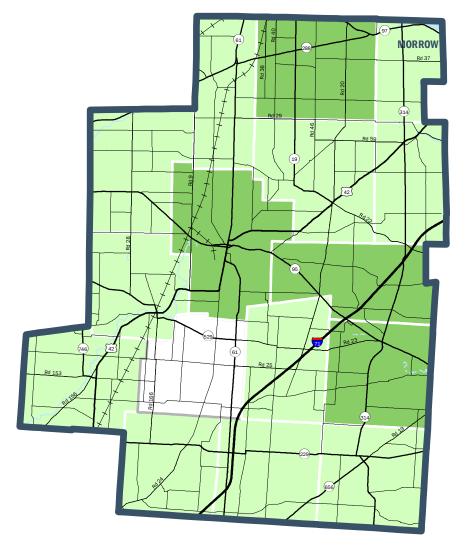




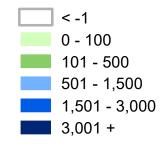


CENTRAL OHIO RURAL PLANNING ORGANIZATION

2015-2040 Job Growth



Job Growth by TAZ





Source: MORPC

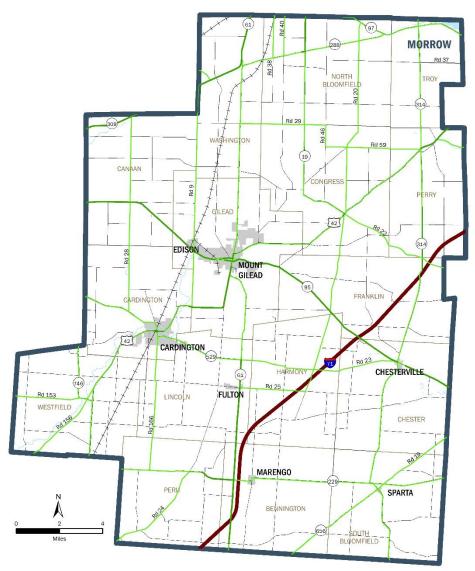
The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\ArcGIS\CORE\RTPO\CORPO_MRW_Job_15_40_swTAZ.mxd 2/16/2018





4.2 Travel Demand

Traffic Volume - Future



CENTRAL OHIO RURAL PLANNING ORGANIZATION

2040 Model Volumes < 5,000</p> 5,001 - 10,000 Township Boundary 10,001 - 15,000 15,001 - 30,000 >30,000 Source: Ohio Statewide Travel Model



The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_MRW_modelvolume_40.mxd 4/277/2018



Traffic Congestion - Future



CENTRAL OHIO RURAL PLANNING ORGANIZATION

2040 Model Congestion Level



Source: Ohio Statewide Travel Model



The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\ArcGIS\CORE\RTPO\CORPO_MRW_modelcongestion_40.mxd 4/27/2018



4.3 Project List – Morrow County

One of the primary purposes of the CORPO Transportation Plan is for CORPO members to identify transportation projects of importance in their county. The projects listed on the next few pages include those that add roadway capacity, expand the transit system or provide bicycle and pedestrian facilities. Some of the identified projects encompass the ongoing operation, maintenance and preservation of the existing transportation system. This may include the study, operation and expansion of transit service. However, most of the items listed are projects to expand physical components of the transportation system.

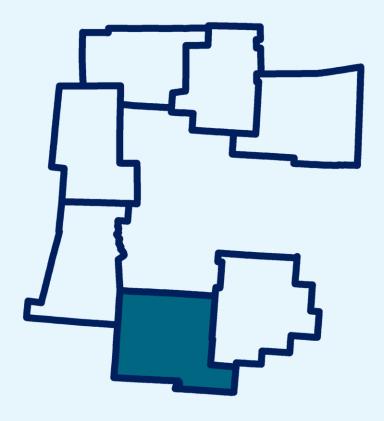
Each project listing provides a brief project description and identifies cost estimates for each project. The associated cost estimates are in construction dollars. The following list includes both short and long term projects that may occur between 2018 and 2040.

2018 - 2040 CORPO Transportation Plan Project Listing Mapped Projects - Sorted by County

County	□	Project Description	(Millions)
Morrow	MRW1	MRW1 Study I-71 interchanges to maximize development potential.	TBD
Morrow	MRW5	MRW5 Study scenic byways for SR 314, SR 95, and SR 42	TBD
Morrow	MRW4	MRW4 Study high-capacity transit corridor from US 36 to Nationwide Blvd.	TBD
Morrow	TBD	SR 229 from US 23 to I-71, Major Widening	\$100 - \$132

Cost

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Pickaway County

Rural Transportation Plan 2018 - 2040







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1.0 CORPO OVERVIEW



CORPO Background and Purpose

On July 1, 2013, ODOT began a two-year pilot program with five multi-county planning organizations (or councils of government) providing them with funding to conduct regional transportation planning in coordination with local stakeholders, Ohio MPOs, and ODOT. Much of Ohio's non-metropolitan local official coordination occurs between ODOT and these organizations. The five organizations cover 34 non-metropolitan counties in Ohio.

On January 27, 2016, Governor John Kasich formally designated each of these five agencies as an Ohio Regional Transportation Planning Organization (RTPO). These designations formalize the program that started as a pilot and will help spur better and more informed transportation decision making in Ohio.

Following the Ohio Department of Transportation's (ODOT) two-year pilot program to establish RTPO's, local governments in Central Ohio began discussing the opportunity to form a sixth Rural Transportation Planning Organization around the Mid-Ohio Regional Planning Commission (MORPC) which is the Metropolitan Planning Organization (MPO) for the Columbus urban area. MORPC's role as MPO and mentor in the pilot program encouraged its member governments outside the MPO to consider forming an RTPO. In response, MORPC began to work with the interested Central Ohio counties to form a Rural Planning Organization (RPO) area, a precursor to being a fully recognized RTPO. A designation that requires the submission of a long-range transportation plan to ODOT. The seven member counties include Fairfield, Knox, Madison, Marion, Morrow, Pickaway and Union. MORPC organized the counties to engage as an RPO, CORPO was created, and in preparation to become a state-designated RTPO this CORPO Transportation Plan was completed.

By July 2016 each member county passed resolutions to join the Central Ohio Rural Planning Organization (CORPO). Once approved to move forward with the development of CORPO, staff began the process of forming the CORPO Committee. The CORPO Committee is the guiding body for the development of the CORPO Transportation Plan. All seven CORPO member counties also established RPO subcommittees and designated representatives from each county at CORPO Committee. These decision were governed by a set of bylaws previously adopted by the CORPO Committee. The CORPO Committee convened on numerous occasions to establish an overarching vision for the RPO transportation plan. This vision was used to develop the overarching goals and objectives of the plan. Staff, in cooperation with the CORPO Committee and county-level RPO subcommittees went to work on a transportation plan which includes seven county-level sections. These sections were then merged into a unified plan for CORPO, culminating in a list of transportation projects for the region. Section 3F represents the county-level section for Pickaway County.

2.0 GOALS AND OBJECTIVES



Goals & Objectives

Preserve and Maintain the Existing Transportation System in a State of Good Repair

- Minimize the number of bridges structurally deficient or functionally obsolete
- Maximize the miles of pavement in acceptable condition
- Maximize resources dedicated to maintain and improve the condition of the transportation system

A Safe Transportation System for All Users

- Minimize crashes including pedestrian and bicycle related crashes
- Promote system user education to minimize unsafe driving behaviors such as a lack of seatbelt use, distracted driving, impaired driving and others

Accessibility and Mobility Options for all Users

- Build facilities that accommodate all users such as those using transit, walking and bicycling
- Expand public transportation within and between communities
- Expand the bicycle and pedestrian networks
- Expand options that assist those living in poverty or in areas with lower accessibility in reaching employment, healthcare or services

An Integrated, Connected and Coordinated Transportation System

- Increase outreach to advocacy and community groups including area residents, local governments, agencies and organizations
- Improve connections between regions by utilizing various modes of transportation, including passenger rail
- Increase local community collaboration and coordination efforts to achieve mutually beneficial outcomes

• A Transportation System that Promotes a Collaborative and Focused Approach to support Economic Vitality

- Improve strategic freight related facilities (e.g. highway, rail, intermodal, etc.)
- Develop priority multipurpose corridors (e.g. utilities, water, broadband, fiber, etc.)
- Maximize return on investment to position the region to compete globally and efficiently
- Provide transportation facilities that enhance the transition between rural and urban areas
- Enhance engagement with regional partners and voices

Preserve and Enhance Environmental Resources and Sustainability through the Transportation System

- Increase use of non-single occupant vehicles (local transit, intercity transit, ridesharing, biking, walking)
- Provide transportation facilities consistent with local land use, environmental and sustainability plans



3.1 Demographics

Population

According to Census population estimates, Pickaway County's population was 57,565 in July 2016. This represents a 3 percent increase from the 2010 Census estimated population of 55,723.

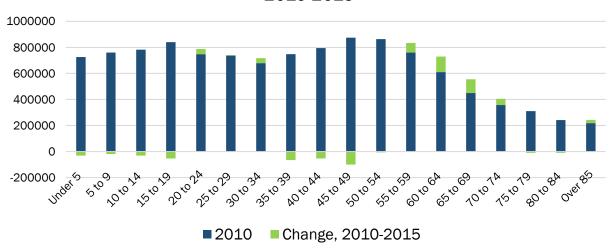
Pickaway County Population Estimates		
Year	Population	2010 - 2016 % Change
2010	55,723	
2011	55,961	
2012	56,326	
2013	56,416	
2014	56,742	
2015	56,971	
2016	57,565	3%

Age

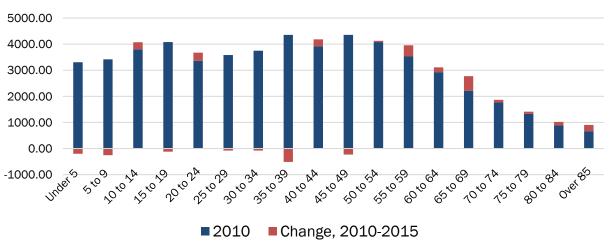
Pickaway County's median age of 39 years is comparable to that of the State of Ohio, at 38 years. Neighboring Franklin County has historically been a younger county with a median age of 35, because of the large population of university students. However, like the rest of Ohio, Pickaway county residents are aging and will face challenges in the future as this population leaves the workforce and enters retirement. The 55+ age cohort of both Ohio and Pickaway County is increasing. This is consistent with the findings in insight2050, a collaborative initiative among public and private partners designed to help communities proactively plan for development and population growth over the next 30+ years that is expected to be dramatically different from the past.



Change in Population by Age Cohort in Ohio 2010-2015



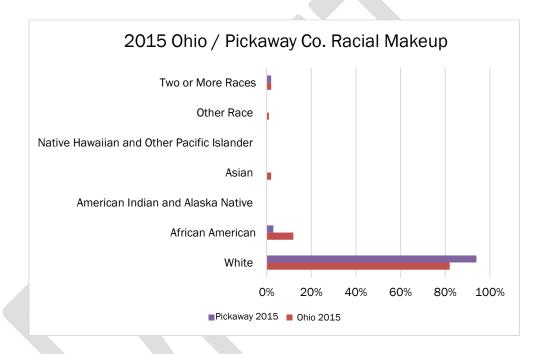
Change in Population by Age Cohort in Pickaway County 2010-2015





Diversity

Central Ohio is primarily white and Pickaway County is no exception. In 2015 Pickaway County's population was 94 percent white. Pickaway County is less diverse when compared to Ohio as a whole. That same year it was estimated that Ohio was 82 percent white, 12 percent African-American and roughly the same comparatively for other races.





Families and Households

The users of a transportation system come from diverse backgrounds, socioeconomic statuses and household structures. Of all the households in Pickaway County, 73 percent are family households and 15 percent of households are single parent families. Pickaway county households have a significant number of households with at least one person over 60 years of age in the home.

Pickaway County Households (HH)		
HH Type	%	Average
Families	73%	
Non-Family	27%	
Single Parent	15%	
HH Size		2.68
Family Size		3.14
HH with 60+	37%	
HH with under 18	34%	



Home Ownership

Homeownership has traditionally been a goal for most Americans and a factor in determining wealth in the United States, but recently there have been changes to these societal norms. For decades the suburbs exploded as people moved out of urbanized areas and utilized highways to get to and from work. Now, with increased traffic, higher fuel prices, a recovering housing market and more environmentally conscious commuters who would like to be closer to amenities, the demand for denser, centrally located housing options has increased. Because of this demand, mixed-use developments have begun to pop up in metro areas across the state, increasing the number of available rental options with them.

	Ohio Housing Tenure	
Year	% Rent	% Own
2010	31%	69%
2015	34%	66%
10 to 15 Change	+3%	-3%

Р	ickaway County Housing Tenu	re
Year	% Rent	% Own
2010	25%	75%
2015	26%	74%
10 to 15 Change	+1%	-1%

Although Ohio appears to have seen an overall increase in renters, Pickaway County has relatively maintained its percentage of renters from 2010 to 2015. In comparison, Franklin County, where denser development has occurred over the last five years the increase in residents who rent went from 43 to 46 percent.



Employment

As of April 2017, Pickaway County's unemployment rate was 3.9 percent. This rate is low when compared to the State of Ohio, where the rate was 4.4 percent. Ohio's rate was higher than the national rate of 4.1 percent that same month. Pickaway County's unemployment rate is a positive, not only because it is low but because it has steadily declined over the last five years.

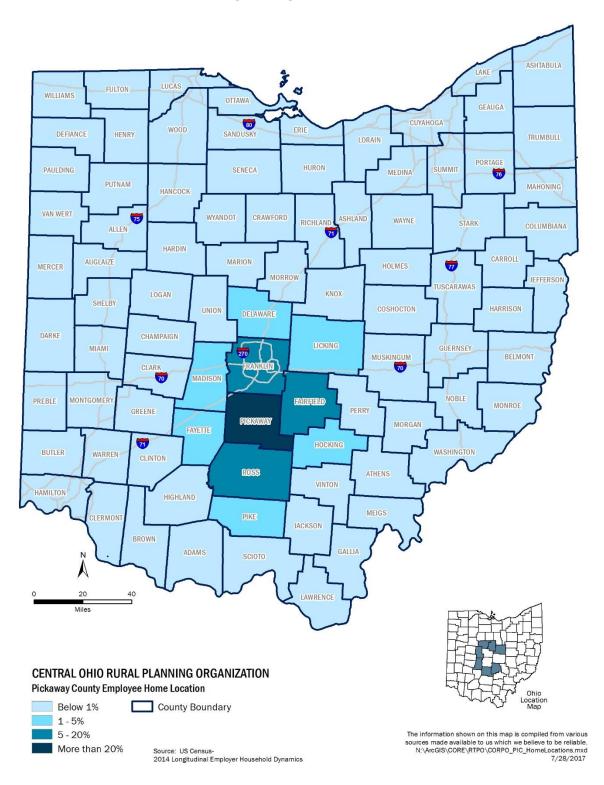
The labor participation rate in the county, a measure of those who are currently working or actively looking for work was 56 percent in 2016.

Pickaway Cour	nty Unemployment Rates
2013	7.4%
2014	5.7%
2015	4.8%
2016	4.7%
April 2017	3.9%
13 to 17 Change	- 3.5%

When considering employment, knowing the number of people in your community who are employed and how they get to work is very important. To make appropriate transportation planning decisions, knowing where they work is vital. The majority of workers employed in Pickaway County live primarily in Pickaway, Franklin, Fairfield and Ross counties. Pickaway county residents are primarily employed in Pickaway and Franklin counties.

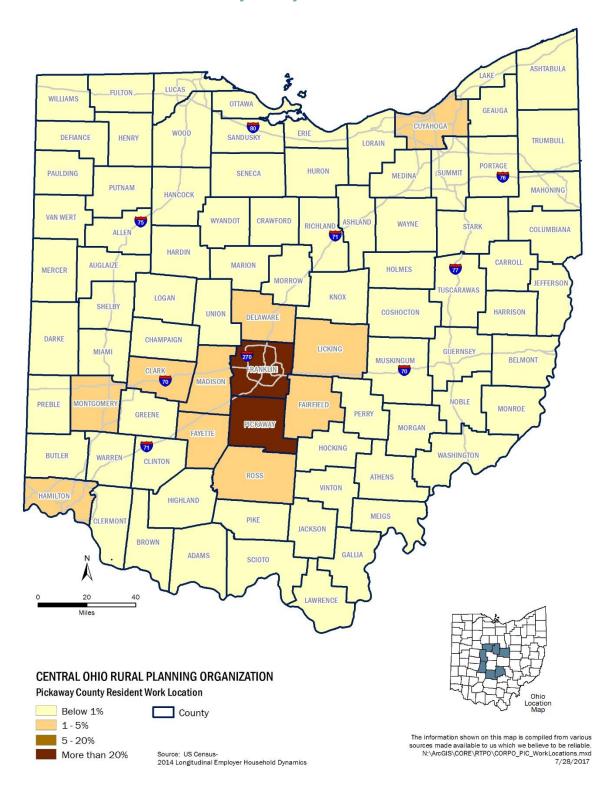


Worker Commute - Where Pickaway County Workers Commute From





Worker Commute - Where Pickaway County Residents Commute To

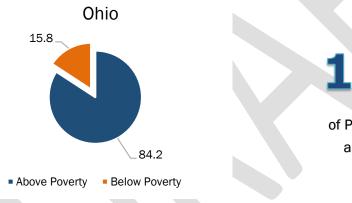




Income and Poverty

Unfortunately, a low unemployment rate does not mean that there are not residents struggling with poverty in Pickaway County. According to Census data, the percentage of Pickaway county residents living below the poverty line in 2015 was estimated to be 12.6 percent. The percentage decreased from the 13.5 percent estimated in 2012. However, the rate is still comparatively low to that of the state, which is currently 15.8 percent, and neighboring Franklin County, where the percentage is estimated to be 17.5. Minority populations in Pickaway County appear to make up a disproportionate percentage of those living in poverty. Additionally, 18.2 percent of those living in poverty are children 18 years of age and under, compared to 22.8 percent at the state level.

In Circleville, the largest jurisdiction in Pickaway County, 20.2 percent of residents live below the poverty line.



12.6%

of PickawayCo. residents are living in poverty.

14%

of minorities in PickawayCo are living in poverty.

12.5%

of whites in PickawayCo are living in poverty.

As the percentage of those living in poverty has increased, the median income for Pickaway county residents decreased. In 2015 the median household income in Pickaway County was \$57,439, a considerable increase from the estimated \$49,262 in 2010. Pickaway County's median income is lower than that of the state however, which in 2015 was \$49,429, an increase from the 2010 median income of \$47,358.



Vehicle Access

Little or no access to reliable personal or public transportation can create a multitude of daily challenges. Of the 18,431 households in Pickaway County, 4 percent reported no vehicle in the home in 2015. This is a significantly smaller percentage than that of the state, which reported 8 percent that same year. That means just under 900 households in Pickaway County have to plan trips to work, school or medical appointments in advance and may be dependent upon others to make it to any of those. In a county with limited public transit options, this can create real obstacles.

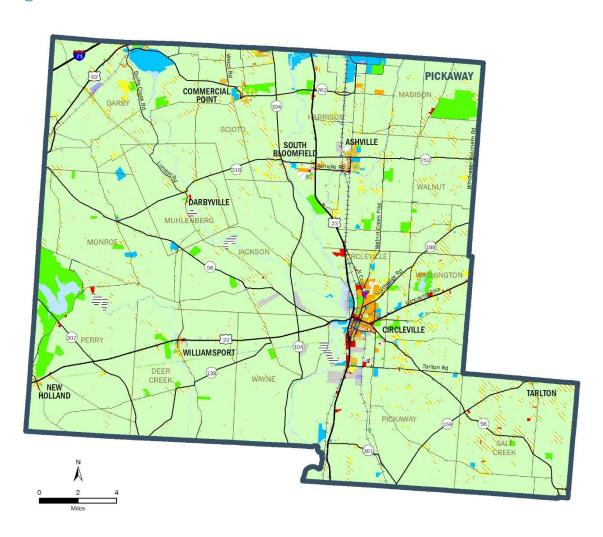
3.2 Land Use / Development

Pickaway County continues to attract new residents and jobs. Changes to the marketplace include an aging population and an increase in young adults. This typically means there is a desire for multiple transportation options. The way the county develops directly influences the CORPO plan's goals and objectives. Local land use decisions can affect access to amenities, employment and attractions and transportation systems can affect development decisions.

Recognizing how land use decisions affect the quality of place and how well it attracts and retains workers is important. These decisions can support economic opportunity by accommodating business' needs for transportation capacity and reliability. As a part of large metropolitan area, Pickaway County may benefit from seamless transitions between communities through coordinated development approaches, which would allow the transportation system of roads, bikeways, and pedestrian ways to be continuous for regional connectivity. The following two maps display the existing land uses as well and the various points of interest and for Pickaway County. ("Public Spaces" in the points of interest map includes locations such as historical sites, fairgrounds, community and recreation centers, theaters and concert halls, museums and libraries.)



Existing Land Use

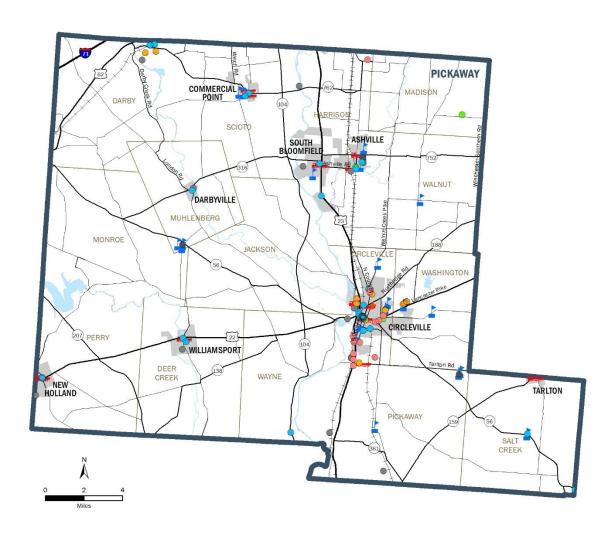


CENTRAL OHIO RURAL PLANNING ORGANIZATION

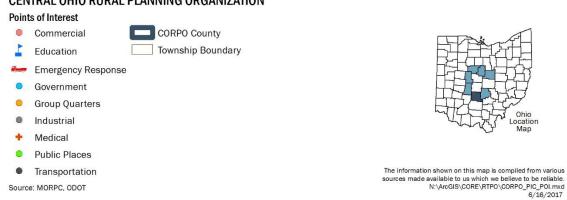




Points of Interest



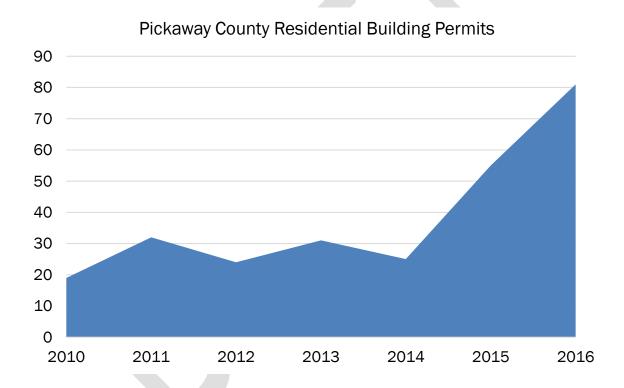
CENTRAL OHIO RURAL PLANNING ORGANIZATION





Residential Permits

One way to track an area's is growth is to look at the number of building permits being requested. This data are not always reliable as it is based on whether or not a locality is reporting these permits to the Census. Utilizing data from *Censtats* (US Census), it is safe to suggest that Pickaway County's annual number of requested building permits has increased greatly. In 2016 there has been at least 4 times the number of annual Census reported residential permits in Pickaway County than in 2010.





3.3 Current Transportation Network

The purpose of Pickaway County's transportation system to safely accommodate the travel needs of its users. Pickaway County's transportation system is made up of several components or subsystems that should be seamlessly connected to provide fluid movement of people and goods across the system and the region. These include roadways, transit, railroads, bikeways, pedestrian facilities, and the unique intermodal facilities that interface these surface modes with ground and air freight. These components each serve their own particular role in moving people and goods throughout the region. This section describes these individual systems and intermodal connections that make up the county's surface transportation system.

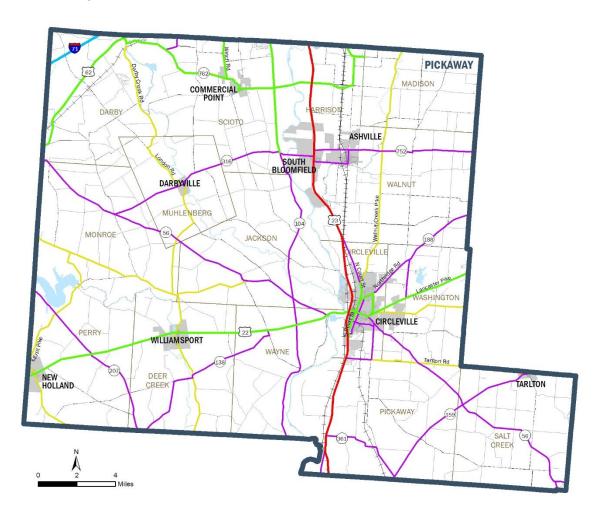
Non-personal vehicle modes serve the transportation needs of few Pickaway county residents. However, the need and demand for transit and bikeways is changing in response to both underlying demographic changes in central Ohio's population and cultural preferences. Changing cultural preferences for transportation are evident from foreign born populations, younger and older generations. Recently, these populations have expressed a desire to live in communities with access to transit and that are pedestrian and bike friendly.

Individuals may be unable to afford a motor vehicle, or lack the ability or interest to drive. Public transit and adequate bike and pedestrian paths may provide the only independent means of transportation. These modes preserve the connection to work, daily living needs, medical appointments and other destinations. For riders of choice, alternative transportation options may offer a more convenient, economical and or environmentally friendly choice over other modes of transportation. The very presence of convenient and accessible alternative transportation options may help attract and retain a skilled workforce and enhance the quality of life.

The first of the following two maps displays the functional classification system of roadways in Pickaway County. Roadways are classified based on the role and function each roadway serves within the larger system. Interstates and expressways have very limited access and carry a high volume of vehicles making regional trips. Arterials primarily provide mobility, but also provide access to abutting land uses, unlike interstates and expressways. Collectors carry lower volumes of traffic and provide more access points to local roads and destinations. Local roads generally are not intended for long distance travel. Their main function is to provide access to homes and businesses. For this reason, the information and projects presented in the CORPO plan focus on interstates, expressways, arterials, and collectors only, as they make up the most important roadways in the roadway network. The second map displays bike and pedestrian paths within Pickaway County.



Current Roadway Network



CENTRAL OHIO RURAL PLANNING ORGANIZATION Functional Classification Interstate CORPO County Principal Arterial Township Boundary Minor Arterial Major Collector Minor Collector

Source: ODOT



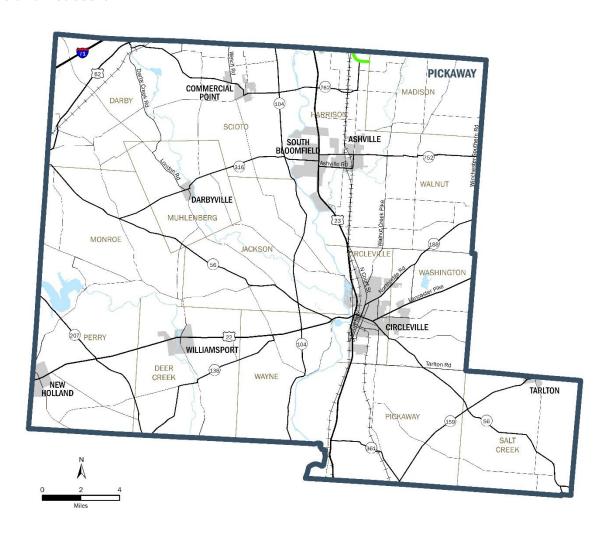
The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Local



Bike and Pedestrian



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Regional Trails and Bikeways





Source: MORPC, Local Governments

The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Travel Demand Management Services

Limited funding for expanded highways, unstable fuel prices, increased congestion, and concern for our air quality emphasize the need for reducing driving alone in urban and suburban areas. For many years now, transportation demand management (TDM) strategies have shown effectiveness in reducing traffic congestion and environmental pollution caused by motor vehicles.

Managing transportation demand should not be relegated to just urban areas. The TDM strategies and projects focus on the opportunities to rideshare, use transit, bike, or walk to meet some of the travel needs of the region. Alternatives that reduce travel demand also include telecommuting and alternate work schedules that compress the work week or allow for commuting at non-peak hours. The table below outlines the modes Pickaway county commuters utilize.

Pickaway County G	Gohio Commuter Data
Year	2015 5YR ACS
Total Commuters	24,111
Drive Alone	86%
Alternative	14%
Carpool	8.0%
Transit	0.1%
Walk	1.4%
Telecommute	3.3%
Other	0.6%

Due to decades of sprawling urban and exurban growth, Central Ohio commuters have become primarily dependent on the vehicular transportation. Pickaway County, which is a primarily rural area, is no exception to this. Of the 24,111 commuters in Pickaway County, 86 percent drive alone and 14 percent utilize an alternative method. This percentage may seem high, but comparatively, 81 percent of commuters in Franklin County, a larger and more urbanized county with 25 times the number of commuters, 81 percent are driving alone while 19 percent utilize alternative transportation options. For example, 8 percent of commuters in Pickaway County participate carpool services alone.



Travel Demand Management Services - Continued

In order to identify the needs of people with mobility access issues, local governments develop coordinated public transit - human services transportation plans, or *Coordinated Plans*. The purpose of coordinated plans is to identify community resources for transportation and mobility, understand the gaps and unmet needs within those resources and to determine the approach to addressing those gaps and unmet needs. Although ODOT does not require local governments to produce a coordinated plan, it is required for eligibility for the Federal Transit Administration's Section 5310 program funds. The purpose of the 5310 grant program is to enhance the mobility of seniors and individuals with disabilities. Private nonprofit organization or state or local governments may apply for the grant if they are approved to coordinate services for senior and individuals with disabilities. ODOT makes 5310 project selections for small and rural Ohio counties. Therefore, ODOT must ensure that coordinated plans are in compliance with federal transit law. ODOT encourages coordinated plans to go beyond the requirements of Section 5310 funding to include analysis of needs and development projects to address the mobility needs of the general public.

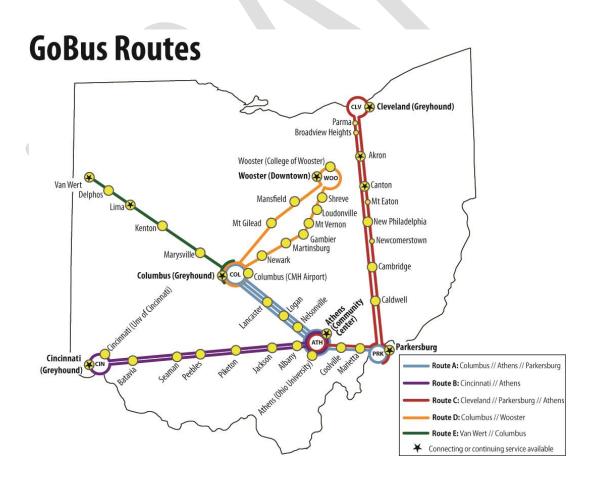
Pickaway County completed a coordinated plan in December of 2013 and are in the process of updating it.



Transit Services

Transit services in Pickaway County are provided by the Pickaway Area Rural Transit (PART). Currently PART provides on-demand, scheduled shuttle service and curb to curb point deviation services within the County, as well as a shuttle to Columbus. Rural or out of county transportation services are provided for a fee. Service fares ranges from to \$0.50 to \$10.00 depending on the distance. Elderly and disabled riders are eligible for reduced rates.

Gobus, a rural inter-city bus service does not have a stop in Pickaway County at this time and the closest stops are in nearly Columbus or Lancaster. This service is designed to address low cost and geographically accessible intercity bus transportation needs of the entire state by supporting projects that provide transportation between non-urbanized areas and urbanized areas that result in connections of greater regional, statewide, and national significance. Funding for the rural inter-city bus is administered by ODOT, and the service is currently operated by Baron Bus Lines.





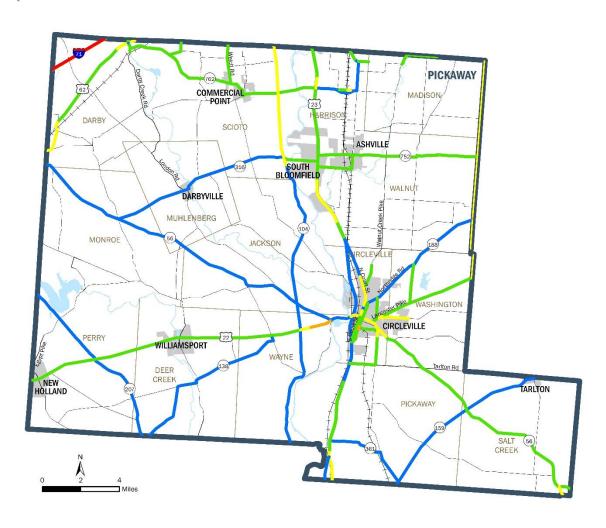
Transportation Infrastructure Conditions

Understanding the physical condition of a transportation is vital to resource management and the two following maps display the physical condition of both the roadway network (pavement) and bridges in Pickaway County.





Transportation Infrastructure Conditions



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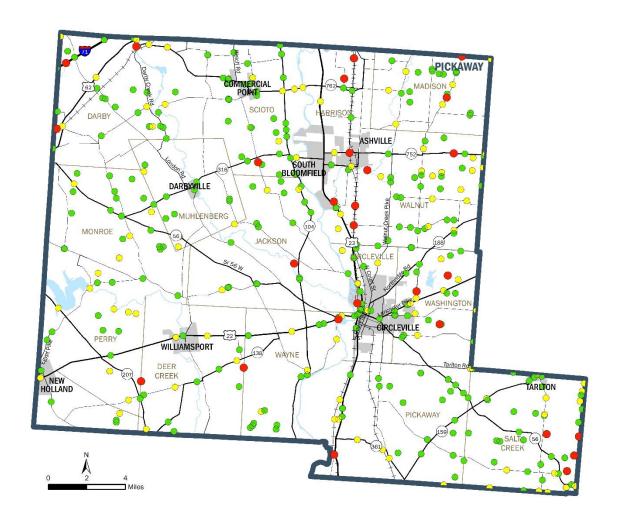


The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Transportation Infrastructure Conditions Cont.



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Bridge General Appraisal

O - 4 Likely Needs Replaced
CORPO County

5 - 6 Likely Needs Maintenance
Township Boundary

7 - 9 Good

Source: ODOT



The Information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Freight

Goods are moved, transferred, and distributed from Pickaway County to destinations across the United States and around the world. Whether by truck, rail, or air, Pickaway County's efficiency in the movement of goods is an important part of the region's economic competitiveness, trade, and commodity flow. Pickaway county and our region's economy as a whole have benefited from its multimodal transportation assets for many decades. Today, Pickaway County is home to an intermodal facility, an airport and is crossed by arterial rail corridors as well as US 23, 22 and touched by I-71 and US 62 in the northwest portion of the County. Pickaway County is strategically located within a 10-hour truck drive of 47 percent of the United States population and 61 percent of its manufacturing. The first of the following four maps details freight related infrastructure in Pickaway County.

Congestion

There are a couple of aspects of the roadway system condition to consider. First is the physical condition — are the roadways and bridges in good repair? Section 3.3 outlined that aspect. Second, how does the roadway operate in terms of level of congestion? Using average daily traffic count data as well as travel time data covering all weekdays of 2016 except federal holidays. CORPO was able to map traffic volumes as well as congested areas within Pickaway County. The second, third and fourth of the following maps display the, average daily traffic volumes and the percentage of congested days, separated into AM and PM periods.

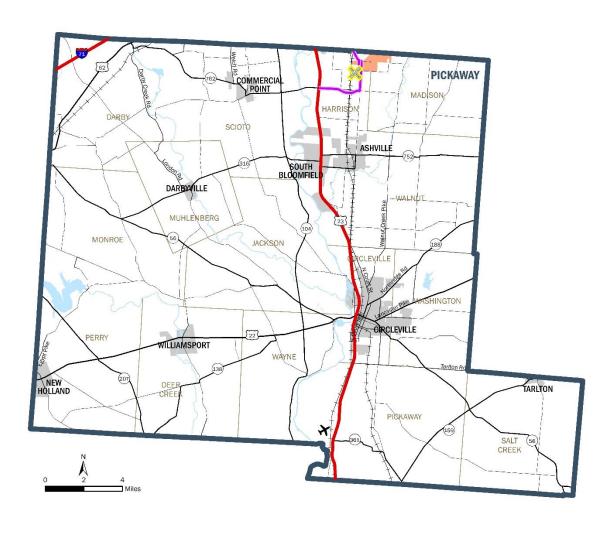
The percentage of congested days is identified if the travel time in at least three 5-minute intervals during the peak period of the day considered is 50 percent greater than the travel time under free-flow condition. That means, for at least fifteen minutes each AM or PM period, travelers would spend more than 50 percent extra travel time on the segment. The percentage of congested days is then calculated by dividing the total number of congested days by the total numbers of the non-federal-holiday weekdays in the period of interest.

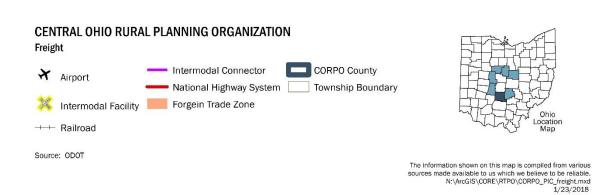
Basically, this "percentage" measure can be interpreted approximately as below:

<=20%: 1 day or less per week 20 - 60%: 2 to 3 days per week > 60%: 3 + days per week



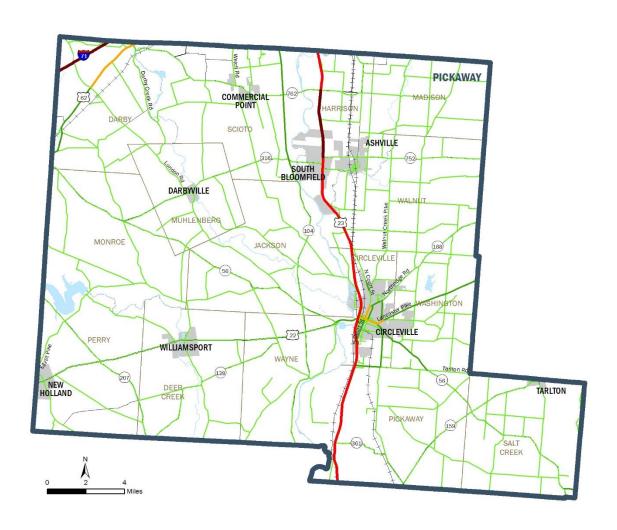
Freight







Traffic Volumes



CENTRAL OHIO RURAL PLANNING ORGANIZATION

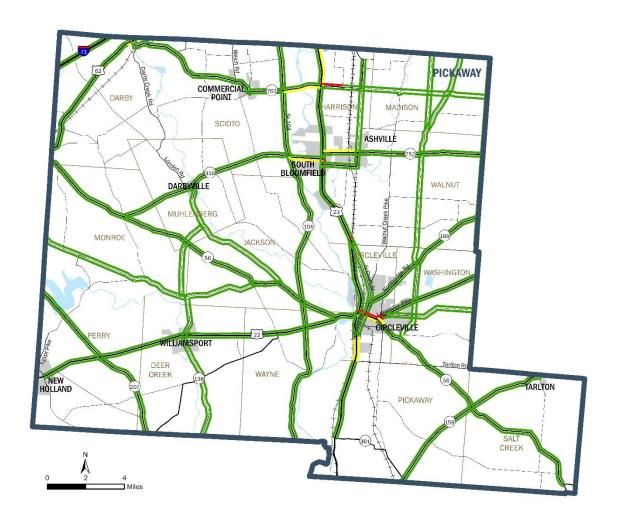


The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Traffic Congestion - 6:00 - 9:00 AM



CENTRAL OHIO RURAL PLANNING ORGANIZATION

% Days Congested 2017 AM*

<= 20% (< 1 day per week)
20 - 60% (2-3 days per week)
> 60% (3+ days per week)
CORPO County
Township Boundary

* Congestion: more than

50% extra travel time

Source: INRIX Travel Time data

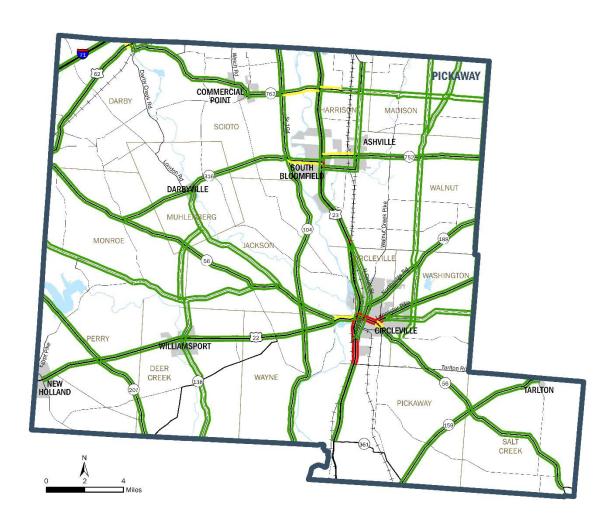


The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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3/29/2018



Traffic Congestion - 3:30 - 6:30 PM



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% Days Congested 2017 PM*

<=20% (< 1 day per wk)

20 - 60% (2-3 days per wk)

> 60% (3+ days per wk)

CORPO County

Township Boundary

* Congestion: more than

50% extra travel time

Source: INRIX Travel Time data



The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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3/29/2018



Safety - (Please reference the summary and table on the following page.)

The primary function of a transportation network is to move people and goods from their origin to destination as safely as possible. If a network is unsafe, its utility is greatly diminished. One way to determine which areas of the network may have a safety issue or where these issues may one day arise is to collect and analyze crash data. Please see the Pickaway county Safety Summary on the next page.

Safety - Crash Statistics

Like state and national trends, the number of reported crashes and fatal crashes in Pickaway County has increased in recent years. In Pickaway county, from 2012 to 2016, the total number of crashes increased by 14 percent. The total number of fatal crashes in Pickaway County also increased by 9 percent from 2012 to 2016. Additionally, the number of crash resulting injuries in Pickaway County increased by 4 percent and crashes resulting in property damage increased by 14 percent.

Safety - Occupant Statistics

The table below outlines the crash related occupant statistics for Pickaway county between 2012 and 2016. There is was a -4 percent decrease in the injury rate from 2012 to 2016.

Safety - Crash Locations and Types

Utilizing crash data collected by both the Ohio Department of Transportation and the Ohio Department of Public Safety, high crash areas of the transportation network are able to be identified. These areas are potential areas of focus for safety improvements.

Identifying these locations will allow law enforcement, emergency responders, transportation officials, government and the general public to target them directly through strategies and planning. The map reflects the denser area of Pickaway County, such as Circleville, Ashville, South Bloomfield and busy intersections like that of US 23 and SR 316 and where US 23 and SR 762 meet in the northern side of the county.

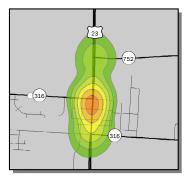
Safety - Crash Locations and Types

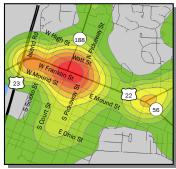
In many areas of the county, different modes of transportation converge. These areas can present significant safety challenges, especially where railroads cross roadways. CORPO with assistance from ODOT has compiled a list, identifying and ranking rail crossings in the county that may be in need of safety improvements. These crossings may be eligible for non-local funds intended to improve safety related infrastructure such as signals, gates and grade. Please reference the full list of identified rail crossings in the appendices.

RELATIVE COUNTY CRASH DENSITY & SAFETY SUMMARY (2012 - 2016):

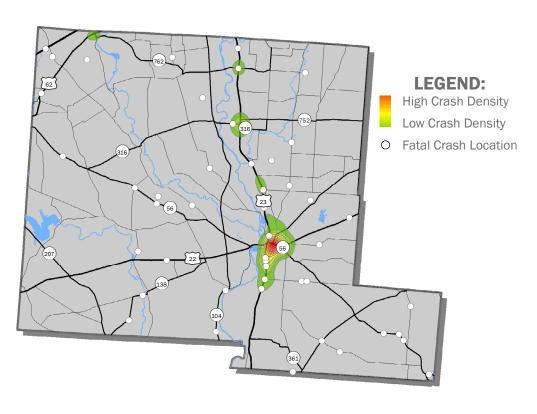
PICKAWAY Count Y











CRASH TRENDS BY YEAR (2012 - 2016)

	CRASH STATISTICS				TRUCK-	OCCUPANT STATISTICS					
YEAR	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	INJURY RATE	INVOLVED CRASHES	Fatalities	Serious Injuries	Minor Injuries	No Visible Injuries	Total Injuries
2012	11	338	842	1,191	29.3%	92	12	61	251	181	505
2013	12	295	797	1,104	27.8%	77	13	68	191	179	451
2014	10	306	875	1,191	26.5%	104	13	48	218	187	466
2015	5	356	898	1,259	28.7%	100	5	71	229	225	530
2016	12	352	990	1,354	26.9%	105	13	77	227	195	512
5-Year Total	50	1,647	4,402	6,099	27.8%	478	56	325	1,116	967	2,464
Annual Average	10.0	329.4	880.4	1,219.8	27.8%	95.6	11.2	65.0	223.2	193.4	492.8
Percent Change (2012 to 2016)	9%	4%	18%	14%	-8%	14%	8%	26%	-10%	8%	1%

- Shaded orange cells indicate the year with the highest value for each respective column.
 Injury Rate is calculated using the following formula: [(#Fatal Crashes+#Injury Crashes)/Total Crashes]



4.1 Population and Employment

Population Projections

One of the ways to predict the stresses a transportation system will endure in the future is to determine the number of people currently living and working in the region and how many will be in the future. Getting an idea of future population gains or losses will assist local governments in responding to these changes. An increase in population typically means more daily commuters on the County's roadways, transit system and trails. More people also mean that there will be an increased demand for goods and services, therefore an increase of trucks on the roads.

According to estimates developed by MORPC, Pickaway County's total population is expected to increase significantly by 2040. Pickaway County's 2015 population was 56,971 while the 2040 population is projected to be 64,658. This is a 13 percent increase in population over 25 years in Pickaway County. This percentage is considerably greater than the State's projected population change of one percent. Comparatively, nearby Franklin County is expected to grow by 32 percent.

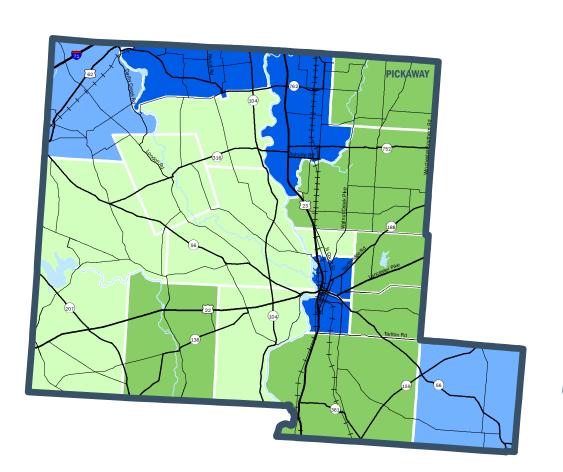
Year	Pickaway Co.	Ohio	Franklin Co.
2015	56,971	11,549,120	1,250,269
2040	64,658	11,679,010	1,648,891
10 to 40 % Change	13%	1%	32%

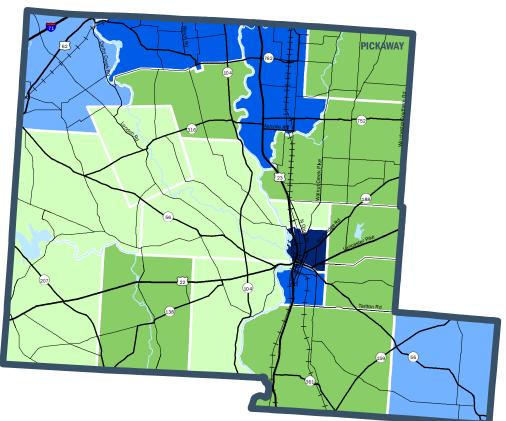
Workforce & Employment

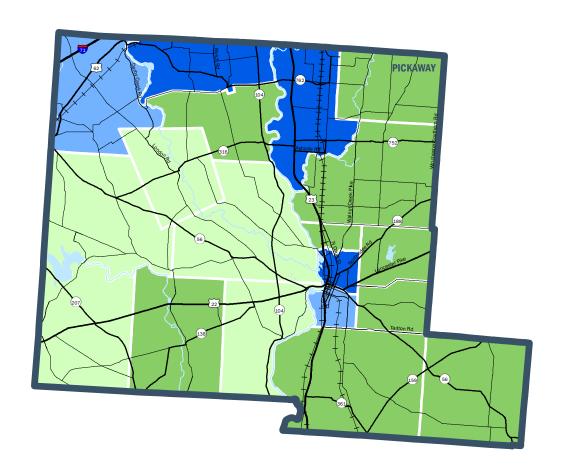
Projections for Pickaway County indicate that not only will there be an increase in population but also in both workforce and jobs as well. The workforce population living within Pickaway County is projected to increase 5 percent while the number of jobs located within the county are projected to increase 74 percent by 2040. To better visualize how an increase in workers and jobs will affect the county, they were distributed into Statewide Transportation Analysis Zones (TAZ).

The following series of maps reflect possible future outcomes in the county.

2040 Population 2015 Population 2015-2040 Population Growth







Total Population by TAZ

< 1,500 1,501 - 3,000 3,001 - 5,000 5,001 - 10,000 10,001 +

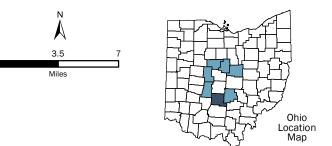
Pickaway County - Total Population

2015: 56,970

2040: 64,660 Growth: 7,690

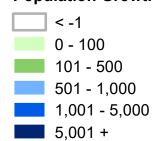
Total Population by TAZ

< 1,500 1,501 - 3,000 3,001 - 5,000 5,001 - 10,000 10,001 +



CENTRAL OHIO RURAL PLANNING ORGANIZATION

Population Growth by TAZ



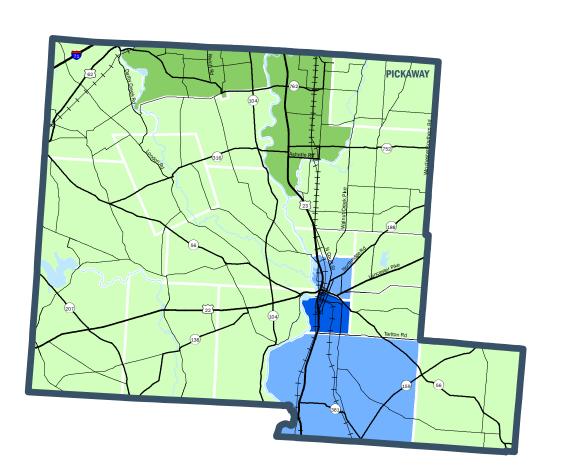


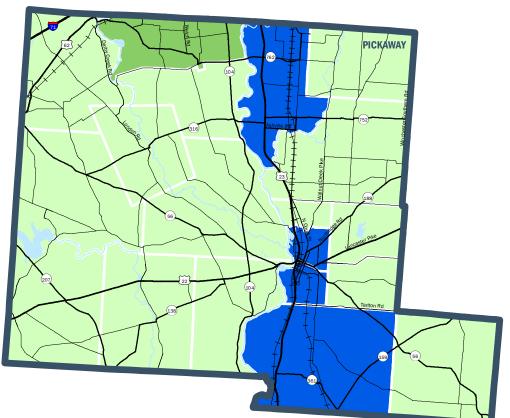
Source: MORPC

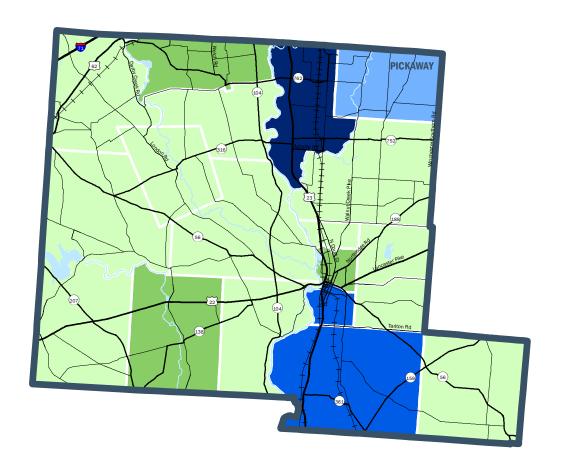
The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\ArcGIS\CORE\RTPO\CORPO_PIC_Pop_15_40_swTAZ.mxd 2/16/2018



2015 Jobs 2015-2040 Job Growth





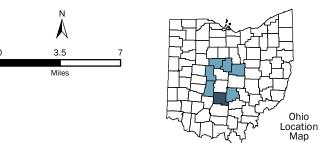


Total Jobs by TAZ

< 1,000 1,001 - 2,000 2,001 - 3,000 3,001 - 6,000 6,001 +

Total Jobs by TAZ

< 1,000 1,001 - 2,000 2,001 - 3,000 3,001 - 6,000 6,001 +

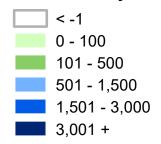


2015: 13,300 2040: 23,130

Growth: 9,830

Pickaway County - Total Jobs

Job Growth by TAZ





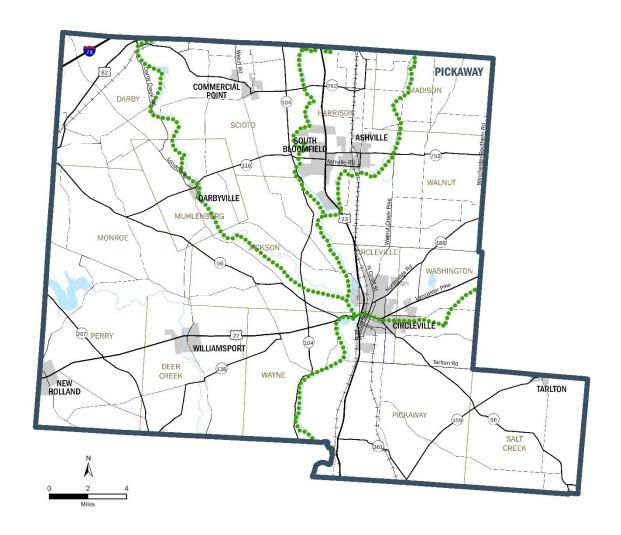
Source: MORPC

The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\ArcGIS\CORE\RTPO\CORPO_PIC_Job_15_40_swTAZ.mxd 2/16/2018



4.2 Travel Demand

Bike and Pedestrian - Future



CENTRAL OHIO RURAL PLANNING ORGANIZATION Regional Trails and Bikeways

Proposed CORPO County

Township Boundary

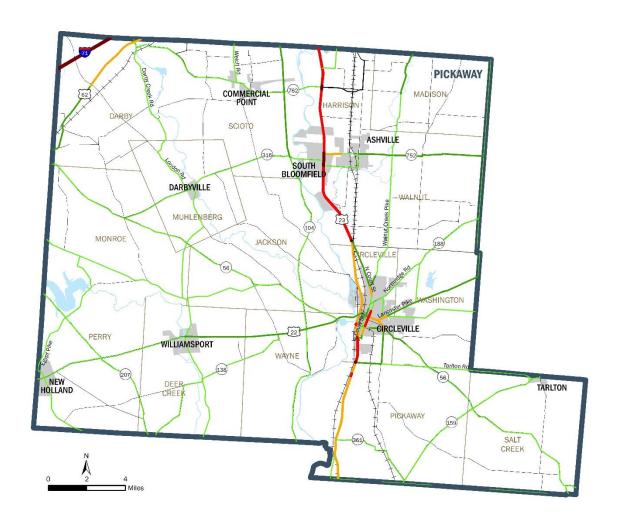


The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Traffic Volume - Future



CENTRAL OHIO RURAL PLANNING ORGANIZATION

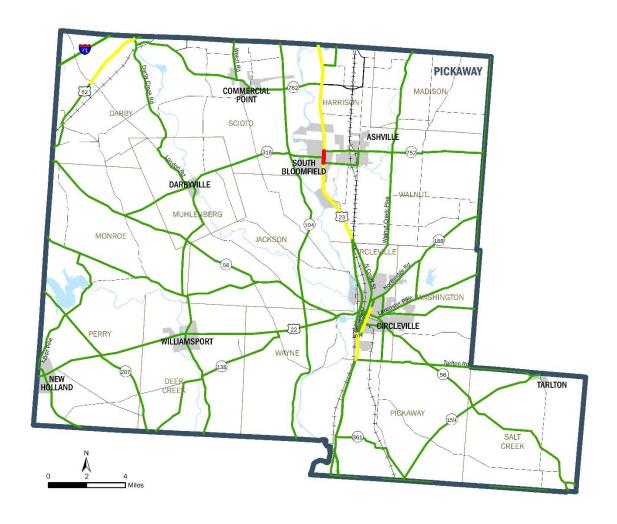




The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\ArcGIS\CORE\RTPO\CORPO_PIC_modelvolume_40.mxd 4/27/2018



Traffic Congestion - Future



CENTRAL OHIO RURAL PLANNING ORGANIZATION

2040 Model Congestion Level

No/Slight Congestion CORPO County
Moderate Congestion Township Boundary
Severe Congestion

Source: Ohio Statewide Travel Model



The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_PIC_modelcongestion_40.mxd



4.3 Project List – Pickaway County

One of the primary purposes of the CORPO Transportation Plan is for CORPO members to identify transportation projects of importance in their county. The projects listed on the next few pages include those that add roadway capacity, expand the transit system or provide bicycle and pedestrian facilities. Some of the identified projects encompass the ongoing operation, maintenance and preservation of the existing transportation system. This may include the study, operation and expansion of transit service. However, most of the items listed are projects to expand physical components of the transportation system.

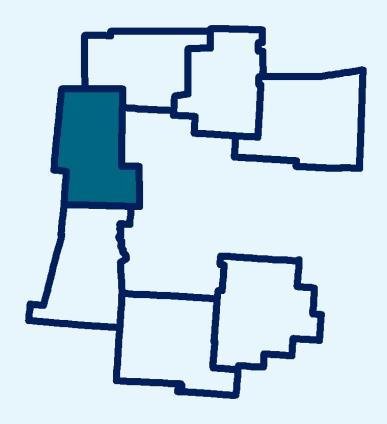
Each project listing provides a brief project description and identifies cost estimates for each project. The associated cost estimates are in construction dollars. The following list includes both short and long term projects that may occur between 2018 and 2040.

2018 - 2040 CORPO Transportation Plan Project Listing Mapped Projects - Sorted by County

Cost

County	Ω	Project Description	(Millions)
Pickaway	PIC 3	US 23 Limited Access Freeway Conversion from Franklin County line to South Bloomfield; New freeway	\$207 - \$265
Pickaway	PIC 7	US 23 / SR 762 (Duvall Road); New Interchange	\$17
Pickaway	PIC 1	US 23 Bloomfield Bpass Bypass around Village of South Bloomfield; New roadway	\$60
Pickaway	TBD	US 23 from South Bloomfield to US 22; Access management	\$68-\$72
Pickaway	TBD	US 23 from Tarlton Rd to Ross County line; Access management	\$52 - \$55
Pickaway	PIC 4	Richenbacker Parkway from Ashville Pike to Pontius Road, looping around south end of Rickenbacker International; New roadway	\$25-\$50
Pickaway	PIC 5	SR 762 from US 23 to Ashville Pike and north to Franklin County line; Major widening of roadway	\$37
Pickaway	PIC 8	PIC 8 Richenbacker Intermodal Expansion; Other transportation	TBD
Pickaway	PIC 11	PIC 11 SR 762 from SR 104 to US 23; Major widening	\$16-\$22
Pickaway	PIC 10	PIC 10 Scioto River Valley Bikeway Connecting Circleville; Multi-urpose path	\$50
Pickaway	PIC 12	PIC 12 SR 104 from 762 to Franklin County line. Major widening of roadway	\$25
Pickaway	PIC 13	PIC 13 SR 316 to US 23 (at SR 752) Connector; New roadway	TBD

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Union County

Transportation Plan 2018-2040

Section 3G of CORPO 2018 - 2040 Transportation Plan







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1.0 CORPO OVERVIEW



CORPO Background and Purpose

On July 1, 2013, ODOT began a two-year pilot program with five multi-county planning organizations (or councils of government) providing them with funding to conduct regional transportation planning in coordination with local stakeholders, Ohio MPOs, and ODOT. Much of Ohio's non-metropolitan local official coordination occurs between ODOT and these organizations. The five organizations cover 34 non-metropolitan counties in Ohio.

On January 27, 2016, Governor John Kasich formally designated each of these five agencies as an Ohio Regional Transportation Planning Organization (RTPO). These designations formalize the program that started as a pilot and will help spur better and more informed transportation decision making in Ohio.

Following the Ohio Department of Transportation's (ODOT) two-year pilot program to establish RTPO's, local governments in Central Ohio began discussing the opportunity to form a sixth Rural Transportation Planning Organization around the Mid-Ohio Regional Planning Commission (MORPC) which is the Metropolitan Planning Organization (MPO) for the Columbus urban area. MORPC's role as MPO and mentor in the pilot program encouraged its member governments outside the MPO to consider forming an RTPO. In response, MORPC began to work with the interested Central Ohio counties to form a Rural Planning Organization (RPO) area, a precursor to being a fully recognized RTPO. A designation that requires the submission of a long-range transportation plan to ODOT. The seven member counties include Fairfield, Knox, Madison, Marion, Morrow, Pickaway and Union. MORPC organized the counties to engage as an RPO, CORPO was created, and in preparation to become a state-designated RTPO this CORPO Transportation Plan was completed.

By July 2016 each member county passed resolutions to join the Central Ohio Rural Planning Organization (CORPO). Once approved to move forward with the development of CORPO, staff began the process of forming the CORPO Committee. The CORPO Committee is the guiding body for the development of the CORPO Transportation Plan. All seven CORPO member counties also established RPO subcommittees and designated representatives from each county at CORPO Committee. These decision were governed by a set of bylaws previously adopted by the CORPO Committee. The CORPO Committee convened on numerous occasions to establish an overarching vision for the RPO transportation plan. This vision was used to develop the overarching goals and objectives of the plan. Staff, in cooperation with the CORPO Committee and county-level RPO subcommittees went to work on a transportation plan which includes seven county-level sections. These sections were then merged into a unified plan for CORPO, culminating in a list of transportation projects for the region. Section 3G represents the county-level section for Union County.

2.0 GOALS AND OBJECTIVES



Goals & Objectives

Preserve and Maintain the Existing Transportation System in a State of Good Repair

- Minimize the number of bridges structurally deficient or functionally obsolete
- Maximize the miles of pavement in acceptable condition
- Maximize resources dedicated to maintain and improve the condition of the transportation system

A Safe Transportation System for All Users

- Minimize crashes including pedestrian and bicycle related crashes
- Promote system user education to minimize unsafe driving behaviors such as a lack of seatbelt use, distracted driving, impaired driving and others

Accessibility and Mobility Options for all Users

- Build facilities that accommodate all users such as those using transit, walking and bicycling
- Expand public transportation within and between communities
- Expand the bicycle and pedestrian networks
- Expand options that assist those living in poverty or in areas with lower accessibility in reaching employment, healthcare or services

An Integrated, Connected and Coordinated Transportation System

- Increase outreach to advocacy and community groups including area residents, local governments, agencies and organizations
- Improve connections between regions by utilizing various modes of transportation, including passenger rail
- Increase local community collaboration and coordination efforts to achieve mutually beneficial outcomes

• A Transportation System that Promotes a Collaborative and Focused Approach to support Economic Vitality

- Improve strategic freight related facilities (e.g. highway, rail, intermodal, etc.)
- Develop priority multipurpose corridors (e.g. utilities, water, broadband, fiber, etc.)
- Maximize return on investment to position the region to compete globally and efficiently
- Provide transportation facilities that enhance the transition between rural and urban areas
- Enhance engagement with regional partners and voices

Preserve and Enhance Environmental Resources and Sustainability through the Transportation System

- Increase use of non-single occupant vehicles (local transit, intercity transit, ridesharing, biking, walking)
- Provide transportation facilities consistent with local land use, environmental and sustainability plans



3.1 Demographics

Population

According to Census population estimates, Union County's population was 55,457 in July 2016. This represents a 6 percent increase from the 2010 Census estimated population of 52,416. There are a number of factors contributing to this change such as increased employment opportunities, access to the US 33 corridor, new residential developments and Union County's proximity to Dublin and the Greater Columbus area.

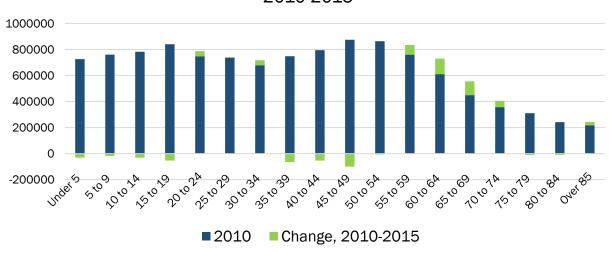
Union County Population Estimates					
Year	Population	2010 - 2016 % Change			
2010	52,267				
2011	53,126				
2012	52,834				
2013	53,431				
2014	53,737				
2015	54,315				
2016	55,457	6%			

Age

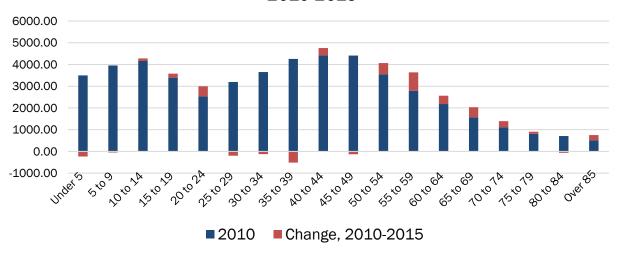
Union County's median age of 38 years is comparable to that of the State of Ohio, also at 38 years. Neighboring Franklin County has historically been a younger county with a median age of 35, because of the large population of university students. However, like the rest of Ohio, Union County residents are aging and will face challenges in the future as this population leaves the workforce and enters retirement. The 55+ age cohort of both Ohio and Union County is increasing. This is consistent with the findings in insight2050, a collaborative initiative among public and private partners designed to help communities proactively plan for development and population growth over the next 30+ years that is expected to be dramatically different from the past.



Change in Population by Age Cohort in Ohio 2010-2015



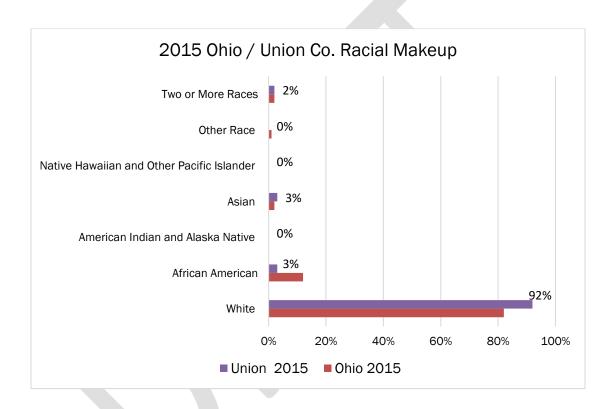






Diversity

Central Ohio is primarily white and Union County is no exception. In 2015 Union County's population was 92 percent white. Union County is less diverse when compared to Ohio as a whole. That same year it was estimated that Ohio was 82 percent white, 12 percent African-American and roughly the same comparatively for other races.





Families and Households

The users of a transportation system come from diverse backgrounds, socioeconomic statuses and household structures. Of all the households in Union County, 75 percent are family households and 13 percent are single parent families. Union County households are balanced as they include almost as many people over 60 years of age as those under 18.

Union County Households (HH)						
HH Type	%	Average				
Families	75%					
Non-Family	25%					
Single Parent	18%					
HH Size		3.15				
Family Size		2.73				
HH with 60+	31%					
HH with under 18	38%					



Home Ownership

Homeownership has traditionally been a goal for most Americans and a factor in determining wealth in the United States, but recently there have been changes to these societal norms. For decades the suburbs exploded as people moved out of urbanized areas and utilized highways to get to and from work. Now, with increased traffic, higher fuel prices, a recovering housing market and more environmentally conscious commuters who would like to be closer to amenities, the demand for denser, centrally located housing options has increased. Because of this demand, mixed-use developments have begun to pop up in metro areas across the state, increasing the number of available rental options with them.

Ohio Housing Tenure				
Year	% Rent	% Own		
2010	31%	69%		
2015	34%	66%		
10 to 15 Change	+3%	-3%		

Union County Housing Tenure					
Year	% Rent	% Own			
2010	22%	78%			
2015	23%	77%			
10 to 15 Change	+1%	-1%			

Although Ohio appears to have seen an overall increase in renters, Union County has maintained its tenure breakdown from 2010 to 2015. In comparison, Franklin County, where denser development has occurred over the last five years. The increase in residents who rent went from 43 to 46 percent.



Employment

As of April 2017, Union County's unemployment rate was 3.0 percent. This rate is low when compared to the State of Ohio, where the rate was 4.4 percent. Ohio's rate was higher than the national rate of 4.1 percent that same month. According to the Bureau of Labor Statistics, Union was only one of six counties in Ohio with an unemployment rate at or below 3 percent in April of 2017. Union County's unemployment rate is a positive, not only because it is low but because it has steadily declined over the last five years.

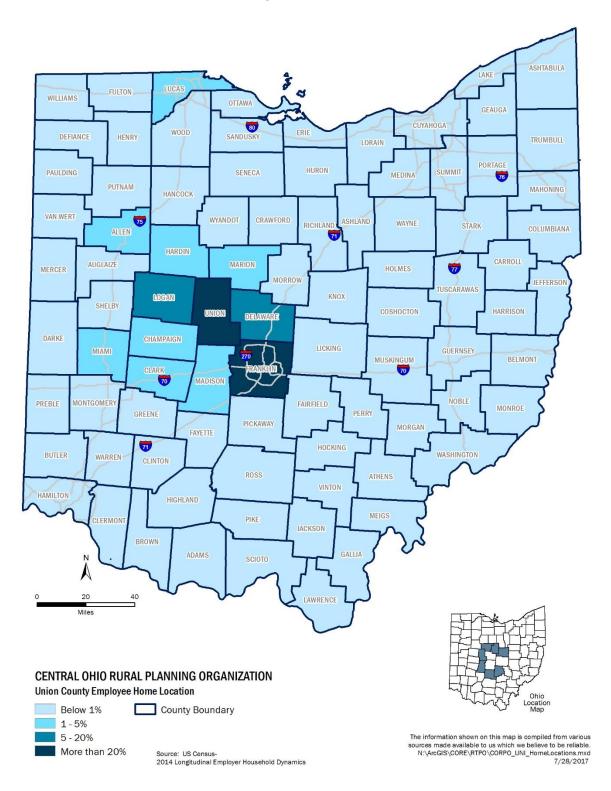
The labor participation rate in the county, a measure of those who are currently working or actively looking for work was 63.1 in 2016.

Union County Unemployment Rates					
2013	5.8%				
2014	4.5%				
2015	3.8%				
2016	3.8%				
April 2017	3.0%				
13 to 17 Change	- 2.8%				

When considering employment, knowing the number of people in your community who are employed and how they get to work is very important. To make appropriate transportation planning decisions, knowing where they work is vital. The majority of workers employed in Union County live primarily in Union, Franklin, Logan and Delaware counties. Union County residents are primarily employed in Union, Franklin and Delaware counties.

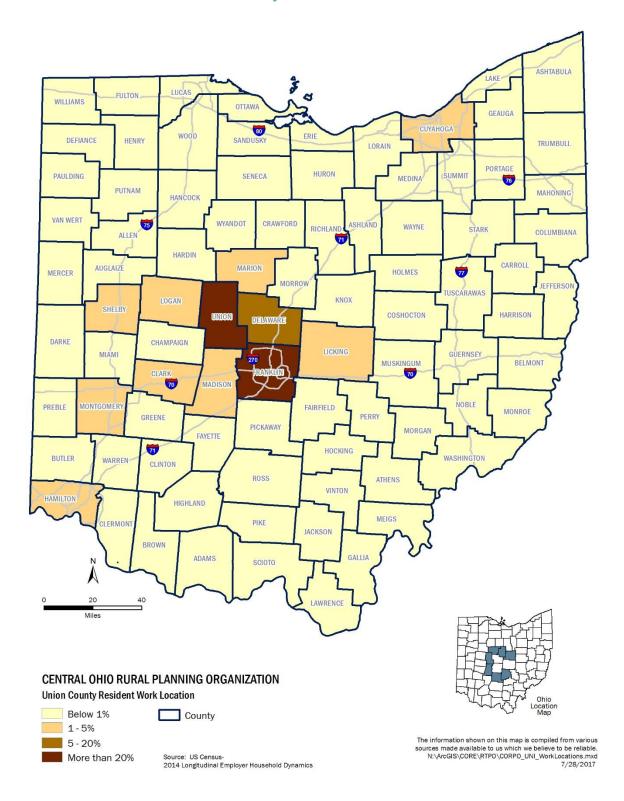


Worker Commute - Where Union County Workers Commute From





Worker Commute - Where Union County Residents Commute To

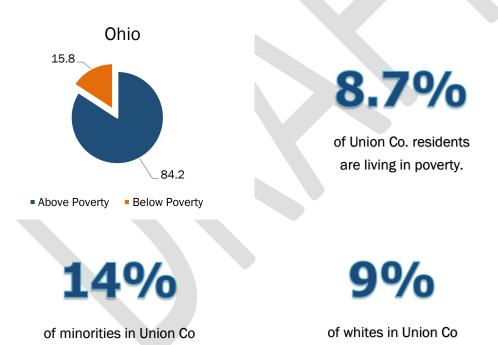




Income and Poverty

Unfortunately, a low unemployment rate does not mean that there are not residents struggling with poverty in Union County. According to Census data, the percentage of Union County residents living below the poverty line in 2015 was estimated to be 8.7 percent. The percentage increased from the 7.3 percent estimated in 2012. However, the rate is comparatively low to that of the state, which is currently 15.8 percent, and neighboring Franklin County, where the percentage is estimated to be 17.5. Minority populations in Union County appear to make up a disproportionate percentage of those living in poverty. Additionally, 11 percent of those living in poverty are children 18 years of age and under, compared to 22.8 percent at the state level.

In Marysville, the largest jurisdiction in Union County, 9.5 percent of residents live below the poverty line.



As the percentage of those living in poverty has increased, the median income for Union County residents decreased. In 2015 the median household income in Union County was \$67,283, a small reduction from the estimated \$68,452 in 2010. Union County's median income is considerably higher than that of the state however, which in 2015 was \$49,429, an increase from the 2010 median income of \$47, 358. Currently, Union's median income is third highest in the state.

are living in poverty.

are living in poverty.



Vehicle Access

Little or no access to reliable personal or public transportation can create a multitude of daily challenges. Of the 18,431 households in Union County, 5 percent reported no vehicle in the home in 2015. This is a slightly smaller percentage than that of the state, which reported 8 percent that same year. That means just under 1,000 households in Union County have to plan trips to work, school or medical appointments in advance and may be dependent upon others to make it to any of those. In a county with limited public transit options, this can create real obstacles.

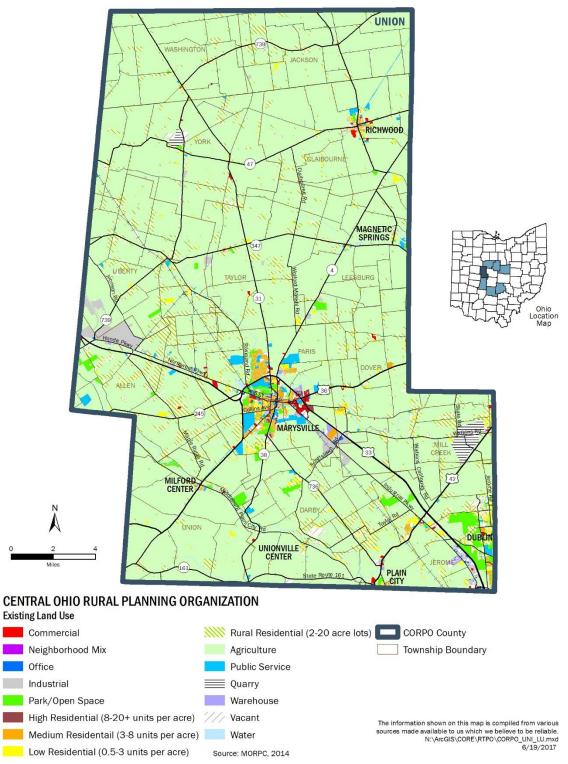
3.2 Land Use / Development

Union County continues to attract new residents and jobs. Changes to the marketplace include an aging population and an increase in young adults. This typically means there is a desire for multiple transportation options. The way the county develops directly influences the CORPO plan's goals and objectives. Local land use decisions can affect access to amenities, employment and attractions and transportation systems can affect development decisions.

Recognizing how land use decisions affect the quality of place and how well it attracts and retains workers is important. These decisions can support economic opportunity by accommodating businesses' needs for transportation capacity and reliability. As a part of large metropolitan area, Union County may benefit from seamless transitions between communities through coordinated development approaches, which would allow the transportation system of roads, bikeways, and pedestrian ways to be continuous for regional connectivity. The following two maps display the existing land uses as well and the various points of interest and for Union County. ("Public Spaces" in the points of interest map includes locations such as historical sites, fairgrounds, community and recreation centers, theaters and concert halls, museums and libraries.)

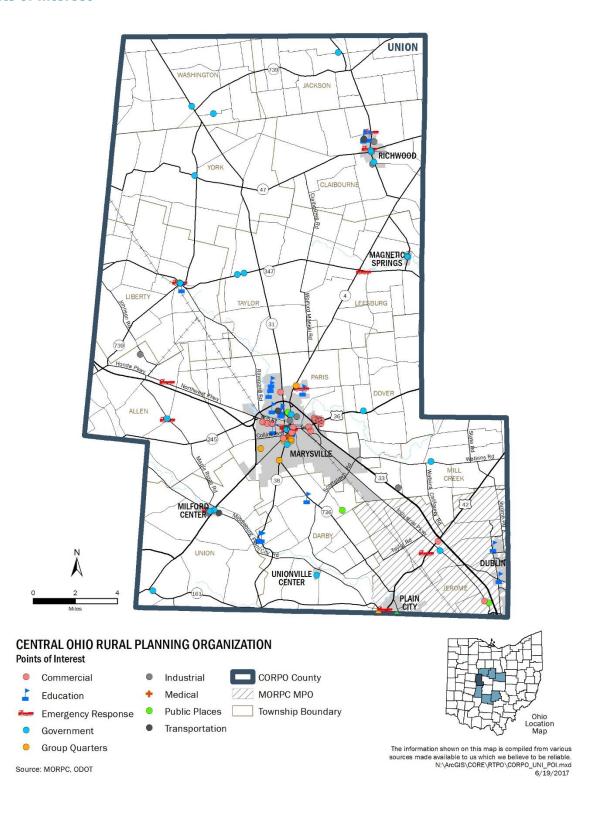


Existing Land Use





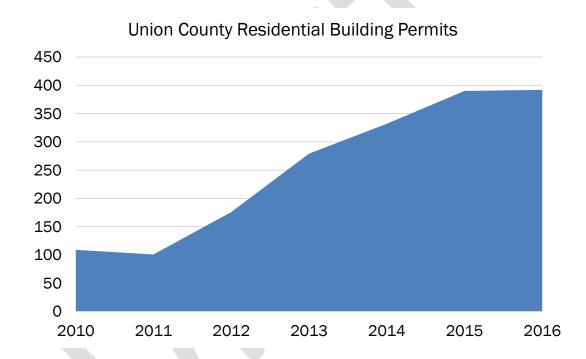
Points of Interest





Residential Permits

One way to track an area's growth is to look at the number of building permits being requested. This data are not always reliable as it is based on whether or not a locality is reporting these permits to the Census. Utilizing data from Union County's Engineer, it is safe to suggest that Union County's annual number of requested building permits has increased greatly. Since 2010 there has been at least a 260 percent increase in annual Census reported residential permits in Union County. This, coupled with the increase in population shows that Union County is growing.





3.3 Current Transportation Network

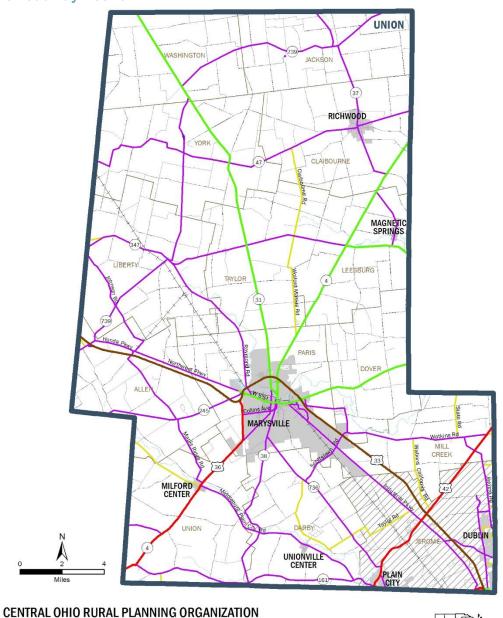
The purpose of Union County's transportation system to safely accommodate the travel needs of its users. Union County's transportation system is made up of several components or sub-systems that should be seamlessly connected to provide fluid movement of people and goods across the system and the region. These include an airport, roadways, transit, railroads, bikeways, pedestrian facilities, and the unique intermodal facilities that interface these surface modes with ground and air freight. These components each serve their own particular role in moving people and goods throughout the region. Union County has been proactive and innovative in their approach to improving their network through initiatives like The 33 Smart Corridor, which utilizes smarter infrastructure to increase traffic flow and driving employment growth without adding additional lanes or highways. This section describes Union County's individual systems and intermodal connections that make up the surface transportation system.

Non-personal vehicle modes serve the transportation needs of few Union County residents. However, the need and demand for transit and bikeways is changing in response to both underlying demographic changes in central Ohio's population and cultural preferences. Changing cultural preferences for transportation are evident from foreign born populations, younger and older generations. Recently, these populations have expressed a desire to live in communities with access to transit and that are pedestrian and bike friendly. Individuals may be unable to afford a motor vehicle, or lack the ability or interest to drive. Public transit and adequate bike and pedestrian paths may provide the only independent means of transportation. These modes preserve the connection to work, daily living needs, medical appointments and other destinations. For riders of choice, alternative transportation options may offer a more convenient, economical and or environmentally friendly choice over other modes of transportation. The very presence of convenient and accessible alternative transportation options may help attract and retain a skilled workforce and enhance the quality of life.

The first of the following three maps displays the functional classification of roadways in Union County. Roadways are classified based on the role and function each roadway serves within the larger system. Interstates and expressways have very limited access and carry a high volume of vehicles making regional trips. Arterials primarily provide mobility, but also provide access to abutting land uses, unlike interstates and expressways. Collectors carry lower volumes of traffic and provide more access points to local roads and destinations. Local roads generally are not intended for long distance travel. Their main function is to provide access to homes and businesses. For this reason, the information and projects presented in the CORPO plan focus on interstates, expressways, arterials, and collectors only, as they make up the most important roadways in the roadway network. The second and third map displays existing and projected bike and pedestrian paths within Union County.



Current Roadway Network



Functional Classification

Other Freeway and Expressway
Other Freeway an

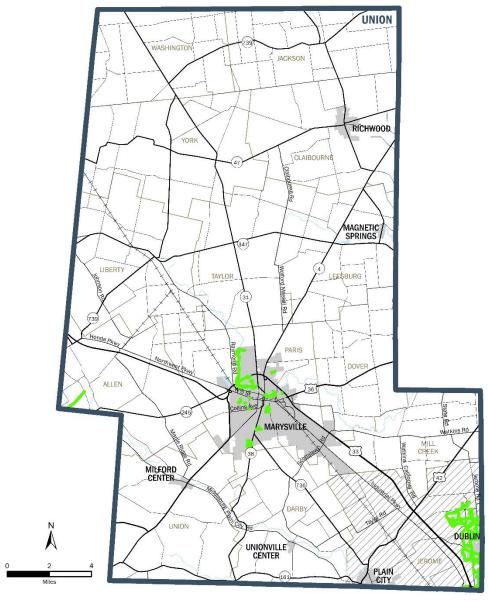


The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Bike and Pedestrian - Existing



CENTRAL OHIO RURAL PLANNING ORGANIZATION Regional Trails and Bikeways



Source: MORPC, Local Governments



The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Travel Demand Management Services

Limited funding for expanded highways, unstable fuel prices, increased congestion, and concern for our air quality emphasize the need for reducing driving alone in urban and suburban areas. For many years now, transportation demand management (TDM) strategies have shown effectiveness in reducing traffic congestion and environmental pollution caused by motor vehicles.

Managing transportation demand should not be relegated to just urban areas. The TDM strategies and projects focus on the opportunities to rideshare, use transit, bike, or walk to meet some of the travel needs of the region. The US 33 corridor has been designated as a Smart Corridor and therefore will deploy smart system management technologies to assist with safety goals and congestion. Alternatives that reduce travel demand also include telecommuting and alternate work schedules that compress the work week or allow for commuting at non-peak hours. The table below outlines the modes Union County commuters utilize.

Union County Gohio Commuter Data				
2015 5YR ACS				
24,928				
86%				
14%				
6.0%				
0.2%				
0.9%				
6.4%				
0.6%				

Due to decades of sprawling urban and exurban growth, Central Ohio commuters have become primarily dependent on the vehicular transportation. Union County, which is a primarily rural area is no exception to this. Of the nearly 25,000 commuters in Union County, 86 percent drive alone and 14 percent utilize an alternative method. This percentage may seem low, but comparatively, 81 percent of commuters in Franklin County, a larger and more urbanized county with 25 times the number of commuters, 81 percent are driving alone while 19 percent utilize alternative transportation options. For example, 6 percent of commuters in Union County participate carpool services alone. Additionally, the Central Ohio Transit Authority (COTA) offers a park and ride program in Union County.



Travel Demand Management Services - Continued

In order to identify the needs of people with mobility access issues, local governments develop coordinated public transit - human services transportation plans, or *Coordinated Plans*. The purpose of coordinated plans is to identify community resources for transportation and mobility, understand the gaps and unmet needs within those resources and to determine the approach to addressing those gaps and unmet needs. Although ODOT does not require local governments to produce a coordinated plan, it is required for eligibility for the Federal Transit Administration's Section 5310 program funds. The purpose of the 5310 grant program is to enhance the mobility of seniors and individuals with disabilities. ODOT makes 5310 project selections for small and rural Ohio counties. Private nonprofit organization or state or local governments may apply for the grant if they are approved to coordinate services for senior and individuals with disabilities. Therefore, ODOT must ensure that coordinated plans are in compliance with federal transit law. ODOT encourages coordinated plans to go beyond the requirements of Section 5310 funding to include analysis of needs and development projects to address the mobility needs of the general public.

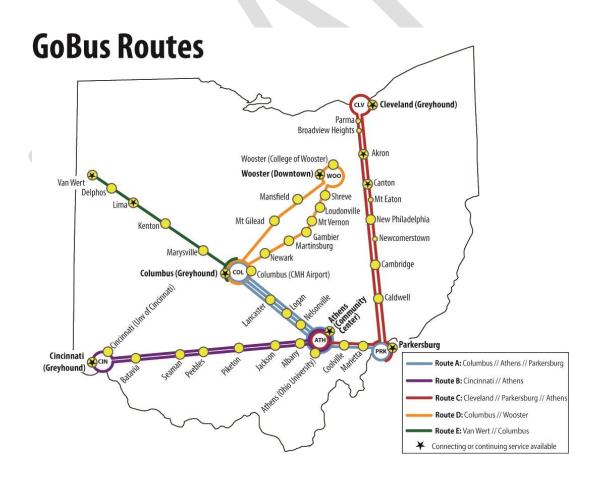
Union County published a coordinated plan in April 2014. According to the plan, participating transportation providers will collaborate to provide effective, safe, accessible, equitable access to passenger transportation services both within Union and to neighboring counties. Union County anticipates an update to the plan in 2018.



Transit Services

Transit services in Union County are provided by the Union County Agency Transportation Service (UCATS). Currently UCATS owns ten vehicles, four of which are handicap accessible, that provide access to a variety of appointments within Union County and to adjacent counties. UCATS provides on-demand transportation services to residents over 60 years old and for individuals referred by other agencies. UCATS transports eligible individuals to medical appointments, community meal sites and some social activities.

Rural inter-city bus service is provided by Gobus. This service is designed to address low cost and geographically accessible intercity bus transportation needs of the entire state by supporting projects that provide transportation between non-urbanized areas and urbanized areas that result in connections of greater regional, statewide, and national significance. Funding for the rural inter-city bus is administered by ODOT, and the service is currently operated by Barrons Bus Lines.





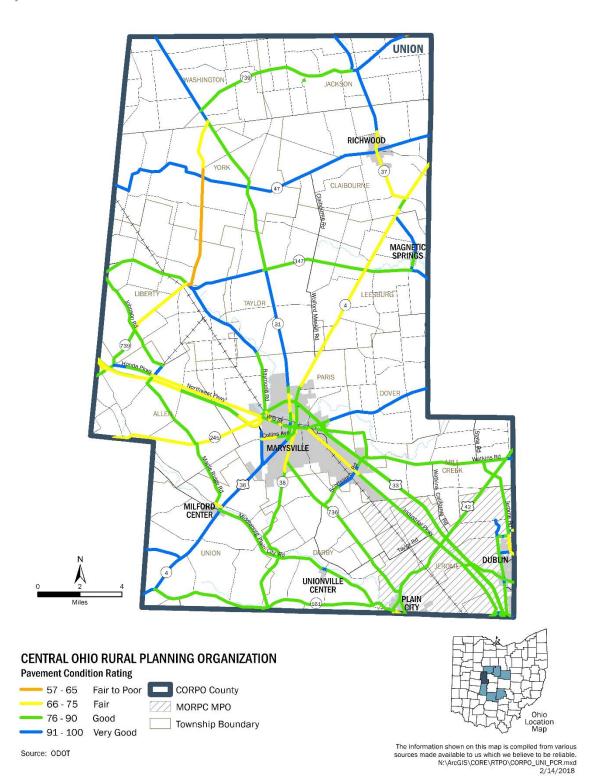
Transportation Infrastructure Conditions

Understanding the physical condition of a transportation is vital to resource management and the two following maps display the physical condition of both the roadway network (pavement) and bridges in Union County.



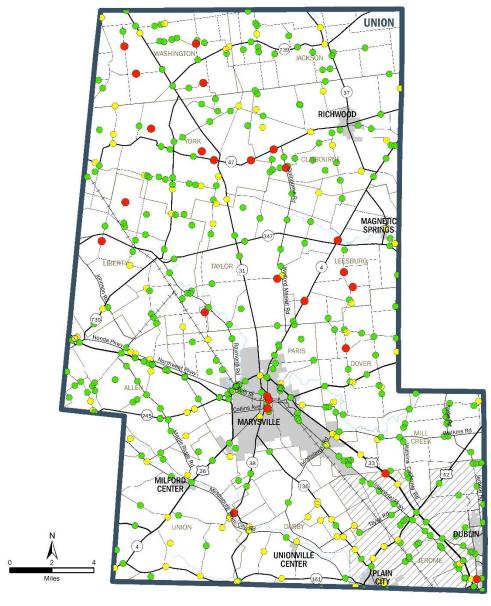


Transportation Infrastructure Conditions





Transportation Infrastructure Conditions Cont.



CENTRAL OHIO RURAL PLANNING ORGANIZATION Bridge General Appraisal O - 4 Likely Needs Replaced 5 - 6 Likely Needs Maintenance 7 - 9 Good Township Boundary Source: ODOT



The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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Freight

Goods are moved, transferred, and distributed from Union County to destinations across the United States and around the world. Whether by truck, rail, or air, Union County's efficiency in the movement of goods is an important part of the region's economic competitiveness, trade, and commodity flow. Union County and our region's economy as a whole have benefited from its multimodal transportation assets for many decades. Today, Union County is home to an intermodal facility, an airport and is crossed by arterial rail corridors as well as US 33, 36 and 42 that provide access to nearby interstate 270 and therefore I-70 and I-71. Union County is strategically located within a 10-hour truck drive of 47 percent of the United States population and 61 percent of its manufacturing. The first of the following four maps details freight related infrastructure in Union County.

Congestion

There are a couple of aspects of the roadway system condition to consider. First is the physical condition — are the roadways and bridges in good repair? Section 3.3 outlined that aspect. Second, how does the roadway operate in terms of level of congestion? Using average daily traffic count data as well as travel time data covering all weekdays of 2016 except federal holidays. CORPO was able to map traffic volumes as well as congested areas within Union County. The second, third and fourth of the following maps display the, average daily traffic volumes and the percentage of congested days, separated into AM and PM periods.

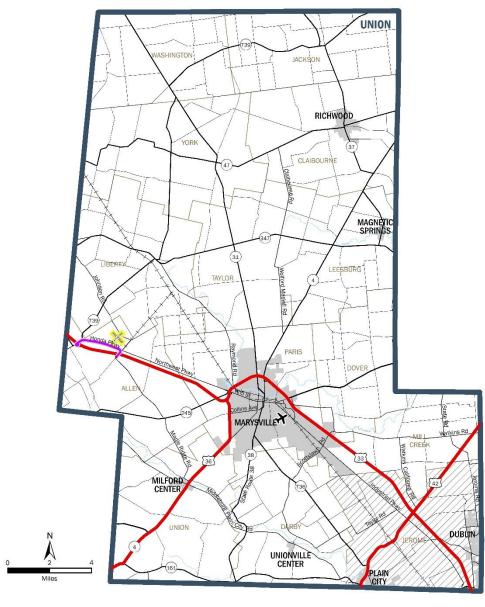
The percentage of congested days is identified if the travel time in at least three 5-minute intervals during the peak period of the day considered is 50 percent greater than the travel time under free-flow condition. That means, for at least fifteen minutes each AM or PM period, travelers would spend more than 50 percent extra travel time on the segment. The percentage of congested days is then calculated by dividing the total number of congested days by the total numbers of the non-federal-holiday weekdays in the period of interest.

Basically, this "percentage" measure can be interpreted approximately as below:

<=20%: 1 day or less per week 20 - 60%: 2 to 3 days per week > 60%: 3 + days per week



Freight



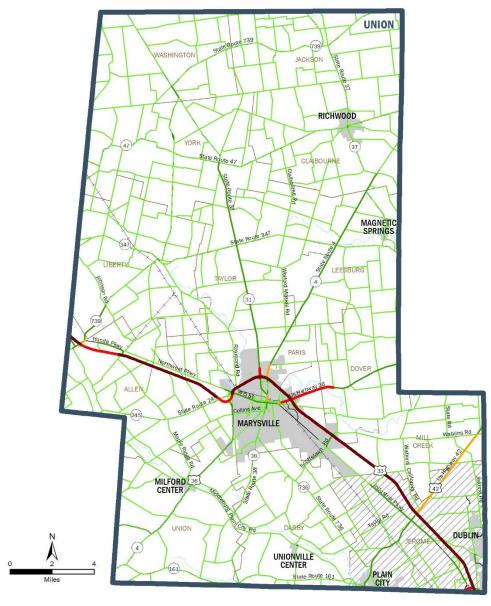


The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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1/23/2018



Traffic Volumes



CENTRAL OHIO RURAL PLANNING ORGANIZATION 2015 Average Daily Traffic Range < 5,000 5,001 - 10,000 10,001 - 15,000 15,001 - 30,000 >30,000 Source: ODOT TIMS 2015

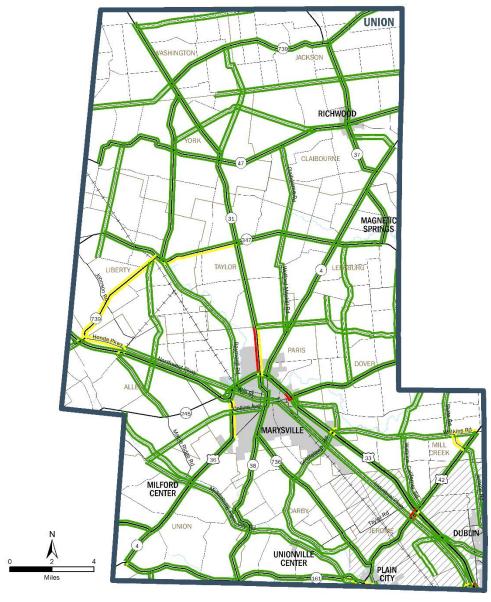


The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\BaseMapTemplates\CORPO_UNI_Traffic\0.1 mxd 6/28/2017

<u>3.0</u> **INVENTORY OF EXISTING CONDITIONS**



Traffic Congestion - 6:00 - 9:00 AM



CENTRAL OHIO RURAL PLANNING ORGANIZATION

CORPO County

% Days Congested 2017 AM*

<= 20% (< 1 day per week)</p> __ 20 - 60% (2-3 days per week) ____ MORPC MPO

> 60% (3+ days per week)

* Congestion: more than



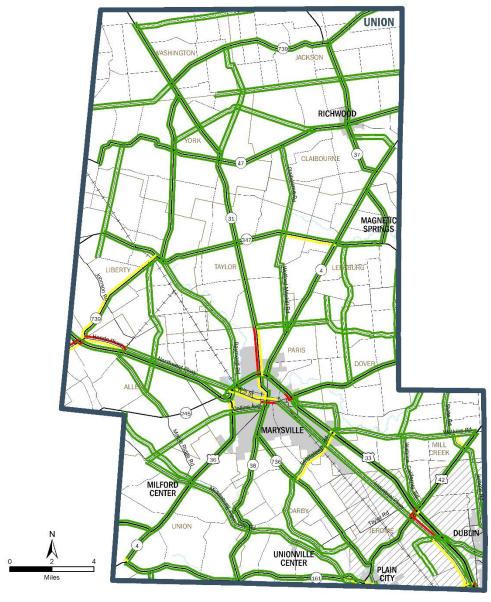
The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

N:\ArcGIS\CORE\RTPO\CORPO_UNI_CongestionAM.mxd 3/29/2018

^{50%} extra travel time Source: INRIX Travel Time data



Traffic Congestion - 3:30 - 6:30 PM



CENTRAL OHIO RURAL PLANNING ORGANIZATION

% Days Congested 2017 PM*

<=20% (< 1 day per wk)</p>

CORPO County

MORPC MPO

20 - 60% (2-3 days per wk) MORPC MPO > 60% (3+ days per wk)

* Congestion: more than 50% extra travel time Source: INRIX Travel Time data



The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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3/29/2018



Safety - (Please reference the summary and tables on the following pages.)

The primary function of a transportation network is to move people and goods from their origin to destination as safely as possible. If a network is unsafe, its utility is greatly diminished. One way to determine which areas of the network may have a safety issue or where these issues may one day arise is to collect and analyze crash data. Please see the Union County Safety Summary on the next page.

Safety - Crash Statistics

Union County is one of the more populated counties in the CORPO study area and is becoming a destination for jobs and commercial development. Similar to state and national trends, the number of reported crashes and fatal crashes in Union County has been trending slowly upward in recent years. In Union County, from 2012 to 2016, the total number of crashes increased by 17 percent. The number of crash resulting injuries in Union County increased by only 7 percent and crashes resulting in property damage only increased by 20 percent. Additionally, the number of crashes involving bicycles or pedestrians decreased by -8 percent over the same timeframe.

Safety - Occupant Statistics

The table below outlines the crash related occupant statistics for Union County between 2012 and 2016. There was a -8 percent decrease in the injury rate from 2012 to 2016. This could be related to the development of new safety measures in vehicles, such as cameras and vehicle assist notifications. The injury rate for crashes involving bicycles or pedestrians decreased by -13 percent.

Safety - Crash Locations and Types

Utilizing crash data collected by both the Ohio Department of Transportation and the Ohio Department of Public Safety, high crash areas of the transportation network are able to be identified. These areas are potential areas of focus for safety improvements.

Identifying these locations will allow law enforcement, emergency responders, transportation officials, government and the general public to target them directly through strategies and planning. e map reflects the denser areas of Union County, such as Marysville, employment centers like the Honda plant in the western side of the county and busy interchanges like that of U.S. 33 and U.S. 42 in the southeast area of the county.

Union County is home to the Transportation Research Center (TRC), the largest independent vehicle test facility and proving grounds in the United States. The center conducts vehicle testing, certification, research and development. The TRC has been the test laboratory for the National Highway Traffic Safety Administration (NHTSA) for over four decades.

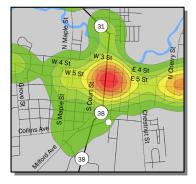
Safety - Rail Crossings

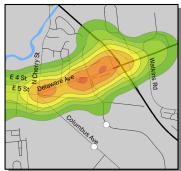
In many areas of the county, different modes of transportation converge. These areas can present significant safety challenges, especially where railroads cross roadways. CORPO with assistance from ODOT has compiled a list, identifying and ranking rail crossings in the county that may be in need of safety improvements. These crossings may be eligible for non-local funds intended to improve safety related infrastructure such as signals, gates and grade. Please reference the full list of identified rail crossings in the appendices.

RELATIVE COUNTY CRASH DENSITY & SAFETY SUMMARY (2012 - 2016):

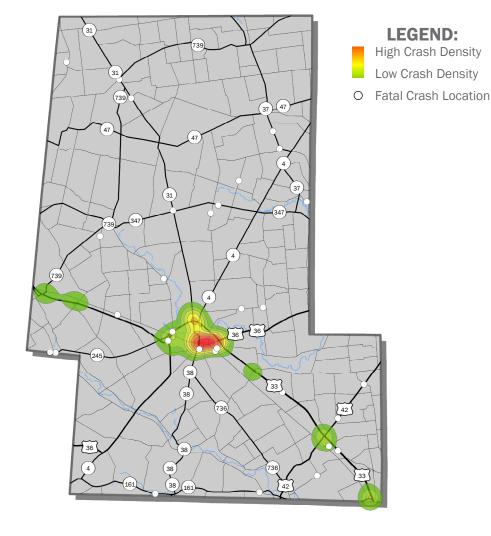
UNION COUNty











CRASH TRENDS BY YEAR (2012 - 2016)

		CRASH S	TATISTICS			TRUCK-	OCCUPANT STATISTICS								
YEAR	Fatal Crashes	Injury Crashes	Property Damage Crashes	Total Crashes	INJURY RATE	INVOLVED CRASHES	Fatalities	Serious Injuries	Minor Injuries	No Visible Injuries	Total Injuries				
2012	4	284	771	1,059	27.2%	106	5	63	145	170	383				
2013	8	274	841	1,123	25.1%	104	8	65 152		163	388				
2014	4	246	851	1,101	22.7%	109	6	33 135		164	338				
2015	8	291	980	1,279	23.4%	128	8	32	148	216	404				
2016	6	304	928	1,238	25.0%	114	6	40	166	239	451				
5-Year Total	30	1,399	4,371	5,800	24.6%	561	33	233	746	952	1,964				
Annual Average	6	279.8	874.2	1,160	24.7%	112.2	6.6	46.6	149.2	190.4	392.8				
Percent Change (2012 to 2016)	50%	7%	7% 20%		-8%	8%	20%	-37%	14%	41%	18%				

- Shaded orange cells indicate the year with the highest value for each respective column.
 Injury Rate is calculated using the following formula: [(#Fatal Crashes+#Injury Crashes)/Total Crashes]



4.1 Population and Employment

Population Projections

One of the ways to predict the stresses a transportation system will endure in the future is to determine the number of people currently living and working in the region and how many will be in the future. Getting an idea of future population gains or losses will assist local governments in responding to these changes. An increase in population typically means more daily commuters on the County's roadways, transit system and trails. More people also mean that there will be an increased demand for goods and services, therefore an increase of trucks on the roads.

According to estimates developed by MORPC, Union County's total population is expected to increase significantly by 2040. Union County's 2015 population was 54,315 while the 2040 population is projected to be 67,940. This is a 25 percent increase in population over 25 years in Union County. This percentage is considerably greater than the State's projected population change of one percent. Comparatively, nearby Franklin County is expected to grow by 32 percent.

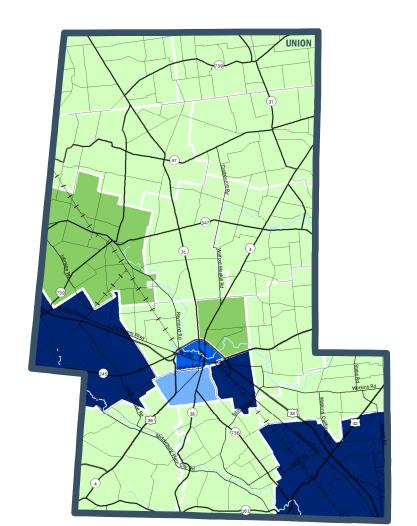
Year	Union Co.	Ohio	Franklin Co.
2015	54,315	11,549,120	1,250,269
2040	67,940	11,679,010	1,648,891
10 to 40 % Change	25%	1%	32%

Workforce & Employment

Projections for Union County indicate that not only will there be an increase in population but also in both workforce and jobs as well. The workforce population living within Union County is projected to increase 27 percent while the number of jobs located within the county are projected to increase 23 percent by 2040. To better visualize how an increase in workers and jobs will affect the county, they were distributed into Statewide Transportation Analysis Zones (TAZ).

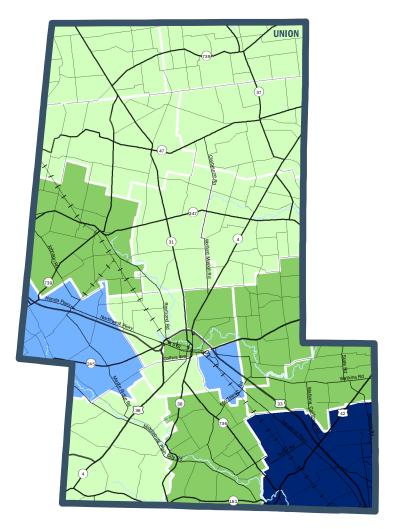
The following series of maps reflect possible future outcomes in the county.

2015 Jobs



2040 Jobs



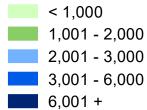


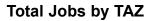
Job Growth by TAZ

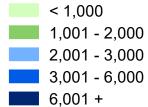
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0 - 100

Total Jobs by TAZ





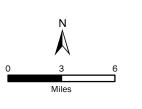






Source: MORPC

The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\ArcGIS\CORE\RTPO\CORPO_UNI_Job_15_40_swTAZ.mxd 2/20/2018

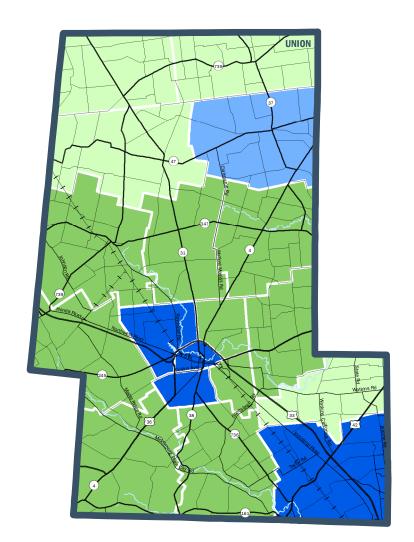




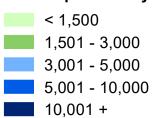
Union County - Total Jobs 2015: 32,110 2040: 39,540

Growth: 7,430

2015 Population



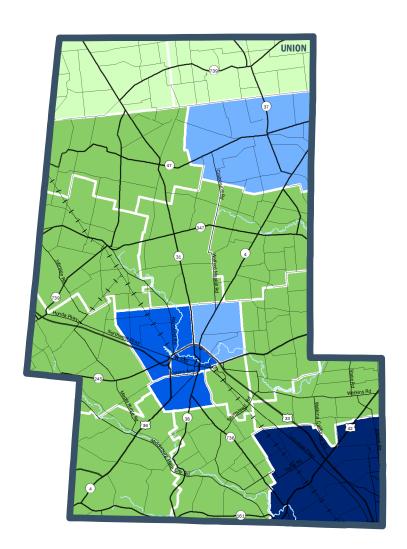
Total Population by TAZ



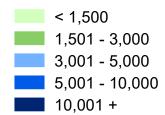
Union County - Total Population

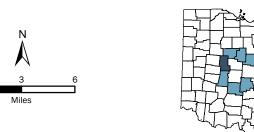
2015: 54,320 2040: 67,940 Growth: 13,620

2040 Population



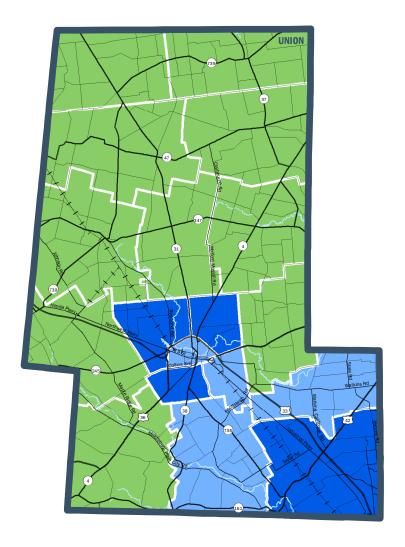
Total Population by TAZ



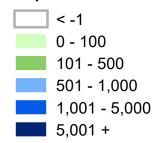


CENTRAL OHIO RURAL PLANNING ORGANIZATION

2015-2040 Population Growth



Population Growth by TAZ





Source: MORPC

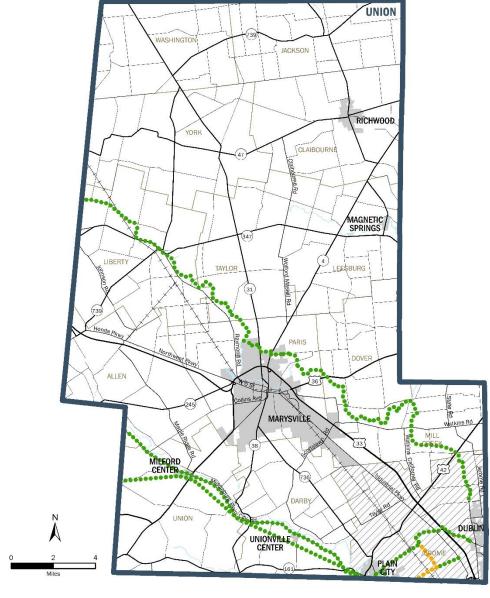
The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\ArcGIS\CORE\RTPO\CORPO_UNI_Pop_15_40_swTAZ.mxd 2/20/2018





4.2 Travel Demand

Bike and Pedestrian - Future



CENTRAL OHIO RURAL PLANNING ORGANIZATION Regional Trails and Bikeways



Source: MORPC, Local Governments

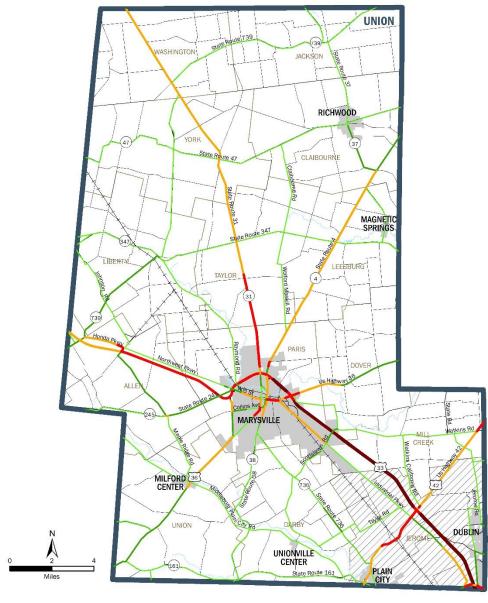


The information shown on this map is compiled from various sources made available to us which we believe to be reliable.

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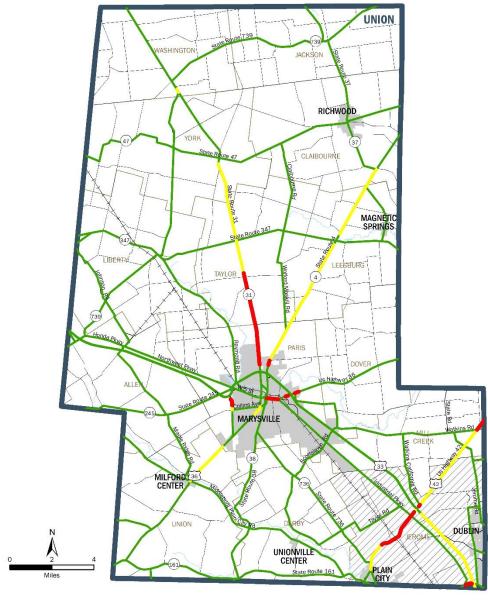
Traffic Volume - Future







Traffic Congestion - Future



CENTRAL OHIO RURAL PLANNING ORGANIZATION

2040 Model Congestion Level



Source: Ohio Statewide Travel Model



The information shown on this map is compiled from various sources made available to us which we believe to be reliable. N:\arcGIS\CORE\RTPO\CORPO_UNI_modelcongestion_40.mxd 4/27/2018



4.3 Project List – Union County

One of the primary purposes of the CORPO Transportation Plan is for CORPO members to identify transportation projects of importance in their county. The projects listed on the next few pages include those that add roadway capacity, expand the transit system or provide bicycle and pedestrian facilities. Some of the identified projects encompass the ongoing operation, maintenance and preservation of the existing transportation system. This may include the study, operation and expansion of transit service. However, most of the items listed are projects to expand physical components of the transportation system.

Each project listing provides a brief project description and identifies cost estimates for each project. The associated cost estimates are in construction dollars. The following list includes both short and long term projects that may occur between 2018 and 2040.

			Cost
County	Ω	Project Description	(Millions)
Union	NNI3	33 Innovation Park - Industrial Parkway Connector Phase 1 from CR 1 to Park; New roadway	\$3.5
Union	TBD	US 33 from Avery Rd to US 42; Roadway widening	\$40
Union	NNI8	Study Columbus to Chicago passenger rail corridor.	\$1-\$3
Union	UNI4	Cooks Pointe Connector from SR 4 to SR 31; New roadway	\$4
Union	UNI21	East Fifth / Five Points; Intersection modification	\$4
Union	UNI33	Home Road Roadway Realignment from Blaney/Home Rd at Jerome Rd to US 33 / Industrial PKWY; New roadway	\$30
Union	TBD	Hyland-Croy Rd from Post Rd to Mitchell-Dewitt / Brand Rd; Roadway widening	\$3.5
Union	NI17	Industrial Parkway Connector Phase 2 from the west side of Industrial Parkway; New roadway	\$10
Union	TBD	US 42 / Industrial PKWY; Intersecton modification	\$1
Union	TBD	Ravenhill Pkwy Extension from existing western terminus to Mitchell-Dewitt Rd; New roadway	\$25
Union	UNI10	Study freight usage and capacity along SR 31 from US 33 to US 68.	TBD
Union	0NI30	Study freight usage and capacity from Madison Co line to Del Co line	TBD
Union	6INN	Study US 33 from SR 161 to SR 347 (TRC) and develop a Corridor Plan.	\$0.5
Union	UNI19	US 33 / Mitchell Dewitt Interchange; New interchange	\$25
Union	UNI20	US 33 at West 5th St / Northwest PKWY (CR 133); Interchange modification	\$2
Union	UNI14	US 33 / SR 161; Interchange modification	\$44
Union	TBD	Mill Wood BLVD to Creekview Dr; Major widening of roadway	\$1.5
Union	UNI11	SR 31 from South of Mill Rd to just North of Mill Wood BLVD; Major widening	\$2
Union	UNI17	US 33/US 42; Interchange modification	\$44
Union	UNI32	US33 / Beecher-Gamble; New interchange	\$25
Union	UNI31	US42 from US33 to the Delaware Co line; Major widening of roadway	\$39 - \$51
Union	UNI23	Industrial PKWY from US 42 to Scottslawn Rd Phase 3, Major widening of roadway	\$10
Union	TBD	Watkins-California Rd Realignment from Watkins-California Rd to US-42; Other roadway modification	\$2
Union	TBD	Study multi-use trail networks in the county.	TBD
Union	TBD	US 33 / I-270/ Interchange modification	06\$
Union	TBD	Safety study of SR 347.	\$0.2
Union	TBD	Industrial PKWY from SR 161 to US 42, Major widening of roadway	\$15
Union	TBD	Transportation Research Facility Internal Improvements	\$45

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CORPO

4 - Transportation Funding



Transportation Funding

Funding for the transportation system comes from a variety of places. These include federal funds, state funds and local funds. It is unlikely that there will ever be adequate funds to meet all of the transportation needs and in the CORPO counties. The CORPO Transportation Plan does not make specific forecast of the amount of funds available through 2040. However, this section outlines the major funding sources and programs that fund the maintenance and expansion of the transportation system.

Funding for the higher level roadway system is heavily dependent on federal funding sources delivered through ODOT funding programs and state gas tax revenue. The FAST-Act is the current federal transportation law that set the federal funding level. There has been small growth in recent years and it is possible the amount of federal funding could grow more substantially in future federal legislation. Likewise, state gas tax has seen small recent growth. Substantial additional revenue at the state level is dependent on the state legislature. With this small growth at federal and state levels, and the emphasis of those dollars for preservation, maintenance and management of the existing system, more growth will likely need to come more from local and private sectors for expansion of the system and maintenance of the lower level roadways.

Transportation Funding Sources

The state and federal governments levy gasoline taxes and transportation-related fees. Some of the proceeds are shared directly with local governments. Local governments also levy license fees. In addition, many of them have property and income taxes used for operations and capital improvements. The private sector is often required to contribute to new or improved transportation infrastructure to facilitate their developments.

Currently, sales taxes constitute the bulk of the funding for urban transit systems. However, that is generally not the case for the Transit systems in the CORPO area. These transit systems receive Federal Transit Administration funding through ODOT office of transit as well as funds from the Ohio general fund and some local funding through local general revenue. No state gas tax dollars assist with funding transit operations or capital.

The following list shows the major types of funding available for transportation system improvements in Central Ohio.

Federal Sources

- National Highway Performance Program (NHPP) Funds
- Interstate Maintenance Funds



- Surface Transportation Block Grant (STBG) Program Funds
- Transportation Alternatives Program (TAP) Funds
- Congestion Mitigation and Air Quality (CMAQ) Improvement Program
- Bridge Replacement and Rehabilitation Program (BR)
- Highway Safety Improvement Program (HSIP)
- Special Project Earmarks
- Federal National Discretionary programs (BUILD, INFRA, etc.)
- Urbanized Area Formula Program Grants—Sections 5307 and 5340
- Enhanced Mobility of Seniors and Persons with Disabilities—Formula Grant Section 5310
- Bus and Bus Facilities Discretionary Grants—Section 5339 State Source
- Capital Investment Grants (CIG) Section 5309

State

- State-Controlled Gas Tax Allocated Across Many State Programs
- General Revenue Funds for Transit
- Ohio Public Works Commission State Capital Improvement Program (SCIP)
- Ohio Public Works Commission Local Transportation Improvement Program (LTIP)
- Ohio Development Services Agency Roadwork Development (629) Program

Local

- License Plate Registration Fees
- Portion of State Gas Tax
- Sales Tax
- General Revenue (from income tax & property tax)
- Special Purpose Sources (tax-increment financing, transportation improvement districts, joint economic development districts, road levies, development assessments, etc.)



State Funding Programs

The majority of the federal and state sources listed previously are funneled through ODOT. ODOT has various programs to manage its transportation system, utilizing funds from the appropriate sources. For this reason, the discussion of funding is divided into the following categories:

- TRAC
- ODOT (safety & district allocations)
- TAP
- OPWC
- CEAO
- STBG
- Roadwork Development (629) Program
- Safe Routes to School
- Clean Ohio Trail Fund
- Recreational Trails Program
- ODOT Local Programs

Transportation Review Advisory Council (TRAC)

The TRAC manages ODOT's funding for new facilities and major expansion projects. These projects add lanes to freeways, build bypasses, expand existing interchanges, build new interchanges, fund major transit expansion and intermodal/multimodal terminals. ODOT funds the TRAC from a variety of sources depending upon the nature of the project, the funding sources for which it is eligible, and the funding available in a specific program. Generally ODOT accepts requests for funding annually in the spring or early summer.

ODOT

The ODOT category encompasses the majority of the funds controlled by ODOT. The majority of these funds are for management and operations activities across a variety of program areas, such as major bridge, major rehabilitation, safety and ODOT district bridge and pavement programs. Funds from these programs are also occasionally used for minor and major arterial widening projects. Increasingly, these funds are used to supplement TRAC funds on large expansion projects to the extent that the project is also addressing the physical decay of the facility.

One component of the ODOT funds addresses safety problems. ODOT currently budgets over \$102 million statewide annually for its safety program. ODOT accepts requests for safety funding in April and October each year. The program is managed by ODOT central office, but requests are first funneled through each district's safety coordinator. Safety funding is available for any public road.



A second component of the ODOT category is used for intersection improvements and minor and major widening projects along non-freeways. These are generally included in the ODOT district office allocations. These funds are generally used for projects on state and US routes. Occasionally, these funds support projects funded primarily by TRAC. There is no set application cycle. ODOT districts are continually reviewing their schedule for using these funds and locals should contact the district to discuss improvement needs.

ODOT emphasizes a "fix it first" approach that provides funding for management, operations and preservation activities to keep pace with the anticipated inflation levels. Thus, a large part of ODOT funding is on just preserving and maintaining the existing system without expansion.

Transportation Alternatives Program - TAP

Outside of the large urban areas, ODOT manages the federal TAP funding. The funding is geared towards bike and pedestrian projects. Approximately #\$ million is available annually and ODOT generally accepts application annual in the first quarter of the calendar year. For the small portions of Fairfield and Union County in the MORPC MPO area, MORPC has TAP funds that can be applied for every 2 years.

OPWC

The Ohio Public Works Commission awards grants and loans for local infrastructure projects throughout the state. The state created Public Works Integrating Committees in 19 districts to receive and evaluate applications and make funding recommendations to the OPWC. OPWC allocates funding to districts around the state based on population. OPWC District 17 includes CORPO counties of Morrow, Knox, Fairfield and Pickaway. OPWC District 11 includes CORPO counties of Union and Madison. OPWC District 16 includes Marion County. OPWC awards funding from the State Capital Improvements Program (SCIP) and the Local Transportation Improvement Program (LTIP). OPWC funds have a much smaller administrative burden on local agencies than federal funds. Each district accepts applications for funding in the fall of each year.

County Engineers Association of Ohio - CEAO

ODOT sub-allocates funding to County Engineers Association of Ohio. The allocation statewide is approximately \$15 million of HSIP funds for safety projects, \$15 million of STBG that are generally used for minor arterial widening projects; and \$35 million of HBP that are used for bridge replacements. The CEAO outlines the process by which county engineers can apply for and receive funding for their projects.



Surface Transportation Block Grant - STBG

The STBG program funding is one the largest federal types that is geared towards the federal arterial and collector road system. MPO's, through ODOT, receive an allocation of STBG funding to direct towards projects. For the small portions of Fairfield and Union County in the MORPC MPO area, MORPC has STBG funds that can be applied for every 2 years. ODOT also allocates a portion of STBG funds to cities of 25,000 in population ("large cities"). Lancaster is the only large in the CORPO area that receives its own allocation. ODOT receives additional STBG funding which it funnels through it various programs and district allocations.

Roadwork Development (629) Program

The purpose of the 629 program is to fund public roadwork improvements that support the expansion or attraction of businesses. Approximately \$15 million per year, fund the program.

Safe Routes to School - STRS

SAFETEA-LU established the Safe Routes to School (SRTS) program to improve the ability of primary and middle school students to walk and bicycle to school safely. MAP-21 folded the federal program into the TAP. However, ODOT continues to administer the SRTS, making statewide TAP funds available to local sponsors.

The program provides federal transportation funds for right-of-way and construction phases of infrastructure projects, among other eligible activities. ODOT continued to use a range of 10 to 30 percent of SRTS funds for non-infrastructure activities. The program does not require local matching funds. The program is currently funded at \$4 million per year. Applications are accepted annually generally in the first quarter of the calendar year.

Clean Ohio Trail Fund - COTF

The state created the Clean Ohio Trails Fund, administered by the Ohio Department of Natural Resources (ODNR), as part of the Clean Ohio Fund program. ODNR currently provides \$6.25 million per year. Applications are accepted annually.

Recreational Trails Program -RTP

The Recreational Trails Program makes federal transportation funds available for recreational trails and facilities for both non-motorized and motorized users. The Ohio Department of Natural Resources administers the program in Ohio. Right-of-way and construction for trail development are among several eligible activities. The ODNR awards approximately \$1.6 million statewide each year



ODOT Local Programs

In addition to the ODOT programs listed above, there are a number of additional programs that ODOT administers that are available for projects in the CORPO area. These include:

- Urban Paving
- Municipal Bridge
- Small cities
- Local major Bridge

Details on these programs and the application process are available on ODOT's website here: http://www.dot.state.oh.us/Divisions/Planning/LocalPrograms/Pages/LocalFundingOpportunities.as px

Federal National Discretionary programs (BUILD, Freight, etc.)

Since 2009, the U.S. Department of Transportation has annually conducted a solicitation and selection process for (competitive grant program. In its initial year as part of the American Recovery and Reinvestment Act of 2009 (ARRA Now known as Better Utilizing Investments to Leverage Development (BUILD), the program is making \$1.5 billion available nationally in 2018.

The FAST Act also established a new national competitive freight grant program. The average annual funding for it over the 5-year FAST Act is \$900 million.

Local Public Funds

Most local governments allocate their own dollars through a capital improvement program that includes transportation improvements. This may include funds from general revenue or other special-purpose sources. Although local governments go through cycles of experiencing budget problems, it is expected that the local governments will continue to have funds available for system management, operations, preservation and expansion.

Local funds are often used to match state and federal dollars or repay OPWC loans. ODOT and other non-local sources have provided additional funds for these projects. In addition to the funds for matching state and federal funds, local governments completely fund some projects themselves.

Local governments also spend funds on management, operations and system preservation projects such as resurfacing, minor repairs, signal system maintenance and others. These items are not typically included in their TIP due to their small scale.



Private Funds

Various private sources may include direct contribution of dollars or improvement of the facility by the private sector. These are mostly done as new facilities through vacant land that is being developed or modifications to existing facilities impacted by the development of vacant land. Local governments are increasing the burden on developers to pay for transportation and other infrastructure changes needed to support the new developments they are building.

Other Funds

The CORPO Transportation Plan also includes projects for the region's rail system, which could include upgrades to intermodal yards, new tracks, bridge clearance projects or road modifications to increase access to intermodal yards. Likewise, access road projects at the major airports are included in the transportation plan. These projects are not likely to be done with the traditional transportation system resources. These are expected to be funded by the private sector, the airports themselves or perhaps a port authority mechanism.

FTA, State and Local Transit

A separate transit system provides the transit service to each CORPO county. These transit systems receive Federal Transit Administration funding through ODOT office of transit as well as funds from the Ohio general fund and some local funding through local general revenue.

Additional Funding Possibilities

Adjusting Motor Fuel Taxes

The Ohio General Assembly last acted to raise the state motor fuel tax in 2003. The tax rate was increased in two-cent increments over the course of three years for a total increase of six cents, from 22 cents per gallon in 2003 to the current rate of 28 cents in 2005.

Some states allow for automatic increases in their fuel taxes by indexing the taxes to the Consumer Price Index or a similar metric, to try to keep revenues for transportation improvements in line with cost increases. A variation on this is to index the motor fuel excise tax to fuel prices, to try to maintain the level of revenues, even as prices of fuel increase, and the amount of fuel sold drops. Indexing can also include a ceiling or floor on the indexed rate. The neighboring states of West Virginia and Kentucky, for example, have some variability built into their fuel taxes.



Another option to adjust for the amount of fuel sold, used by some states, is to implement a fuel sales tax. Some states use this in combination with the more traditional fuel excise tax.

Adjusting Vehicle Registration Fees

Adjusting vehicle registration fees can be another method to generate additional funds for transportation. Vehicle registration fees are relatively inexpensive to administer and can be collected from non-gasoline vehicles that may not be subject to fuel taxes. Registration fees can be keyed to a vehicle's size and its effect on the roads (larger vehicles pay higher rates).

Vehicle fees can also be based on the vehicle value. Such a tax would be a progressive tax and would have good revenue-generating potential and less cost to taxpayers. This type of tax may also be deductible for individual federal income tax purposes.

Tax on Sale of New and Used Vehicles

A tax on the sale of new or used vehicles could be dedicated to transportation purposes. This is done in several states and has potential to generate significant funds.

Congestion-Related Fees

Congestion fees are charged to drivers based on the current level of congestion and may vary throughout a day. It is not widely used in the U.S., except on some existing toll facilities and on some public transit systems. This is a potential revenue generator and also a tool to discourage travel during the busiest times. The fee can also be indexed to inflation.

Tolls on Roads, Lanes or Bridges

With appropriate legislation, private entities could initiate proposals for a new toll facility. Tolls also could be used on new truck lanes or high-occupancy vehicle lanes. Tolls can also be added to capacity additions to existing facilities.

Vehicle-Miles-of-Travel (VMT) Fees

This is a concept where fees would be tied to the amount of travel someone does; those who put more miles on their vehicles would pay more. This is made increasingly feasible by new technology. This a longer term option and could be used to supplement or replace fuel taxes. A few states have completed preliminary studies on the use of this new concept.

Public-Private Partnerships

Public-private partnerships (PPP) can be used to fund road construction, operation or maintenance. Public-private partnerships are more commonly used in Europe and have been tried by some states in the U.S. It has the potential for significant cost savings and can facilitate access to private capital.



ODOT recently initiated one of its first large PPPs in southern Ohio for the Portsmouth bypass, which is now under construction.

Transportation System Funding Summary

CORPO Members will proactively seek additional funding for the transportation system. CORPO will be active at both the state and federal level to explain the need for additional funding. A variety of options is continuously being discussed. These options include a variety of potential options to raise revenue for transportation projects. Some of these alternative financing mechanisms are briefly described below, with a few being new to Ohio.

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5.0 Strategies, Projects and Implementation



Strategies

To one day measure progress in achieving each goal, strategies were identified by staff as a plan of action for moving the region forward. Many of the strategies apply to more than one of the goals. These strategies are meant to be executed through collaboration as well as through identified transportation projects in each CORPO county.

The strategies proposed are as follows:

- Alleviate existing or anticipated congestion.
- Improve employee and customer access to businesses through infrastructure
- Study or improve fixed-route and demand-response transit service.
- Improve public transportation connections and coordination between communities.
- Make transportation decisions that positively impact freight movements and maximize the effectiveness of the region's integrated freight transportation system.
- Expand bicycle and pedestrian networks through the development of multi-use path connections.
- Promote and strengthen transportation safety efforts.
- Multi-jurisdictional dialogue to improve opportunities for collaboration.
- Preserve and maintain the existing transportation system.
- Broaden the transportation system managed in a coordinated manner.
- Make transportation decisions that positively impact freight movements and maximize the effectiveness of the region's integrated freight transportation system.
- Develop a transportation system to serve all demographic population groups.
- Reduce the occurrence of severe crashes and address high-crash locations.
- Improve human services transportation and coordination with public transit.

5.0 Strategies, Projects and Implementation



Project List

One of the primary purposes of the CORPO Transportation Plan is for CORPO members to identify transportation projects of importance in their county. The projects listed on the next few pages include those that add roadway capacity, expand the transit system or provide bicycle and pedestrian facilities. Some of the identified projects encompass the ongoing operation, maintenance and preservation of the existing transportation system. This may include the study, operation and expansion of transit service. However, most of the items listed are projects to expand physical components of the transportation system.

Each project listing provides a brief project description and identifies cost estimates for each project. The associated cost estimates are in construction dollars. The following list includes both short and long term projects that may occur between 2018 and 2040.

			Cost
Collings	2	Project Description	(Millions)
Fairfield	TBD	Little Walnut Creek Trail from Gender Road to Carroll-Northern Road; multi-use path	\$3 - \$4
Fairfield	TBD	Refugee Rd. from Woodstock Avenue to Saylor Road; multi-use path	\$1
Fairfield	TBD	Buckey Lake Dam Path from northern to southern Buckeye Lake State Park; multi-use path	\$1.20
Fairfield	TBD	Buckeye Lake Bikeway Connector to connect Buckeye Lake area at Millersport to state bikeway on SR 40; multi-use path	\$73-\$93
Fairfield	TBD	US 22 Trail from from Amanda to Lancaster; multi-use path	\$4
Fairfield	TBD	Lithopolis Rd. from Elder Lane to SR 674; mutli-use path	\$0.6 - \$1
Fairfield	TBD	Smith Rd. from Stoney Bluff Way to Rolling Acres Dr; multi-use path	\$0.3 - \$0.6
Fairfield	TBD	Elder Lane from Penny Dr. to Columbus St.; multi-use path	\$0.3 - \$0.7
Fairfield	TBD	Lithopolis Winchester Rd. from Red Tail Dr. to Walnut St.; multi-use path	\$0.3 - \$0.7
Fairfield	TBD	Lithopolis Winchester Rd. from Winchester Rd. to Columbus St.; bikelane	\$1-\$3
Fairfield	TBD	Wright Rd from Diley Rd to Pickerington Ponds; multi-use path	\$0.7 - \$1
Fairfield	TBD	Conrail Trail from Allen Rd to Hill Rd; multi-use path	\$2 - \$4
Fairfield	TBD	I-70 (East Freeway) at SR 256 and at Taylor Road/SR 204; Interchange modification	\$9-\$12
Fairfield	TBD	Columbus Street (Wright Rd) from Diley Rd to Hill Rd (SR 256); Minor widening	\$24-\$30
Fairfield	TBD	Busey Road from Bowen Rd to Allen Rd; Minor widening	\$3
Fairfield	TBD	Long Road from Columbus Street to Diley Road; Minor widening	\$4 - \$5
Fairfield	TBD	Hill Rd from Hill Road relocation (north of Busey Road) to Columbus Street (SR 256)Hill Road; Minor widening	\$10-\$12
Fairfield	TBD	Minor Rd from Pickerington Road to Refugee Road Milnor Road; Minor widening	\$2
Fairfield	TBD	Hill Road (SR 256) / Refugee Road; Intersection modification	\$3 - \$4
Fairfield	TBD	Pickerington Road (Center Street) / Milnor Road / Meadows Boulevard; Intersection modification	\$1 - \$2
Fairfield	TBD	SR 204 / Harmon Road; Intersection modification	\$1 - \$2
Fairfield	TBD	SR 204 / Taylor Road; Intersection modification	\$93-\$121
Fairfield	TBD	I-70 (East Freeway) from Alum Creek Dr to SR 310; Access management	26 - \$7
Fairfield	TBD	Refugee Road / Pickerington Road; Roundabout, Intersection modification	\$3
Fairfield	TBD	Hill Road / Basil-Western Road; Roundabout, Intersection modification	\$1
Fairfield	TBD	SR 204 / Milnor Road; Roundabout, Intersection modification	\$3 - \$4
Fairfield	TBD	US 33 (Southeast Freeway) from Gender Rd (SR 674) to Hill Road/Diley Road; New freeway	\$3 - \$4
Fairfield	TBD	US 33 (Southeast Freeway) from Hamilton Rd (SR 317) to Gender Road (SR 674) does not include Bixby Interchange; New freeway	\$57 - 72
Fairfield	TBD	US 33 (Columbus-Lancaster Road) from Hill Rd/Diley Rd to Carroll Interchange does not include Pickerington Road Interchange; New freeway	4
Fairfield	TBD	US 33 (Southeast Freeway) / Bixby Road; New interchange	61
Fairfield	TBD	US 33 (Southeast Freeway) / Pickerington Road; New interchange	\$4 - \$6
Fairfield	TBD	Courtright Dr from SR 256 (Hill Road) to Milnor Road Courtright Drive extension (west section); New Roadway	\$2
Fairfield	TBD	Courtright Dr from Milnor Road to Pickerington Road Courtright Drive extension (east section); New Roadway	\$6 - \$8
Fairfield	TBD	Allen Road extension from Stemen Road to Ault Road; New Roadway	\$109 - \$140
Fairfield	TBD	I-70 to US 33 Connector (Pickerington Bypass); New roadway	\$6
Fairfield	TBD		TBD
Fairfield	TBD	I-70 (East Freeway) from SR 256 (Baltimore-Reynoldsburg Road) to SR 310 (Hazelton-Etna Road); Major widening	\$24 - \$30
Fairfield	TBD	Tussing Road from Brice Road to SR 256; Major Widening	\$23 - \$29
Fairfield	TBD	SR 256 (Hill Road) from Diley Road to Town Square Drive; Major widening	\$0.90
Fairfield	TBD	Basil-Western Rd Realignment Phase 1; Roundabout at Hill/Kings Crossing; Other roadway modification	\$2
Fairfield	TBD	Basil-Western Rd Realignment Phase 2; Extension of Kings Crossing to the eastern edge of Parcel #0370211900; Other roadway modification	TBD
Fairfield	TBD	Basil- Western Rd Connection to Carroll Northern; New roadway	TBD
Fairfield	TBD	Hill Rd Relocation from Busey Rd at Hill Rd (south leg) to Hill Rd north of Busey Rd; New roadway	\$2 - \$4
Fairfield	TBD	Refugee Rd / Hines Rd; Intersection modification	\$0.4 - \$0.8
Fairfield	TBD	SR 674 Realignment from Gender Rd to Winchester Southern Rd; New Roadway	\$7 - \$15
Fairfield	TBD	I-70 from Brice to SR 256; Major widening	\$70 - \$135
Fairfield	TBD	Lockville Rd Connector; New roadway	\$9 - \$17
Fairfield	TBD	Hill-Lockville Rd Connector; New roadway	\$5 - \$10

Cost

County	□	Project Description	(Millions)
Fairfield	TBD	Lehman Rd extension from Bowen Rd NW to Busey Rd; New roadway	\$4 - \$8
Fairfield	TBD	Commerce Dr realignment from Hill Rd to Diley Rd; New roadway	\$1-\$3
Fairfield	TBD	Pickerington-Allen connector; New roadway	\$7 - \$14
Fairfield	TBD	Camp Ground Road Improvements; Other roadway modification	\$1
Fairfield	TBD	Fair Avenue / Collins Ave; Intersection modification	\$1 - \$4
Fairfield	TBD	Ewing Street and Old US 22 Connector from South end of Ewing to US 33-Bypass / Old U.S. 33; New roadway	\$2
Fairfield	TBD	Commerce Street Extension from West end of Commerce Street that ends before Graceland; New roadway	\$22 - \$28
Fairfield	TBD	Study a high-capacity transit corrdor from Lancaster to Columbus.	66\$ -92\$
Fairfield	TBD	Coonpath Road from SR 158 to CR 33; Other roadway modification	\$ 2
Fairfield	TBD	CR 33A / Election House Rd; Intersection modification	\$1
Fairfield	TBD	Ety Road and Bridge Improvements; Other roadway modification	\$ 2
Fairfield	TBD	Columbus Rd from Election House Rd to Whittier Rd; Other roadway modification	TBD

			Cost
County	Ω	Project Description	(Millions)
Knox	TBD	Study improvements and corridors to better connect Mount Vernon and Knox County to I-71, I-70, and I-77	TBD
Knox	KN0 5	Blackjack Road Extenstion from Granville Rd. to US 36/SR 3; New roadway	\$31-\$40
Knox	KNO 7	KNO 7 Oliver Road at US 36/SR 3; Intersection modification	\$1-\$4
Knox	KNO 8	KNO 8 Updike Road at US 36/SR 3; Intersection modification	\$1-\$4
Knox	KN03	KNO 3 Beech Street extenstion from Sychar Road to Mansfield Avenue, also includes alignment of Fairgrounds and Clinton Roads at Old Mansfield Road and	\$9-\$12
Knox	KN0 2	KNO 2 Sandusky St Corridor to SR 13; Other roadway modifications	TBD
Knox	KN04	KNO 4 Study Upper Gilchrist Road Extenstion from New Gamibier Rd to Eastern Star Rd	TBD
Knox	TBD	Edgewood Rd. from SR 229 to US 36; Connection and Major Widening	\$7 - \$10
Knox	TBD	Murray Rd Improvements from SR 586 to SR 13; Other roadway modifications	TBD

County	□	Project Description	(Millions)
Madison	MAD 2	MAD 2 US 42 from CR 135 (Betty Wilson Road) to CR 104 (Simpson Road); Minor widening	\$10-\$15
Madison	MAD 3	MAD 3 US 42 from CR104 (Simpson Rd) to SR 29; Access Management	\$2 - \$3
Madison	MAD 4	MAD 4 SR 29 from I-70 to north of Main St; Major widening	\$13-\$16
Madison	MAD 8	MAD 8 US 42 / I-70 Expansion; Interchange modification	\$14-\$16
Madison	MAD 9	MAD 9 US 29 / US 40 Realignment; Intersection modification	\$23
Madison	MAD 10	Madison MAD 10 ODOT Study of SR 29 / I-70 Interchange	TBD

Cost

		Cost
Δ.	Project Description	(Millions)
MAR1 S	SR 4 / SR 423 at Marion-Williamsport Road; Instersection Modification	\$1.5 - \$4.5
MAR2 E	Barks Road and SR 423; Intersection modification	\$1-\$4
MAR3	McMahan Boulevard extension, from existing McMahan end to University Drive; New roadway	\$3-\$2
MAR4 8	SR 423 / Barks Road; Intersection modification	\$1-\$4
TBD	SR 529 / US 23; New Interchange	\$22 - \$29
TBD	Study the US 23 Marion Southern Bypass	TBD
	Railroad overpasses at various locations within Marion City	TBD
TBD	I-71 Access / Delaware County Bypass; New roadway	TBD

County	□	Project Description	(Millions)
Morrow	MRW1	MRW1 Study I-71 interchanges to maximize development potential.	TBD
Morrow	MRW5	MRW5 Study scenic byways for SR 314, SR 95, and SR 42	TBD
Morrow	MRW4	MRW4 Study high-capacity transit corridor from US 36 to Nationwide Blvd.	TBD
Morrow	TBD	SR 229 from US 23 to I-71, Major Widening	\$100 - \$132

Cost

Cost

County	<u>Q</u>	Project Description	(Millions)
Pickaway	PIC 3	PIC 3 US 23 Limited Access Freeway Conversion from Franklin County line to South Bloomfield; New freeway	\$207 - \$265
Pickaway	PIC 7	US 23 / SR 762 (Duvall Road); New Interchange	\$17
Pickaway	PIC 1	US 23 Bloomfield Bpass Bypass around Village of South Bloomfield; New roadway	\$60
Pickaway	TBD	US 23 from South Bloomfield to US 22; Access management	\$68-\$72
Pickaway	TBD	US 23 from Tarlton Rd to Ross County line; Access management	\$52 - \$55
Pickaway	PIC 4	Richenbacker Parkway from Ashville Pike to Pontius Road, looping around south end of Rickenbacker International; New roadway	\$25-\$50
Pickaway	PIC 5	PIC 5 SR 762 from US 23 to Ashville Pike and north to Franklin County line; Major widening of roadway	\$37
Pickaway	PIC 8	PIC 8 Richenbacker Intermodal Expansion; Other transportation	TBD
Pickaway	PIC 11	PIC 11 SR 762 from SR 104 to US 23; Major widening	\$16-\$22
Pickaway	PIC 10	PIC 10 Scioto River Valley Bikeway Connecting Circleville; Multi-urpose path	\$50
Pickaway	PIC 12	PIC 12 SR 104 from 762 to Franklin County line. Major widening of roadway	\$25
Pickaway	PIC 13	PIC 13 SR 316 to US 23 (at SR 752) Connector; New roadway	TBD

Cost (Millions)	\$3.5	\$40	\$1-\$3	\$4	\$4	\$30	\$3.5	\$10	\$1	\$25	TBD	TBD	\$0.5	\$25	\$2	\$44	\$1.5	\$2	\$44	\$25	\$39 - \$51	\$10	\$2	TBD	06\$	\$0.2	\$15	\$45
Project Description	33 Innovation Park - Industrial Parkway Connector Phase 1 from CR 1 to Park; New roadway	US 33 from Avery Rd to US 42; Roadway widening	Study Columbus to Chicago passenger rail corridor.	Cooks Pointe Connector from SR 4 to SR 31; New roadway	East Fifth / Five Points; Intersection modification	Home Road Roadway Realignment from Blaney/Home Rd at Jerome Rd to US 33 / Industrial PKWY; New roadway	Hyland-Croy Rd from Post Rd to Mitchell-Dewitt / Brand Rd; Roadway widening	ndustrial Parkway Connector Phase 2 from the west side of Industrial Parkway; New roadway	US 42 / Industrial PKWY; Intersecton modification	Ravenhill Pkwy Extension from existing western terminus to Mitchell-Dewitt Rd; New roadway	Study freight usage and capacity along SR 31 from US 33 to US 68.	Study freight usage and capacity from Madison Co line to Del Co line	Study US 33 from SR 161 to SR 347 (TRC) and develop a Corridor Plan.	US 33 / Mitchell Dewitt Interchange; New interchange	US 33 at West 5th St / Northwest PKWY (CR 133); Interchange modification	US 33 / SR 161; Interchange modification	Mill Wood BLVD to Creekview Dr; Major widening of roadway	SR 31 from South of Mill Rd to just North of Mill Wood BLVD; Major widening	US 33/US 42; Interchange modification	US33 / Beecher-Gamble; New interchange	US42 from US33 to the Delaware Co line; Major widening of roadway	Industrial PKWY from US 42 to Scottslawn Rd Phase 3, Major widening of roadway	Watkins-California Rd Realignment from Watkins-California Rd to US-42; Other roadway modification	Study multi-use trail networks in the county.	US 33 / I-270/ Interchange modification	Safety study of SR 347.	Industrial PKWY from SR 161 to US 42, Major widening of roadway	Transportation Research Facility Internal Improvements
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