Chapter 4
Long Range Transportation Planning and the Congestion Management Process

4.1 Overview

MVRPC has assimilated many of the state and federal goals, strategies, and programs to manage congestion through its Long Range Transportation Plan (LRTP), Transportation Improvement Program (TIP), and various regional projects, strategies, and initiatives. This chapter focuses on the evaluation of the existing regional multimodal transportation network and the overall impact of the approved 2050 LRTP Congestion Management (CM) project list on managing regional congestion. In addition, this chapter documents how congestion evaluation and congestion management serve as inputs to a number of MVRPC planning processes and programs. Other relevant congestion management efforts undertaken as part of the ongoing transportation planning processes at MVRPC are also addressed—including public transportation and alternative modes.

Summary of Congestion Management Efforts

Introduction to Congestion

"Congestion" is generally defined from the perspective of the roadway user. The public's perception of congestion relies primarily on their own experiences when traveling on the nation's roadways. However, an engineer would describe congestion as the condition where traffic demand approaches and/or exceeds the roadway's ability to facilitate travel at normal speeds. Typically, roadway congestion manifests itself as "stop-and-go" traffic conditions.

Roadway congestion consists of three key elements: severity, extent, and duration.[2] The blending of these elements determines the overall effect of congestion on roadway users. Roadway congestion occurs due to a number of planned and unplanned events either in isolation or in tandem. In some cases, the clockwork nature of recurring congestion can be the sole event. Factors attributing to congestion differ significantly between urban and rural areas. For example, physical bottlenecks (i.e. sections of the roadway system that have reached their operational capacity) are estimated to be the source of about 40% of congestion in urban areas but only 3% in rural areas.[3]

Additionally, research by the Federal Highway Administration (FHWA) has identified several root causes for unplanned events that cause non-recurring congestion. The estimated breakdown of non-recurring congestion for urban and rural areas are:

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[2] Federal Highway Administration 2020. "Traffic Congestion and Reliability: Trends and Advanced Strategies for Congestion Mitigation" https://ops.fhwa.dot.gov/congestion_report/chapter2.htm

[3] Texas A & M Transportation Institute 2021. "Congestion Pie Chart for Different Sources of Congestion" https://tti.tamu.edu/documents/TTI-2021-2.pdf

- *Traffic Incidents (Urban: 25% | Rural: 50%)* — Random events occurring in the travel lanes that disrupt otherwise “normal” traffic flow, such as crashes, disabled vehicles, or roadway debris;
- *Inclement Weather (Urban: 15% | Rural: 10%)* — Environmental conditions can affect driver behavior, causing motorists to drive more slowly and/or allow for larger gaps between cars;
- *Work Zones (Urban: 10% | Rural: 35%)* — Construction activities that alter traffic flow due to lane or shoulder restrictions, lane shifts, or temporary closures;
- *Traffic Control Devices (Urban: 5% | Rural: 2%)* — Poorly timed or spaced signals and railroad crossings can cause intermittent disruptions in traffic flow;
- *Special Events (Urban: 5% | Rural: 0%)* — Sudden increases in traffic demand due to planned or unplanned events, particularly in rural areas, can temporarily overburden the roadway system; and
- *Fluctuations in Normal Traffic Flow (Unknown)* — Day-to-day changes in the traffic demand placed on the system due to random unknown causes.

Other than bottlenecks resulting from maximized roadway capacity, the above listed events take place with irregularity throughout the day. Therefore, accurately predicting travel times between two points becomes increasingly difficult as irregular congestion disrupts the transportation network over longer periods of time and larger sections of roadway, leading to frustration for commuters, commercial operators, and public officials.

National Congestion Trends

Congestion time and costs are increasing again across the nation and trends in when freeway congestion occurs have changed since the peak pandemic years of 2020 and 2021. After the pandemic, more congestion began appearing between 11 am and 1 pm on workdays compared to before the pandemic: this is likely due to increased hybrid and remote work affecting travel behavior. In general, more travel is occurring on weekends now than before the pandemic and congestion is also more spread out through the day. In contrast, weekend congestion was concentrated in the middle of the day prior to 2020.[4]

In contrast to freeway trends where delay patterns have shifted from the evening to afternoon hours by around 5 percent, congestion on arterial roads has not drastically changed before and after the pandemic. According to the 2025 UMR, 2023’s peak period of delay on arterial streets is about the same as 2019’s peak period.

Truck congestion and subsequent costs have increased since the peak pandemic years.[4] According to the 2025 UMR, “A major contributor to the truck congestion cost increase has been the value of time associated with truck travel, which has gone up noticeably over this period [2020-2023].” There are several factors reported by the American Transportation Research Institute that have

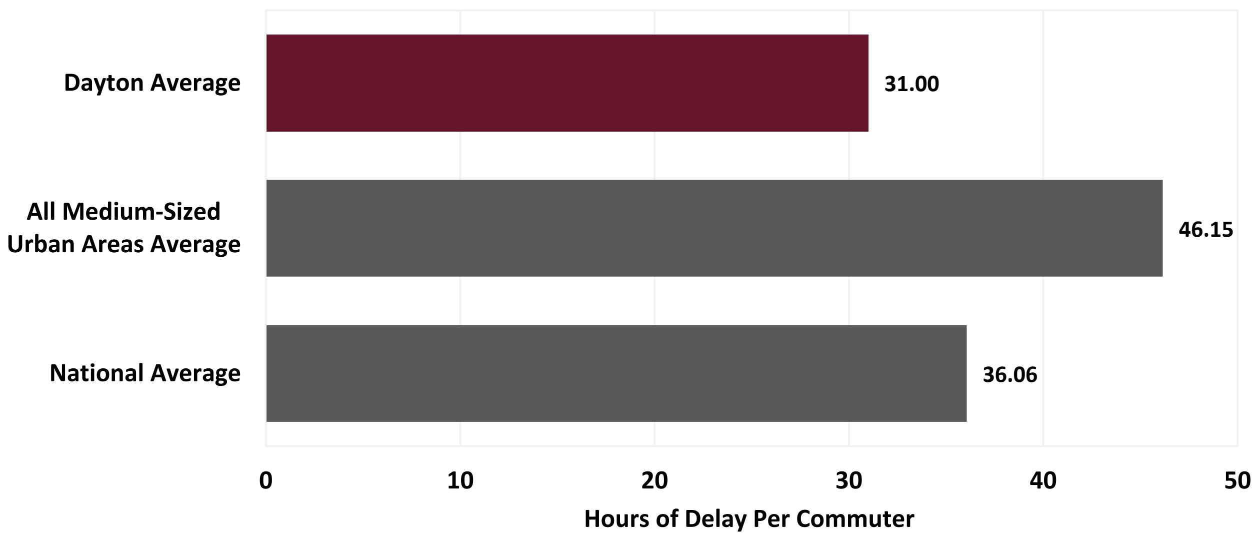
[4] Texas A & M Transportation Institute 2025. “2025 Urban Mobility Report” https://static.tti.tamu.edu/tti.tamu.edu/documents/mobility-report-2025.pdf

contributed to the increase in nation trucking costs across the board including rising fuel, repair, maintenance, insurance, and driver wage costs.[5]

Comparing Commuter Delay in the Dayton Urban Area

Congestion in the Dayton Urban Area (DUA) follows the national trend of steadily increasing after the peak pandemic years of 2020 and 2021. However, individual commuter hours of delay have stayed relatively unchanged in the DUA between 2019 and 2023.[4] The Texas A&M Transportation Institute classifies different urban areas by population size. In that schema, Dayton is classified as a medium-sized urban area.[6] The Dayton urban area, tied with McAllen in Texas, has the lowest annual hours of delay per commuter out of all medium-sized areas in the nation. Commuters in the DUA had around 5 hours of delay less compared to the average hours of delay commuters across the nation experienced in 2023. The exact averages for the DUA compared to all medium-sized urban areas and the national average can be seen below.

Figure 4.1 — Medium-Sized Urban Area Comparison of Annual Hours of Delay in 2023



Source: Texas Transportation Research Institute, Urban Mobility Report 2025

4.2 Roadway Congestion in the Miami Valley Region

MVRPC used its regional travel demand model to develop scenarios consistent with the congestion management projects proposed by the 2050 Plan (see Table 5.3 in Chapter 5). Three scenarios were developed: 2020 Base, 2050 Existing plus Committed (E+C), and 2050 Plan conditions. The 2050 Plan scenario includes all projects in the Long Range Transportation Plan (LRTP), while the E+C scenario includes only projects that are funded in the SFY 2026-2029 Transportation Improvement Program

[5] American Transportation Research Institute 2025. "An Analysis of the Operational Costs of Trucking: 2025 Update" https://truckingresearch.org/about-atri/atri-research/operational-costs-of-trucking/

[6] The word "urban area" is used as opposed to "city" due to urban area boundaries having different, usually slightly larger boundaries than one would think of for a city.

(TIP). Socioeconomic data from 2020 is used on the Base scenario, while 2050 forecasted socioeconomic data is used on the 2050 E+C and Plan scenarios. Detailed information on socioeconomic data assumptions is available in Chapter 3. Performance measure statistics for the base and future year scenarios were generated for each roadway segment by using POSTCMS software developed by the Ohio Department of Transportation (ODOT). Systemwide congestion was identified by location and quantified by severity using the level of service (LOS) performance measure.

Level of Service

Level of Service (LOS) is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists. Volume-to-Capacity (V/C) ratio is a measure of the traffic volume on a road compared to the capacity of the road. The capacity of a road depends on its physical and operational characteristics and varies by functional class. A higher V/C ratio indicates that the traffic volume of the road is nearing its capacity and is becoming congested.

Similarly, the ratio of average speed to free flow speed can be used to measure congestion—lower speed ratios indicate congested conditions.

The analyses presented in this section are based on calculations by POSTCMS software and its definition of LOS by Speed and V/C ratio. LOS is broken down into six levels (A through F), with significant traveler delay and recurring congestion occurring at LOS D, E, and F. LOS was used to identify specific locations of congestion in the Base (2020), Existing plus Committed (2050 E+C) and the Long Range Transportation Plan (2050 LRTP) networks. Figures 4.2, 4.3, and 4.4 identify roads having LOS D (V/C > 0.751) or worse for surface roads while LOS for freeways is determined by speed ratios as recommended in the 2015 Highway Capacity Manual.

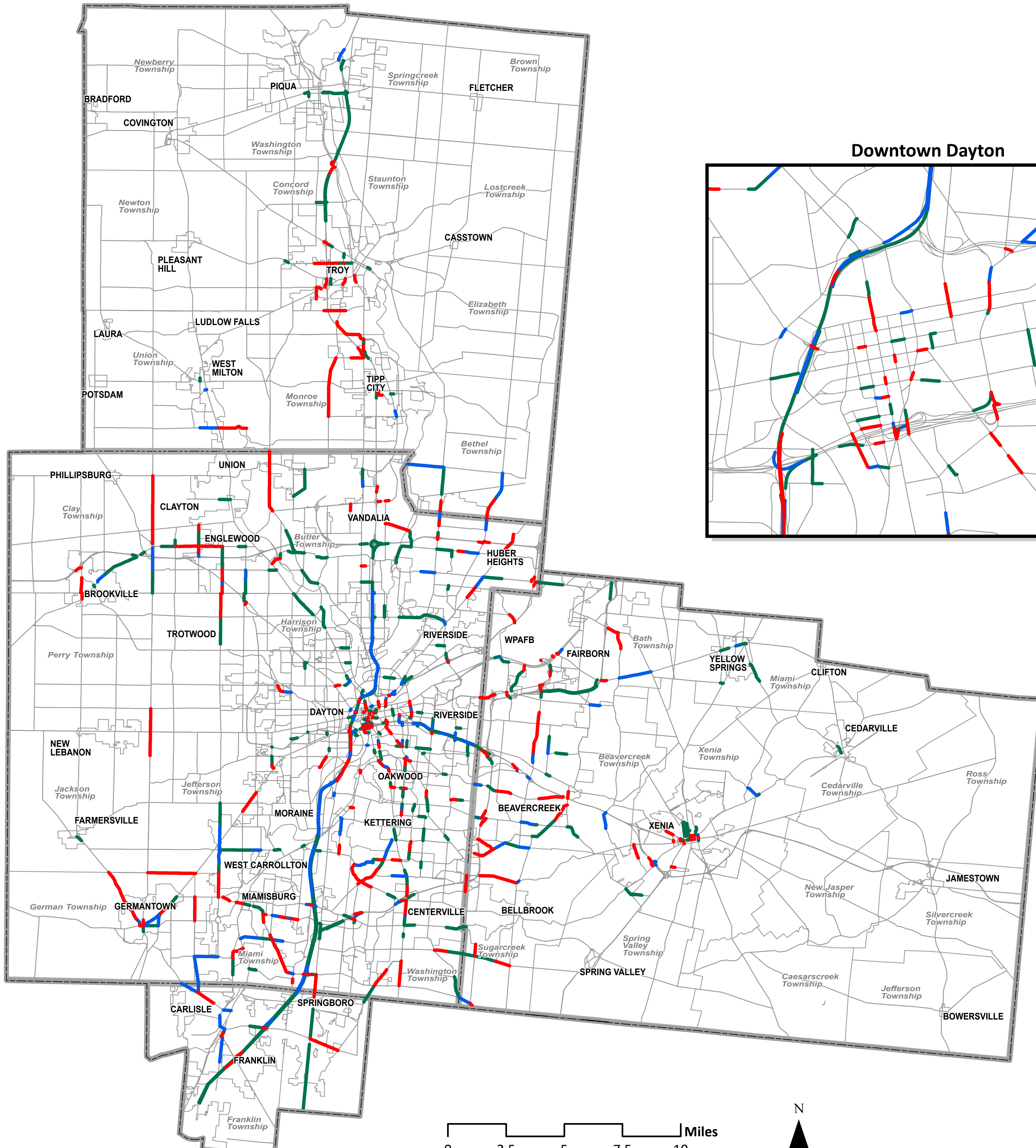
2020 Base

In the Base (2020) network, roadway congestion has a noticeable concentration on I-75 and US-35 as well as their interchanges. The 4-mile stretch of I-75 north and south of Downtown Dayton that leads into the downtown area sees consistent severe congestion. Roadway congestion is also worsening across most city centers in the Region and on I-675 near WPAFB—which is the largest employer in the Region.

2050 E+C

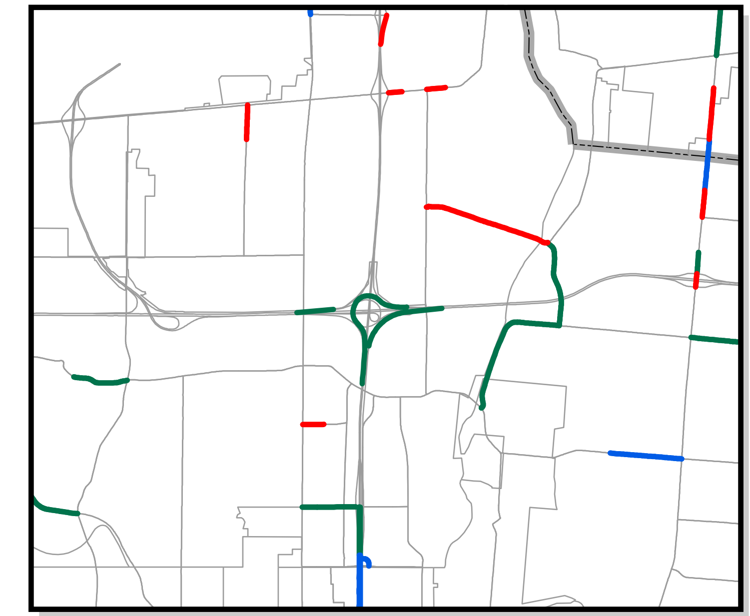
Roadway congestion is increasingly present in the 2050 E+C network. The majority of all freeway sections in Montgomery County will operate at LOS D or E. I-75 in Montgomery County will experience severe LOS F congestion for about 15 continuous miles from the I-75/I-675 interchange to Exit 59 north of Downtown Dayton. The section of I-675 near WPAFB will see heightened congestion and function at LOS D and E while connecting roads will experience severe congestion near the Base. Congested conditions will spread to the portion of I-70 in Montgomery County and will function mostly at LOS D. Various projects, including interchange and freeway reconstruction, are included in the 2050 LRTP to improve the freeway performance; this is reflected in Figure 4.4 representing the 2050 Plan scenario.

Figure 4.2
Level of Service
2020 Base

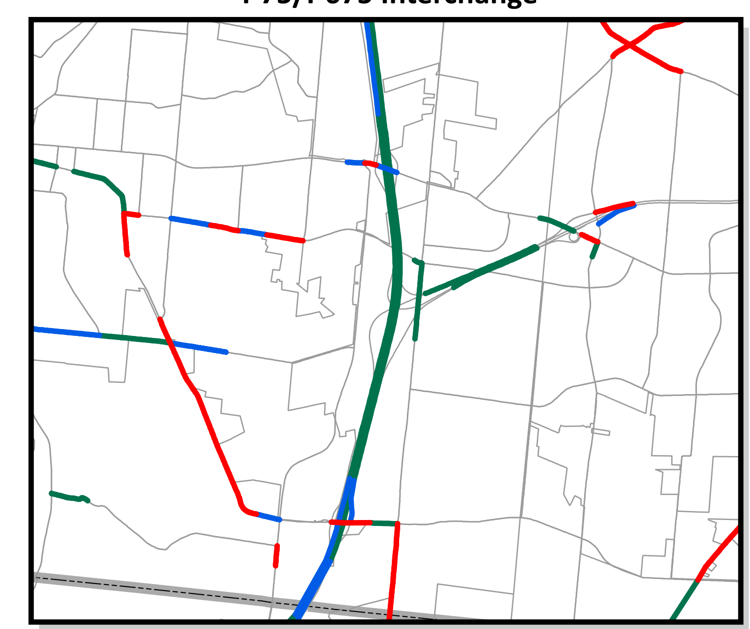


Downtown Dayton

I-70/I-75 Interchange



I-75/I-675 Interchange



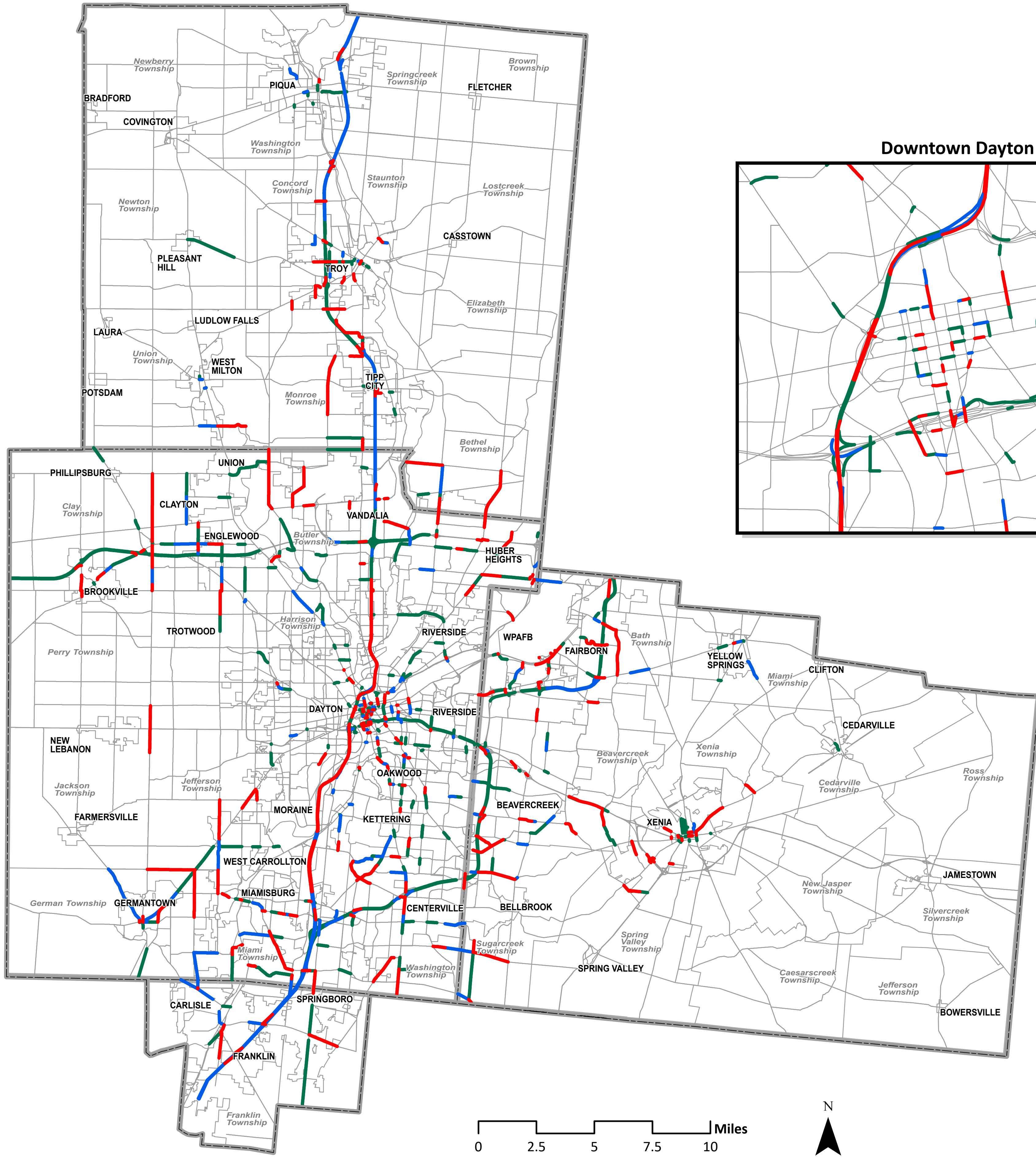
Level of Service
- D
- E
- F

Political Boundaries
- County
- City
- Township

Source: MVRPC
May 2026

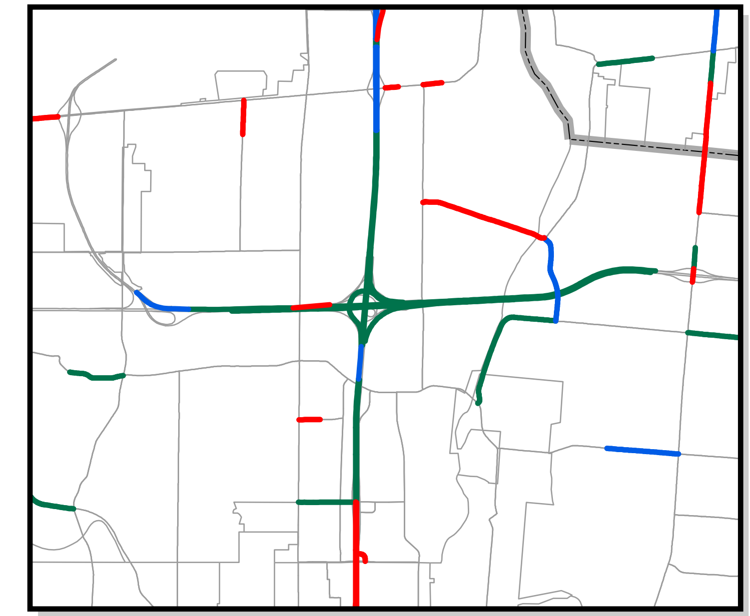
MVRPC

Figure 4.3
Level of Service
2050 Existing+Committed



Downtown Dayton

I-70/I-75 Interchange



I-75/I-675 Interchange

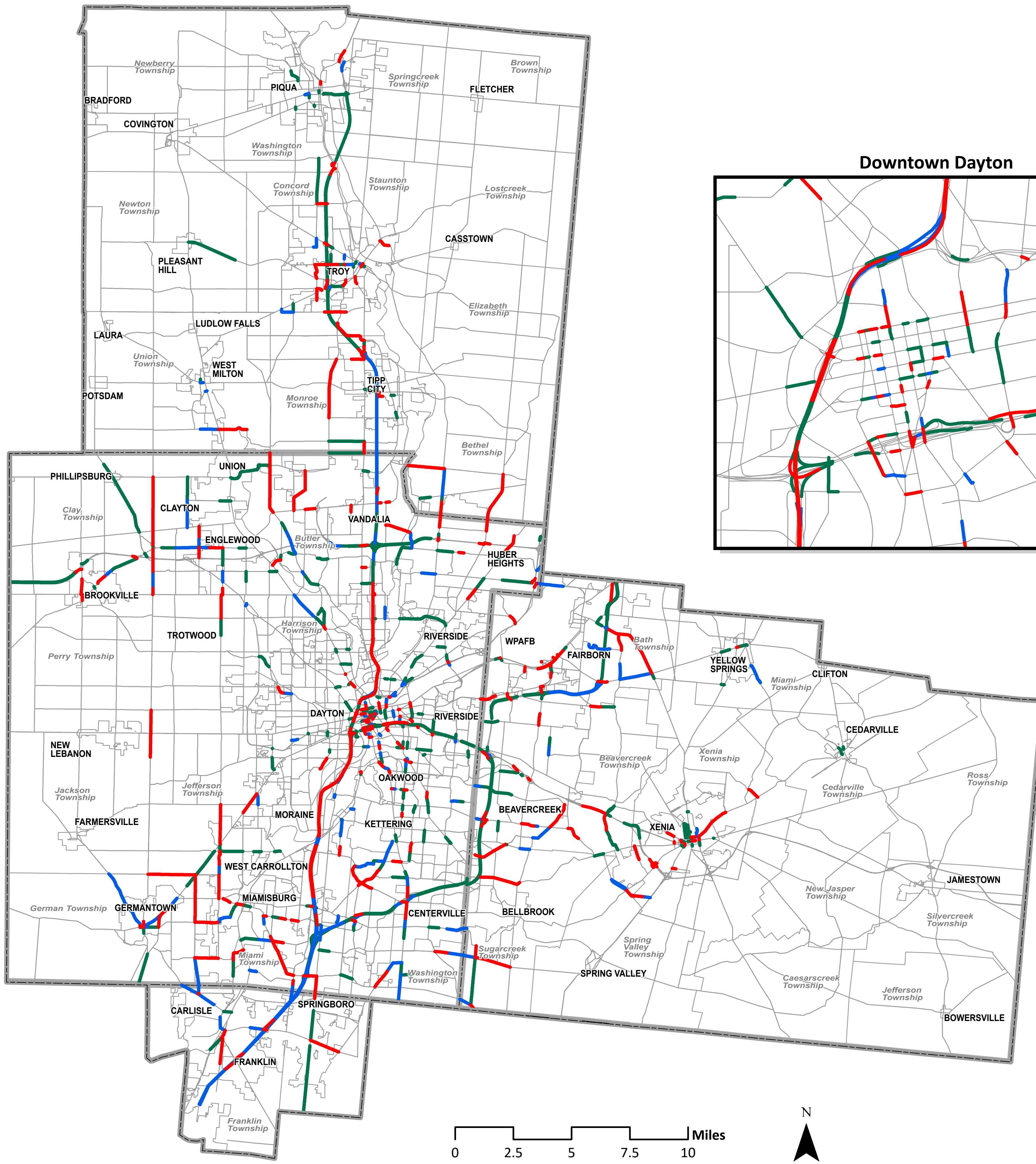
Level of Service
- D
- E
- F

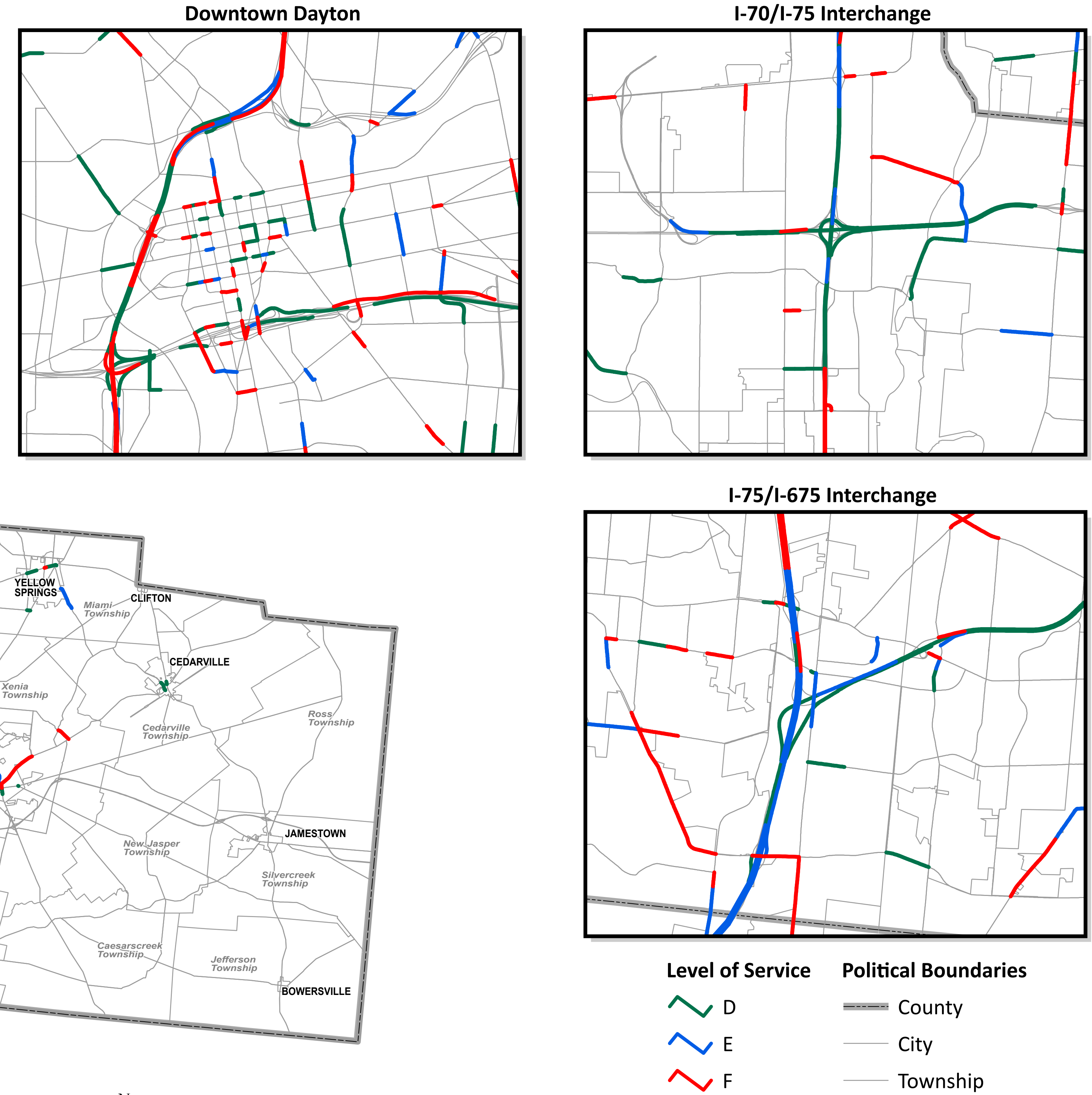
Political Boundaries
- County
- City
- Township

Source: MVRPC
May 2026

MVRPC

Figure 4.4
Level of Service
2050 Plan





Source: MVRPC
May 2026

2050 Plan

Under the 2050 LRTP scenario, the level of service across the Region improves a little bit. The 15-mile portion of I-75 from the I-75/I-675 interchange extending north to Exit 59 remains at LOS F. There is slight congestion improvement on Miami County's portion of I-75 in the 2050 LRTP scenario between Exit 69 and Exit 82 that functions at LOS D instead of LOS E if the plan scenario is followed. Given the importance of freeways to the regional economy, MVRPC recommends continued monitoring and potential implementation of additional travel demand management strategies along these corridors in the medium to long-term timeframe including smart mobility solutions.

Status of Freeway Corridors in the Region

In the Dayton Region freeways represent only 15 percent of the total roadway lane miles but carry between 42 percent (2020 Base) and 48 percent (2050 LRTP Plan scenario) of the total vehicle miles of travel (VMT). As a result, freeway travelers experience some of the worst congestion levels in the Region.

As part of the congestion management process, ten freeway corridors in the Region were identified for detailed congestion study and analyses. The congestion corridors listed in Table 4.1 are used to identify current and future deficiencies related to travel time, safety, and/or level of service for development of projects or programs that can be funded through various funding programs such as Congestion Mitigation/Air Quality (CMAQ), Surface Transportation Program (STP) or through the Federal Transit Administration (FTA). Selected measures are displayed in Figure 4.5.

Term Definitions

Daily Volume — refers to the average weekday daily volume along the segments of a CMP corridor. Most corridors have large ranges in volume and often feature lower traffic levels on the periphery. High volume locations frequently experience high levels of delay or congestion, though the correlation is not perfect. The daily volume for the base year (2023) is obtained from ODOT estimated counts while the 2050 volumes are estimated based on MVRPC's travel demand model.

Truck Volume — refers to the average weekday daily truck volume along the corridor. The daily truck volume for the base year (2023) is obtained from ODOT's estimated truck counts while the 2050 truck volumes are estimated based on MVRPC's commercial traffic model.

Average Speed — refers to the average speeds observed along the corridor during peak periods. MVRPC utilized INRIX data to compute average speeds during peak hours for each corridor.

Level of Service (LOS) — LOS for freeways is based on the 2015 Highway Capacity Manual and calculated based on the ratio of average to free flow speed with varying thresholds by speed limit. Generally, the lower the ratio of average to free flow speed, the lower the LOS. Table 4.1 presents peak LOS for peak direction of travel.

Travel Time Index — the ratio of the average peak period travel time as compared to free-flow travel time. For example, a value of 1.2 means that average peak travel times are 20% longer than free-flow travel times. In this analysis, the travel time index was calculated for 2023 weekday peak times. MVRPC utilized travel time data supplied by a private vendor, INRIX, to determine travel time reliability trends in the Miami Valley. Travel time reliability is measured through several mobility and reliability indicators that impact the individual traveler such as travel time index, buffer time index, and planning time index.

Cost of Vehicle Delay — is the economic impact to drivers and businesses based on lost productive time, wasted fuel, and additional vehicle maintenance costs due to extra time spent in traffic. The cost of vehicle delay is calculated by applying monetary values to the estimated hours of total delay incurred by passenger and truck travel, plus additional vehicle operating costs. Total delay is defined as the difference between the amount of time it would take a vehicle to traverse a corridor from one end to the other traveling at the posted speed compared to the actual amount of time it takes a vehicle to drive the corridor.

Total Crashes and Crash Rates — are tabulated for each corridor based on 2021-2023 data obtained from ODOT. The crash rates are reported per million vehicle miles traveled (MVMT). In general, safety is an important component in measuring congestion as congested conditions often result in a greater likelihood of crashes, and crashes can further increase congestion.

MVRPC

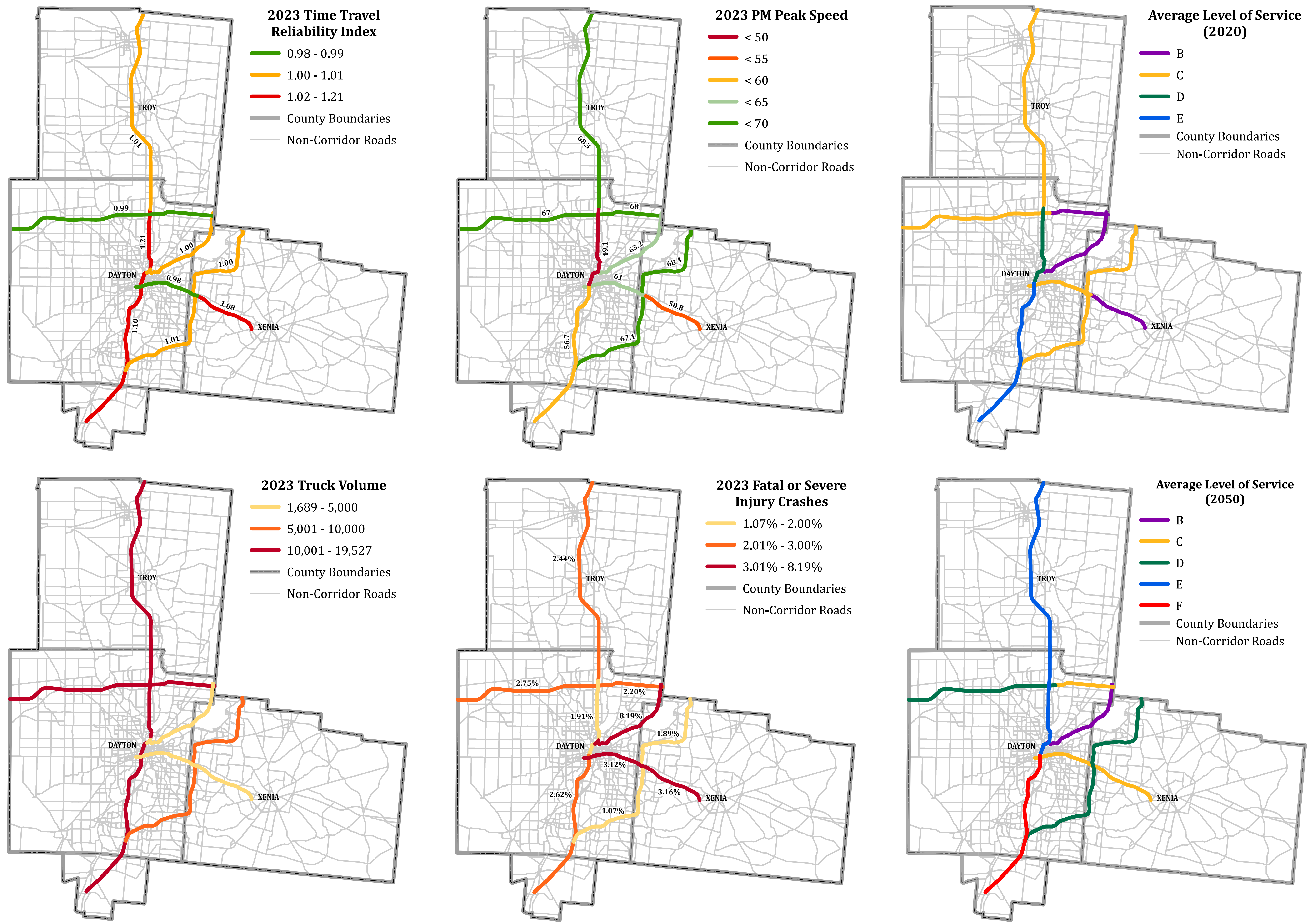


Figure 4.5 Selected Regional Corridor Performance Measures

N

0 5 10 15
Miles

Sources: INRIX, ODOT, RITIS, and MVRPC

Table 4.1 — Regional Corridor Statistics

Congestion Performance	Corridor 1: I-70 — East of I-75	Corridor 2: I-70 — West of I-75	Corridor 3: I-75 — North of I-70	Corridor 4: I-75 — US 35 to I-70	Corridor 5: I-75 — South of US 35	Corridor 6: I-675 — North of US 35	Corridor 7: I-675 — South of US 35	Corridor 8: US 35 — I-75 to I-675	Corridor 9: US 35 — East of I-675	Corridor 10: SR 4 — I-75 to I-70
Daily Volume (2023)	73,311	59,168	68,416	121,844	118,467	56,692	74,464	67,051	42,182	29,423
Daily Volume (2050 Estimated)	77,450	59,182	98,181	157,188	158,528	82,640	94,244	72,943	44,054	36,773
Truck Volume (2023)	16,145	19,527	12,000	16,937	18,320	6,295	6,130	4,210	4,429	1,689
Truck Volume (2050 Estimated)	27,019	24,501	25,074	29,307	24,112	7,605	7,418	9,981	7,333	3,259
Posted Speed (MPH)	65	65-70	65-70	55-65	55-65	65	65	55	50-55	50-60
Average Speed (AM Peak Hour: 7 – 8 AM)	68.7	68.0	69.4	58.5	64.8	68.1	68.6	61.5	53.1	62.5
Average Speed (PM Peak Hour: 4 – 5 PM)	68.0	67.0	68.3	49.1	56.7	68.4	67.1	61.0	50.8	63.2
Average Level of Service (2020)	B	C	C	D	E	C	C	C	B	B
Average Level of Service (2050)	C	D	E	E	F	D	D	C	C	B
Travel Time Reliability Index 2023 – Peak Hours	0.99	0.99	1.01	1.21	1.10	1.00	1.01	0.98	1.08	1.00
Cost of Vehicle Delay (In '000s of 2023 dollars)	$488	$1,149	$3,010	$8,009	$12,247	$897	$1,779	$1,588	$3,666	$1,046
Fatal and Serious Injury Crashes (2021-2023)	6	16	25	20	46	6	8	10	18	23
Total Crashes (2021-2023)	273	582	1,025	1,047	1,759	317	749	321	569	281
Fatal and SI Crash Percentage (2021-2023)	2.20%	2.75%	2.44%	1.91%	2.62%	1.89%	1.07%	3.12%	3.16%	8.19%
Crash Rate (In MVMT; 2021-2023)	0.52	0.53	0.59	0.90	0.72	0.44	0.62	0.56	0.93	0.74

Source: INRIX, MVRPC, and ODOT

4.3 Congestion and Safety

The MVRPC Regional Safety Initiative (RSA) began in SFY 2006 as a response to the emphasis placed on roadway safety by the 2005 Federal Transportation Bill known as SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act - A Legacy for Users). In an effort to reduce roadway fatalities and injuries throughout the Miami Valley, the goal of the RSA is to generate a list of locations in need of safety countermeasures to reduce the frequency or severity of crashes.

The Moving Ahead for Progress in the 21st Century (MAP-21), authorized in 2012, established a performance- and outcome-based program that required MPOs to coordinate with state departments of transportation on setting the following five safety performance targets for their region: number of fatalities, number of serious injuries, fatality rate, serious injury rate, and number of non-motorized injuries and fatalities and measuring their results.[7] These requirements are maintained in the current Infrastructure Investment and Jobs Act (IIJA), authorized in 2021. More information on this statute is available in Chapter 8.

MVRPC analyzes crash data to help improve transportation safety and inform the planning process. A number of statistical and comparative analyses are performed on the regional crash data, which is collected from the Ohio Department of Transportation (ODOT) and the Ohio Department of Public Safety (ODPS) in three-year intervals. MVRPC analyzes crash trends and generates a list of high-crash locations that identify roadways that may need further examination to determine need for improvement.

The SFY 2025 High-Crash Location Analysis used roadway crash data for 2021 through 2023 to rank intersections and roadway segments based on the frequency and severity of crashes. These high-crash locations were prioritized as low, medium, and high priority. 163 intersections and 206 segments were ultimately ranked in the analysis. A few excerpts from the 2021-2023 Crash Data Report for the Miami Valley Region are presented in the following paragraphs.

A total of 55,776 reported crashes occurred in the Miami Valley from 2021 to 2023. These crashes include only those costing $1,000 or more in property damage, injury-causing, or fatal. Of that total, 262 crashes were fatal, and 14,753 crashes led to injuries whereas 1,325 of injury crashes lead to serious injuries. Alcohol or drugs were reported to be involved in 61% of all fatal crashes. On average, a crash occurred in the Region every 28 minutes.

The total number of crashes reported annually in the Miami Valley generally increased through 2019 then decreased through 2023. From 2019 to 2023, the total reported crashes decreased by 14%. In 2019, 20,721 crashes were reported compared to 17,679 in 2023. Similarly, the average VMT also decreased after reaching a peak point in 2017.

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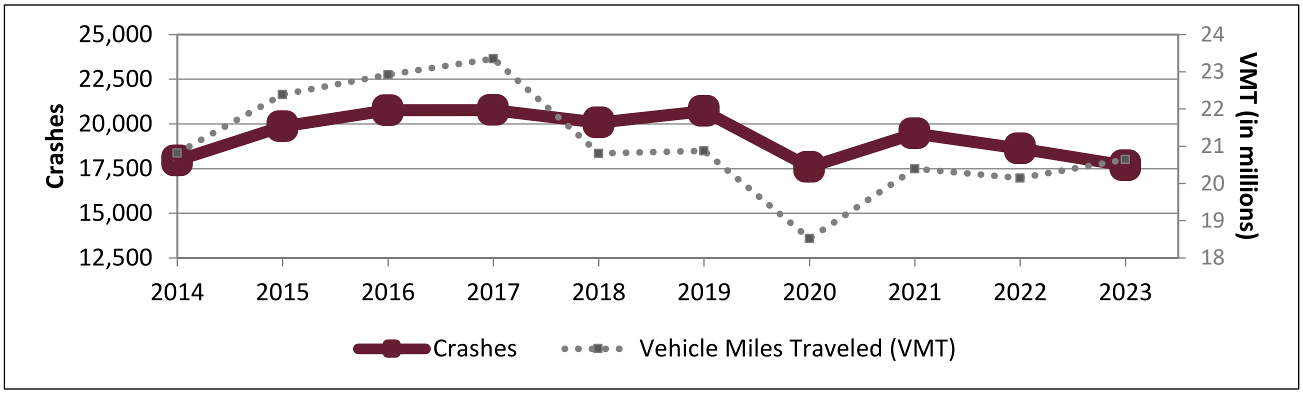
[7] U.S. DOT Federal Highway Administration 2013. “Performance Management” https://www.fhwa.dot.gov/map21/factsheets/pm.cfm

Figure 4.6 — Total Crashes and VMT by Year



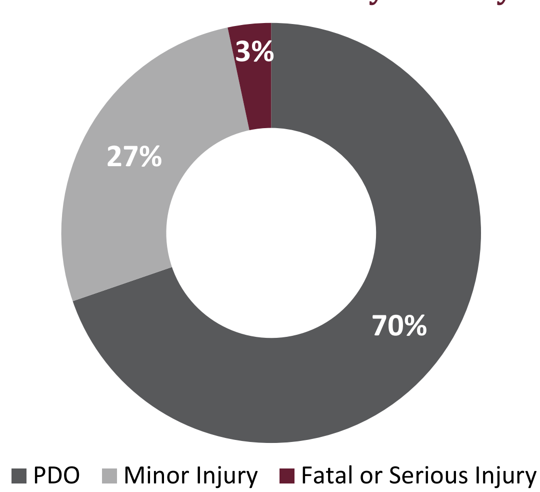
Source: MVRPC

Serious Crashes

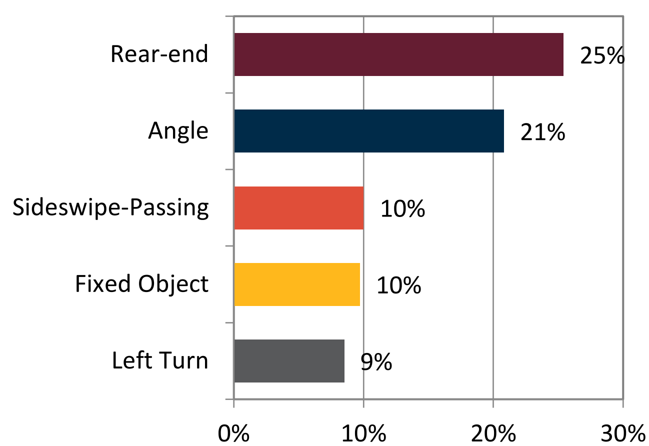
Serious crashes are those that lead to an incapacitating injury or loss of life. Serious crashes represented a small percent of total crashes (3%), with a total of 1,076 serious injury crashes and 213 fatal crashes. The remaining crashes led to minor injuries or property damage only (PDO). In the last 10 years (2014-2023), serious injury crashes decreased by 27% while fatal crashes have increased by 50%. In the last 10 years, serious injuries have decreased by 17% while fatalities have increased by 54%.

Twenty-five percent (25%) of serious crashes were fixed object crashes, and 21% were angle crashes. These crashes varied by age group of drivers involved. Thirty-one percent (31%) of fixed-object crashes involved youth, ages 16 to 25. Similarly, 28% of angle crashes involved seniors, ages 66 and above.

Percent Total Crashes by Severity



Top Crash Types Leading to Serious Crashes

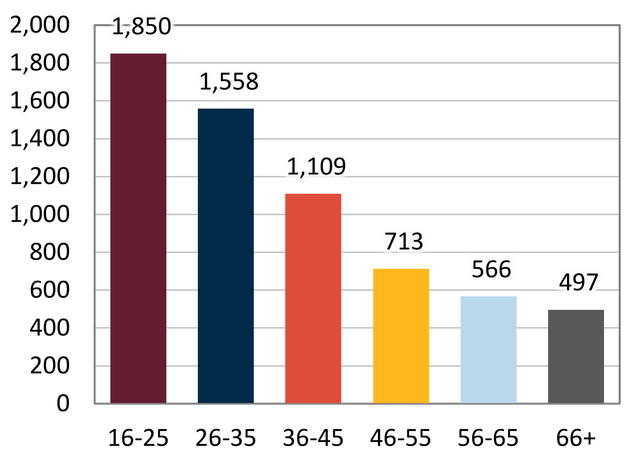


Distracted Driving

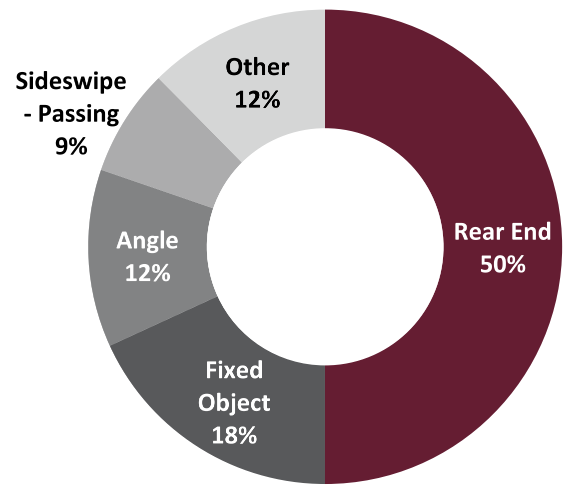
In 2012, law enforcement officers started collecting information on distracted driving in crash reports. This data indicates that from 2021 to 2023, 2,047 crashes involving a distracted driver occurred. These crashes included internal distractions, external distractions, phones, and other electronic devices. Young drivers, ages 16 to 25, were most frequently involved in distracted driving. The top crash type reported with distracted driving was rear ends. Fifty percent (50%) of distracted driving crashes were rear ends.

In January 2023, Ohio passed a hands-free distracted driving law that prohibits motorists, in most cases, from holding or interacting with electronic devices while driving and making it a primary offense. Enforcement started on April 4th, 2023.

Age Groups of Distracted Drivers



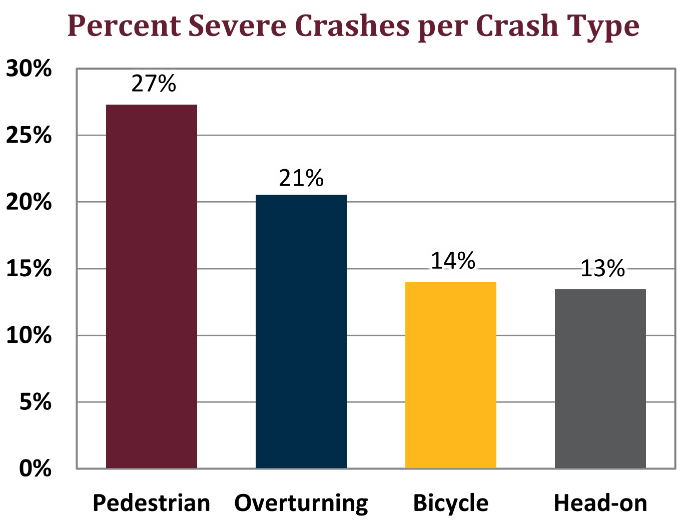
Types of Crashes Involving Distractions

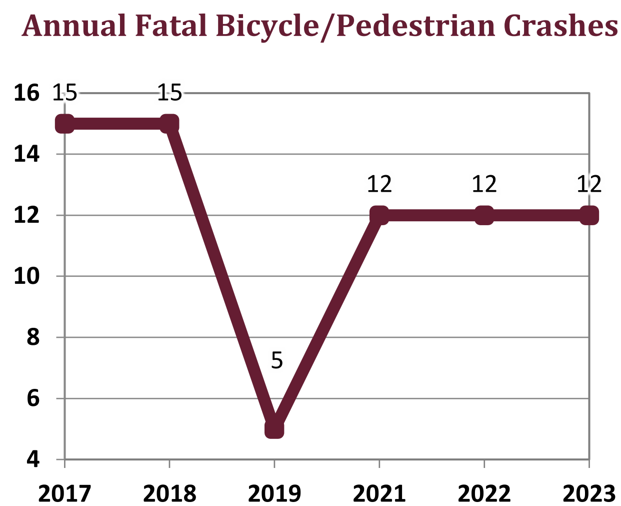


Bicycle and Pedestrian Crashes

There were 219 bicyclist-motorist and 384 pedestrian-motorist crashes reported. These crashes represented a small fraction of all roadway crashes (only 1.49%). However, they were very severe. Up to 96% of pedestrian crashes and 85% of bicycle crashes resulted in an injury, 23% resulted in a serious crash (serious injury or fatality).

The number of fatal crashes involving a bicycle or pedestrian has remained relatively constant. From 2017 to 2019, 35 fatal crashes were reported. That number increased to 36 from 2021 to 2023.





This analysis platform allows comparisons between the SFY 2025 update and past and future iterations of the Regional Safety Analysis. As future analyses are completed, MVRPC can work with our regional partners to identify locations where roadway safety continues to be a public hazard. Pre- and post-implementation data can also be compared using the analysis platform to determine if implemented safety countermeasures are achieving noticeable reductions in crash frequency and/or severity.

Safety and Congestion

There is a correlation between roadway safety and congestion, with increasing congestion levels resulting in diminished road safety. During times of recurring congestion, when the roadway is at or over capacity, there is usually an increase in crash frequency. These periods are usually during peak travel times in the morning (AM peak: 7 to 10 AM) and/or evening (PM peak: 3 to 6 PM). The chart in Table 4.2 illustrates the percent of total crashes that occurred by hour and weekday. As indicated by the darker colors, a higher percent of crashes occurs during the peak weekday AM, midday, and PM hours than at other times of the day.

Table 4.2 — Percent of Crashes by Time and Day

Day	12A	1A	2A	3A	4A	5A	6A	7A	8A	9A	10A	11A	12P	1P	2P	3P	4P	5P	6P	7P	8P	9P	10P	11P
Sun	0.4%	0.3%	0.4%	0.3%	0.2%	0.2%	0.1%	0.2%	0.2%	0.3%	0.4%	0.6%	0.7%	0.6%	0.8%	0.7%	0.7%	0.8%	0.8%	0.6%	0.5%	0.4%	0.4%	0.3%
Mon	0.2%	0.1%	0.1%	0.1%	0.1%	0.2%	0.4%	0.7%	0.7%	0.5%	0.6%	0.7%	0.7%	0.8%	0.9%	1.3%	1.3%	1.4%	0.9%	0.6%	0.5%	0.4%	0.3%	0.2%
Tue	0.2%	0.1%	0.1%	0.1%	0.1%	0.2%	0.5%	0.9%	0.8%	0.5%	0.6%	0.7%	0.8%	0.8%	1.1%	1.4%	1.4%	1.5%	0.9%	0.7%	0.6%	0.4%	0.3%	0.2%
Wed	0.2%	0.1%	0.1%	0.1%	0.1%	0.2%	0.4%	0.8%	0.7%	0.6%	0.6%	0.7%	0.8%	0.9%	1.1%	1.5%	1.4%	1.5%	1.0%	0.6%	0.6%	0.4%	0.3%	0.2%
Thu	0.2%	0.1%	0.1%	0.1%	0.1%	0.2%	0.4%	0.9%	0.8%	0.5%	0.6%	0.7%	0.9%	0.9%	1.1%	1.4%	1.5%	1.6%	0.9%	0.7%	0.6%	0.5%	0.4%	0.3%
Fri	0.3%	0.2%	0.2%	0.1%	0.1%	0.2%	0.4%	0.8%	0.6%	0.6%	0.6%	0.8%	0.9%	1.0%	1.2%	1.6%	1.6%	1.7%	1.2%	0.8%	0.7%	0.6%	0.5%	0.5%
Sat	0.4%	0.4%	0.4%	0.2%	0.2%	0.2%	0.2%	0.2%	0.3%	0.4%	0.6%	0.7%	1.0%	0.8%	0.8%	0.8%	0.8%	0.8%	0.9%	0.7%	0.5%	0.7%	0.5%	0.5%
									12% AM Peak				27% Midday				27% PM Peak							

4.4 Safe Streets For All (SS4A) Regional Action Plans

In 2023, MVRPC was awarded grant funding through the U.S. Department of Transportation's (U.S. DOT) Safe Streets for All (SS4A) program to develop a regional Safety Action Plan (SAP). Established by the IIJA, the SS4A program is a national initiative which seeks to eliminate fatalities and serious injuries on the nation's roadways by supporting both planning and implementation efforts.

The MVRPC Safety Action Plan covers all communities on the MPO except for the cities of Dayton and Franklin which also received U.S. DOT grants to developed their own SAPs. In addition, the City of Riverside also received a grant focused on improving safety on the Woodman Drive corridor.

MVRPC SAFE STREETS FOR ALL
COMPREHENSIVE SAFETY ACTION PLAN

Throughout 2025, MVRPC, in partnership with stakeholders in the Region, worked to develop a draft Safety Action Plan. ***In September 2025, the MPO members of the MVRPC Board of Directors adopted a resolution with a goal to reduce fatalities and serious injuries by 50% by 2040.*** The final SAP was adopted by the MPO members of the MVRPC Board of Directors at their March 2026 meeting after extensive public participation efforts. The SAP establishes a regional vision, goals, and data-driven strategies to eliminate traffic fatalities and serious injuries and positions communities within the MPO area to be eligible for SS4A implementation grants.

MVRPC SAP Recommendations

The MVRPC SAP recommends focusing on locations identified by the high risk and high injury networks and recommends over 100 countermeasures across Engineering, Education, Enforcement, and Evaluation along with guidance on how to determine what countermeasures are appropriate for targeted implementation. The SAP enables projects developed by local agencies to take advantage of SS4A implementation grants and other safety funding opportunities.

The MVRPC Safety Action Plan is available on a dedicated SS4A webpage.

Other Regional Safety Action Plans

City of Riverside – Woodman Drive Corridor

The Riverside SAP, focusing on the Woodman Drive corridor, identified several key recommendations aimed at improving safety and reducing traffic-related fatalities. Recommendations included the installation of additional traffic signals, pedestrian crossings, and roundabouts at high-risk intersections. In addition to infrastructure improvements, the SAP recommended signal optimization to reduce delays and improve traffic flow, especially during peak hours.

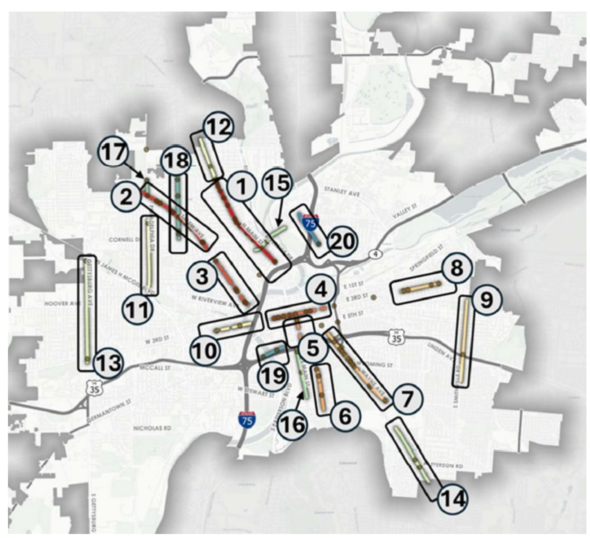
In the long term, the SAP proposes more transformative projects, such as converting certain intersections to single-lane roundabouts and reconfiguring the Woodman Drive Corridor to promote a more neighborhood-friendly design. These projects are grounded in the Safe System Approach and are intended to make Riverside's streets safer for all users while enhancing residents' overall quality of life. Two projects aimed at implementing the long-term recommendations are included in the 2050 LRTP, see Table 5.4 for projects 879B and 879C.

City of Franklin – Safety Action Plan

The Franklin SAP, combined deep data analysis, spatial data analysis, best practices in transportation engineering, planning, and public engagement in the development of a truly comprehensive document including an accounting of all crashes in the City between 2014 and 2023; how they happened, why they happened, who was involved, and what caused them. The Franklin SAP identifies 24 priority projects that will improve transportation safety and work to eliminate traffic fatalities and serious injuries. Two tier 1 priority projects aimed at implementing the recommendations of the Franklin SAP are included in the 2050 LRTP, see Table 5.4 for projects 720 and 721.

City of Dayton – Safety Action Plan

The Dayton SAP commits the City to creating a safe, efficient and inclusive transportation system, with a goal of reducing roadway fatalities and serious injuries by 50% by 2040, and ultimately eliminating them altogether. This goal will be achieved through a data driven approach and proactive safety culture supported by policies, public education, collaborative engagement, and infrastructure investments.



To support this vision zero goal, the Plan identifies the top 20 corridors and top 10 intersections outside of the top corridors to be prioritized for safety improvements.

4.5 Congestion Management Strategies

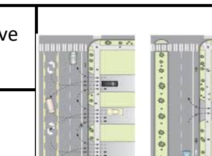
Currently, there are a number of strategies that transportation planners and engineers implement to reduce the geographic and temporal extent of roadway congestion. These countermeasures include both physical and operational roadway improvements. More often, two or more of these strategies are combined to provide for maximum congestion relief. Below is an abbreviated list of potential roadway congestion countermeasures:

Access Management — These physical roadway treatments attempt to regulate the manner in which motorists access adjacent land uses by consolidating multiple driveways, providing exclusive turning lanes, and/or incorporating various median treatments including two-way left-turn lanes and non-traversable barriers.
Traffic Signal Timing — Adjusting signal times for current roadway demand can be a cost-effective way to increase roadway capacity and is one of the most basic roadway congestion countermeasures.
Freeway Management Systems — These systems integrate a number of operational enhancements, such as cameras, dynamic message signs, and highway advisory radio, into a traffic management center which provides the motoring public with up-to-the-minute updates on current traffic conditions, allowing them to bypass areas with roadway congestion.
Travel Demand Management — A transportation policy that aims to spread transportation demand amongst numerous modes, including carpooling, transit, and bikeway/pedestrian pathways, to reduce dependence on the automobile.
Traffic Incident Management — A program that encourages the quick, safe, and coordinated removal of traffic incidents to restore normal traffic flow.
Value Pricing — A strategy that charges travelers a user fee to access congested corridors during pre-determined periods of high demand.
Adding Capacity — By increasing the carrying capacity of a roadway, the growth of congestion may be alleviated.

Table 4.5 includes a matrix describing a toolbox of congestion countermeasures either currently implemented in the Region or /suitable for application in the Region in the future.

As technologies emerge and our understanding of roadway congestion expands, the use of these and other strategies will have a significant effect on reducing roadway congestion, thus providing a safer and more reliable transportation network.

Table 4.3 — Congestion Mitigation Strategies

Congestion Mitigation Strategy	Description	Currently Implemented in the MPO	Illustration / Photograph
Highway Capacity Addition Strategies			
Highway Capacity Expansion	This strategy involves increasing the capacity of congested roadways through additional general purpose travel lanes and/or upgrading interchanges on freeways. Strategies to add capacity are the most costly and least desirable strategies. They should only be considered after exhausting all feasible demand and operational management strategies.	Yes. **Completed:** Downtown Dayton Subcorridor Reconstruction, various I-70 widening projects, US 35 in Montgomery County. **Planned:** I-70 in Montgomery County, I-75 in Miami County, and I-71 in Greene County	
Alternative Transportation Mode Strategies			
Bicycle and Pedestrian Projects Including Exclusive Non-Motorized ROW and New Sidewalk Connections	Investments in these modes can increase safety and mobility in a cost-efficient manner, while providing a zero-emission alternative to motorized modes. In many cases, bicycle lanes can be added to existing roadways through restriping. Abandoned rail rights-of-way and existing parkland can be used for medium-to-long distance bicycle trails, improving safety, and reducing travel times.Increasing sidewalk connectivity encourages pedestrian traffic for short trips.	Yes. Implementation of new Regional Bikeways and Trails as well as Designated Bicycle Lanes on Facilities and Routes at the local level. Implementation of the federally-funded Safe Routes to School program provides 100 percent funding to communities to invest in pedestrian and bicycle infrastructure surrounding elementary schools. ODOT's HSIP program funds systemic improvements that prevent injuries to pedestrians.	
Complete Streets	Routinely design and operate the entire right-of-way to enable safe access for all users including pedestrians, bicyclists, motorists, and transit users. Elements that may be found on a complete street include sidewalks, bike lanes, special bus lanes, accessible transit stops, frequent crossing opportunities, median islands, accessible pedestrian signals, curb extensions, and more.	Yes; MVRPC adopted its Regional Complete Streets Policy in January 2011 (http://www.mvrpc.org/transportation/complete-streets). Dayton, Riverside, Piqua, Troy, and Yellow Springs also have complete streets policies.	
Alternative Mode Marketing and Education	Providing education on alternative modes of transportation can be an effective way of increasing demand for alternative modes. This strategy can include mapping websites that compute directions and travel times for multiple modes of travel.	MVRPC promotes alternative modes in conjunction with a Rideshare and Air Quality Program. Many local communities have promoted non-motorized forms of transportation by providing marked routes, paths, and sidewalks that connect and/or guide users to the Miami Valley Recreational Trail system (http://www.mvrpc.org/transportation/bikeways-pedestrians).	DRIVE LESS LIVE MORE
Travel Demand Management Strategies			
Transportation demand management (TDM) strategies are used to reduce travel during peak periods. They are also used to help agencies meet air quality conformity standards and are intended to provide ways to provide congestion relief/mobility improvements without high cost infrastructure projects.			
Ridesharing and Emergency Ride Home	In ridesharing programs, participants are matched with potential candidates for sharing rides. This is typically arranged/encouraged through employers or transportation management agencies, which provide ride-matching services. Emergency Ride Home programs provide a safety net to those people who carpool or use transit to work so that they can get to their destinations due to unexpected work demands or an emergency.	Yes; MVRPC's Rideshare Program helps commuters with resources form carpools or vanpools through ride-matching, find bike routes and transit options, or form bikepools. There are around 4,000 people currently enrolled in MVRPC's RIDESHARE program. MVRPC also advertises the program across multiple media outlets. MVRPC also has the Drive Less Live More initiative emphasizing the use of sustainable commute options such as carpooling outside of the regular work or school commute times to reduce air pollution and improve health outcomes.	RIDESHARE www.miamivalleyrideshare.org
Alternative Work Hours	There are three main variations: staggered hours, flex-time, and compressed work weeks.	Yes; Alternative Work Hours are becoming more common. WPAFB, the Region's largest employer, allows a variety of work schedules.	
Telecommuting/WFH	Telecommuting policies allow employees to work at home or at a regional telecommute center instead of going into an office all of the time or for a certain number of days per week.	Yes; Telecommuting has become more common, either on a regular or hybrid basis. Recent American Community Survey data confirms the increase.	
Intelligent Transportation Systems (ITS) Strategies			
The strategies in ITS use new and emerging technologies to mitigate congestion while improving safety and environmental impacts. Typically, these systems are made up of many components, including traffic sensors, electronic signs, cameras, controls, and communication technologies.			
Dynamic Messaging	Dynamic Messaging uses changeable message signs to warn motorists of downstream queues; it provides travel time estimates, alternate route information, and information on special events, weather, or accidents.	The Dayton/Springfield Freeway Management System (https://www.mvrpc.org/transportation/long-range-planning-lrtp/intelligent-transportation-systems), combines technological and operational solutions to manage congestion growth. ODOT has a website (www.ohgo.com) and accompanying app designed to provide motorists with real-time travel information using ITS technology on Ohio's roadways. GDRTA has a mobile app called Dayton Bus Tracker and an app called Transit also shows current bus route information.	
Advanced Traveler Information Systems (ATIS)	ATIS technology provides access to an extensive amount of data to travelers, such as real-time speed estimates or information on alternate route options.		
Integrated Corridor Management (ICM)	This strategy provides for the coordination of individual network operations between parallel facilities to create an interconnected system. A coordinated effort between networks along a corridor can effectively manage the total capacity in a way that will result in reduced congestion.	No.	
Transportation System Management Strategies			
Traffic Signal Coordination	Signals can be pre-timed and isolated, pre-timed and synchronized, actuated by events, set to adopt one of several pre-defined phasing plans, or set to calculate an optimal phasing plan based on current conditions.	Yes. There are numerous examples throughout the Region. This strategy is particularly well-suited for built-up urban areas where capacity expansion is difficult or unfeasible.	
Channelization	This strategy is used to optimize the flow of traffic for making left or right turns usually using concrete islands or pavement markings.		
Intersection Improvements	Intersections can be widened and lanes restriped to increase intersection capacity and safety. This may include auxiliary turn lanes and widened shoulders.		
Bottleneck Removal	This strategy removes or corrects short, isolated, and temporary lane reductions, substandard design elements, and other physical limitations that form a capacity constraint that results in a traffic bottleneck.	ODOT has established the ODOT Ramp Clear program, a freeway bottleneck removal program, to help clear queues from freeway exit ramps.	
Vehicle Use Limitations and Restrictions	This strategy includes all-day or selected time-of-day restrictions of vehicles, typically trucks, to increase roadway capacity.	Yes; used during construction and special events.	
Construction Management	This strategy includes preparing construction managment plans, implementing detour signing improvements and providing advance information of closures and alternate routes.	Yes, in cooperation with ODOT and local jurisdictions.	
Other Miscellaneous Strategies			
Traffic Incident Management	This strategy addresses primarily non-recurring congestion, typically includes video monitoring and dispatch systems, and may also include roving service patrol vehicles.	Yes; ODOT partners with sponsors to run the Safety Patrol Program providing freeway incidence response vehicles to improve traffic flow and reduce traffic congestion due to stalled vehicles as well as offering roadway assistance to motorists in need.	
Access Management Strategies	Access management is a broad concept that can include everything from curb cut restrictions on local arterials to minimum interchange spacing on freeways. Restricting turning movements on local arterials can reduce accidents and prevent turning vehicles from impeding traffic flow. Similarly, eliminating merge points and weaving sections at freeway interchanges increases the capacity of the facility.	Yes.	

4.6 Public Transportation

An important tool to manage recurring and non-recurring congestion is the regional public transportation system. Public transportation provides people with mobility and access to employment, community resources, medical care, and recreational opportunities in communities across the Region. It also has the potential to significantly reduce congestion on the regional roadway network. The role of public transit in roadway congestion management is to give commuters an alternative to the automobile for local trips. The Miami Valley Region is served by four transit agencies including the Greater Dayton Regional Transit Authority (GDRTA), offering fixed route services and demand responsive services; Greene CATS Public Transit (Greene CATS), offering deviated fixed route and demand responsive services; and Miami County Transit System (MCTS) and Warren County Transit System (WCTS) offering demand responsive services only. See Chapter 6 for more information on transit services in the Region.

Load Factor Analysis

Transit is less attractive when passengers must stand for long periods of time, especially when transit vehicles are highly crowded. When passengers must stand, it becomes difficult for them to use their travel time productively, which eliminates a potential advantage of transit over the private automobile. Crowded vehicles also slow down transit operations, as it takes more time for passengers to get on and off.[8] Load factor is a measure of ridership compared to seating capacity of a route for a given period of time. Similar to level of service on roadways, the relative comfort that a passenger may experience while seated on a transit vehicle is given a level of service label of A through F as seen in Table 4.3. A load factor of 1.0 means that all seats are taken.

Table 4.4 — Transit Vehicle LOS and Load Factor

LOS	Load Factor	Passenger Conditions
A	0.00-0.50	No passenger needs to sit next to another
B	0.51-0.75	Some passengers may need to sit together, but not all
C	0.76-1.00	All passengers may sit together, limited seat choice
D	1.01-1.25	Some passengers will need to stand
E	1.26-1.50	Full vehicle, spacing between passengers at maximum level of tolerability
F	>1.50	Crush load, extremely intolerable

Source: TCRP Report 100: Transit Capacity and Level of Service Manual 2003

Table 4.4 shows the 5 routes with the highest load factor for each travel period.

[8] Transit Capacity and Quality of Service Manual—3rd Edition

Table 4.5 — Maximum Load Factor Level of Service

Maximum Load Factor Level of Service AM Peak (6:00 AM-9:30 AM)			
Route	**Peak Headway**	**Load Factor AM Peak**	**LOS AM Peak**
8S	20	0.64	B
7S	20	0.62	B
12S	40	0.59	B
22S	40	0.55	B
4W	25	0.47	A
Maximum Load Factor Level of Service PM Peak (3:00 PM-6:30 PM)			
Route	**Peak Headway**	**Load Factor PM Peak**	**LOS PM Peak**
12N	40	1.04	D
7N	25	0.66	B
8N	30	0.58	B
16N	50	0.43	A
18N	40	0.42	A
Maximum Load Factor Level of Service Off Peak (4:00 AM-6:30 AM, 9:00 AM-3:00 PM, 6:30 PM-2:00 AM)			
Route	**Peak Headway**	**Load Factor PM Peak**	**LOS PM Peak**
8N	60	0.45	A
12N	85	0.43	A
7N	50	0.43	A
18S	70	0.41	A
2W	105	0.33	A

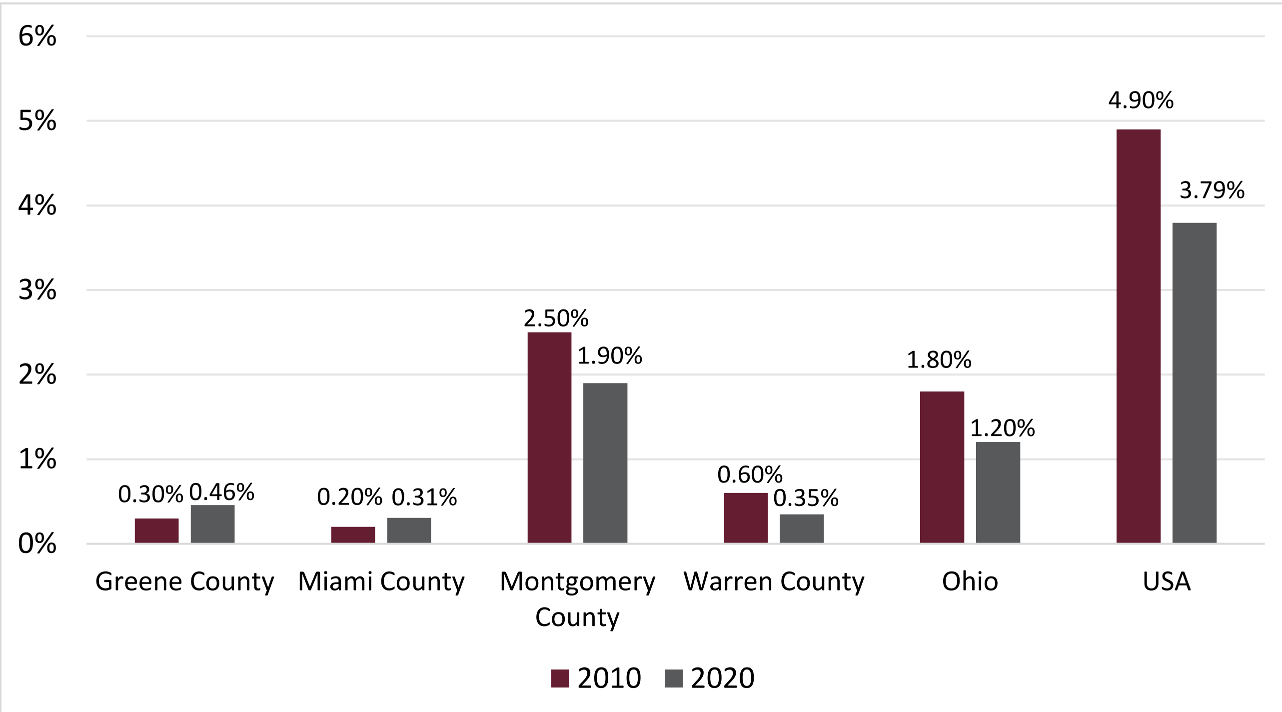
Source: GDRTA

The results of the load factor analysis indicate that all but one route (Route 12N during the PM Peak) experience load factors less than 1.0, indicating high LOS and acceptable levels of passenger congestion. Riders experience comfortable conditions, available seats, and often flexible space with which to make use of their travel time. As GDRTA implements plans to attract new riders, load factors are likely to increase and headways may need to increase to maintain the current exemplary LOS for some routes.

Commuting Transit Trends

The vast majority of the Miami Valley Region population commutes by single occupancy automobile. Transit remains a very small portion of the regional commuting profile. Given that Montgomery County is served by the largest and only fixed-route system, its residents use public transit more than any other county in the Region. About 1.90% of Montgomery County residents commute to work using public transit compared to less than 1% for Greene, Miami, and Warren counties. While all counties in the Region use public transit less than the United States average, Montgomery County residents use public transit in greater numbers than Ohio residents as a whole. Figure 4.7 displays public transit usage for all counties in the Region compared to both the Ohio and United States averages. Transit usage decreased significantly in the Region in 2020 due to the pandemic.

Figure 4.7 — Regional Public Transit Use for Commuting to Work



Source: American Community Survey 5-Year Detailed Data Tables for 2008-2012 and 2018-2022

4.7 Regional Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) continues to be at the forefront of transportation planning as MVRPC proceeds with the Region's Deployment Plan. The plan focuses on making the transportation system more efficient and responsive to drivers by using technological improvements instead of making major road capacity expansions. In addition to many signal coordination systems implemented throughout the years, the Freeway Management System was completed in 2012 and provides timely and accurate traveler information to motorists that can be accessed through ohgo.com or mobile applications.

To maintain and build upon the Region's strong ITS foundation, the Miami Valley Region ITS stakeholders completed the first Miami Valley ITS Regional Architecture in 2003. Simply put, the regional architecture defines the framework on which to build the ITS system.

In 2022, MVRPC, in coordination with the Clark County Springfield Transportation Coordinating Committee (CCSTCC) and the Ohio Department of Transportation (ODOT), completed a comprehensive update to the Miami Valley Regional ITS Architecture. A regional architecture is required by both the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) to qualify ITS projects for federal funding after April 2005.

MVRPC updated the regional architecture to be consistent with the National Reference ITS Architecture. Similarly, ODOT/DriveOhio have completed a systems engineering analysis to develop a statewide framework for Connected and Automated Vehicles (CV/AV) technology deployments. This comprehensive framework promotes consistency and interoperability as various projects are implemented at varying scales by a wide range of stakeholders and has been incorporated in full into the Miami Valley Regional ITS Architecture.

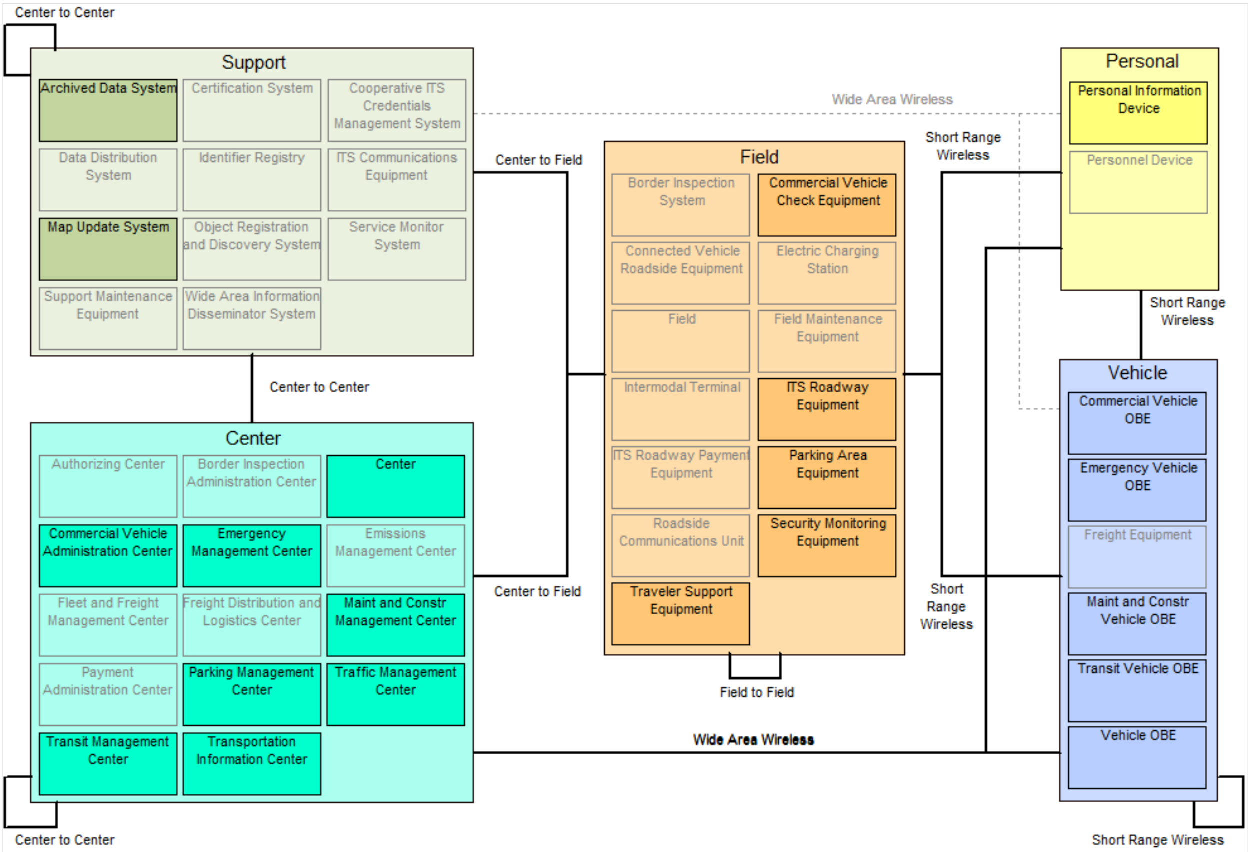
Key points of the 2022 architecture update are summarized below:

- Comprehensive update to stakeholders, elements, and services to better reflect the services that are currently in use or planned/possible in the near future.
- Addition of functional requirements for the major ITS elements in the region.
- Addition of potential communication solutions based on nationally recognized standards.
- Integration of Statewide CV/AV architecture into Regional ITS architecture.
- Addition of the RAD-IT database to the MVRPC website and available to download.

Figure 4.8 represents the Miami Valley Regional ITS Architecture System. Within each subsystem, darker colored boxes represent elements available or anticipated in the Miami Valley in the near future.

More information on the ITS regional architecture is available on the MVRPC ITS page.

Figure 4.8 — Miami Valley Regional ITS Architecture Subsystem Diagram



4.8 Smart Mobility and Advanced Air Mobility Initiatives

There is substantial anticipation and excitement in the area of Connected/Autonomous Vehicles (CAVs) as well as Advanced Air Mobility (AAM) and the potential of those technologies to revolutionize mobility. Given that MPOs incorporate a multi-decade planning horizon, MVRPC has begun to consider the implications of CAVs and AAM now before their widespread implementation.

DriveOhio

DriveOhio is an initiative of the Ohio Department of Transportation (ODOT) that was created in 2018 to highlight the State’s efforts in designing, testing, and deploying smart mobility technologies. The mission statement of DriveOhio follows:

> **The DriveOhio mission is to create pathways for the use of smart mobility technologies that increase safety, enhance mobility, expand access, and attract, prepare, and retain Ohio's talent. We connect government, industry, and academia to support research, development, testing, and deployment of innovative solutions to Ohio's mobility challenges.**

DriveOhio has several active projects studying CAVs, electric vehicles, and electric vehicle infrastructure. They have also been working on developing guides for implementing this new technology and helping to educate school-age children and college students about rapidly developing transportation technologies.

Major Truck Automation Project along the I-70 Corridor

DriveOhio, ODOT, and the Indiana Department of Transportation (IDOT) began a partnership in 2021 on a project focused on the safe and efficient deployment of automated trucks on I-70 between Columbus, Ohio and Indianapolis, Indiana—this path crosses through the Miami Valley Region. The project is expected to conclude in January 2027 and involves a wide variety of stakeholders ranging from technology providers, truck manufacturers, regional logistics councils, down to private freight companies. The project's first truck platooning deployment occurred on April 14, 2025. Two tractor-trailers with automated truck platooning technology were involved in that deployment and drove autonomously for portions of the trip between Columbus and Indianapolis. It is important to note that professionally-trained truck drivers were at the steering wheel in both trucks during the testing period.[9] This initial deployment tested platooning technology with the two trucks. Platooning vehicular technology is defined as "the linking of two or more vehicles using vehicle-to-vehicle technology. The driver of the lead vehicle controls the speed and direction [of the vehicles] while the following vehicle automatically matches the precise movements **without input from the second driver**." [10] Additional platooning deployments were planned for late 2025 and through 2026 but further details have not been publicly provided as of January 2026.

In December 2025, DriveOhio began soliciting for more CAV vehicle tests in the Region between Indiana and Ohio and expanded the potential roads that qualify for the tests to include any routes with an end point in Ohio and Indiana. This expanded research request opens up more pathways for CAV testing that includes the Miami Valley.[11]

Vehicle-Based Data Collection Pilot Project

DriveOhio partnered with Honda, i-Probe Incorporated, the University of Cincinnati, and Parsons to "develop a road condition management system that used vehicle-generated data to identify and

[9] Ohio Department of Transportation 2025. "Ohio and Indiana Deploy Partially Automated Trucks on Interstate 70" https://drive.ohio.gov/about-driveohio/news/70-Truck-Automation
[10] Ohio Department of Transportation 2025. "Truck Automation Project" https://drive.ohio.gov/programs/av-cv/truck-automation
[11] Ohio Department of Transportation 2025. "ODOT I-70 Truck Automation Corridor Notice of Deployment Partners" https://dam.assets.ohio.gov/image/upload/drive.ohio.gov/programs/automated-connected/truck-automation-factsheet.pdf

report hazardous road conditions in Ohio."[12] Two Honda vehicles were equipped with the road condition management systems to analyze road conditions and driven around Ohio to assess what roads needed to be fixed. The vehicle-generated data was then compared to the visual assessment of the same roadways by ODOT personnel and the ODOT personnel missed three times the number of items that the road condition management software missed—this is likely due to ODOT personnel having to multitask driving and assessing roadway conditions.[13] The pilot study showed that vehicle-generated road monitoring data could optimize roadway maintenance in the future.

Advanced Air Mobility State and Local Developments

Advanced Air Mobility (AAM) is defined by the FAA as a "rapidly-emerging, new sector of the aerospace industry which aims to safely and efficiently integrate highly automated aircraft into the National Airspace System. AAM is **not a single technology, but rather a collection of new and emerging technologies** being applied to the aviation transportation system, particularly in new aircraft types."

Unmanned Aerial Systems are one subset of AAM technology and are defined by the FAA "as an aircraft that is operated without the possibility of direct human intervention from within or on the aircraft".

Generally, AAM technologies are categorized by their level of autonomy (manual, remote, or autonomous) and general configuration (how they achieve flight and what they are made of).[14]

The operational cost of AAM technology, as of early 2026, is still too high to be widely accessible, but the current assumption of the FlyOhio coalition (discussed in the next section) is that the business case for this technology "will become more attractive as the operational costs are driven down" as increased research and time is put into the technology.[14]

FlyOhio – A Statewide Initiative

FlyOhio is a coalition of public, private, and academic partners with a stake in advanced aviation technology in Ohio that is a subset of the DriveOhio ODOT program. It is led by ODOT's Uncrewed Aircraft Systems (UAS) center. Similar to DriveOhio's goals with CAVs, FlyOhio exists to aid statewide efforts to design, test, and ultimately deploy advanced aviation technology across the state.

FlyOhio published the "Advanced Air Mobility Framework" going over AAM and its potential in Ohio at a state and local level in July 2022—that document lays out both the physical and policy

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[12] Ohio Department of Transportation 2025. "Vehicle-Based Data Pilot Project" https://drive.ohio.gov/programs/av-cv/vehicle-based-data

[13] Honda Motor Corporation Ltd. 2026. "Honda and DriveOhio Complete Pilot of Nation's First Proactive Roadway Maintenance System Aimed at Creating Safer Roads" https://hondanews.com/en-US/honda-corporate/releases/release-362088f67796c0d72b8469227602bc7d-honda-and-driveohio-complete-pilot-of-nations-first-proactive-roadway-maintenance-system-aimed-at-creating-safer-roads

[14] Ohio Department of Transportation 2025. "Advanced Air Mobility Framework" https://drive.ohio.gov/programs/aam/advanced-air/aam-framework

infrastructure that needs to be established for AAM technology to flourish and identified stakeholders who can help make that happen.

The Drones for First Responders Pilot Program is a recently funded ongoing program that will help local law enforcement, fire departments, and emergency medical service agencies utilize drones in their work.[15] Examples of anticipated drone uses in this program are listed below:

- Search and rescue
- Crash response
- Public Safety Incident Response
- Medical Supplies Delivery
- Natural Disaster Response

AAV Technology in the Miami Valley

In the private sector, the AAV industry is impacting the Miami Valley through Joby Aviation, which is a private aviation company with an aircraft manufacturing plant near the Dayton International Airport. As of December 2025, Joby Aviation stated they plan to use the facility to produce Electric Vertical Take-off and Landing (eVTOL) air taxis but the facility is not fully open.

In the public sector, the Wright-Patterson Air Force Base (WPAFB) houses the Air Force Research Laboratory (AFRL) that has multiple active initiatives to study AAM and Uncrewed Aircraft Systems (UAS) for potential deployment. Additionally, the local Sinclair College has an Aviation Technology Department that includes an Advanced Air Mobility Maintenance Technology certificate option to help train the local workforce to be prepared for upcoming AAV technology.[16]

GDRTA Connect

Locally, the GDRTA Connect service, described in Chapter 6, is Greater Dayton RTA’s effort to improve mobility in the Miami Valley through the use of smart technologies. Over 200,000 trips used the GDRTA Connect service in 2025.

[15] Ohio Department of Transportation 2025. “Drones for First Responders Pilot Program” https://drive.ohio.gov/programs/aam/uas/drones-first-responders
[16] https://www.sinclair.edu/program/params/programCode/AAMMT-S-STC/