

LONG RANGE TRANSPORTATION PLAN

2050



BHJ-MPC

Brooke Hancock Jefferson
Metropolitan Planning Commission

ADOPTED April 17th, 2024

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RESOLUTION 2024-7

**THE BROOKE-HANCOCK-JEFFERSON METROPOLITAN PLANNING COMMISSION AND THE
BROOKE-HANCOCK-JEFFERSON TRANSPORTATION STUDY POLICY COMMITTEE
RECOMMENDATION IN THE MATTER OF ADOPTING AN UPDATE OF THE TRANSPORTATION
PLAN AND DEMONSTRATING CONFORMITY TO APPLICABLE NATIONAL AMBIENT AIR QUALITY
STANDARDS**

- WHEREAS,** the Brooke-Hancock-Jefferson Transportation Study Policy Committee is designated as the Metropolitan Planning Organization jointly by the Governor of the State of Ohio, acting through the Ohio Department of Transportation and by the Governor of the State of West Virginia, acting through the West Virginia Department of Transportation, Division of Highways, all in cooperation with locally elected officials for Brooke and Hancock Counties, West Virginia, and Jefferson County, Ohio; and
- WHEREAS,** the Brooke-Hancock-Jefferson Metropolitan Planning Commission is, pursuant to Executive Order 12372, designated the Metropolitan Clearinghouse for the above-named counties; and
- WHEREAS,** the BHJMPO has, pursuant to 23 United States Code 134, and 49 United States Code 1602(a)(2), 1603(a), and 1604(g)(1) and (2), caused a Transportation Plan consisting of its Long Range Transportation Plan adopted April 2020; and
- WHEREAS,** the BHJMPO has, pursuant to 23 United States Code 134, and 49 United States Code 1602(a)(2), 1603(a) and 1604(g)(1) and (2), adopted a Biennial Transportation Improvement Program for Fiscal Year 2024 through 2027 found to be consistent with the Long Range Transportation Plan; and
- WHEREAS,** the BHJ Metropolitan Planning Commission (BHJ) is initiating a new transportation conformity determination for its 2050 Transportation Plan Update; and
- WHEREAS,** the BHJ region is a US EPA designated 1997 Ozone Standard “Orphan” area and a 2006 PM2.5 Standard Maintenance area with a mobile source insignificance finding. As a 1997 Ozone Standard “orphan area” and consistent with US EPA’s November 29, 2018 guidance resulting from the South Coast II Court Case, BHJ will advance a qualitative 2050 Transportation Plan Update; and
- WHEREAS,** as a 1987 PM10 Standard Maintenance Area Jefferson County on December 11, 2000 (65 FR 77313) a finding that “transportation-related emissions do not contribute to PM10 concentrations”. As a 1987 PM10 Standard, the Hancock and Brooke counties (part)-the City of Weirton as amended on September 12, 2006 (71 FR 40023) and Brooke County (part)-the City of Follansbee on August 27, 2003 (68 FR 51459) a finding that mobile sources as insignificant cause of nonattainment emissions in both areas; and

WHEREAS, as a 2006 PM2.5 Standard Maintenance area with a mobile source insignificance finding, a regional emissions analysis is not required - 40 CFR 93.109(f). BHI will make a qualitative 2006 PM2.5 Standard Maintenance area 2050 Transportation Plan Update; and


WHEREAS, adequate opportunity for citizen and local government involvement in the development and review of the Transportation Plan Update has been the result of the process and techniques used by the BHJTS staff in preparing the document; and

WHEREAS, the BHJTS Technical Advisory Committee by action taken on April 17th, 2024, at a regularly called meeting recommended that the above mentioned plan be adopted as the Year 2050 Long Range Transportation Plan for the BHI region subject to any revisions required as a result of review by various State or Federal agencies.

NOW, THEREFORE, BE IT RESOLVED:

1. That this Committee reaffirms its approval of the 2050 Long Range Transportation Plan as the Transportation Plan for the BHJTS Region including Brooke and Hancock Counties of West Virginia and Jefferson County of Ohio, and recommends that its members incorporate these improvements into their planning for transportation improvements in their governmental units;
2. That this Committee affirms the consistency between the 2050 Long Range Transportation Plan and the State Implementation Plans for Air Quality;
3. That this Committee makes a qualitative transportation conformity determination for the 2050 Long Range Transportation Plan;

ADOPTED, this 17th day of April 2024, at the regularly scheduled joint meeting of the Brooke-Hancock-Jefferson Metropolitan Planning Commission and the Brooke-Hancock-Jefferson Transportation Study Policy Committee.


Andrew Thomas
Chairperson

ATTEST:


Michael J. Paprocki
Executive Director

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SECTION 1: GOALS, OBJECTIVES, ISSUES AND STRATEGIES

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SECTION 1 - GOALS, OBJECTIVES, ISSUES AND STRATEGIES

The first step in a traditional planning process is to establish goals and objectives for the metropolitan area. The goals and objectives a Long-Range Transportation Plan (Plan) establish a vision of what the region's transportation network may be, based on past or current transportation issues, in a selected horizon year, typically 20-25 years into the future. Strategies on how to implement the objectives are then developed to direct transportation management policies and actions needed to achieve the goals. These strategies reflect a course of action that is realistic and regionally acceptable.

BHJ MISSION

As the designated Metropolitan Planning Organization (MPO) for the Weirton-Steubenville, WV-OH Urbanized Area, BHJ's mission is:

- To develop plans that address and identify funding, the actions and policies needed to maintain a safe, secure, and environmentally friendly intermodal transportation system that provides the three-county region with a foundation to compete in a global economy; and
- To provide a continual, comprehensive, and coordinated 3-C transportation planning process that considers air, highway, rail, and water intermodal transportation.

The “**continual**” process is grouped into three stages of planning:

- Annual or routine reviews of the Plan
- Update the Plan every four years
- Major Review of the Plan in conjunction with the decennial census

The “**comprehensive**” process includes:

- A minimum of a twenty-year planning horizon
- The metropolitan planning factors issued in the latest five-year federal transportation legislation Infrastructure Investment and Jobs Act (IIJA).
- A long-range and short-range planning element
- An intermodal planning element
- A financial plan that is fiscally constraint

The “**coordinated**” process takes into account the following:

- An open planning process that engages transportation decision makers and stakeholders consisting of elected officials, public interest groups, private industry, and state and federal highway officials.

GOALS AND OBJECTIVES

The Regional Long-Range Transportation Plan is centered upon the 5 (five) regionally significant policy statements and strategies listed below by rank of importance. These 5 (five) strategies and policy statements were taken from a Public Opinion Survey that will largely guide the development of *BHJ's 2050 Regional Long-Range Transportation Plan*.

1. Prepare a **Financially Responsible** Plan that represents the region's fair share of federal and state economic resources and political importance. The plan should place emphasis on **Maintaining Existing Infrastructure** to ensure the safe and reliable travel of the local population living in the area as well as encouraging individuals and businesses to look at the area as a destination. The rehabilitation and rebuilding of existing roadways and bridges are at the top of the list of infrastructure to be taken into consideration first.
2. Develop **Local Road Safety Plan** that identifies the most vulnerable locations of traffic crashes, makes the roads safer for the community, and ensures the effective use of available financial resources. The safety of travelers on our roadways will mirror the states and federal governments goals of **Reducing Severe Injury and Fatal Crashes** to zero.
3. Continue to evolve and expand the **Mobility Management Program** with cooperation with the local public transportation providers and other human service transportation providers that are involved in elderly, people with disability and employment related transportation. **Expand** the current network of **Public Transit** routes to reach more areas for riders. Encourage expanded and improved public transportation services, and app-based ride systems such as Uber and Lyft in the community. Increase Ride Share Programs such as work-related carpool and vanpool services
4. Develop livable, environmentally friendly communities with adequate **Active Transportation** and **Recreational Facilities** to encourage better and healthier living in the region. Promoting and enhancing our area with more active transportation alternatives allows more individuals an **Equitable** means of travel while also removing vehicles from the roadway increasing their safety.
5. Focus on sustainable, good-paying, environment-friendly **Business Development** promoting **Brownfield Redevelopment, Intermodal Transportation Linkages** (i.e. air, highway, rail, and water), and enhance **Regional Freight Movement**.

A review of the 10 (ten) metropolitan planning factors as found in 23 USC 134, has also guided the development and implementation of the Plan. The objectives derived from this approach are as follows:

Factor #1 Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.

Objectives

- Provide direct east/west four-lane limited access for all residents and businesses in the region to emerging metropolitan markets in Central Ohio, Northern West Virginia, and Western Pennsylvania.
- Offer alternative and redundant Ohio River Bridge routes for personal vehicle and truck traffic.
- Develop transportation system improvements that will provide greater interconnection with surrounding regions, states, municipalities, and marketplaces.
- Build an efficient and effective transportation network that will become a regional strength and draw additional traffic and customers into the Steubenville-Weirton marketplace.

Factor #2 Increase the safety of the transportation system for motorized and nonmotorized users.

Objectives

- Provide facilities and services to manage incidents (such as crashes, rock slides and vehicle breakdowns) in a manner that creates minimal obstruction to the flow of traffic.
- Create safe bicycle and pedestrian facilities that connects both Ohio and West Virginia across the Ohio River and tie into a developing national trail network outside the three-county area in Ohio and Pennsylvania.
- Keep lights, signals, and other traffic control devices for vehicles and pedestrian facilities in good working order.
- Install and maintain guardrail and sidewalks as needed.

Factor #3 Increase the security of the transportation system for motorized and nonmotorized users.

Objectives

- Create and maintain a bridge and highway system that permits efficient and safe deployment of emergency services during times of a crash, flooding, other natural disaster, or national emergency.
- Preserve, at minimum, two highway and one pedestrian Ohio River Bridge crossings as contingency options for National Guard, safety, security, and emergency services between Jefferson County, Ohio and Brooke and Hancock counties, West Virginia.

Factor #4 Increase the accessibility and mobility options available to people and for freight.

Objectives

- Reduce demand on the existing systems through programs and facilities through use of public transit, rideshare, vanpools, job access and reverse commute programs, park and ride lots, and pedestrian walkways.
- Improve individual mobility within every urban and rural community by creating a cooperative and coordinated Public and Human Service Transportation system that avoids duplication of operations, reduces costs and encourages conservation capital assets, build a platform for consistent communications among operators, and expands opportunities for business development.
- Create a network of transportation partnerships that offer a range of fixed-route, demand-responsive, and specialized non-emergency transportation services to retail, employment, social, and health care activity centers.

Factor #5 Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.

Objectives

- Create capacity only as a last resort as warranted by congestion, safety concerns, or population and business growth.
- Encourage compact development and in-fill of abandoned urban space
- Preserve and enhance historic and scenic transportation corridors and landmarks.
- Create bicycle and pedestrian trails that link the region to emerging national trail systems and heritage corridors.
- Create a bicycle and pedestrian facility across the Ohio River connecting Eastern Ohio to the Northern Panhandle of West Virginia through Steubenville and Weirton that ties into a developing national trail network in Ohio and Pennsylvania outside the three-county area.
- Installation of EV chargers at key locations to promote alternative fuels and tourism.

Factor #6 Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.

Objectives

- Recognize the nature and critical value of goods traveling to, from, and through the Brooke-Hancock-Jefferson Metropolitan Area as identified in the *BHJ Freight Study, January 2011* to proactively plan for the region's future.
- Identify the region's economic drivers and the linkages between those drivers and the transportation system, to take advantage of the existing freight infrastructure to help foster economic growth.

- Promote alternative, affordable, and environmentally efficient transportation options that will guide the BHJ region into a prosperous future.

Factor #7 Promote efficient system management and operation.

Objectives

- Improve traffic flow through operational improvements such as signalization, access-management, altering traffic patterns, and reducing on-street parking.
- Alter transportation patterns through the innovative use of roundabouts and access management.

Factor #8 Emphasize the preservation of the existing transportation system.

Objectives

- Strive to upgrade river crossings and connecting roadways to at least current minimum geometric standards.
- Adequately maintain, replace, rehabilitate and resurface existing pavements, bridges, public transit facilities and intermodal facilities
- Alleviate congestion and maintain an acceptable Level of Service (LOS) to enhance shipment of goods and movement of employees.

Factor #9 Improve the resiliency and reliability of the transportation system and reduce or mitigate storm water impacts of surface transportation.

Objectives

- Repair reactively and proactively and target areas where roadway slips occur or have occurred in the past.
- Maintain the existing network of stormwater runoff drainage but rebuilding, repairing, and cleaning infrastructure to maintain their effectiveness to minimize the disruption in commerce and travel.

Factor #10 Enhance travel and tourism.

Objectives

- Promote new business, trails and walkways, recreation facilities, and other necessities in improving the appeal for travelers into coming to the region.
- Infrastructure development to increase safety and reliable travel.

SECTION 2: ENVIRONMENTAL JUSTICE & DEMOGRAPHIC, ECONOMIC & EMPLOYMENT TREND

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INTRODUCTION

Demographic, Economic and Employment trend analysis along with issues related with Environmental justice are essential to determine future transportation needs in a given study area. These critical elements provide an understanding of past and anticipated future shifts in a region's economy, population, land use patterns, and other environmental factors over time. These factors are useful for predicting future transportation patterns and justifying transportation improvements over the next twenty-five years (25).

ENVIRONMENTAL JUSTICE

The U.S. EPA's Office of Environmental Justice defines Environmental Justice as:

The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including racial, ethnic, or socio-economic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

According to the American Community Survey, 2020, 15.28% of the families of this region is living below the poverty level. The rate is highest in Jefferson County (16.8%) and lowest in Brooke (7.6%). Majority of these households situated in the central city of Steubenville and Weirton. Downtown Steubenville, Wells TWP, Springfield TWP, North Western Clay District, Wellsburg, Follansbee District and Southern Weirton along US 22 and Route 105 are block groups with the majority of these households (Figure 1). The Median Household income and Per capita income is highest in Jefferson County and lowest for Hancock County. Downtown Steubenville and Weirton are the areas where the median household income is recorded less than \$21,000 yearly. Not surprisingly, the minority population is concentrated in the same block groups with higher below the poverty level and lower median household income.

TITLE VI OF THE CIVIL RIGHTS ACT OF 1964

This act states that

No person in the United States of America shall, on the basis of race, color, religion, national origin, sex, disability, or low-income status be excluded from participation in, be denied the benefits of, or subject to discrimination under any program or activity receiving Federal financial assistance. The law also makes it illegal to retaliate against a person because he or she complained about discrimination, filed a charge of discrimination or participated in a discrimination investigation or lawsuit. Title VI prohibits intentional discrimination as well as disparate impact on protected groups.

Since alternative transportation and public transportation is a big issue for this region, this plan also looked into the block groups where over 40% of the households are being recorded with Zero Vehicle Household (Figure 5). In Jefferson County, 9.89% of the total household has been marked as zero vehicle households, while for Hancock and Brooke, it is 8.11% and 7.21%, respectively. The majority of these households are concentrated near Downtown Steubenville, Weirton along US 22 and Route 105, and Northern Hancock County near Newell.

According to the 2020 American Community Survey, there are still large number of households that lack either a computer or a broadband Internet subscription. Only 83.85% in Jefferson County, 84.64% in Brooke County, and 87.15% in Hancock County of households have a computer, smart phone or tablet. Additionally, only 79.90% in Jefferson County, 76.87% in Brooke County, and 82.43% in Hancock County of households have a broadband Internet subscription.

The region’s reproductive rate is as follows: Jefferson County has 38 births per 1,000, Brooke County has 32 births per 1,000, and Hancock County has 47 births per 1,000.

The region’s non-white population is concentrated within Steubenville, western Wintersville, downtown Weirton, and Bethany. The region has one minority-majority census tract and that is in the south eastern portion of Steubenville along the Ohio River.

The Population of 65 Years or Older has the highest level of concentration in Steubenville. Additionally, there are large populations of elderly populations in Ross TWP, Springfield TWP, Wellsburg District, Mingo Junction, and Weirton.

According to 2020 ACS, the percentage is 8.01% for Jefferson, while for Brooke and Hancock, it is 7.62% and 7.5%. Ambulatory, cognitive, and independent living difficulties are the top disabilities of this region. These populations are concentrated in downtown Steubenville, Clay District, Weirton District, and Wellsburg District.

Environmental Justice

**Table 1:
Individuals Living Below Poverty**

| County | People Living Under Poverty | Percentage of Total County Population |
|---------------------|-----------------------------|---------------------------------------|
| Brooke | 4,000 | 14.0% |
| Hancock | 2,600 | 12.3% |
| Jefferson | 10,725 | 16.8% |
| Total Region | 17,325 | 15.28% |

Source- American Community Survey, ACS 2020

**Table 2:
Per Capita and Median Household Income**

| Per Capita & Median Household Income | Jefferson | Brooke | Hancock |
|---|-----------|----------|----------|
| Median household income (in 2020 dollars) | \$48,849 | \$48,168 | \$43,140 |
| Per capita income in past 12 months (in 2020 dollars) | \$26,602 | \$26,694 | \$27,261 |

Source- American Community Survey (ACS), 2020

**Table 3:
Percent of Minority (Non-White) Population**

| County | Minority (Non-White) Population | Percentage of Total County Population |
|---------------------|--|--|
| Brooke | 1,644 | 7.86% |
| Hancock | 2,434 | 8.37% |
| Jefferson | 8,295 | 12.71% |
| Total Region | 12,373 | 10.58% |

Source- 2020 Decennial Census

**Table 4:
Percent of Total Population Age 65 Years or Older**

| County | Persons age 65 and older | Percentage of Total County Population |
|---------------------|---------------------------------|--|
| Brooke | 5,175 | 23.40% |
| Hancock | 6,750 | 23.20% |
| Jefferson | 14,174 | 21.50% |
| Total Region | 26211 | 22.33% |

Source- American Community Survey (ACS), 2020

**Table 5:
Percent of Disabled Population Age 18 To 64 Years Old**

| County | People with Disability 65 and under | Percentage of Total County Population |
|---------------------|--|--|
| Brooke | 1,718 | 7.62% |
| Hancock | 2,182 | 7.50% |
| Jefferson | 5,918 | 8.01% |
| Total Region | 9,818 | 8.40% |

Source- American Community Survey (ACS), 2020

**Table 6:
Household Information**

| | Jefferson | Brooke | Hancock |
|---|------------------|----------------|------------------|
| Housing units (2020) | 31,125 | 10,719 | 14,241 |
| Total Occupied Units | 27,464 | 9,683 | 12,798 |
| Total Vacant Units | 3,661 | 1,036 | 1,443 |
| Persons per household | 2.31 | 2.16 | 2.28 |
| Total Vehicles | 60,752 | 17,400 | 24,277 |
| Household with Zero Vehicle Available (%) | 2,724 (9.89%) | 706 (7.21%) | 1,028 (8.11%) |

Sources- 2020 Decennial Census American Community Survey (ACS), 2020

**Table 7:
Internet, Education, Economic & Net productive Rate**

| | Jefferson | Brooke | Hancock |
|--|------------------|---------------|----------------|
| Households with a computer, smart phone or tablet, percent | 83.85% | 84.64% | 87.15% |
| Households with a broadband Internet subscription, percent | 79.90% | 76.87% | 82.43% |

Source- American Community Survey (ACS), 2016 - 2020

**Table 8:
Education Level**

| | Jefferson | Brooke | Hancock |
|--|------------------|---------------|----------------|
| High school graduate or higher, percent of persons age 25 years+ | 91.50% | 91.94% | 88.30% |
| Bachelor's degree or higher, percent of persons age 25 years+ | 17.50% | 20.16% | 16.31% |

Source- American Community Survey (ACS), 2016 - 2020

**Table 9:
Reproduction Rate**

| County | Birth | Rate Per 1,000 |
|---------------|--------------|-----------------------|
| Jefferson | 525 | 38 |
| Brooke | 143 | 32 |
| Hancock | 270 | 47 |

Source- American Community Survey (ACS), 2016-2020

Figure 1 Household Living Below Poverty

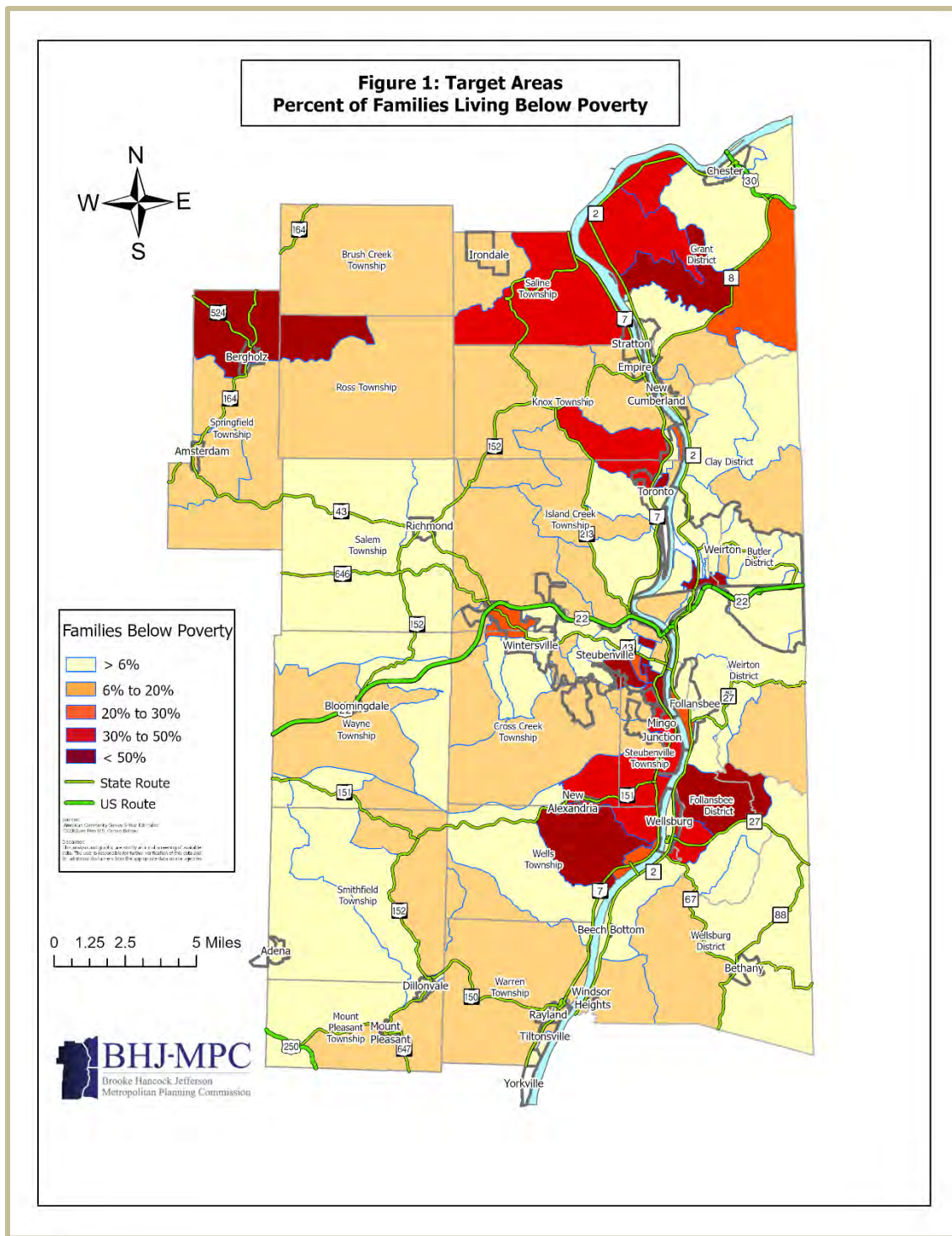


Figure 2 Median Household Income

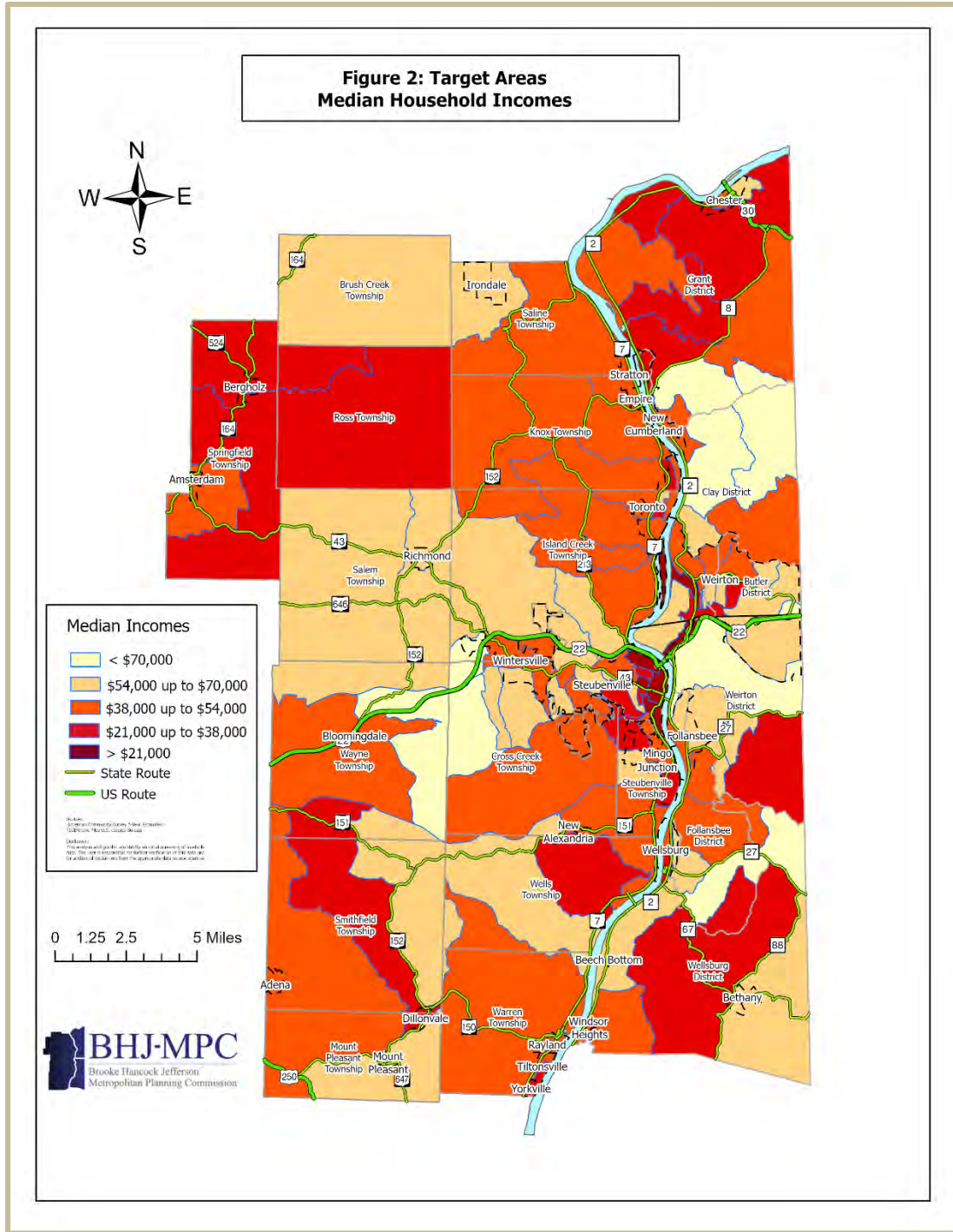


Figure 3 Minority Population Distribution

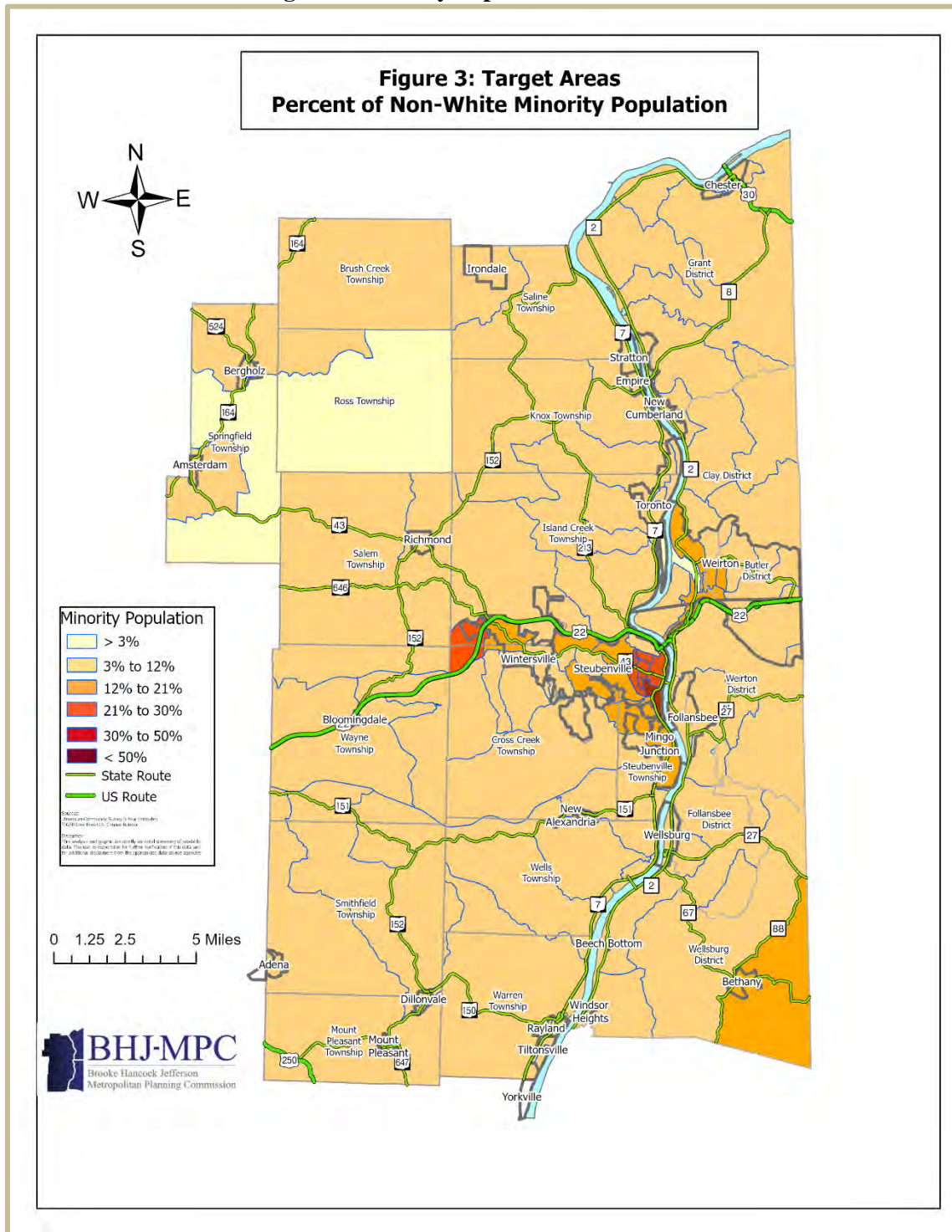


Figure 4 Household with Zero Vehicle

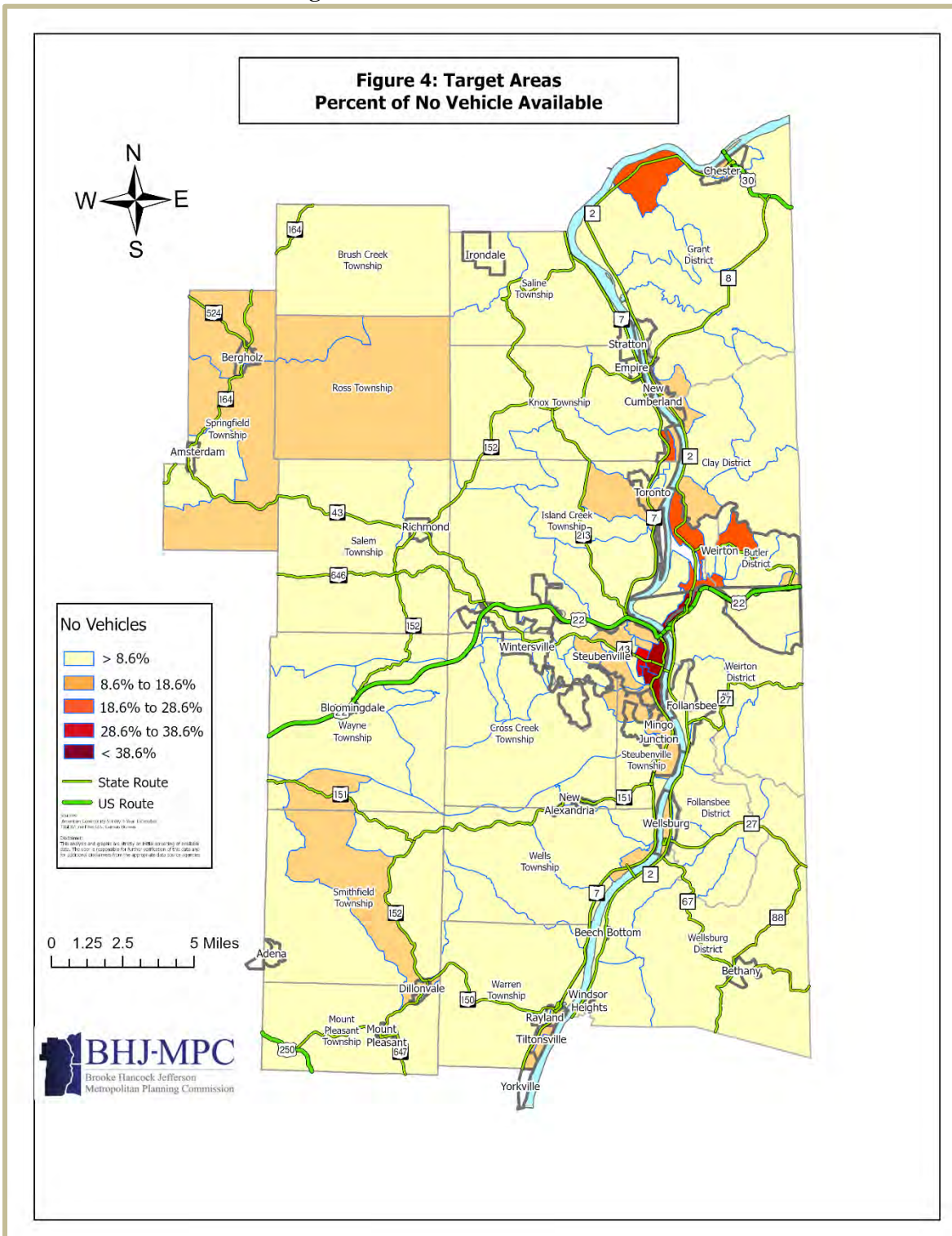
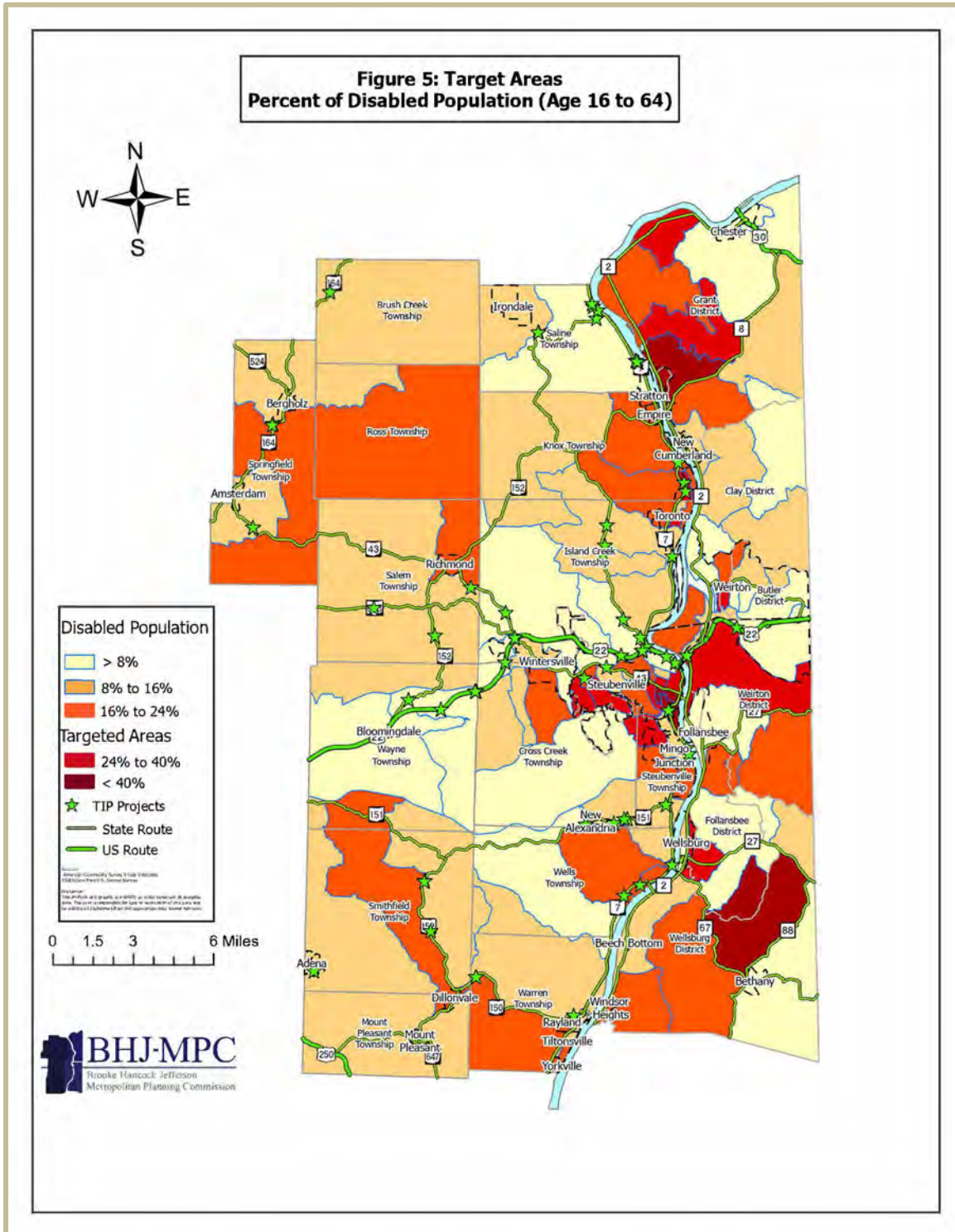


Figure 5 Spatial Distribution of Disabled Population (18-64 Age Group)



DEMOGRAPHIC, ECONOMIC & EMPLOYMENT TREND OF THE BHJ REGION

Demographic Trend

From 2000 to present, the BHJ region has experienced an ongoing decrease of population. According to this projection, BHJ will lose another 41,308 people by 2050. Both Hancock and Brooke counties are projected to lose over 23 % of their population while Jefferson County is projected to lose over 33%. Between the two big cities, City of Weirton, WV is expected to lose more population (2,272) than the City of Steubenville, OH (1,595). This decrease is the result of an aging population and a lack of migration to the region. However, the regional outlook could change with the construction of Form Energy's manufacturing facility in the City of Weirton.

In 2020, Jefferson County had a total population of 65,249, a female population of 33,245, and a male population of 32,004. The County is expecting a 33.46% decrease in their population by 2050 from the 2020 base year. By 2050, the female population is expected to decrease by 8,198 (24.7%), and their male counterpart is expected to decrease by 7,885 (24.6%). In 2020, Brooke County had a total population of 22,559, a female population of 11,321, and a male population of 11,238. The County is expecting a 24.7% decrease in their population by 2050 from the 2020 base year. By 2050, the female population is expected to decrease by 2,439 (21.5%), and their male counterpart is expected to decrease by 2,459 (21.9%). In 2020, Hancock County had a total population of 29,095, a female population of 14,820, and a male population of 14,275. The County is expecting a 23.6% decrease in their population by 2050 from the 2020 base year. By 2050, the female population is expected to decrease by 2,944 (19.9%), and their male counterpart is expected to decrease by 3,037 (21.3%). The age demographic analysis is divided in three (3) buckets of age groups. The 0-4 Group represents young and newborn children, the 16-64 Group represents the working population, and the 65+ represents the retirement and elderly populations. In 2020, Jefferson County had a population of 3,335 in the 0-4 Age Group, 40,566 in the 15-64 Age Group, and 14,206 in the 65+ Age Group. By 2050, the County is forecasted to have a 0-4 Age Group population of 2,298 (-19.1%), a 15-64 Age Group population of 31,481 (-8.9%), and a 65+ Age Group population of 9,246 (-34.9%). In 2020, Brooke County had a population of 1,004 in the 0-4 Age Group, 13,854 in the 15-64 Age Group, and 5,438, in the 65+ Age Group. By 2050, the County is forecasted to have a 0-4 Age Group population of 829 (-17.3%), a 15-64 Age Group population of 10,787 (-11.2%), and a 65+ Age Group population of 4,561 (-16.1%).

In 2020, Hancock County had a population of 1,264 in the 0-4 Age Group, 17,785 in the 15-64 Age Group, and 6,840, in the 65+ Age Group. By 2050, the County is forecasted to have a 0-4 Age Group population of 983 (-22.2%), a 15-64 Age Group population of 13,565 (-12.9%), and a 65+ Age Group population of 6,395 (-6.5%).

The estimates in these age groups provide the school enrollment, workforce and aging population estimates that play an important role in the future transportation travel demand forecasting.

According to the 2020 American Community Survey, highest percentage of owner-occupied housing is recorded in Hancock County at 73.10%, Brooke County is next with 72.5%, while Jefferson County is the lowest at 69.5%. The number of households without a vehicle are declining in all three counties, however there is a slight increase in households without a vehicle within the Weirton-Steubenville MSA. This means that the urbanized population is not keeping up with the surrounding areas in regard to vehicle ownership.

Economic Trend

According to the Bureau of Economic Analysis, in 2019, the State of Ohio's GDP was 613,251 billion and the State of West Virginia's GDP was 72,633 billion. Both states saw a steady increase in GDP from 2015 to 2019 (with the exception being WV in 2016). However, both states saw a decrease in GDP likely due to the Covid-19 pandemic in 2020. Ohio's GDP fell to 594,143 billion (3.1% decrease) and West Virginia's GDP fell to 70,444 billion (3.1% decrease). However, in 2022 Ohio's GDP has increased to 638,910 billion which is a 4.2% increase from the pre-pandemic 2019 data. In 2022, West Virginia's GDP was 71,652 billion. While West Virginia's GDP has grown 1.7% since 2020, it is still 1.4% less than the pre-pandemic data in 2019. It appears that from a state level perspective, the State of Ohio has recovered from the pandemic at a faster rate than the State of West Virginia. Additionally, both states saw a steady increase in Personal Consumption Expenditures. Between 2015 and 2021, the State of Ohio saw a 23.9% increase in PCE, and the State of West Virginia saw a 20.4% increase in PCE.

In the BHJ Region, Jefferson County Ohio has the biggest economy which is roughly 1.5 the size of Brooke and Hancock County combined. The driving forces of this economy are Healthcare and social Assistance, manufacturing, and retail trade. At first glance, it appears the GDP from Jefferson County saw a steep decline from 2015 to 2021. This is due to Jefferson County having a GDP of 4,271,753 billion GDP in 2015 and drops to 3,182, 919 (25.49% decrease) billion in 2016. However, it should be noted that from years 2013-2015 Jefferson County's GDP grew by 33% (likely due to the expansion of natural gas industry), and in 2016 there was a correction to the County's GDP. From 2016 to 2021, Jefferson County saw a 6.4% growth in GDP. From 2015 to 2021, Brooke County saw a 24.3% increase in GDP. From 2015 to 2021, Hancock County saw a 5.1% decrease in GDP. This is in part due to the hit the tourism industry – specifically Mountaineer Casino - took during the Covid-19 lockdowns.

Employment Trend

Over the last decade, the BHJ region has seen a gradual decrease in the labor force. The region also has a higher unemployment rate than the national average. The region has continued to struggle to adapt from the losses of the Steel Industry. However, the future has some positive signs with the multi-billion dollar investment of Form Energy in Weirton, the creation of the Pure WaterCraft Factory in Beech Bottom, amongst other investments in the region.

As of 2023, Jefferson County has 25,577 individuals employed and an unemployment rate of 5.19%, Brooke County has 9,437 individuals employed and an unemployment rate of 4.66%, and Hancock County has 12,457 individuals employed and an unemployment rate of 4.66%. Additionally, the workforce was majorly impacted by the shutdowns associated with the Covid-19 Pandemic. Jefferson County's unemployment rate increased to 10.18%, Brooke County's unemployment rate increased to 8.87%, and Hancock County's unemployment rate increased to 9.86% in 2020.

Health Care and Social Assistance, Manufacturing, Retail Trade, and Accommodation and food services industries are the prominent employers for this region.

According to the US Census Bureau's 2016-2020 Commuter Flows, 17,422 Jefferson County residents, 917 Brooke County residents, and 829 Hancock County residents work within Jefferson County.

According to the US Census Bureau's 2016-2020 Commuter Flows, 4,351 Brooke County residents, 1,626 Jefferson County residents, and 1,187 Hancock County residents work within Brooke County.

According to the US Census Bureau's 2016-2020 Commuter Flows, 5,745 Hancock County residents, 829 Jefferson County residents, and 1,799 Brooke County residents work within Jefferson County.

Other counties that residents of the BHJ region commute to are as follows: Allegheny County and Washington County in Pennsylvania, Ohio County and Marshall County in West Virginia, and Belmont County and Columbiana County in Ohio.

According to the future employment projection provided by Bureau of Labor Market Statistics (BLS), southeast Ohio* is expecting to add another 13,641 jobs in the next 10 years period. The top three (3) sectors that BLS expects will grow the most are Healthcare Support Occupations, Food Preparation and Serving Related Occupations, and Transportation and Material Moving Occupations. The sector with the largest expected loss is Sales and Related Occupations with a decrease of 1,647 jobs.

According to the future employment projection provided by Workforce West Virginia, Region 5 is expecting to add 3,140 jobs in investment area region 5** in the next 10 years. The top three (3) sectors Workforce West Virginia expects to grow the most are Healthcare and Support Occupations, Food Preparation & Serving Related Occupations, and Healthcare practitioners and Technical Operations. The sector with the largest expected loss is Sales & Related Occupations.

*South East Ohio- Adams, Athens, Belmont, Carroll, Coshocton, Gallia, Guernsey, Harrison, Highland, Hocking, Holmes, Jackson, Jefferson, Lawrence, Meigs, Monroe, Morgan, Muskingum, Noble, Perry, Pike, Ross, Scioto, Vinton, and Washington Counties.

** Investment area region 5- Brooke, Hancock, Ohio, Marshall, Wetzel & Tyler.

Demographic Statistics

Table 8 Population Trend BHJ Region

| | Population Year | | | | | | Change in population 2020-50 | | |
|-----------------------------|-----------------|---------|---------|----------|----------|---------|------------------------------|----------------|-----------------------|
| | 2000 | 2010 | 2020 | 2030 | 2040 | 2050 | Number | Percent Change | Annual Rate of Change |
| Brooke County, WV | 25,447 | 24,279 | 22,559 | 20,848 | 19,162 | *18,011 | -7,436 | - | -0.62% |
| Hancock County, WV | 32,667 | 30,676 | 29,095 | 27,005 | 24,957 | *23,523 | -9,144 | - | -0.59% |
| Jefferson County, OH | 73,894 | 69,709 | 65,249 | 59,792 | 54,062 | 49,166 | -24,728 | - | -0.67% |
| Metropolitan Area | 132,008 | 124,450 | 116,903 | *110,012 | *103,526 | *91,680 | -25,223 | - | -0.61% |
| Central Cities | | | | | | | | | |
| Steubenville, OH | 19,015 | 18,659 | 18,161 | *17,748 | *17,345 | *16,566 | -1,595 | - | -0.23% |
| Weirton, WV | 20,411 | 19,746 | 19,163 | *18,568 | *17,991 | *16,891 | -2,272 | - | -0.31% |
| Selected Urban Areas | | | | | | | | | |
| Chester, WV | 2,592 | 2,585 | 2,208 | *2,038 | *1,881 | *1,602 | -606 | - | -0.80% |
| Follansbee, WV | 3,115 | 2,986 | 2,848 | *2,723 | *2,604 | *2,381 | -467 | - | -0.45% |
| Mingo Junction, OH | 3,631 | 3,454 | 3,347 | *3,213 | *3,085 | *2,844 | -503 | - | -0.41% |
| Toronto, OH | 5,676 | 5,294 | 5,303 | *5,126 | *4,955 | *4,629 | -674 | - | -0.34% |
| Wellsburg, WV | 2,891 | 2,799 | 2,450 | *2,255 | *2,076 | *1,760 | -690 | - | -0.82% |
| Wintersville, OH | 4,067 | 3,922 | 3,765 | *3,623 | *3,485 | *3,227 | -538 | - | -0.39% |

Source- Ohio Development Services Agency office of Research, 2022, Bureau of Business & Economic Research,
West Virginia University ,2022, BHJ MPC

*Forecast produced utilizing Compound Annual Growth Rate

Table 9 Housing Trend BHJ Region

| | Occupied Housing Characteristics by Year | | | | | | Changes from 2020-2050 | | |
|-----------------------------|--|--------|--------|--------|--------|--------|------------------------|----------------|-----------------------|
| | 2000 | 2010 | 2020 | 2030 | 2040 | 2050 | Number | Percent Change | Annual Rate of Change |
| Brooke County, WV | 10,396 | 10,746 | 9,792 | 9,503 | 9,223 | 8,951 | -841 | -8.59% | -0.30% |
| Persons/Household | 2.36 | 2.26 | 2.10 | 1.98 | 1.87 | 1.76 | -0.34 | 16.06% | -0.58% |
| No Vehicle Households | 899 | 894 | 676 | 586 | 508 | 441 | -235 | 34.80% | -0.14% |
| Hancock County, WV | 13,678 | 14,639 | 12,676 | 12,203 | 11,747 | 11,309 | -1,367 | 10.78% | -0.38% |
| Persons/Household | 2.36 | 2.1 | 2.27 | 2.23 | 2.18 | 2.14 | -0.13 | -5.67% | -0.19% |
| No Vehicle Households | 991 | 926 | 1,028 | 1,047 | 1,066 | 1,086 | 58 | 5.65% | -0.18% |
| Jefferson County, OH | 30,415 | 32,693 | 27,541 | 26,208 | 24,939 | 23,731 | -3,810 | 13.83% | -0.50% |
| Persons/Household | 2.36 | 2.13 | 2.27 | 2.23 | 2.18 | 2.14 | -0.13 | -5.67% | 0.19% |
| No Vehicle Households | 3,236 | 2,803 | 2,724 | 2,499 | 2,293 | 2,104 | -620 | 22.77% | 0.86% |
| Metropolitan Area | 52,449 | 58,078 | 50,009 | 48,832 | 47,683 | 46,560 | -3,449 | -6.90% | -0.24% |
| Persons/Household | 2.36 | 2.16 | 2.22 | 2.15 | 2.09 | 2.03 | -0.19 | -8.77% | -0.31% |
| No Vehicle Households | | 4,232 | 4,458 | 4,575 | 4,696 | 4,820 | 362 | 8.12% | 0.26% |

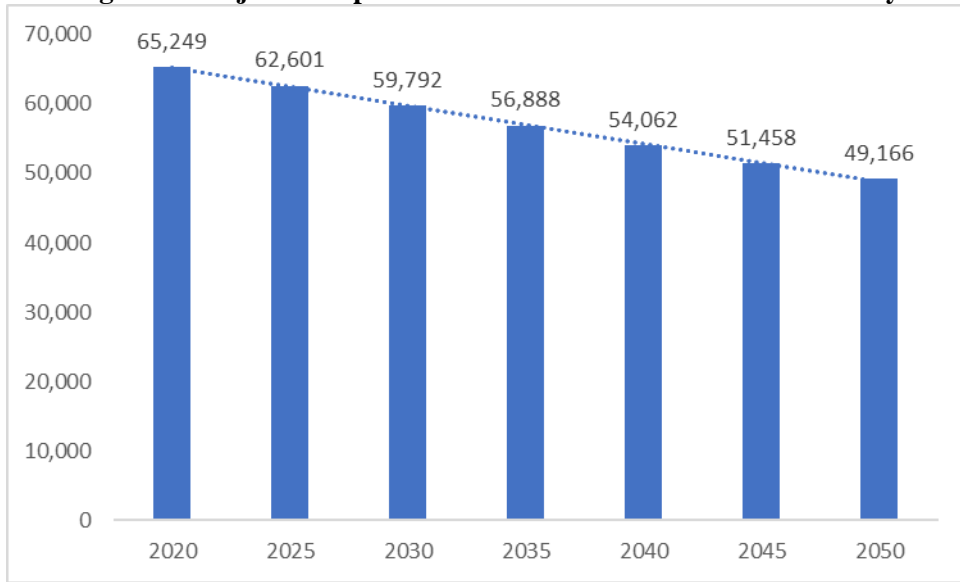
Source- American Community Survey 2010 and 2020, US Decennial Census 2000, BHJ MPC
Forecast produced utilizing Compound Annual Growth Rate

Table 10 Cohort Population Projection Jefferson County

| Age Cohort | 2020 | | | 2035 | | | 2050 | | |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | TOTAL | MALE | FEMALE | TOTAL | MALE | FEMALE | TOTAL | MALE | FEMALE |
| 0-4 | 3,335 | 1,718 | 1,617 | 3,055 | 1,498 | 1,557 | 2,698 | 1,318 | 1,380 |
| 5-9 | 3,380 | 1,769 | 1,611 | 3,220 | 1,591 | 1,629 | 2,755 | 1,361 | 1,394 |
| 10-14 | 3,762 | 1,928 | 1,834 | 3,190 | 1,586 | 1,604 | 2,986 | 1,491 | 1,495 |
| 15-19 | 4,082 | 2,004 | 2,078 | 3,787 | 1,878 | 1,909 | 3,437 | 1,626 | 1,811 |
| 20-24 | 4,222 | 2,071 | 2,151 | 3,945 | 1,974 | 1,971 | 3,595 | 1,706 | 1,889 |
| 25-29 | 3,754 | 1,872 | 1,882 | 3,345 | 1,715 | 1,630 | 2,923 | 1,430 | 1,493 |
| 30-34 | 3,596 | 1,798 | 1,798 | 3,310 | 1,673 | 1,637 | 3,048 | 1,613 | 1,435 |
| 35-39 | 3,367 | 1,733 | 1,634 | 3,434 | 1,785 | 1,649 | 2,945 | 1,533 | 1,412 |
| 40-44 | 3,451 | 1,730 | 1,721 | 3,645 | 1,824 | 1,821 | 3,210 | 1,667 | 1,543 |
| 45-49 | 3,998 | 1,982 | 2,016 | 3,405 | 1,718 | 1,687 | 3,106 | 1,571 | 1,535 |
| 50-54 | 4,069 | 2,062 | 2,007 | 3,182 | 1,651 | 1,531 | 3,138 | 1,642 | 1,496 |
| 55-59 | 4,810 | 2,334 | 2,476 | 3,084 | 1,551 | 1,533 | 3,232 | 1,608 | 1,624 |
| 60-64 | 5,217 | 2,572 | 2,645 | 3,405 | 1,674 | 1,731 | 2,847 | 1,432 | 1,415 |
| 65-69 | 4,717 | 2,295 | 2,422 | 3,164 | 1,552 | 1,612 | 2,459 | 1,238 | 1,221 |
| 70-74 | 3,779 | 1,797 | 1,982 | 3,336 | 1,529 | 1,807 | 2,089 | 992 | 1,097 |
| 75-79 | 2,400 | 1,076 | 1,324 | 3,034 | 1,324 | 1,710 | 1,955 | 860 | 1,095 |
| 80-84 | 1,776 | 742 | 1,034 | 1,816 | 759 | 1,057 | 1,286 | 541 | 745 |
| 85+ | 1,534 | 521 | 1,013 | 1,531 | 538 | 993 | 1,457 | 490 | 967 |
| TOTAL | 65,249 | 32,004 | 33,245 | 56,888 | 27,820 | 29,068 | 49,166 | 24,119 | 25,047 |

Source- Ohio Development Services Agency office of Research, 2020

Figure 3 Projected Population Trend 2020-2050 Jefferson County



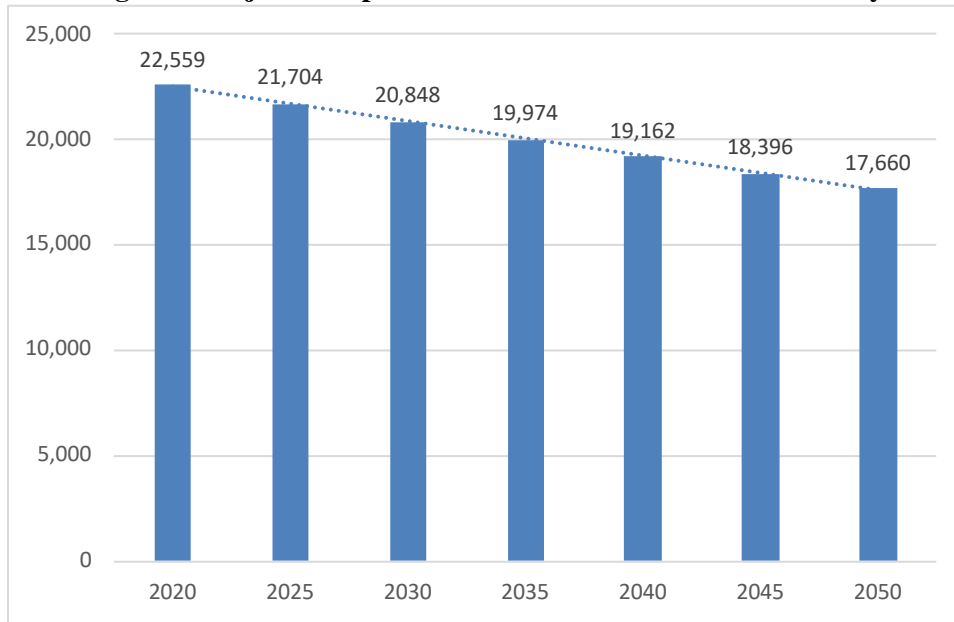
Source- Ohio Development Services Agency office of Research, 2020

Table 11 Cohort Population Projection Brooke County

| Age Cohort | 2020 | | | 2035 | | | 2050 | | |
|--------------|---------------|---------------|---------------|---------------|--------------|---------------|---------------|--------------|--------------|
| | TOTAL | MALE | FEMALE | TOTAL | MALE | FEMALE | TOTAL | MALE | FEMALE |
| 0-4 | 1,004 | 510 | 494 | 906 | 460 | 445 | 829 | 423 | 407 |
| 5-9 | 1,029 | 545 | 484 | 938 | 509 | 429 | 843 | 463 | 380 |
| 10-14 | 1,234 | 636 | 598 | 981 | 501 | 480 | 834 | 424 | 409 |
| 15-19 | 1,342 | 717 | 625 | 983 | 514 | 469 | 807 | 418 | 389 |
| 20-24 | 1,397 | 729 | 668 | 882 | 445 | 437 | 670 | 348 | 322 |
| 25-29 | 1,250 | 661 | 589 | 907 | 487 | 420 | 579 | 294 | 285 |
| 30-34 | 1,122 | 595 | 527 | 1,176 | 628 | 548 | 1,010 | 527 | 483 |
| 35-39 | 1,113 | 566 | 547 | 1,445 | 717 | 728 | 1,240 | 629 | 611 |
| 40-44 | 1,285 | 662 | 623 | 1,489 | 757 | 732 | 1,523 | 782 | 740 |
| 45-49 | 1,389 | 698 | 691 | 1,131 | 576 | 555 | 1,576 | 777 | 799 |
| 50-54 | 1,481 | 749 | 732 | 1,113 | 580 | 533 | 1,011 | 528 | 485 |
| 55-59 | 1,657 | 831 | 826 | 1,455 | 717 | 738 | 1,064 | 538 | 527 |
| 60-64 | 1,818 | 877 | 941 | 1,568 | 771 | 797 | 1,308 | 650 | 659 |
| 65-69 | 1,774 | 852 | 922 | 1,577 | 744 | 833 | 1,385 | 655 | 730 |
| 70-74 | 1,477 | 707 | 770 | 1,310 | 644 | 666 | 1,227 | 588 | 639 |
| 75-79 | 914 | 398 | 516 | 935 | 428 | 507 | 823 | 409 | 415 |
| 80-84 | 664 | 305 | 359 | 649 | 289 | 361 | 633 | 264 | 370 |
| 85+ | 609 | 200 | 409 | 529 | 173 | 356 | 494 | 167 | 328 |
| Total | 22,559 | 11,238 | 11,321 | 19,974 | 9,939 | 10,035 | 17,660 | 8,779 | 8,882 |

Source- Bureau of Business & Economic Research, West Virginia University, 2022, BHJ

Figure 4 Projected Population Trend 2020-2050 Brooke County



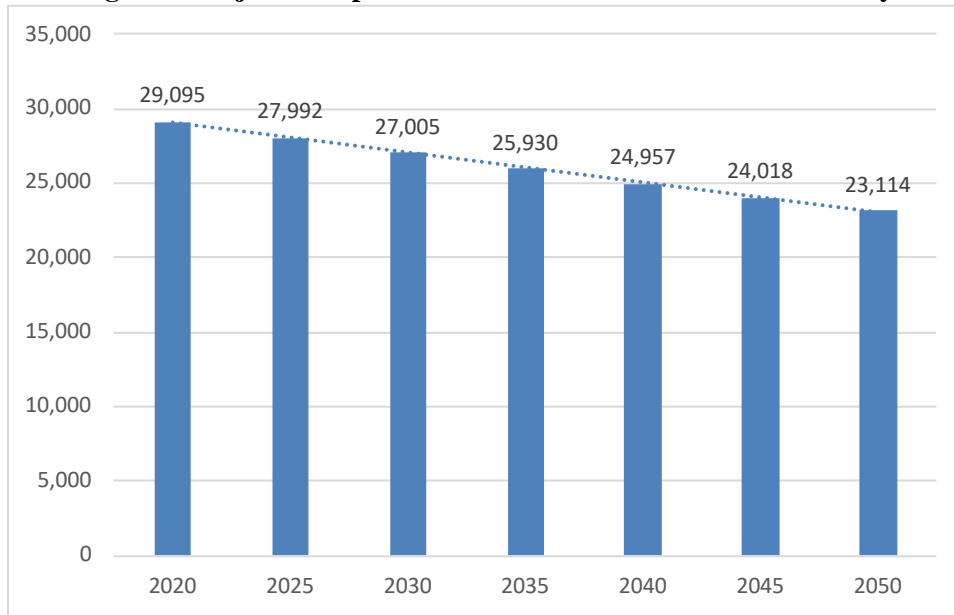
Source- Bureau of Business & Economic Research, West Virginia University, 2022, BHJ MPC

Table 12 Cohort population Projection Hancock County

| | 2020 | | | 2035 | | | 2050 | | |
|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Age Cohort | TOTAL | MALE | FEMALE | TOTAL | MALE | FEMALE | TOTAL | MALE | FEMALE |
| 0-4 | 1,264 | 641 | 623 | 1,119 | 568 | 551 | 983 | 498 | 485 |
| 5-9 | 1,538 | 797 | 741 | 1,331 | 665 | 666 | 1,160 | 568 | 592 |
| 10-14 | 1,668 | 842 | 826 | 1,332 | 677 | 655 | 1,134 | 578 | 557 |
| 15-19 | 1,623 | 864 | 759 | 1,208 | 621 | 587 | 1,007 | 508 | 500 |
| 20-24 | 1,394 | 704 | 690 | 1,227 | 641 | 586 | 1,030 | 514 | 515 |
| 25-29 | 1,548 | 797 | 751 | 1,693 | 835 | 858 | 1,457 | 761 | 696 |
| 30-34 | 1,541 | 774 | 767 | 1,679 | 900 | 779 | 1,495 | 765 | 730 |
| 35-39 | 1,581 | 792 | 789 | 1,380 | 710 | 670 | 1,547 | 851 | 698 |
| 40-44 | 1,682 | 822 | 860 | 1,242 | 626 | 616 | 1,250 | 612 | 638 |
| 45-49 | 1,960 | 1,006 | 954 | 1,481 | 730 | 751 | 1,101 | 584 | 517 |
| 50-54 | 1,964 | 1,001 | 963 | 1,621 | 777 | 844 | 1,256 | 578 | 680 |
| 55-59 | 2,203 | 1,067 | 1,136 | 1,899 | 935 | 965 | 1,599 | 757 | 841 |
| 60-64 | 2,289 | 1,108 | 1,181 | 2,136 | 1,040 | 1,095 | 1,823 | 878 | 945 |
| 65-69 | 2,276 | 1,114 | 1,162 | 2,024 | 1,003 | 1,021 | 1,879 | 901 | 977 |
| 70-74 | 1,802 | 874 | 928 | 1,817 | 834 | 983 | 1,763 | 852 | 912 |
| 75-79 | 1,107 | 489 | 618 | 1,199 | 544 | 655 | 1,248 | 555 | 693 |
| 80-84 | 820 | 313 | 507 | 839 | 343 | 495 | 784 | 321 | 463 |
| 85+ | 835 | 270 | 565 | 703 | 226 | 477 | 721 | 233 | 486 |
| Total | 29,095 | 14,275 | 14,820 | 25,930 | 12,674 | 13,256 | 23,114 | 11,238 | 11,876 |

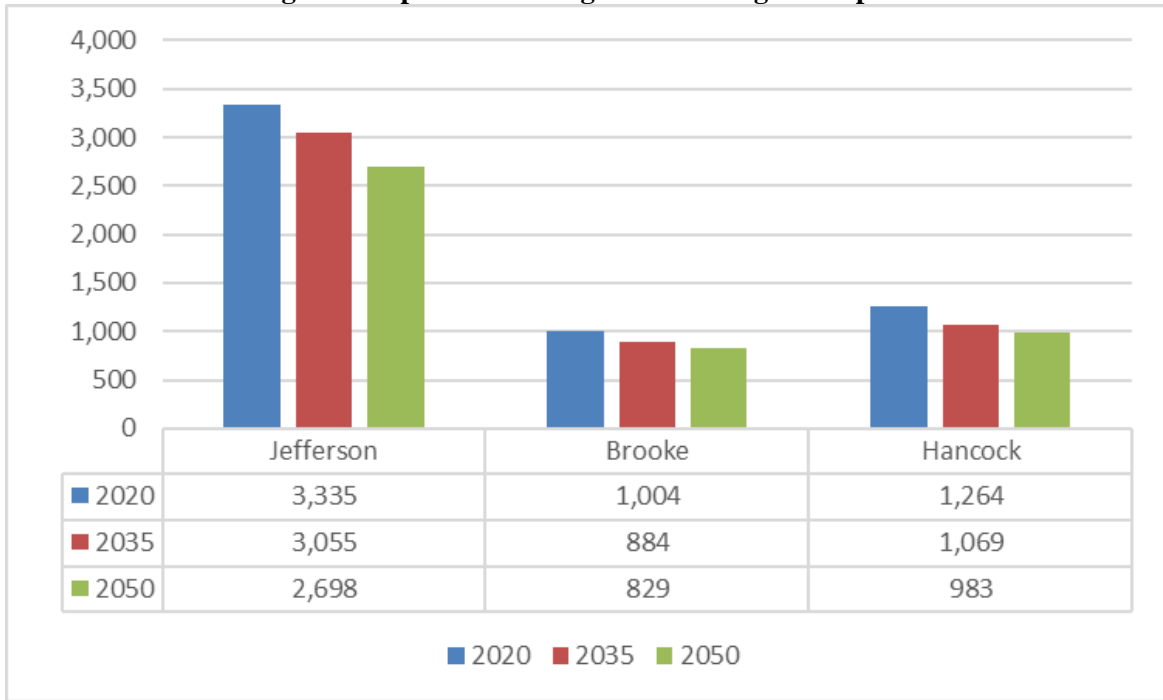
Source- Bureau of Business & Economic Research, West Virginia University, 2022, BHJ MPC

Figure 5 Projected Population Trend 2020-2045 Hancock County



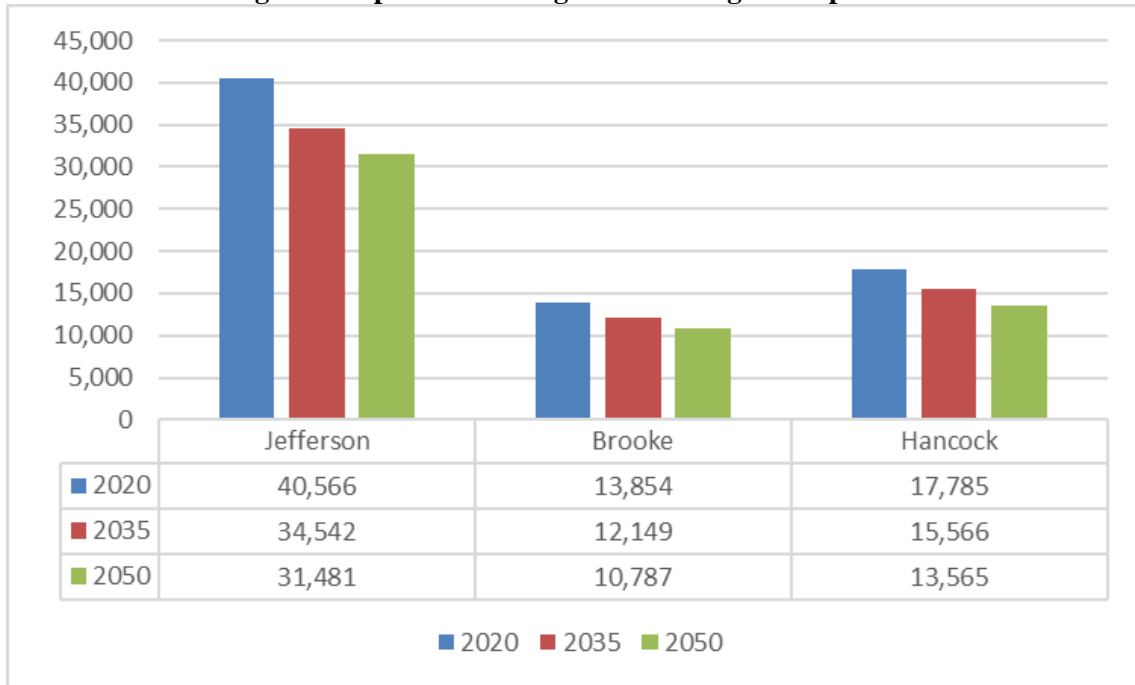
Source- Bureau of Business & Economic Research, West Virginia University, 2022, BHJ MPC

Figure 6 Population Change Trend in Age Group 0-4



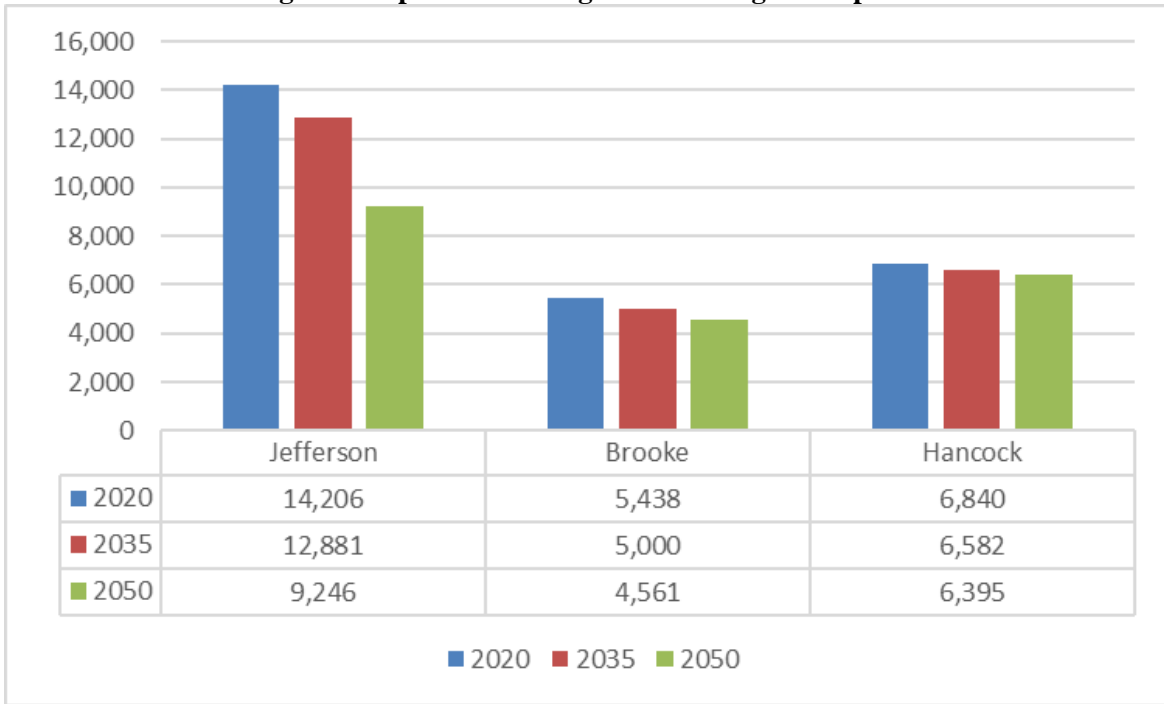
Source- Bureau of Business & Economic Research WVU, Ohio Development Services Agency office of Research
MPC 202

Figure 7 Population Change Trend in Age Group 16-64



Source-
Bureau of Business & Economic Research WVU,
Ohio Development Services Agency office of Research MPC 2023

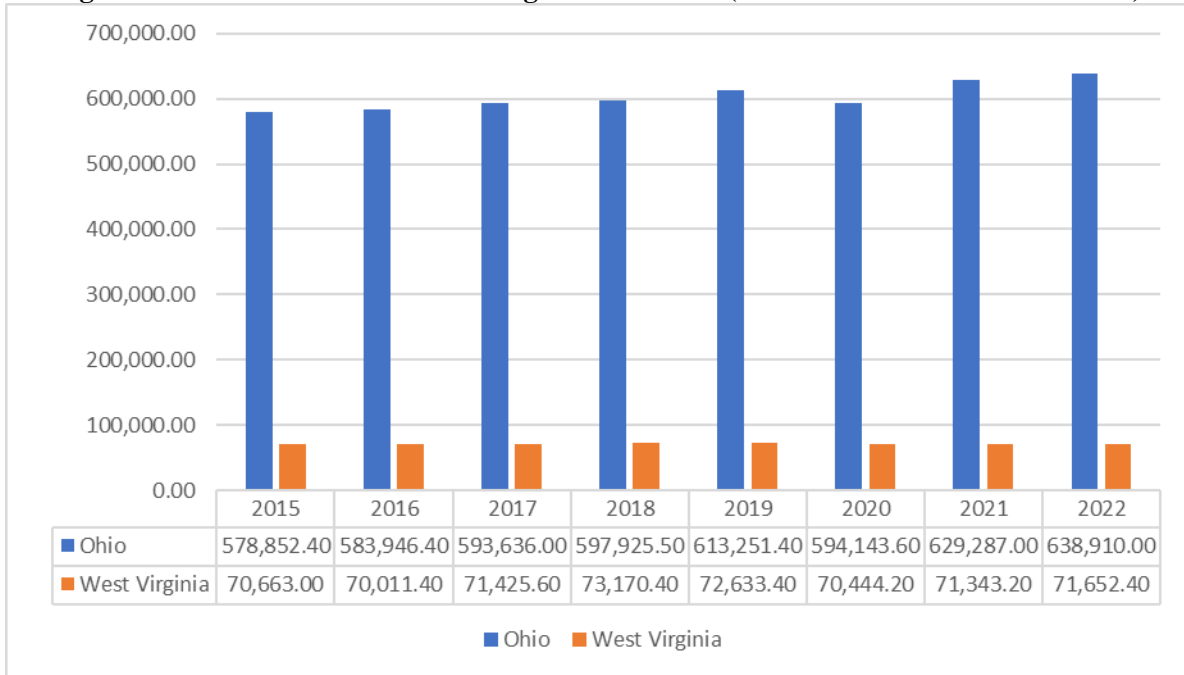
Figure 8 Population Change Trend in Age Group 65+



Source-
Bureau of Business & Economic Research WVU,
Ohio Development Services Agency office of Research MPC 2019

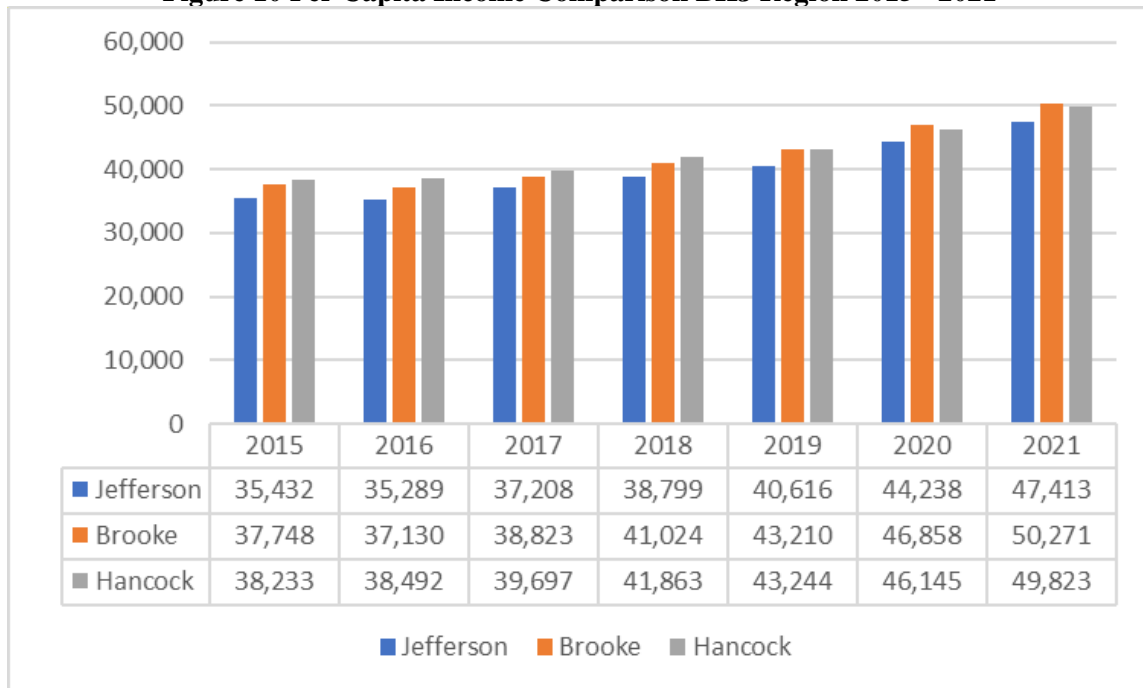
Economic Statistics

Figure 9 GDP Per Ohio and West Virginia 2015-2022 (millions of chained 2012 dollars)



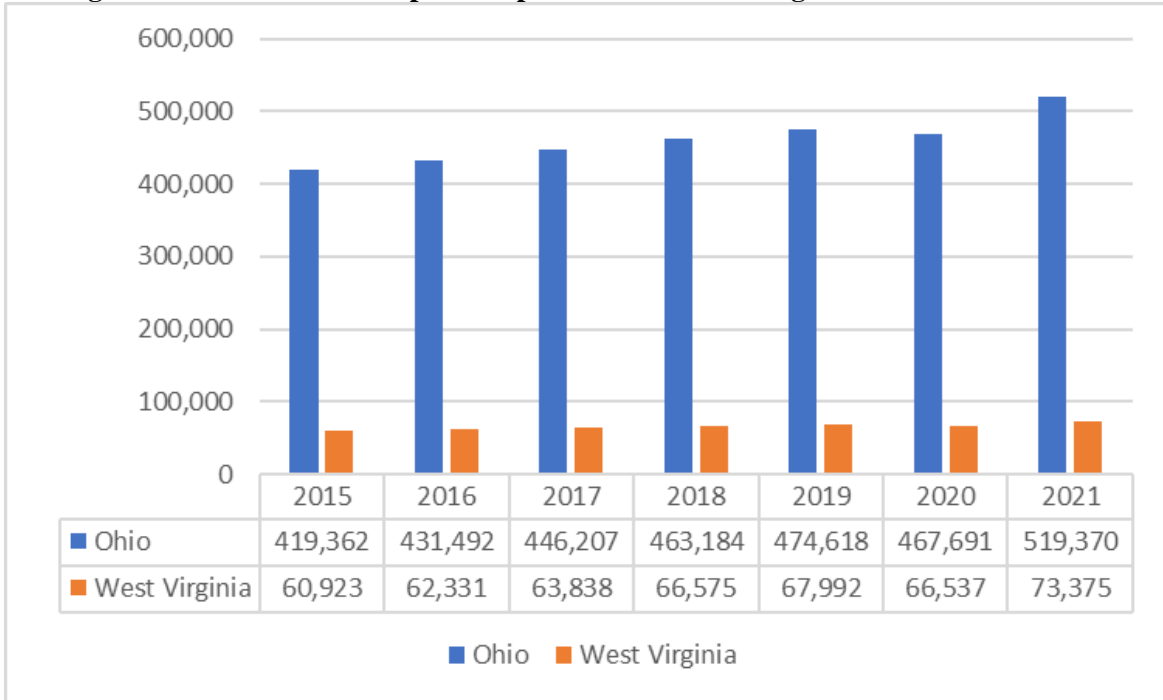
Source- Bureau of Economic Analysis, US Department of Commerce, 2023

Figure 10 Per Capita Income Comparison BHJ Region 2015 - 2021



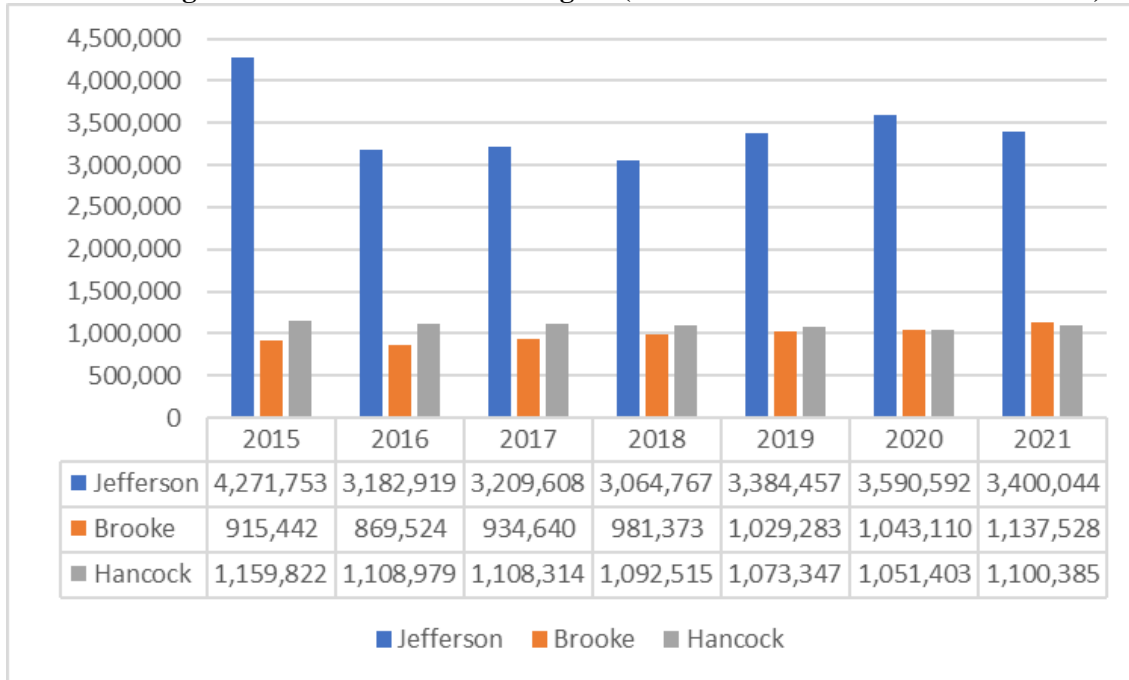
Source- Bureau of Economic Analysis, US Department of Commerce, 2023

Figure 11 Personal Consumption Expenditure in West Virginia and Ohio 2015-2021



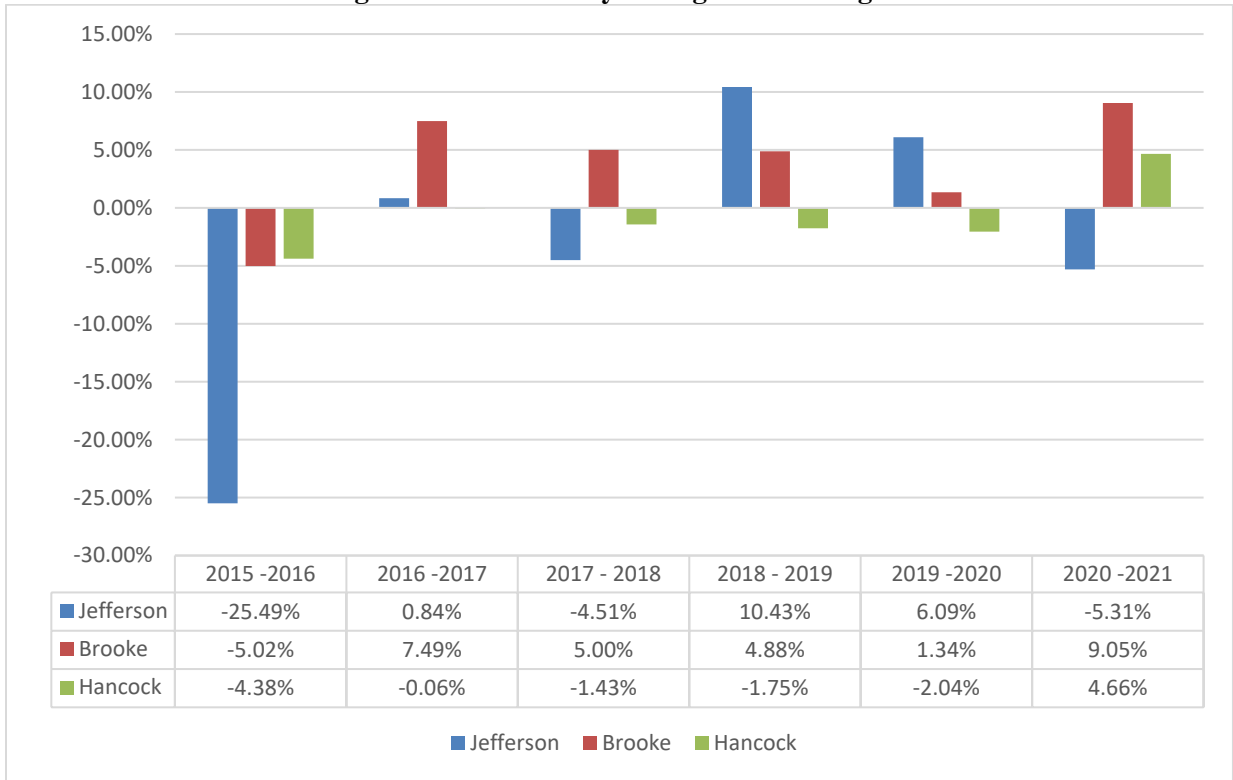
Source- Bureau of Economic Analysis, US Department of Commerce, 2023

Figure 12 Real GDP for BHJ Region (in thousands of chained 2012 dollars)



Source- Bureau of Economic Analysis, US Department of Commerce, 2023

Figure 13 GDP Yearly Change in BHJ Region



Source- Bureau of Economic Analysis, US Department of Commerce, 2023

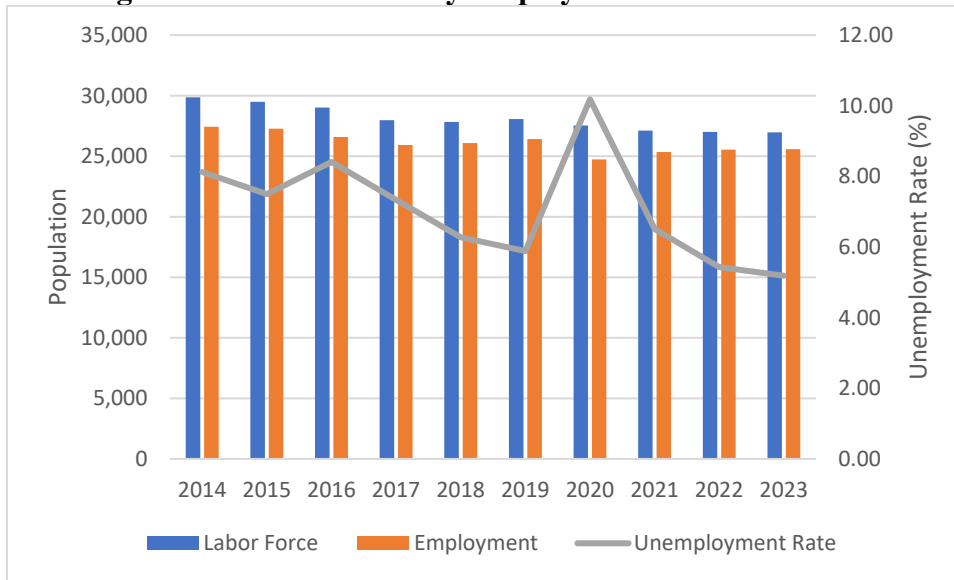
Employment Statistics BHJ Region

Table 13 Employment Trend BHJ Region 2014-2023

| Jefferson | | | | |
|------------------|--------------------|-----------------|-------------------|------------------------------|
| Year | Labor Force | Employed | Unemployed | Unemployment Rate (%) |
| 2023 | 26,974 | 25,577 | 1,397 | 5.19 |
| 2022 | 27,008 | 25,538 | 1,470 | 5.43 |
| 2021 | 27,116 | 25,345 | 1,770 | 6.51 |
| 2020 | 27,533 | 24,741 | 2,792 | 10.18 |
| 2019 | 28,067 | 26,415 | 1,652 | 5.88 |
| 2018 | 27,829 | 26,083 | 1,746 | 6.28 |
| 2017 | 27,974 | 25,922 | 2,052 | 7.33 |
| 2016 | 29,024 | 26,583 | 2,441 | 8.41 |
| 2015 | 29,492 | 27,280 | 2,212 | 7.50 |
| 2014 | 29,866 | 27,438 | 2,428 | 8.13 |
| Brooke | | | | |
| Year | Labor Force | Employed | Unemployed | Unemployment Rate (%) |
| 2023 | 9,899 | 9,437 | 462 | 4.66 |
| 2022 | 9,877 | 9,428 | 449 | 4.53 |
| 2021 | 9,822 | 9,223 | 599 | 6.11 |
| 2020 | 9,721 | 8,862 | 858 | 8.87 |
| 2019 | 9,970 | 9,448 | 522 | 5.24 |
| 2018 | 9,950 | 9,355 | 594 | 5.99 |
| 2017 | 9,835 | 9,236 | 599 | 6.11 |
| 2016 | 10,011 | 9,306 | 706 | 7.04 |
| 2015 | 10,204 | 9,475 | 729 | 7.15 |
| 2014 | 10,199 | 9,473 | 726 | 7.12 |
| Hancock | | | | |
| Year | Labor Force | Employed | Unemployed | Unemployment Rate (%) |
| 2023 | 13,185 | 12,457 | 729 | 5.50 |
| 2022 | 13,031 | 12,393 | 638 | 4.90 |
| 2021 | 12,941 | 12,128 | 813 | 6.28 |
| 2020 | 12,941 | 11,663 | 1,278 | 9.86 |
| 2019 | 13,075 | 12,395 | 680 | 5.22 |
| 2018 | 13,005 | 12,253 | 752 | 5.78 |
| 2017 | 12,896 | 12,114 | 782 | 6.05 |
| 2016 | 12,899 | 11,995 | 904 | 7.02 |
| 2015 | 13,146 | 12,146 | 1,001 | 7.62 |
| 2014 | 13,253 | 12,209 | 1,044 | 7.88 |

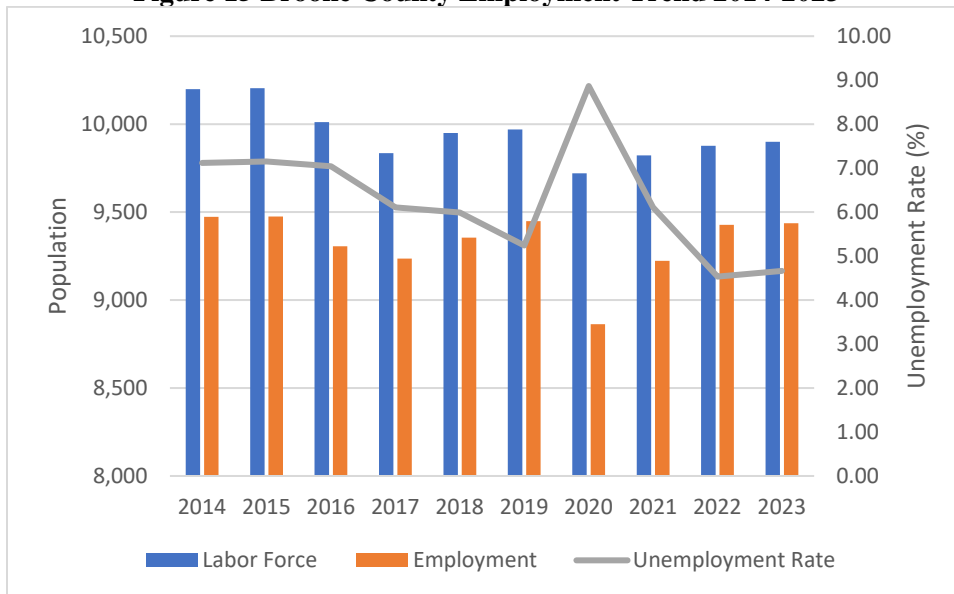
Source- Local Area Unemployment Statistics, Bureau of Labor Statistics, 2023

Figure 14 Jefferson County Employment Trend 2014-2023



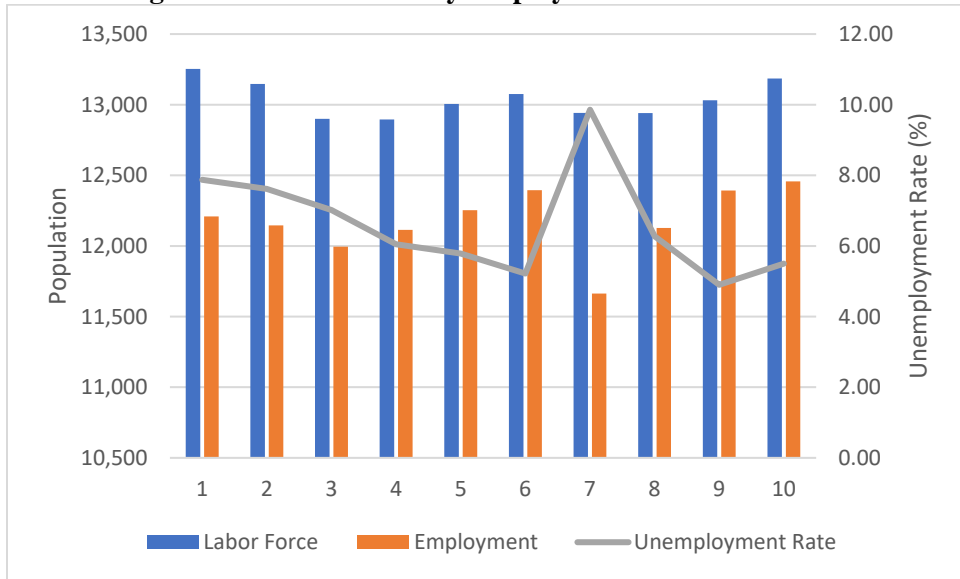
Source- Local Area Unemployment Statistics, Bureau of Labor Statistics, 2023

Figure 15 Brooke County Employment Trend 2014-2023



Source- Local Area Unemployment Statistics, Bureau of Labor Statistics, 2023

Figure 16 Hancock County Employment Trend 2014-2023



Source- Local Area Unemployment Statistics, Bureau of Labor Statistics, 2023

Table 14 Industry by Classification & Top Employment Centers- Jefferson County

| Industry classifications | Number of employees | Percentage |
|---|----------------------------|-------------------|
| NAICS 62 Health care and social assistance | 3,859 | 24.26% |
| NAICS 44-45 Retail trade | 2,654 | 16.68% |
| NAICS 48-49 Transportation and warehousing | 1,557 | 9.79% |
| NAICS 31-33 Manufacturing | 1,550 | 9.74% |
| NAICS 72 Accommodation and food services | 1,522 | 9.57% |
| NAICS 23 Construction | 1,127 | 7.08% |
| NAICS 56 Administrative and support and waste management and remediation services | 725 | 4.56% |
| NAICS 61 Educational services | 631 | 3.97% |
| NAICS 22 Utilities | 532 | 3.34% |
| NAICS 42 Wholesale trade | 530 | 3.33% |
| NAICS 81 Other services (except public administration) | 530 | 3.33% |
| NAICS 52 Finance and insurance | 239 | 1.50% |
| NAICS 53 Real estate and rental and leasing | 202 | 1.27% |
| NAICS 51 Information | 108 | 0.68% |
| NAICS 71 Arts, entertainment, and recreation | 80 | 0.50% |
| NAICS 21 Mining, quarrying, and oil and gas extraction | 52 | 0.33% |
| NAICS 99 Unclassified | 11 | 0.07% |
| Grand total | 15,909 | 100.0% |

Source- Quarterly Census of Employment & Wages, BLS, 2023

Table 15 Top 10 employers Jefferson County

| Company name | City | County | NAICS Code | Employees |
|---------------------------------------|----------------|---------------|---------------------------------|------------------|
| Trinity medical center west | Steubenville | Jefferson | Health care & social assistance | 1,278 |
| Wal-Mart | Steubenville | Jefferson | Warehousing | 738 |
| FirstEnergy Generation Corp | Stratton | Jefferson | Utilities | 533 |
| Titanium Metals Corp | Toronto | Jefferson | Manufacturing | 496 |
| Franciscan University of Steubenville | Steubenville | Jefferson | Educational service | 425 |
| Wal-Mart | Steubenville | Jefferson | Retail trade | 373 |
| Ohio Power Co | Brilliant | Jefferson | Utilities | 336 |
| Betchel Construction Co | Stratton | Jefferson | Construction | 288 |
| Trinity Medical Center East | Steubenville | Jefferson | Health care & social assistance | 286 |
| Severstal Wheeling | Mingo Junction | Jefferson | Manufacturing | 281 |

Source- Quarterly Census of Employment & Wages, BLS, 2020

Table 16 Industry by Classification & Top Employment Centers- Brooke County

| Industry Classifications | Number of Employees | Percentage |
|---|----------------------------|-------------------|
| NAICS 31-33 Manufacturing | 1,030 | 30.66% |
| NAICS 44-45 Retail trade | 887 | 26.41% |
| NAICS 72 Accommodation and food services | 721 | 21.46% |
| NAICS 48-49 Transportation and warehousing | 168 | 5.00% |
| NAICS 71 Arts, entertainment, and recreation | 153 | 4.55% |
| NAICS 81 Other services (except public administration) | 143 | 4.26% |
| NAICS 52 Finance and insurance | 119 | 3.54% |
| NAICS 54 Professional, scientific, and technical services | 75 | 2.23% |
| NAICS 53 Real estate and rental and leasing | 63 | 1.88% |
| Grand Total | 3,359 | 100.0% |

Source- Workforce West Virginia, Department of Commerce, 2023

Table 17 Top 10 Employers Brooke County

| Rank | Employer |
|-------------|-------------------------------------|
| 1 | Weirton Medical Center |
| 2 | Brooke County Board of Education |
| 3 | Walmart |
| 4 | Mountain State Carbon, LLC |
| 5 | WMC Physician Practices, LLC |
| 6 | Justrite Manufacturing Company, LLC |
| 7 | Kroger |
| 8 | Bethany College |
| 9 | Wheeling-Nippon Steel, Inc. |
| 10 | Brooke County Commission |

Source- Workforce West Virginia, Department of Commerce, 2023

Table 18 Industry by Classification & Top Employment Centers- Hancock County

| Industry Classifications | Number of Employees | Percentage |
|---|----------------------------|-------------------|
| NAICS 31-33 Manufacturing | 2,227 | 31.09% |
| NAICS 72 Accommodation and food services | 1,171 | 16.35% |
| NAICS 62 Health care and social assistance | 956 | 13.35% |
| NAICS 44-45 Retail trade | 779 | 10.88% |
| NAICS 52 Finance and insurance | 353 | 4.93% |
| NAICS 48-49 Transportation and warehousing | 267 | 3.73% |
| NAICS 54 Professional, scientific, and technical services | 263 | 3.67% |
| NAICS 81 Other services (except public administration) | 252 | 3.52% |
| NAICS 56 Administrative and support and waste management and remediation services | 206 | 2.88% |
| NAICS 71 Arts, entertainment, and recreation | 191 | 2.67% |
| NAICS 53 Real estate and rental and leasing | 141 | 1.97% |
| NAICS 42 Wholesale trade | 101 | 1.41% |
| NAICS 22 Utilities | 93 | 1.30% |
| NAICS 61 Educational services | 82 | 1.14% |
| NAICS 55 Management of companies and enterprises | 37 | 0.52% |
| NAICS 99 Unclassified | 23 | 0.32% |
| NAICS 51 Information | 20 | 0.28% |
| Grand Total | 7,162 | 100.0% |

Source- Workforce West Virginia, Department of Commerce, 2023

Table 19 Top 10 Employers Hancock County

| Rank | Employer |
|-------------|-----------------------------------|
| 1 | ArcelorMittal USA, Inc. |
| 2 | Hancock County Board of Education |
| 3 | Mountaineer Park, Inc |
| 4 | The Fiesta Tableware Company |
| 5 | Bellofram Corporation |
| 6 | Ergon-West Virginia, Inc. |
| 7 | Weirton Geriatric Center, Inc. |
| 8 | Highmark, Inc. |
| 9 | Change, Incorporated |
| 10 | City of Weirton |

Source- Workforce West Virginia, Department of Commerce, 2022

Employment Center Map

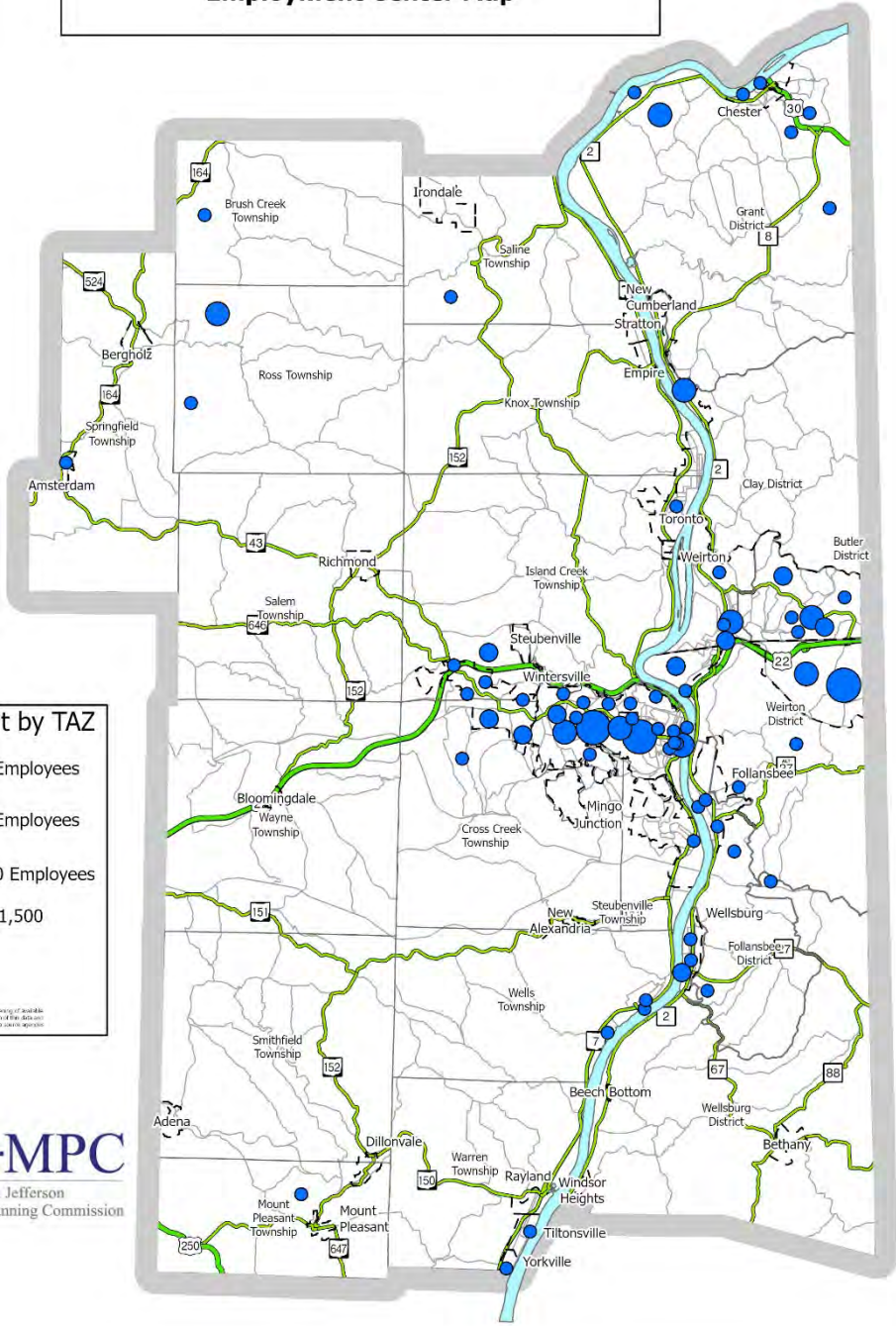


Employment by TAZ

- 150 - 450 Employees
- 450 - 750 Employees
- 750 - 1,500 Employees
- More than 1,500 Employees

Source:
 Quarterly Census of Employment and Wages
 TIGER/Line files U.S. Census Bureau

Disclaimer:
 This map and graphics are strictly an aerial rendering of available data. The map is not intended for navigation or for use as a substitute for additional data obtained from the appropriate data source agencies.



Commuting Workflow Statistics

Table 20 Inside BHJ Region Commuter Flow

| County of Workplace | County of Residence | | | Grand Total |
|---------------------|---------------------|---------------|----------------|---------------|
| | Jefferson County | Brooke County | Hancock County | |
| Jefferson County | 17,422 | 917 | 829 | 19,168 |
| Brooke County | 1,626 | 4,351 | 1,799 | 7,776 |
| Hancock County | 955 | 1,187 | 5,745 | 7,887 |
| Grand Total | 20,003 | 6,455 | 8,373 | 34,831 |

Source- US Census Bureau, Commuter Flow 2016-2020

Table 21 Top 10 Counties of Workplace from BHJ Region

| County of Workplace | County of Residence | | | Grand Total |
|---------------------|---------------------|---------------|----------------|-------------|
| | Jefferson County | Brooke County | Hancock County | |
| Allegheny County | 1,845 | 899 | 2,161 | 4,905 |
| Ohio County | 1,361 | 935 | 73 | 2,369 |
| Belmont County | 1,543 | 167 | 43 | 1,753 |
| Washington County | 314 | 677 | 523 | 1,514 |
| Columbiana County | 476 | 21 | 552 | 1,049 |
| Harrison County | 559 | n/a | 150 | 709 |
| Beaver County | 222 | 56 | 410 | 688 |
| Marshall County | 297 | 59 | 72 | 428 |
| Carroll County | 291 | n/a | n/a | 291 |
| Stark County | 87 | n/a | 3 | 90 |

Source- US Census Bureau, Commuter Flow 2016-2020

Future Employment Projection 2020-2030

Table 22 Future Employment Projection of South East Ohio

| Description | Employment | | Projected Change | |
|--|----------------|----------------|------------------|-------------|
| | 2020 | 2030 | 2020-2030 | Percent |
| Management Occupations | 31,712 | 33,526 | 1,814 | 5.7% |
| Business and Financial Operations Occupations | 9,101 | 9,640 | 539 | 5.9% |
| Computer and Mathematical Occupations | 2,599 | 2,808 | 209 | 8.0% |
| Architecture and Engineering Occupations | 4,067 | 4,282 | 215 | 5.3% |
| Life, Physical, and Social Science Occupations | 2,079 | 2,255 | 176 | 8.5% |
| Community and Social Service Occupations | 6,446 | 7,331 | 885 | 13.7% |
| Legal Occupations | 1,149 | 1,165 | 16 | 1.4% |
| Education, Training, and Library Occupations | 22,868 | 24,074 | 1,206 | 5.3% |
| Arts, Design, Entertainment, Sports, and Media Occupations | 3,127 | 3,215 | 88 | 2.8% |
| Healthcare Practitioners and Technical Occupations | 25,156 | 26,880 | 1,724 | 6.9% |
| Healthcare Support Occupations | 17,455 | 19,734 | 2,279 | 13.1% |
| Protective Service Occupations | 6,961 | 6,877 | -84 | -1.2% |
| Food Preparation and Serving Related Occupations | 29,427 | 32,677 | 3,250 | 11.0% |
| Building and Grounds Cleaning and Maintenance Occupations | 11,000 | 11,465 | 465 | 4.2% |
| Personal Care and Service Occupations | 6,227 | 6,462 | 235 | 3.8% |
| Sales and Related Occupations | 30,773 | 29,126 | -1,647 | -5.4% |
| Office and Administrative Support Occupations | 39,074 | 37,413 | -1,661 | -4.3% |
| Farming, Fishing, and Forestry Occupations | 3,550 | 3,689 | 139 | 3.9% |
| Construction and Extraction Occupations | 18,388 | 19,485 | 1,097 | 6.0% |
| Installation, Maintenance, and Repair Occupations | 15,692 | 16,471 | 779 | 5.0% |
| Production Occupations | 27,737 | 26,963 | -774 | -2.8% |
| Transportation and Material Moving Occupations | 31,061 | 33,752 | 2,691 | 8.7% |
| Total | 345,649 | 359,290 | 13,641 | 4.0% |

Source: Ohio Department of Job and Family Services, Bureau of Labor Market Information, July 2023.

Table 23 Future Employment Projection of Region 5 West Virginia

| Description | Employment | | Projected Change | |
|--|---------------|---------------|------------------|-------------|
| | 2020 | 2030 | 2020-2030 | Percent |
| Management Occupations | 2,619 | 2,864 | 245 | 9.4% |
| Business and Financial Occupations | 1,960 | 2,116 | 156 | 8.0% |
| Computer & Mathematical Occupations | 388 | 421 | 33 | 8.5% |
| Architecture and Engineering Occupations | 428 | 464 | 36 | 8.4% |
| Life, Physical and Social Science Occupations | 301 | 308 | 7 | 2.3% |
| Community & Social Service Occupations | 786 | 880 | 94 | 12.0% |
| Legal Occupations | 457 | 530 | 73 | 16.0% |
| Educational Instructions & Library Occupations | 2,196 | 2,396 | 200 | 9.1% |
| Arts, Design, Entertainment, Sports & Media Occupations | 275 | 299 | 24 | 8.7% |
| Healthcare practitioners and Technical Occupations | 4,081 | 4,738 | 657 | 16.1% |
| Healthcare Support Occupations | 1,367 | 1,629 | 262 | 19.2% |
| Protective Service Occupations | 592 | 640 | 48 | 8.1% |
| Food Preparation & Serving related Occupations | 4,522 | 5,341 | 819 | 18.1% |
| Building and Ground Cleaning and Maintenance Occupations | 1,497 | 1,638 | 141 | 9.4% |
| Personal Care & Service Occupations | 718 | 751 | 33 | 4.6% |
| Sales & Related Occupations | 4,495 | 4,387 | -108 | -2.4% |
| Office & Administrative Support Occupations | 6,460 | 6,382 | -78 | -1.2% |
| Construction & Extraction Occupations | 3,565 | 3,568 | 3 | 0.1% |
| Installation, Maintenance, and Repair Occupations | 2,566 | 2,643 | 77 | 3.0% |
| Production Occupations | 2,696 | 2,719 | 23 | 0.9% |
| Transportation and Material Moving Occupations | 4,549 | 4,944 | 395 | 8.7% |
| Total | 46,518 | 49,658 | 3,140 | 6.8% |

Source- Workforce West Virginia, Department of Commerce, 2023

SECTION 3: TRANSPORTATION SAFETY

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SECTION 3 – TRANSPORTATION SAFETY

The Brooke Hancock Jefferson Metropolitan Planning Commission (BHJ-MPC) is the Metropolitan Planning Organization (MPO) for Brooke and Hancock counties of West Virginia and Jefferson County of Ohio. The MPO is responsible for evaluating systems analyses and operations to identify transportation needs of the region. One important aspect of this task is to identify locations that are demonstrating higher than normal crash occurrences. To address this need and to evaluate high crash locations, BHJ started a System Performance and Safety Monitoring Program (SPSMP) for the year 2018-2022. The intent of these reports is to provide a generalized assessment level of roadway safety on federal-aid-eligible routes. The report's findings are useful to focus limited resources on locations currently experiencing high crash frequency and encourage local jurisdictions to pursue state and federal safety funds to finance projects to correct the crash problems.

The key objectives of this report are

- To identify high crash locations and locations for future safety audits.
- Review different factors associated with these crashes.
- Developing general recommendation for the overall traffic safety improvement of this region.

BROOKE & HANCOCK COUNTY LOCAL ROAD SAFETY PLAN SUMMARY

The data collected in this report is from Uniform Traffic Crash Reports submitted by state law enforcement agencies. These law enforcement agencies include the West Virginia State Police, County Sheriff's Departments, and Municipal Police Departments..

The total number of fatal crashes reported from year 2018-2022 were 12 and the number of serious crashes were 106. The numbers are highest in 2018 (4) and lowest in 2020 and 2022 (1). Roughly 63% of the total fatal and serious injury crashes took place on either a WV State Highway or US Route 22. County Roads had 27.7% of the total fatal and serious injury crashes.

Over the five-year timeframe (2018-2022), there were a total of 2,944 crashes in Brooke and Hancock County. In Brooke County there were 1,907 (64.7%) crashes. In Hancock County, there were 1,037 (35.2%) crashes. Over one third of all crashes took place on State Route 2.

Over the five-year timeframe Brooke County had 56 (55.4%) fatal and serious injury crashes, and Hancock County had 45 (44.6) fatal and serious injury crashes. Among eleven (11) fatal crashes, three (3) of them took on US Route 22, two (2) on State Route 2, one (1) on each of the following: US Route 30, State Route 27, State Route 8, Route 507, Route 11/4, and Route 1.

A total of 683 crashes occurred at intersections. In two (2) of these crashes a fatality occurred, and in nine (9) of these crashes a serious injury occurred. 2022 had the highest number of intersection crashes with 170 incidents while the lowest is in 2020 which is 92. Of the 683 crashes 41.7% (285) of the crashes took place between 2 PM- 6 PM period. From 2-4 PM, there were 120 crashes, and from 4 – 6 there were 165 crashes. Most of these crashes are either single vehicle crashes hitting stationary object (Utility pole or light support), with another vehicle or rear end

collisions. In the manner of leaving the scene, report showed a total of 68 vehicles with either no or minor damage with aggressive driving and speeding as the primary cause behind these crashes. Weirton (27.4%) has the highest percentage of intersection crashes. Majority of the crashes that are recorded in the intersection are right angle collisions. Due to small turning radius and speeding most of these right angle and rear to side crashes took place.

Almost 50% of the total intersection crashes took place in T intersection. The 15-19 and 60-64 were the age groups most involved in intersection crashes. More than 99% of the crashes occurred in an intersection that had at least one traffic control device.

According to this study, 80.3% (549) of the intersection crashes took place in dry weather and only 18.8% (129) have impact of wet, snowy, slushy, or icy roads. Almost 76% (519) of the crashes took place in broad day light. The reports suspected alcohol in 5.6% (38) of the crashes and drunk and drugs in 2.3% (16) of the crashes.

The total Number of Crashes recorded in the non-intersection locations are 2,261. Of the 2,261, there were 9 fatalities. Majority of the crashes are with minimum loss or in common terms “Fender Bender”. The yearly distribution of crashes is also uniform. The number is highest in 2018 with 466 and minimum 406 in 2020. Note that 2020 was the year of the Covid-19 Pandemic and there were overall less people on the roads.

The surface condition seems to have no significant impact on the number of non-intersection crashes of this region. There were 1,563 (69%) crashes occurred on a dry surface and 1,444 (63.8%) of them occurred in Daylight. Only 675 (29.9%) occurred in either wet, snowy, slushy, or icy roadway conditions. A total of 738 (32.6%) of crashes occurred in the dark. The crash reports listed alcohol use in 9.1% (205) of the crashes, while drunk and drugs in 3.5% (79) of the crashes. Almost 37% of the crashes took place between 2 PM- 6 PM. Weirton had the highest number of non-intersection crashes among the cities in Brooke and Hancock counties. Weirton also has the highest percentage of Injury fatality crashes reported in between years 2018-22.

There are total of 82 crashes recorded in the work zone (74) and School zone (8) among which there were 1 fatality. In 38 of the work zone crashes (51.3%) workers were present at the scene. Most of them occurred at the transition (Merge Area) or the activity area of the work zone. Of these crashes, 54 (73%) took place between 10 AM to 6 PM.

Restraint use has a positive impact on reducing fatal crashes in the Non-intersection locations also. According to the crash data, majority of the drivers are found in their shoulder and lap belt which prevent the severity level of the crashes.

The crash data indicated that shoulder and lap belt restraints have a positive impact on reducing fatal crashes in non-intersection locations. According to the crash data, the majority drivers using their shoulder and lap belt prevented severe injuries and fatalities.

JEFFERSON COUNTY LOCAL ROAD SAFETY PLAN SUMMARY

The total number of crashes recorded between 2018-22 is 5,178. Reporting documents showed a total of 19 fatalities and 186 incapacitating crashes. The data recorded the highest number of crashes in 2019 (1,159) and the lowest number in 2020 (968). Despite overall AADTs decreasing due to the Covid-19 pandemic, 2020 had only one fewer fatal crash and 6 fewer incapacitating crashes. There was a total of 11 non-motorized fatal and serious injury crashes recorded where 1 (Pedestrian) was fatal. There were a total of 41 pedestrian and non-motorized vehicle crashes.

Per year, Jefferson County averaged 3.8 fatal and 37.2 serious injury (incapacitating injury) crashes. Unlike urban localities, the highest percentage of all crashes recorded in Jefferson County involved a fixed object (31.7%). The greatest number of crashes occurred on a Thursday while the least number of crashes occurred on Sunday. Overall, 34.1% of crashes happened in the afternoon hours between 2:00 p.m. and 6:00 p.m. Of the total crashes, 21.8% (1,019) occurred on Freeways or Expressways, 19.8% (1,028) Other Principal Arterial Roads, 14.6% (754) Minor Arterial Roads, 17.8% (920) Major Collector Roads, 5.8% (301) Minor Collector Roads, and 18.1% (938) Local Roads.

Though most crashes took place in clear weather, daylight, and dry road surface conditions, this study found 18.6% (961) of reported crashes occurred in inclement weather conditions. For instance, 1,519 crashes (29.3%) happened where roadway conditions (Wet, Snow, Mud, Slush etc.) may have impacted the incident. Further, 1,827 crashes (35.3%) of crashes took place at night.

Only 31% (1,603) of all recorded crashes were intersection-related, leaving the remaining 69% (3,575) crashes as not intersection-related. Over half (876) of the intersection crashes took place in the City of Steubenville. Most of the non-intersection crashes resulted from a vehicle hitting a fixed object and vehicle sideswipe while passing. Rear end and left turn collisions were most prominent in T and four-way intersection. There were 7.3% (381) crashes reported where animals were involved. Only 5.7% (294) of every crash involved a distracted driver, 19.7% (1,018) crashes were a result of a speeding driver, 3.7% (196) were drug-related, and 6.8% (355) were alcohol-related. In 2023, the State of Ohio legalized recreational marijuana so law enforcement should more closely monitor the overall number of drug-related crashes moving forward.

See below for a spatial representation of serious injury and fatal crashes in the BHJ area.

Serious Injury and Fatal Crashes between 2018 and 2022

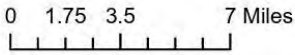
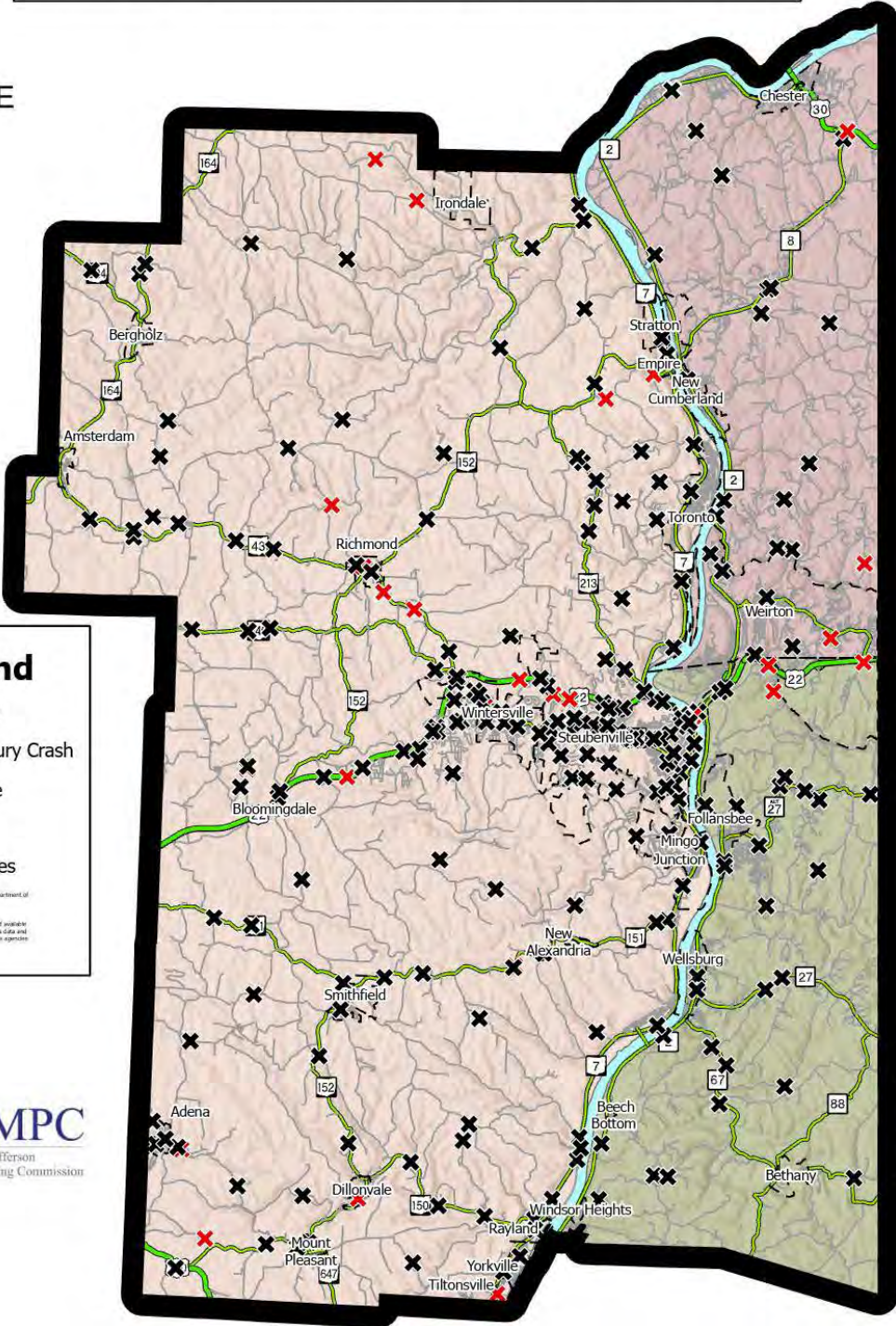


Legend

- ✖ Fatal Crash
- ✖ Serious Injury Crash
- State Route
- US Route
- Other Routes

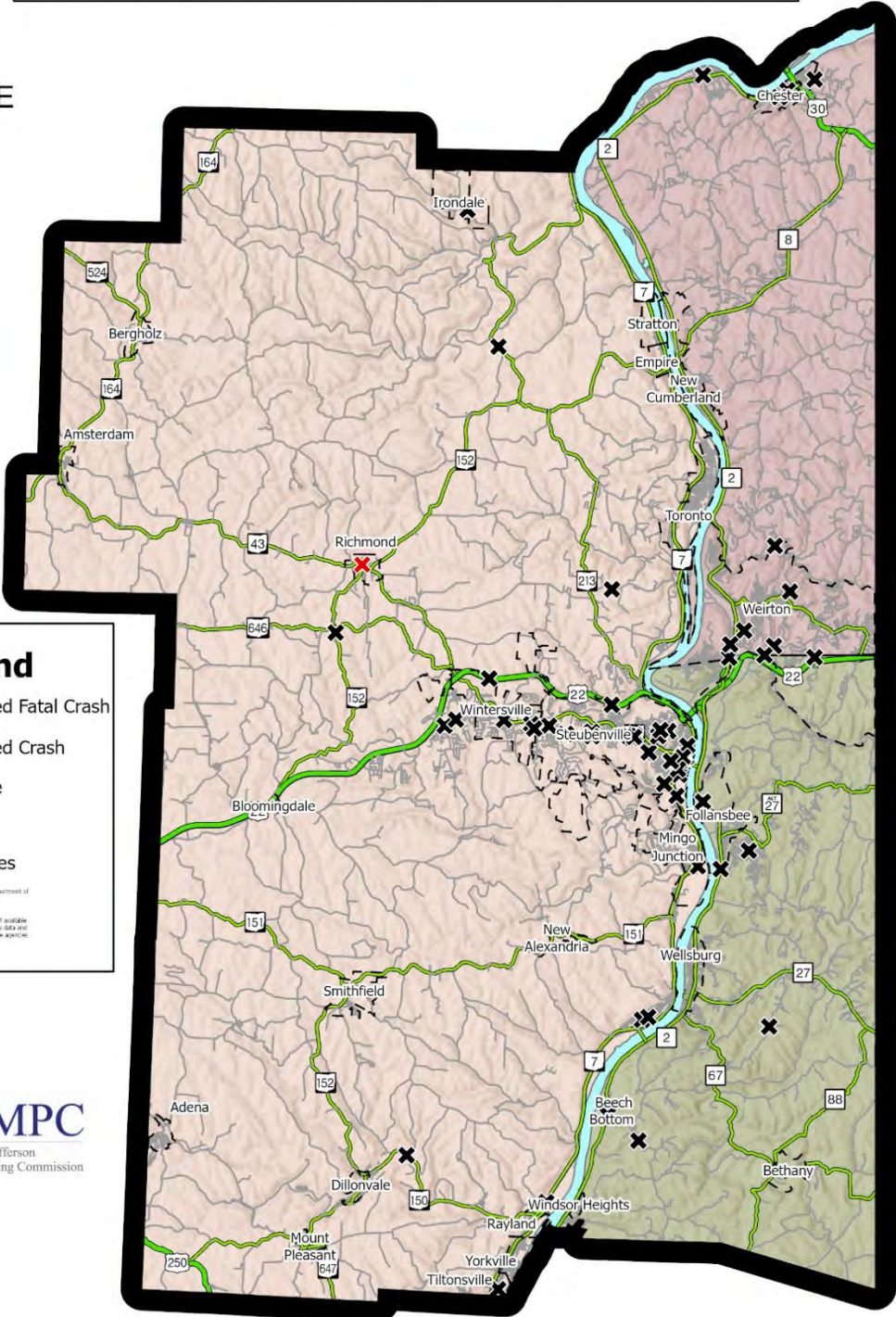
Sources:
Ohio Department of Transportation and West Virginia Department of Transportation

Disclaimer:
This analysis and graphic are strictly an initial screening of available data. This map is not responsible for further verification of this data and for additional disclosures from the appropriate data source agencies.



Esri, NASA, NGA, USGS, FEMA

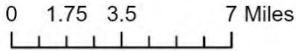
Bike and Pedestrian Crashes between 2018 and 2022



Legend

- X Bike and Ped Fatal Crash
- X Bike and Ped Crash
- State Route
- US Route
- Other Routes

SOURCE: Ohio Department of Transportation and West Virginia Department of Transportation
 DISCLAIMER: This analysis and graphic are only an initial screening of available data. The user is responsible for further verification of this data and for additional disclaimers from the appropriate data source agencies.



Esri, NASA, NGA, USGS, FEMA

SECTION 4 – PUBLIC OPINION SURVEY

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BACKGROUND

Brooke Hancock Jefferson Metropolitan Planning Commission (BHJ) is currently updating its Long-Range Transportation Plan 2050. As a first step, BHJ conducted a public opinion survey that covered a broad spectrum ranging from transportation safety, sustainability, and economic development, transportation to people's perception of emerging technologies, internet access, and physical environment. The main goal of this survey is to develop a vision of the future metropolitan transportation system and create a list of priorities as perceived by the general populous. For this, the questionnaire used a priority scale and multiple choice-based approach. The survey also encouraged additional comments to get feedback on the topics not covered in the questionnaire to better understand community needs.

POLICY PROCEDURES

Public Participation Plan

The Public Participation Plan outlines strategies and techniques to engage local constituency. The plan not only provides a format to provide information, but also receive comment from the public regarding transportation planning and programming activities.

| <u>Activity</u> | <u>Technique</u> |
|----------------------------|---|
| Draft or Revised Document | <ul style="list-style-type: none"> • Make available at the BHJ Offices and World Wide Web site at www.bhjmpc.org |
| Comment Collection Process | <p>BHJ will follow a 3-tier process and the extent will depend on the requirements of the projects.</p> <p>Tier 1 – BHJ technical advisory committee, Executive Committee and Transportation Study Policy Committee.</p> <p>Tier 2- Online Platform through BHJ webpage www.bhjmpc.org , social networking platform @Facebook and Public Notice in the Newspaper.</p> <p>Tier 3 - Public meetings, physical presence in libraries and different public gathering occasions.</p> |
| Comment Opportunity | <ul style="list-style-type: none"> • Written comments accepted by way of e-mail, fax, online @Facebook page, webpage or mail; Transportation Study Policy and Technical Advisory Committee meetings. |
| Public Meeting | <ul style="list-style-type: none"> • Held concurrent with Transportation Study Policy meetings. |
| Public Notification | <ul style="list-style-type: none"> • Publish a Public Notice in no less than the two (2) local newspapers at least one (1) week before the public comment period is scheduled to begin, and then republished approximately every two (2) weeks thereafter. • Post Public Notice at www.bhjmpc.org • Alert constituency by e-mail announcement. |

| <u>Activity</u> | <u>Technique</u> |
|------------------------------|--|
| | <ul style="list-style-type: none"> Added techniques may include any of the following: announcement posters/letters, infographics, press release, newsletter article/announcement, or public service announcement in social network pages. |
| Public Comment Period | <ul style="list-style-type: none"> No less than forty-five (45) days before adoption or revision. |
| Summary of Comments Received | <ul style="list-style-type: none"> Make available a summary of written comments prior to adoption by the Transportation Study Policy. All written comments and responses summarized and incorporated into adopted document. |
| Final, Adopted Document | <ul style="list-style-type: none"> Accessible in electronic format at www.bhjmpc.org Upon completion of final document, available at BHJMPC office. |
| Evaluation Techniques | <ul style="list-style-type: none"> Update e-mail notification list quarterly. Survey number and source of comments received. Review coverage or exposure from various media sources. Establish a committee comprised of various media representatives. |

Long Range Transportation Plan

The LRTP is both a long-range (no less than 20 years) and short-range listing of multimodal strategies, actions, and/or projects that facilitates the efficient movement of people and goods. The SAFETEA-LU requires an MPO to review and update its LRTP every four (4) years to confirm its validity, consistency with current and forecasted transportation and land use conditions and trends and conform to applicable air quality standards. This includes a financial plan that reasonably demonstrates how each project or program is constructed or implemented over the lifetime of the LRTP. Therefore, the LRTP should not contain any “wish list” projects. The MPO may amend its LRTP as a result updated investment strategy in projected federal, state, and local funding sources; completion of pertinent transportation studies; or changes in relevant federal, state or local laws.

The purpose of the LRTP is to guide regional long-range transportation goals and objectives for orderly social and economic growth and identify adequate resources to accomplish the needs. In the past, the LRTP metropolitan planning process required a public involvement period for consultation and cooperation with not only local planners, engineers, and public officials, but also interested citizens and civic organizations. The public involvement period should allow opportunity for all citizens and groups to provide input and subsequent comments into the development of the LRTP. The SAFETEA-LU legislation expanded the consultation and cooperation requirement to include non-metropolitan local officials and Tribal governments, as well as other local and state land-use management, natural resource, and historic planning

agencies. In this way, all affected agencies including the MPO can compare the LRTP with available conservation plans and maps including available inventories of historic and natural resources.

| <u>Activity</u> | <u>Technique</u> |
|-----------------------|--|
| Draft Document | <ul style="list-style-type: none"> • Make available at the BHJ Offices and World Wide Web site at www.bhjmpc.org |
| Comment Opportunity | <p>BHJ will follow a 3-tier process and the extent will depend on the requirements of the projects. BHJ will also develop a semi structured concise questionnaire with different priority scales and multiple-choice answer-based approach.</p> <p>Tier 1 – BHJ technical advisory committee, Executive Committee and Transportation Study Policy Committee.</p> <p>Tier 2- Online Platform through BHJ webpage www.bhjmpc.org , social networking platform @Facebook and Public Notice in the Newspaper.</p> <p>Tier 3 - Public meetings, physical presence in libraries and different public gathering occasions.</p> |
| Public Meeting | <ul style="list-style-type: none"> • Public meeting for draft and final document as well as amendments are held concurrent with the Transportation Study Policy meeting at the end of the public comment period. • Visualization techniques for public meetings may include maps, aerial photography, pictures, or simplified plans depicting a program of projects or a specific project of regional interest. |
| Public Notification | <ul style="list-style-type: none"> • Publish a Public Notice in no less than the two (2) local newspapers at least twice, once at the beginning of the public comment period and then republished approximately one (1) week thereafter. • Post Public Notice at www.bhjmpc.org • Alert constituency by e-mail announcement. • Though BHJ Social Network @Facebook page. • Consult with local and state land-use management, natural resource, and historic planning agencies by direct mailing of draft and final documents or by e-mail notification of documents available in electronic format for download or e-mail attachment. • Added techniques may include any of the following: announcement posters/letters, infographics, press release, newsletter article/announcement, or public service announcement. |
| Public Comment Period | <ul style="list-style-type: none"> • No less than fifteen (15) days before adoption or revision. |

| <u>Activity</u> | <u>Technique</u> |
|------------------------------|---|
| Summary of Comments Received | <ul style="list-style-type: none"> • Make available a summary of written comments prior to adoption by the Transportation Study Policy. • Acknowledge receipt of written comments (If requested) only by no less than five (5) working days. • All written comments and responses summarized and incorporated into adopted document. |
| Final, Adopted Document | <ul style="list-style-type: none"> • Accessible in electronic format at www.bhjmpc.org • Upon completion of final document, available upon request at BHJMPC office. • Reproduced copies of final document are available at a standard fee no greater than the schedule found at CFR 49 CFR 7.43 |
| Document Amendments | <ul style="list-style-type: none"> • Those requesting amendments are encouraged to submit amendments fifteen (15) days before the public comment period begins. • Public comment period begins fifteen days prior to scheduled Transportation Study Policy meetings. • Publish a schedule for revision notifications and submissions at the beginning of the calendar year concurrent with organization of the Transportation Study Policy Committee. • A special meeting to consider revisions may be considered in emergency circumstances. |
| Evaluation Techniques | <ul style="list-style-type: none"> • Update e-mail notification and planning agency consultation lists quarterly. • Survey number and source of comments received. • Review media coverage, social network notifications or exposure from various media sources. • Establish a committee comprised of various media representatives. |

SURVEY

For public outreach, BHI used a three-tier approach. First, staff collected surveys from the its Technical Advisory, Executive, and Transportation Study Policy. Second, staff collected data through the online platform Survey123, advertising on Facebook and placing QR Codes to the survey in public spaces. Third, to reach out to people who do not have direct household internet, BHI distributed the surveys at seven (7) local libraries (Public Library of Steubenville & Jefferson County Main Library and the Schiappa, Toronto, branch locations, Weirton Mary H. Weir Library, Chester Library, New Cumberland Library and Brooke County Public Library in Wellsburg) BHI also distributed the survey at the October at Steubenville’s "First Friday on Fourth", a monthly social gathering in historic downtown Steubenville. Additionally, BHI promoted the survey on the local news (WTOV9) to help increase participation. Overall, BHI received 377 surveys, 129 with additional comments. **Appendix A- G** contain all the different initiative BHI undertook to reach out to people of the community in the survey and comment period of the draft plan. BHI received no comments after the draft report presentation to the public. As this plan took a extensive data driven, community collaborative strategy from the very beginning, it might be a reason behind that. It also reiterates the effectiveness of Bottom up planning approach in the transportation sector.

PRIORITY ISSUES

The top 5 priorities from the comment section of the surveys are identified as –

- Establishing solutions to keep the Market Street Bridge to vehicle traffic.
- Maintain the existing transportation infrastructures rather than building new.
- Expanding public transit throughout the three-county region
- Develop a livable, environment-friendly community with adequate recreational facilities.
- Focus more on sustainable, good-paying, environment-friendly community business development.

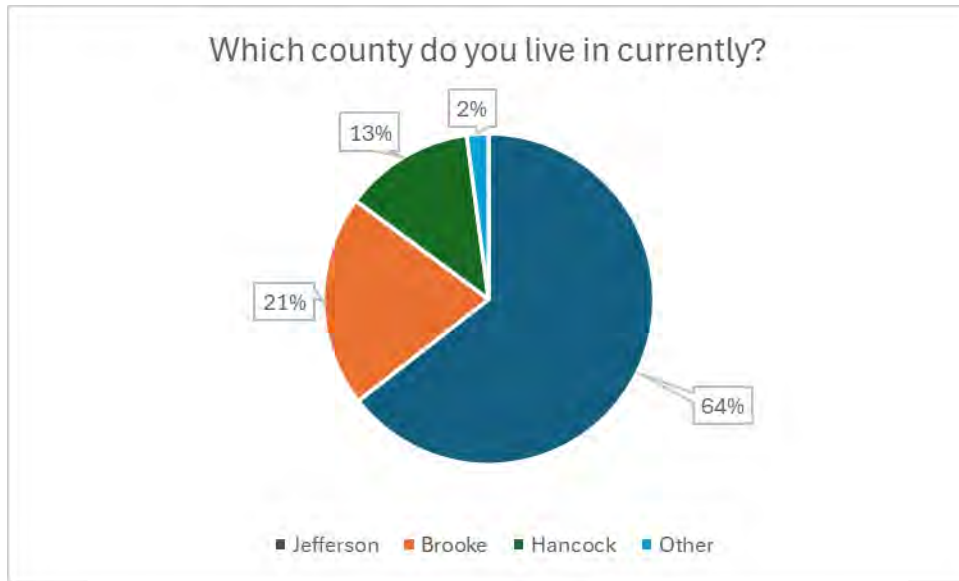
SUMMARY OBSERVATIONS FROM SURVEY

- There were 243 (64.5%) of respondents from Jefferson County, 78 (20.7%) of the respondents from Brooke County, and 48 (12.73%) of the respondents from Hancock County. The two largest respondent age groups are 61-70 (24%) and 41-50 (19%)
- Over 98% of respondents consider “Maintaining Existing Roadways and Bridges” either an “Important” (23.87%) or “More Important” (74.27%) transportation priority.
- Electrification and charging stations were viewed as the least important transportation priority. Nearly 68% of respondents view them as “Less Important”. While EVs infrastructure may be regionally unpopular, planning for mass adoption still ought to be considered.

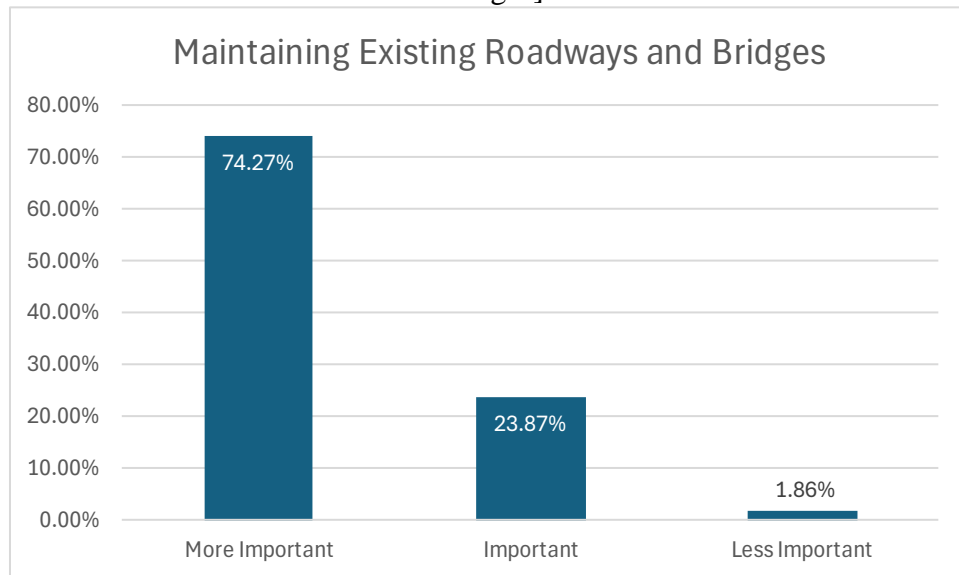
- Around 80% of respondents identify “Air Quality Improvements” as either an “Important” (41.1%) or “More Important” (39.3%) transportation priority. These findings come in light of the region being in compliance with all National Ambient Air Quality Standards.
- Over 82% of respondents consider the expansion of public transportation as either an “Important” (40.6%) or “More Important” (42.0%) transportation priority.
- Around 68% of respondents consider the expansion of bike and pedestrian facilities as either “Important” (34.2%) or “More Important” (32.6%) transportation priority.
- Business Development, Public Safety, and Affordable High-Speed Internet were considered to be the most important factors for the “Growth of the Region”.
- Only, 32% of respondents think that the region is equipped to deal with severe weather related problems, while 40% of respondents think the region is unequipped to deal with severe weather related problems, and 27.9% are “unsure” if the region is equipped to deal with severe weather related problems.
- Over 56% of respondents think the Market Street Bridge should be kept open to vehicle traffic, 23.3% of respondents think a new bridge should be built in its place, 18.3% of respondents think it should be retrofitted into a Bike and Pedestrian Bridge, and 1.9% of respondents think it should be closed permanently. *Note this survey was completed prior to the Market Street Bridge’s permanent closing in December of 2023.
- Almost 54% respondents identify as female and almost 45% of respondents identify as male.
- The “\$0 - \$30,000” group had the largest number of responders and the “31,000 - \$60,000” group made up the second largest group of responders.

TOTAL SURVEY RESULTS

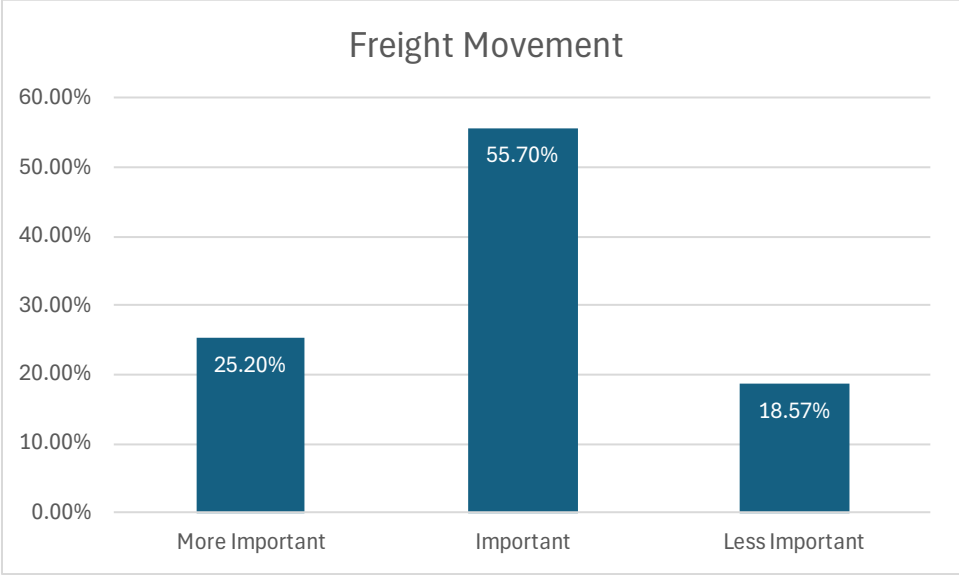
Question 1: Which county do you live in currently?



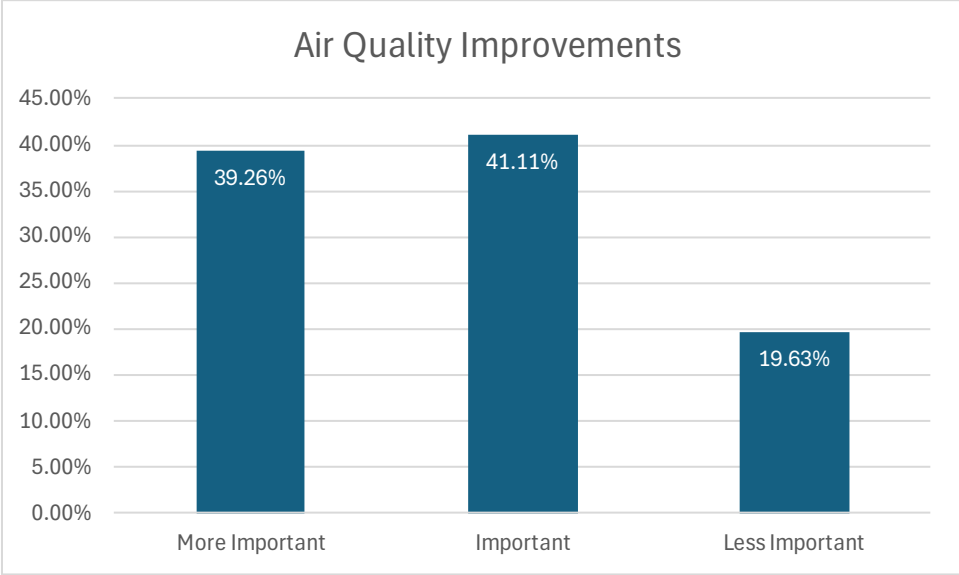
Question 3.1: Rank the following Transportation Priorities [Maintaining Existing Roadways and Bridges]



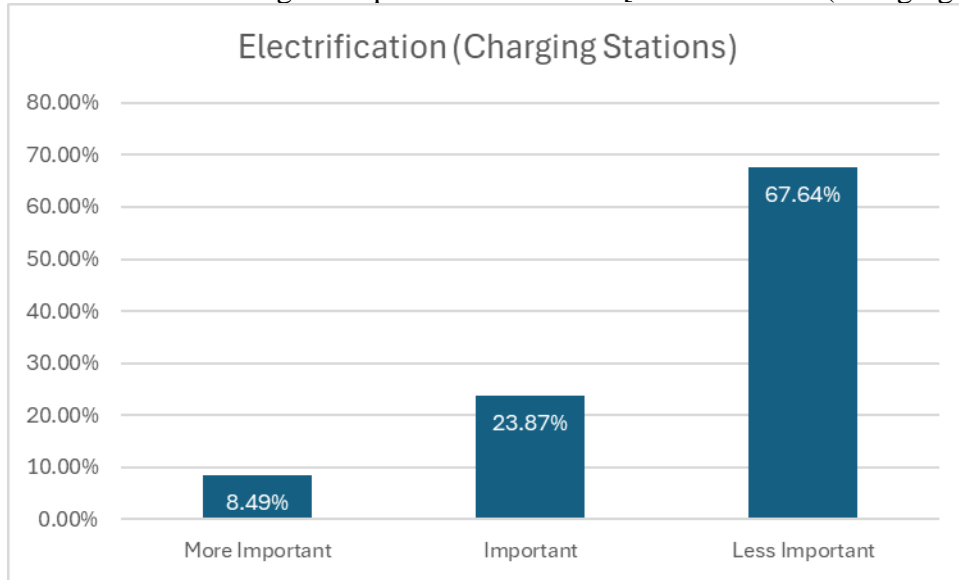
Question 3.2: Rank the following Transportation Priorities [Freight Movement]



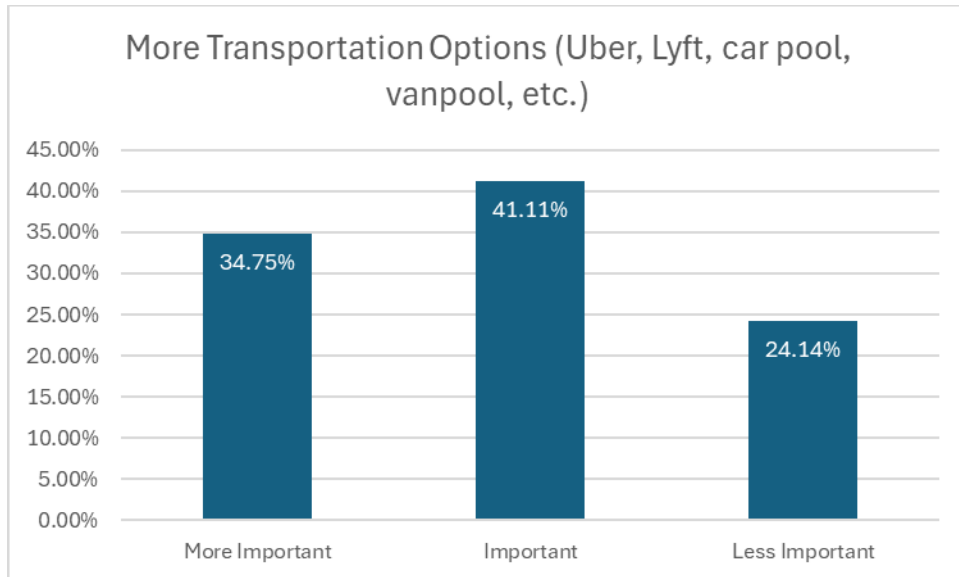
Question 3.3: Rank the following Transportation Priorities [Air Quality Improvements]



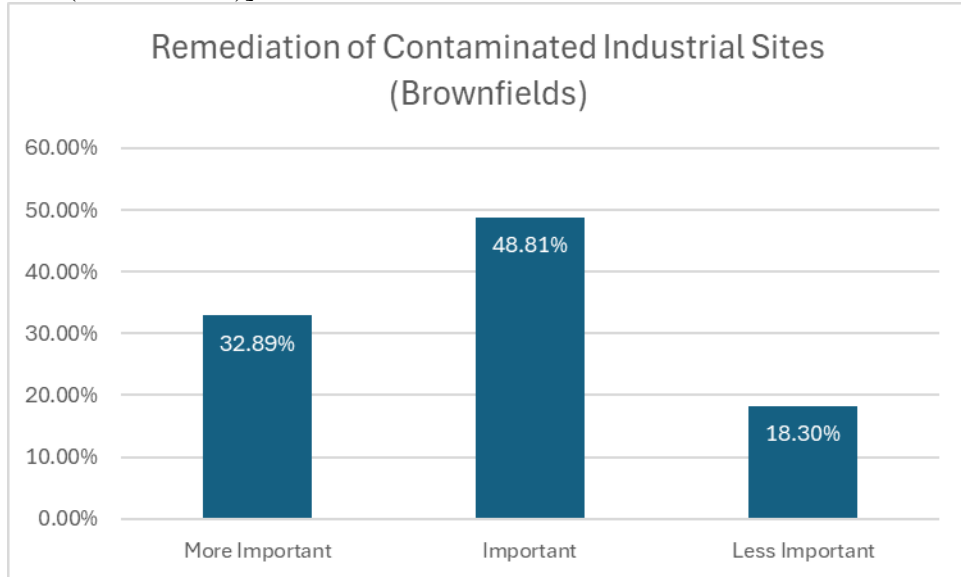
Question 3.4: Rank the following Transportation Priorities [Electrification (Charging Stations)]



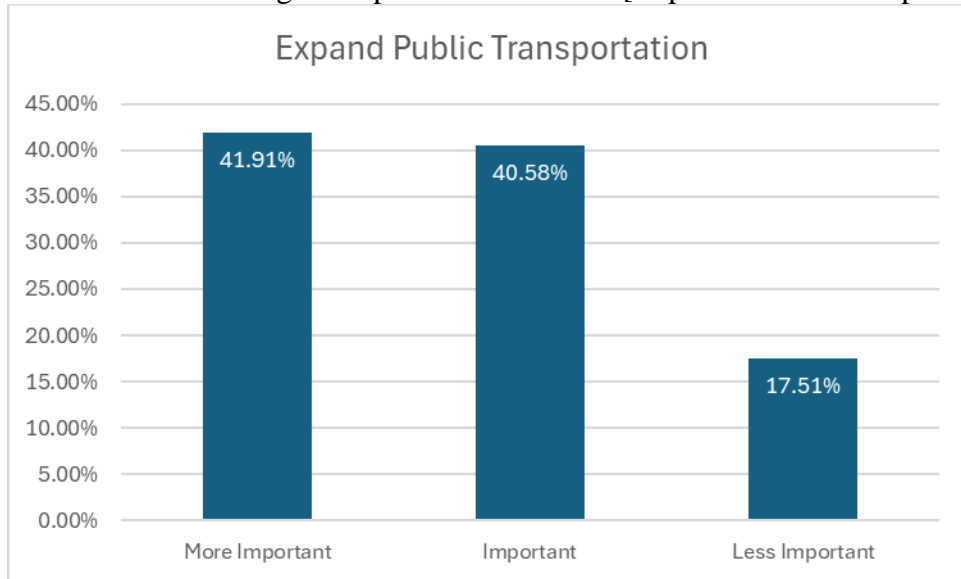
Question 3.5: Rank the following Transportation Priorities [More Transportation Options (Uber, Lyft, car pool, vanpool, etc.)]



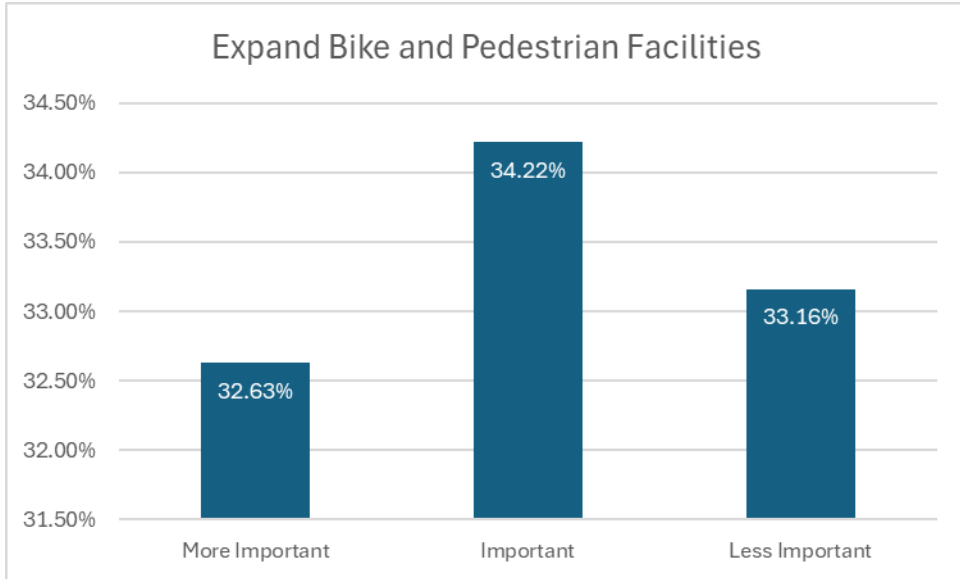
Question 3.6: Rank the following Transportation Priorities [Remediation of Contaminated Industrial Sites (Brownfields)]



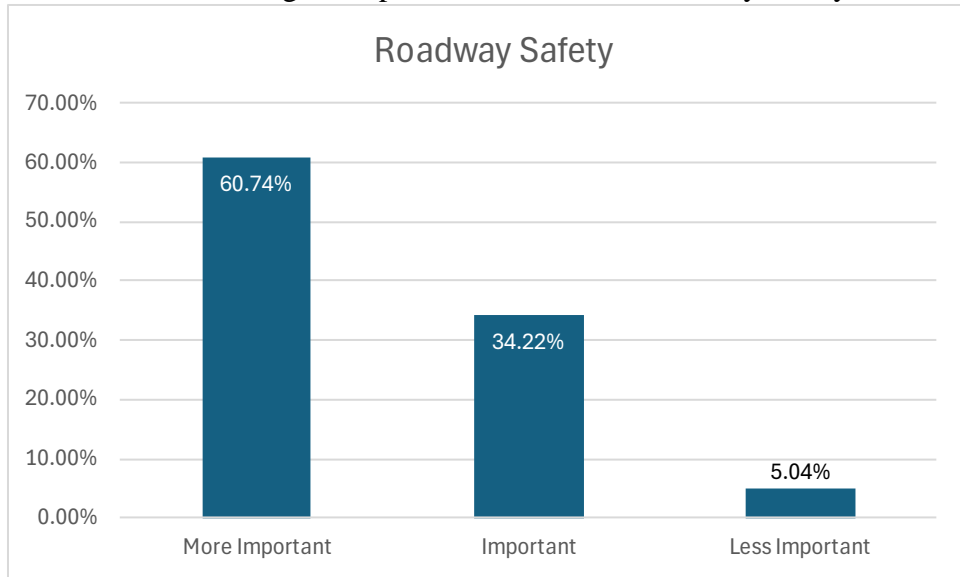
Question 3.7: Rank the following Transportation Priorities [Expand Public Transportation]



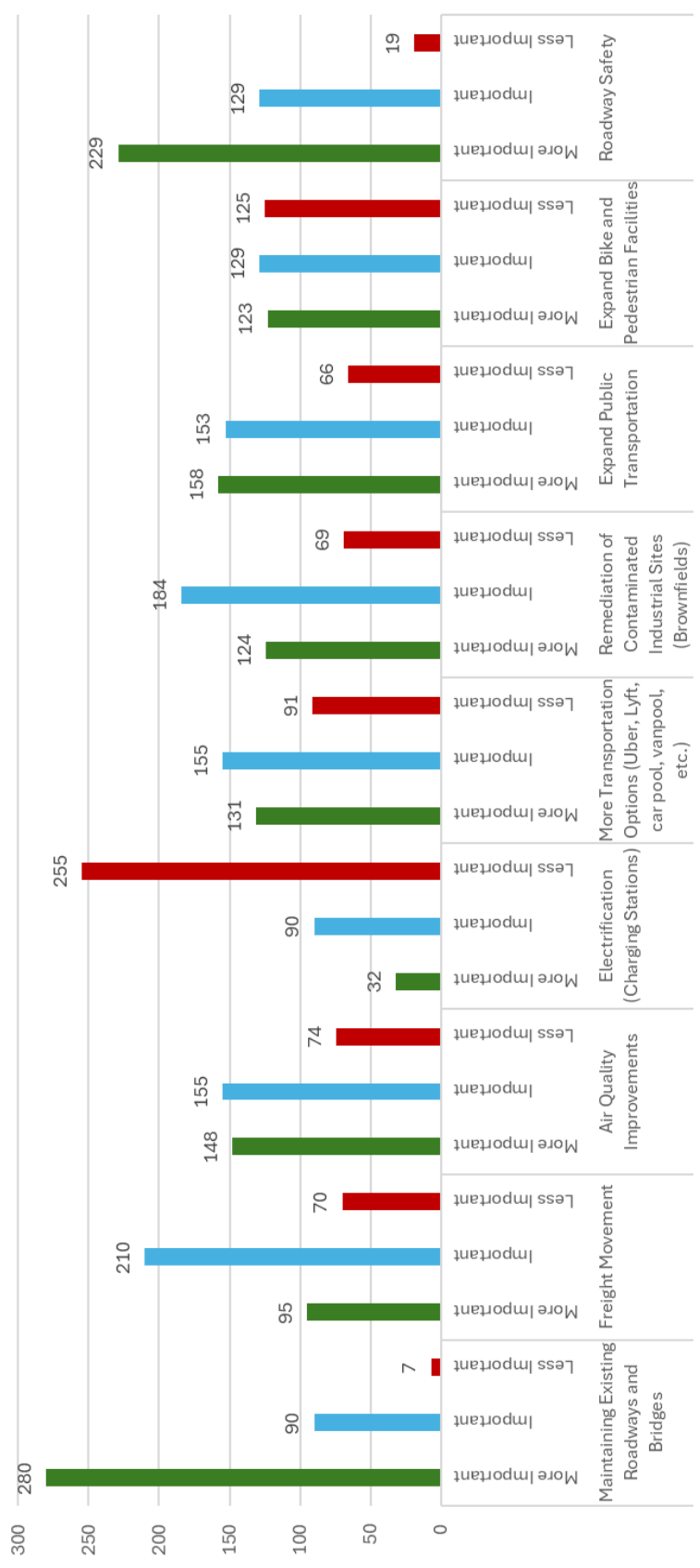
Question 3.8: Rank the following Transportation Priorities [Expand Bike and Pedestrian Facilities]



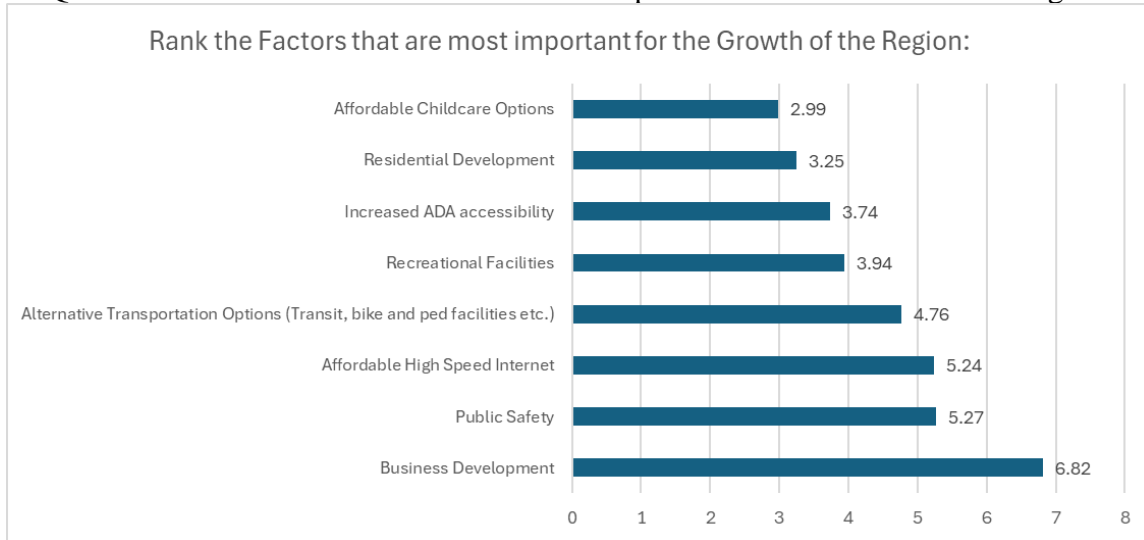
Question. 3.9: Rank the following Transportation Priorities [Roadway Safety]



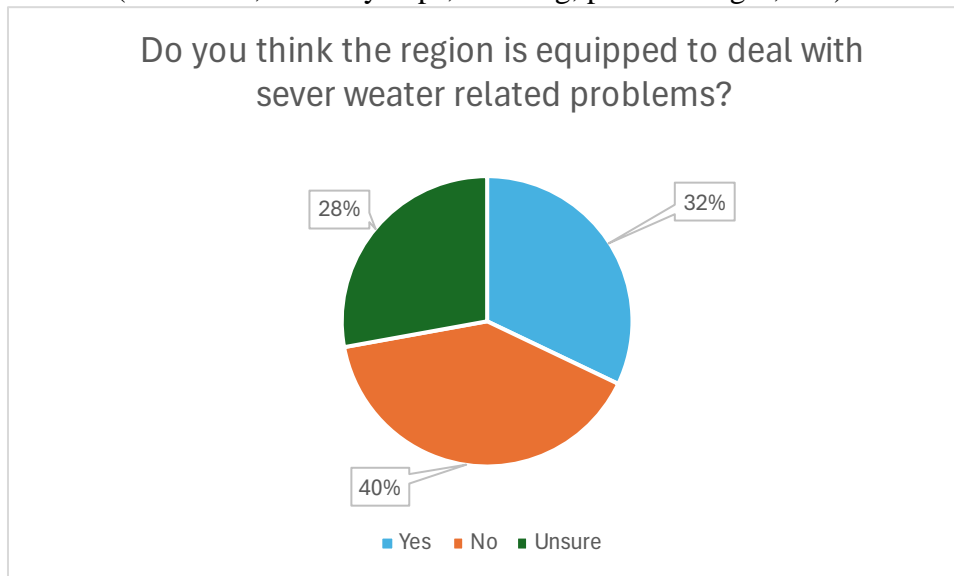
Rank the following Transportation Priorities



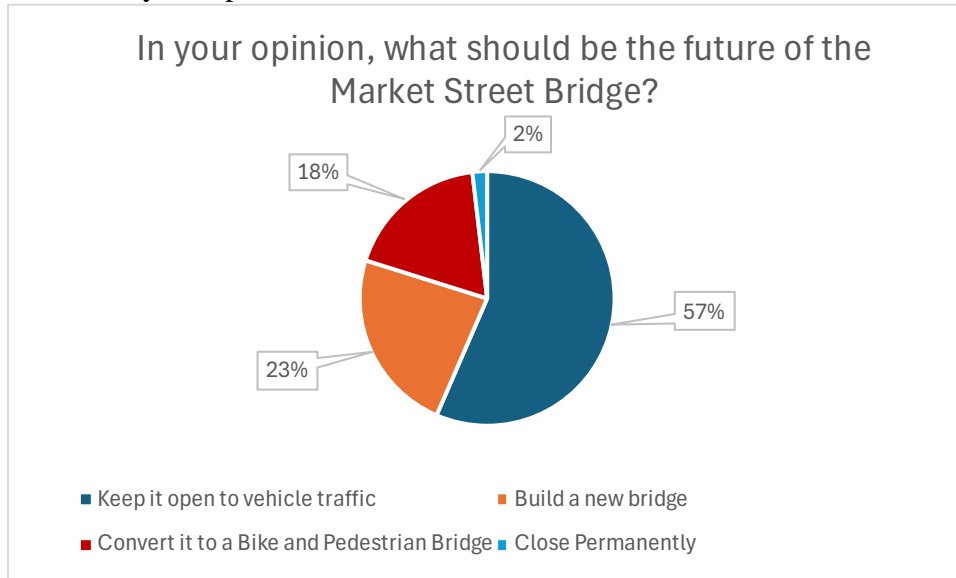
Question 4: Rank the Factors that are most important for the Growth of the Region:



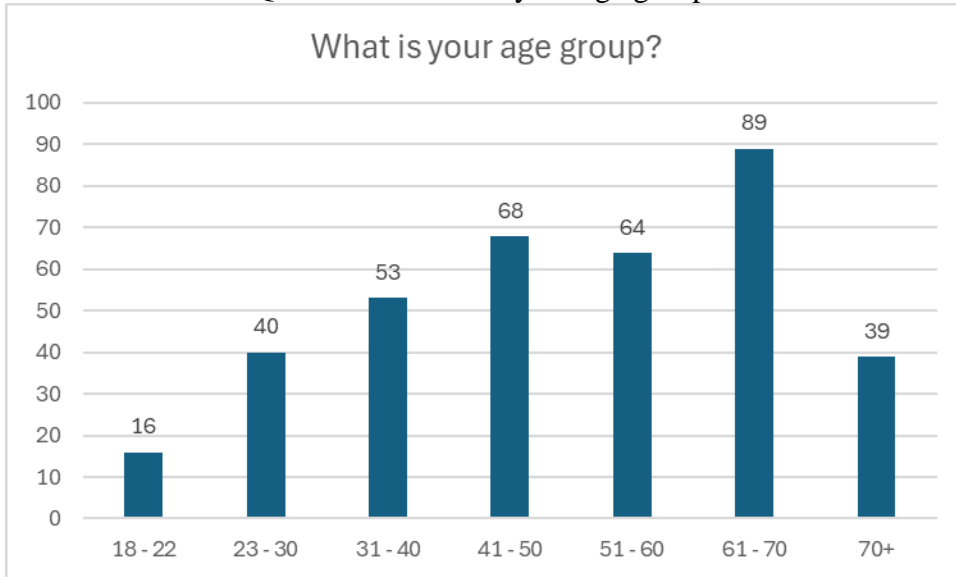
Question 5: Do you think the region is equipped to deal with severe weather related problems (landslides, roadway slips, flooding, power outages, etc.)?



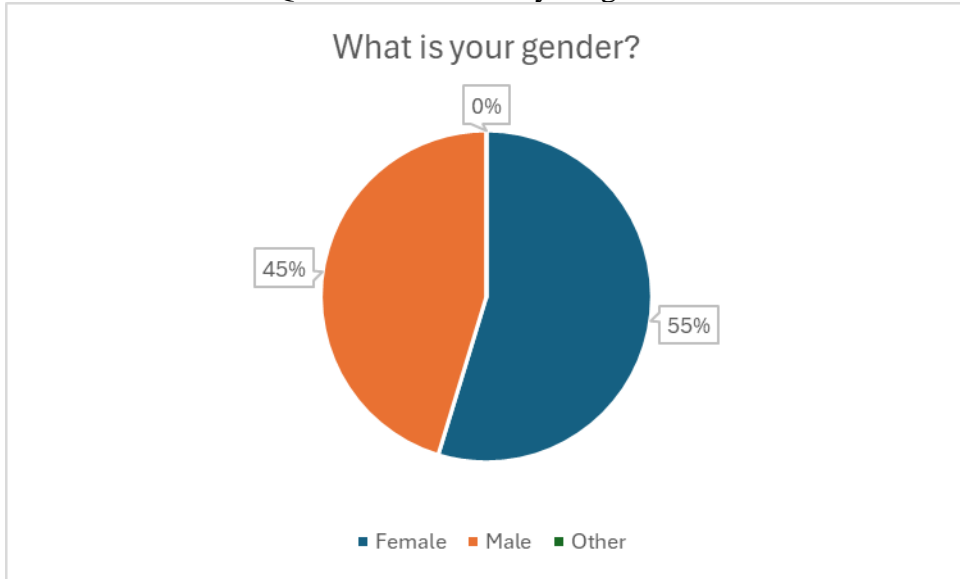
Question 6: In your opinion, what should be the future of the Market Street Bridge?



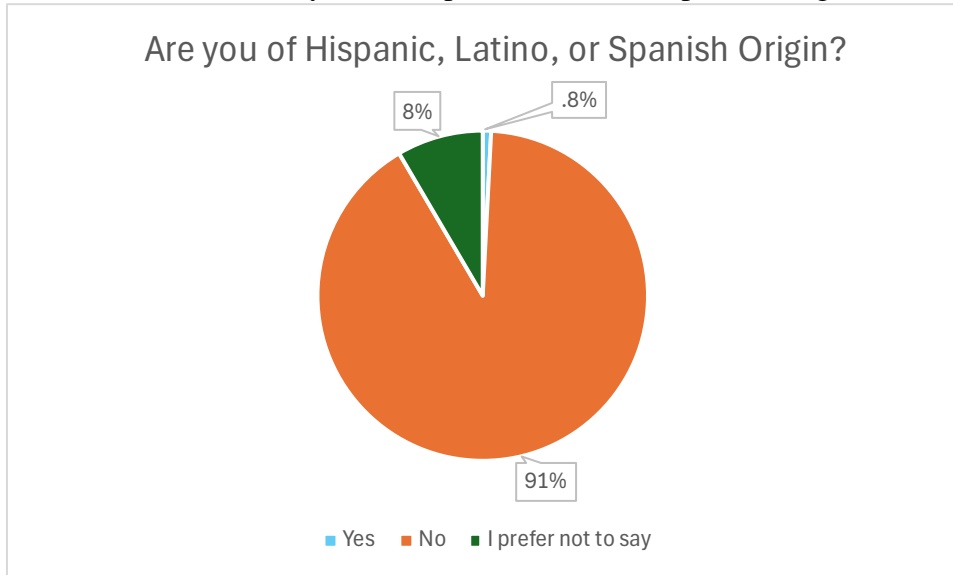
Questions 7-11 were for classification purposes only and were not required.
Question 7: What is your age group?



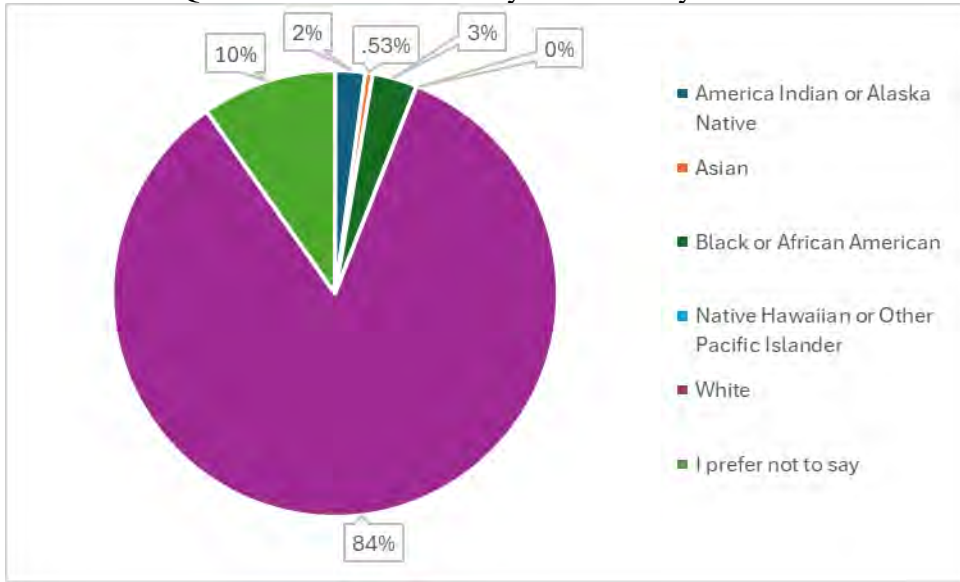
Question 8: What is your gender?



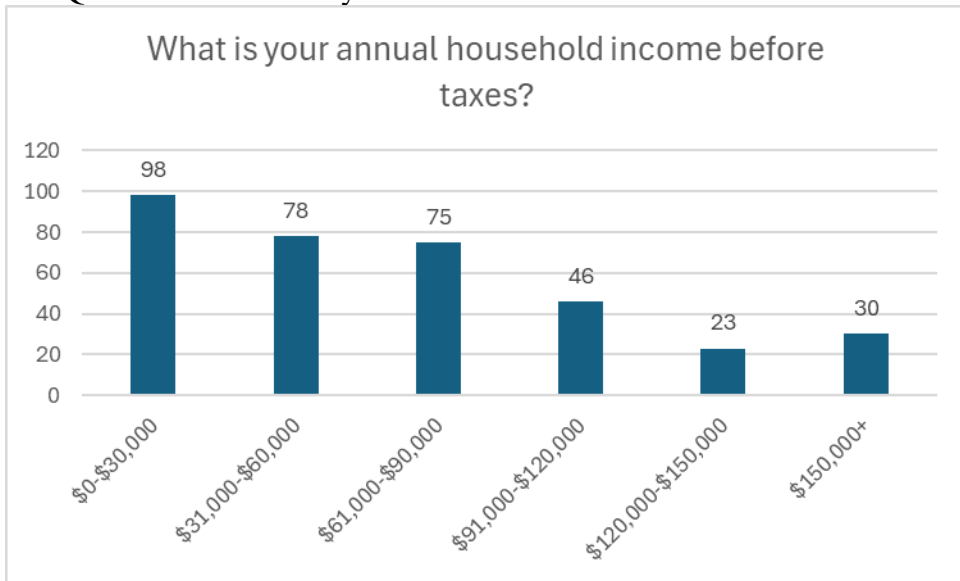
Question 9: Are you of Hispanic, Latino, or Spanish Origin?



Question 10: How would you describe yourself?

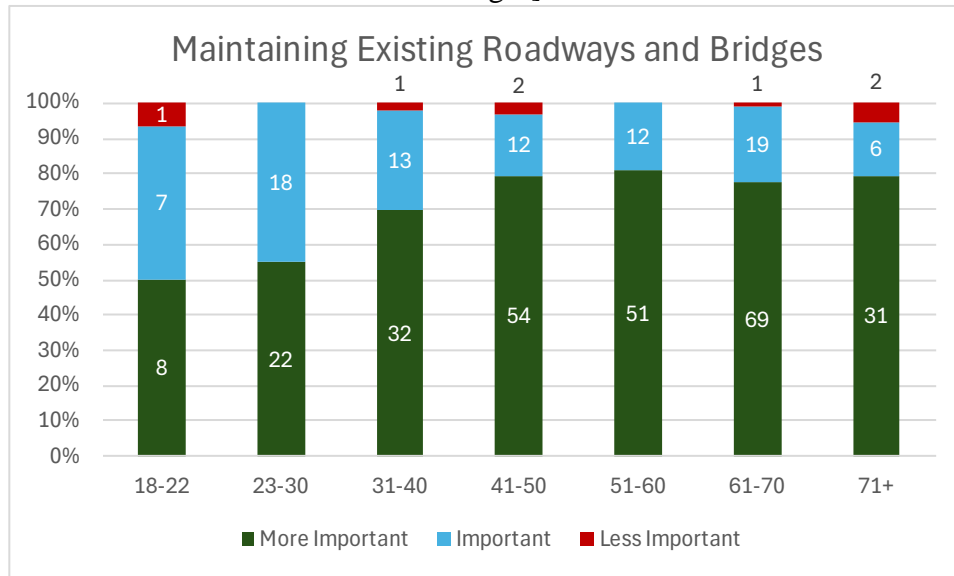


Question 11: What is your annual household income before taxes?



SURVEY FINDINGS BY DIFFERENT AGE GROUPS

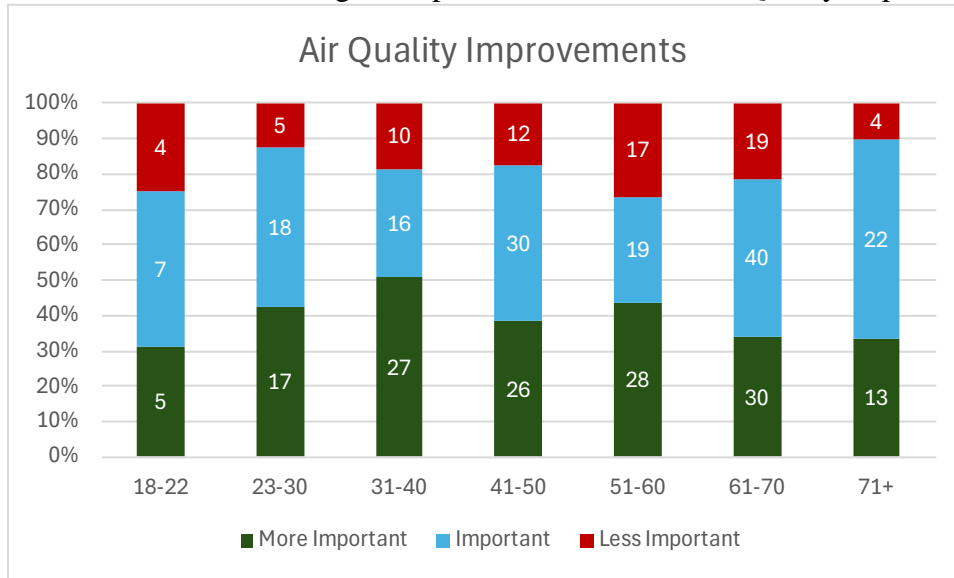
Question 3.1: Rank the following Transportation Priorities [Maintaining Existing Roadways and Bridges]



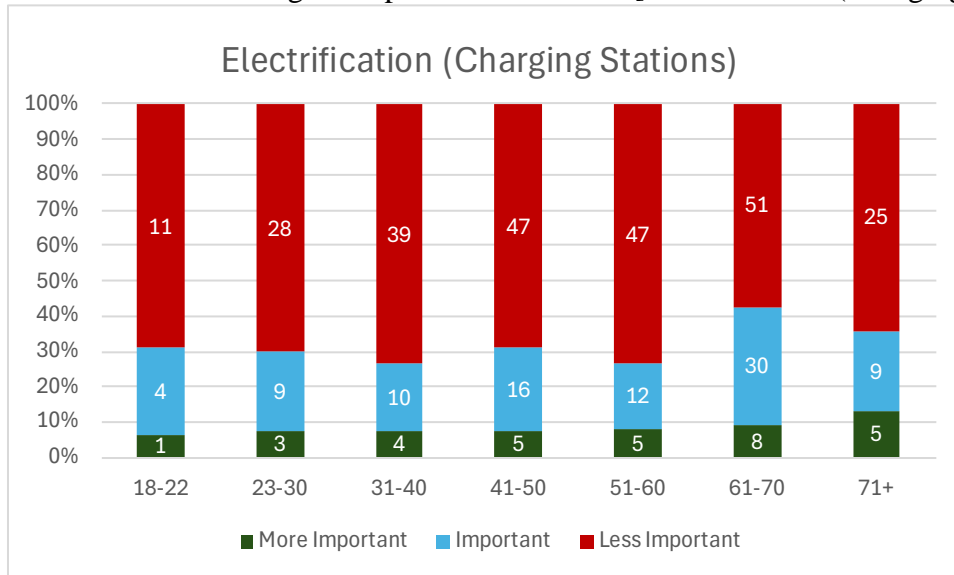
Question 3.2: Rank the following Transportation Priorities [Freight Movement]



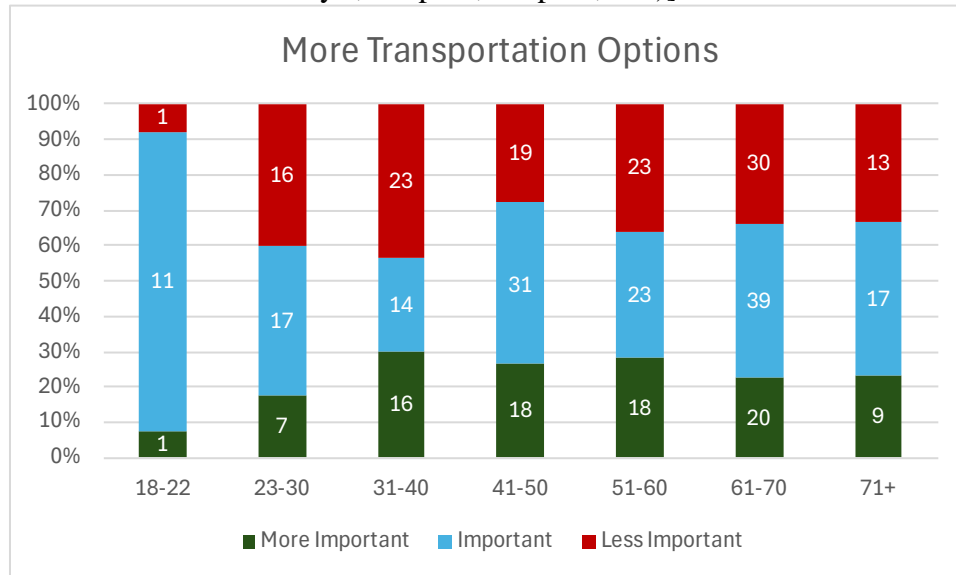
Question 3.3: Rank the following Transportation Priorities [Air Quality Improvements].



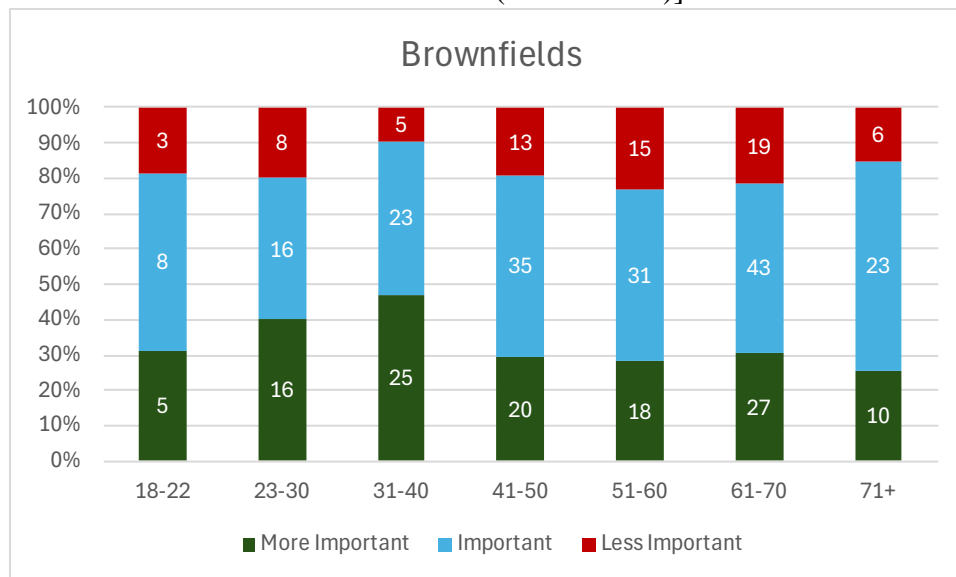
Question 3.4: Rank the following Transportation Priorities [Electrification (Charging Stations)]



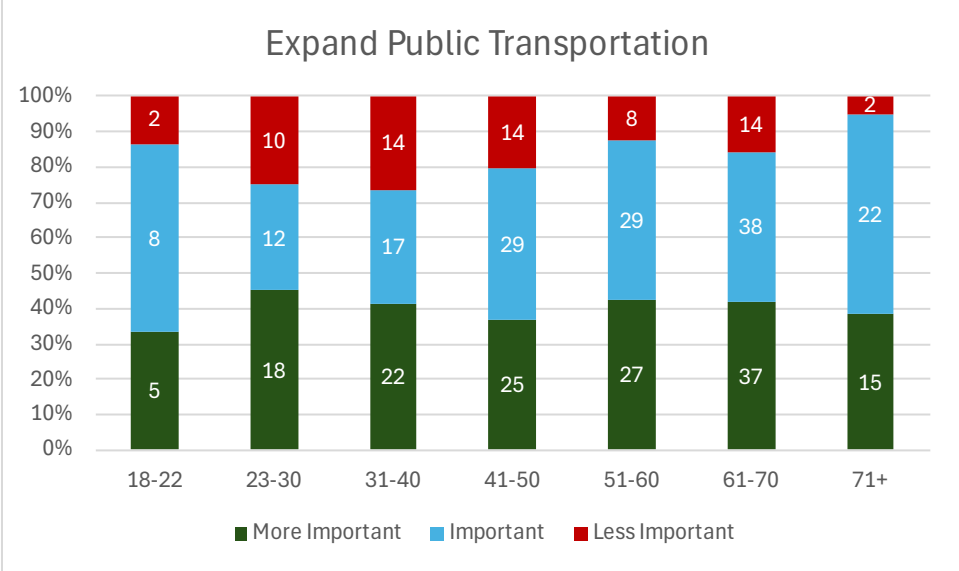
Question 3.5: Rank the following Transportation Priorities [More Transportation Options (Uber, Lyft, car pool, vanpool, etc.)]



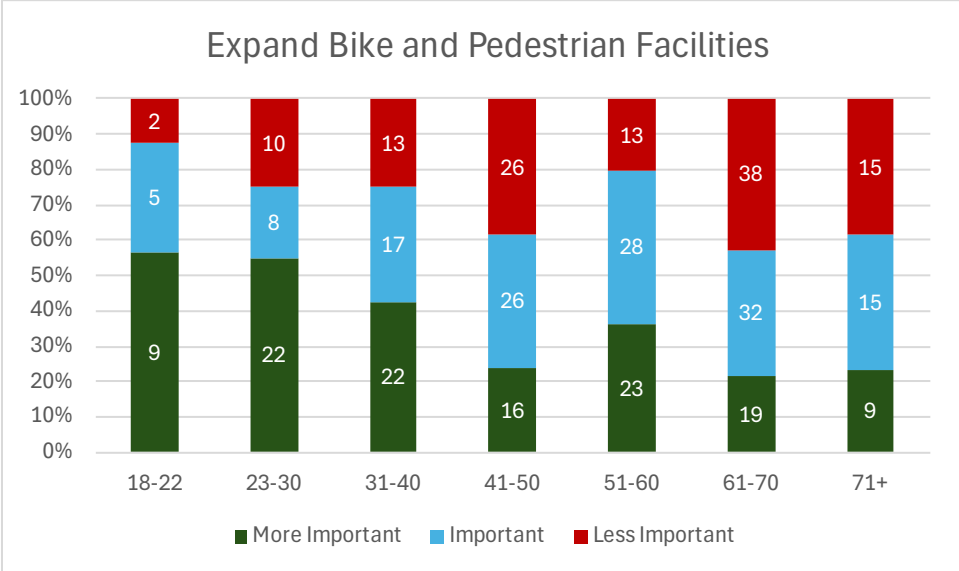
Question 3.6: Rank the following Transportation Priorities [Remediation of Contaminated Industrial Sites (Brownfields)]



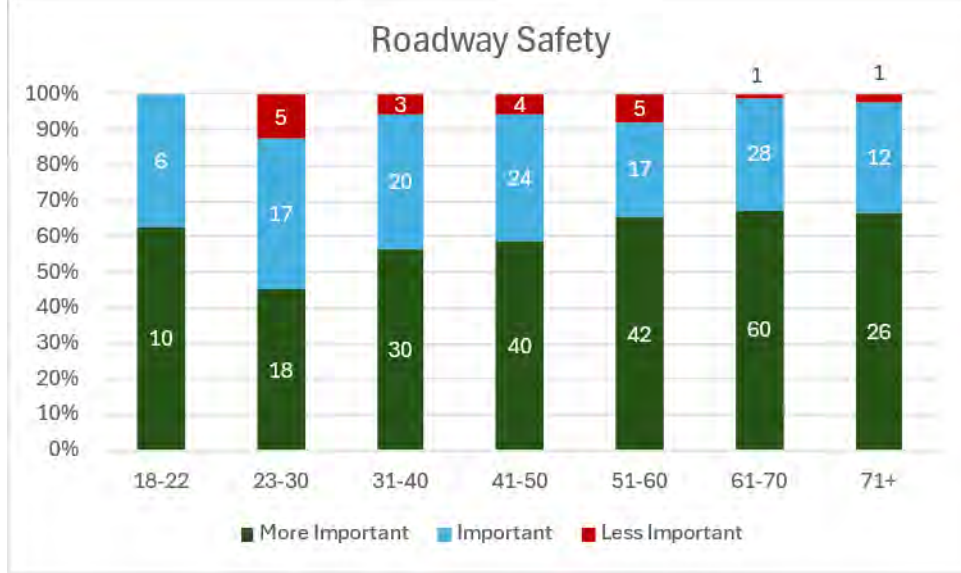
Question 3.7: Rank the following Transportation Priorities [Expand Public Transportation]



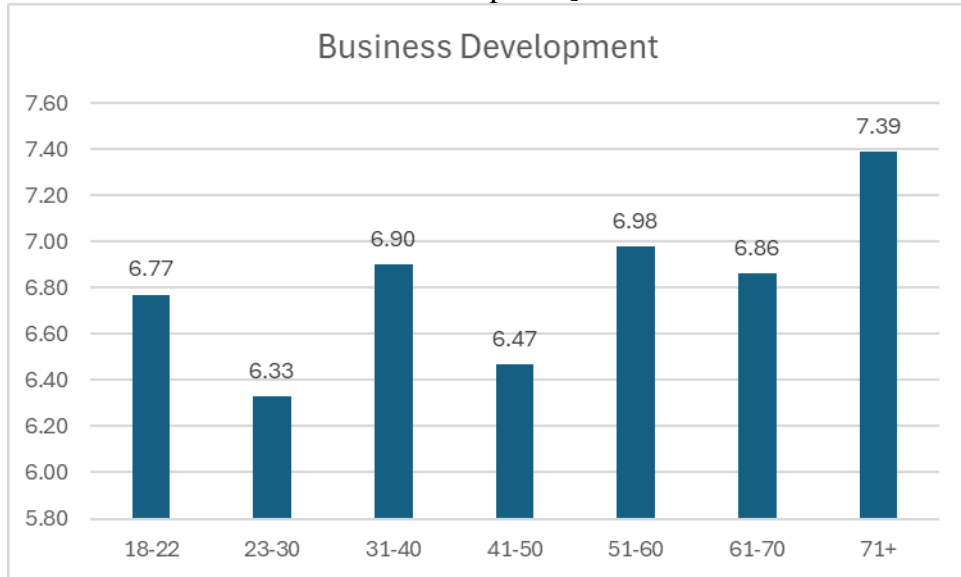
Question 3.8: Rank the following Transportation Priorities [Expand Bike and Pedestrian Facilities]



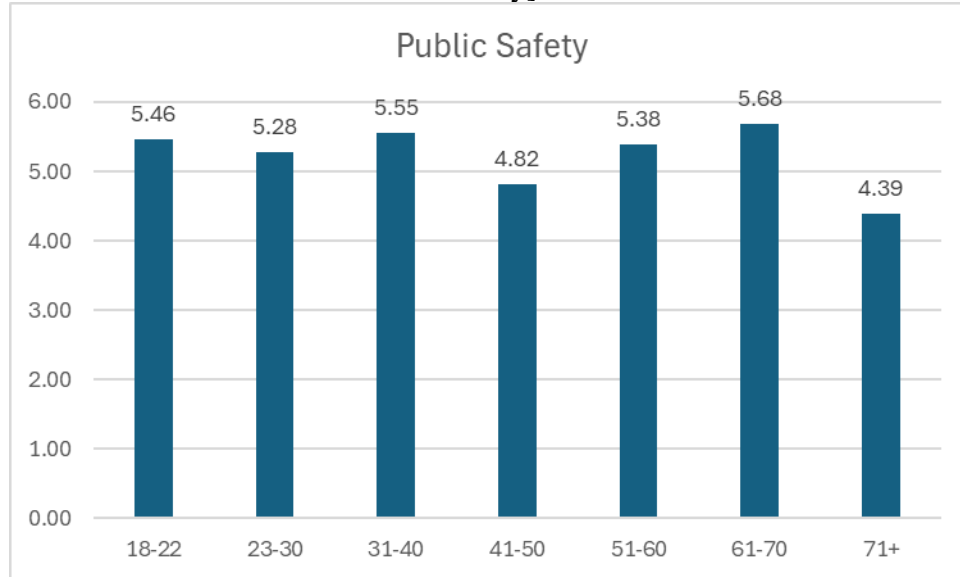
Question 3.9: Rank the following Transportation Priorities [Roadway Safety]



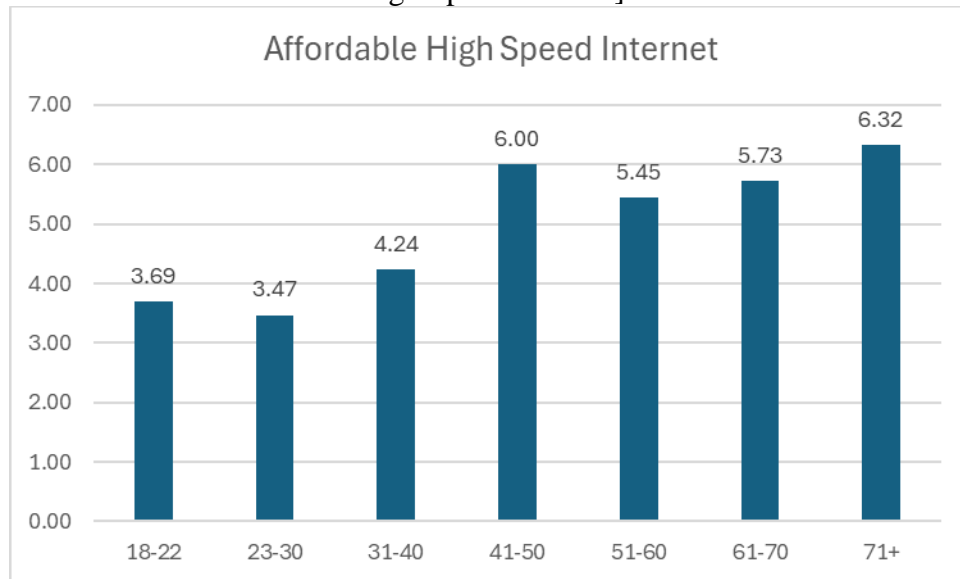
Question 4.1: Rank the Factors that are most important for the Growth of the Region [Business Development]



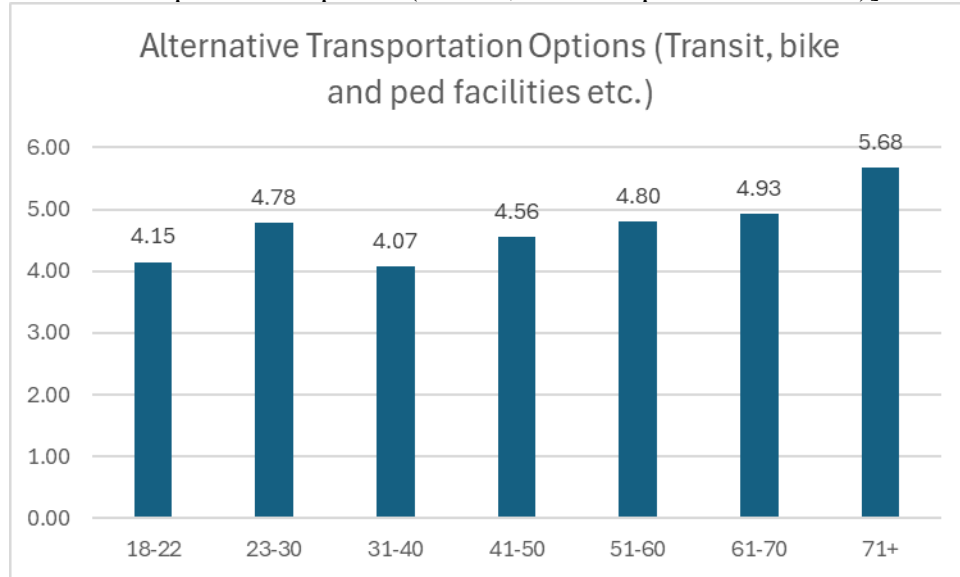
Question 4.2: Rank the Factors that are most important for the Growth of the Region [Public Safety]



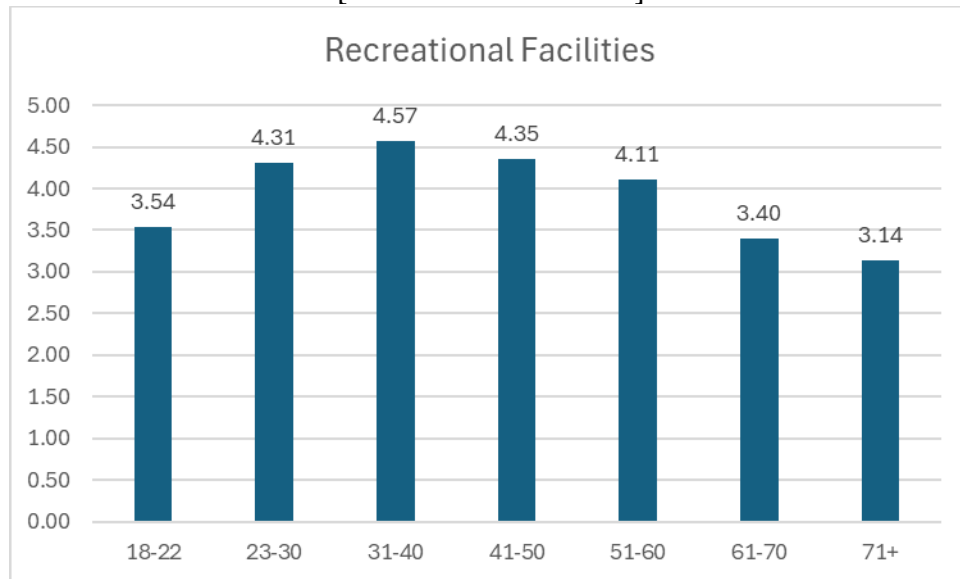
Question 4.3: Rank the Factors that are most important for the Growth of the Region [Affordable High Speed Internet]



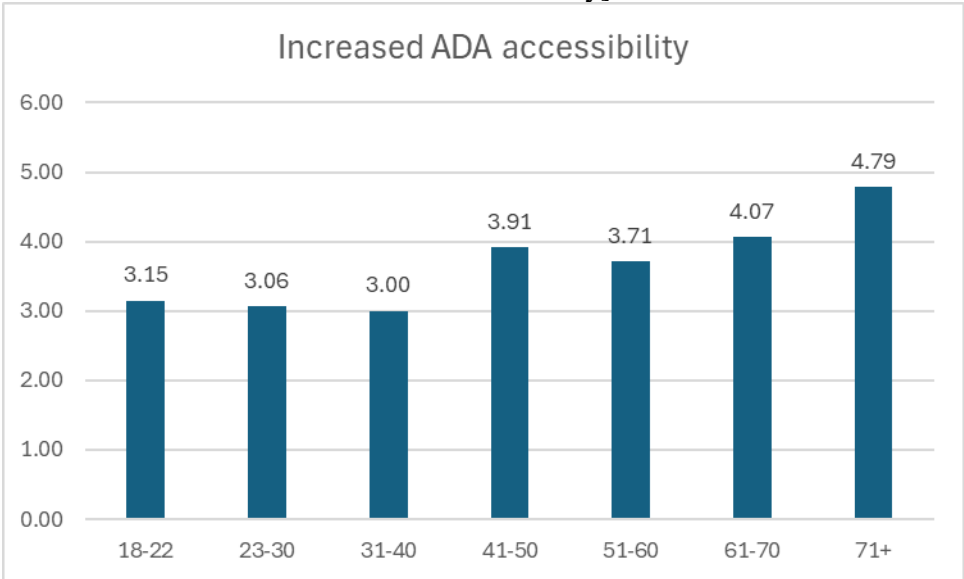
Question 4.4: Rank the Factors that are most important for the Growth of the Region [Alternative Transportation Options (Transit, bike and ped facilities etc.)]



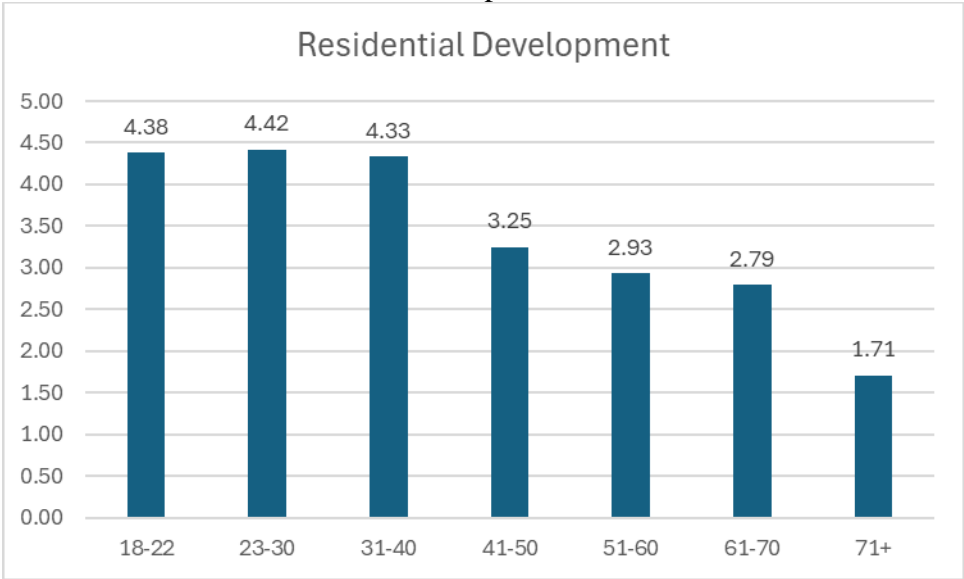
Question 4.5: Rank the Factors that are most important for the Growth of the Region [Recreational Facilities]



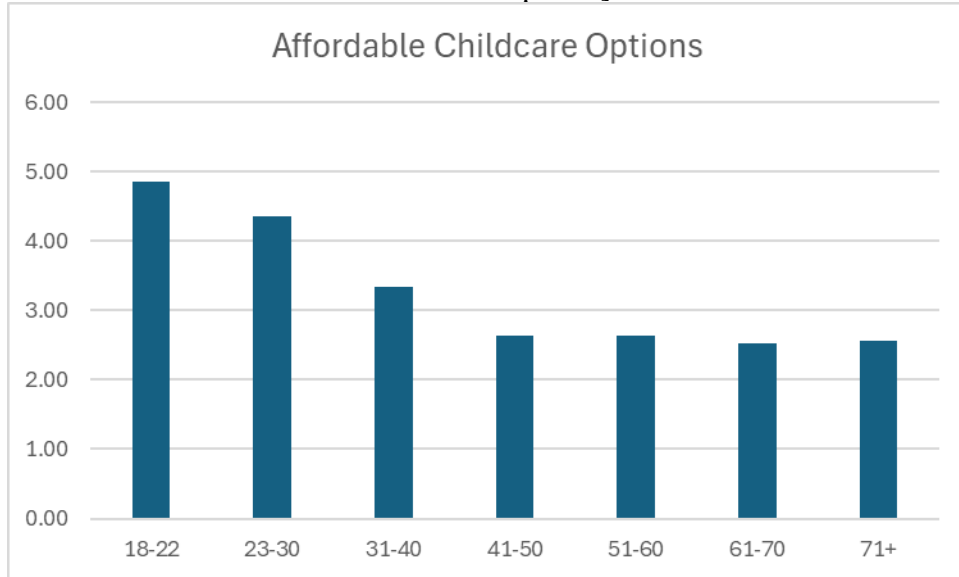
Question 4.6: Rank the Factors that are most important for the Growth of the Region [Increased ADA Accessibility]



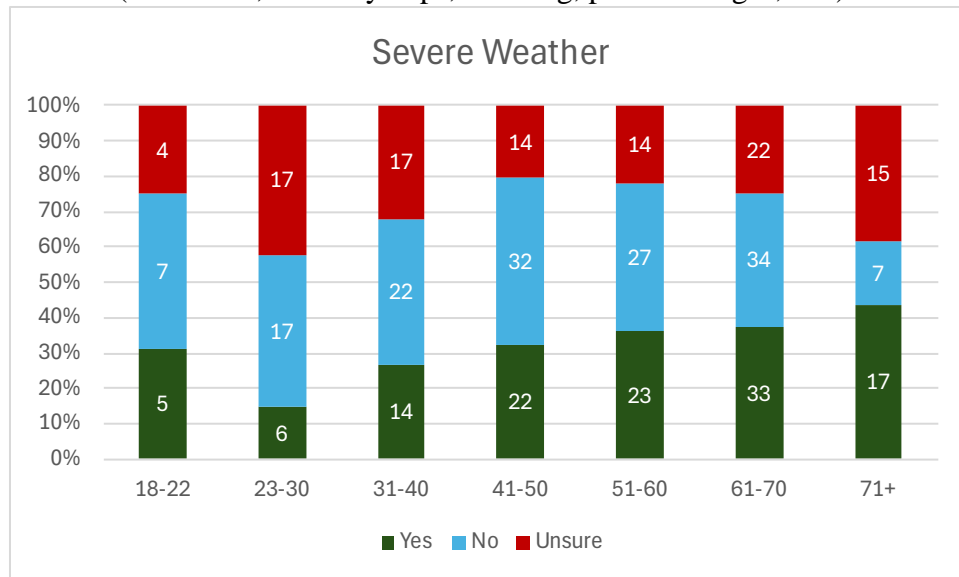
Question 4.7: Rank the Factors that are most important for the Growth of the Region [Residential Development]



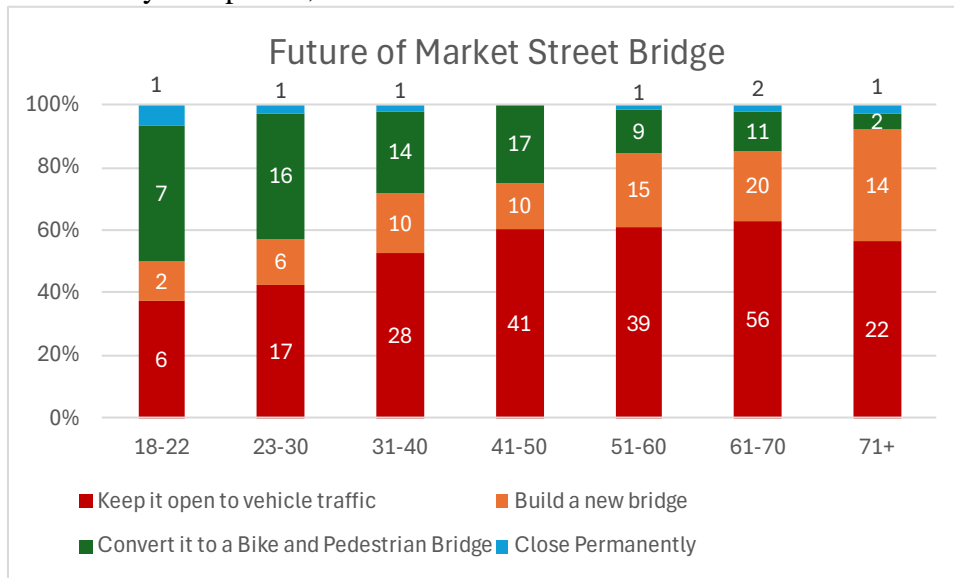
Question 4.8: Rank the Factors that are most important for the Growth of the Region [Affordable Childcare Options]



Question. 5. Do you think the region is equipped to deal with severe weather related problems (landslides, roadway slips, flooding, power outages, etc.)?



Question 6: In your opinion, what should be the future of the Market Street Bridge?



SECTION 5: NON-HIGHWAY TRANSPORTATION INFRASTRUCTURE

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Public Transportation

Many public transit and human service transportation programs operate in the BHJ region. The region's two public transit providers are the Steel Valley Regional Transit Authority (SVRTA), located in Steubenville, OH, and the Weirton Department of Transportation (WDOT), located in Weirton, WV. SVRTA provides service in the Ohio communities of Steubenville, Wintersville, Mingo Junction, and Rayland. SVRTA connects with the Ohio Valley Regional Transit Authority in Rayland and with the Weirton Department of Transportation in Weirton. SVRTA also provides a route to Robinson Township allowing riders access to the Findlay Industrial Park in Imperial, PA. The Weirton Department of Transportation provides service within the City of Weirton. Service organizations throughout the region also provide transportation for senior citizens, individuals with disabilities, and those with behavioral health needs.

Public Transit Operators

- Steel Valley Regional Transit Authority, Steubenville, OH
- Weirton Department of Transportation, Weirton, WV

Human Service Agencies/ Contracted Organizations Providing Transportation in Jefferson County, OH

- Prime Time Office on Aging (Trinity Health), Steubenville, OH
- TranSmart USA, LLC, Brilliant, OH
- PALS Chrysalis Health, Mingo Junction, OH

Human Services Agencies Providing Transportation in Brooke County, WV and Hancock County, WV

- Brooke County Senior Center, Follansbee, WV
- Hancock County Senior Citizens, New Cumberland, WV
- Hancock County Sheltered Workshop, Weirton, WV

In a previous Long Range Plan update, BHJ proposed a conceptual framework for coordination of services and developed a 3-tier program. In the first tier, BHJ established a “mobility action council” and created a committee initially called the “Regional Access Mobility Partnership (RAMP).” The committee drafted and executed a memorandum of understanding to define the partnership's roles and responsibilities. The group's first objective was to create a single point of access for regional transportation and human services needs, employment opportunities, and general travel related information. The second tier prioritized the creation of a coordinated inter and intra-regional public transportation system to allow for service area expansion, facilitation of grant opportunities, and provision of contract review for service, maintenance, and administration. The final tier emphasized a long-term strategy of resource coordination led by BHJ-MPC.

Regional Coordination Plan for Public Transit/ Human Services

BHJ has drafted updates to the Jefferson County Coordinated Public Transit- Human Services Transportation Plan and the Region XI Coordinated Public Transit- Human Services Transportation Plan (Brooke County, WV and Hancock County, WV). Plan updates are required by the Federal Transit Administration (FTA) under the Fixing America's Surface Transportation Act (FAST), signed into law as a reauthorization of surface transportation programs through fiscal year 2020. The act required the local development of coordinated public transit-human services transportation plans. The FAST Act applied to all new programs and rules for fiscal year 2016 and funded authorized transit programs for five years. The Act was reauthorized in 2021 but expired in 2022. The IIJA/BIL was then authorized in 2022 and upholds the planning requirements in the FAST Act.

Challenges to Coordinated Transportation

- Very limited options outside of Steubenville, OH/ Weirton, WV
- No connections between cities and towns
- Few vehicles accommodate elderly and disabled
- Gap between Prime Time and Medicaid patients
- Insufficient weekend service
- Transportation for veterans
- Affordability- sliding scale
- Efficient medical transportation
- Number of vehicles and low frequency of trips by public transit and other transportation providers

Unmet Transportation Needs

Jefferson County, OH

- Expanded coverage area in the county
- Transit service from Steubenville to Toronto- once or twice a week
- Transportation service provider outreach in areas without internet/ wireless coverage and expansion in rural areas
- More transportation services for veterans
- Rider assistance (either a volunteer or paid position) for groceries, medical appointments, and recreation
- More transportation options for education and employment for people with disabilities, especially those who are blind or visually impaired
- Expanded service hours
- Transit option to connect younger people with employment opportunities
- Shopper shuttle for county
- More medical trips outside the county/ state
- Voucher, sliding scale for payment from population in poverty
- More services for commercial, recreational purposes
- More out-of-state trips
- Consumer education/ marketing/ senior advocacy and outreach
- More service on weekends

Region XI (Brooke County, WV and Hancock County, WV)

- Long distance and medical transportation
- Transportation to employment
- Appropriate vehicles for road conditions and size
- Transportation for errand in very rural areas
- Additional funding for public transit operating and capital needs
- Rides outside of traditional operator hours
- Transportation providers need to address regional needs via coordination
- Increase awareness of transportation options

Plans for Achieving Shared Goals

Goals were established to guide both the Jefferson County Coordinated Public Transit- Human Services Transportation Plan and the Region XI Coordinated Plan Transit- Human Services Transportation Plan.

Jefferson County Goals

- Enhance coordination and provide transportation services in a more efficient and cost-effective manner to increase mobility.
- Build upon existing public/ private partnerships for Jefferson County transportation service providers as needed.
- Improve access and services for veterans, elderly, and persons with disabilities.
- More available employment transportation for the public and persons with disabilities.
- Improve and enhance marketing for all transportation services and providers.

Region XI (Brooke County, WV and Hancock County, WV) Goals

- Improve communication among transportation providers and stakeholders in the region and throughout the state of West Virginia.
- Maintain current levels of transportation services for older adults, individuals with disabilities, and people with low incomes.
- Improve access to transportation services through effective regional mobility management.
- Extend operating hours and service areas for transportation services.

The Mobility Partnership for Human Services Committee

As a result of previously drafting coordination plans, BHJ created the “Mobility Partnership for Human Services” committee. The committee’s mission is to eliminate and reduce, where possible, obstacles and barriers to transportation services regardless of political boundaries (i.e. county, state, or service boundaries) and provide opportunity for participation and cooperation among all public transit/ human services, and private transportation providers, as well as other social services agencies. The goals of the committee are to:

- Reduce operating costs and improve conservation of available services.
- Develop a form of central management (i.e. mobility manager).
- Create a format or policy for consistent communication.
- Expand “down the road” with an eye towards the business community.

Representatives currently attending committee meetings include the following organizations and communities.

- Jefferson County Prevention Services and Recovery Board
- Steel Valley Regional Transit Authority
- Jefferson County Chamber of Commerce
- Jefferson County Board of Developmental Disabilities
- Jefferson County Community Action Council
- Brooke County Committee on Aging
- Change, Inc.
- Hancock County Senior Services
- Weirton Department of Transportation
- Mary H. Weir Public Library
- Ohio Valley Regional Transit Authority
- City of Toronto
- Southwestern Pennsylvania Commission
- IC Group of Companies
- Hancock County
- Aetna Better Health
- Ohio Valley Regional Transit Authority
- Brooke Hancock Family Resource Network
- Weirton Area Chamber of Commerce
- John D. Rockefeller Career Center
- Ohio Mid- Eastern Governments Association (OMEGA)

Regional Coordination Plan for Eastern Ohio

BHJ has repeatedly participated in the process by which the Ohio Mid-Eastern Governments Association (OMEGA) has drafted its Regional Coordination Plan. The OMEGA region consists of Jefferson County, Belmont County, Harrison County, Columbiana County, Carroll County, Coshocton County, Guernsey County, Holmes County, Muskingum County, and Tuscarawas County. The goal of OMEGA's plan is to transport more people, especially seniors and persons with disabilities, with quality service at a low cost in and out of their respective counties. As a result of OMEGA's planning, a regional call center pilot project has been undertaken. The project coordinates with transportation providers to provide residents with out of county trips. The plan also prioritizes the importance of scheduling software for efficiency and the necessity of mobility management.

Public Transit in the BHJ Region

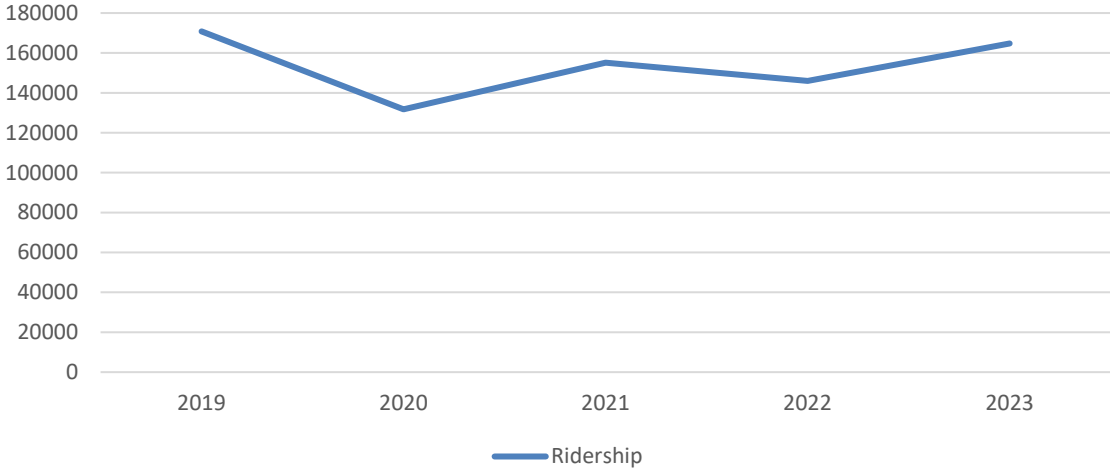
Weirton Department of Transportation (WDOT)

Traditionally, public transit services have been provided by the Weirton Transit Corporation in the city of Weirton, West Virginia. As a result of challenges created by both financial and professional management decisions operating control of the organization has been transferred to the city of Weirton and the name has been changed to the Weirton Department of Transportation (WDOT). WDOT solely provides public transit within the city limits of Weirton. Service is provided Monday-Friday 5:30 AM-7:00 PM and Saturday 6:00 AM-12:00 PM. There are currently 2 main fixed routes, 2 express fixed routes, and 1 fixed Saturday loop. Locations WDOT stops at that are of interest are the public library, Walmart, Weirton Medial Center, and the Milsop Community Center. The organization also provides services for persons with disabilities. It operates thirteen vehicles with one full-time driver and thirteen part-time drivers. Ten vehicles have the capacity to carry two wheelchairs. Ridership statistics are unavailable. The organization is anticipated to continue restructuring.

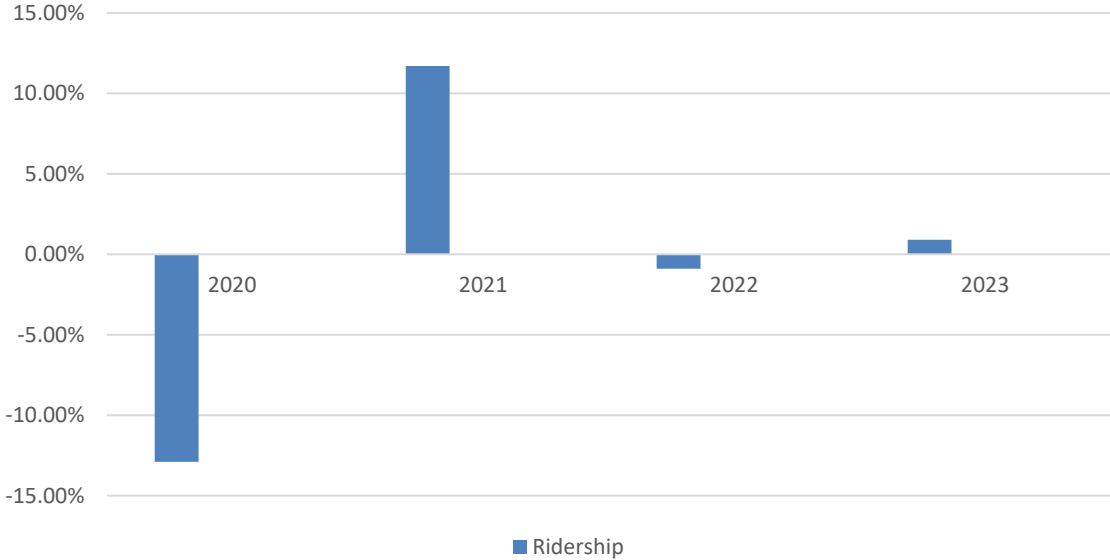
Steel Valley Regional Transportation Authority (SVRTA)

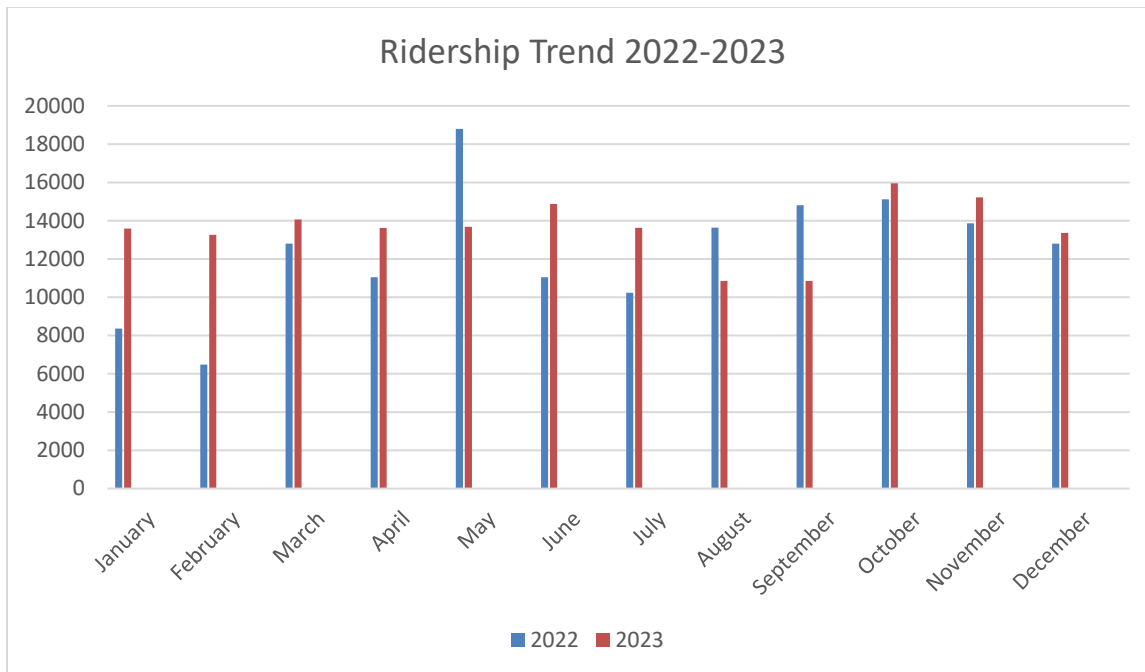
Steel Valley Regional Transit Authority (SVRTA) is the primary public transit authority in Jefferson County, Ohio. SVRTA serves the communities of Steubenville, Wintersville, Mingo Junction, and Rayland. The organization provides a connection to the Ohio Valley Regional Transit Authority in Rayland and connects with the Weirton Department of Transportation in Weirton. It also provides riders with access to the Findlay Industrial Park in Imperial, PA by providing a route to Robinson Township, PA. Service is provided Monday-Friday 3:30 AM-8:05 PM and Saturday 4:30 AM-7:30 PM. SVRTA has 5 fixed routes in town, 2 fixed routes other transit providers for connecting to Wheeling and Pittsburgh, and other changing routes for events and holidays. Locations of interest that SVRTA stops is Krogers, the Steubenville Mall, Eastern Gateway Community College, and multiple pharmacies. SVRTA provides services for persons with disabilities. Its fleet consists of sixteen vehicles. All vehicles have the capacity to carry at least one wheelchair.

Ridership Trend Steel Valley Regional Transit Authority 2019-2023



Yearly Ridership Change





Rideshare/ Vanpooling

In the past, BHI has unsuccessfully attempted to operate a stand-alone rideshare program. In 2003, BHI partnered with the Southwestern Pennsylvania Commission (SPC), the metropolitan planning commission located in Pittsburgh, PA, participating in the CommuteInfo program. CommuteInfo is a coordinated partnership of transportation agencies, transportation providers, businesses, and non-profit service organizations throughout southwestern Pennsylvania, Jefferson County, Ohio, and the counties of Brooke and Hancock in West Virginia. The program provides commuter information and services for people who desire commuter alternatives to driving alone to their jobs or schools primarily to Allegheny County, PA, but anywhere within the SPC service area. The program's goal is for commuters to choose ride sharing at least twice a week by providing viable options, incentives, and encouragement for commuters living, working, or attending school within the thirteen county CommuteInfo area.

Monthly participant program costs range from \$90-\$120, and is dependent upon the number of poolers, and the vehicle. The total cost includes rental of an Enterprise owned vehicle, maintenance, and insurance. Fuel and toll charges are not included in the monthly cost. Participating Enterprise vehicles include SUV's, minivans, and full-size vans. Cost of the vehicle is equally shared amongst the group of program participants. The driver is often not required to pay anything since he or she has the burden of driving the vehicle. SPC software matches potential participants with pools. Prospective poolers are asked to consider driving, and if requested, van-driver training is offered by SPC/Enterprise. Riders are eligible for up to four emergency rides home a year or a maximum annual cost of \$100.

BHI hopes to continue its partnership with SPC and expand promotional opportunities and marketing of the CommuteInfo program within the region. The program has been previously

advertised on television, in local newspapers, and on billboards. The program has been evaluated by tracking program registrations and surveys.

Bicycle (Active Transportation) Plans

BHJ wants to promote the health of area residents by reducing traffic congestion and pollution while promoting alternate means of transportation. The region is considering expansion of walking and cycling infrastructure. Expansion of infrastructure will not only yield benefits for residents but also contribute to tourism.

Currently existing trails in both Brooke County and Hancock County could be expanded by growth of the Great American Rail Trail. The Panhandle Trail enters the region at the border of Pennsylvania and West Virginia, continues northwest through Brooke County into Hancock County, and ends in Weirton. Interest has been expressed by the Rails-to-Trails Conservancy (RTC) regarding continuation of the trail utilizing the Market Street Bridge into Ohio. The region's newest bridge near Beech Bottom, WV provides access for pedestrians and cyclists to the Brooke Pioneer Trail.

In Fall of 2019, the American Association of State Highway and Transportation Officials approved a route across West Virginia of the U.S. Bike Route 50 (USBR 50) that connects to an already established route in Ohio. The approved section crosses the Market Street Bridge in Ohio and continues to the Pioneer Trail.

There are currently no trails in Jefferson County, but plans have been made to continue the Great American Rail Trail through Steubenville to the Cotton Creek Trail in Harrison County. RTC would like to utilize a plan developed by the Jefferson Soil and Water Conservation District for a trail that passes through the Hellbender Preserve. Due to the efforts of BHJ, a shared use path has been constructed along St. Rt. 7 connecting Historic North 4th St. in Steubenville to the Steubenville Marina. Interest has been expressed to connect the shared use path to USBR 50 and downtown Steubenville.

SECTION 6: HIGHWAY AND BRIDGE INVENTORY

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SECTION 6 - HIGHWAY & OHIO RIVER BRIDGE INVENTORY

An inventory of transportation facilities is a key element in developing a transportation plan. This section identifies the BHJ Region's highway network eligible for federal-aid, major highway corridors listed on the National Highway System, and highway bridges crossing the Ohio River. The inventory serves as a reference that identifies federal-aid highway facilities and the Ohio River Bridge crossings that interconnect the three-county region and surrounding areas of Ohio, West Virginia, and Pennsylvania.

The metropolitan planning factors listed in the current federal transportation-spending bill titled Bipartisan Infrastructure Law or BIL, enacted as the Infrastructure Investment and Jobs Act (IIJA), continues the Metropolitan Planning Program, which establishes a cooperative, continuous, and comprehensive framework for making transportation investment decisions in metropolitan areas. Considering the high cost of highway maintenance and new construction, this plan highlights the preservation of the existing transportation network. Preservation may not only include resurfacing and rehabilitation of highways and bridges, but also include an increase of roadway and river crossing capacity that may solve congestion and safety problems. Over the years, federal, state, and local governments have invested vast amount of dollars building transportation infrastructure in each of the three counties that must be preserved and maintained in a safe and functional capacity. Although the cost of highway and bridge projects considered in this plan for the next 25 years may exceed anticipated revenues for funding, each investment, either minor or major in monetary expenditure, is justified by meeting the stated goals and objectives of this plan.

FUNCTIONAL CLASSIFICATION

State Highway Agencies conduct functional classification updates every 10 years concurrent with the decennial census. Decennial updates allow local communities, State DOT's and FHWA to modify or redefine the functional classification system to capture changes in travel patterns, network linkages, as well as improvements and modifications to existing roadways and corridors. Movement of traffic is the primary basis for each classification followed by, access to adjacent land use, the physical attributes of the highway type, and the distance traversed by the highway facility. The National Functional Classification (NFC), in acceptance since the early 1960's, classifies highways by three levels of hierarchy. The three levels of classification are: (1) arterial highways, (2) collector streets, and (3) local roads. The classification system further stratified arterials and collector's highway by functional capacity. Historical functional classification guidance segregated roadway categories into urban and rural locations. There were six urban classifications and six rural classifications. In 2013, FHWA issued newer guidance eliminating the urban and rural classifications reducing the total number of classifications from twelve to seven as shown below by order of importance, ranked 1 as the highest importance and 7 as the lowest.

Urban and Rural Function Classification Categories of Highways

| | | | |
|--|---|----|--|
| 1. | Principal Arterials a. Interstate b. Other Freeways and Expressways c. Other Principal Arterials | 2. | Minor Arterials |
| | | 3. | Collectors a. Major Collector b. Minor Collector |
| | | 4. | Local Roads |
| <p>New category for rural areas; under the previous scheme, a rural non-interstate freeway/expressway was classified as a Rural Principal Arterial.</p> <p>New category for urban areas; Urban Minor Collectors are Federal aid eligible whereas Rural Minor Collectors are not.</p> | | | |

Interstate Highways

Interstates are the highest classification of Arterials and were designed and constructed with mobility and long-distance travel in mind. Since their inception in the 1950’s, the Interstate System has provided a superior network of limited access, divided highways offering high levels of mobility while linking the major urban areas of the United States. There are no Interstate Highways in Brooke, Hancock, or Jefferson counties.

Other Freeways & Expressways

Roadways in this functional classification category look very similar to Interstates. While there can be regional differences in the use of the terms ‘freeway’ and ‘expressway’, for the purpose of functional classification the roads in this classification have directional travel lanes are usually separated by some type of physical barrier, and their access and egress points are limited to on-and off-ramp locations or a very limited number of at-grade intersections. Like Interstates, engineers design and construct these roadways to maximize their mobility function.

Highways in the region classified as Other Freeways & Expressways are United States Route 22 (US-22), Ohio State Route 7 (OH-7), and a short segment of West Virginia State Route 2 (WV-2) between Follansbee and Weirton. US-22 directs traffic through the region west to east bisecting Jefferson County bypassing the central city of Steubenville, OH, crossing the Ohio River, and then traversing through West Virginia along the approximate border of Brooke and Hancock counties through the central city of Weirton. OH- 7 traverses south to north generally following the Ohio River Valley throughout the entire length of Jefferson County. WV-2 also moves traffic parallel south to north along the Ohio River Valley through Brooke and Hancock counties. A segment of WV-2 listed as Freeways/Expressways connects traffic from just north of Follansbee, WV at the Market Street Bridge to an interchange with US-22.

Other Principal Arterials

These roadways serve major centers of metropolitan areas, provide a high degree of mobility, and can provide mobility through rural areas. Unlike their access-controlled counterparts, Other Principal Arterials can serve abutting land uses. Forms of access for Other Principal Arterial roadways include driveways to specific parcels and at-grade intersections with other roadways. In urban areas, Other Principal Arterials may have little or no access control with traffic signals at

major intersections. These facilities may be either two-lane or multiple lane highways that may include median turn lanes or multiple left/right turn lanes at intersections. Other Principal Arterials are spaced within the highway network to provide a direct and continuous route for a high volume of traffic that connects to regionally significant activity centers or outlying rural population centers.

Other Principal Arterials in the BHJ region are:

- West Virginia State Route 2 (WV-2) through Brooke and Hancock counties,
- US Route 30 in the northeast corner of Hancock County,
- Ohio State Route 43 (OH-43) in Jefferson County signed as Washington Street and Sunset Boulevard through Steubenville and Frank P Layman Boulevard and Canton Road in Wintersville, and
- Jefferson County Route 22A (CR-22A) from US-22 interchange at Reeds Mill to OH-43 in Wintersville

Minor Arterials

Minor Arterials provide service for trips of moderate length, serve geographic areas that are smaller than their higher Arterial counterparts are and offer connectivity to the higher Arterial system. In an urban context, they interconnect and augment the higher Arterial system, provide intra-community continuity and may carry local bus routes. In rural settings, Minor Arterials are spaced at intervals consistent with population density, so that all developed areas are within a reasonable distance of a higher-level Arterial. Engineers and planners typically design Minor Arterials in rural areas to provide relatively high overall travel speeds, with minimum interference to through movement.

Urban and rural Minor Arterials in West Virginia are:

- Pennsylvania Avenue and Cove Road in Weirton,
- Eldersville Road (WV-27A) starting in Follansbee to the State Line and Washington Pike (WV-27) originating in Wellsburg to the State Line in Brooke County, and
- WV-8, connecting WV-2 in New Cumberland to US-30 in Hancock County.

Urban and rural Minor Arterials in Ohio are:

- the integrated network of Fourth Street to Lincoln Avenue to John Scott Highway ending at US Route 22 in Steubenville, OH form an integrated urban Minor Arterial network; this urban network also connects Sinclair Avenue starting at the John Scott Highway intersection to Lovers Lane Road then north to Sunset Boulevard (OH-43) ending at US Route 22,
- Brady Avenue from Sunset Boulevard to University Boulevard ending at Seventh Street in Steubenville,
- Lawson Avenue from Sunset Boulevard to Adams Street ending at Third Street in Steubenville,
- The combined network of Wilson Avenue at Lincoln Avenue in Steubenville to McClister

- Avenue ending at Commercial Avenue in Mingo Junction,
- The street network of Franklin Avenue, Trenton Street and the one-way pair of Third and Fourth Streets in Toronto,
- Commercial Avenue in Mingo Junction starting at OH-151 north to OH-7 at Logan Avenue is another urban Minor Arterial roadway,
- Old State Route 7 through Brilliant in Wells Township, and
- State Route 43 from US-22 in Wintersville north to Amsterdam at the Carroll County line.

Major and Minor Collectors

Collectors serve a critical role in the roadway network by gathering traffic from Local Roads and funneling them to the Arterial network. Within the context of functional classification, Collectors are broken down into two categories: Major Collectors and Minor Collectors. Until recently, planners considered this division only in the rural environment. Currently, planners may sub-stratify all Collectors, regardless of whether they are within a rural area or an urban area, into major and minor categories. The determination of whether a given Collector is a Major or a Minor Collector is frequently one of the biggest challenges in functionally classifying a roadway network.

In the rural environment, Collectors generally serve primarily intra-county travel (rather than statewide) and constitute those routes on which (independent of traffic volume) predominant travel distances are shorter than on Arterial routes. Consequently, posted speed limits may be more moderate.

The distinctions between Major Collectors and Minor Collectors are often subtle. Generally, Major Collector routes are longer in length; have lower connecting driveway densities; have higher speed limits; are spaced at greater intervals; have higher annual average traffic volumes; and may have more travel lanes than their Minor Collector counterparts may. Planners should carefully consider these factors when assigning a Major or Minor Collector designation. In rural areas, AADT and spacing may be the most significant designation factors. Since Major Collectors offer more mobility and Minor Collectors offer more access, it is beneficial to reexamine these two fundamental concepts of functional classification. Overall, the total mileage of Major Collectors is typically lower than the total mileage of Minor Collectors, while the total Collector mileage is typically one-third of the Local roadway network.

Local Roads

Local Roads encompass the remaining street network not listed in any of the higher functional classification groupings already considered. Local Roads primarily serve as direct access to abutting land developments and access to the higher ordered systems of classification. Service to through traffic on Local Streets usually is deliberately discouraged.

FEDERAL-AID HIGHWAY NETWORK

The Functional Classification System defines the Federal-Aid Highway System. Under the standards adopted in the FAST-Act, all classifications other than Local Roads and Minor Collectors in rural areas make up the eligible Federal-Aid Highway System. This has not changed under the Bipartisan Infrastructure Law (BIL). Overall, regionally, Other Freeways/Expressways and Principal Arterials make up slightly more than 6 percent of the region's total roadway system accounting for roughly 121 centerline miles of highways. Inversely, these highways carry more than 69 percent of the region's Average Annual Daily Traffic (AADT). This statistic defines the importance of Freeways, Expressways, and Principal Arterial highways in the three counties in terms of movement of people, goods, and freight. Furthermore, the Federal-Aid Highway System (defined as Freeways/Expressways, Principal Arterials, Minor Arterials, and Collectors) account for slightly less than 23.5 percent or 460 miles of the nearly 2,000 miles of highways, roads and streets in the Steubenville-Weirton Metropolitan Area. In addition, the federal-aid system carries approximately 97.5 percent of all traffic circulating in the three-county area on an average day. In conclusion, local, state, and federal governments must continue to commit their respective available financial resources to maintain this highway system to highest practical standard.

NATIONAL HIGHWAY SYSTEM

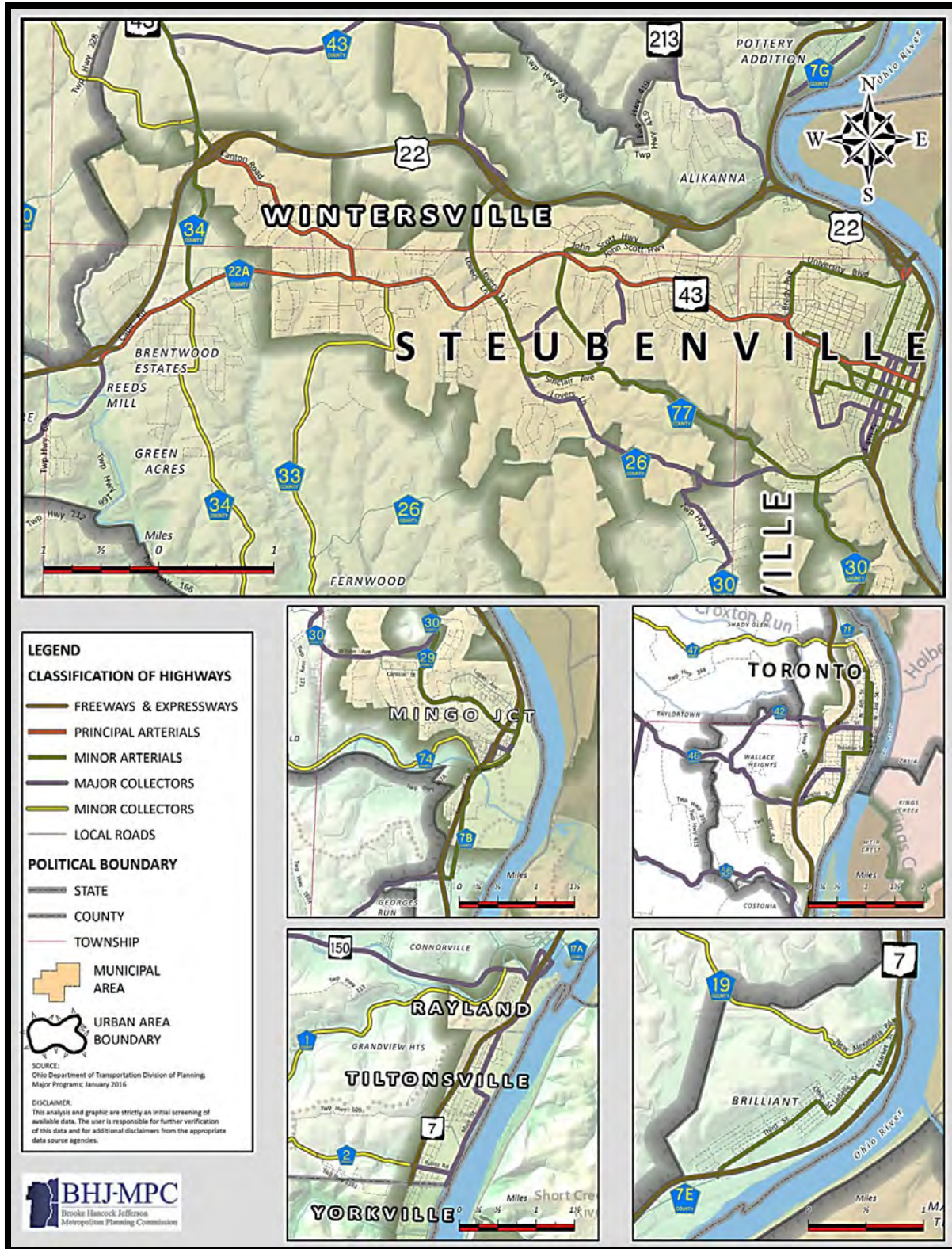
The National Highway System (NHS) is a network of strategic highways within the United States that includes the Interstate Highway System, Other Principal Arterials, the Strategic Highway Network that provide defense access and emergency capabilities for defense purposes, Major Strategic Highway Network Connectors that directs transportation services to major military bases, and Intermodal Connectors that link major intermodal facilities. The NHS serves major population centers, international border crossings, as well as primary Intermodal transportation terminals, provides the means of a secure national defense, and enhances interstate and interregional mobility. The Department of Transportation (DOT) developed the NHS in cooperation with the states, local officials, and metropolitan planning organizations.

The area's National Highway System includes West Virginia State Route 2, Ohio State Route 7, and United States Route 22 in both West Virginia. Although the metropolitan area's National Highway System accounts for less than 6 percent of the total highway miles, it carries nearly 50 percent of the region's average daily traffic.

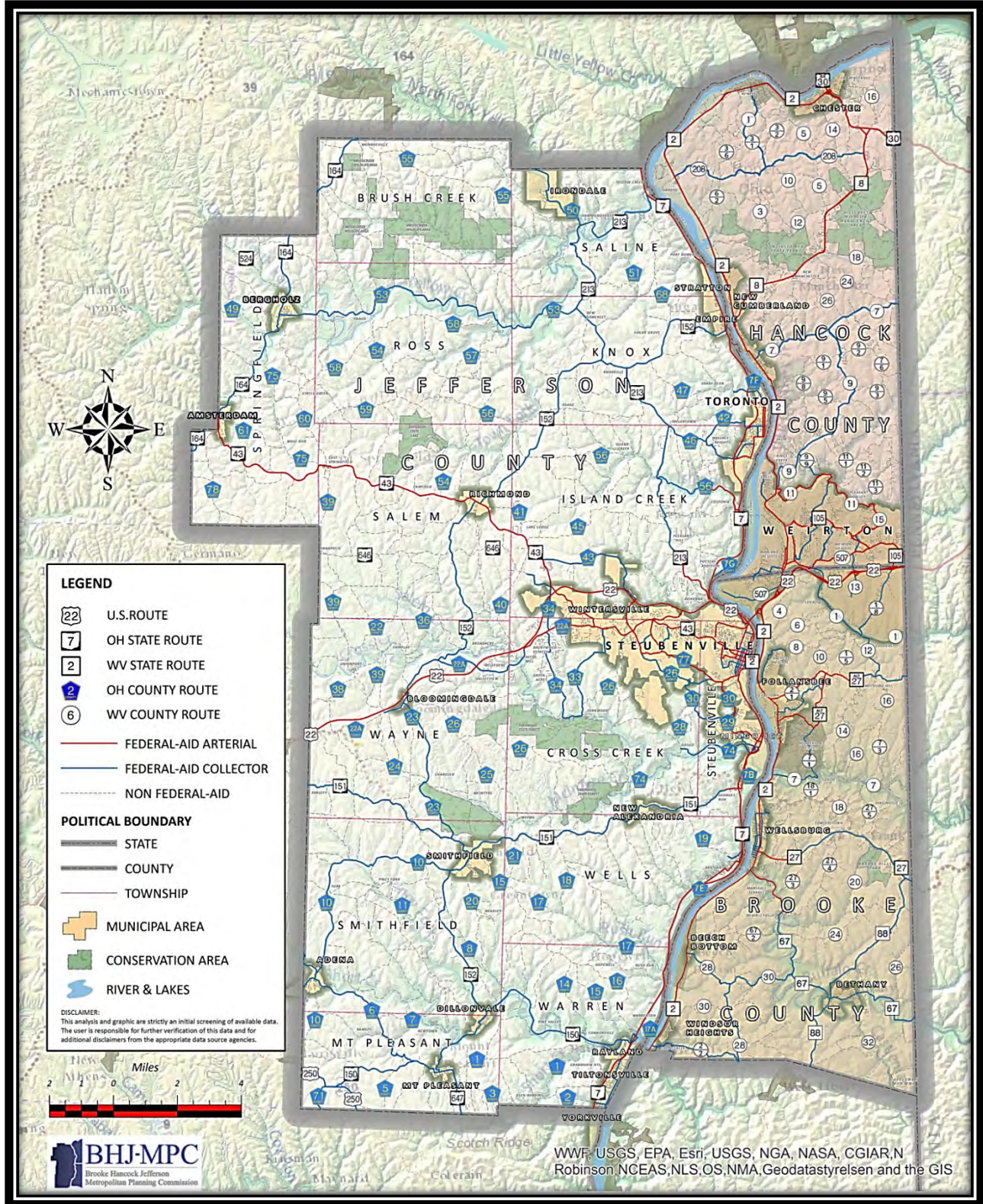
MAJOR TRANSPORTATION CORRIDORS

Several major highway corridors bisect the Brooke, Hancock, and Jefferson counties region. West Virginia State Route 2 and Ohio State Route 7 comprise two major north-south corridors generally following the Ohio River Valley, and United States Route 22, the major east-west corridor cutting through the center of the three-county geography.

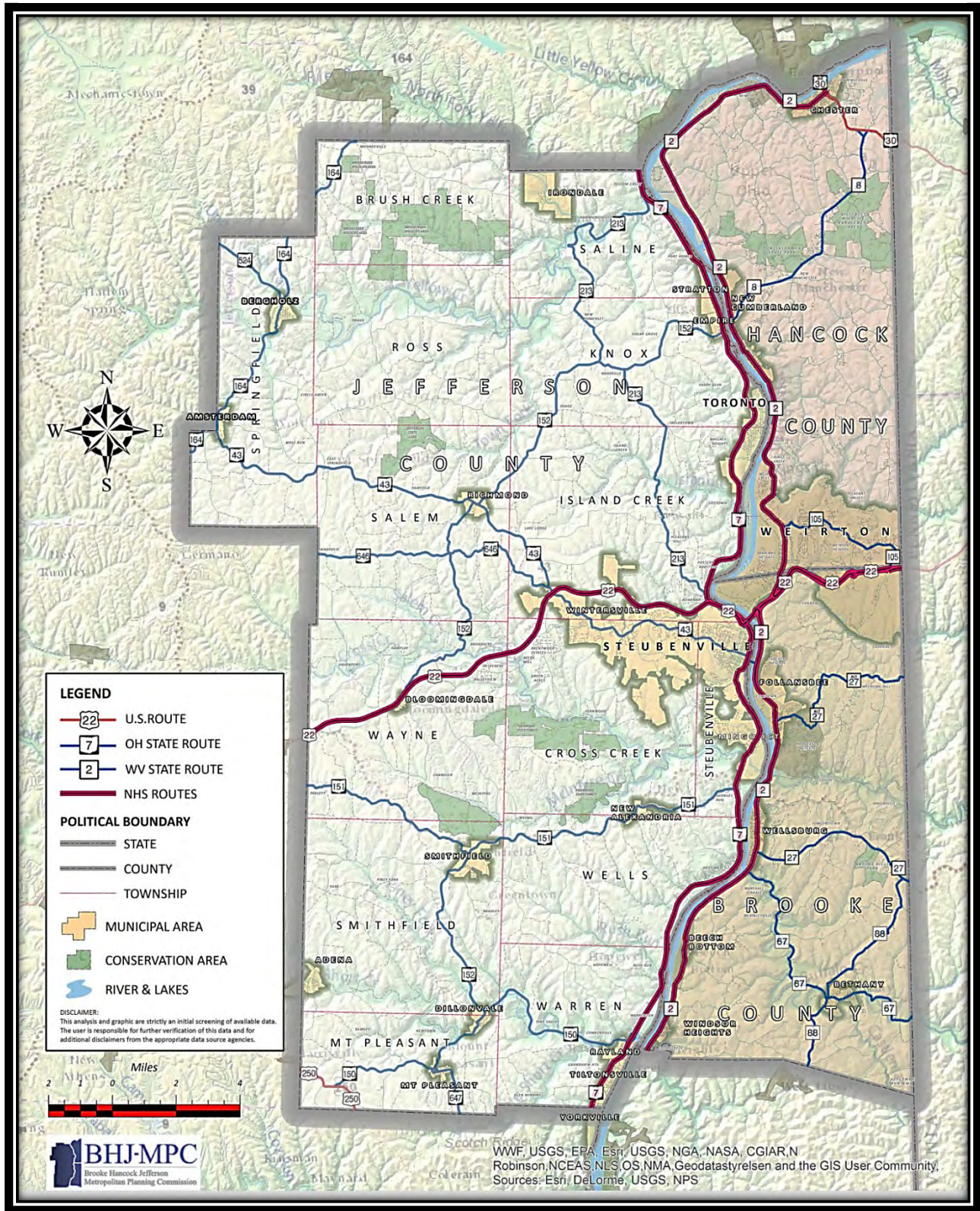
Major Transportation Corridors of BHI Region



Federal Aid Highways of BHJ Region



BHJ National Highway System



Ohio State Route 7 services south to north bound traffic traveling through the west perimeter of the Ohio River Valley. Starting in the mid 1950's and ending in the late 1980's, ODOT completely re-constructed OH-7 through Jefferson County as a four-lane limited-access facility from Bridgeport, OH in the south at Interstate 70 to US Route 30 in the north at East Liverpool, OH directly southeast of Chester, WV across the Ohio River. Presently, in Jefferson County, the roadway carries an average daily traffic ranging from 8,396 vehicles in Stratton, OH (near the Columbiana/Jefferson County Line) to more than 14,798 vehicles between Mingo Junction and Steubenville (the urban center of Jefferson County). State Route 7 connects the Jefferson County river-communities (from south to north) Yorkville, Tiltonsville, Rayland, Brilliant, Mingo Junction, Steubenville, Toronto, Empire, and Stratton. Ohio Route 7 through Jefferson County is also a part of the Ohio River National Scenic Byway that stretches 943 miles from Cairo, IL in the south to East Liverpool, OH in the north. State Route 7 in itself follows the Ohio River from Chesapeake to East Liverpool, then following parallel to the Pennsylvania State Line through Youngstown ending at Lake Erie at Conneaut in Ashtabula County.

West Virginia State Route 2 is the principal north/south corridor route, also running parallel to the east shores of the Ohio River Valley, through the northern panhandle of West Virginia directing intra-regional traffic south to Interstate 70 in Wheeling, WV and north to Ohio and Pennsylvania, by way of US Route 30, in Chester, WV. The West Virginia Department of Transportation maintains WV-2 primarily as a two-lane facility throughout Brooke and Hancock counties with the exception of four segments, Commerce Street in Wellsburg, Follansbee-Weirton Road north of Follansbee, Main Street in Weirton, and New Cumberland-Newell Road adjacent to Mountaineer Park in northern Hancock County. Presently, the State Highway carries traffic volumes ranging from 4,900 vehicles daily with 11.1% trucks at the Brooke/Ohio County Line to 12,935 vehicles daily through the north end of the City of Follansbee, WV. State Route 2 enters Brooke County from the south at the Ohio County Line connecting the communities (from south to north) Beech Bottom, Wellsburg, Follansbee, crossing into Hancock County in Weirton, continuing north through New Cumberland, Newell, and Chester. Route 2 terminates at US Route 30 in Chester (Hancock County) at the foot of the Jennings Randolph Bridge, the most northern reach of the State of West Virginia. West Virginia 2 connects the study area to the West Virginia cities of Huntington, Parkersburg, and Wheeling.

Ohio and West Virginia completed construction of United States Route 22 as a four-lane interstate-type highway in 1993. The US route enters Jefferson County from the west at the Harrison County Line east of Hopedale, OH, crossing the Ohio River into West Virginia by way of the Veterans Memorial Bridge at Steubenville, OH. The route then generally follows the Brooke/Hancock County Line through Weirton, WV exiting the region to the east into Pennsylvania. From west to east, US Route 22 connects the incorporated areas of Bloomingdale, Wintersville, and Steubenville in Ohio to Weirton, West Virginia. US-22 connects the Weirton-Steubenville, WV-OH Urban Area to Pittsburgh, PA in the east and to Columbus, OH (via US Routes 250/36 Ohio Route 161) in the west. Overall, US-22 extends from Cincinnati, OH to the New York City area in the east. Daily traffic traveling along US-22 in Brooke and Jefferson counties range from 11,205 vehicles at the Harrison/Jefferson County Line to 19,060 vehicles at the Pennsylvania / WV State Line in Weirton.

Another primary corridor is State Route 43 (OH-43). Beginning at State Route 7 in Steubenville, OH-43 directs traffic east to west through Jefferson County, then upon entering Carroll County, travels northward through the Canton/Akron Metropolitan Area, terminating in Cleveland, Ohio. In Jefferson County, OH-43 serves as a Principal Arterial, built parallel to and formerly designated as US-22 through Steubenville and Wintersville. In Steubenville, OH-43 is addressed as Washington Street from State Route 7 moving west through the city's lower Central Business District (CBD) to the top of Washington Street Hill where the state route changes address to Sunset Boulevard. At Wintersville, OH-43 becomes Frank Layman Boulevard and then Canton Road where it turns in a northwestern direction at the US-22 Interchange toward Carroll County. State Route 43 carries an average daily traffic in Jefferson County ranging from 2,494 vehicles in the western edge of the county in Amsterdam at the Carroll county Line, up to 24,727 vehicles on the Sunset Boulevard section in Steubenville.

OHIO RIVER HIGHWAY BRIDGES IN THE METROPOLITAN AREA

The BHJ geographic area is a two-state metropolitan area (Ohio and West Virginia) divided by the Ohio River. The Ohio River flows 43.7 miles through the metropolitan area starting at the Pennsylvania State Line (Beaver County-Hancock County, PA-WV; Ohio River Mile 40.0) and ending at the Jefferson/Belmont County, OH line (Ohio River Mile 83.7). Therefore, highway bridges over the Ohio River are a critical element of inter-region and interstate highway travel through the three-county region. Presently, the area-wide bridge network is comprised of five (5) highway bridges. The northern most bridge is the Jennings Randolph Bridge at Ohio River Mile 42.7. It connects Chester (in Hancock County, WV) to East Liverpool (in Columbiana County, OH) by way of US Route 30 (known nationally as the Lincoln Highway). Next in line is a privately owned span known as the Newell Toll Bridge. It also links East Liverpool, OH to Hancock County, WV, 1.70 river miles downstream (Ohio River Mile 44.4) of the US-30 Bridge approximately 500-feet east of the unincorporated community of Newell, WV. Situated at Ohio River Mile 66.4, the largest Ohio River Bridge in the region is the Veteran's Memorial. This structure carries US Route 22 from Steubenville, OH to Brooke County adjoining Weirton, WV. The fifth Ohio River crossing is the Market Street Bridge (WV-2 Spur; Ohio River Mile 68.0), 1.5 miles downstream from the US-22 Bridge. This bridge was closed in December 2023 with an uncertain future yet to be determined. The oldest bridge in the region traversing the Ohio River, the Market Street Bridge connects the Steubenville, OH Central Business District (CBD) to Brooke County, WV at WV-2 roughly 3,300-feet north of Follansbee, WV. The newest Ohio River Bridge, opened in September 2023, is the Wellsburg Bridge. It is located at Ohio River Mile 75.5 and connects OH-7 at Brilliant Ohio with WV-2 at Wellsburg West Virginia around 9.1 miles south of the US-22 bridge. The next highway bridge over Ohio River is the Fort Henry Bridge in Wheeling, WV outside the BHJ Region. The Fort Henry carries Interstate Route 70 (I-70) crossing at Ohio River Mile 90.2, approximately 22.2 river miles south of the Market Street. Table 2 lists each Ohio River Bridge, their respective connecting route, Ohio River Mile posting, and relative distance from the Veterans Memorial Bridge, the core of the Weirton-Steubenville, WV-OH Urbanized Area.

Regional Highway Bridges

| Bridge | Connecting/Route | Ohio River Mile Post (miles) | Distance from US22 Veterans Memorial Bridge (miles) | Annual Average Daily Traffic Count (veh. /day - yr.) |
|---|--|------------------------------|---|--|
| Jennings Randolph Bridge | U.S. Route 30 Chester/East Liverpool | 42.7 | 23.8 | 18,000 - 2019 |
| Newell Toll Bridge | WV-2 to East Liverpool | 44.4 | 22.1 | 6,450 - 2019 |
| Veterans Memorial Bridge | US-22 Weirton/Steubenville | 66.5 | 0.0 | 36,728-2019 |
| Market Street Bridge | WV-2 SPUR/Market St Steubenville/WV-2 | 68.0 | 1.5 | 7,490 - 2019 |
| Fort Henry Bridge Ohio County, WV/Belmont County, OH | Interstate 70 Wheeling/Bridgeport | 90.2 | 23.7 | 23,800 - 2019 |

Jennings Randolph Bridge

The Jennings Randolph Bridge replaced the former Chester Bridge first constructed in 1896 for the Steubenville, East Liverpool, and Beaver Valley Traffic Company. A suspension-type structure with a center span of 705 feet, the bridge had a roadway width of 20 feet with a 6-foot 3-inch sidewalk on the downstream side. Rebuilt in 1937, the State Bridge Commission of Ohio purchased the Chester Bridge in September 1938 operating the bridge as a toll facility until September 1951 when the bridge commission removed the tolls. Following the “Silver Bridge” disaster in 1967, Ohio placed a load limit of two tons on the Chester Bridge, limiting the bridge’s capacity to all but passenger cars thereby excluding truck traffic over the Ohio River. This forced all heavy commercial traffic to use the Fort Steuben Bridge to travel south in Steubenville-Weirton, travel north to the next bridge in Shipping port, Pennsylvania, or avoid the area all together. After further deterioration, engineers closed the bridge in May 1970 followed by demolition a year later leaving an even more serious impendence to travel across the Ohio River in northern Hancock County.

Finally, in 1977, the West Virginia Department of Transportation completed construction of the Jennings Randolph Bridge. The bridge once again continued the connection of US Route 30 over the Ohio River from East Liverpool, OH to State Route 2 in Chester, WV (in Hancock County) that was gone for more than seven years. The Jennings Randolph is a symmetric single-span steel through Pratt Truss. Measuring 750 feet in length between the centerline of the piers and a vertical clearance of 30 feet at the end portals, this bridge is the second longest simple-truss span in the world. The east approach (from the West Virginia shore) to the truss span is comprised of two steel girders and eight stringer spans of various lengths amounting to approximately 1300 feet. The bridge decking is 64 feet 8 inches wide with a curb-to-curb width of 62 feet allowing for four traffic lanes separated by a concrete barrier. The surface is a composite decking 7.5 inches thick with a 1.5-inch concrete overlay.

The West Virginia Department of Transportation is responsible for all maintenance capital improvements on the bridge's main structure over the Ohio River, while the Ohio Department of Transportation maintains the ramping to the bridge on the Ohio shoreline. An WVDOT Average Daily Traffic survey indicated 12,73 vehicles, including 2,710 heavy trucks (21.3%), traveled across the Jennings Randolph Bridge in 2020.

Newell Toll Bridge

The Newell Bridge, constructed in 1905 at a cost of \$250,000, has always served as a privately owned and operated toll bridge. Continuously operated by the Newell Bridge and Railway Company, the bridge first operated as a street railway line until the late 1930's. Today, according to a 2015 traffic count study conducted by BHJ, this two-lane steel suspension bridge carries an average daily traffic of 6,000 vehicles per day over the Ohio River between Newell, WV and East Liverpool, OH. A suspension-type bridge, the structure has a center span of 750 feet with an end span of 232 feet 9 inches on the West Virginia side and an end span of 387 feet 9 inches on the Ohio side. An additional through-truss approach span totaling 128 feet connects the Ohio end span to the Ohio abutment. The bridge roadway width is 20 feet 10 inches with a 6-foot walkway on the downstream side. In September 1954, a 5-inch deep steel-grid floor replaced the timber planking. Vertical clearance on the bridge is 13 feet 6 inches and the structure's capacity is 10 tons gross weight. Engineered and built by the Dravo Company, the Newell Bridge acted as a detour route for US Route 30 for more than seven years from 1970 after the State Commission of Ohio demolished the first Chester Bridge until 1977 when West Virginia completed construction of the Jennings Randolph Bridge.

Veterans Memorial Bridge

The Veterans Memorial Bridge (US-22), the newest bridge structure within the Metropolitan Area, crosses the Ohio River between Steubenville, Ohio and Weirton, West Virginia. Constructed as a US Route 22 replacement of the Fort Steuben Bridge, the Veterans Memorial opened to traffic on May 1, 1990. In development for more than 30 years, the bridge construction costs exceeded slightly more than \$70 million. Engineered by the Michael Baker Corporation, many considered the Veterans Bridge design unlike any other in the world. While the Veterans Bridge was under construction, only three cable-stayed steel girder trusses existed outside of Europe or Japan: Sitka, Alaska; Luling Louisiana; and Quincy, Illinois.

Named by a December 1988 Highway Commissioner Order, the Veterans Memorial is a cable-stayed suspension bridge consisting of a segmented deck of steel girders with cast-in-place concrete. From above the deck at the main pier rises a single 360-foot inverted Y-shaped tower from which 26-paired cables radiate (the longest measuring 800 feet) to connect the tower to the deck for vertical support. The entire bridge is 1,964 feet long with six 12-foot lanes, four through-traffic lanes, and two acceleration/deceleration lanes. In all, amounts of material used to erect the span include nine million pounds of structural steel, 3.4 million pounds of reinforcing steel (rebar) and 15,000 cubic yards of concrete. The National Steel Bridge Alliance lists the Veterans Memorial Bridge ranks as the 65th longest Cable-Stayed Steel Girder Bridge in the world.

Presently, over 31,000 vehicles cross the Veteran's Memorial Bridge daily. The West Virginia Department of Transportation owns and maintains the Veteran's Memorial Bridge with limited cost sharing for routine maintenance from the Ohio Department of Transportation.

Market Street Bridge

The Market Street Bridge (WV-2 Spur) is a steel suspension bridge that extends from the west at the foot of Market Street in the Steubenville, OH CBD to the east at West Virginia State Route 2. The West Virginia Department of Transportation is the sole owner of the bridge and is responsible for all upkeep and capital improvement costs to maintain the superstructure. The Steubenville Bridge Company was the first owner of the bridge, who in turn contracted with the Ohio Steel Erection Company to complete construction in 1904. Built originally to carry light trolley traffic, the Market Street Bridge consists of twelve (12) spans stretching to an overall length of 1,794 feet. The bridge has a total suspended length of roughly 1,200 feet with the main suspension measuring a little more than 700 feet. The roadway width is slightly less than 21 feet, and there is a 6-foot sidewalk on the downstream side of the bridge. The State West Virginia purchased the Market Street Bridge 1941 and continued toll collections until 1953.

Historic documents indicate that Hermann Laub, a Swiss native who migrated to the United States in 1880, is the original architect of the Market Street Bridge. In his lifetime, Laub built several bridges over the Ohio including the Newell Bridge. During his bridge building career, he established his own consulting office in Pittsburgh, PA. Until his death in 1918, Hermann Laub was the bridge engineer for the Commonwealth of Pennsylvania. In 1922, David Steinman (later the engineer for the Mackinac Bridge in Michigan) designed repairs to increase the bridge's load-bearing capacity.

Over the years, the bridge has undergone several reconstructions beginning in 1922 when the top chord broke in two places under the weight of freight streetcars, then in 1941 when the State of West Virginia purchased the bridge, and in 1953 when the state removed tolls. The 1941 renovation included rehabilitation of the towers and reconstruction of the deck flooring. Between 1979 and 1981, the West Virginia Department of Transportation spent more than \$5 million to install new decking (a lightweight open-grid steel bridge flooring system), replace the majority of the floor stringers, strengthen the floor beams, install new roadway lighting, and repaint the entire bridge structure. The cross bracing in the suspension span towers was also modified, and three of the piers were repaired. During the 1979 to 1981 reconstruction, work plans required closing the Market Street Bridge intermittently thereby forcing nearly 50 percent more traffic onto the Fort Steuben Bridge. Prior to the 1981 rehabilitation, WVDOT bridge engineers downgraded the posted weight limits from 13 tons to 3 tons. When contractors finished work in 1981, the Division of Highways raised posted limits to 13 tons until June 1993 when bridge inspection results submitted by Burgess & Nipple Ltd. of Parkersburg, WV recommended the present 5-ton weight limit. Shortly thereafter, the highway department installed 11-foot vertical restriction portals at each end of the bridge as a means to enforce the current weight limitations.

The West Virginia DOT closed the Market Street Bridge for major renovations from January 11 to November 12, 2010 and from March 14 to December 7, 2011. The approximately \$15 million dollar renovation project included repairs to the bridge towers, Ohio approach spans and trusses, cleaning and painting as well as installation of decorative lighting. The DOT also lowered the

bridge clearance by a foot to prevent overweight vehicles from violating the bridge's 5-ton weight limit. The project contractor was Ahern & Associates of South Charleston, WV along with Panthera Painting of Canonsburg, PA (cleaning & painting) and Bayliss & Ramey of Dunbar, WV (bridge lighting).

The past average traffic across the Market Street Bridge was 6,470 vehicles per day and restricted for truck traffic and any other vehicle over 5-ton limit. A 2018 inspection report placed this bridge on the Critical Deficiency List. Along with the normal wear and tear in lighting, color, the 2018 inspection report put the approach suspension spans, anchorages, approach truss, guardrail, suspended span sidewalks, railings all are in either poor or in critical condition. The bridge waterway adequacy is good with no excessive or restricted flows. Some minor amounts of drift are located along the channel edges.

In September of 2023, during a quarterly inspection of the bridge due to the poor rating of the structure, the 5-ton weight limit was reduced to 3-ton. This was only temporary as less than a week later, the bridge was closed to traffic. The reasoning being that the northern cable on the Ohio side was deteriorating and could not be determined the true scope of damage until further inspection. The outer windings of the cable were removed and large areas of section loss were present. In the next month structural analysis was performed and the cable reinspected. Upon further investigation the cable was showing more signs of deterioration and stress even without vehicles present. The WVDOH has submitted an application to the FHWA Bridge Investment Program that would cover 50% of the costs to replace the structure as repairing it would be cost prohibitive. The governor, transportation secretary, and DOH do not have plans to replace or repair the bridge unless federal funds are available, but will commit the funding if the application is successful. The results of the application process will be known sometime in 2024.

Wellsburg Bridge (New Ohio River Bridge)

The West Virginia Division of Highways (WV DOH) and the Ohio Transportation Review and Advisory (TRAC) have committed funding for the Wellsburg Bridge over the Ohio River connecting WV-2 south of Wellsburg, Brooke County, WV and OH-7 in the south end of Brilliant, Wells Township, Jefferson County, OH. On September 23, 2015, the BHI Transportation Study Policy Committee (BHI) adopted Resolution 2015-9 adding the funding schedule to the BHI 2016-2019 Transportation Improvement Program (TIP). Titled as State Project Number X305 2/23, the estimated West Virginia share for construction of the Wellsburg Bridge obligated to the amount to \$79,920,000. The WV DOH revised the construction estimate in January 2016 to \$98,941,000. On January 27, 2016, BHI adopted Resolution 2016-2 adding the TRAC commitment of \$36,770,000. The Ohio TRAC has agreed to reimburse the WVDOH its share of the construction in ten equal annual payments of \$3,700,000 starting in State Fiscal Year 2017. Each state highway agency, West Virginia and Ohio, are responsible for building the connections on their respective shores up to the West Virginia and Ohio State line. The construction started in April 2018. A Design-Build Project, West Virginia will manage the qualification selection process and project construction. The estimated conclusion date is 04/01/2021 and currently ODOT- WVDOH both agencies are in middle of their construction phase. As part of alternative delivery method, the contractor Flatiron proposed building a tied-arch bridge that will be constructed offsite and delivered by barge to the project site for installation — a method that will accelerate project

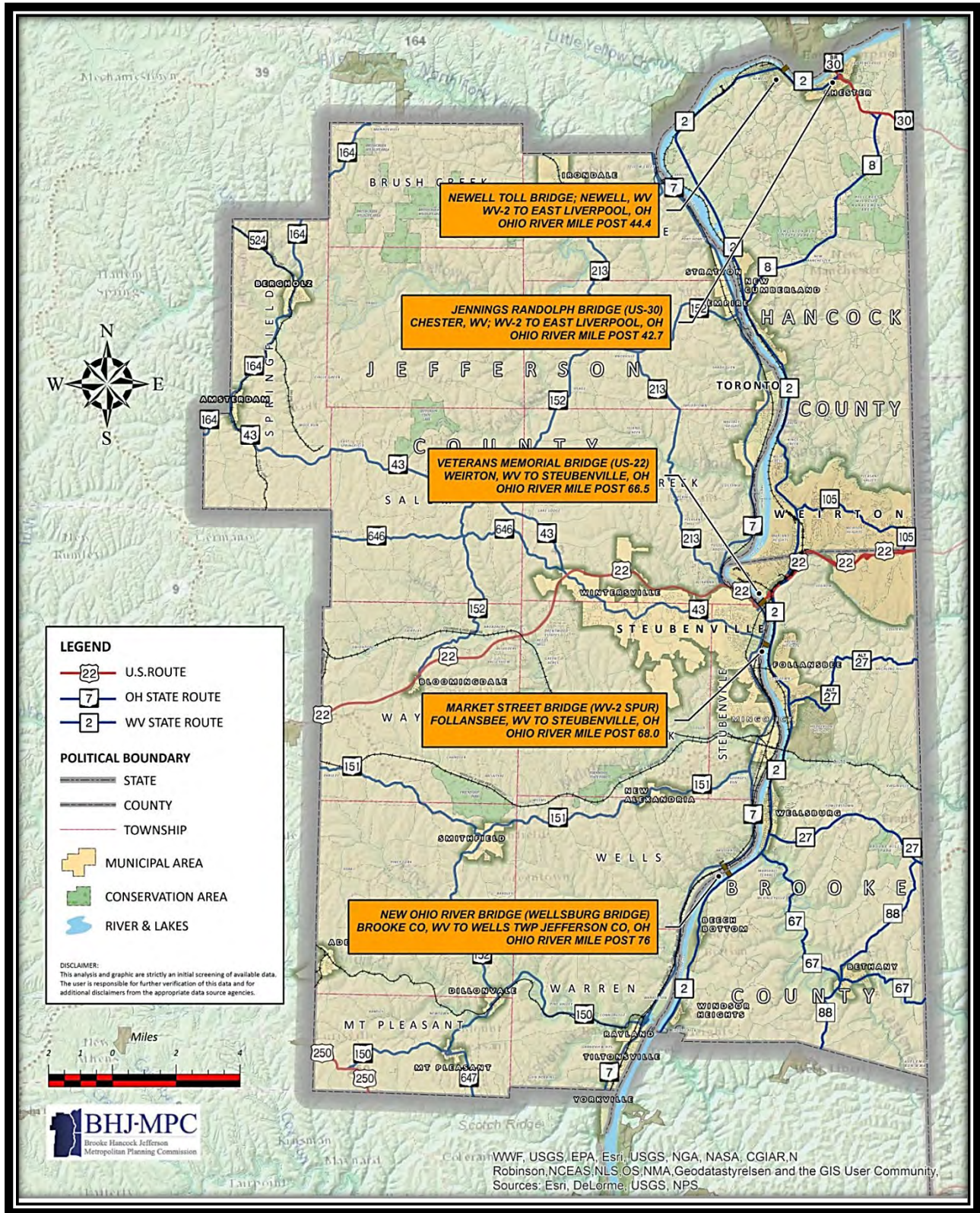
timetables. When completed, the bridge will connect Route 2 in West Virginia, near Wellsburg, to Route 7 in Brilliant, Ohio, providing a key and reliable artery for northern West Virginia and eastern Ohio communities. Project financing was made possible through a public-private partnership (PPP), involving Flatiron, WVDOT, the Ohio Department of Transportation, as well as federal highway funds.

Recently completed and opened to traffic on September 21, 2023, the Wellsburg Bridge has been a long time multi-governmental planning effort dating back to 2000 when BHJ first released the recommendation for a new river crossing in the Upper Ohio Valley Bridge System Study. The need for the bridge came from a necessity for another river crossing to act as an alternative to the Veterans Memorial Bridge. Since the closing and demolition of the Ft Steuben Bridge, the alternative for US-22 was to travel an almost 2 hour detour either to East Liverpool or Wheeling. This bridge also provides opportunity for economic development and growth around Brilliant and Wellsburg and has already influenced the opening of businesses in Beech Bottom.

The Wellsburg Bridge is a tied-arch span and was constructed in a unique way. The entire main span was constructed about a mile up river and then loaded onto a barge. The span was then floated down the river on the barges and lifted 80 feet up onto the approach girders. This process only took one day to complete and was the largest bridge floating project ever attempted in North America. With a final cost of \$185 million dollars, this new river crossing is a welcome asset to the BHJ area.

With the Brooke Pioneer Trail travelling under the bridge on the WV side, connecting Wheeling to Wellsburg, the need and want for trail access led to the bridge receiving a shared use path for walking and biking. To aid in need for parking for not only active transportation individuals but also for those wanting to car pool in the area, BHJ along side ODOT is constructing a park and ride lot in Brilliant adjacent to the bridge that will be completed in 2025.

OHIO River Bridges in BHJ Region



PERFORMANCE MEASURES

Moving Ahead for Progress in the 21st Century (MAP-21), the national transportation program prior to the FAST-Act, established a series of national performance goals. MAP-21 transformed the Federal-aid highway program by establishing new requirements for performance management to ensure the most efficient investment of Federal transportation funds. Performance management increases the accountability and transparency of the Federal-aid highway program and provides for a framework to support improved investment decision making through a focus on performance outcomes for key national transportation goals, National Highway Performance, Highway Safety Improvement, Congestion Management, and Freight Movement. MAP-21 established national performance goals for the Federal-Aid Highway Program in seven areas:

- Safety - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads,
- Infrastructure Condition - To maintain the highway infrastructure asset system in a state of good repair,
- Congestion Reduction - To achieve a significant reduction in congestion on the National Highway System,
- System Reliability - To improve the efficiency of the surface transportation system,
- Freight Movement and Economic Vitality - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development,
- Environmental Sustainability - To enhance the performance of the transportation system while protecting and enhancing the natural environment, and
- Reduced Project Delivery Delays - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices

The FAST Act carries forward the performance goals established in MAP-21. In addition, it places an emphasis on the inclusion of the following items as part of the metropolitan planning process.

- Travel and tourism
- Resiliency and natural disaster risk reduction, and
- Intercity transit and transportation demand management

The Bipartisan Infrastructure Law (BIL) carries forward with MAP-21 and the FAST Act and places an emphasis on sustainability, equity, and the preservation of the aging transportation system.

MEASURING SAFETY

All states are required to develop a Strategic Highway Safety Plan (SHSP) that uses crash data to identify the greatest causes of traffic crashes, serious injuries, and fatalities on public roads. A variety of state and federal safety agencies and private sector organizations developed Ohio’s SHSP, which focuses on safety for all road users, including cars, trucks, trains, motorcycles, pedestrians, and bicycles. The Ohio Department of Transportation uses a GIS Crash Analysis Tool (GCAT) to produce spatially located data for MPOs such as BHJ for engineering and analysis reports.

23 CFR 490.207 requires states to establish five safety performance measures and set targets for those measures to demonstrate fatal and serious injury reductions on all public roads. The figure below shows the safety performance measures, baselines, and targets. These measures are evaluated on a 5-year rolling average.

| Ohio PM1 Safety Performance Targets for CY2024 | |
|---|------------------|
| 2% Annual Reduction target across all five Safety Performance Measures Categories | |
| Number of Fatalities | 1,173.0 or less |
| Number of Serious Injuries | 7,270.0 or less |
| Fatality Rate | 1.05 per 100 MVM |
| Serious Injury Rate | 6.51 per 100 MVM |
| Non-Motorized Number of Serious Injuries/Fatalities | 835 or less |
| <i>The BHJMPO adopted the above performance targets November 15, 2023*</i> | |
| Ohio PM1 Safety Performance Targets Baselines from CY2018-2022 | |
| Number of Fatalities | 1,220.0 |
| Number of Serious Injuries | 7,529.4 |
| Fatality Rate | 1.09 per 100 MVM |
| Serious Injury Rate | 6.78 per 100 MVM |
| Non-Motorized Number of Serious Injuries/Fatalities | 869.19 or less |

BHJ Mirrors the Targets Set by ODOT.

In an effort to improve safety, Ohio has once again adopted a 2% Annual Reduction goal for the 2024 Target Year. This 2% annual reduction is across all 5 targets: Number of Fatalities, Number of Serious Injuries, Rate of Fatalities, Rate of Serious Injuries, and Number of Non-motorized Fatalities and Non-motorized Serious Injuries. Ohio has adopted these aggressive targets because the state is making a record level of investments in safety thanks to an increase in the gas tax in 2019, the first increase in almost 15 years. This increase has resulted in an additional \$50M annually for Highway Safety Improvement Projects (HSIP), bringing the total investment to \$158M annually. As a result of the new federal transportation bill passed in 2021, ODOT has elected to add \$27M to the budget in FY 23 and 24, bringing the total HSIP budget to \$185M. Ohio is also pursuing changes to its distracted driving law that has not updated since 2012 when mobile devices could not do a fraction of what they can today. Ohio is also stating that they are choosing to adopt aggressive targets for fatalities because they cannot in good conscience set negative targets or low expectations and expect to inspire ourselves or Ohioans to do more.

| West Virginia Statewide PM1 Safety Performance Targets for CY 2024 | | | | | |
|--|---------------------|--------------------------|--|----------------------------|-----------------------------|
| <i>Target to reach Zero Fatalities by 2050</i> | | | | | |
| <i>66% reduction in serious injuries by the year 2050</i> | | | | | |
| <i>66% reduction in bike and pedestrian facilities and serious injuries by the year 2050</i> | | | | | |
| Number of Fatalities | 262.7 or less | | | | |
| Number of Serious Injuries | 791.2 or less | | | | |
| Fatality Rate | 1.682 per 100 HMVMT | | | | |
| Serious Injury Rate | 5.030 per 100 HMVMT | | | | |
| Non-Motorized Number of Serious Injuries/Fatalities | 86.0 or less | | | | |
| BHJ Area PM1 Safety Performance Target Setting | | | | | |
| Annual | | | | | |
| Safety Performance Measure | Original Baseline | New Baseline (2021) | 2022 Annual Target (2024's Baseline) | 2024 Annual Target | 2050 Annual Goal |
| Fatalities | 4 | 2 | 2 | 1 | 0 |
| Fatality Rate | 1.075 | 0.796 | 0.792 | 0.365 | 0.00 |
| Serious Injuries | 39 | 17 | 17 | 19 | 6 |
| Serious Injury Rate | 10.398 | 6.765 | 4.592 | 7.453 | 1.99 |
| Non-Motorized Number of Serious Injuries/Fatalities | 1 | 1 | 1 | 3 | 0 |
| 5-Year Average | | | | | |
| Safety Performance Measure | Original Baseline | New Baseline (2017-2021) | 2022 5-Year Avg Target (2018-2022) 2024's Baseline | 2024 5-Year Average Target | 2046-2050 5-Year Avg Target |
| Fatalities | 4.2 | 3.4 | 3.3 | 1.6 | 0.07 |
| Fatality Rate | 1.11 | 1.064 | 0.929 | 0.604 | 0.025 |
| Serious Injuries | 39.4 | 21.6 | 207 | 18.3 | 6.7 |
| Serious Injury Rate | 10.53 | 6.793 | 6.812 | 7.132 | 2.366 |
| Non-Motorized Number of Serious Injuries/Fatalities | 2.4 | 2.2 | 2 | 2.14 | 0.52 |
| <i>The BHJMPO adopted the above performance targets January 17th, 2024*</i> | | | | | |

BHJ Mirrors the Targets Set by WVDOH.

For 2022, not all targets were met in the BHJ region for West Virginia, but performance was better than the baseline data and significant progress was made.

MEASURING INFRASTRUCTURE CONDITIONS

23 CFR 490.307 and 23 CFR 490.407 establish performance measures to evaluate the condition of Ohio’s and West Virginia’s National Highway System (NHS) pavements and bridges. The tables below shows these performance measures along with their baselines, 2-year targets, and 4-year targets, as well as the projects and funding that is being invested to maintain and improve pavement and bridge conditions in the BHJMPC region during this TIP period. BHJMPC does not have any Interstate routes through the region and those performance measures are not listed and do not apply.

| Ohio PM2 NHS Pavement Targets | 2-Year Target | 4-Year Target |
|--|----------------------|----------------------|
| Percentage of Non-Interstate NHS Pavements in Good Condition | Good: 40% or more | Good: 40% or more |
| Percentage of Non-Interstate NHS Pavements in Poor Condition | Poor: 2% or less | Poor: 2% or less |
| Ohio PM2 NHS Bridge Targets | 2-Year Target | 4-Year Target |
| Percentage of NHS Bridges by deck area in Good Condition | Good: 55% or more | Good: 55% or more |
| Percentage of NHS Bridges by deck area in Poor Condition | Poor: 3% or less | Poor: 3% or less |

*The BHJMPO adopted the above performance targets March 16th, 2022**

BHJ Mirrors the Targets Set by ODOT.

| West Virginia PM2 NHS Non-Interstate Bridge and Pavement Performance Targets | | | | | | |
|---|------------------------------------|----------------------------------|-----------------------------|------------------------------------|-----------------------------|---------------------------------|
| Performance Measures | Baseline Performance (2017) | 2 Year Performance (2019) | 2 Year Target (2019) | Significant Progress (2019) | 4 Year Target (2021) | 4 Year Adjustment (2021) |
| Percentage of Pavements of the Non-Interstate NHS System in Good Condition | 40.9% | 43.0% | 40.0% | Yes | 45.0% | - |
| Percentage of Pavements of the Non-Interstate NHS System in Poor Condition | 1.2% | 2.0% | 5.0% | Yes | 5.0% | - |
| Percentage of NHS Bridges Classified as in Good Condition | 13.9% | 11.6% | 14.0% | No | 16.0% | 11% |
| Percentage of NHS Bridges Classified as in Poor Condition | 11.9% | 13.5% | 10.0% | No | 10.0% | 13% |

*The BHJMPO adopted the above performance targets March 17, 2021**

BHJ Mirrors the Targets Set by WVDOH.

CONGESTION, SYSTEM RELIABILITY, AND FREIGHT MOVEMENT

23 CFR 490.507 and 23 CFR 490.607 established the performance measures for the Level of Travel Time Reliability on Ohio’s and West Virginia’s NHS system. 23 CFR 490.807 established the Total CMAQ Emission Reduction Performance Measures. These performance measures affect Ohio’s and West Virginia’s U.S. EPA designated air quality nonattainment and maintenance areas. Ohio and West Virginia was required to set targets for its nonattainment and maintenance areas for the pollutants of Volatile Organic Compounds (VOCs), Nitrous Oxide (NOx), and Particulate Matter at 2.5 Micrometers in Diameter (PM^{2.5}). The table below shows these performance measures along with their baselines, 2-year targets, and 4-year targets, as well as the total projects and funding that is being invested to improve travel time reliability on the NHS system in the BHJMPC region during the TIP period. BHJMPC does not have any Interstate routes through the region and those performance measures are not listed and do not apply.

The CMAQ (Congestion Mitigation and Air Quality) program funds projects based on their estimated contribution toward the reduction of these mobile source pollutants. The table below shows the TIP period CMAQ funded projects in the BHJMPC region.

| Ohio PM3 Non-Interstate NHS Travel Time Reliability (TTR) Targets | 2-Year Target | 4-Year Target |
|--|------------------------|------------------------|
| % of Person-Miles Traveled on the Non-Interstate NHS that are Reliable | N/A | 80% or better |
| Level of Truck Travel Time Reliability (LOTTR) | 1.50 or more | 1.50 or more |
| Ohio PM3 CMAQ Mobile Emissions Targets (For the Region) | 2-Year Target | 4-Year Target |
| Volatile Organic Compounds (VOC) Total Emission Reduction | 60.000 kg/day or more | 60.000 kg/day or more |
| Nitrous Oxide (NOx) Total Emission Reduction | 250.000 kg/day or more | 250.000 kg/day or more |
| Particulate Matter 2.5 (PM2.5) Total Emission Reduction | 30.000 kg/day or more | 30.000 kg/day or more |
| <i>The BHJMPO adopted the above performance targets March 16th, 2022*</i> | | |

BHJ Mirrors the Targets Set by ODOT.

| West Virginia PM# Travel Time Reliability and Air Quality Performance Measures | | | | | | |
|---|------------------------------------|----------------------------------|-----------------------------|------------------------------------|-----------------------------|---------------------------------|
| Performance Measures | Baseline Performance (2017) | 2 Year Performance (2019) | 2 Year Target (2019) | Significant Progress (2019) | 4 Year Target (2021) | 4 Year Adjustment (2021) |
| Truck Travel Time Reliability Index (TTTR) | 1.21 | 1.28 | 1.25 | No | 1.30 | 1.40 |
| Total Emission Reductions: PM2.5 | 0.092 | 0.122 | 0.092 | Yes | 0.092 | - |
| Total Emission Reductions: PM10 | 0.000 | 0.133 | 0.000 | Yes | 0.000 | - |
| <i>The BHJMPO adopted the above performance targets March 17, 2021*</i> | | | | | | |

Transit Asset Management (TAM)

ODOT has set the following performance targets and measures for facilities, equipment, and revenue vehicles at a statewide level. The charts below show the statewide information for reference.

Facilities

Facilities Performance Targets

| Asset Class (NTD) | Performance Target | Performance Measure |
|---------------------------|--------------------|---------------------|
| Passenger Facilities | 0% below a 3 | 0% |
| Maintenance Facilities | 22% below a 3 | 16% |
| Administrative Facilities | 38% below a 3 | 16% |

Equipment

Equipment includes service vehicles and equipment not attached to or a part of a facility that has a replacement value greater than \$50,000.

Equipment Performance Targets

| Asset Class (NTD) | Asset Class (ODOT) | Performance Target | Performance Measure |
|---------------------|---------------------|-----------------------------|---------------------|
| Non-Revenue Vehicle | Service Vehicle | 100% less than 10 years old | 36% |
| Equipment | Mobile Vehicle Lift | 100% less than 14 years old | 100% |
| Equipment | Generator | 100% less than 10 years old | 100% |

Rolling Stock Vehicles

Vehicles Performance Targets

| Asset Class (NTD) | Asset Class (ODOT) | Performance Target | Performance Measure |
|-------------------|---|-------------------------|---------------------|
| Automobile | Automobile (AO) | 30% older than 8 years | 20% |
| Bus | Heavy Duty Bus (B30-HD, B35-HD, B40-HD, B45-HD, B60-HD); Medium Duty Bus (B30-D, B35-MD); Light Duty Bus (B30-LD) | 21% older than 14 years | 0% |
| Cutaway Bus | LTL/LTN, LTV, LTV-FS, LTV-HC, LTV-N, LTV-S | 2% older than 10 years | 8% |
| Van | Accessible Vans (AV); (BSV); Converted Vans (CV); Modified Mini Van(MMV); (MV-1); Mini Vans (SMV) | 10% older than 8 years | 23% |

There are two transit agencies that provide public transportation in the BHJ MPC region. Steel Valley Regional Transit Authority (SVRTA) and the Weirton Transit Corporation provide bus routes that cover a majority of the three county area and more via connections to surrounding transit agencies in Ohio, West Virginia, and Pennsylvania. The tables below show total transit investments, projects planned, performance targets and measures, and investment priorities for the BHJ MPC region in the TIP period.

SVRTA-Performance Targets and Measures

SVRTA Asset Inventory Summary

| Asset Category | Total Number | Avg. Age | Avg. Mileage | Avg. Value |
|---------------------------------------|--------------|----------|--------------|----------------|
| Revenue Vehicles | 14 | 6.1 | 148,694 | \$26,649.47 |
| AB-Articulated Bus | 0 | - | - | - |
| AO-Automobile | 0 | - | - | - |
| BR-Over-the-road Bus | 0 | - | - | - |
| BU-Bus | 0 | - | - | - |
| CU-Cutaway Bus | 11 | 6.1 | 172,926 | \$31,235.02 |
| DB-Double Decked Bus | 0 | - | - | - |
| FB-Ferryboat | 0 | - | - | - |
| MB-Mini-bus | 0 | - | - | - |
| MV-Mini-van | 3 | 6.0 | 59,843 | \$9,835.80 |
| RT-Rubber-tire Vintage Trolley | 0 | - | - | - |
| SB-School Bus | 0 | - | - | - |
| SV-Sport Utility Vehicle | 0 | - | - | - |
| TB-Trolleybus | 0 | - | - | - |
| VN-Van | 0 | - | - | - |
| Custom 1 | 0 | - | - | - |
| Custom 2 | 0 | - | - | - |
| Custom 3 | 0 | - | - | - |
| Equipment | 48 | 13.8 | 44,671 | \$5,273.66 |
| Non Revenue/Service Automobile | 0 | - | - | - |
| Steel Wheel Vehicles | 0 | - | - | - |
| Trucks and other Rubber Tire Vehicles | 2 | 12.5 | 44,671 | \$18,000 |
| Trucks and other Rubber Tire Vehicles | 2 | 12.5 | 44,671 | \$18,000 |
| Custom 2 | 24 | 13.0 | N/A | \$4,090.02 |
| Custom 3 | 3 | 15.3 | N/A | \$653.89 |
| Facilities | 2 | 26.0 | N/A | \$1,450,000.00 |
| Administration | 1 | 33.0 | N/A | \$2,400,000.00 |
| Maintenance | 0 | - | N/A | - |
| Parking Structures | 0 | - | N/A | - |
| Passenger Facilities | 1 | 19.0 | N/A | \$500,000.00 |
| Custom 1 | 0 | - | N/A | - |
| Custom 2 | 0 | - | N/A | - |
| Custom 3 | 0 | - | N/A | - |

Asset Condition Summary

| Asset Category | Avg. TERM Condition | Avg. Value | % At or Past ULB |
|---------------------------------------|---------------------|----------------|------------------|
| Revenue Vehicles | N/A | \$14,851.37 | 80% |
| AB-Articulated Bus | N/A | - | - |
| AO-Automobile | N/A | - | - |
| BR-Over-the-road Bus | N/A | - | - |
| BU-Bus | N/A | - | - |
| CU-Cutaway Bus | 3.2 | \$16,105.00 | 83% |
| DB-Double Decked Bus | N/A | - | - |
| FB-Ferryboat | N/A | - | - |
| MB-Mini-bus | N/A | - | - |
| MV-Mini-van | 4.0 | \$9,835.00 | 67% |
| RT-Rubber-tire Vintage Trolley | N/A | - | - |
| SB-School Bus | N/A | - | - |
| SV-Sport Utility Vehicle | N/A | - | - |
| TB-Trolleybus | N/A | - | - |
| VN-Van | N/A | - | - |
| Custom 1 | N/A | - | - |
| Custom 2 | N/A | - | - |
| Custom 3 | N/A | - | - |
| Equipment | N/A | \$889.22 | 36% |
| Non Revenue/Service Automobile | 2.0 | \$0.00 | 0% |
| Steel Wheel Vehicles | N/A | - | - |
| Trucks and other Rubber Tire Vehicles | N/A | \$0.00 | 100% |
| Trucks and other Rubber Tire Vehicles | N/A | \$0.00 | 100% |
| Custom 2 | N/A | \$1,807.02 | 36% |
| Custom 3 | N/A | \$653.89 | 100% |
| Facilities | 4.0 | \$1,450,000.00 | N/A |
| Administration | 4.0 | \$2,400,000.00 | N/A |
| Maintenance | - | - | N/A |
| Parking Structures | - | - | N/A |
| Passenger Facilities | 4.0 | \$500,000.00 | N/A |
| Custom 1 | - | - | N/A |
| Custom 2 | - | - | N/A |
| Custom 3 | - | - | N/A |

Projects and Investment Priorities for the Current TIP Period (2024-2027)

| Project Year | Project Name | Cost |
|---------------------|-------------------------------------|-----------------------|
| 2024 | Operating Assistance | \$1,073,300.00 |
| 2024 | Planning Assistance | \$97,500.00 |
| 2024 | Preventative Maintenance Assistance | \$377,500.00 |
| 2024 | Vehicle Replacements | \$212,300 |
| 2025 | Operating Assistance | \$1,126,965.00 |
| 2025 | Planning Assistance | \$102,375.00 |
| 2025 | Preventative Maintenance Assistance | \$396,375.00 |
| 2026 | Operating Assistance | \$1,183,313.00 |
| 2026 | Planning Assistance | \$107,494.00 |
| 2026 | Preventative Maintenance Assistance | \$416,194.00 |
| 2027 | Operating Assistance | \$1,242,479.00 |
| 2027 | Planning Assistance | \$112,868.00 |
| 2027 | Preventative Maintenance Assistance | \$437,003.00 |
| TOTAL | | \$6,885,666.00 |

**Note: The SVRTA uses the Transportation Improvement Program (TIP) development process of the BHJMPC to satisfy the public hearing requirements of 49 U.S.C. Section 5307(b). The TIP public notice of public involvement activities and time established for public review and comment on the TIP satisfies the program-of-projects requirements of the Urbanized Area Formula Program.*

WVDO-Performance Targets and Measures
State of Good Repair Summary

| Category | Class | Performance Measure | 2024 Target | 2023 Actual | 2022 Actual | Action | Action Owner | Dependency |
|---------------|-----------------------------|---------------------|-------------|-------------|-------------|--|---------------------|-----------------------------|
| Rolling Stock | 12yr/500 K Miles | SGR% | 95% | 94% | 78% | Continue working with sub grantees to maintain robust maintenance program | WVDO T & Subgrantee | TAM Plan |
| | 10yr/350 K Miles | SGR% | 89% | 87% | 83% | Evaluate SGR of Trolleys | Subgrantee | - |
| | 7yr/200K Miles | SGR% | 75% | 70% | 86% | Evaluate SGR of Trolleys and prioritize replacements for “bad” and “poor” rated vehicles | WVDO T & Subgrantee | TAM Plan |
| | 5yr/150K Miles | SGR% | 73% | 71% | 72% | Prioritize replacements for “bad” and “poor” rated vehicles | WVDO T & Subgrantee | TAM Plan |
| | 4yr/100K Miles | SGR% | 79% | 77% | 76% | Prioritize replacements for “bad” and “poor” rated vehicles | WVDO T | TAM Plan |
| | | | | | | Enhance existing asset management tool to include PM reporting | WVDO T | AVIS |
| | | | | | | Conduct analysis of fleet maintenance practice for identified systems | WVDO T | WVDO System Reviews |
| Facility | Admin, Maintenance, Storage | SGR% | 75% | 70% | 100% | Maintain SGR for all facilities | WVDO T | WVDO System Reviews AVIS |
| | Transfer Center | SGR% | 100% | 100% | 100% | | | |
| Equipment | Support Vehicles | SGR% | 40% | 39% | 76% | Support vehicles not in consistent support service are brought into SGR or disposed | WVDO T & Subgrantee | WVDO System Reviews AVIS |
| | Maintenance Equipment | SGR% | 35% | 30% | 63% | Maintain SGR for all equipment | | |

*SGR: Definition of State of Good Repair**

WVDO defines SGR as a system meeting the following criteria: All assets are functioning at their ideal capacity within their design life. The state's asset management system, AVIS, includes consistent, accurate and relatively current information on the status of each capital asset covered by the TAM. Each system has a maintenance program to ensure maintenance is performed per manufacturer requirements and intervals. No rolling stock assets are placed in revenue service with identified safety defects.

Transit Projects and Investment Priorities for the Current TIP Period (2024-2027)

| Weirton Department of Transit (WDOT)- Weirton | | 2024 | | 2025 | | 2026 | | 2027 | |
|---|--------|-----------|-----------|-----------|-----------|-----------|-----------|--------------------|-----------|
| | | | | | | | | | |
| (WDOT)- Weirton | | | | | | | | | |
| BHJMPO | Source | Federal | State | Federal | State | Federal | State | Federal | State |
| Operating Assistance | 5307 | \$311,100 | \$311,100 | \$353,500 | \$353,500 | \$356,200 | \$356,200 | \$358,900 | \$358,900 |
| Maintenance | 5339 | \$28,400 | \$7,100 | \$29,200 | \$7,300 | \$30,100 | \$7,525 | \$31,000 | \$7,750 |
| TOTAL | | | | | | | | \$2,907,775 | |

**Note: The WDOT uses the Transportation Improvement Program (TIP) development process of the BHJMPC to satisfy the public hearing requirements of 49 U.S.C. Section 5307(b). The TIP public notice of public involvement activities and time established for public review and comment on the TIP satisfies the program-of-projects requirements of the Urbanized Area Formula Program.*

**Transit Safety Performance:
SVRTA Safety Performance Data**

| Data from 2022 | |
|---|--------------------|
| Total # of Safety Events | 3 |
| Safety Event Rate per Vehicle Revenue Miles | 0.44/100,000 miles |
| Total # of Fatalities | 0 |
| Fatality Rate per Vehicle Revenue Miles | 0 |
| Total # of Injuries | 0 |
| Injury Rate per Vehicle Revenue Miles | 0 |
| System Reliability | 99% |

WTC Safety Performance Data (Former entity of WDOT)

| Data from 2022 | |
|---|-----|
| Total # of Safety Events | 8 |
| Safety Event Rate per Vehicle Revenue Miles | N/A |
| Total # of Fatalities | 0 |
| Fatality Rate per Vehicle Revenue Miles | 0 |
| Total # of Injuries | 1 |
| Injury Rate per Vehicle Revenue Miles | N/A |
| System Reliability | 99% |

**Note: Past data represents the former WTC and not WDOT. This is being used to compare the former transit authority to the new as a base line.*

SYSTEM PERFORMANCE REPORTING

A system performance report describes the condition and performance of the transportation system with respect to the established federal and state performance measures and regional targets. By using the data that is collected in regards to the changing performance measure targets (BHJ usually adopts the statewide targets established by Ohio and West Virginia) reporting can show how progress is being made to improve safety, infrastructure condition, and system reliability.

Transportation Safety (PM1)

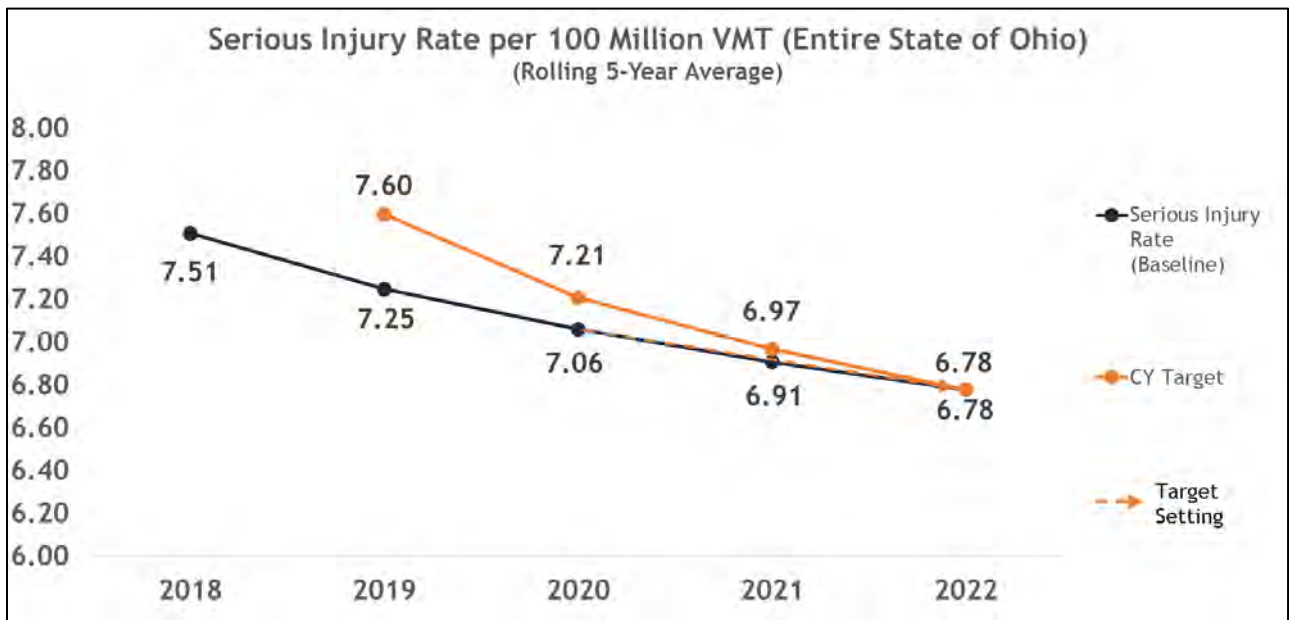
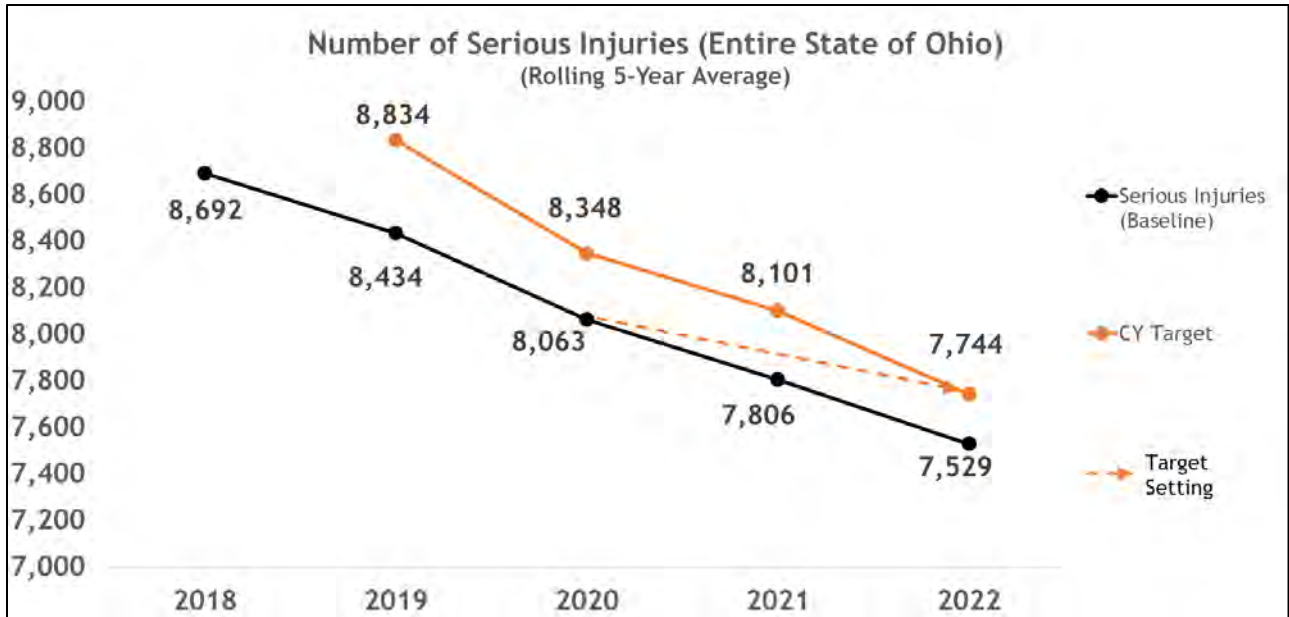
Improving the safety of the transportation system is one of the top priorities of BHJ as well as ODOT and WVDOH. Safety is an important focus in all of the state’s planning efforts and is a key factor in prioritizing and funding projects throughout the metropolitan area. Both ODOT and WVDOH have adopted aggressive goals to reduce serious injuries and fatality on their roadways as explained in the previous performance measure sections. These goals are reflected by BHJ.

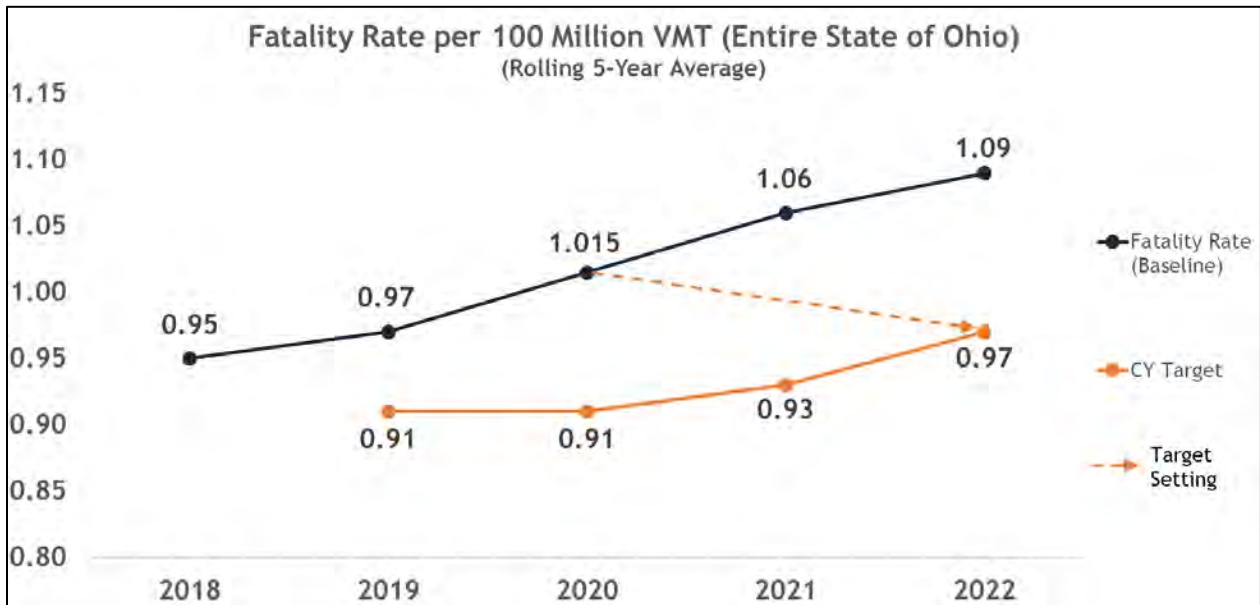
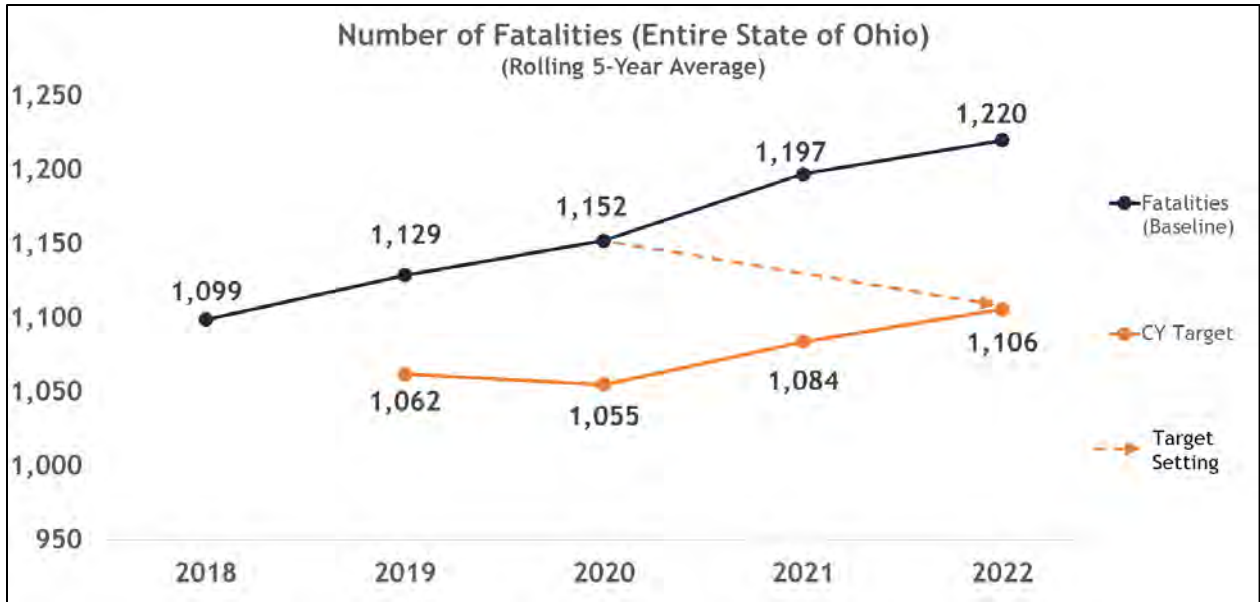
Across the state of Ohio, the number and rate of serious injury and the number of non-motorized serious injury and fatal crashes have consistently decreased and met or made progress of the goals adopted. Unfortunately the number and rate of fatalities have steadily increased and still require projects to try and reduce these types of crashes. However in the BHJ region in Jefferson county, fatal and serious injury crashes are down or remain the same across the board except with non motorist serious injuries. The graphs and tables below show how the state and Jefferson county have performed in the past. Fixed object crashes remained the highest type of crash since 2013.

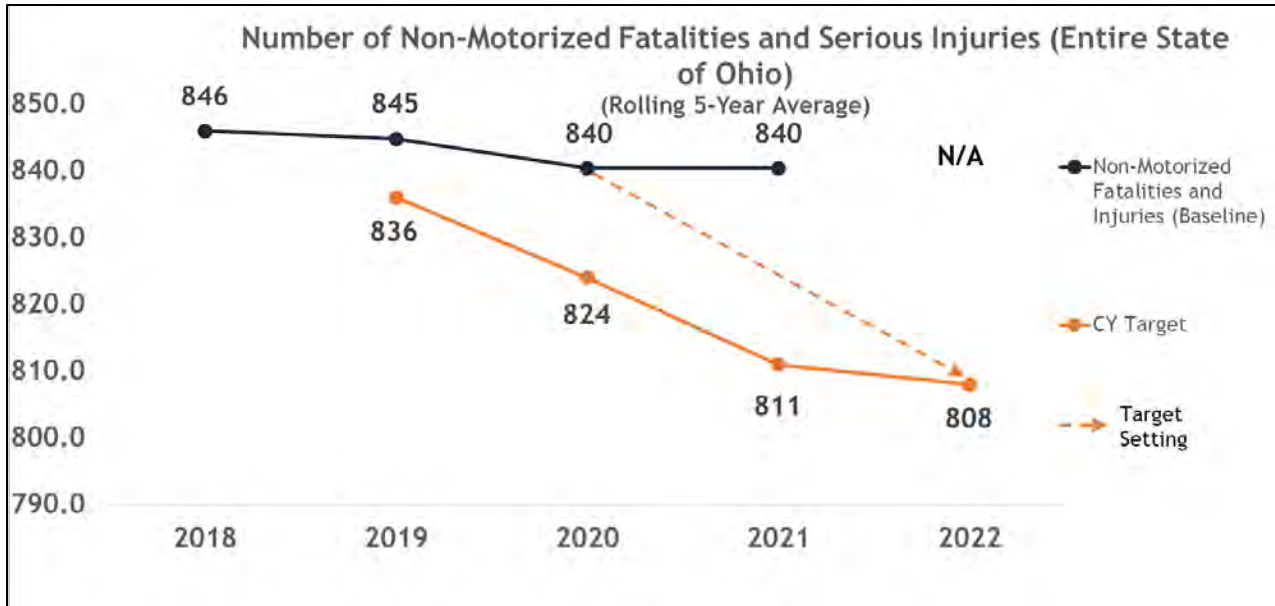
Jefferson County Crash Data

| | 2013-2017 | 2018-2022 |
|-------------------------------|-----------|-----------|
| Total Crashes | 6,202 | 5,178 |
| Fatalities | 24 | 19 |
| Serious Injuries | 251 | 186 |
| Non Motorist Serious Injuries | 9 | 19 |
| Non Motorist Fatalities | 1 | 1 |
| Per Year Fatalities | 5.0 | 3.8 |
| Per Year Serious Injuries | 40.0 | 37.2 |
| Fixed Object Crashes | 31.7% | 31.7% |

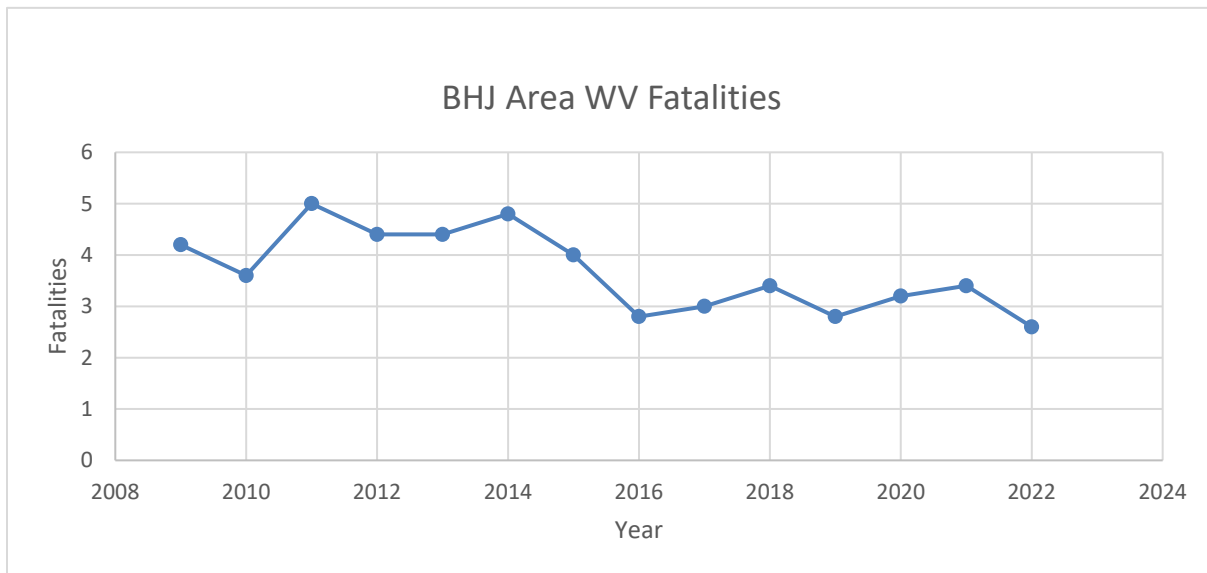
Data comparing the crashes in Jefferson County Ohio from the 2045 LRTP and 2050 LRTP

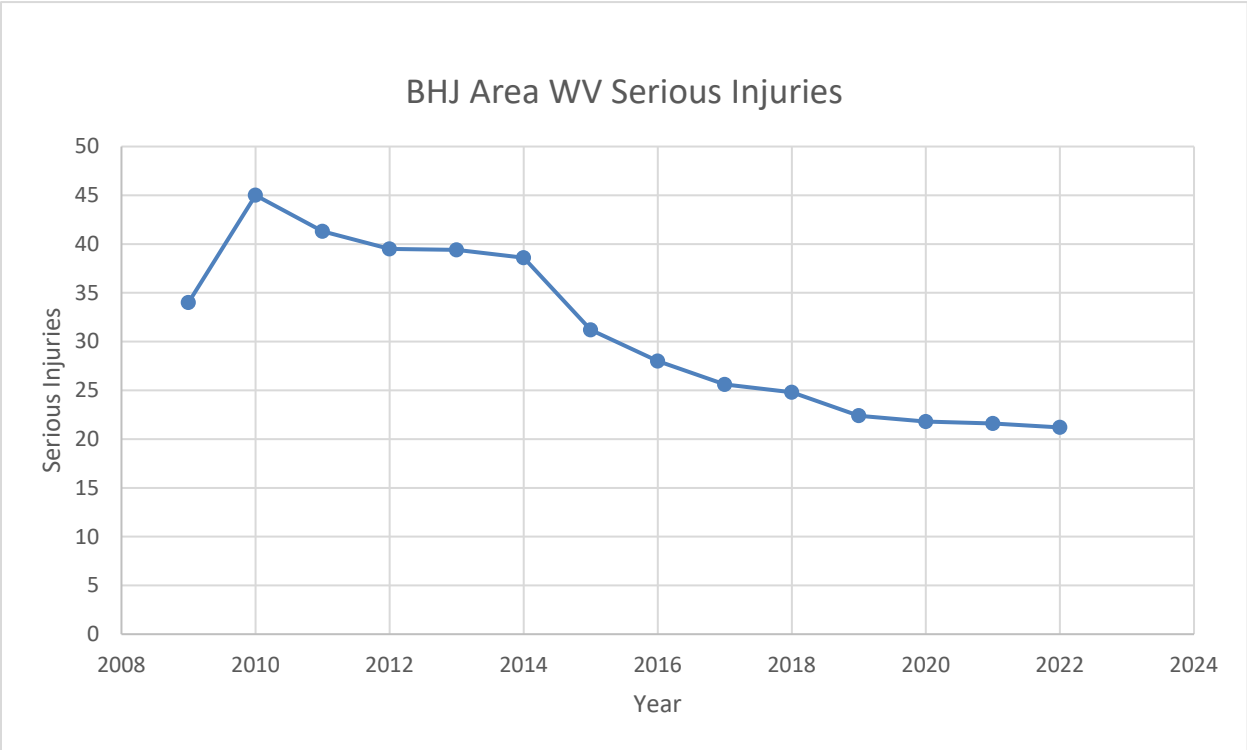
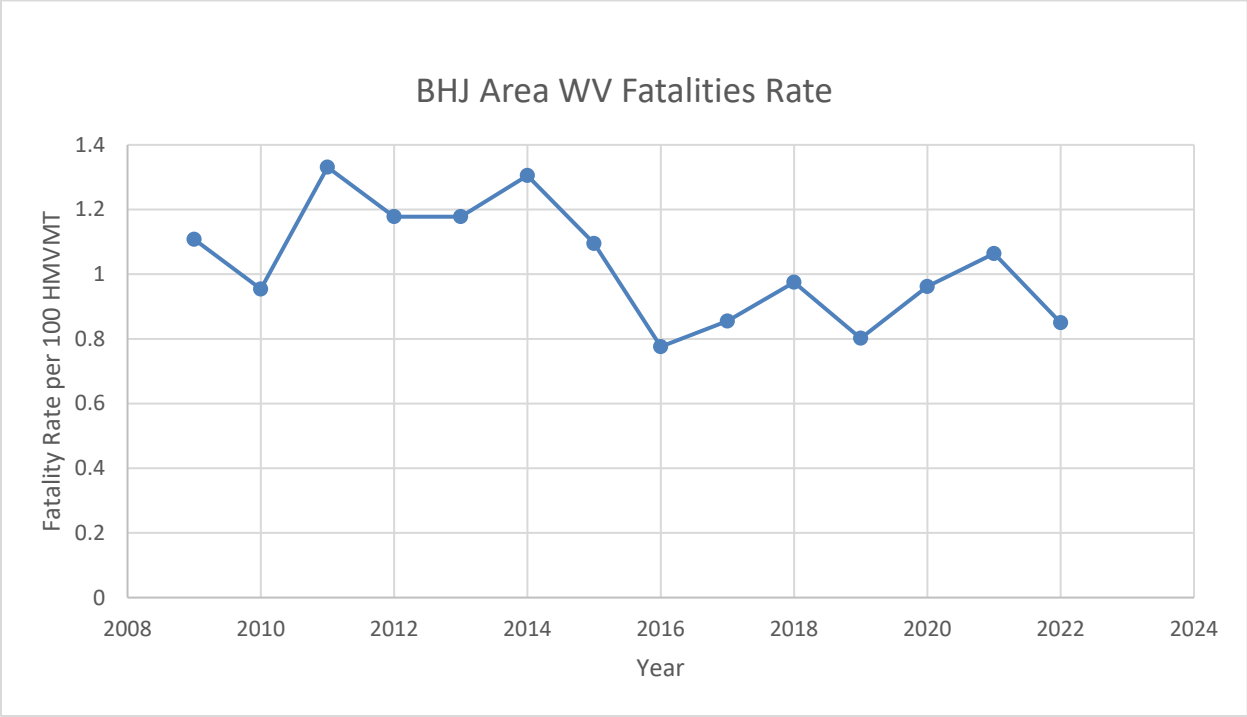






For Brooke and Hancock counties in WV of the BHJ region, overall crashes of all types have been trending downward overall since 2011. There was an exception that was felt nationwide that fatal and serious injury crashes increased during the height of COVID-19 despite the decrease in VMT and that was also seen in the BHJ region, but has since recovered and is back to a downward trend. The graphs below represent Brooke and Hancock County crashes.





Infrastructure Condition (PM2)

The cost to bring all of Ohio and West Virginia’s infrastructure into a “State of Good Repair” far exceeds the available funding, so a system of prioritizing assets with the greatest need for repair is essential. The above performance measure sections and tables outlined the goals set by the state and adopted by BHJ that projects selected are encouraged to work toward improving and meeting.

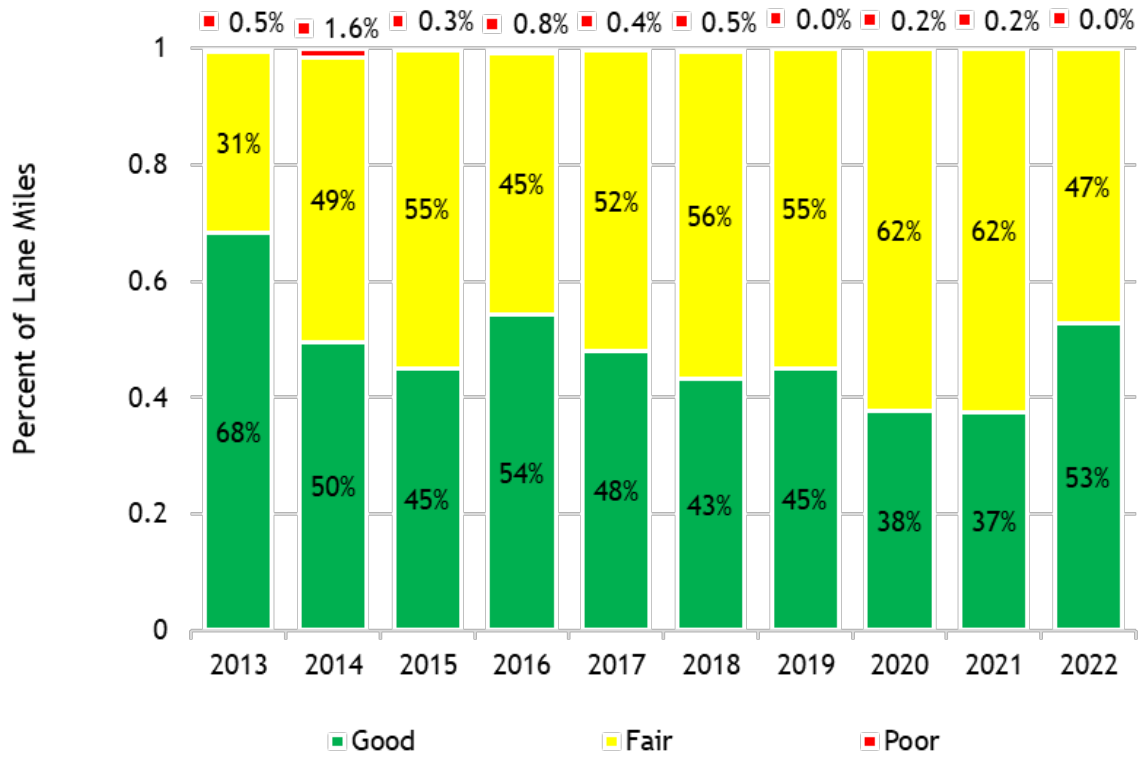
Although diverse in their characteristics, and thus, how their condition is measured, each category has its own methodology to classify individual assets as being in “Good”, “Fair” or “Poor” condition. BHJ has established targets for assets rated as “Good” and “Poor” and analyzes data on an annual basis to determine if these goals have been met.

Any area in which “Poor” performance has been observed will be closely examined to see where specific opportunities for improvement might exist. Maintaining the good condition of the region’s transportation assets is a cost-effective way to ensure the safety, growth and prosperity for years to come. The tables below show the past comparisons of bridge and pavement conditions. Overall the BHJ region is not showing significant progress in improving all bridge and pavement conditions and projects improving these percentages continue to be a priority.

BHJ Region Bridge and Pavement Conditions

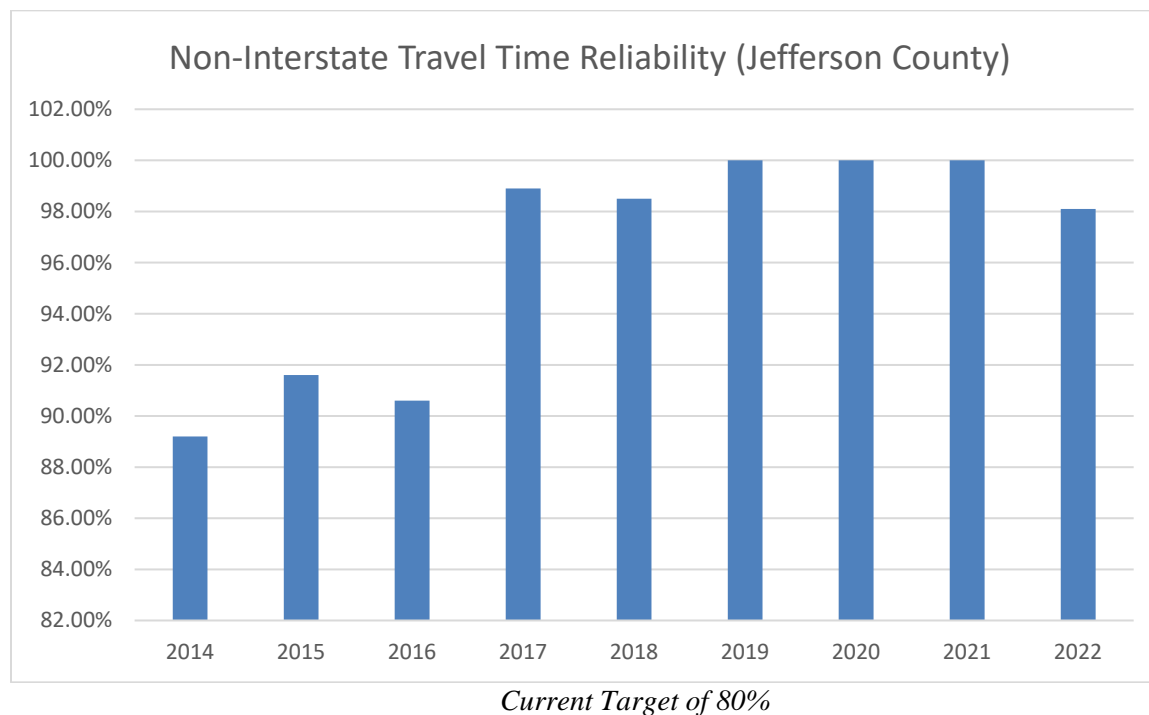
| BRIDGE CONDITION | | |
|------------------------------------|-------------|-------------|
| Jefferson County | | |
| | 2021 | 2023 |
| % Poor | 5.1% | 5.0% |
| % Fair | 56.8% | 61.4% |
| % Good | 38.1% | 33.6% |
| Brooke and Hancock Counties | | |
| | 2017 | 2019 |
| % Poor | 11.9% | 13.5% |
| % Good | 13.9% | 11.6% |
| PAVEMENT CONDITION | | |
| Jefferson County | | |
| | 2020 | 2022 |
| % Poor | 0.2% | 0.0% |
| % Fair | 62% | 47% |
| % Good | 38% | 53% |
| Brooke and Hancock Counties | | |
| | 2017 | 2019 |
| % Poor | 1.2% | 2.0% |
| % Good | 40.9% | 43.0% |

FHWA Pavement Performance Measure BHJTS Non-Interstate Lane Miles



Travel Time Reliability and Air Quality (PM3)

System reliability reflects the concept of trip-time predictability, or conversely, the removal of variability from a vehicle trip. It is essentially being able to depend on the same trip, occurring at the same time each day, under the same conditions taking the same amount of time. No one enjoys traffic congestion, but it's an unfortunate fact of life in most large metropolitan areas. However, congestion is not as great of a concern as long as it is predictable from day-to-day. When a traffic incident or a special event turns a regular onehour commute into a two-hour commute, employees are late for work, the elderly miss medical appointments and truck drivers fail to meet delivery deadlines. BHJ currently exceeds the targets set by ODOT for Ohio as shown by the graphs below. For the West Virginia data, refer to the PM3 table in the performance measures section.



There are two primary ways that the transportation system can have a negative impact on the environment. The first is the reduction in, or destruction of, natural resources by developing farmland, forests or wetlands into transportation assets such as roadways, airports or rail yards. Fortunately, there are numerous federal, state and local agencies and processes in place to ensure the optimal preservation of these natural resources.

The second type of environmental impact resulting from the transportation system is air pollution. Today, most vehicles burn fossil fuels, which in turn release a number of pollutants into the atmosphere, negatively affecting surrounding air and water quality. Thankfully, ODOT, WVDOH, the US and Ohio Environmental Protection Agencies and other agencies work hard to minimize or eliminate these pollutants. Refer to the above PM3 tables in the performance measures sections for progress on reduction in emissions reductions.

SECTION 7: PROJECT CONSIDERATIONS

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This section outlines the BHJ Metropolitan Region’s 20-Year Transportation needs. The BHJ Metropolitan Planning Organization (MPO) developed these projects and programs through data collection, technical analysis, and input from public meetings for projects.

BHJ MPO is comprised of the Transportation Study Policy Committee, the Technical Advisory Committee, and professional staff. The following goals and objectives guided project selection process:

6. Prepare a **Financially Responsible** Plan that represents the region’s fair share of federal and state economic resources and political importance. The plan should place emphasis on **Maintaining Existing Infrastructure** to ensure the safe and reliable travel of the local population living in the area as well as encouraging individuals and businesses to look at the area as a destination. The rehabilitation and rebuilding of existing roadways and bridges are at the top of the list of infrastructure to be taken into consideration first.
7. Develop **Local Road Safety Plan** that identifies the most vulnerable locations of traffic crashes, makes the roads safer for the community, and ensures the effective use of available financial resources. The safety of travelers on our roadways will mirror the states and federal governments goals of **Reducing Severe Injury and Fatal Crashes** to zero.
8. Continue to evolve and expand the **Mobility Management Program** with cooperation with the local public transportation providers and other human service transportation providers that are involved in elderly, people with disability and employment related transportation. **Expand** the current network of **Public Transit** routes to reach more areas for riders. Encourage expanded and improved public transportation services, and app-based ride systems such as Uber and Lyft in the community. Increase Ride Share Programs such as work-related carpool and vanpool services
9. Develop livable, environmentally friendly communities with adequate **Active Transportation** and **Recreational Facilities** to encourage better and healthier living in the region. Promoting and enhancing our area with more active transportation alternatives allows more individuals an **Equitable** means of travel while also removing vehicles from the roadway increasing their safety.
10. Focus on sustainable, good-paying, environment-friendly **Business Development** promoting **Brownfield Redevelopment, Intermodal Transportation Linkages** (i.e. air, highway, rail, and water), and enhance **Regional Freight Movement**.

PROJECTS ACCOMPLISHED IN YEARS 2020 THROUGH 2023

The initial step in the plan evaluation process is identifying projects or programs completed since the previously adopted Long Range Transportation Plan Update (LRTP) in 2020. The Tables below are a summary of those transportation projects accomplished in State Fiscal Years 2020 through 2023. Once identified, the next step is to either remove these projects or programs from the plan or update the project phase.

| Table 1 - Jefferson County Projects Completed 2020-2023 | | |
|--|--------------|---|
| LRTP ID # | PID # | Wellsburg Ohio River Bridge Jefferson County, OH to Brooke County, WV |
| OBR-02 | 79353 | Bridge System Study Priority #2-Construct a new Ohio River Bridge connecting Ohio State Route 7 to West Virginia State Route 2 between Jefferson County, OH and Brooke County, WV. Ohio's share of project costs. |
| LRTP ID # | PID # | ODOT Bridge System Preservation |
| OBR-04 | | Projected funding available to ODOT to adequately maintain, resurface, and major reconstruction projects in Jefferson County not identified in this Plan. |
| LRTP ID # | PID # | Replace Bridge CRO-C74-1.91 over Cross Creek - Cross Creek Township |
| OBR-11 | 89323 | Replace Goulds Road Bridge over Cross Creek 0.24 Mile south of CH-28 West of Mingo Jct in Cross Creek Township. |
| LRTP ID # | PID # | Replace Bridge ROS-C53-1.46 over Brush Creek - Ross Township |
| OBR-17 | | Replace Truss Bridge in Ross Township. |
| LRTP ID # | PID # | SR43 (Sunset Blvd) & Lovers Lane Intersection Improvement |
| OH-19 | 90235 | Capacity and safety improvements at Sunset Blvd and Lovers Lane Road intersection by lengthening left turn lanes, and constructing right turn lanes. ODOT Highway Safety Program. |
| LRTP ID # | PID # | SR 43 Curve Improvement - JEF-43-21.15 |
| OH-32 | 100049 | Realignment of sharp reverse curve on SR43 in the Village of Amsterdam |

| L RTP ID # | PID # | ODOT State Highway and Bridge System Preservation |
|-------------------|--------------|--|
| OH-40 | | Projected funding available to ODOT to adequately maintain State Highways and Bridges including Major Reconstruction Projects in Jefferson County not line item identified in this Plan. |
| L RTP ID # | PID # | JEF-213-0.00 Traffic Signal Renovation / Intersection Improvement |
| OH-44 | 99960 | Replace the traffic signal hardware at SR 7 & SR 213 and at the US 22 ramps & SR 213 in Jefferson County. Install a left turn lane on the US 22 Ramp E approach at the SR 213 & US 22 Ramp E/F intersection. |
| L RTP ID # | PID # | SR151/CR19 Roadway Realignment/Intersection Improvements New Alexandria |
| OH-53 | 114416 | Increase in truck traffic has shown that the geometry of the intersection of SR151 and CR19 in New Alexandria is not sufficient for larger vehicles and needs widened, realigned, or a combination as well as removing retaining walls on either side of the roadway and relocating utilities to straighten and level the roadway. |
| L RTP ID # | PID # | Expand Regional Park & Ride Facilities in Jefferson County |
| ORS-02 | 108811 | JEF-7-3.87 Rebuild abandoned Truck Weigh Station for Truck Parking Area-Southbound SR7 north of Rayland, Jefferson County |
| L RTP ID # | PID # | BJH Annual Rideshare Program |
| ORS-03 | 99673 | Congestion Management Air Quality Project |
| L RTP ID # | PID # | Expand Regional Park & Ride Facilities in Jefferson County |
| ORS-04 | 102055 | This project is the establishment of a Park and Ride Parking Lot off of SR150A and SR7 in Rayland. Includes lighting and fencing. |
| L RTP ID # | PID # | Public Transportation - Steel Valley Transit Authority (SVRTA) |
| OT-01 | 99159 | Annual Operating Assistance |
| L RTP ID # | PID # | US Bike Route 50 Through Jefferson County |
| OTA-12 | N/A | Designation of an on road section of US Bike Route 50 connecting Harrison County by CR22A through SR152, SR43, and The Market Street Bridge and into West Virginia. |
| L RTP ID # | PID # | Shared Use Path - Marina to 4th St - Along SR 7 - Steubenville |
| OTA-14 | 105885 | Construct a Bike/Ped shared use path along SR 7 from North 4th St to Labelle Ave to connect to the Steubenville Marina. |
| L RTP ID # | PID # | Replace Bridge SR 164 5.630, .8 miles South of SR 524 |

| | | |
|-------------------|--------------|--|
| | 96440 | Replace existing bridge with new single span steel beams structure. |
| L RTP ID # | PID # | Replace Bridge SR 213 18.440, 0.11 miles South of SR 7 |
| | 96599 | Replace existing box beam superstructure with new composite box beam superstructure. Some profile adjustment will be required to maintain the Vertical Clearance above the Railroad. |
| L RTP ID # | PID # | Resurface SR 646 4.310, SR 152 to SR 43 |
| | 100680 | General System Minor Rehabilitation; Resurfacing of JEF-646 including asphalt overlay, pavement repairs and pavement markings |
| L RTP ID # | PID # | Culvert Replacement, SR 151 15.24 |
| | 101053 | Culvert Replacement on SR 151, 0.1 miles west of Moody Drive. |
| L RTP ID # | PID # | D11 Federally Mandated Sign Upgrade for Rural Curves |
| | 102599 | This project is for the federally mandated sign upgrade for rural curves on two lane roads throughout in Holmes, Harrison, and Tuscarawas counties. |
| L RTP ID # | PID # | Resurface JEF SR 43 12.190, Richmond to Amsterdam |
| | 105278 | General System Minor Rehabilitation; Resurfacing SR 43 from Richmond to Amsterdam, including asphalt overlay, pavement repairs and pavement markings |
| L RTP ID # | PID # | Landslide Repair SR 7 10.38 Ramp B |
| | 106995 | Landslide repair by drilled shaft retaining wall. On Northbound Ramp B in Brilliant, 0.2 miles south of merge point |
| L RTP ID # | PID # | Pavement Rehab, Mine Subsidence, SR 164 9.400 |
| | 106996 | Mine subsidence pavement repair. 1 mile south of Columbiana County Line. |
| L RTP ID # | PID # | Bridge Preservation JEF SR 7 (20.59)(20.84) |
| | 107648 | Rehabilitate two structures. Replace continuous concrete slab superstructure on bridge JEF-7-2059. Replace deck on existing steel beams made continuous with new deck and convert abutments to semi-integral on bridge JEF-7-2084. 1.75 miles North of SR 213. |
| L RTP ID # | PID # | Signal Upgrade JEF CR 2 2.67, Yorkville |
| | 108798 | Signal upgrade in Yorkville at the intersection of JEF CR 2 (Public Rd) and Market St/William St. |

| LRTP ID # | PID # | Resurface JEF SR 43 4.480, Wintersville ECL to Sunset Blvd |
|-----------|--------|--|
| | 109618 | General System Minor Rehabilitation, Asphalt paving, including pavement repairs and pavement markings. |

Table 2 - Brooke/Hancock County Projects Completed 2020-2023

| LRTP ID # | PID # | Brooke Co - CR-2/23 from Log 0.00 to 0.20 (Wellsburg Bridge) |
|------------------|-----------------------|--|
| WVBR-02A | X305 2/23 00000 00 | Construct Wellsburg Bridge over Ohio River between Well Twp, Jefferson County, OH and Brooke County, WV (Advance Construction Payback) |
| LRTP ID # | PID # | Brooke Co - Weirton Panhandle Trail |
| WVTA-01 | U305 WEIRT 500 | Design Trial for US Bike Route 50 |
| LRTP ID # | PID # | Brooke Co - Beech Bottom Sidewalk Improvement |
| WVTA-09 | U305 BEECH 200 | Construct Sidewalks in Beech Bottom |
| LRTP ID # | PID # | Brooke Co - Long Run Bridge |
| WVBR-12 | U305 32316 400 | Replace Bridge |
| LRTP ID # | PID # | Brooke Co - Roadway Striping |
| WVH-33 | S386 STRIP 2000 | Roadway Striping District 6; Install Pavement Marking Paint - NA 999 |
| LRTP ID # | PID # | Brooke Co - D-6 Recall Striping |
| | S386 RECAL 2000 | District 6 - District wide pavement markings |
| LRTP ID # | PID # | Brooke Co - US0022 from Harmon Creek to Pa State Line |
| WVH-28 | S305 22 31700 | Full Depth Concrete Joint Repair from Log 3.17 (Harmon Creek) to Log 5.89 (Pa State Line), guardrail repair, and drainage |
| LRTP ID # | PID # | Brooke Co - US 22 Signing |
| | U305 22 00100 | Renovate Signing along US 22 in Brooke County |

| | | |
|------------------|-------------------|---|
| LRTP ID # | PID # | Brooke Co - Weirton Park Dr Enhancement |
| WVTA-14 | U305 WEIRT 400 | Construct Sidewalks |
| LRTP ID # | PID # | Hancock Co - New Cumberland-WV2 Improvement (Design/Build)(Go Bond 2) |
| WVH-05 | U315 262 000 | Relocate West Virginia State Route 2 by constructing a multi-lane partial-access highway on a new alignment through New Cumberland, WV. |
| LRTP ID # | PID # | Hancock Co - Lincoln Heights HFST +1 |
| WVH-40 | S315 3011 900 | Resurface Roadway |

**PROJECTS LISTED IN THE TRANSPORTATION PLAN UPDATE PROGRAMMED IN THE FY 2024-2027
TRANSPORTATION IMPROVEMENT PROGRAM**

The next step is identifying projects or programs program in the current Transportation Improvement Program (TIP) for Fiscal Years 2024-2027. The following table is a summary of those transportation projects.

| Table 3 - Jefferson County Projects Programmed 2024-2027 | | |
|---|--------------|--|
| L RTP ID # | PID # | ODOT Bridge System Preservation |
| OBR-04 | | Projected funding available to ODOT to adequately maintain, resurface, and major reconstruction projects in Jefferson County not identified in this Plan. |
| L RTP ID # | PID # | Lovers Ln from Fort Steuben Dr to SR43 (Sunset Blvd) - Steubenville |
| OH-36 | 109308 | Lovers Lane Rd from Fort Steuben Dr to OH-43 (Sunset Blvd). Widen to 12' Lanes. Full depth pavement replacement, new curb, sidewalks, curb ramps, and increase turn radii on intersecting streets. Rebuild curbs, sidewalks and ADA ramps. |
| L RTP ID # | PID # | ODOT State Highway and Bridge System Preservation |
| OH-40 | | Projected funding available to ODOT to adequately maintain State Highways and Bridges including Major Reconstruction Projects in Jefferson County not line item identified in this Plan. |
| L RTP ID # | PID # | Expand Regional Park & Ride Facilities in Jefferson County |
| ORS-07 | 109503 | Construct new park and ride facility at the location of the new Wellsburg Bridge in Brilliant along SR7. |
| L RTP ID # | PID # | Public Transportation - Steel Valley Transit Authority (SVRTA) |
| OT-01 | 111692 | Annual Operating Assistance |
| L RTP ID # | PID # | Bridge Rehab JEF SR 213 15.180 |
| | 86872 | Replace bridge carrying SR-213 over North Fork Yellow Creek. In stream work is required. |
| L RTP ID # | PID # | Resurfacing JEF SR 150 3.430 |

| | | | |
|-------------------|--------------|--|---|
| | 100675 | | General System Minor Rehab.; Resurfacing SR 150 including pavement repairs and pavement markings |
| L RTP ID # | PID # | Resurfacing JEF SR 7 10.830 | |
| | 107503 | | Priority System Minor Rehabilitation; Asphalt resurfacing of SR 7 from the Brilliant to University Boulevard in Steubenville, including pavement repairs and pavement markings |
| L RTP ID # | PID # | Resurfacing JEF SR 152 6.450 | |
| | 107525 | | Preventative Maintenance; Chip seal |
| L RTP ID # | PID # | Resurfacing JEF SR 151 12.020 | |
| | 107542 | | Preventative Maintenance; Chip seal |
| L RTP ID # | PID # | Bridge Rehab JEF SR 7 (33.46) (33.80) | |
| | 108510 | | Repair structures JEF-7-3346 (SFN 4101626) and JEF-7-3380 (SFN 4101650) by removing the existing wearing surfaces and placing new rigid overlays. The project will also replace approach slabs, expansion joints and backwalls. |
| L RTP ID # | PID # | Bridge Rehab JEF SR 7 13.690 | |
| | 109309 | | Rehabilitate Structure JEF-7-1369 (SFN 4100751) by replacing the superstructure and repairing the piers and abutments. The abutments will be converted to semi-integral type and the bearings will be replaced. |
| L RTP ID # | PID # | Resurfacing JEF US 22 3.860 | |
| | 110454 | | Priority System Minor Rehabilitation; Concrete pavement repair of existing concrete pavement and asphalt resurfacing of composite pavement, including pavement repairs and pavement markings |
| L RTP ID # | PID # | Bridge Replacement JEF SR 7 30.920 | |
| | 110889 | | Replace structure JEF-7-3095 (SFN 4101561) with new structure. |
| L RTP ID # | PID # | Bridge Rehab JEF SR 7 31.030 | |
| | 111600 | | Repair structure JEF-7-3103 (SFN 4101596) by patching substructure concrete, replacing the rocker bearings, and cleaning the steel pier cap. |
| L RTP ID # | PID # | Resurfacing JEF SR 43 2.000 | |
| | 112684 | | Urban System Paving - City of Steubenville; includes asphalt resurfacing and pavement marking |

| | | | |
|-------------------|--------------|---|--|
| | | Bridge Replacement JEF US 22 6.98 | |
| | 115428 | Repair twin structures carrying US 22 over TR 166,railroad and Cross Creek. The project will also stabilize the bank of Cross Creek. In stream work is required. | |
| L RTP ID # | PID # | Resurfacing JEF SR 646 0.000 | |
| | 116276 | General System Minor Rehabilitation; Asphalt resurfacing of SR 646, including pavement repairs and pavement markings | |
| L RTP ID # | PID # | Resurfacing JEF SR 43 5.58 | |
| | 116343 | General System Minor Rehabilitation; Asphalt overlay of SR 43, including pavement repairs and pavement markings. | |
| L RTP ID # | PID # | Bridge Replacement JEF SR 43 19.98 | |
| | 116357 | Replace bridge carrying SR 43 over Branch of Goose Run. In stream work is required. | |
| L RTP ID # | PID # | Resurfacing JEF US 22 10.16 | |
| | 116391 | Priority System Minor Rehabilitation; Fine graded polymer asphalt resurfacing of US 22, including pavement repairs and pavement markings | |
| L RTP ID # | PID # | Bridge Replacement JEF SR 7 4.01 | |
| | 116542 | Replace bridge carrying SR 7 over an Unnamed Tributary to the Ohio River. In stream work is required. | |
| L RTP ID # | PID # | Resurfacing JEF SR 43 20.980 | |
| | 119730 | General System Minor Rehabilitation; Resurfacing SR 43 in the Village of Amsterdam, including asphalt overlay, full depth pavement repairs, and pavement markings. (LROS Project) | |
| L RTP ID # | PID # | Bridge Rehab JEF US 22 6.98 | |
| | 119918 | Increase resiliency of bridges carrying US 22 over Cross Creek. | |

Table 4 - Brooke/Hancock County Projects Programmed 2024-2027

| L RTP ID # | PID # | WVDOT Bridge Program |
|-------------------|-------------------|--|
| WVBR-09 | | Brooke and Hancock County WV Bridges that are WVDOH responsibility |
| L RTP ID # | PID # | PENCO RD |
| WVH-02 | S315 ADARP 24 00 | Major Rehabilitation of Penco Rd from Cove Rd to Pennsylvania Ave in the City of Weirton in Hancock County WV |
| L RTP ID # | PID # | NEW CUMBERLAND - WV 2 IMPROVEMENT (GO BOND 2/3) |
| WVH-05 | U315 002 00620 00 | Relocate West Virginia State Route 2 by constructing a multi-lane partial-access highway on a new alignment through New Cumberland, WV. |
| L RTP ID # | PID # | WV2/WV 27 I/S IMPROVEMENT |
| WVH-14 | NHPP0002811D | Major Reconstruction of Intersection to widen approaches and turning radii to accommodate truck traffic, improve drainage, sidewalks, curb and ADA access |
| L RTP ID # | PID # | WVDOH Federal Ad Highway and Bridge Maintenance Program |
| WVH-20 | | Projected funding available to WVDOH to adequately maintain highway system in Brooke/Hancock Counties not individually identified in this Plan. |
| L RTP ID # | PID # | FOLLANSBEE TRAFFIC SIGNAL +6 |
| WVH-21 | S305 002 01119 00 | Renovate traffic signals on State Route 2 in Follansbee, install closed loop signal systems where warranted. WVDOH is currently looking at removing most signals from Follansbee as they are not warranted currently |
| L RTP ID # | PID # | Brooke Co - Roadway Striping |
| WVH-33 | S386 STRIP 2000 | Roadway Striping District 6; Install Pavement Marking Paint - NA 999 |
| L RTP ID # | PID # | Brooke Co - D-6 Recall Striping |
| | S386 RECAL 2000 | District 6 - District wide pavement markings |
| L RTP ID # | PID # | JOHN G CHERNEKO BR |

| | | |
|-------------------|------------------|--|
| | U305 22 00004 00 | Bridge Repair |
| L RTP ID # | PID # | US 22 RAMP A |
| | S305 22 012 00 | Bridge Repair |
| L RTP ID # | PID # | RAMP E NORTHBOUND |
| | S305 2 1624 00 | Bridge Repair |
| L RTP ID # | PID # | MARKLEY LEWIS BRIDGE |
| | S305 67 246 00 | Bridge Rehab |
| L RTP ID # | PID # | BUFFALO CREEK BR |
| | S305 67 062 00 | Bridge Rehab |
| L RTP ID # | PID # | PRATZ BR |
| | S305 67 136 00 | Bridge Rehab |
| L RTP ID # | PID # | ROCKDALE BRIDGE |
| | S305 7 106 00 | Bridge Rehab |
| L RTP ID # | PID # | USMC CORPORAL MARK DOUGLAS COOL MEMORIAL BRIDGE |
| | S305 18 003 00 | Bridge Rehab |
| L RTP ID # | PID # | NORTH FORK TOMLINSON RUN BR |
| | 315 12 232 00 | Bridge Repair |
| L RTP ID # | PID # | FILMORE STREET BRIDGE |
| | S315 FSBR 001 00 | Bridge Rehab |

The following pages generally describe each transportation project considered in this plan classified by the following project categories:

- Ohio River Bridge
- Major/New Highway
- Highway System Preservation
- Congestion Management/Safety
- Bridge Preservation
- Regional Rideshare Opportunities
- Regional Bike & Pedestrian Development
- Regional Public Transportation Development

OHIO RIVER BRIDGE PROJECTS

The current bridge system in the Steubenville-Weirton Metropolitan Area has sufficient capacity to handle present traffic volumes; however, it has a number of significant deficiencies. Efforts to address these deficiencies require construction of a new bridge across the Ohio River south of Wellsburg, WV connecting to Brilliant, Wells Township in Jefferson County, OH. As this bridge was completed, a few months later the Market Street Bridge was closed due to failing an inspection from continuing deterioration.

OBR-3 / WVBR-03 New Ohio River Bridge from OH-43 (Washington Street) in Steubenville, OH to WV-2 in Brooke County, WV

The third priority listed in the Edwards and Kelcey Phase 2 Report of the *BHJ Regional Bridge System Study* was to construct a new Ohio River Bridge to connect West Virginia Route 2 with Steubenville at Washington Street. Currently, there is no funding available for this project. However, the region considers this location for a river crossing to be crucial to its economic vitality. With the new bridge being constructed, the priority now shifts to whether the deteriorating Market Street Bridge just south of Washington Street would be rebuilt in its current location, negating need for a Washington Street Bridge, moved to Washington Street once it is shut down or torn down, or to repurpose the Market Street Bridge for Pedestrian and Bicycle use.

WVBR-04 New Ohio River Bridge from OH-7 Jefferson/Columbiana County to WV-2 Hancock County South of Chester, WV

In September 2002, HDR Engineering submitted to the West Virginia DOT a *Traffic Impact and Toll Study Proposed Ohio River Crossing* between Hancock County, WV and Columbiana/Jefferson County, OH. The study's purpose was to determine the amount of traffic that would use a new bridge spanning the Ohio River and "touching down" near the Mountaineer Race Track and Gaming Resort, located near Chester, WV. In addition to identifying a possible location for a new bridge, the study produced a conceptual cost estimate for the bridge, traffic analyses for the bridge connections, optimum toll rate, and toll rate potential for a 20-year planning horizon.

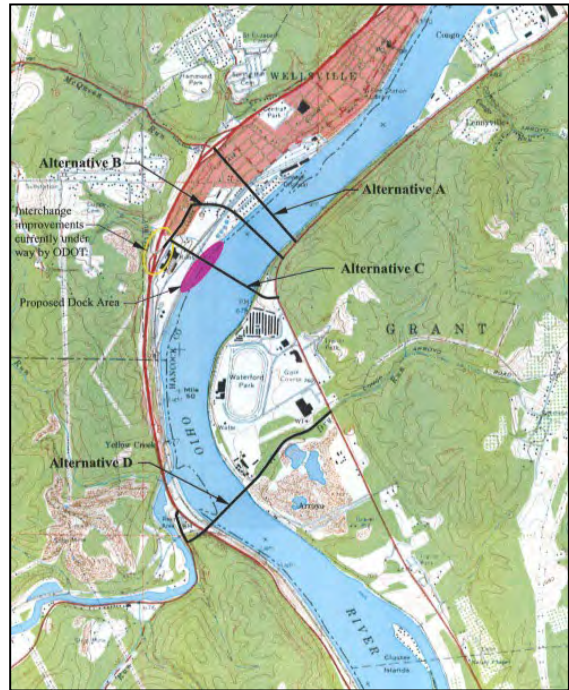


Figure 3 shows four conceptual bridge locations developed in the report. The study results determined Alternative D as the best potential for a bridge location with a conceptual cost estimate of \$66 million. The study determined an optimum toll rate of \$1.00 based on 20-year traffic trends. Further, based on anticipated costs, bond and interest rates, revenue, and operating costs over the 20-year horizon, the report concluded a shortfall of approximately \$29.1 million. In conclusion, tolls alone would not generate sufficient revenue to pay the \$66 million needed for construction. Currently, no funding is available for this project.

Conceptual Bridge Locations

OTA-10 / WVTA-07 Veterans Memorial Bridge Decorative Lighting

The proposed project is to construct decorative lighting to enhance the unique structural characteristics of the Veterans Memorial Bridge (U.S. Route 22) that travels roughly 1,964 feet over the Ohio River between Weirton, WV and Steubenville, OH. Decorative lighting will, during the evening hours, accentuate the bridge's majestic structural aesthetics, serve as a gateway for visiting motorists, and instill civic pride in Brooke and Hancock counties in West Virginia and Jefferson County, Ohio. The Veterans Bridge Lighting Project conceptual design is to spotlight the bridge's unique signature architecture; a single 360-foot inverted Y-shaped tower that rises from the bridge's center pier (located approximately 668-feet from the West Virginia shore abutments) and each of the 26-paired cables that radiate from the tower connecting to the bridge decking.

The Veterans Bridge Lighting Committee had secured \$600,000 to design and construct the project. Project funding was committed from a variety of sources with eight percent of the funding coming from Transportation Enhancement allocations through the West Virginia Division of Highways (WVDOH) and the BHJ Metropolitan Planning Commission with twenty percent of the funding through private donations collected by the Jefferson County Community Foundation.

However, since the Bridge Lighting Committee has not successfully negotiated a Maintenance Agreement to maintain the lighting project and pay for the utility costs with the cities and counties on both sides of the river, this project has been placed into the unfunded project list.

OBR-19/WVBR-11 Bridge connecting SR 7 to Industrial Property in Weirton WV over Browns Island

Browns Island stands in the Ohio River opposite of Weirton, WV and Costonia, OH. It is 250 acres in area and four miles long. It has a rich prehistory and is most noted for the Browns Island Petroglyph, now permanently inundated by the Ohio River. Traders spoke of passing the island on excursions down the Ohio River in 1765. Richard Brown, a Revolutionary soldier, acquired the island, which had been part of a land grant awarded to Benjamin Johnston and thus got the name Brown's Island (West Virginia Encyclopedia). The main land of Costonia, OH and Weirton, WV is connected with this island with two truss bridges, each in length of 1044 ft (OH) and 1312 ft (WV). This island has excellent potential to become a popular tourist destination of the Ohio Valley, but for that connectivity, specifically the maintenance or replacement (if required) of the existing bridges is a top priority. With that providing utilities and constructing access roads will also be another important part of this project.

These bridges are included into the Business Development Corporation of the Northern Panhandle's (BDC) Weirton Area Reuse Plan (WARP). Their intent is to redevelop sites for the former Weirton Steel facility as well as areas on Three Springs Drive. The intent is to focus on improving economic community development, transportation regional connectivity, and workforce development. Currently there is no funding available for this project. But future redevelopment of Brown's Island largely dependent on this project.

OBR-31 / WVBR-12 New Ohio River Bridge from Market Street in Steubenville, OH to WV-2 in Brooke County, WV, replacing closed Bridge.

In September of 2023, during a quarterly inspection of the bridge due to the poor rating of the structure, the 5-ton weight limit was reduced to 3-ton. This was only temporary as less than a week later, the bridge was closed to traffic. The reasoning being that the northern cable on the Ohio side was deteriorating and could not be determined the true scope of damage until further inspection. The outer windings of the cable were removed and large areas of section loss were present. In the next month structural analysis was performed and the cable reinspected. Upon further investigation the cable was showing more signs of deterioration and stress even without vehicles present.

The WVDOH has submitted an application to the FHWA Bridge Investment Program that would cover 50% of the costs to replace the structure as repairing it would be cost prohibitive. The governor, transportation secretary, and DOH do not have plans to replace or repair the bridge unless federal funds are available, but will commit the funding if the application is successful. The results of the application process will be known sometime in 2024.

Since the Market Street bridge has closed, there has been overwhelming support from the local leaders and individuals that live and travel through the area to reconstruct a bridge at the Market Street location. This bridge provides economic and equitable access to the cities on each side of the river. It is also a concern that when work is done to the Veterans Bridge like in 2023 and that

structure is closed to traffic, that a travel time and safety concern arises without the Market Street Bridge as a backup for passenger vehicles. There is also an opportunity for a walking and biking shared use path to increase the accessibility to those who do not or cannot drive. A new bridge would also allow the access of public transit connectivity for those passengers opening new opportunities for employment as well as health care and recreation.

MAJOR/NEW HIGHWAY PROJECTS

Project classified as Major/New Highway Projects include construction programs that: (1) add capacity to the highway network, (2) have extraordinary costs, (3) a relocation of an existing highway or bridge, and/or (4) a major reconstruction of a functional transportation facility. These projects may represent the preservation of the existing transportation system or reconstruction of facilities to meet federal standards.

Ohio Project Considerations

OH-36 Improvements to Lovers Lane from Fernwood Road to State Route 43 (Sunset Boulevard); Steubenville, OH

Lovers Lane has insufficient roadway capacity due to narrow width. In addition, left turn movements to various driveways and minor cross streets as well as daily mail delivery vehicles block or delay daily through traffic throughout the entire corridor. Currently, Lovers Lane from Sunset Boulevard to Fort Steuben Drive is operating at LOS E and in the future may function at LOS F.

Due to construction costs and available funds, the City of Steubenville is planning to construct this project in four construction phases.

- Phase 1 – (Completed)Fort Steuben Drive and Lovers Lane Intersection Improvement
- Phase 2 – (Completed)Lovers Lane and SR43 (Sunset Blvd) Intersection Improvement
- Phase 3 – (Started)Fort Steuben Drive to SR43 (Sunset Blvd)
- Phase 4 - Sinclair Ave to Fort Steuben Drive
- Phase 5 – Fernwood Rd to Sinclair Ave

Consideration for the continued improvements of Lovers Lane should consist of the following alternatives:

- From Sinclair Avenue to Fort Steuben Drive reconstruct the existing roadway by full-depth pavement replacement and widen to permit two 12-foot lanes. Construction will also include curbs, walkways and curb ramps, as well as increased turn radii on certain intersecting streets.
- From Fort Steuben Drive to Sunset Boulevard reconstruct the existing roadway by full-depth pavement replacement and widen to permit two 12-foot lanes. Construction will also include curbs, walkways and curb ramps, as well as increased turn radii on certain intersecting streets.
- From Fernwood Rd to Sinclair Ave reconstruct the existing roadway by full depth pavement replacement and widen to permit two 12-foot lanes. Construction will also include curbs, walkways, and curb ramps, as well as increased turn radii on certain intersecting streets.

OH-36 Lovers Lane from Fernwood Rd to Sinclair Ave; Steubenville, OH

Phase 5 of Lovers Lane Improvements. This section of Lovers Lane has a roadway width of 19 feet, while left turn movements to various driveways and minor cross streets as well as the daily postal service delivering mail via truck (since there is no sidewalk for foot delivery) in the project area block or delay the through traffic. Project improvement should consist of reconstructing the existing roadway by full-depth pavement replacement; widen to permit two 12-foot lanes and also include curbs, walkways and curb ramps, as well as increased turn radii on certain intersecting streets.

OH-07 Reconstruct Ft. Steuben Drive/Mall Drive from Lovers Lane to John Scott Highway; Steubenville, OH

A narrow 40-foot wide, four-lane urban collector street, Ft Steuben Drive/Mall Drive directs traffic through the region's major commercial shopping area in the west end of Steubenville, OH. More than 13,420 vehicles travel on this city street to work or shop daily. In many instances, left turning vehicles block the through lane, there are no pedestrian walkways within the entire length of Ft Steuben Drive/Mall Drive, and finally, the route is a rapidly deteriorating concrete surface.

Considerations to improve Ft Steuben Drive/Mall Drive should consist of the following alternatives:

- Widen the entire length of the study area to 48-feet wide.
- Reconstruct the entire route at its current width and delineate median turn lanes at commercial driveways for left turn movements.
- Formulate a pedestrian and traffic calming plan to increase the attractiveness of the entire commercial shopping area.
- Addition of walking and biking facilities for increased access to active transportation alternatives.

Emphasis will be placed on increasing the pedestrian and traffic flow and safety in this area. With the past and upcoming improvements to Lovers Lane and John Scott Highway, as well as renewed interest in adding new business to the Fort Steuben Mall area, improving this section of roadway is crucial.

OH-08 County Highway 34 (Two Ridge Road) from County Highway 22A (Cadiz Road) to State Route 43 (Canton Road); west of Wintersville, OH

County Highway 34 (Two Ridge Road) is a collector highway that links two principle arterial highways, Canton Road to Cadiz Road, west of Wintersville, OH. The County Route has realized a significant increase in traffic (2,800 in 1992 to 4,910 in 1997) since the completion of the U.S.22 bypass in 1994. Built on a rolling terrain resulting in a poor alignment, the roadway has many sharp curves and restrictive line-of-sight problems at many intersections along the route.

Consideration for improving Two Ridge Road should consist of the following alternatives:

- Widen the entire county route to at least 24-feet with adequate shoulder width and drainage.

- Improve the overall alignment and grade of the existing route especially the two sharp s-curves 0.80 miles north of Cadiz Road.

The preferred alternative is reconstructing the entire roadway to satisfy the above considerations. In addition, possibly consider installing bike lanes and/or pedestrian lanes adjacent to the entire route. This last concern could be part of an overall bicycle/pedestrian plan for Jefferson County, OH.

OH-25 CR77 (Sinclair Ave) from Lincoln Ave to Lovers Lane

This project is the joint responsibility of both the Jefferson County Engineer and the City of Steubenville. Sinclair Avenue is a two-lane roadway winding its way along a watershed valley known locally as Permars Run. The roadway width is less than 24 feet wide with few shoulder recovery areas. The project would improve horizontal and vertical curves where needed, widen the pavement to full 24 feet, add paved shoulders, replace culverts where needed, replace guardrail where needed and install new traffic control signs.

OH-26 SR7 from Mingo Junction North Corp to Steubenville South Corp

The existing roadway, built in early 1960s, is “cut” into the hillside that follows along the Ohio River Valley between Steubenville and Mingo Junction. The existing rock cut face is experiencing deterioration resulting in intermittent rock falls. The project would address the rock fall conditions by cutting back the slope of the rock face and providing a rock-fall recovery area at the toe of the slope.

An emergency slide that occurred in 2022 led to an emergency project to cutback hillside just north of the Logan Ave exit in Mingo Jct. The remaining section of the hillside in question is still needing to be addressed in the future.

OH-46 Lincoln Ave and Wilson Ave Intersection Improvement

The signalized intersection of Lincoln Avenue and Wilson Avenue is in the southeastern part of the City of Steubenville. There is a tight curve “jog” in the alignment for east-west traffic. This jog is the result of a large power pole on the north side of Lincoln Avenue. The proposed improvement would address the poor east-west roadway alignment by relocating the power pole at an estimated cost in excess of \$100,000. The City of Steubenville is encouraged to pursue innovative ways to possibly avoid this cost and still provide an alignment for traffic that meets acceptable standards. This plan projects project construction in fiscal year 2025. A possible solution for this area is the installation of a roundabout to provide smoother flowing traffic and to reduce the amount of injury causing traffic accidents at this location. This plan projects construction in fiscal year 2025.

OH-50 Franklin St Nebo Dr Dennis Way Intersection Improvement, Toronto, Ohio

This project is proposing the addition of traffic signals or a roundabout intersection to relieve the peak traffic congestion do to the traffic caused by Toronto Schools, Timet Titanium, housing, and

other businesses along Franklin St. The subdivision on Nebo Dr is currently expanding with more expansion planned in the future. Currently there is no funding available for this project.

West Virginia Project Considerations

WVH-01 CR 13 (Three Springs Drive) from US Route 22 to CR 507 (Cove Road); Weirton, WV

Three Springs Drive is an urban collector street that directs traffic through a regionally significant commercial activity center in Weirton, WV. The excessive number of commercial driveways along this route severely restricts street capacity. Capacity calculations estimate that the intersections at County Route 13 and St. Thomas Drive and Potomac Avenue are operating at LOS D while the intersection at Cove Road functions at LOS F. Traffic model projections indicate vehicle miles traveled on Three Springs Drive will increase by roughly 1.2% annually over the next twenty-five years. At this rate, projected traffic volumes will be severely compromised all capacity on Three Springs Drive within the next ten years and the entire route will be operating at LOS F. A recent influx of new businesses to this area have only compounded the existing problem.

Several suggestions that should improve capacity problems on Three Springs Drive are:

- Formulate an access-management plan throughout the entire corridor to minimize the number of commercial driveways and reduce the number of left turn conflict along the entire route.
- Develop a pedestrian plan to interconnect all the commercial centers along Three Springs Drive to reduce automobile dependency within the retail district.
- In conjunction with the pedestrian plan, encourage shared parking lots among all the individual business centers by creating frontage roads parallel to Three Springs Drive.
- In conjunction with an access management plan, perform a study on the necessity of the amount of signalized traffic intersections and determine if the amount of signals and the timing of those signals is sufficient, or if timing and/or number of signals can be changed. Less signals at less intersections with updated timing could be a solution to the traffic problem.

WVH-03 US Route 30 from 0.80 miles east of the Ohio State Line to Pennsylvania State Line; Hancock County, WV

US Route 30 is a principle arterial highway that runs roughly 3.50 miles through the most northern end of Hancock County, WV connecting Pennsylvania to the east bridging the Ohio River to East Liverpool, OH to the west. Starting at the Jennings Randolph Bridge over the Ohio River and ending just east of Chester, WV, about 0.90 miles of US Route 30 is a four-lane limited-access highway. Then, for the remaining 2.60 miles, the US Route is a winding two-lane highway with a 24-foot road surface and 8-foot shoulders. Further speaking, this route experiences a high accident rate, in particular, the intersection with WV State Route 8 0.90 miles west of the Pennsylvania State Line.

Daily traffic on US Route 30 ranges from 7,600 vehicles at the Pennsylvania State Line to 17,000 vehicles over the Ohio River Bridge between Chester, WV and East Liverpool, OH. At present,

the four-lane section of US Route operates at LOS A with very little traffic congestion. The remaining two-lane section is operating at LOS C. Twenty-five year traffic projections taken from the Travel Forecast Model show that traffic volume on US Route 30 will increase by approximately 3.0% annually. At this rate, the entire section of US Route 30 through Hancock County may begin operating at LOS D in 12 years when traffic volumes begin to exceed the route's capacity. By 2025, US Route most likely will operate at LOS E and begin to experience moderate to severe congestion problems.

Two factors contribute to the anticipated increase in vehicle miles on US Route 30 over the next twenty-five years. First, is the anticipated completion of US Route 30 as four-lane limited access highway in Ohio from Canton to East Liverpool, and second, the projected growth of Mountaineer Casino Racetrack and Resort in Hancock County. Mountaineer anticipates becoming a major regional attraction to patrons in Pennsylvania as well as Ohio and West Virginia.

At a minimum, the West Virginia Division of Highways should consider relocating US Route 30 on a new alignment to eliminate the winding downhill section between State Route 8 and the four-lane portion. Then, rebuild the route as two-lane facility starting at the Pennsylvania State Line and ending at 0.25 miles east of Chester, WV where the four-lane highway begins, on an alignment that for future expansion to a four-lane limited access highway when needed.

WVH-05 Relocate State Route 2 from New Cumberland South Corporate Limits to Chestnut Street; New Cumberland, WV

Beginning at the south corporate limits of New Cumberland, State Route 2 (Ridge Avenue) is a confining two-lane street with a surface width that varies between 19 and 22 feet. Moving further north, the alignment from Clay Street to Jefferson Street, a section of State Route 2 known locally as "Station Hill," State Route 2 begins to descend, down a steep grade. The road then bends sharply ninety-degrees (90°) to the west near the bottom of the hill. An at-grade crossing of the N&S Railway at Madison Street follows this quickly. Finally, State Route 2 continues back to the north with another close ninety-degree (90°) turn right at the intersection of Madison Street and North Chester Street. Large trucks with a length of 50 feet or more often block the two cramped intersections and the rail crossing at the bottom of the hill causing traffic delays and thereby creating a dangerous situation.

West Virginia Department of Highways recently prepared alternative exhibits for a public information meeting that held May 29, 2014. The Department presented five alternatives plus the no-build. Because of that public meeting, Alternative 5, as shown in Figure 4, has gained momentum with Village government officials as well as local businesses. That alternative re-aligns SR2 to the west beginning near the southern end of the Village and connects with existing SR2 at the intersection where SR2 currently approaches from the east. The estimated cost of Alternative 5 is over \$10 million.

Recently a slip has occurred along the existing corridor which has prompted this project to be moved ahead to prevent safety concerns. Construction on the project is expected to begin within FY2024-2025.



Proposed SR 2 Relocation through New Cumberland, WV Alternative 5

WVH-06/15 Relocate State Route 2 (Main Street) from County Route 7 (Bruin Drive) to County Route 8 (Archer Heights Road); Follansbee, WV

Main Street in Follansbee is the most congested highway in the BHJ Region. Traffic congestion occurs in Follansbee for a variety of reasons. The Regional Travel Patterns document listed five intersections in Follansbee on State Route 2 as high accident locations in Brooke and Hancock counties. These intersections are at the Brooke Shopping Plaza, Mark Avenue, Allegheny Street, Raymond Street, and State Street. Several solutions for future discussion to relieve traffic woes on State Route 2 in Follansbee are as follows:

- The most expensive solution would be a complete 4-lane limited-access bypass around Follansbee. The proposed route includes three interchanges, two at each terminus and one at Alternate State Route 27 (Allegheny Street).
- Continue construction of a 4-lane road with at-grade intersections on the existing alignment of State Route 2 through Follansbee.
- Eliminate on-street parking on State Route 2 through Follansbee and construct new off-street parking facilities. This would create surface width to delineate Main Street with a median lane for left turn movements. The project would also include an access-management and pedestrian plan to reduce the number of commercial driveways on Main Street and re-evaluate the traffic control patterns.

This corridor is still one of the highest areas where crashes are concentrated in the county. A simple solution may be to look at the traffic signals. Reducing the number of signals and also replacing them with modern signals with better adaptive timing capabilities may be the fastest and most cost effective solution at this time.

WVH-07 State Route 2 (Commerce Street) from State Route 67 (Bethany Pike) to 12th Street; Wellsburg, WV

This 0.80-mile segment of State Route 2 has a surface width of 30 feet for about 0.50 miles from 12th Street to 2nd Street that then widens to 44 feet near the intersection at State Route 67. The beginning of the 30-foot wide section of Commerce Street at the 12th Street intersection and ending just south of State Route 27 (Washington Pike) is three 10-foot lanes, allowing for a center left turn lane from southbound State Route 2 to eastbound State Route 27. The highway width is functionally obsolete creating unsafe and cramped traffic conditions that have led to numerous traffic crashes at or near this intersection. Continuing just south from the Washington Pike intersection, on-street parking is permitted on the northbound side of State Route 2 and the southbound side is lined by several commercial driveways segment south, further compromising capacity on Commerce Street in the south end of Wellsburg.

The prime solution to correct traffic problems in the south end of Wellsburg is, at a minimum; widen Commerce Street from 12th Street to Bethany Pike to 40 feet with 3-lanes and adequate space for pedestrian traffic and proper drainage. Another consideration is purchase adequate right-of-way to expand this section of highway to at least 60 feet wide for 5-lanes of highway and eliminate on-street parking as warranted by increases in future traffic volumes.

With the new Wellsburg Bridge currently under construction, this area could see an increase to the problems that already occur. The future increase that the new bridge may cause will place added priority to addressing the issues on this corridor to make sure they do not worsen.

WVH-08/09 State Route 2 from Ohio County Line to State Route 67; Brooke County, WV

This project is a continuation of current expansion of State Route 2 in Ohio County and south Brooke County. Constructing this segment of State Route 2 to a 4-lane highway from Ohio County Line to Wellsburg would be the natural progression of expanding the state highway. The project's intent is to eliminate several dangerous rock fall and mudslide areas near Beech Bottom, by stabilizing the hillside on the east perimeter of the road. Furthermore, improvements to widen the existing route can provide better and direct access to Wheeling, WV, and expand industrial opportunities in south Brooke County along the Ohio River.

WVH-10 Improvements to State Route 105 (Pennsylvania Avenue) from State Route 2 (Main Street) to Pennsylvania State Line; Weirton, WV

Projects to improve Pennsylvania Avenue are in several stages of development. Overall, WVDOT has developed this project in several phases, divided into three stages of construction beginning with: (1) Cove Road to the Pennsylvania State Line, (2) Cove Road to 12th Street, and (3) 12th

Street to Main Street. Each construction phase should improve drainage, traffic flow, and pedestrian safety. The first two projects include the addition of a center lane for left turn movements, while the third project eliminates a dangerous sharp curve 0.15 miles east of Weir Avenue.

A new frontier of major economic development is underway on the Ohio river in the city of Weirton, West Virginia. The Frontier Group of Companies has acquired 1100 acres of former Weirton Steel/Arcelor-Mittal Steel Complex and currently in the process of redeveloping this area that can house up to 10 industrial buildings, 25 new commercial & retail building which can result in a significant number of jobs and economic boost for the region. The first phase of this project involves improving the intersection in SR002, main street and Pennsylvania Ave. The frontier group identified a total linear length of 2818 ft for road improvement. Around 8000 vehicles pass this intersection every day. Between 2013-17 a total of 21 crashes recorded in this intersection with two (2) serious injuries. The possible improvement recommendation includes a roundabout, lane widening and reconfiguration, resurfacing, street lights, renovate the traffic signals, replace the interconnect cabling with fiber optic cable, install a closed loop master control system with limited traffic detection, eliminating dangerous sharp curve 0.15 miles east of Weir Ave, crosswalks, and sidewalk improvement. This is still in the planning stage and no estimate when construction would begin. This project is also included into the BDC's WARP mentioned previously.

WVH-14 SR2 (Commerce St) and SR27 (Washington Pk) Intersection Improvement; Wellsburg, WV

The intersection at SR2 (Commerce St) and SR27 (Washington Pike) has very tight geometry making it very difficult for trucks to make turns. The current turn lanes become unusable during high traffic flow periods and the steep slopes of RT 27 cause a hazard to stopping traffic, especially heavy trucks coming downhill. Traffic count data shows approximately 19,000 vehicles use this intersection daily with approximately 5 percent trucks. This truck traffic increases when fracking operations are occurring in the area due to the high number of trucks hauling water. In 2018 alone, this intersection experienced 15 crashes and 41 overall when approach road crashes are considered. The project will widen the turning radii on all corners and add left turn lanes of adequate length on all approaches. Also an advanced intersection warning sign with rumble strips can slow down the vehicles and reduce crash probabilities of vehicles traveling down SR27. This with lighting, installing a closed loop master control system with limited traffic detection, crosswalk, and restriping of the intersection can improve safety of this intersection. A very preliminary cost estimate has been developed showing construction to be approximately \$3 million for construction. This plan lists this important project in the unfunded table at this time. WVDOH is pursuing alternative funding sources for construction, but have recently funded a planning study to start finding a solution to this intersection and is expected to be completed in mid-2020. Construction is currently scheduled sometime in FY 2025 to widen the intersection.



Possible Intersection Improvements

WVH-17 CR7 (Cross Creek Rd) and CR7/1 (Rockdale Rd) Intersection Improvement; Brooke Co, WV

This proposed project will address the very poor geometry at the intersection of CR7 (Cross Creek Rd) and CR7/1 (Rockdale Rd). The geometry issues include both vertical and horizontal problems as well as very tight turning radii. A preliminary cost estimate is \$2.7 million for right of way and construction. This plan shows this project is in the unfunded table.

HIGHWAY SYSTEM PRESERVATION PROJECTS

Construction programs classified as Highway System Preservation Projects preserve and maintain the current operation and safety standards of an existing transportation facility. These types of projects do not add capacity to the existing transportation network, are usually low-cost, and initiated on highway facilities that currently meet federal standards for highway construction.

Ohio Project Considerations

In Ohio, village, city, township, county and state government have certain responsibilities for maintenance of their respective highway facilities as delineate by the Ohio Revised Code. To begin, the Ohio Department of Transportation (ODOT) maintains all Interstate, United States, and State Routes that are included in the National Highway System (NHS). The Ohio DOT also maintains all State and US Routes outside incorporated areas designated as a **City**, a populated area greater than 5,000. On the other hand, maintenance of all State and United States Routes that are not designated NHS Routes within an incorporated city is the responsibility each respective city government. Further, the maintenance of all designated federal-aid highways that have an Administrative Classification of a County, Township, City or Village Route, is the responsibility of each respective level of government. This plan will attempt to identify **Highway System Preservation Projects** each responsible governmental unit in Jefferson County, Ohio expects to complete on the federal-aid system.

OH-10 Resurface South Commercial Avenue; Mingo Jct., OH

This project is the responsibility of the Village of Mingo Junction. The project area is a north/south minor arterial street that runs parallel to State Route 7 in the south corporate limits of Mingo Jct. Approximately 1.60 miles in length, the proposed project begins at the Village's south corporate limits and ends at the bridge over Cross Creek. This project includes milling and replacing flexible asphalt, replacement of curb, sidewalk and catch basins where needed as well as pavement markings and traffic control devices.

OH-29 Old SR7 from Belmont Co Line to SR150A; Rayland, Tiltonsville and Yorkville

This project is the responsibility of the Jefferson County Engineer and the Villages shown above. The project area is a north/south collector street that serves as the main north/south local access corridor for the areas of Rayland, Tiltonsville, and Yorkville. The project includes milling and replacing asphalt concrete, replacement of curb where needed, replacement of sidewalk where needed, pavement markings and replacement of traffic control signs.

OH-31 Franklin Ave from Franklin Ave Extension to Trenton St; Toronto, OH

This project is the responsibility of the City of Toronto. The project area is a north/south minor arterial street that serves as the main north/south local access corridor for the City. The project includes milling and replacing asphalt concrete, replacement of curb where needed, replacement of sidewalk where needed, pavement markings and replacement of traffic control signs.

Additional Ohio System Preservation Projects

The following are Basic System Preservation Projects that would involve milling the existing asphalt-wearing surface and replacing the wearing surface with fresh asphalt concrete. Projects would also include installation of new pavement markings. These Federal Aid System projects need resurfaced every 20 to 25 years to preserve the highway system. See the project list tables for the planned year for each project.

- OH-01 SR43 (Washington St) from SR7 to 5th St; Steubenville, OH
- OH-04 SR43 (Sunset Blvd) from Belleview Blvd to Linduff Ave; Steubenville, OH
- OH-06 SR43 (Frank Layman Blvd) from Wintersville E Corp to Canton Rd; Wintersville.
- OH-09 Resurface County Highway 22A (Cadiz Road/Old US 22) west of Wintersville,
OH
- OH-11 Franklin St Extension from Toronto W Corp to Franklin Ave; Toronto, OH
- OH-13 Lovers Ln Connector from SR43 (Sunset Blvd) to CR43; Steubenville, OH
- OH-14 CR22A (Frank Layman Blvd) from Wintersville W Corp to SR43 (Canton Rd);
Wintersville, OH
- OH-15 SR43 (Sunset Blvd) from Brady Circle West to Steubenville W Corp; Steubenville,
OH
- OH-16 SR7 (Dean Martin Blvd) from Steubenville S Corp to Steubenville N Corp;
Steubenville, OH
- OH-27 John Scott Hwy from SR43 (Sunset Blvd) to Steubenville N Corp; Steubenville,
OH
- OH-28 Alexander Ave from SR7 to 4th St; Toronto, OH
- OH-33 Fernwood Rd from CR33 (Airport Rd) to SR43 (Frank Layman Blvd);
Wintersville, OH
- OH-35 Commercial Ave from Mingo Jct S Corp to Cross Creek Bridge; Mingo Jct, OH

West Virginia Project Considerations

In West Virginia, the West Virginia Department of Transportation is responsible for the maintenance of all highways that have an Administrative Classification of Interstate, United States, State, or County Route. Therefore, this plan does not identify Highway System Preservation projects for Brooke County and Hancock County, West Virginia.

CONGESTION MANAGEMENT / SAFETY PROJECTS

Planned Hazard Elimination projects resolve safety problems at roadway hazardous locations and sections, and other transportation elements that present a danger to motorists, pedestrians, or bicyclists. These projects decrease traffic crashes thereby reducing deaths, injuries, and property damage.

Ohio Project Considerations

OH-21 CBD Traffic Signal System; Steubenville, OH

This project is the responsibility of the City of Steubenville. The traffic signals within the Steubenville central business district operate coordinated using a single timing plan and outdated interconnection cabling. Renovated over 30 years ago, the traffic signals are in need of replacement. A project to renovate the traffic signal installations, replace the interconnect cabling with fiber optic cable, install a closed loop master control system with limited traffic detection is proposed.

OH-22 CBD Traffic Signal Renovations; Toronto, OH

This project is the responsibility of the City of Toronto. The traffic signals within the Toronto central business district operate uncoordinated using a single timing plan and outdated equipment. The City of Toronto has not renovated the majority of these traffic signals since their original installation estimated to be over 50 years ago when SR7 traffic routed through the Toronto CBD. The first phase of this project would be to evaluate the necessity of the each traffic signal. The project would dispose of all signals found to be unnecessary signals and the remaining traffic signals renovated to current standards including control equipment, vehicle, and pedestrian signals. If the study finds it to be appropriate, the project would connect the remaining traffic signals into a closed loop system to provide orderly traffic flow.

OH-23 SR43 (Sunset Blvd) Traffic Signal Renovations; Steubenville, OH

This project is the responsibility of the City of Steubenville. The traffic signals along State Route 43 currently operate in a closed loop coordinated system, which the city and ODOT installed in the year 2000 and updated to use video camera detection in 2010. . Installing new lights along the entire corridor like the ones already at the new RT7-University Blvd intersection could improve safety and traffic flow.

OH-24 Mall Area Traffic Signal Renovations; Steubenville, OH

This project is the responsibility of the City of Steubenville. The traffic signals in the Fort Steuben Mall area currently operate in a closed loop coordinated system, which the city and ODOT installed in the year 2000 and updated to use video camera detection in 2014. . Installing new lights along the entire corridor like the ones already at the new RT7-University Blvd intersection could improve safety and traffic flow.

OH-48 SR43 from US22 to SR646 Traffic Signal Renovations; Wintersville, OH

This project is the responsibility of the Village of Wintersville. The traffic signals along State Route 43 currently operate coordinated in a closed loop system with loop vehicle detection that ODOT installed in the year 2008. Renovations include updating the vehicle detection using either video or microwave systems.

OH-49 CR22A (Cadiz Rd) from Springdale Ave to Two Ridge Rd, Cross Creek, OH

BHJMPC selected this urban non-freeway segment based on the crash vulnerable locations identified in the Jefferson County Local Road Safety Plan. This segment experienced the highest number of non-motorized fatalities and serious injuries. Between 2013 and 2018, 1 fatal and 2 serious injury pedestrian crashes and 20 serious injury motor vehicle crashes occurred.

A Road Safety Audit was performed with local officials as well as ODOT District 11 personal and found that speeding, disruptive sight distance, absence of defined crosswalk, and lack of lighting to be the causes of the majority of crashes. It is recommended to reduce the speed limit, clear intersection obstructions, create center median lane at intersections, incorporation of auxiliary and transverse paint markings, road diet, traffic signal upgrades, highway lighting improvement, mid-block offset pedestrian crossing with advanced crossing warning and yield sign, rectangular flashing beacon, sidewalk improvement, and evaluation of sign placement.

County engineers are proposing to add a crosswalk to the intersection at Springdale Ave and upgrade the current traffic light. Additional sidewalks and repair to existing sidewalks may be necessary as well as adding all ADA compliant features. Funding could possibly come from ODOT's Safe Routes to Schools Program. New lighting from Springdale Ave to Two Ridge Rd is also being proposed at a later time due to high costs.

OH-50 SR7/3rd St/4th St Intersection Improvement (Pilot)

This intersection has become increasingly hazardous due to the alignment of existing SR7, 3rd St, and 4th St. Also there has been an increase in the amount of truck traffic since the completed construction of a Pilot Truck Stop and an increase in industrial traffic to various businesses along the Ohio River due to increased Gas and Oil production in the area. A rework of these intersections is recommended to ease traffic flow, reduce the chances of vehicle accidents, and create a new pedestrian crosswalk. There is currently no funding available for this project.

OH-52 BHJ MPC Township Safety Signage Grant Program

Every year as a part of Surface Transportation Improvement program (TIP), BHJ will allocate up to \$25000 from their MPO Sub allocation fund to a township for their safety signage, posts and hardware replacement. BHJ will select one township each year from their Jefferson county member communities and will ensure to cover all the member communities by yearly rotation irrespective of the crash vulnerability and crash counts of that locality. Materials provided under this grant are covered at 100%. The Township must commit to install the signs with Township labor. Signs must be installed within one year of the Federal Authorization Date of the approval

of the project. Township may choose to include the signage needs for Villages which are partially or wholly located within Township’s boundaries but BHJ holds the township responsible for the installation. Signs must be installed per the guidelines in the Ohio Manual of Uniform Traffic Control Devices. BHJ will follow the same application process developed by Ohio Department of Transportation for their “ODOT Township Safety Sign Grant Program”.

OH-54 SR43 Signage Replacement – Replace Fading Traffic Signs

Replace fading signs along SR43 (Sunset Blvd/Main St) through Wintersville and Steubenville. Some signs of a yellow color are fading to the point of being unreadable.

West Virginia Project Considerations

WVH-16 Redesign of Intersection at Freedom Way and Birch Drive in Weirton, WV

With the Fort Steuben Bridge removed from the traffic network, traffic has significantly declined on Freedom Way in Weirton west of the Birch Drive intersection. In addition, recent traffic studies have revealed that the traffic signal at the intersection is unwarranted requiring that the signal be removed. Before removing the signal, the West Virginia DOH needs to reconfigure the intersection to accommodate the heavy traffic flow travelling onto Birch Drive into the Half Moon Industrial Park to the west. Figure 6 displays a possible reconfiguration. The project estimated is \$527,000, which includes design and minor right-of-way.



Possible Reconfiguration of Freedom Way & Birch Drive Intersection

WVH-21 Follansbee Traffic Signal System Renovations; Follansbee, WV

This project is the responsibility of West Virginia Department of Highways. The traffic signals along State Route 2 in Follansbee, installed over fifteen years ago, currently operate in a “closed loop” coordinated system. The corridor through Follansbee has been identified as a high crash location. New signals could be a solution to alleviate the congestion and reduce crashes in this area. In 2024, signals were evaluated and removed in certain locations due to warrants done on

the need of signals. Local residents and officials have argued that they are necessary from a safety aspect and would like them replaced.

WVH-22 Wellsburg Traffic Signal System Renovations; Wellsburg, WV

This project is the responsibility of West Virginia Department of Highways. The traffic signals along State Route 2 in Wellsburg, installed over fifteen years ago, currently operate in a “closed loop” coordinated system.

WVH-38 Chester Traffic Signal System Renovations; Chester, WV

The traffic signals through Chester on State Route 2 currently do not operate as a system. WVDOT should consider replacing the existing signals with a new coordinated “closed loop” type traffic signal system.

WVH-39 Weirton Traffic Signal System Renovations; Weirton, WV

The traffic signals through Weirton on State Route 2 from Cove Rd to Pennsylvania Ave currently do not operate as a system. WVDOT should consider replacing the existing signals with a new coordinated “closed loop” type traffic signal system.

BRIDGE PRESERVATION PROJECTS

Identified bridge projects provide funding to replace or rehabilitate deficient highway bridges located on any public road in the BHJ Region. Through an intensive inspection and management programs, each respective state highway agency, ODOT and WVDOT, identify such projects. In Ohio, the County Engineers Association administers a local bridge program for structures that are not on the Interstate, United States, or State Route Federal-Aid System. The Ohio Department of Transportation is responsible for the maintenance and rehabilitation for all other bridge structures in Ohio. On the other hand, the West Virginia Department of Transportation assumes responsibility for all bridge structures in West Virginia. This plan attempts to identify a limited number of bridge projects that are essential to the integrity of the region’s highway network.

Ohio Project Considerations

OBR-09 Trenton Ave Bridge; Toronto, OH

The project is the responsibility of the City of Toronto. This is a Bridge System Preservation project programmed to address normal repair and rehabilitation concerns. Constructed in the mid 1990’s with a projected lifetime of 50 years, this bridge will be in service for over 35 years during the life of this plan.

OBR-12 Bridge Replacement: CR75A over Yellow Creek, Springfield Twp, Jefferson County Engineer

The replacement of this bridge is the responsibility of the Jefferson County Engineer. Design work is proceeding with environmental and right-of-way acquisition. The engineer anticipates construction to occur in fiscal year 2017.

OBR-13 Bridge Replacement: CR1 over Little Short Creek, Warren Twp, Jefferson County Engineer

The replacement of this bridge is the responsibility of the Jefferson County Engineer. The county has bid the project and construction is proceeding.

OBR-20 Rehabilitate Bridge KNO-T289-0.06 - Knox Township – Jefferson County Engineer

Rehabilitate truss bridge by removing truss, disassembling and repairing it, and then reinstalling on existing abutments after minor repairs to abutments. No right-of-way work needed. This project is currently planned for construction in 2024 and 2025.

West Virginia Project Considerations

In West Virginia, the West Virginia Department of Transportation is responsible for the maintenance of all bridges that have an Administrative Classification of Interstate, United States, State, or County Route. Therefore, this plan does not identify Bridge System Preservation projects for Brooke County and Hancock County, West Virginia.

REGIONAL RIDESHARE OPPORTUNITIES

CommuteInfo[®] is a coordinated partnership of transportation management agencies and providers, as well as businesses and non-profit service organizations throughout Southwestern Pennsylvania and the Weirton-Steubenville, WV-OH Metropolitan Area, specifically the BHJMPO. The partnership provides commuter information and services for persons who desire commuter travel alternatives to driving alone to their jobs and/or school primarily into Southwestern Pennsylvania. With the growing number of single occupancy commuters starting in the Weirton-Steubenville, OH-WV Metropolitan Area and ending in Southwest, PA, the BHJMPO desires to continue its Vanpool/Rideshare Program in partnership with *CommuteInfo*. Existing Park and Ride Facilities in the BHJ area are inadequate to handle increased interest in shared options. Therefore, BHJ is reviewing suitable locations in Jefferson and Brooke counties to site new Park and Ride locations to expand ridesharing opportunities. To date four locations are under review: Toronto, OH at the SR 7 and Franklin Street Interchange, north of Steubenville, OH adjacent to an existing Park and Ride lot at SR 7 & 213, and two in Weirton, WV the US 22 and Harmon Creek Interchange and the US 22 and Colliers Way Interchange. Since the COVID-19 pandemic, rideshare interests have dropped but renewed interest has been shown.

ORS-05 Park and Ride: Wellsburg Bridge, Brilliant, Ohio Along SR 7

After completion of the Wellsburg Bridge, a need for parking in and around the bridge for carpooling and trail use purposes is expected. The current conceptual drawings place 12 regular parking spaces and 1 handicap accessible parking space on a lot adjacent to the Bridge on the Ohio side. BHJ along with ODOT District 11 personnel have developed this project in anticipation of carpooling and trail use from the shared use path connecting the Ohio side across the bridge to the trails on the West Virginia side to prevent crowded street parking from becoming overwhelmed in Brilliant. This project is currently scheduled for construction in FY2025.

REGIONAL BIKE & PEDESTRIAN DEVELOPMENT

Ohio Project Considerations

OTA-02 Ohio River Front Trail

The City of Steubenville has proposed the development of a bicycle / pedestrian trail along the Ohio River. The full length of the trail would stretch 1.4 miles from Washington St to the Steubenville Marina. Currently a shared use path that runs from the Steubenville Marina to the North end of 4th street is currently in the planning phases and has an estimated completion date of September 2021. This would cover a portion of this River Front Trail and connects the Marina to the main downtown area of Steubenville.

OTA-03 Converted Rail Trail from Jefferson/Harrison County Line to Dillonvale

If the owner of the railroad corridor between the Jefferson/Harrison County Line to Dillonvale ever proposes to abandon the rail line, it should be rail banked and converted for use as a rail/trail. This rail trail is a potential connection link between the Ohio & Erie Canal Bikeway in Cleveland, Ohio and the Brooke Pioneer Trail in West Virginia crossing the Ohio River at the new Wellsburg Bridge.

OTA-04 Converted Rail Trail from Dillonvale to Rayland

An extension of **OB-03**, this project proposes to rail bank the existing rail corridor between Dillonvale and Rayland if the active rail line is abandoned. This rail trail is a potential connection link between the Ohio & Erie Canal Bikeway in Cleveland, Ohio and the Brooke Pioneer Trail in West Virginia crossing the Ohio River at the new Wellsburg Bridge.

OTA-05 Converted Rail Trail and On-Road Trail from Yorkville to Toronto

If the owner of the existing railroad between Yorkville and Toronto ever abandons this rail line, the corridor should be rail banked and converted to a rail/trail. The trail would use existing roadways where rail lines are still active. This rail trail would provide north-south connection links to US Bike Route 50 in Steubenville as well as the Brooke Pioneer Trail and the Panhandle Trail in West Virginia.

OTA-06 US Bike Route 50

In connecting Ohio with West Virginia Trails, US Bike Route 50 is an on road corridor that stretches from Harrison County, Ohio, to the west and continues along CR22A, SR152, and SR43 to the east where it crosses the Ohio River via the Market Street Bridge to connect to West Virginia and Pennsylvania.

OTA-13 Streetscape in Steubenville – 4th St from Washington St to Market St

For the last couple of years, North 4th street of historical downtown Steubenville is the focal point of some very popular social gatherings named “First Fridays on Fourth”, The Nutcracker Village, and Advent market. It is also in a close proximity to the Historic Fort Steuben and home of some architecturally significant old structures that are listed in National Register of Historic Places. It is considered to perform a Streetscape on this section of roadway to improve the sidewalks, curbs, and intersections to accommodate festivals and improve overall looks and safety of the area. Proposed work to include filling in basement access doors and repairing/replacing sidewalks, replacing curbs while burying utilities, new lighting, and improve intersections with new crosswalks, curb bump outs, and streetlights and traffic lights.

Currently there is no funding available for this project, but estimates are being performed. Future revitalization of Downtown Steubenville largely dependent on this project.

OTA-15 Beatty Park Bridge – Replacement/Repurpose

A small 8-10’ span bridge inside Beatty Park is currently closed due to being unsafe for vehicle travel. It was constructed in the late 1800s. This bridge is needed to reach the far end of the park. Since it is historical, there are two options: Replace the bridge for vehicle traffic use or repurpose current bridge to allow for pedestrian/bike use only. This would allow access to a shelter house at the far end of the park and also allow it to be repaired from recent fire damage. Project is currently in the planning phases and scheduled for construction in FY2025-2026.

West Virginia Project Considerations

WVTA-01 Panhandle Trail; Weirton, WV

The Panhandle Trail in Weirton, WV is a 4-mile rail trail running under U.S. 22 Harmon Creek Exit to the Pennsylvania State line near Colliers WV. This rail trail will link Weirton WV to the National Network of trails. The Panhandle rail Trail is a planned 29-mile pathway linking two states, three counties, and 14 municipalities. The trail connects with the Montour Trail in McDonald, PA and brings the Panhandle into a network of trails that lead to Washington, D.C. that includes the Great Allegheny Passage.

WVTA-05 Ohio River Trail from Weirton to Tomlinson Run; Hancock County, WV

This proposal uses the existing railroad corridor between Weirton and Tomlinson Run should the operator ever abandon parts of the active rail line. The trail would use existing roadways where rail lines are still active. This rail trail would provide north-south connection links to US Bike Route 50 in Weirton and points north along the West Virginia side of the Ohio River.

WVTA-06 Converted Rail Trail from Follansbee to Weirton; Brooke County, WV

If the operators of the existing railroad between Follansbee and Weirton ever abandon portions of the active rail line, the corridor should be rail banked and converted to a rail to trail. The trail would use existing roadways where rail lines may continue to be active. This rail trail would provide north-south connection link to US Bike Route 50 in Weirton and points south along the West Virginia side of the Ohio River.

WVTA-09 Beech Bottom Sidewalk Improvements, Beech Bottom, WV

This is a project to improve sidewalks along SR2 in Beech Bottom to address ADA accessibility and connectivity.

WVTA-10 Charles St Streetscape; Wellsburg, WV

This is a project to improve sidewalks along Charles Street in Wellsburg to address ADA accessibility, connectivity and to enhance the historic aspects of Wellsburg.

WVTA-12 Tomlinson Run State Park to Chester, WV Trails; Hancock County, WV

Tomlinson Run Park is a State owned and maintained park facility. Currently there is a network of trails covering the entire park. As more people within the area become active in biking and recreational hiking/pedestrian activities, park operators anticipated expanding the existing trail facilities. Another consideration is developing trails connecting the Cities of Chester and New Cumberland to Tomlinson Run State Park. However, due to the topography and the limited right of way available this trail facility would be difficult to construct.

REGIONAL PUBLIC TRANSPORTATION DEVELOPMENT

Public transportation within the BHJ region has been an important form of transportation for many years. It provides a source of mobility for many individuals, particularly the elderly and disabled community, which would otherwise not have access to dependable transportation. As such, it is an integral part of the entire transportation system and must be maintained and modified to meet the changing demands of the region's public transportation dependent residents.

In the past transit planning was largely conducted internally with the transit agencies with input from the MPO and citizens being limited. Since the 2045 LRTP and survey that was conducted, those living in and around the BHJ area were very interested in expanding and improving the public transit. Since then, BHJ has conducted quarterly meetings of a mobility partnership committee consisting of citizens, local officials, transit providers, and employment centers. This has greatly improved both SVRTA and led to improvements in WDOT by letting concerns be more easily heard. Following the 2045 LRTP survey, SVRTA revamped their routes adding in more locations, busses per day, and changed the timing of the buses within the routes for more efficient running of the busses. WTC, a private entity operating transit service in Weirton, was dissolved and taken over as a city department by the city of Weirton. BHJ has been a part of this process and continues to assist them in improving their service that is still in the infant stages.

Routes for both agencies have always served low income housing areas, school transportation, trips to grocery stores, doctors offices, hospitals, and points of interest for recreations as well as job centers. Connecting not only SVRTA and WDOT but also Pittsburgh's transit authority and Wheeling's transit authority has allowed those living in the BHJ area access to places that may not have been accessible before without a vehicle. The public surveys for the 2045 plan as well as the 2050 plan showed that rural areas do not have access to public transit in most scenarios. The development of the Coordinated Public Transit and Human Services Transportation Plans (Located in Appendix G) for Jefferson county and Brooke and Hancock Counties helped to solve this issue. These outline in more detail the goals of the BHJ region for transit.

New service areas like rural areas or expanding into new routes are largely brought to the attention of BHJ and the transit providers through public surveys and involvement. Currently a new route into Wintersville neighborhoods is being considered as a test before a permanent route is established and put on a ballot for a levy. Citizens in the city of Toronto have shown interest in getting public transit but the city has shown resistance in stating that. New routes to areas like these are some long term goals for BHJ, as well as micro transit and on demand rides to areas that are more rural.

Ohio Considerations

OT-01/02/03 Steel Valley Regional Transit Authority (SVRTA)

Funding is shown for annual operating, maintenance, capital (vehicle replacements), and planning.

West Virginia Considerations

WVT-05/06/07 Weirton Department of Transit (WDOT)

Funding is shown for annual operating, maintenance, capital (vehicle replacements), and planning.

REGIONAL ELECTRIC VEHICLE INFRASTRUCTURE DEVELOPMENT

In the past 5-10 years, there has been increasing push and demand for the nations vehicle fleet to become more efficient and produce less pollution. Efficiency requirements by the federal government on gasoline and diesel powered cars and trucks plus the demand from consumers for fuel and cost efficient vehicles have assisted in the development of electric vehicles. Coupled with the federal transportation bills like the IIJA including requirements to increase efficiency and become net zero for emissions in the future, electric vehicles are here to stay and are becoming more widely used. From this a demand has been shown for infrastructure for charging stations for these vehicles. The Biden administration has also placed a goal of 500,000 chargers nationwide by 2030, which has been coupled with the \$7.5 billion dollars for formula and competitive grants.

There is currently only 1 EV charger in the BHJMPC region, located in Weirton, WV. The below projects are for the installation of Level 1-3 chargers in the urban area boundaries of the BHJMPC region.

BHJMPC is currently planning on CMAQ and CRP funding to be used for future projects replating to EV charging stations for the federal share with a local match provided by the municipality they would be located in when needed. BHJMPC currently unfortunately does not fall in a regional EV charging network plan.

- OEV-01 EV Chargers inside Jefferson County Ohio**
- WVEV-01 EV Chargers inside Brooke and Hancock Counties West Virginia**

CONCLUSIONS

Although each project proposed is important and necessary to enhance, maintain, and expand the existing transportation system, the planning and construction of the entire program is costly. Construction costs are continually rising, and revenue sources are difficult to predict. These facts make it difficult to fund and program high-cost projects. Even though federal, state, and local governments can reasonably fund many low-cost projects, virtually every project requires a significant level of state and/or federal government participation and cooperation.

As part of the federal requirements of this transportation plan, it is first necessary to evaluate funding sources and forecast potential revenue sources to determine each project's feasibility. A separate financial forecast document summarizes project cost estimates by the year of expenditure and the distribution of anticipated federal, state, and local government funds. The next step is developing a staged "fiscally constraint" long-range transportation improvement program for the lifetime of this plan based on a sound financial plan demonstrating how each project is reasonably funded. Then, each "fiscally constraint" project must demonstrate that it will not adversely affect the environment by exceeding the ambient air quality standards set forth by the United State Environmental Protection Agency (USEPA).

SECTION 8: FINANCIAL FORECASTING PLAN

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SECTION 8 – FINANCIAL FORECASTING PLAN

The financial analysis for estimating resources for implementation and construction of transportation projects involves both estimating project costs and developing reasonable forecasts of federal, state, and local resources. Typically, there are funding shortfalls between available financial resources and anticipated projects demands for preservation and expansion of a region’s transportation network. In many circumstances, a project’s proposed scope must be limited to the amount of financial resources available, or revenue sources expanded to fit the project needs. Financial planning including creative financial strategies to move the project forward through the program development process is as important as engineering and constructing a project. The financial plan will serve as a tool to estimate the region’s project demand in terms of dollars and to identify the fiscal resources needed to carry out the project demand.

Major elements discussed in the analysis will be:

- A forecast of federal, state, and local transportation funds expected to be available for project demand considered over the lifetime (FY 2025 through 2050) of the LRTP in nominal dollars that reflect aggregate cost ranges/cost bands (FY 2024-2027; 2028-2038; and 2039-2050) that reasonably supports projected project costs as well as system maintenance and preservation based on “year of expenditure dollars”;
- An estimate of project demand based on the preservation and of the existing transportation system and the construction of capacity and safety improvement projects.
- A comparison of funding level estimates versus funding needs.
- A listing of transportation projects and strategies divided into three program stages (FY 2024 through 2027; FY 2028 through 2038; and FY 2039 through 2050) that Project Sponsors (State and Local) could be reasonably fund over the lifetime of the LRTP based on projected transportation revenues.

FINANCIAL FORECAST ANALYSIS

Estimated Financial Projections by Revenue Source

Through a variety of sources, West Virginia and Ohio transportation departments each provided BJJ with reasonable financial forecasts by year of expenditures, or data that can be used to calculate an estimate of expenditures.

WEST VIRGINIA REVENUE ANALYSIS

West Virginia DOT provided Long Range Revenue Estimates for Use in MPO Long Range Transportation Plans via a letter dated February 2016. On page 2 of their “*Long Range Revenue Estimates for use in MPO Long Range Transportation Plans – March 2015*” document, WVDOH outlines the method used for developing the long-range revenue estimates as follows:

“METHOD:

In order to update the MPO long-range revenue estimates, BJJ MPO in consultation with West Virginia DOT took the following steps:

- 1. Determine if any modifications to the existing method are necessary and if so, implement the necessary changes.*
- 2. Obtain indexed cost data to estimate long-term inflation rates and for converting financial information from nominal values to constant 2014-dollar values.*
- 3. Gather historical statewide revenue and expenditure data for Fiscal years 2002 through 2014.*
- 4. Gather project program data for Calendar Years 2002 through 2014 on a statewide basis for all phases and types of work, as well as for select construction codes (1, 2, 3, 4, 5, 30, 33, and 66) on a statewide and individual MPO basis.*
- 5. Gather bridge project data programmed under construction codes 31 and 32 during FY 2002 through 2014 and identify which projects qualify as "improvements".*
- 6. Update the VMT, Highway Mileage, Population and Historical Funding percentages to reflect current information and calculate new percentile averages for each MPO and the non-MPO regions of the State.*
- 7. Gather the most recent "official" revenue estimates for the State Road Fund.*
- 8. Calculate per year and aggregate 25-year revenue forecasts for each MPO.”*

WVDOT prepared BJJ LRTP 25-Year Improvement Funding Forecasts for fiscal years 2016 through 2040. The estimates provided were statewide and factored specifically for the BJJ transportation planning area in both 2016 dollars as well as nominal dollars factored to the year of expense. This data was used to extrapolate out to 2050. This plan reflects expenditures in nominal dollars factored to the year of expense as shown in Table 1. Table 2 presents the West Virginia 25-year estimates for Major/New Construction in 2020 dollars factored to nominal “year of expenditure” dollars. For Transportation Enhancement Activities, BJJ set aside 10% of the 2024 to 2050 total allocation.

Since highway improvement needs exceed the funding forecast, traditional highway and bridge funding sources cannot finance major new transportation projects such as the New Ohio River Bridge south of Wellsburg, SR2 (Commerce St) and SR27 (Washington Pike) Intersection Improvement in Wellsburg and the SR2 Relocation through New Cumberland.

Two “special” sources of funding WVDOH has pursued for some projects is the Transportation Investment Generating Economic Recovery or “TIGER Discretionary Grants” and FASTLANE Grants or credit assistance for regionally significant freight projects. WVDOH remains committed to finding innovative methods to fund transportation needs in the region.

One example is WVDOH moving forward with the Wellsburg (New Ohio River) Bridge using the Public Private Partnership (P3) process. In general, this is a contractual arrangement formed between a public agency and a private sector entity that allows for greater private sector participation in the delivery and financing of transportation projects. In this case, the private sector entity will be the successful designer-constructor team submitting the best overall bid to design and construct the project. WVDOH has established a “short list” of contractors and has

set a July 2016 date for the selected contractors to submit bids. The DOH completed construction in September 2023.

**BHJ LRTP 25 YEAR IMPROVEMENT FUNDING FORECAST (IN NOMINAL DOLLARS)
VALUES AS OF 2024 and PRESENTED IN THOUSANDS, WEST VIRGINIA**

| Year | Total State Revenue | Non Improvement Expenditures | Statewide Improvement Funds | Eliminated Improvement Funds | Statewide Improvement Funds for MPO LRTP's | BHJ LRTP Improvement Funding @ 2.07% |
|-----------------------|---------------------|------------------------------|-----------------------------|------------------------------|--|--------------------------------------|
| 2024 | \$1,519,743 | \$776,944 | \$742,799 | \$609,095 | \$133,704 | \$2,768 |
| 2025 | \$1,585,227 | \$810,933 | \$775,294 | \$635,741 | \$139,553 | \$2,889 |
| 2026 | \$1,655,620 | \$846,409 | \$809,211 | \$663,553 | \$145,658 | \$3,015 |
| 2027 | \$1,728,048 | \$883,437 | \$844,611 | \$692,581 | \$152,030 | \$3,147 |
| 2028 | \$1,803,645 | \$922,084 | \$881,560 | \$722,879 | \$158,681 | \$3,285 |
| 2029 | \$1,882,549 | \$862,423 | \$920,126 | \$754,503 | \$165,623 | \$3,428 |
| 2030 | \$1,964,904 | \$1,004,526 | \$960,378 | \$787,510 | \$172,868 | \$3,578 |
| 2031 | \$2,050,863 | \$1,048,471 | \$1,002,392 | \$821,961 | \$180,431 | \$3,735 |
| 2032 | \$2,140,582 | \$1,094,338 | \$1,046,244 | \$857,920 | \$188,324 | \$3,898 |
| 2033 | \$2,234,226 | \$1,142,212 | \$1,092,014 | \$895,451 | \$196,562 | \$4,069 |
| 2034 | \$2,331,966 | \$1,192,180 | \$1,139,786 | \$934,624 | \$205,161 | \$4,247 |
| 2035 | \$2,433,982 | \$1,244,335 | \$1,189,648 | \$975,511 | \$214,137 | \$4,433 |
| 2036 | \$2,540,462 | \$1,298,770 | \$1,241,691 | \$1,018,187 | \$223,504 | \$4,627 |
| 2037 | \$2,651,599 | \$1,355,588 | \$1,296,012 | \$1,062,729 | \$233,282 | \$4,829 |
| 2038 | \$2,767,598 | \$1,414,890 | \$1,352,708 | \$1,109,221 | \$243,487 | \$5,040 |
| 2039 | \$2,888,672 | \$1,476,787 | \$1,411,885 | \$1,157,746 | \$254,139 | \$5,261 |
| 2040 | \$3,015,043 | \$1,541,392 | \$1,473,651 | \$1,208,393 | \$265,257 | \$5,491 |
| 2041 | \$3,146,942 | \$1,608,823 | \$1,538,119 | \$1,261,257 | \$276,861 | \$5,731 |
| 2042 | \$3,284,612 | \$1,679,205 | \$1,605,407 | \$1,316,433 | \$288,973 | \$5,982 |
| 2043 | \$3,428,304 | \$1,752,665 | \$1,675,639 | \$1,374,023 | \$301,615 | \$6,243 |
| 2044 | \$3,578,283 | \$1,829,339 | \$1,748,943 | \$1,434,133 | \$314,810 | \$6,517 |
| 2045 | \$3,734,822 | \$1,909,367 | \$1,825,455 | \$1,496,872 | \$328,582 | \$6,802 |
| 2046 | \$3,898,210 | \$1,992,897 | \$1,905,313 | \$1,562,356 | \$342,956 | \$7,099 |
| 2047 | \$4,068,745 | \$2,080,080 | \$1,988,665 | \$1,630,704 | \$357,959 | \$7,410 |
| 2048 | \$4,246,741 | \$2,171,078 | \$2,075,663 | \$1,702,043 | \$373,619 | \$7,734 |
| 2049 | \$4,432,523 | \$2,266,056 | \$2,166,467 | \$1,776,502 | \$389,964 | \$8,072 |
| 2050 | \$4,626,433 | \$2,365,189 | \$2,261,244 | \$1,854,219 | \$407,024 | \$8,425 |
| 25-Year Totals | \$72,535,373 | \$36,982,541 | \$35,452,832 | \$29,071,309 | \$6,381,506 | \$132,097 |

BHJ LRTP 25-YR FUNDING FORECAST WITH FEDERAL /STATE SPLIT WV (\$1000)

| | Funding Estimate | | | TA estimate | Remaining Balance | |
|------------------------|------------------|------------------|-----------------|-----------------|-------------------|-----------------|
| Year | Funding | 80% | 20% | 10% | 80% | 10% |
| 2024 | \$2,770 | \$2,216 | \$554 | \$277 | \$1,994 | \$499 |
| 2025 | \$2,891 | \$2,313 | \$578 | \$289 | \$2,082 | \$520 |
| 2026 | \$3,018 | \$2,414 | \$604 | \$302 | \$2,173 | \$543 |
| 2027 | \$3,150 | \$2,520 | \$630 | \$315 | \$2,268 | \$567 |
| 2024-2027 | \$11,829 | \$9,463 | \$2,366 | \$1,183 | \$8,517 | \$2,129 |
| 2028 | \$3,287 | \$2,630 | \$657 | \$329 | \$2,366 | \$592 |
| 2029 | \$3,431 | \$2,745 | \$686 | \$343 | \$2,470 | \$618 |
| 2030 | \$3,581 | \$2,865 | \$716 | \$358 | \$2,578 | \$645 |
| 2031 | \$3,738 | \$2,990 | \$748 | \$374 | \$2,691 | \$673 |
| 2032 | \$3,902 | \$3,122 | \$780 | \$390 | \$2,810 | \$702 |
| 2033 | \$4,072 | \$3,258 | \$814 | \$407 | \$2,932 | \$733 |
| 2034 | \$4,250 | \$3,400 | \$850 | \$425 | \$3,060 | \$765 |
| 2035 | \$4,436 | \$3,549 | \$887 | \$444 | \$3,194 | \$798 |
| 2036 | \$4,630 | \$3,704 | \$926 | \$463 | \$3,334 | \$833 |
| 2037 | \$4,833 | \$3,866 | \$967 | \$483 | \$3,480 | \$870 |
| 2038 | \$5,044 | \$4,035 | \$1,009 | \$504 | \$3,632 | \$908 |
| 2028-2038 | \$45,204 | \$36,164 | \$9,040 | \$4,520 | \$32,547 | \$8,137 |
| 2039 | \$5,265 | \$4,212 | \$1,053 | \$527 | \$3,790 | \$948 |
| 2040 | \$5,495 | \$4,396 | \$1,099 | \$550 | \$3,956 | \$989 |
| 2041 | \$5,495 | \$4,396 | \$1,099 | \$550 | \$3,956 | \$989 |
| 2042 | \$5,495 | \$4,396 | \$1,099 | \$550 | \$3,956 | \$989 |
| 2043 | \$5,495 | \$4,396 | \$1,099 | \$550 | \$3,956 | \$989 |
| 2044 | \$5,495 | \$4,396 | \$1,099 | \$550 | \$3,956 | \$989 |
| 2045 | \$5,495 | \$4,396 | \$1,099 | \$550 | \$3,956 | \$989 |
| 2046 | \$5,735 | \$4,588 | \$1,147 | \$574 | \$4,129 | \$1,032 |
| 2047 | \$5,986 | \$4,789 | \$1,197 | \$599 | \$4,310 | \$1,078 |
| 2048 | \$6,248 | \$4,999 | \$1,250 | \$625 | \$4,499 | \$1,125 |
| 2049 | \$6,522 | \$5,217 | \$1,304 | \$652 | \$4,695 | \$1,174 |
| 2050 | \$6,807 | \$5,445 | \$1,361 | \$681 | \$4,901 | \$1,225 |
| 2039-2050 | \$69,533 | \$55,627 | \$13,907 | \$6,957 | \$50,061 | \$12,516 |
| Total 2024-2050 | \$126,566 | \$101,254 | \$25,313 | \$12,660 | \$91,125 | \$22,782 |
| In Millions | \$126.57 | \$101.25 | \$25.31 | \$12.66 | \$91.12 | \$22.78 |

Source: Other Financial Revenue Analysis for West Virginia Projects

OHIO REVENUE ANALYSIS

The Ohio Department of Transportation, in an effort to be more involved in the MPO financial planning process, has developed a standard methodology to project funding levels for Metropolitan Long-Range Transportation Plans. The Ohio DOT has developed a methodology as an approach for an MPO such as BHJ, may follow to establish Long Range revenue assumptions. Table 3 is a summary of the Jefferson County, Ohio fund estimates for years 2024 through 2050 from ODOT Office of Statewide Planning and Research from the 2024-2027 TIP and carried on until 2050 at the same rate. For years 2024 through 2027, these are fund estimates based on projects listed in the most recent FY 2024-2027 Transportation Improvement Program.

Established Revenue Sources

A number of federal, state, and local revenue sources make up the Ohio Revenue analysis. The first source of federal revenue considered for transportation improvement planning and construction in Jefferson County is the MPO Sub-Allocation Program. The Ohio Department of Transportation has established a Sub-Allocation Program that distributes by formula, federal transportation improvement funding to small metropolitan areas with population less than 200,000. The allocation to Jefferson County consists of four funding categories:

1. Surface Transportation Block Grant (STBG)
2. Congestion Mitigation Air Quality (CMAQ)
3. Transportation Alternatives (TA)
4. Carbon Reduction (CRP)

The next list of revenue sources considered in this analysis report includes the following ODOT federal and state Capital Programs as found in Ellis, ODOT's project management system:

- District Preservation
- Major/New Construction,
- County Engineers Association of Ohio (CEAO) Bridge, STP Pavement, and Highway Safety Improvement (HSIP), and
- Other Federal Programs including Appalachian Program Development (APD), Safety Upgrade, and Small Municipal Bridge

Table 4 shows the estimated overall obligation authority by year and revenue source for transportation improvements in Jefferson County, Ohio. The total available (Federal and State) include all categories discussed in the previous paragraph as well as BHJ's sub-allocations.

BHJ obtained ODOT's MPO Funding Summary Report dated March 14th, 2024, to estimate the annual MPO Sub-Allocations, sub-allocations for STBG, CMAQ, TA, and CRP. The projected allocations appear flat for 2024 through 2050 as reflected in Table 3 below.

- Surface Transportation Block Grant (STBG) - \$19.5 Million.
- Congestion Management Air Quality (CMAQ) - \$15.5 Million.
- Transportation Alternatives (TA) - \$1.95 Million.
- Carbon Reduction (CRP) - \$2.32 Million.

BHJ’s methodology was to subtract the MPO sub-allocations above by year, from the overall (Total Available) Federal dollars leaving the yearly “ODOT Balance” amounts for the region.

BHJ LRTP 25 YEAR FUNDING FORECAST OHIO

| SFY | Federal | Growth Rate | State | Growth Rate |
|--------------|----------------------------|--------------------|--------------------------|--------------------|
| 2024 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2025 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2026 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2027 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2028 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2029 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2030 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2031 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2032 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2033 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2034 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2035 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2036 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2037 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2038 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2039 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2040 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2041 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2042 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2043 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2044 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2045 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2046 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2047 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2048 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2049 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| 2050 | \$ 60,091,797.00 | 0% | \$ 26,600,067.00 | 0% |
| TOTAL | \$ 1,622,478,519.00 | | \$ 718,201,809.00 | |

BHJ LRTP 25-YR FUNDING FORECAST WITH FEDERAL / STATE SPLIT OHIO

| Year | Total Available | | BHJ Sub Allocations | | | | | ODOT Balance | |
|-----------|-----------------|---------------|---------------------|-------------|-----------|-----------|---------------|---------------|---------------|
| | Federal | State | STBG | CMAQ | TA | CRP | Federal | State | Total |
| 2024 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2025 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2026 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2027 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2024-2027 | \$240,367,188 | \$106,400,268 | \$2,892,464 | \$2,292,572 | \$289,244 | \$343,308 | \$234,549,600 | \$106,400,268 | \$340,949,868 |
| 2028 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2029 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2030 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2031 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2032 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2033 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2034 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2035 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2036 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2037 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2038 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2028-2038 | \$661,009,767 | \$292,600,737 | \$7,954,276 | \$6,304,573 | \$795,421 | \$944,097 | \$645,011,400 | \$292,600,737 | \$937,612,137 |
| 2039 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2040 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2041 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2042 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2043 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2044 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2045 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2046 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2047 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2048 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2049 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |
| 2050 | \$60,091,797 | \$26,600,067 | \$723,116 | \$573,143 | \$72,311 | \$85,827 | \$58,637,400 | \$26,600,067 | \$85,237,467 |

| | | | | | | | | | |
|--------------------------|------------------------|----------------------|---------------------|---------------------|--------------------|--------------------|------------------------|----------------------|------------------------|
| 2039-2050 | \$721,101,564 | \$319,200,804 | \$8,677,392 | \$6,877,716 | \$867,732 | \$1,029,924 | \$703,648,800 | \$319,200,804 | \$1,022,849,604 |
| Total 2024-2050 | \$1,622,478,519 | \$718,201,809 | \$19,524,132 | \$15,474,861 | \$1,952,397 | \$2,317,329 | \$1,583,209,800 | \$718,201,809 | \$2,301,411,609 |
| Total in Millions | \$1,622.48 | \$718.20 | \$19.52 | \$15.47 | \$1.95 | \$2.32 | \$1,583.21 | \$718.20 | \$2,301.41 |

A detailed list of fiscally constrained project list (2025-2050) has been included here. This list excluded 2024-2027 projects that has already been selected, budgeted, and adopted in the BHJ 2024-2027 TIP program. The future costs are estimated considering .5% inflation and estimates are calculated from the previous similar projects of this region. This is an estimate list and subject to change based on the future demand and need of the region. This budget is also a primary estimate and subject to change along time.

FISCALLY CONSTRAINED LIST OF TRANSPORTATION PROJECTS PLANNED FOR JEFFERSON COUNTY, OH STATE FISCAL YEARS 2028 THROUGH 2050

| Jefferson County, OH Fiscally Constrained Project List | | Estimate (2025-2050) | | | | | | | |
|--|---|-----------------------|-----------------------------|---------|---------|----|--------------------|--|--|
| ID | Project Description | Projected Fiscal Year | Project Type | CMAQ | STP | TA | Responsible Agency | | |
| OH-36 | Phase 4- Improvements to Lovers Lane from Fernwood Road to State Route 43 (Sinclair Ave to Fort Steuben Drive); Steubenville, OH | 2035 | Highway System Preservation | | 723,000 | | CITY | | |
| OH-08 | Phase 5- Improvements to Lovers Lane from Fernwood Road to State Route 43 (Fernwood Rd to Sinclair Ave); Steubenville, OH | 2045 | Highway System Preservation | | 723,000 | | CITY | | |
| OH-07 | County Highway 34 (Two Ridge Road) from County Highway 22A (Cadiz Road) to State Route 43 (Canton Road); west of Wintersville, OH | 2040 | Highway System Preservation | | | | COUNTY ENGR. | | |
| OH-25 | Reconstruct Ft. Steuben Drive/Mall Drive from Lovers Lane to John Scott Highway; Steubenville, OH | 2030 | Highway System Preservation | 125,000 | 366,000 | | CITY | | |
| | CR77 (Sinclair Ave) from Lincoln Ave to Lovers Lane | 2040 | Highway System Preservation | | 500,000 | | CITY-COUNTY ENGR. | | |
| | | | | | 865,000 | | | | |

| Jefferson County, OH Fiscally Constrained Project List | | Estimate (2025-2050) | | | | | | |
|--|---|-----------------------|-----------------------------|---------|-----------|--------|---------------------|--|
| ID | Project Description | Projected Fiscal Year | Project Type | CMAQ | STP | TA | Responsible Agency | |
| OH-26 | SR7 from Mingo Junction North Corp to Steubenville South Corp | 2030 | Highway System Preservation | | 748,000 | | ODOT | |
| OH-46 | Lincoln Ave and Wilson Ave Intersection Improvement | 2035 | Highway System Preservation | 500,000 | 780,000 | | CITY | |
| OH-10 | Resurface South Commercial Avenue; Mingo Jct., OH | 2040 | Highway System Preservation | | 350,000 | | VILLAGE | |
| OH-29 | Old SR7 from Belmont Co Line to SR150A; Rayland, Tiltonsville and Yorkville | 2035 | Highway System Preservation | | 450,000 | | COUNTY ENGR-VILLAGE | |
| OH-31 | Franklin Ave from Franklin Ave Extension to Trenton St; Toronto, OH | 2028 | Highway System Preservation | | 430,000 | | CITY | |
| OH-27 | John Scott Hwy from SR43 (Sunset Blvd) to Steubenville N Corp; Steubenville, OH | 2029 | Highway System Preservation | | 1,130,000 | | ODOT | |
| OH-35 | Commercial Ave from Mingo Jct S Corp to Cross Creek Bridge; Mingo Jct, OH | 2028 | Highway System Preservation | | 500,000 | | ODOT-VILLAGE | |
| OBR-3 / WVBR-03 | New Ohio River Bridge from OH-43 (Washington Street) in Steubenville, OH to WV-2 in Brooke County, WV | 2042 | Highway System Preservation | 750,000 | 2,000,000 | 50,000 | ODOT-WVDOT | |
| OBR-19/WVBR-04 | New Ohio River Bridge from OH-7 Jefferson/Columbiana County to WV-2 Hancock County South of Chester, WV | 2045 | Major/New Project | | 500,000 | | ODOT-WVDOT-CITY | |
| OH-50 | SR7/3 rd St/4 th St Intersection Improvement | 2032 | CMAQ/SAFETY | 456,000 | | | ODOT-BHJ MPC | |
| OH-52 | BHJ MPC Township Safety Signage Grant Program | 2030 | CMAQ/SAFETY | 400,000 | | | BHJ MPC | |
| OH-54 | SR43 Signage Replacement – Replace Fading Traffic Signs | 2025 | SAFETY | 470,000 | | | CITY-BHJ MPC | |

| Jefferson County, OH Fiscally Constrained Project List | | | | | | | | | |
|--|--|-----------------------|---------------------|------------------|-------------------|----------------|--------------------------|--|--|
| Estimate (2025-2050) | | | | | | | | | |
| ID | Project Description | Projected Fiscal Year | Project Type | CMAQ | STP | TA | Responsible Agency | | |
| OH-48 | SR43 from US22 to SR646 Traffic Signal Renovations; Wintersville, OH | 2031 | SAFETY | 400,000 | | | VILLAGE | | |
| OH-22 | CBD Traffic Signal Renovations; Toronto, OH | 2030 | CMAQ/SAFETY | 900,000 | | | CITY | | |
| OH-24 | Mall Area Traffic Signal Renovations; Steubenville, OH | 2033 | CMAQ/SAFETY | 445,000 | | | CITY | | |
| OH-21 | CBD Traffic Signal System; Steubenville, OH | 2032 | CMAQ/SAFETY | 1,900,000 | | | CITY | | |
| OBR-17 | Bridge Replacement: CR53 over Brush Creek, Ross Twp. | 2033 | BRIDGE PRESERVATION | | 1,937,490 | | COUNTY ENGR. | | |
| OTA-02 | Ohio River Front Trail | 2027 | CMAQ | 599,984 | | | CITY-BHJ MPC | | |
| OTA-13 | Streetscape in Steubenville – 4 th St from Washington St to Market St | 2029 | TA | | | 500,000 | CITY | | |
| OTA-05 | Converted Rail Trail and On-Road Trail from Yorkville to Toronto | 2045 | TA | | | 130,000 | CITY-VILLAGE | | |
| OTA-03 | Converted Rail Trail from Jefferson/Harrison County Line to Dillonvale | 2040 | TA | | | 135,149 | COUNTY ENGR. | | |
| Total Expected Expenditures (2028-2050) | | | | 6,945,984 | 14,352,490 | 680,000 | Fiscally Balanced | | |

**FISCALLY CONSTRAINED LIST OF TRANSPORTATION PROJECTS PLANNED FOR BROOKE & HANCOCK COUNTY, WV
STATE FISCAL YEARS 2025 THROUGH 2050**

| Brooke & Hancock County, WV Fiscally Constrained Project List | | Estimate (2025-2050) | | | | | | |
|--|--|------------------------------|-----------------------|-----------------------|--------------------|------------------|---------------------------|--|
| ID | Project Description | Projected Fiscal Year | Project Type | Estimate Total | Federal 80% | State 20% | Responsible Agency | |
| WVH-03 | US Route 30 from 0.80 miles east of the Ohio State Line to Pennsylvania State Line; Hancock County, WV | 2040 | Major Highway Project | 4,500,000 | 3,600,000 | 900,000 | WVDOH | |
| WVH-07 | State Route 2 (Commerce Street) from State Route 67 (Bethany Pike) to 12th Street; Wellsburg, WV | 2040 | Major Highway Project | 15,000,000 | 12,000,000 | 3,000,000 | WVDOH | |
| WVH-17 | CR7 (Cross Creek Rd) and CR7/1 (Rockdale Rd) Intersection Improvement; Brooke Co, WV | 2045 | Major Highway Project | 7,600,000 | 9,500,000 | 1,900,000 | WVDOH | |
| WVH-06/15 | Relocate State Route 2 (Main Street) from County Route 7 (Bruin Drive) to County Route 8 (Archer Heights Road); Follansbee, WV | 2040 | Major Highway Project | 2,500,000 | 2,000,000 | 500,000 | WVDOH | |
| WVH-20 | Projected funding available to WVDOH to adequately maintain and inspect bridges and roads not identified in the plan | 2028-2050 | Maintenance | 57,021,000 | 45,616,800 | 11,404,200 | WVDOH | |
| WVH-16 | Redesign of Intersection at Freedom Way and Birch Drive in Weirton, WV | 2033 | CMAQ/SAFETY | 527,000 | 421,600 | 105,400 | WVDOH | |
| WVH-22 | Wellsburg Traffic Signal System Renovations | 2027 | CMAQ | 800,000 | 640,000 | 160,000 | WVDOH | |
| WVH-39 | Weirton Traffic Signal System Renovations; Weirton, WV | 2037 | CMAQ | 830,000 | 664,000 | 166,000 | WVDOH | |

| Brooke & Hancock County, WV Fiscally Constrained Project List | | Estimate (2025-2050) | | | | | |
|--|--|------------------------------|---------------------|-----------------------|--------------------|-------------------|---------------------------|
| ID | Project Description | Projected Fiscal Year | Project Type | Estimate Total | Federal 80% | State 20% | Responsible Agency |
| WVTA-01 | Panhandle Trail; Weirton, WV | 2034 | TA | 250,000 | 200,000 | 50,000 | WVDOH |
| WVTA-02 | Brooke Pioneer Trail; Brooke County, WV | 2040 | TA | 400,000 | 320,000 | 80,000 | WVDOH |
| WVTA-05 | Ohio River Trail from Weirton to Tomlinson Run; Hancock County, WV | 2045 | TA | 1,250,000 | 1,000,000 | 250,000 | WVDOH |
| WVTA-03 | Wellsburg Yankee Trail; Wellsburg, WV | 2045 | TA | 300,000 | 2,400,000 | 60,000 | WVDOH |
| WV Total Expected Expenditure Budget (2028-2050) | | | | 90,978,000 | 78,392,400 | 18,575,600 | Fiscally Balanced |

Public Transit for Ohio and West Virginia-Financial Forecast

Below is a table showing the financial forecast of the public transit agencies in the BHJMPC region, SVRTA for Ohio and WDOT for West Virginia. These agencies are largely funded by 5307 funding with local match for those funds. Since these forecasts are based on the FY2024 apportionments from the Federal Transit Administration, no factor for inflation has been applied and funds are shown with no change year to year.

| Public Transit Financial Forecast Analysis for Fiscal Constraint | | | | |
|---|--|---|-----------------------------|---|
| | SVRTA Steel Valley Regional Transit Authority | | | |
| SFY | Apportionment OH Funding | OH Federal Funding Used for Projects | OH Local Match Funds | Excess (Apportionment minus Federal Funding) |
| 2024 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2025 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2026 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2027 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2028 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2029 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2030 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2031 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2032 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2033 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2034 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2035 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2036 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2037 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2038 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2039 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2040 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2041 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2042 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2043 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2044 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2045 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2046 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2047 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2048 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2049 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| 2050 | \$ 662,407.00 | \$ 662,407.00 | \$ 557,682.00 | \$ - |
| Totals | 17,884,989.00 | 17,884,989.00 | 15,057,414.00 | - |

| Public Transit Financial Forecast Analysis for Fiscal Constraint | | | | |
|---|---|------------------------------------|-------------------------------|---|
| | WDOT Weirton Department of Transit | | | |
| SFY | Apportionment WV Funding | WV Federal Funding Used for | WV Local Match Funding | Excess (Apportionment minus Federal Funding) |
| 2024 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2025 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2026 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2027 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2028 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2029 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2030 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2031 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2032 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2033 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2034 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2035 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2036 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2037 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2038 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2039 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2040 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2041 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2042 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2043 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2044 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2045 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2046 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2047 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2048 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2049 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| 2050 | \$ 522,387.00 | \$ 270,780.00 | \$ 212,520.00 | \$ 251,607.00 |
| Totals | 14,104,449.00 | 7,311,060.00 | 5,738,040.00 | 6,793,389.00 |

EXTREME WEATHER/CLIMATE CHANGE VULNERABILITY

Climate change and assessing the vulnerability of the transportation network present many challenges. Transportation planners and engineers must plan, design, construct, operate, and maintain a surface transportation system according to climate variations and probable intensities of extreme weather events. The BHJ Region is very susceptible to events such as flooding, freeze thaw deterioration, and intense thunderstorms. Such events lead to road slippage, rock falls, landslides, weakened infrastructure, and power outages. These events lead to road closures and detours affected the area's ever-fragile economy. These negative impacts cause motorist and freight delays through detours and accidents, loss of life as well as the time and resources spent by highway crews and emergency responders to mobilize, close a road, set up detours, and clean landslides.

BHJ's objective is to increase the security of the transportation system for motorized and nonmotorized users by planning and creating a highway system that permits efficient and safe deployment of emergency services during times of accident, flooding, other natural disaster, or national emergency. At all times, highway officials should strive, at a minimum, maintain two highway and one pedestrian Ohio River Bridge crossings as contingency options for National Guard, safety, security, and emergency services between Jefferson County, Ohio and Brooke and Hancock counties, West Virginia.

Projects for Consideration (Illustrative)

The Ohio and West Virginia typically used Federal Emergency Repair funds for project reconstruction due to damage from extreme weather events. The following is a listing of potential projects in areas vulnerable to rock falls and landslides:

- SR7 from Mingo Junction North Corp to Steubenville South Corp
- SR2 from Wellsburg to Follansbee
- SR2 from Beech Bottom to Wellsburg
- SR2 from Weirton to New Cumberland
- SR2 from Newell to Chester.