

Profile 7 - Transportation Profile

This profile is the summary excerpt from the Long Range Transportation Plan (LRTP) that was done concurrently with the comprehensive plan. The LRTP in its entirety is found under separate cover and includes 11 corridor profiles upon which this summary is based.

Purpose & Overview

In January 2000, the Pennsylvania Department of Transportation (PENNDOT) unveiled PennPlan, its current long-range transportation plan for 2000 - 2025. The new plan represented a significant break from previous Department efforts in that it took a corridors-based approach to transportation planning. As part of the planning effort, PENNDOT identified 28 corridors of statewide significance (including two in Mercer County) in order to analyze significant trends, issues and opportunities for future consideration in regional and statewide transportation planning and programming.

Through the development of Corridor Profiles, which examined issues across several planning areas, including transportation, socio-economic and environmental, the plan combined the hard data available at the federal and state level with important issues and perspectives from local transportation users and providers. The PennPlan profiles were developed to be dynamic, allowing for updates of data and new analysis as conditions change.

In 2003, the Mercer County Regional Planning Commission (MCRPC) followed PennDOT's lead and began an update of its existing long-range plan using the PennPlan model. This direction was also consistent with federal policy which strongly promotes the need for and value of long range transportation planning. MCRPC, as the staff agency for the Shenango Valley MPO, identified 11 corridors of regional significance as shown in Table 1.

**Table 1: Corridors of Countywide Significance
MERCER COUNTY**

NO.	CORRIDOR NAME	CENTERED ON
1	Pittsburgh to Erie Regional Thruway	I-79
2	New York to Chicago Regional Thruway	I-80
3	Shenango Valley to Pittsburgh Regional Thruway	PA 60
4	Shenango Valley N-S Commercial Core	PA 18
5	Shenango Valley E-W Commercial Core	US 62
6	Broadway Avenue	PA 60
7	Shenango Valley to Mercer	US 62
8	Shenango Valley to Greenville/Reynolds	PA 18
9	Grove City - Southern Mercer County Tourism Pathway	PA 208
10	Greenville to Mercer	PA 58
11	Greenville to I-79	PA 358

The municipalities directly served by the primary corridor roadway defined the corridors. Thus, the I-79 Corridor would include not only the interstate, but other transportation facilities such as US 19 and BicyclePA Route A. Two of the corridors - I-79 and I-80 - are covered at a more strategic level as part of PennDOT's previous LRTP - PennPlan.

Background & Methodology

In developing the corridor profiles, MCRPC drew from a variety of sources, including the 2000 Census data, stakeholder meetings, an FHWA safety field view, and key person interviews.

Census data was collected across a variety of plan indicators, including:

- Mode Split
- Travel Time to Work
- Commutation Patterns
- Population Trends
- Age Group Distribution
- Racial Composition
- Household Income
- Labor Force Characteristics
- Employment by Occupation.

Other "hard" data collection included information from PennDOT's Highway Performance Monitoring System (HPMS) and the 2005 TIP.

MCRPC hosted a field view on July 19-20, 2004 with representatives from FHWA, PennDOT and the Shenango Valley MPO to review safety cluster locations and the relationship between safety and planning efforts. A prioritized list of cluster locations was developed and visited as part of this event. The need to continue (and enhance) safety considerations as part of the MPO's TIP planning process was stressed although it was agreed that such considerations appear to be inherent within the MPO, based on the number of priority sites reviewed which have or will be programmed for improvements.

A number of maintenance items were also noted during the two-day field view which was followed up by the District 1-0 Traffic Unit.

MCRPC conducted key person interviews with local elected and economic development officials from across the county. These individuals included:

- **Daniel Blair**, Engineering Assistant, G-R Development Corp.
- **Barbara Brown**, Springfield Township
- **James DeCapua**, Director, Mercer County Council of Government
- **Terrance Farren**, Borough Manager, Grove City

- **Brad Gossler**, VP & Executive Director, Greenville-Reynolds Development Corporation
- **David Grande**, Director of the Shenango Valley Chamber of Commerce
- **Marcia Hirschman**, Director of Planning & Zoning, Hermitage
- **William Morrocco**, Mayor of Farrell
- **David O'Ryan**, Mayor of Sharon
- **James Lowry**, Executive Director, Greenville Area Economic Development Corporation
- **Jennifer Hause**, Asst. Executive Director, Greenville Area Chamber of Commerce
- **Larry Reichard**, Executive Director, Penn-Northwest Development Corporation

A goods movement workshop was also held with major shippers in the county to identify issues and challenges for ensuring effective and efficient goods movement in Mercer County.

Regional stakeholder forums were held in November 2003 and again in September 2004 to first validate the plan's trends and issues, then to provide comments on the draft plan's vision and goals. Meeting participants were given the opportunity to raise new issues or concerns as they related to the development of this LRTP and the corridor profiles.

Issues & Opportunities

The Shenango Valley MPO is one of PennDOT's 14 MPO planning partners and receives an annual average of \$73.4 million from state and federal sources (2005 TIP). The Mercer County region has many unique transportation planning issues to address, included here in no particular priority order:

Elevating safety as a higher criterion in evaluating candidate TIP projects - With this LRTP update, the Shenango Valley MPO has an opportunity to begin creating stronger linkages between safety and transportation planning efforts. FHWA has concluded that safety considerations are an inherent component of the Shenango Valley's planning process, as most priority cluster sites involve locations in which projects have recently been completed, are ongoing or are programmed for design/construction as part of the TIP. FHWA has stressed the need for the MPO to continue (and increase, where possible) safety considerations as part of the TIP planning process.

While FHWA mandates that ten percent of all STP funding be directed towards safety-related projects, County planning staff - in coordination with PennDOT District 1-0 - may wish to pursue the development of a line item dedicated to minor safety and intersection projects in order to address isolated safety clusters not associated with current or future planned projects.

Improving industrial Shenango Valley access to the interstate network - The reconstruction of PA 60 - Broadway Avenue and pending designation of that roadway to interstate standards south of I-80 are critical areas of need for the county to address for the future. The area business community has identified traffic problems along Broadway Avenue as the most significant obstacle to business success and development in the Hermitage Industrial Park. As

redevelopment and parcelization occurs elsewhere (such as on former Sharon Steel properties), an improved Broadway corridor will need to be able to serve new industrial development.

Additionally, PA 60's interchange with PA 318 is an urgent priority as it relates to economic development. A full diamond interchange has been programmed, yet a larger issue includes studies aimed at identifying improvement needs towards bringing an interstate designation to what is now PA 60. The re-designation would see PA 60 (and US 22/30 in the Pittsburgh area) become I-376.

Improving the accessibility of northwestern Mercer County to the interstate network -

Economic development officials from the greater Greenville area recognize that the area's relative isolation has been a factor in attracting new employers. The area has some of the highest unemployment rates in the county, and has had difficulty in attracting new employers in replacing losses from the closing of Trinity and Warner Ladder. Current highway connections such as PA 58 and PA 358 are challenged with design issues that make truck access difficult.

Improving traffic circulation in the boroughs of Grove City, Mercer and Greenville -

Despite the closings of such major employers as Trinity, Warner Ladder and Cooper, the boroughs of Grove City, Mercer and Greenville all suffer from worsening traffic problems. Downtown congestion problems have been fueled by increases in truck traffic and suburban commercial retail development.

Ongoing collaboration with the East Gate (Youngstown) MPO in prioritizing TIP projects -

In spite of declining population figures, the Shenango Valley has been able to retain its MPO designation. It has executed a Memorandum of Understanding (MOU) with the East Gate (Youngstown) MPO in sharing data and projects. Transit issues are a different matter, as the federal funding must be shared between the two planning agencies. Working within the confines of two different TIPs (and TIP cycles that are not synchronized) is a challenge for both MPOs in planning and programming transit dollars.

The Federal Planning Factors

Current federal transportation law provides an important framework for transportation. At a policy level, TEA-21, like its predecessor ISTEA, places greater emphasis on transportation plans that satisfy key planning issues relative to transportation's role with economic development/trade, quality of life, congestion reduction and other key concerns at a national level.

MCRPC endorses the federal planning factors and incorporates them into this plan using the following section as a self-audit that the LRTP has satisfied these important criteria. The planning factors are listed below, along with a summary of how this plan addresses each. The reader should note that each factor relates to areas of importance not only nationally but to the Mercer County planning region as well.

MCRPC believes that the following headings relate to and support the factors found below:

- A. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
- B. Increase the safety and security of the transportation system for motorized and non-motorized users;
- C. Increase the accessibility and mobility options available to people and freight;
- D. Protect and enhance the environment, promote energy conservation, and improve the quality of life;
- E. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- F. Promote efficient system management and operation; and
- G. Emphasize the preservation of the existing transportation system.

Specific action strategies for each planning factor are included in the bullet points below:

Federal Planning Factor #1 - Economic Vitality

Transportation projects should contribute to the achievement of economy and efficiency in the transportation system. As Mercer County sees multi-modal transportation as a key to promoting economic development, it is especially important that our region remain connected to key markets.

Action Strategies:

- Emphasize the efficient use of existing roads and transportation facilities.
- Promote efficiency in the use of public funds.
- Encourage the participation of the private sector in initiating and maintaining projects.
- Use TeamPA interview output as one means of determining regional shipper needs and requirements. TeamPA data includes employer transportation issues and needs.
- Advance transportation projects that take advantage of Brownfield reuse and other similar opportunities.
- Work with regional, state and federal partners in the possible designation of PA 60 to interstate status.

Federal Planning Factor #2 - Safety and Security

Working with PennDOT, the Shenango Valley MPO will continue to consider safety and security as primary planning factors in all planning and programming activity. It will also remain as a focal point for current and future public involvement activity.

Action Strategies:

- A reduction in the number and severity of travel accidents per mile.
- The removal of conflicts between incompatible modes such as pedestrians and vehicles.
- Encourage municipalities to incorporate access management provisions as part of their land use control ordinances.
- The elimination of confusion at transfer or interchange points within and between modes.
- Work with District 1-0 and the County Maintenance Manager in routine identification of safety "hot spots". Consider PennDOT crash data and trends in TIP and LRTP development and updates. Weight safety as a criterion in modifying or amending the region's TIP.
- Continue to monitor all security related planning guidance from Homeland Security, FEMA, FHWA, PennDOT and PEMA.

Federal Planning Factor #3 - Accessibility and Mobility

The transportation system should be one that is balanced and coordinated to ensure that all potential users are served. These are factors that are core to this LRTP and to ongoing planning activity.

Action Strategies:

- Increased use and attractiveness of public transit in both the urban and rural parts of the county.
- Appropriate capacities for demand levels.
- A reduction in peak hour demands via a more efficient distribution of daily trips.
- Conduct parking and traffic circulation studies to identify the best ways of mitigating congestion in specific sub-areas of the county.
- Appropriate alternatives to serve freight movements within the MPO.

Federal Planning Factor #4 - Protect and Enhance the Environment

The transportation system should relate to and serve the existing and planned environment of the County. Through this LRTP, Mercer County strongly supports further improvements to all modes of transportation in the county that will serve to make our system more efficient and environmentally compatible. Mercer County's quality of life is one of the great assets we seek to preserve.

Action Strategies:

- Hold to a minimum the disruption of the natural and social environment by existing transportation facilities and vehicles.
- Promote the use of carpooling and transit as practicable.
- Reduce hydrocarbon emissions so that Mercer County, and particularly the Shenango Valley, has ozone concentrations that do not exceed the Environmental Protection Agency's (EPA) air quality standard.
- Divert through-traffic movements from residential concentrations.
- Promote the efficient use of energy.

- Encourage and provide assistance to member municipalities in updating their comprehensive plans.
- Expand the planning commission's skills and use of emerging transportation and land use techniques.
- Promote TIP projects that are generally consistent with the county's future land use plan.

Federal Planning Factor #5 - Enhance Integration and Connectivity

The transportation system should be accessible to all persons and businesses in a broad variety of activities and locations, including freight movements.

Action Strategies:

- Provide access to major activity generators, such as employment, health, shopping, education, and recreation facilities.
- Permit maximum usage of facilities by the transportation disadvantaged, i.e., youth, the elderly and the disabled.
- Provide non-ambulatory and semi-ambulatory care with public transportation.
- Provide highway access for the movement of goods for all economic activities.
- Relate to future, as well as existing, land use patterns and assist in the orderly development of the region.
- Continue the process to identify any key system disconnects or barriers - physical, regulatory or institutional.
- Work with airport operators and railroads to identify connectivity issues on a regular basis.

Federal Planning Factor #6 - Efficient System Management and Operation

The transportation system should promote efficiency. This will largely be a focus in the areas of monitoring state and national trends and determining applicable areas for the MPO.

Action Strategies

- Alleviate congestion management issues identified by local populations.
- Participate as beneficial in District 1-0 Intelligent Transportation Systems (ITS) activity.
- Continue to advocate funding assistance through the Rail Freight Assistance Program (RFAP) and the capital budget for rail freight carriers operating in the county.
- Continue bi-state cooperation with the East Gate MPO and the Ohio DOT on projects that impact communities on both sides of the border.
- Continue to collaborate with the East Gate MPO on the apportionment of transit funding.
- Evaluate tolling potential of I-80.

Federal Planning Factor #7 - System Preservation

The preservation of the existing transportation system will continue to be supported through the project selection process. The limited state of resources mandates this as a continued major focus.

Action Strategies:

- Promote the maintenance of existing facilities over the development of new facilities in cases where the MPO deems reuse to be a more efficient expenditure of transportation dollars.
- Continue to provide input to PennDOT on regional maintenance and betterment needs.
- Monitor our rail freight network to ensure needed long-term capacity and current operability.

Transportation-Related Socio-Demographic Trends and Patterns

Commutation Patterns

From a commuting perspective, Mercer County maintains a high percentage of resident employment. As noted in the Economic Profile, nearly 80 percent of all Mercer County workers are employed within the county of residence. Of the remaining 20 percent, a majority (5.5 percent) commute to Trumbull County, Ohio; 3.4 percent to Lawrence County, and 2.5 percent to Butler County. Another 2 percent commute to Mahoning County, Ohio.

Municipalities employing the greatest percentages of their resident workers include:

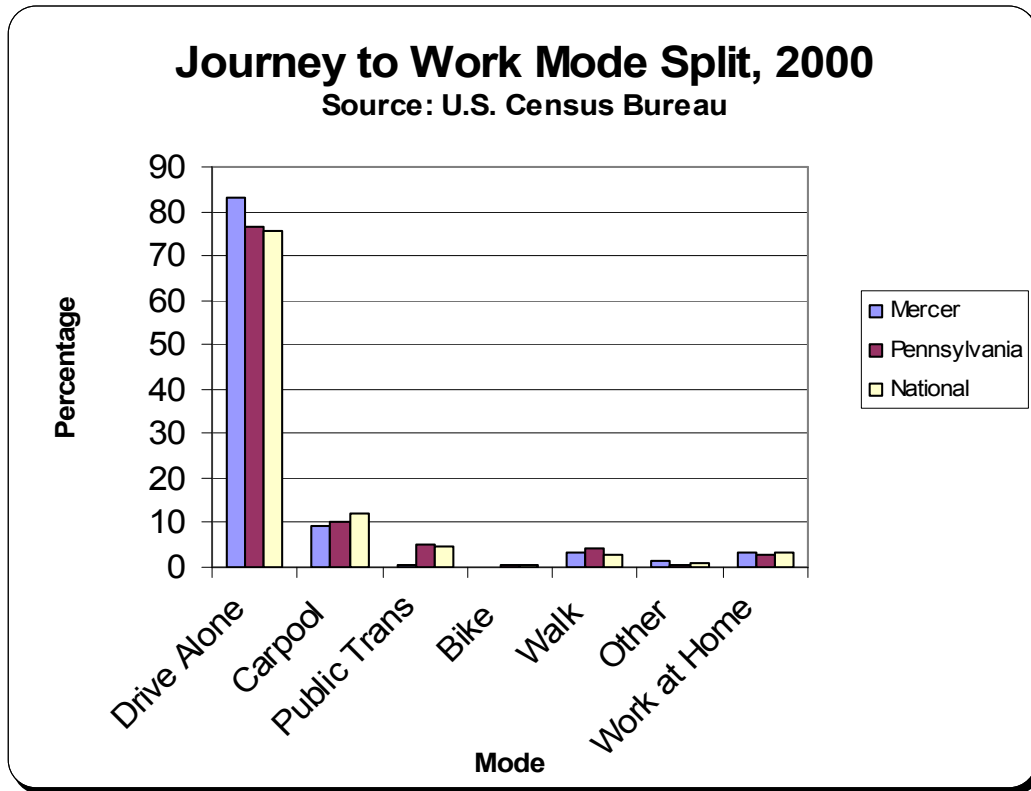
- Grove City - 38.7%
- Greenville - 37%
- Hermitage - 35.8%
- Mercer - 33.1%
- Sharon - 32.5%
- Wilmington Twp - 24.4%
- Farrell - 23.4%

Many of the county's rural municipalities, particularly the townships of Shenango, Salem and Worth, employ less than 9 percent of their own residents. Boroughs such as Jackson Center and New Lebanon also employ less than 9 percent of their own residents. Clark Borough leads the county in this regard, with only 6.7 percent of its resident workers employed within the municipality. The importance of transportation facilities in linking these bedroom communities with jobs is a critical transportation planning issue.

Mode Split

As noted in the Economic Profile, use of the single occupant vehicle as a means of getting to work is a growing phenomenon in Mercer County. Approximately 83 percent of Mercer County workers currently travel alone to work. During the 1990s, use of the single occupant vehicle as a means of getting to work grew at rates similar to Pennsylvania as a whole and even exceeded national growth rates. The 83 percent recorded in 2000 represents an increase of 5 percentage points over 1990 levels and 14 percentage points since 1980. The use of carpooling as a means of journey to work has experienced a corresponding decrease over the past 20 years, from 18.5 percent in 1980, to 11.5 percent in 1990, to 9.2 percent in 2000.

Figure 1 - Journey to Work Mode Split, Mercer County, 2000



During the 1990s, the number of people reportedly walking as a means of journey to work in Mercer County declined by 44 percent, from 2,900 in 1990 to 1,611 in 2000. Walking constitutes just over 3 percent of all journey to work trips, and is the third most-common mode of travel to work in the county. Bicycling is a smaller share of journey to work trips, yet use of that mode has nearly doubled from 1990 (34) to 2000 (61).

Use of public transportation as a means of journey to work has remained low over the past 20 years, at less than one third of one percent.

The number of people working from home remained constant during the 1990s, at 3.2 percent.

Travel Time To Work

Mercer County commuters generally have shorter commutes than their counterparts statewide, yet the overall trend has been one of increasing trip times. Nearly 60 percent of Mercer County commuters arrive at their place of work in 20 minutes or less. This is a slight decrease from the 1990 rate of 63 percent, but is still higher than the state rate of 45 percent.

During the 1990s, the rate of county workers requiring longer than an hour to get to work increased by over two-thirds, from 1,248 in 1990 to 2,082 in 2000. The number commuting longer than 90 minutes to work increased from 277 to 829 over the same period. At just 3.5 percent, this group makes up a small, yet growing portion of total commuters.

Population Change

Due to economic prosperity following World War II, Mercer County's population soared. The county's population growth rate was 10.8 percent between 1940 and 1950, and then an even greater 13.9 percent between 1950 and 1960. However, changing family attitudes and tougher economic conditions caused a population loss of 0.2 percent in the 1960s. Mercer County's population continued to stabilize during the 1970s showing a slight gain of 0.8 percent.

Today, Mercer County contains 681 square miles inhabited by a half urban and half rural population. The 2000 Census of population count was 120,293, down 0.6 percent from the 1990 population of 121,003. The 2000 Census establishes a population that has stabilized since the dramatic population loss of the 1980s. Table 2 provides more detail on population trends within the county over the past 85 years.

**Table 2: Population Trend, 1920-2000
MERCER COUNTY**

YEAR	POPULATION	CHANGE	
		#	%
1920	93,788	-----	-----
1930	99,246	5,458	5.80
1940	101,039	1,793	1.80
1950	111,954	10,915	10.80
1960	127,519	15,565	13.90
1970	127,225	(294)	(0.20)
1980	128,299	1,047	0.80
1990	121,003	(7,296)	(5.70)
2000	120,293	(710)	(0.60)

Source: U.S. Census

Over the past 30 to 40 years, the older urban communities have been decreasing in population and the suburban and rural communities have been stable or increasing in population. Between 1990 and 2000, the cities and boroughs lost a combined 3.1 percent of their populations, while the townships increased by 2.7 percent.

The population both locally and nationally is aging. Between 1990 and 2000 the county's population of those aged 65+ increased 4.6 percent, and now comprises 18 percent of the population. This age group continues to grow within Mercer County. Also, during this time the median age grew from 36.4 to 39.6.

Households and families are undergoing significant change both locally and nationally. In Mercer County, the average household size decreased from 3.20 persons in 1970 to 2.44 persons in 2000. The major causes of this being due to; declining birth rates; higher divorce and

separation rates; and increases in small households, particularly senior couples and widows/widowers.

State projected growth for Mercer County from 1990-2000 did not occur. County population projections available from the Pennsylvania State Data Center were prepared prior to the Census 2000. The projections indicated that moderate growth at a rate of 1.1 percent would occur from 1990 to 2000, and would continue at similar rates until the projection horizon of 2020. The 2000 Census demonstrated that such growth did not occur.

Population projections were prepared by Pennsylvania for its 67 counties between 1990 and 2000. These projections have not been updated since the 2000 Census, but were considered as one projection for Mercer County's future. These projections indicate that Mercer County could expect an additional 859 residents (a 0.7 percent increase) in population by 2010, and another 1,457 residents (a 1.2 percent increase) from 2010 to 2020. This 2010-2020 projected growth rate nearly matches that of Pennsylvania (1.3 percent).

Travel demand is expected to grow despite the expectation of a stabilized population over the next decade. The number of Mercer County households is expected to grow as average household size continues to decrease in the future. This will generate more travel trips. As such, Mercer County will have an increase in travel demand, although likely small, across the various transportation facilities.

Mercer County Transportation System - Modal Conditions

Mercer County's transportation system is supported by a complex infrastructure that includes highways, rail service, public transportation and a few hiking trails. It is through this infrastructure that the safe and efficient movement of people and goods can occur. In order for the system to continue properly, it will require continual maintenance and improvements as requirements of a system in continuous change.

The necessary repairs and improvements made to the infrastructure occur on an ongoing basis with the help of Federal, State and Local officials. Programs used to help increase the flow of people and goods are: the Rail Freight Assistance Program (RFAP); Safety and Mobility Initiatives Program (SAMI); the Transportation Enhancements Program (TE); and Hometown Streets/Safe Routes to School.

The results of these programs have had positive effects in facilitating traffic movement and relieving congestion points found at various locations throughout the county. Utilizing the LRTP, Mercer County hopes to alleviate forecasted transportation system problems before they occur.

This subsection presents a comprehensive inventory of the existing transportation facilities and services found within Mercer County.

Highway

The Federal Aid Highway Act of 1973 required the use of functional highway classification to update and modify the Federal-aid highway system. Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide.

In 1992 Mercer County was required under the tenets of ISTEA to update its Highway Functional Classification Map. This map provides the basis for the county's highway system and helps determine which roads will receive Federal and State aid for maintenance. It is through this complex linkage of roadways that the county's five economic centers (Shenango Valley, Greenville, Grove City, Mercer and Sandy Lake/Stoneboro) are connected to the surrounding areas of Pennsylvania, Ohio and the United States as a whole.

The Highway Functional Classification system is made up of a hierarchy of roads in the following order:

Interstate/Expressways & Freeways - These highways are designed to provide for the movement of the greatest number of vehicles over the longest distance in the fastest allowable time. Access to expressways is restricted to grade-separated interchanges and flow of traffic is uninterrupted. These highways generally serve either interstate and interregional traffic or cross-town traffic in densely developed areas. Interstates 79 and 80 are examples of these types of facilities.



Other Principal Arterials - Arterials also provide for the movement of large volumes of traffic over longer distances; however, these highways generally operate at lower speeds due to the presence of traffic control devices and access points. They can be subclassified as Principal Arterials, which serve inter-city traffic, and Minor Arterials, which link smaller developed areas within large areas of the county. The following routes have been included in their entirety or sections thereof in the Expressway/Principal Arterial classification: US 322, US 62, PA 18, PA 58, and PA 60.

Urban Collectors/Rural Major Collectors - Collector highways serve moderate traffic volumes and act to move traffic from local areas to the arterials. Collectors, too, can be subdivided into subcategories. Major Collectors provide for a higher level of movement between neighborhoods within a larger area. Minor collectors serve to collect traffic within an identifiable area and serve primarily short distance travel. Examples within the county include PA 846 south of Greenville, PA 258, and US 19 north of Mercer Borough.

Local Roads - Local roads and streets are, by far, the most numerous of the various highway types. These highways provide access to individual properties and serve short distance, low speed trips.

Table 3 below provides more detail on the system mileage for the county's highway network by functional class.

**Table 3: Highway System Functional Classification
MERCER COUNTY**

CLASSIFICATION	URBAN MILES	RURAL MILES	TOTAL MILES
INTERSTATE	4.0	103.6	107.6
OTHER FREEWAYS & EXPRESSWAYS	12.1	0.0	12.1
OTHER PRINCIPAL ARTERIALS	21.1	30.3	51.4
MINOR ARTERIALS	44.5	93.9	138.3
URBAN COLLECTORS	29.5	0.0	29.5
MAJOR COLLECTORS	0.0	137.8	137.8
MINOR COLLECTORS	0.0	185.2	185.2
LOCAL ROADS	5.6	152.4	157.9
TOTAL	116.8	703.2	819.9

Examples of each classification can be found in Mercer County. Included on the **National Highway System (NHS)** are several County highways in their entirety or sections thereof: I-79, I-80, US 322, US 62, PA 18, PA 58 and PA 60.

Mercer County's **Minor Arterial System** consists of several Pennsylvania and US highways along with various State Routes, in both the urban and rural areas of the County. The most important Minor Arterials connecting the county's economic/population centers to each other and surrounding areas are PA 18, US 19, PA 58, US 62, PA 173, PA 208 and PA 358. There are also other highways (PA 418, PA 518, PA 718, PA 846) and state roads that are included under this classification, but function primarily as connectors within the economic activity centers.

Urban and Rural Collectors provide access routes to the higher classification (Interstates, Principal/Minor Arterials) highways. The Urban Collectors are responsible for taking traffic out of the local neighborhoods and distributing it to the Arterial network.

A more detailed description of some of the more significant Mercer County roadways follows.

PA 18

PA 18 is a two-lane and four-lane, heavy duty, Federal Aid Primary Highway, capable of accommodating all types of vehicles. PA 18 enters Mercer County near Jamestown as a two-lane roadway and runs southward through Greenville. From a point just south of Greenville, the highway widens to four-lanes, traversing the City of Hermitage. It remains mostly two lanes through West Middlesex southward, leaving the county near New Wilmington in Lawrence County, and continuing south through Pittsburgh to West Virginia. PA 18 is one of the county's most important arterials because it directly connects two of the largest economic activity centers – the Shenango Valley and Greenville-Hempfield Area, including the Reynolds Industrial Park. PA 18 is essential to the north-south movement of goods in Mercer County's western tier and industrial heartland.



PA 58

PA 58 is a two-lane, Federal Aid Primary Highway, capable of carrying all types of vehicles. PA 58 spans the entire county diagonally from Jamestown Borough in the extreme northwest corner of the county southeastward to Butler County, southeast of Grove City. It passes directly through Greenville, Mercer Borough and Grove City, thus providing a highway connection between these economic activity centers.



PA 60 (Beaver Valley Expressway)

PA 60 is a four-lane, Federal Aid Primary Highway, capable of carrying all types of vehicles. PA 60 begins in Mercer County in the City of Sharon at East State Street, continuing southward, and exiting the county at the Shenango Township - Lawrence County line. This route provides an important connection, from the Shenango Valley southward to the PA Turnpike I-76 Interchange and eventually the Pittsburgh Metropolitan area. As of this writing, PA 60 from I-279 to I-80 is being studied for possible designation as an interstate. It is also being considered for possible tolling between the currently tolled portion at US 422 in Lawrence County to I-80. PA 60 has been a target for Lawrence County to take greater advantage of the interchanges it has.



US 62

US 62 is mostly a two-lane, Federal Aid Primary Highway, capable of accommodating all types of vehicles. US 62 enters Mercer County near the Sandy Lake/Stoneboro region. Continuing southwestward, the highway crosses I-79 and passes through the Shenango Valley - Hermitage and Sharon - and leaves the County and Pennsylvania at the City of Sharon - State of Ohio boundaries. Thus, this highway directly connects three of the county's five major economic activity centers.



US 322

US 322 is a two-lane, Federal Aid Primary Highway, capable of accommodating all types of vehicles. US 322 runs for only 2.24 miles in Mercer County, in Jamestown Borough where it intersects with PA 58,



and in the northeastern corner of the County. This route is included as part of the NHS.

US 19

US 19 is a two-lane, Federal Aid Primary Highway, capable of accommodating all types of vehicles. US 19 runs south from Erie City and enters Mercer County in Sandy Creek Township. Continuing southward and paralleling I-79, this highway traverses the entire length of the county, intersecting with I-80 about two miles south of Mercer Borough before leaving the county at the Springfield Township - Lawrence County line.



PA 173

PA 173 is a two-lane, Federal Aid Primary Highway, capable of accommodating all types of vehicles. PA 173 originates east of Meadville at PA 27 and travels southward through Sandy Lake Borough, through Grove City, and through Slippery Rock where it eventually terminates at PA 8 in Butler County. PA 173 provides a good north-south connection between Sandy Lake - Stoneboro and the Grove City/Pine Township areas.



PA 208

PA 208 is a two-lane, Federal Aid Primary Highway, capable of accommodating all types of vehicles. PA 208 enters Mercer County near Leesburg where it intersects with US 19. From this point, the highway continues eastward to its intersection with I-79 and Grove City until it enters Venango County. This highway is important to Grove City in that it connects the borough with Interstate 79.



PA 358

PA 358 is a two-lane, Federal Aid Primary Highway, capable of carrying all types of vehicles. PA 358 originates as Ohio Route 88 at the Ohio border west of Greenville and continues eastward through Greenville. It then traverses the northern portion of Mercer County to Sandy Lake Borough where it terminates. From its interchange with I-79, it provides Interstate access both east and west and connects the Sandy Lake/Stoneboro Center with the Greenville/Hempfield Center.



Bridges

Bridges and other structures are extremely important within Mercer County. A bridge is structurally deficient if there is significant deterioration of the bridge deck, supports or other major components. One in four bridges in Pennsylvania is in need of repair or replacement because of deterioration. In Mercer County, the rate is only 18 percent, or 7 percentage points lower than the state average.

Fourteen percent of Mercer County's bridges are functionally obsolete. These bridges no longer meet modern design standards for safety features such as lane widths or alignment with connecting roads or are no longer adequate for the volume of traffic being carried. Functionally obsolete bridges are not necessarily hazardous as they can still be structurally sound.

There are approximately 432 bridges in Mercer County that are longer than 20 feet in length. Of these structures, 31 percent are structurally deficient or functionally obsolete, compared to 42 percent statewide. Table 4 shows bridge condition information for Mercer County against state rates.

**Table 4: Bridge Conditions
MERCER COUNTY**

LOCATION	BRIDGES	PERCENT STRUCTURALLY DEFICIENT	PERCENT FUNCTIONALLY OBSOLETE	TOTAL DEFICIENT	PERCENT DEFICIENT
MERCER COUNTY	432	18	14	135	31
PA	22,069	25	18	9,377	42

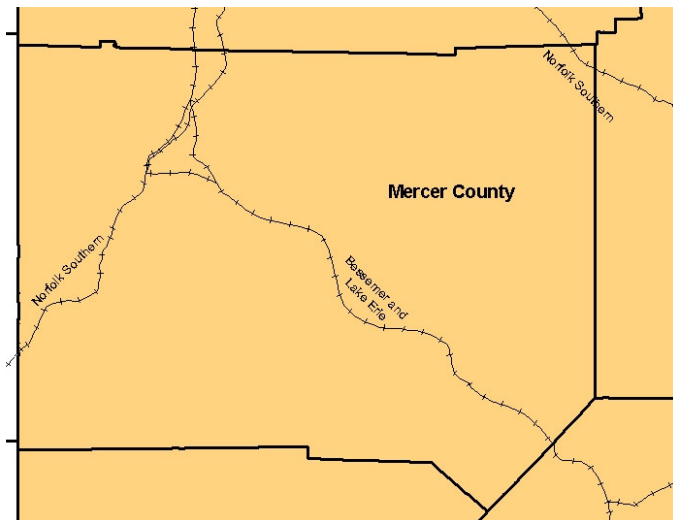
Source: FHWA National Bridge Inventory

Rail Freight

The nation’s rail system has been evolving since its beginnings 175 years ago. The past decade has witnessed dramatic changes in the railroad industry in Pennsylvania through consolidation and merger, institution of double-stack service and containerization.

Pennsylvania has more operating railroads (62) than any other state in the nation. Rail service in Mercer County today consists of only two freight routes that serve some portions of the county. These include the big Class 1 carrier of Norfolk Southern, and the Bessemer & Lake Erie Railroad. Figure 2 shows the location of these rail lines within the county.

Figure 2: Mercer County Rail Network



The county has been successful in receiving a number of Rail Freight Assistance Program funds from PennDOT's Bureau of Rail Freight. These funds have been used by various businesses to either strengthen or initiate rail service to their facilities.

Bessemer and Lake Erie Railroad

Canadian National (CN) has acquired the Bessemer & Lake Erie Railway (B&LE) as part of its May 2004 acquisition of the rail and marine holdings of Great Lakes Transportation LLC (GLT).

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Great Lakes owned the railroad, as well as the Duluth, Missabe and Iron Railway (DM&IR) and the Pittsburgh & Conneaut Dock switching company (P&C Dock).

The B&LE is a Class II railroad that annually carries approximately 15 million gross tons of coal, coke breeze, iron ore, and limestone between the Lake Erie port of Conneaut, Ohio, and steel mills in the Pittsburgh area. The Pittsburgh & Conneaut Dock Company (P&C Dock) is a Class III switching railroad that performs ship-to-rail and rail-to-ship bulk transfer operations for the B&LE at three docks at Conneaut.

The B&LE Railroad's fleet of 3,500 open-top, bottom-discharge hoppers continuously travel the Bessemer system. The network of main and branch lines transports coal directly from fields in Pennsylvania, West Virginia, Ohio, and Kentucky to the Pittsburgh & Conneaut Dock on Lake Erie.

Bessemer & Lake Erie Main Line	
LENGTH	124 mi.
MILLION GROSS TONS	15 MGT
286 K READY	Yes
BRIDGES	111

Originating in Conneaut, Ohio on Lake Erie, the B&LE runs south through Erie and Crawford counties and enters Mercer County about six miles east of Jamestown near Osgood. The B&LE continues south through Greenville Borough where it has an interchange with Norfolk Southern at Shenango. It then continues southeast, east of PA 58, generally paralleling that highway to the Butler County line, southeast of Grove City Borough. The B&LE provides rail service to Grove City, but bypasses Mercer Borough. After leaving the county, the B&LE continues south through Butler County into Allegheny County and terminates in Pittsburgh. This route has been designated by PennDOT as a Strategic Rail Corridor (Corridor #9).

Norfolk & Southern

NS acquired the mainline after the divestiture of Conrail in 1998. Over the past six years, the post-Conrail era has yielded some operational and service issues which NS has nearly eliminated. Today the railroad's service issues have been resolved and on-time performance has improved. Norfolk Southern Youngstown Line runs north from Youngtown through Sharon, Shenango, Greenville, and Osgood on its way to Meadville and Oil City where it terminates. A short branch from the Main Line in Sharon runs south into Wheatland Borough. This line is currently in use by the Dufurco Corporation and several smaller rail freight shippers.

Norfolk Southern Meadville Line	
LENGTH	42 mi.
MILLION GROSS TONS	0.8 MGT
286 K READY	No
BRIDGES	32

The line carries less than one million gross tons annually. The rail line, although not utilized thoroughly, is the only connection between the Oil Creek & Titusville rail line at Meadville and the B&LE. PennDOT has designated the OC&T as a Future High Potential Rail Corridor. It connects to the NS Southern Tier line in New York State (a line that continues to grow for NS).

Bike/Ped

The uses of biking and hiking facilities have proven to be efficient modes of travel. These uses can help aid an area in the reduction of automobile congestion, in return lowering the level of

airborne pollutants. These reductions may be small in comparison to other congestion management strategies, but do help lower pollutant levels.

Mercer County has a limited number of these facilities, all of which primarily serve recreational uses. The facilities that can be found in the county are located in areas outside of the major population centers. Due to this fact they have no practical use in moving people to and from the workplace. As rules and regulations change in the coming years, it may become practical and necessary to develop these modes of travel within the major population centers, specifically the Shenango Valley. The use of Transportation Enhancement funding will help facilitate the development of further trails for both pedestrians and bicyclists.

In addition to the facilities listed in the subheadings below, a full bicycle/pedestrian plan that was developed for both Mercer and Lawrence counties and is contained in Appendix A. The effort to develop this plan involved numerous public meetings in which several goals and objectives were stated. The MPO is now attempting to initiate the goals of the plan with the Transportation Enhancement funding that is received locally.

Shenango Trail

The Shenango Trail and two short side trails offer 8+ miles of public hiking trails from the Kidd's Mill Covered Bridge in Pymatuning Township to Big Bend in Jefferson Township. Nearly all of the trail is located on federally-owned lands of the Shenango Reservoir managed by the US Army Corps of Engineers. The trail follows the route of the historic Erie Extension Canal which operated mule-drawn cargo and passenger boats from the late 1830's to 1871. The trail is in good condition during fall, winter, and spring, but is a less pleasant hike in summer due to heavy vegetation, mosquitoes, and poison ivy.

Goddard State Park Trails

Goddard State Park located in northeastern Mercer County has 21.5 miles of public hiking trails. They include a near-complete circuit of the lower half of Lake Wilhelm, a connector trail with nearby McKeever Center, and an interpretive nature trail. Most of the trails are suitable for cross-country skiing and some are open to snowmobiles. Trails vary in condition from good to fair.

McKeever Environmental Learning Center Trails

McKeever is a modern environmental education center located on PA 358 west of Sandy Lake. It includes 3+ miles of hiking trails which provide nature walks through various parts of the center grounds. Trails are in good condition.

Seth Myers Nature Trail

Seth Myers is an interpretive nature trail located in the Mahaney Recreation Area of Shenango Reservoir near Shenango Dam. It is about 1-mile long and is maintained by the US Army Corps of Engineers. The trail is in good condition and is a popular short nature walk located close to the Shenango Valley urban area.

Riverside Park Nature Trail

Riverside Park in Greenville has a 1-mile interpretive nature trail which includes a foot bridge over the Shenango River. The trail is maintained by the Greenville Area Leisure Services Association and is in good condition.

Hunter Farm Trail

The Hunter Farm trail is located in Grove City Borough. This facility was built using Transportation enhancement funds, and developed in two phases. The total length of the facility is approximately 2.5 miles.

Other Hiking & Nature Trails

There are other short hiking trails, both public and private, both marked and unmarked, found in municipal parks, church camps, etc. throughout the county.

Proposed Bicycle/Hiking Trails

Sandy Lake/Stoneboro – Both boroughs are jointly building a 2.7-mile paved trail on the former Conrail railroad bed that connects the two boroughs.

Transit

The Shenango Valley Shuttle Service (SVSS) is the county's principal provider of public transportation services. The SVSS provides fixed-route transit service in the Shenango Valley area. The SVSS fixed-route service is supplemented with on-demand services provided for by Mercer County Community Transit (MCCT). Both the SVSS and MCCT are in full compliance with the Americans with Disabilities Act (ADA) of 1990. The SVSS also runs a rural fixed-route service from the Shenango Valley to Mercer and Grove City. An additional Friday route along PA 18 is also in operation. Figure 3 shows trends in total ridership between 1989 and 2004.

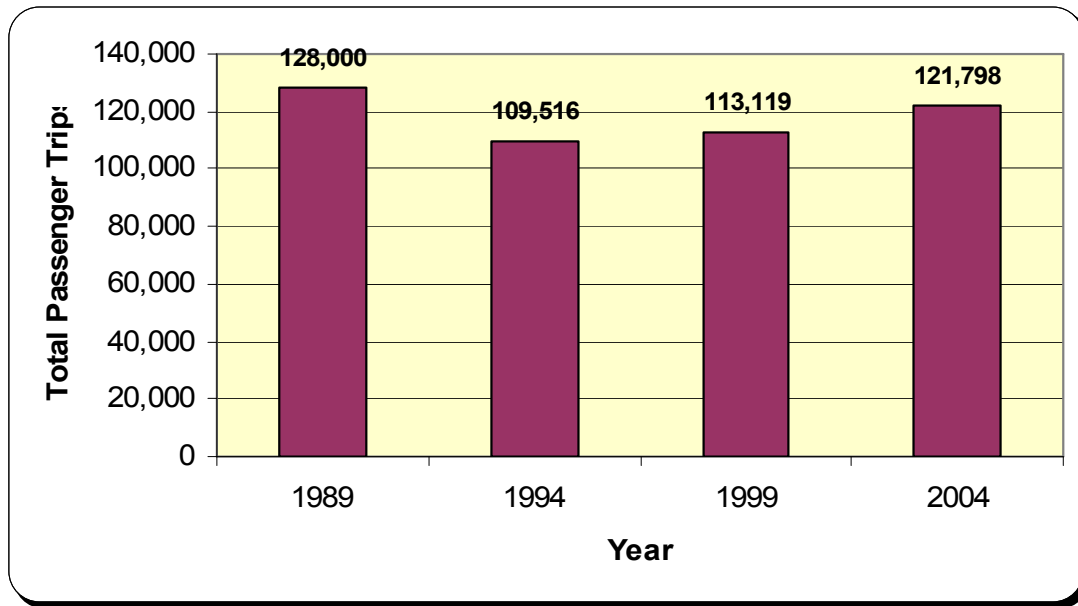
SVSS

The Shenango Valley Shuttle Service provides daily fixed-route service to the Shenango Valley communities of Farrell, Hermitage, Sharpsville, Sharon and Wheatland. The SVSS operates three (3) routes (Northern, Central, Southern), which run through residential areas and conclude in the business districts of downtown Sharon and Hermitage. Operating hours are from 7:00 a.m. to 5:30 p.m., Monday through Friday. Saturday service is provided from 7:30 a.m. until 4:30 p.m. There is no Sunday service.

The SVSS operates a total of four (4) buses, one being used for back-up purposes. All vehicles are wheelchair accessible, and 100 percent ADA approved. The base fare for a one-way ride is 50¢.

Changes in the 2000 census have resulted in Mercer County's inclusion in the much larger TMA, and has changed the way federal transit funding is apportioned to the area. The transit operation must split funding with the operators of public transportation in the Youngstown, Ohio area. The SVSS has moved from a transit operation in a small urban area to now having to follow the rules and funding changes for a large urban area of over 200,000 population. The MPO is currently in discussion with the East Gate COG MPO on how future transit funding is shared.

Figure 3: Shenango Valley Shuttle Service - Total Passenger Trip Trends, 1989-2004



MCCT

Mercer County Community Transit provides on-demand, shared ride services to all communities within Mercer County. The service operates between ten (10) and fifteen (15) routes daily, depending on demand. MCCT is also responsible for providing paratransit service to the surrounding area. Another service of MCCT is the "exclusive ride". This service operates in a manner similar to a taxi, in that the ride is direct from one's location to one's destination with no additional stops between. These services operate Monday through Saturday as needed. The fares for all of the services are based on "zone structure", of which there are five (5) within the county. The base fare is \$5.00, with an additional \$2.50 charged for each additional "zone" traveled. All of the buses operated by the MCCT are wheelchair accessible and 100 percent ADA approved.

Aviation

While there are no commercial airports within Mercer County, the Youngstown/Warren Regional Airport is less than eight miles from the Shenango Valley. Located in Vienna, Ohio, on Ohio Route 193, the airport provides scheduled passenger service and commuter service to other large international air terminals. It also provides air cargo service.

There are two general service airports located within the County - the Greenville Airport located north of the borough and the Grove City Airport, situated in Springfield Township, approximately five miles west of Grove City. Both airports provide charter, sales and leasing service related to private aircraft along with maintenance and flight lessons.

There are also two smaller personal-use airports located in the Shenango Valley: Clark Field in Hermitage and the West Middlesex Field located in Shenango Township about two miles west of the borough.

Other

Trucking

Mercer County's major trucking firms are located in the Shenango Valley, primarily along PA 60 in Hermitage and Wheatland. Due to the Valley's close proximity to I-80, the area has become attractive as a location for trucking terminals. The Shenango Valley's past and present history in heavy industry has also been a primary factor in the location of these firms. The majority of these firms are involved in the hauling of steel products, of which there are several remaining in the Valley. Other goods shipped from the remaining facilities include chemicals and freight. Besides these major haulers, there are several local independents located throughout the county.

Bus/Taxi Companies

Mercer County is home to one (1) major private bus company located in Greenville. This company provides local residents with private charter, tour and other types of bus transportation. In addition to this company, Greyhound Bus Lines has a fixed-route stop in Mercer Borough. The bus companies and their locations within the County are the following:

Anderson Bus & Tour
Greenville, PA

Greyhound Bus Lines
Mercer, PA

The county is served by two (2) Taxi companies (Phil's Dependable Taxi and Classy Classic Cab Company), both located in the Shenango Valley.

Financial Plan

Federal guidelines require that State and MPO long range transportation plans and TIPs be fiscally constrained, demonstrating the likelihood that funds will be available to cover all planned projects over the ensuing 25 years. Fiscal constraint, moreover, provides the platform from which to communicate priorities and is therefore a highly beneficial planning mechanism for any regional agency. The Shenango Valley MPO must consider funding needs over the 25-year planning horizon of its LRTP, and develop a financial plan that identifies funding sources for needed investments, including the maintenance and operation of the existing transportation system.

The development of the LRTP occurred just before the region's 2007 Transportation Improvement Program (TIP) was being developed. The TIP, or first four year period of the LRTP includes all regionally significant transportation projects which involve FHWA or FTA funding or approval.

The long-range transportation plan must include a financial section with an estimate of the level of funding that will be needed over the life of the plan, and how the MPO can reasonably expect to fund the projects included in the plan, including anticipated revenues from FHWA and FTA, state government, regional or local sources, the private sector, and user charges.

A financial plan could assume that the amount of available federal funding will remain constant over the first four years of the plan (the TIP), and then escalate at a rate equal to inflation or the Consumer Price Index (CPI). A number of planning assumptions were made in developing future funding projections for Mercer County:

- Only regular base funds were used to project future funds. Discretionary (or "spike") funds, legislative earmarks, special appropriations and similar revenue sources and funding streams are uncertain and unpredictable, and thus were not considered.
- All revenues are projected based on actual historic trends with current figures from SAFETEA-LU.
- The LRTP assumes that Pennsylvania will receive an average of 4.5 percent of the national total over the life of SAFETEA-LU, or an average of \$1.646 billion over 5 years. The LRTP makes a rational determination as to what the Shenango Valley MPO's share would be.
- The Shenango Valley MPO has in recent years received anywhere from 1.25 to 1.45 percent of Pennsylvania's total. Between federal fiscal years 2001 and 2008, total revenue will have declined by 4.9 percent, primarily as a result of PennDOT's new Interstate Management Program from FFY06 to 07. Assuming this is a one time policy change, revenues have increased an average of 0.5 percent per year. This average rate is assumed to carry forward through 2030. Inflation is expected to erode the buying power of the Shenango Valley MPO's transportation dollar by an average of 2.5 percent annually.
- Because the Commonwealth tends to increase highway and bridge funding through the Motor License Fund on an approximately 7 year basis, it can be assumed for conservative estimating purposes that there will be two increases in the Motor License Fund over the planning horizon (in 2011 and 2021). An average percentage increase of 7 percent is assumed for each of the two increases.
- All costs are in current (2005) dollars. Projected revenues are adjusted such that the relative purchasing power over time can be compared to these costs.
- Most candidate project costs were estimated using past experience or "best guess" figures. Operation and Maintenance costs were estimated to be \$3,150 per mile for annual winter maintenance, 15-year surface maintenance, and 30-year repaving cycles combined as per the state Transportation Advisory Committee's August 2003 funding study, "Future Investment Strategy in Pennsylvania's Transportation Program."
- Finally, it can be assumed that the county will continue to receive funding for airports, rail freight, public transit and bicycle/pedestrian modes. Because this LRTP includes

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numerous non-highway projects, it is recommended that the MPO and PennDOT review the non-highway recommended projects and jointly develop a reasonable estimate of which projects may be likely for placement in future programs. This composite estimate could then be added as a non-highway amendment to the LRTP.

PennDOT's financial guidance* over the life of the 2007 TIP provides an estimated \$16.9 million per federal fiscal year to the Shenango Valley MPO.

(For the next TIP update, PennDOT will be considered as a new “planning partner”. All Interstate Maintenance funds, as well as the portion of the NHS and Bridge funds that these miles/bridges represent, including the appropriate state match, will be programmed centrally by the Department of Transportation. The priority for these funds will be for system preservation. Any capacity adding projects would be advanced through coordination with each respective MPO/RPO, including the Shenango Valley.)

Projected funds for Mercer County were derived based on data from PennDOT financial guidance documentation, as shown in Table 5, below.

**Table 5: Total Highway/Bridge Base Funding Allocation - (\$000s)
SHENANGO VALLEY MPO**

FUNDING TYPE	FFY 03	FFY 04	FFY 05	FFY 06	FFY 07	FFY 08	FFY 09	FFY 10
FEDERAL HWY	7,997	7,539	7,081	7,081	4,909	4,970	4,925	4,925
STATE HWY	3,671	3,457	3,243	3,243	1,960	1,958	1,952	1,952
FEDERAL BRIDGE	4,212	4,617	5,022	5,021	5,313	5,356	5,465	5,465
STATE BRIDGE	1,308	1,441	1,574	1,574	2,625	2,624	2,620	2,620
URBAN		174	348	348	499	502	513	513
CMAQ	637	705	774	774	1,112	1,121	1,143	1,143
RAIL	160	142	124	124	116	116	116	116
ENHANCEMENTS	195	190	186	186	278	286	297	297
TOTAL	18,180	18,265	18,350	18,350	16,812	16,933	17,031	17,031
PERCENT OF PA	1.38	1.38	1.38	1.38	1.04	1.04	1.04	1.04

Source: PENNDOT Financial Guidance

* The state's financial guidance is based on a formula agreed upon by the Financial Work Group of Pennsylvania's planning partners. Elements of the formula include the region's population, land miles of highway, and vehicle miles of travel.

Table 6 shows the breakdown of total expected funding available over the life of the LRTP, including the TIP, Years 5-12 and Years 13-25.

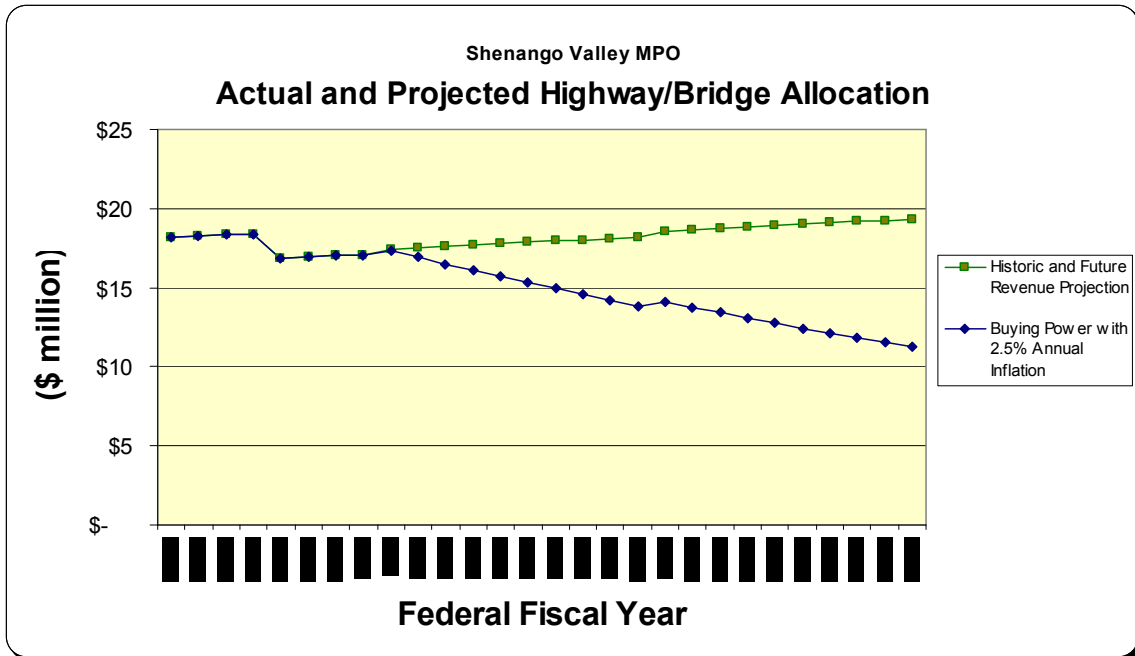
**Table 6: Revenue Estimates - (\$000s)
SHENANGO VALLEY MPO**

PERIOD	TIP FFY 2005-2008	MID RANGE FFY 2009-2016	LONG RANGE FFY 2017-2030	TOTAL FFY 2005-2030
AMOUNT	\$70,445	\$140,026	\$ 261,894	\$472,365

Source: PennDOT Financial Guidance and Gannett Fleming estimates

The transportation projects of the Shenango Valley's Long Range Transportation Plan (2005 TIP inclusive) are included in 11x17" foldouts at the end of the LRTP and are valued at over \$282.7 million dollars.

Figure 4: Base and Projected Highway and Bridge Funding Allocation



Conclusion - Implementation

The Shenango Valley MPO LRTP development process is best characterized by:

- Broad-based participation
- Innovative ways of examining our transportation network with a focus on multimodal Corridors
- The identification of bona fide improvement needs.

Regional leaders from both the public and private sectors now have the large opportunity and responsibility to implement this plan. This conclusion offers several key considerations in doing so:

1. Broadly communicate the Plan's contents and recommendations, explaining what is at stake and the importance of the same broad based support and advocacy in implementation as was demonstrated in the Plan's development. Consider distributing a periodic plan implementation report card or one-page fact sheet/update.
2. Monitor project implementation and periodically report on progress being made in advancing improvements that are consistent with the Plan's directions.
3. Work with PennDOT to raise awareness of the Plan's directions in regards to the Department's associated programs including aviation, rail freight, highway and bridge construction/maintenance, public transit, and bike-ped.
4. Continue to dialogue with PennDOT central office planning staff and district planning in relation to emerging statewide and regional planning directions and initiatives.
5. Communicate the multimodal aspects of the plan with the RFAC, Aviation Advisory Committee and others to showcase how these modes are central to the regional planning process.
6. Regularly assess program development, TIP, etc. in relation to the extent to which it starts with the LRTP as the initial focal point for resource prioritization and allocation.
7. Work with stakeholders and the public on the wide range of special initiatives related to the many issues covered in the LRTP.
8. Consider alternative approaches towards prioritizing future TIP and LRTP projects. For example, a project ranking criteria matrix could be employed to better ensure consistency between the mix of projects and investments of the TIP and LRTP and the goals and policies of the MPO and its member municipalities.

Corridor Profiles

The LRTP also consists of profiles of the 11 corridors of countywide significance. The corridor profiles are organized under several sub-headings, including:

- Key Findings & Corridor Highlights
- Recommendations
- Traffic Volumes
- Mode Split
- Travel Time to Work
- Commutation Patterns
- Population Trends
- Age Group
- Racial Composition

- Per Capita Income
- Labor Force Characteristics
- Employment by Occupation
- 2005 TIP Projects

A map of all transportation projects described in the corridor profiles appears at the end of this chapter.