

**SEDA-COG Metropolitan Planning Organization
Long Range Transportation Plan**

Regional Performance Measures Report

March 2019



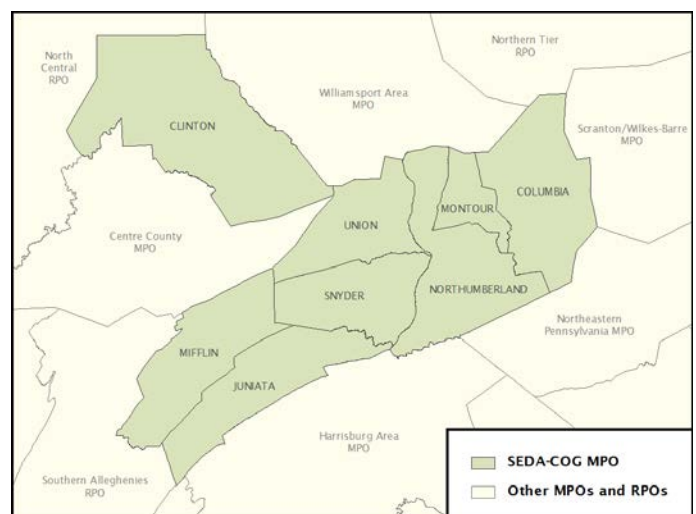
INTRODUCTION

The SEDA-COG Metropolitan Planning Organization (MPO) adopted the region's former Long Range Transportation Plan in December 2011, while functioning as a Rural Planning Organization (RPO) at that time. The Long Range Transportation Plan (LRTP) is a comprehensive blueprint that identifies important regional policies and planning objectives to maintain the region's infrastructure and promote a sustainable future. Consistent with the 2011 LRTP's Plan Assessment section, SEDA-COG staff is committed to annually tracking and reporting on the performance measures included in the Plan. These performance measures are designed to examine the condition of our transportation system and gauge the effectiveness of the strategies developed for implementation. The current 2016 LRTP involved a comprehensive update, and it listed new performance measures consistent with federal transportation legislation. However, the measures from the 2011 LRTP will continue to be tracked and referenced in this annual report. The intent is that this report and the annual performance measures updates until the next LRTP update will provide a baseline for directing future strategy development.

Meaningful, reliable, and easy-to-replicate data are used to track the region's progress towards the goals of the LRTP, and data are compiled in annual spreadsheets to generate the report information and charts. Regional performance measures can highlight successful programs and identify which programs should be reviewed for effectiveness – something that has been strongly advocated by PennDOT and local officials for a more outcome-based approach to transportation planning. SEDA-COG LRTP performance measures were developed under SAFETEA-LU Federal transportation authorizing legislation. Successor bills known as MAP-21 and FAST were enacted in 2012 and 2015, and they called for the establishment of a performance-based planning process tied to targets that address national performance measures established by the Secretary of Transportation. Performance measures guidance is still being formulated by the U.S. Department of Transportation and Pennsylvania Department of Transportation. Sections affected by proposed rulemakings and performance measures targets will be addressed in future iterations of this report, as appropriate.

COVERAGE AREA

The coverage area for the reporting includes the eight (8) counties in the SEDA-COG Metropolitan Planning Organization: Clinton, Columbia, Juniata, Mifflin, Montour, Northumberland, Snyder, and Union. The statistics are largely shown as aggregate regional figures, but most of the data elements can also be extracted at county or PennDOT District levels.



PERFORMANCE MEASURES

Projects through LPN Process:

Use of the Linking Planning and NEPA (LPN) screening form process did not commence in earnest until 2012, in conjunction with developing projects for the 2013 TIP. LPN form activity slowed considerably during 2013. However, the number of forms created and processed ramped up again in 2014 as part of the 2015 TIP development and increased again in 2016 as part of the 2017 TIP development, since new projects added to the TIP require Level 2 screening forms. Preparation of the 2016 Long Range Transportation Plan also led to the creation of several new LPN Level 2 forms taken through the project selection process and Agency Coordination Meeting environmental analysis. However, the LPN System has been supplanted by PennDOT Connects Project Initiation Forms, so virtually no LPN form activity occurred in 2018. **Table 1** below provides a breakdown of LPN screening forms across all levels by year of creation.

Table 1

	2014	2015	2016	2017	2018
Level 2 Forms Marked on LRTP/TIP					
Level 2 Forms Recommended to LRTP/TIP					
Level 2 Forms Marked as Draft	47	9	30	28	3
Level 2 Forms Marked as Awaiting Review	60	1	81	3	
Level 1 Forms Created					
Total Number of LPN Forms	107	10	111	31	

Source: PennDOT Linking Planning and NEPA Screening Forms System

Projects with Defined Context in Inventory from All Sources:

In selecting the existing and future land use context in the transportation problem study area, LPN screening form preparers can choose from: Rural, Suburban Neighborhood, Suburban Corridor, Suburban Center, Town/Village Neighborhood, Town Center, Urban Core, and Transition Area (these contexts are defined and illustrated in PennDOT's Smart Transportation Guidebook). Land use context determinations are only included as part of Level 2 screening forms, and some Draft or Awaiting Review forms may not have selections made until they're recommended or added to the LRTP/TIP. **Table 2** on the next page provides a breakdown of LPN screening forms with defined land use contexts by year of creation.

Table 2

	2014	2015	2016	2017	2018
Level 2 Forms Marked on LRTP/TIP					
Level 2 Forms Recommended to LRTP/TIP					
Level 2 Forms Marked as Draft	29		1	10	
Level 2 Forms Marked as Awaiting Review	60	1	67	2	
Total Number of LPN Forms with Defined Contexts	89	1	68	12	

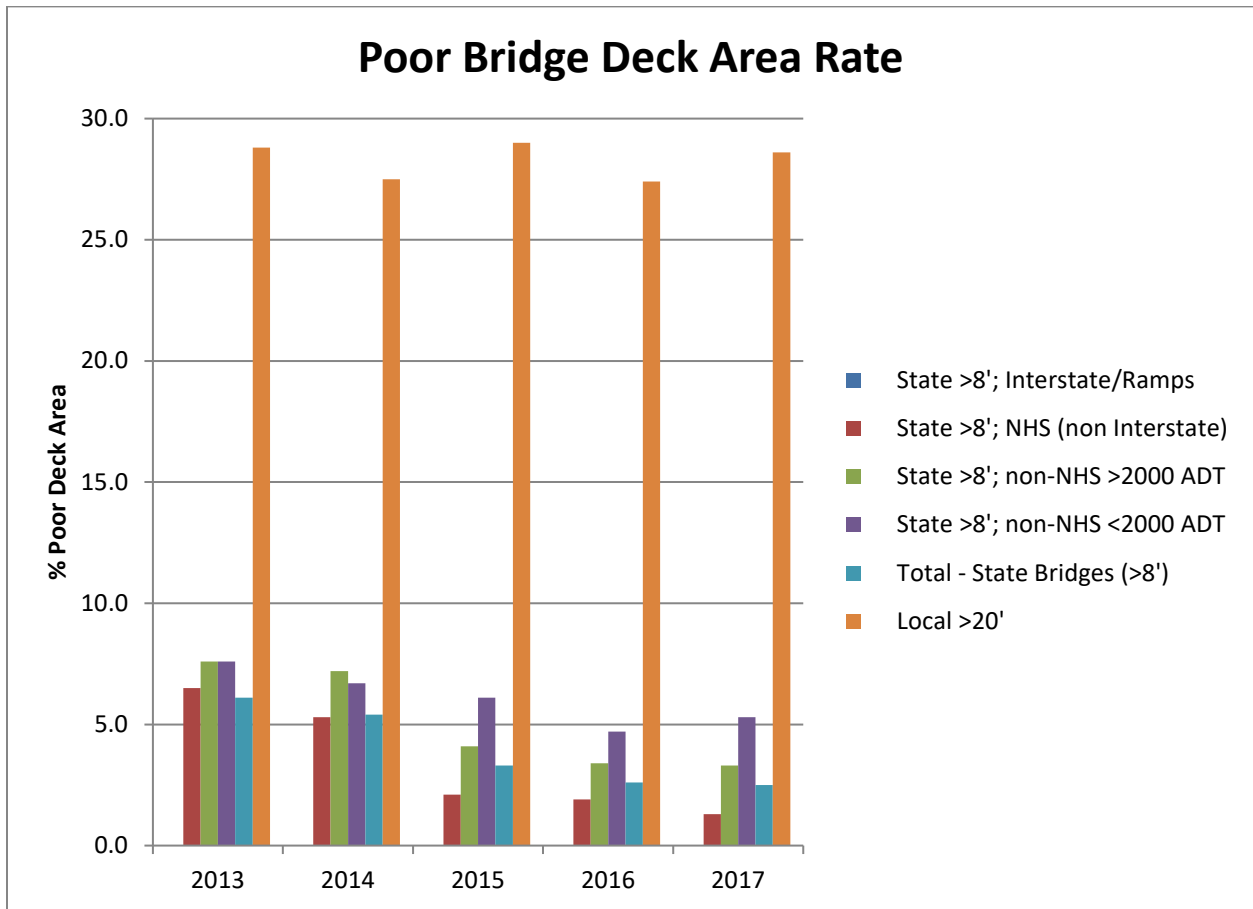
Source: PennDOT Linking Planning and NEPA Screening Forms System

SD (now Poor) Bridge Rate:

PennDOT has moved away from the structurally deficient (SD) terminology to following the overall bridge condition ratings of Good, Fair, or Poor. Bridge condition is determined by the lowest condition rating of the primary components of a bridge or culvert, i.e., the lowest condition rating of the Deck, Superstructure, Substructure, or Culvert. On a scale of 0 to 9, if the lowest rating is greater than or equal to 7, the bridge is classified as Good; if it is less than or equal to 4, the classification is Poor. Bridges rated 5 or 6 are classified as Fair. PennDOT quantifies poor bridges in two ways: first by the number of bridges rated poor, and second, by the total square feet of deck area within bridges that are rated poor.

PennDOT provides an annual report on the condition of bridges within the SEDA-COG region. **Figure 1** on the next page shows the percentage of total deck area that is Poor by business plan network from the 2013, 2014, 2015, 2016, and 2017 reports. Between the 2016 and 2017 reports, the Poor rates dropped or remained the same for all but two categories (Local Bridges >20' and State Bridges >8', non-NHS <2000 ADT). The SEDA-COG MPO has agreed to support PennDOT's PM-2 Performance Measures by planning and programming projects that contribute to meeting or making significant progress toward the established PennDOT performance targets. The MPO region is already below the statewide targets for the percentage of NHS bridge deck area classified as in Poor condition: 5.6% by 2019 and 6.0% by 2021.

Figure 1

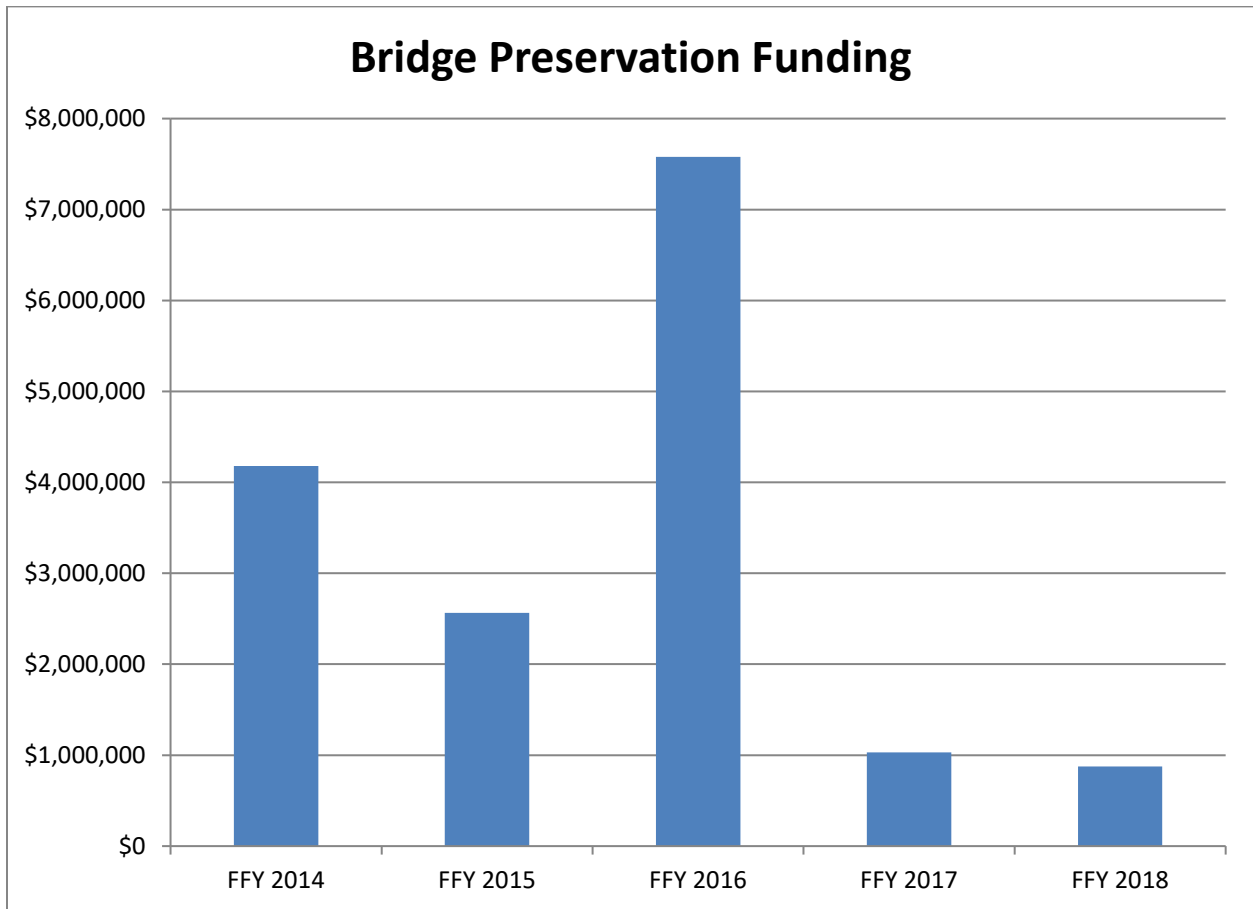


Source: PennDOT Performance Measures Annual Reports

Bridge Preservation Funding:

Programming bridge improvements requires a balanced approach, mixing rehabilitation, preservation and replacement efforts to get the maximum service life out of every structure and satisfy mobility needs. Since high-cost bridge replacements can be a major drain on limited TIP funding, it is critical to make investments in low-cost preservation activities that extend the structure life and keep our good bridges good. Line items can be a useful tool for dedicating funds toward bridge preservation activities, such as painting, deck joint repairs, deck overlays, etc. **Figure 2** on the next page compares bridge preservation funding for projects with let dates in FFY 2014, FFY 2015, FFY 2016, FFY 2017, and FFY 2018. After spiking in FFY 2016, the amount let for bridge preservation activities has hovered around \$1 million per year.

Figure 2

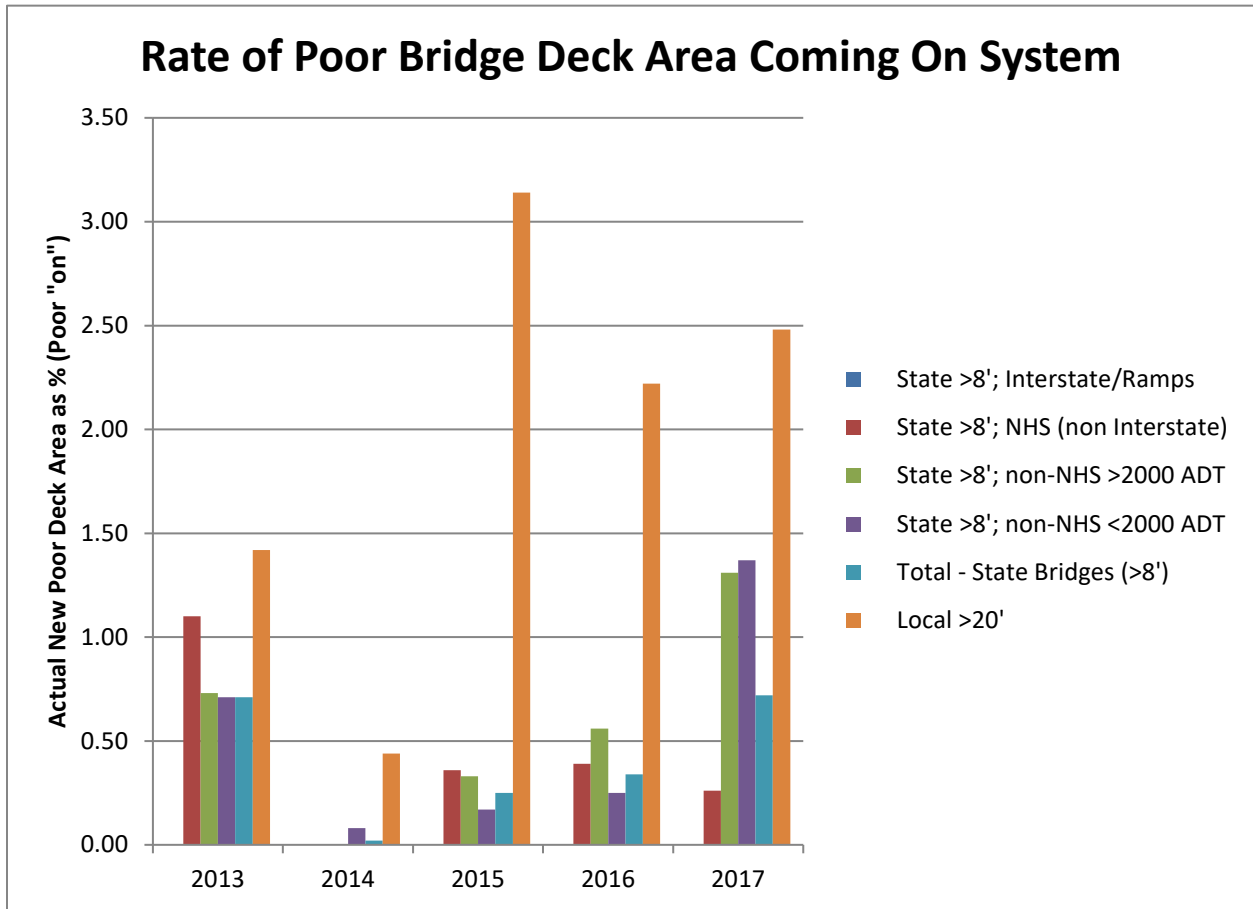


Source: PennDOT MPMS Bridge Program Reports #HWY023

Rate of SD (now Poor) Coming on System:

Figure 3 on the next page compares the rate of change in Poor deck area for evaluating goals to reduce the rate of deterioration across the 2013, 2014, 2015, 2016, and 2017 PennDOT Performance Measures Annual Reports. The chart reflects the percentage of actual annual new Poor deck area (Poor “on”) by network. The performance has fluctuated since 2013, but the rate of Poor deck area being added experienced a rise in all but two categories in 2017.

Figure 3

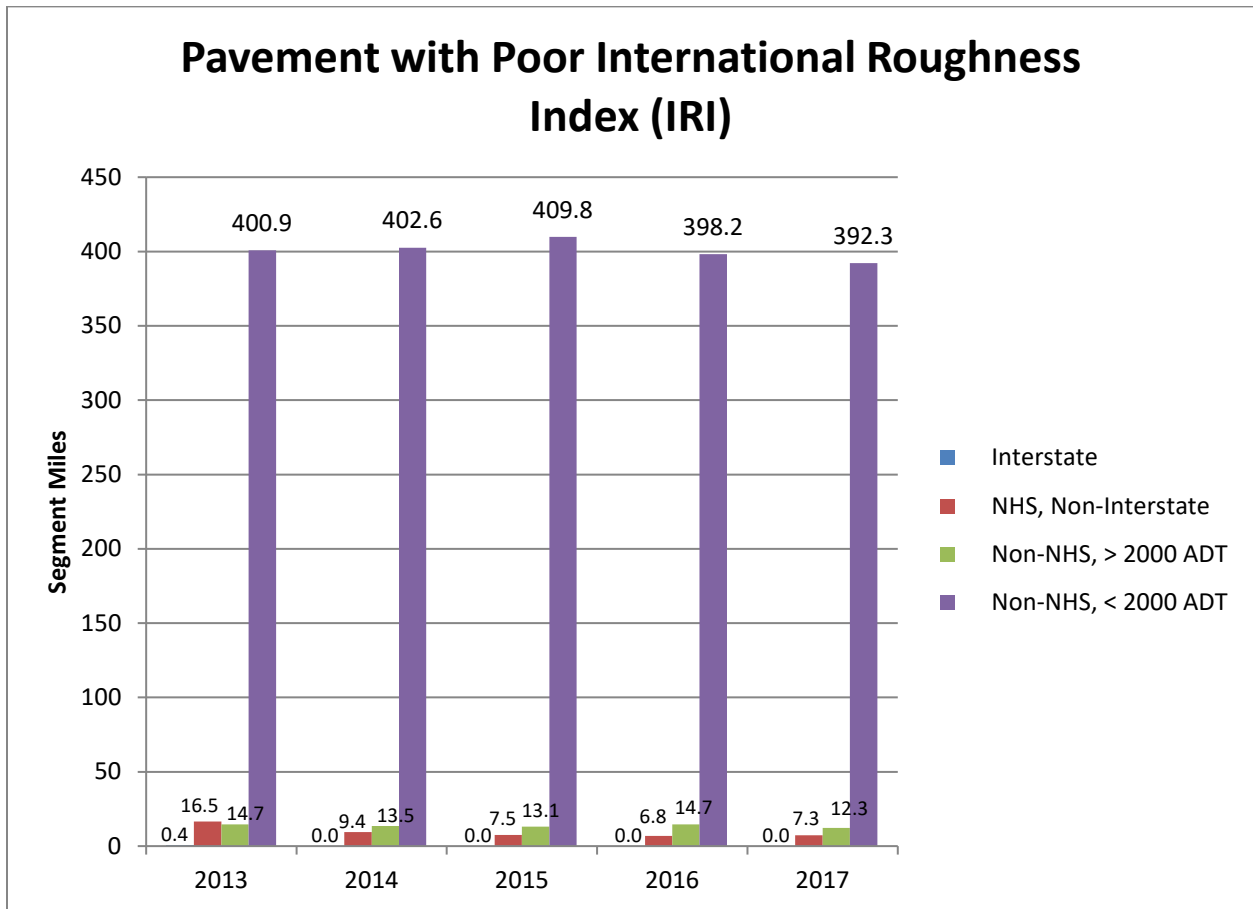


Source: PennDOT Performance Measures Annual Reports

Pavement with Poor IRI:

For pavements, a commonly accepted performance measure is the International Roughness Index (IRI). The IRI measures how the height of the roadway varies over a longitudinal distance, and correlates to the overall ride vibration level. Put more simply, it gives an indication of how rough the surface is. Motorists have higher expectations for major roads, so a roughness that may be rated “poor” on an Interstate may be found to be “fair” on a lower class of roadway. **Figure 4** on the next page represents the segment miles by road network category rated as “poor” IRI from the 2013, 2014, 2015, 2016, and 2017 PennDOT Performance Measures Annual Reports. The SEDA-COG MPO has agreed to support PennDOT’s PM-2 Performance Measures by planning and programming projects that contribute to meeting or making significant progress toward the established PennDOT performance targets. The MPO region is already below the statewide targets for the percentage of Interstate pavements and the percentage of NHS Non-Interstate pavements classified as in Poor condition, while exceeding the targets for the percentage of Interstate pavements and the percentage of NHS Non-Interstate pavements classified as in Good condition.

Figure 4

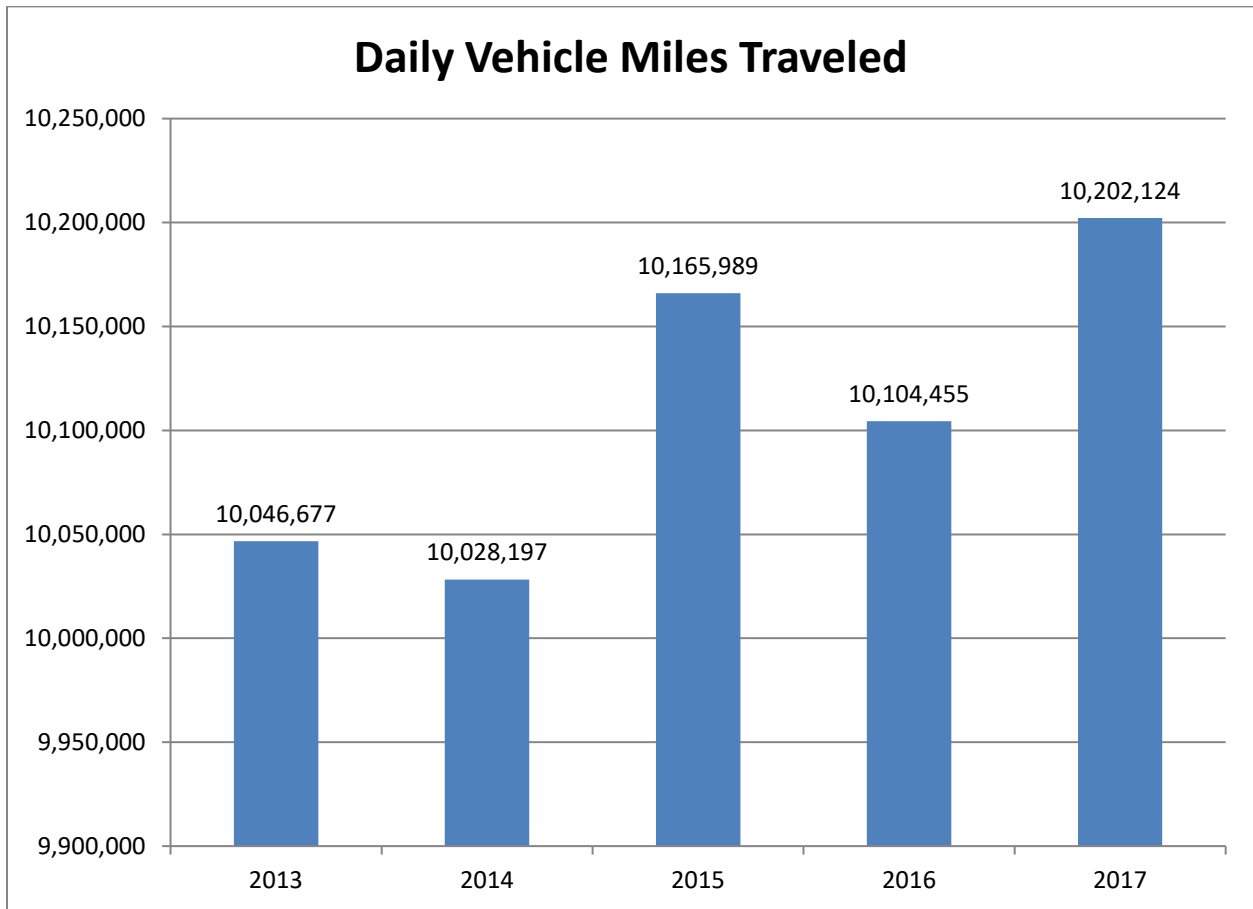


Source: PennDOT Performance Measures Annual Reports

DVMT:

The number of Daily Vehicle Miles Traveled (DVMT) had been in decline regionally from 2011 to 2014, perhaps due to lingering effects of the Great Recession, gas prices, and altered driving habits. However, in 2015 DVMT started to rise again. **Figure 5** on the next page represents DVMT trends from 2013 through 2017. The rate of change over this 5-year period is 1.5%. Total daily miles traveled has increased by more than 6 million statewide since 2013. With burgeoning economic activity, DVMT is expected to rebound and grow over the long term, especially due to increases in freight transportation. However, technological advancements, different driving preferences among Millennials, and other trends could curtail DVMT growth. The extent that the region is able to utilize more efficient vehicles, provide transportation alternatives, and slow the rate of DVMT growth, could help determine how sustainable the region will be in the future.

Figure 5

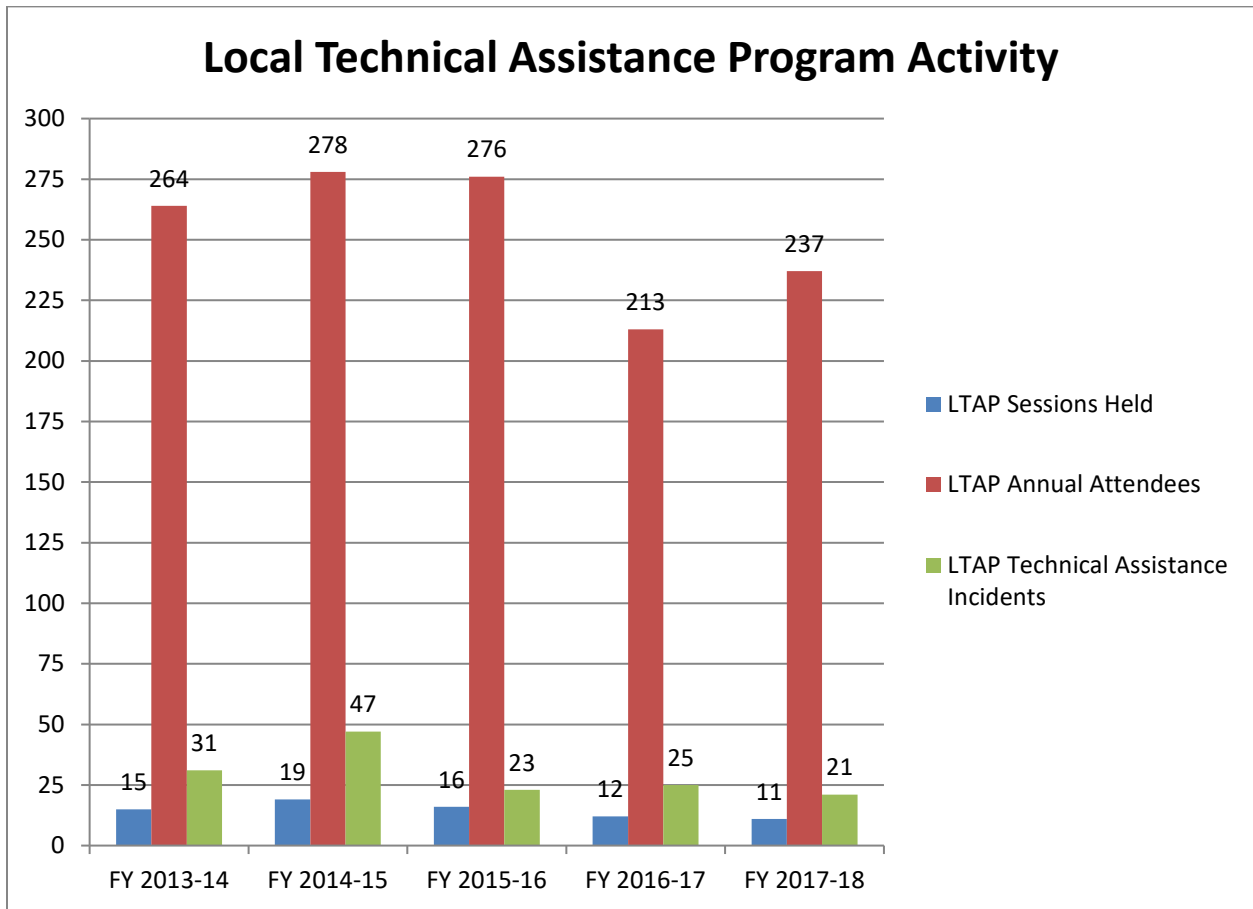


Source: PennDOT Highway Statistics Reports

LTAP Sessions Held / LTAP Annual Attendees / LTAP Technical Assistance Incidents:

SEDA-COG continues to be a strong partner in delivering and marketing the PennDOT Local Technical Assistance Program (LTAP). The SEDA-COG LTAP administrative area includes each of the 8 MPO counties, along with Centre County. SEDA-COG’s LTAP activities are funded through the Unified Planning Work Program (UPWP). Thus, much of the LTAP reporting follows the State Fiscal Year (SFY), which runs from July 1 – June 30. In **Figure 6** on the next page, the LTAP class numbers cover the five most recent State Fiscal Years, while the Technical Assistance numbers reflect the calendar year totals for the beginning year of the SFY. Since FY 2013-14 reporting, the number of LTAP class sessions dropped some, the number of LTAP class attendees reduced, and the number of LTAP technical assistance incidents dropped some. However, participation has been acceptable, the five-year average trends are strong, and municipalities are calling upon LTAP for more complicated technical assistance. Furthermore, the class attendance for FY 2018-19 is expected to rise, and the technical assistance incidents is expected to spike by over 80%.

Figure 6



Source: PennDOT LTAP Database

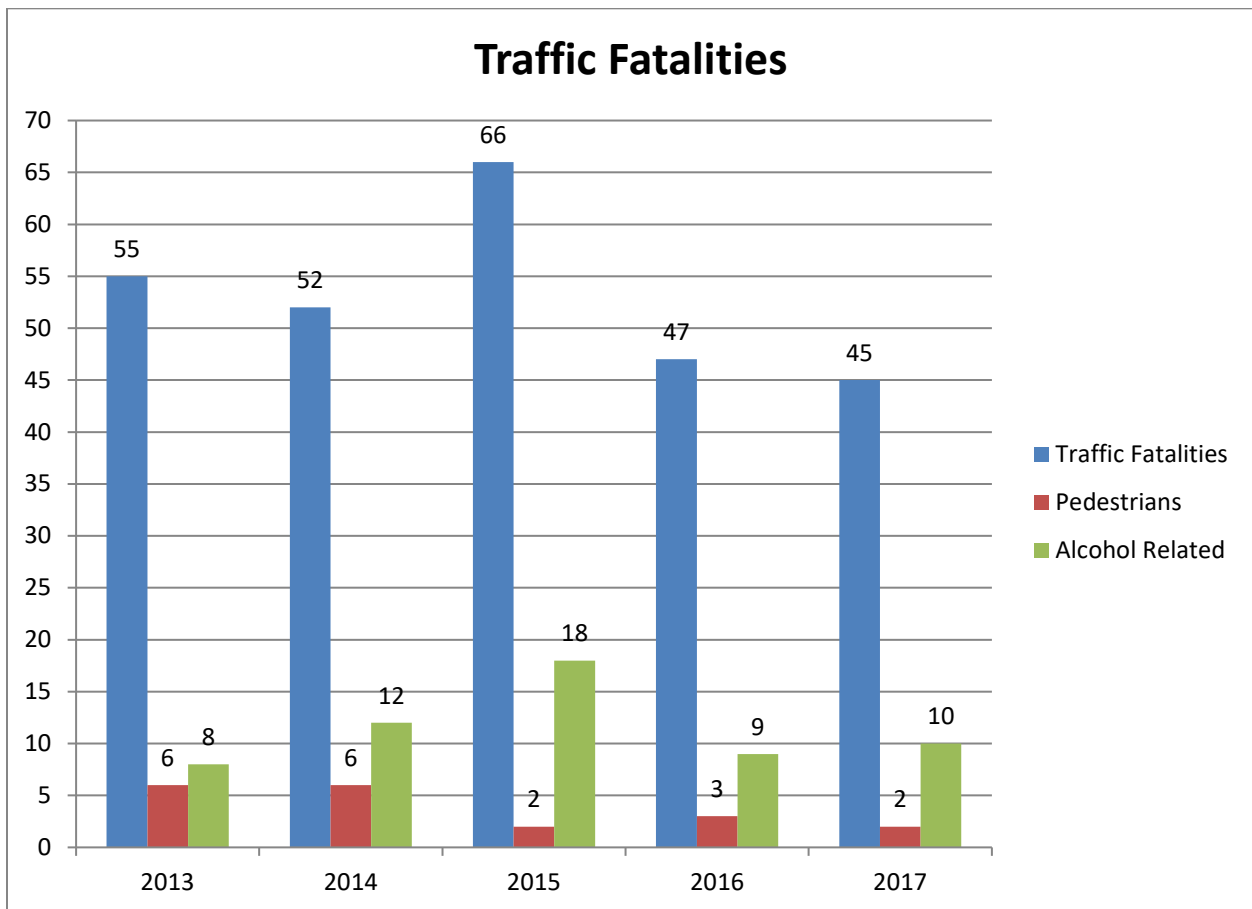
Miles of Pedestrian and Bicycle Facilities:

The pedestrian/bicycle facilities mileage included in the LRTP, which focused on rail trail and bike lane facilities greater than 2 miles in length (excluding trails solely for recreational purposes), was updated by SEDA-COG’s GIS Specialist to limit long-distance trails to the portions falling within MPO counties. The resultant miles of pedestrian and bicycle facilities for the MPO region is 307.7, as of March 2019, an increase of 15.9 miles over the prior performance measures report (new miles include the Bald Eagle Valley Trail in Clinton County and recommendations from the Middle Susquehanna Bike/Pedestrian Plan Advisory Committee). The trail mileages are based on the latest version of the DCNR Trails Geodatabase and the SEDA-COG GIS Specialist’s calculations for certain trails sponsored by area agencies. Several trail projects are planned or in development across the MPO. The inventory used for the mileage tracking will be modified as new data are provided by counties, municipalities, DCNR, PennDOT and others.

Traffic Fatalities:

Figure 7 below displays traffic fatalities data gathered from the Pennsylvania Crash Facts and Statistics Books from 2013, 2014, 2015, 2016, and 2017. The number of total fatalities and pedestrian fatalities in the SEDA-COG region decreased again in 2017, continuing the regional trend of declining fatalities. Total fatalities have dropped by 18% over the past five years of reporting. Systematic low-cost safety improvements (e.g., rumble strips, tree removal, curve signs, paint markings, utility pole delineation, etc.) and site-specific safety upgrades seem to be having a net positive effect throughout the region and state. In the future, highly automated vehicle technology has the potential to significantly reduce fatalities and injuries.

Figure 7



Source: Pennsylvania Crash Facts and Statistics Books

Table 3 on the next page displays traffic fatalities data at the county level from 2013, 2014, 2015, 2016, and 2017. From 2013 to 2017, the number of total fatalities dropped in all counties except Columbia, Montour, and Snyder; pedestrian fatalities dropped or stayed the same in seven counties; and alcohol related fatalities dropped or stayed the same in four counties.

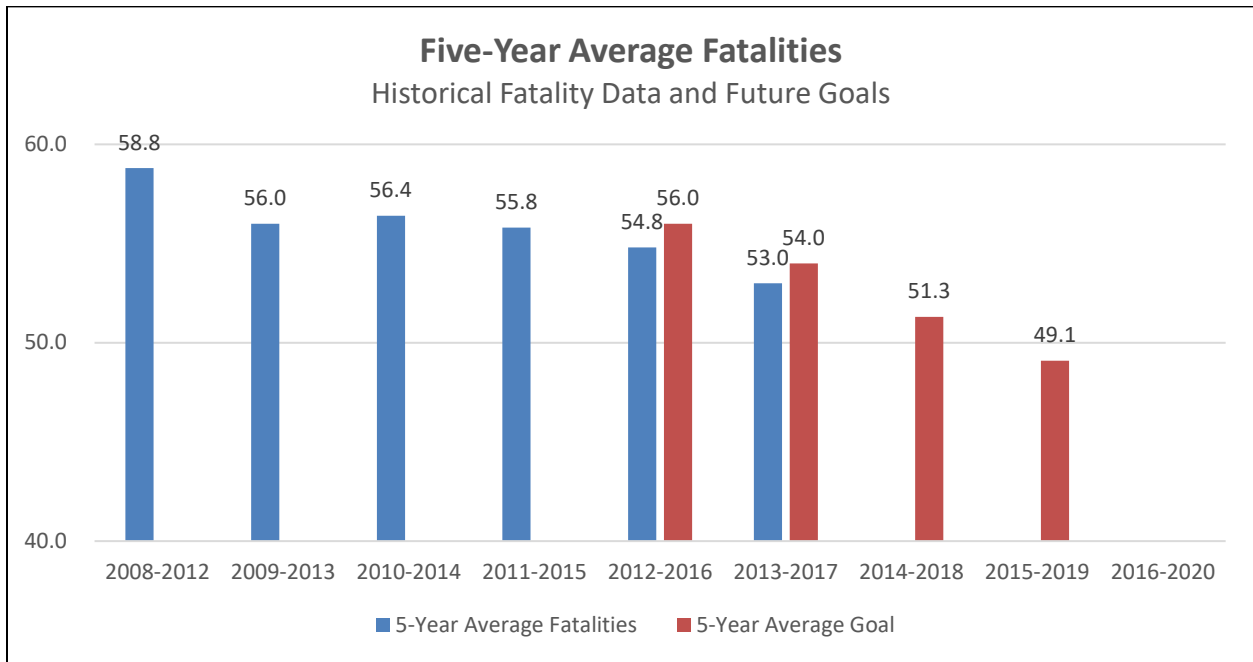
Table 3

County	Total Traffic Fatalities					Pedestrian Fatalities					Alcohol Related Fatalities				
	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017	2013	2014	2015	2016	2017
Clinton	9	9	10	6	8	0	2	0	0	1	1	4	3	0	2
Columbia	6	11	14	7	6	0	0	0	0	0	2	3	4	1	0
Juniata	6	5	12	6	2	1	1	1	0	0	0	2	3	1	1
Mifflin	9	5	4	3	7	4	1	0	2	1	2	0	0	1	2
Montour	1	2	5	3	5	0	0	0	0	0	0	1	1	0	1
North'd	15	6	9	16	9	0	2	0	1	0	0	0	1	4	2
Snyder	4	7	9	4	4	1	0	1	0	0	2	0	4	2	1
Union	5	7	3	2	4	0	0	0	0	0	1	2	2	0	1

Source: Pennsylvania Crash Facts and Statistics Books

Since PennDOT focuses on and graphs fatality statistics as 5-year running averages for trend-based analysis, **Figure 8** is included on the next page to reflect the region’s past 5-year running average total fatalities, starting in 2008. As evidenced on this figure, the total regional fatalities are trending downward. In November 2017 and again in December 2018, the SEDA-COG MPO decided to support the PennDOT targets of 2% annual reductions for: number of fatalities, fatalities per 100 million vehicle miles traveled (VMT), number of serious injuries, serious injuries per 100 million VMT, and number of non-motorized fatalities and serious injuries. PennDOT has calculated the region’s 2015-2019 fatalities targets based on the most recent year’s actual data and the 2% annual reduction goal. The 2016-2020 targets won’t be calculated until complete 2018 fatality data are available.

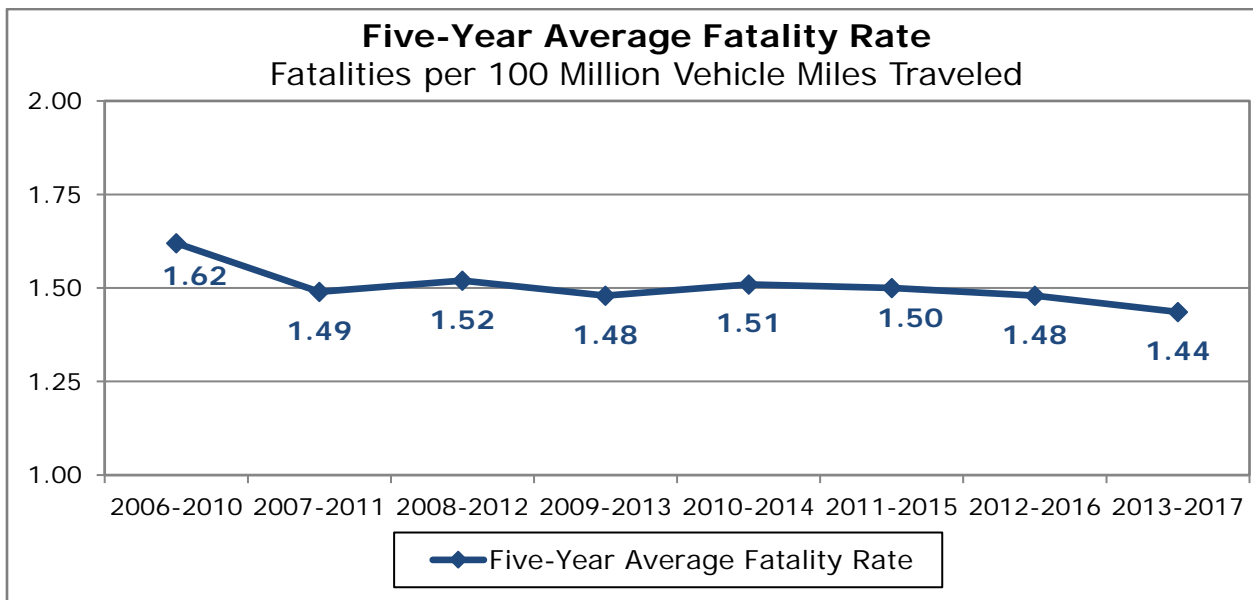
Figure 8



Source: PennDOT Highway Safety & Traffic Operations Division

Figure 9 below reflects the region’s past 5-year average fatality rates (fatalities per 100 million vehicle miles traveled), from 2006 up through 2017. Although the regional fatality rate is trending downward, the regional rate remains higher than the statewide rate.

Figure 9



Source: PennDOT Highway Safety & Traffic Operations Division

Plans/Updates Completed:

The 2011 SEDA-COG Long Range Transportation Plan included an inventory of known land use, transportation, economic development, and recreation/conservation/open space plans in the region. Since then, staff has compiled a similar inventory to track, on an ongoing basis, the number of transportation, comprehensive, greenway, or other plans completed with input and support from MPO staff. Staff input may involve providing data, performing technical reviews, serving on advisory committees, etc. For the performance measures annual report, the plans are only counted for the year of completion, not for each of the years in which staff may have participated. **Table 4** below lists the six completed plans from 2012, two completed plans from 2013, four completed plans from 2014, three completed plans from 2015, six completed plans from 2016, two completed plans from 2017, and two completed plans from 2018.

Table 4

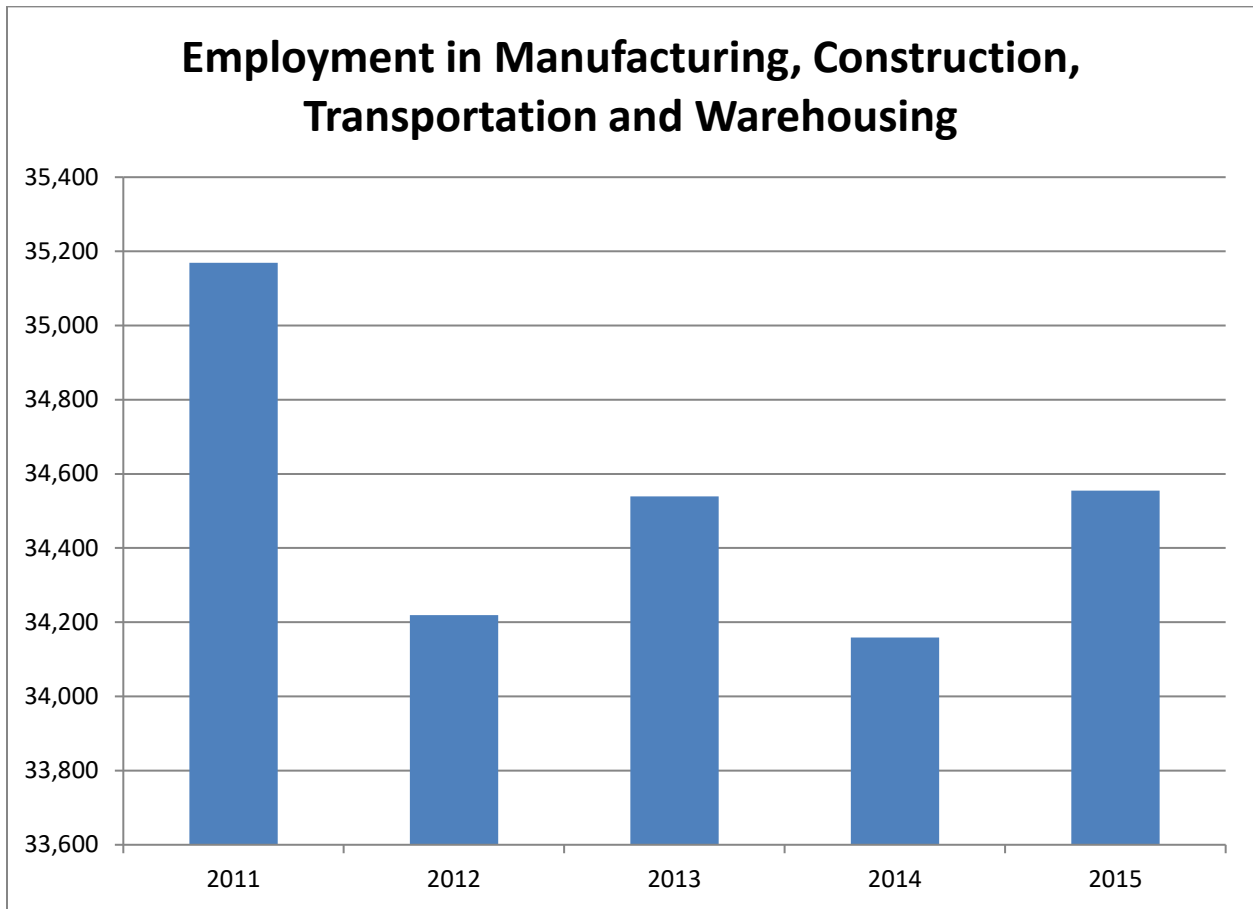
Plan Name	County/Municipality	Year
SEDA-COG Joint Rail Authority Strategic Plan	Blair, Centre, Clinton, Columbia, Lycoming, Mifflin, Montour, Northumberland, Union	2012
Danville Riverfront Master Plan	Borough of Danville	2012
US 15 Smart Transportation Corridor Improvement Plan (Smart Transportation/PCTI Study)	East Buffalo Township and Lewisburg Borough	2012
Coming Together – Sunbury’s Plan for the New City (Comprehensive Plan)	City of Sunbury	2012
SEDA-COG RPO Long Range Transportation Plan	Clinton, Columbia, Juniata, Mifflin, Montour, Northumberland, Snyder, Union	2012
PennDOT LTAP Walkable Communities Program Plan	Borough of State College	2012
Lake Augusta Gateway Corridor Plan (Smart Transportation/PCTI study)	7 municipalities encompassing parts of Northumberland, Snyder, and Union	2013
PennDOT LTAP Local Safe Roads Communities Program Plan	Borough of Danville	2013
Mifflin County Comprehensive Plan	Mifflin	2014
Coordinated Public Transit-Human Services Transportation Plan for the SEDA-COG and Williamsport Area MPOs	Clinton, Columbia, Juniata, Lycoming, Mifflin, Montour, Northumberland, Snyder, Union	2014
Union/Snyder Transportation Alliance (USTA) Title VI & Limited English Proficiency Plan	Union, Snyder	2014
Lower Anthracite Transportation System Transit Development Plan	Portions of Northumberland	2014
SEDA-COG MPO Strategic Plan	Clinton, Columbia, Juniata, Mifflin, Montour, Northumberland, Snyder, Union	2015
SEDA-COG MPO Public Participation Plan	Clinton, Columbia, Juniata, Mifflin,	2015

Plan Name	County/Municipality	Year
	Montour, Northumberland, Snyder, Union	
SEDA-COG Comprehensive Economic Development Strategy (CEDSD)	Centre, Clinton, Columbia, Juniata, Lycoming, Mifflin, Montour, Northumberland, Perry, Snyder, Union	2015
PA On Track: Long Range Transportation Plan	Statewide	2016
PA On Track: Comprehensive Freight Movement Plan	Statewide	2016
Pennsylvania State Rail Plan	Statewide	2016
Union County Greenways & Open Space Plan	Union	2016
SEDA-COG Long Range Transportation Plan	Clinton, Columbia, Juniata, Mifflin, Montour, Northumberland, Snyder, Union	2016
SEDA-COG Regional Gas Utilization Initiative Phase 1 Study	Centre, Clinton, Mifflin	2016
Bull Run Greenway Plan	Borough of Lewisburg	2017
SEDA-COG Regional Gas Utilization Targeted Investment Area Process Model Project	Columbia, Juniata, Lycoming, Montour, Northumberland, Perry, Snyder, Union	2017
Electric Avenue/Mill Road Intersection Improvement Study	Lewistown Borough and Derry Township in Mifflin County	2018
Central RTMC Region Regional Operations Plan	PennDOT Districts 2-0, 3-0, and 9-0 counties	2018

Employment in Manufacturing, Construction, Transportation and Warehousing:

These sectors of the job market are viewed as dependent on efficient freight transportation. U.S. Census Bureau data can be used to identify where workers are employed and where they live with companion reports on worker characteristics and filtering by age, earnings, or industry groups. **Figure 10** on the next page shows regional job figures, regardless of where workers live, from these sectors in 2011, 2012, 2013, 2014, and 2015. The number of jobs in these combined sectors has stayed rather flat. There is often a lag in data availability. For example, the 2015 data were not made available until September 2017. Updates will be caught in future performance measures reports.

Figure 10

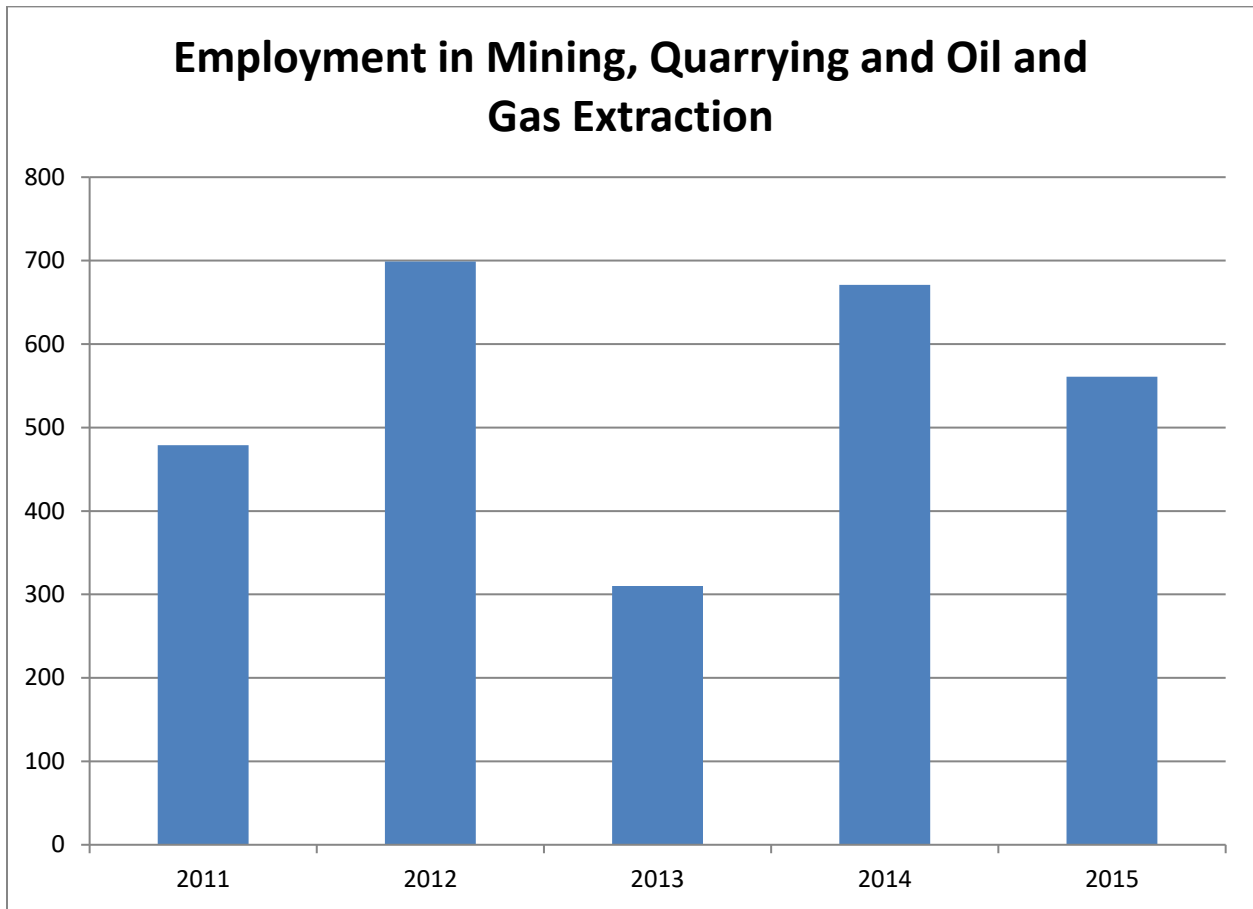


Source: U.S. Census Bureau OnTheMap Application

Employment in Mining, Quarrying, and Oil and Gas Extraction:

These sectors of the job market are viewed as related to Marcellus Shale extraction. U.S. Census Bureau data can be used to identify where workers are employed and where they live with companion reports on worker characteristics and filtering by age, earnings, or industry groups. **Figure 11** on the next page shows regional job figures, regardless of where workers live, from these sectors in 2011, 2012, 2013, 2014, and 2015. The number of jobs in these combined sectors increased by 17% from 2011 to 2015. There is often a lag in data availability. For example, the 2015 data were not made available until September 2017. Updates will be caught in future performance measures reports.

Figure 11

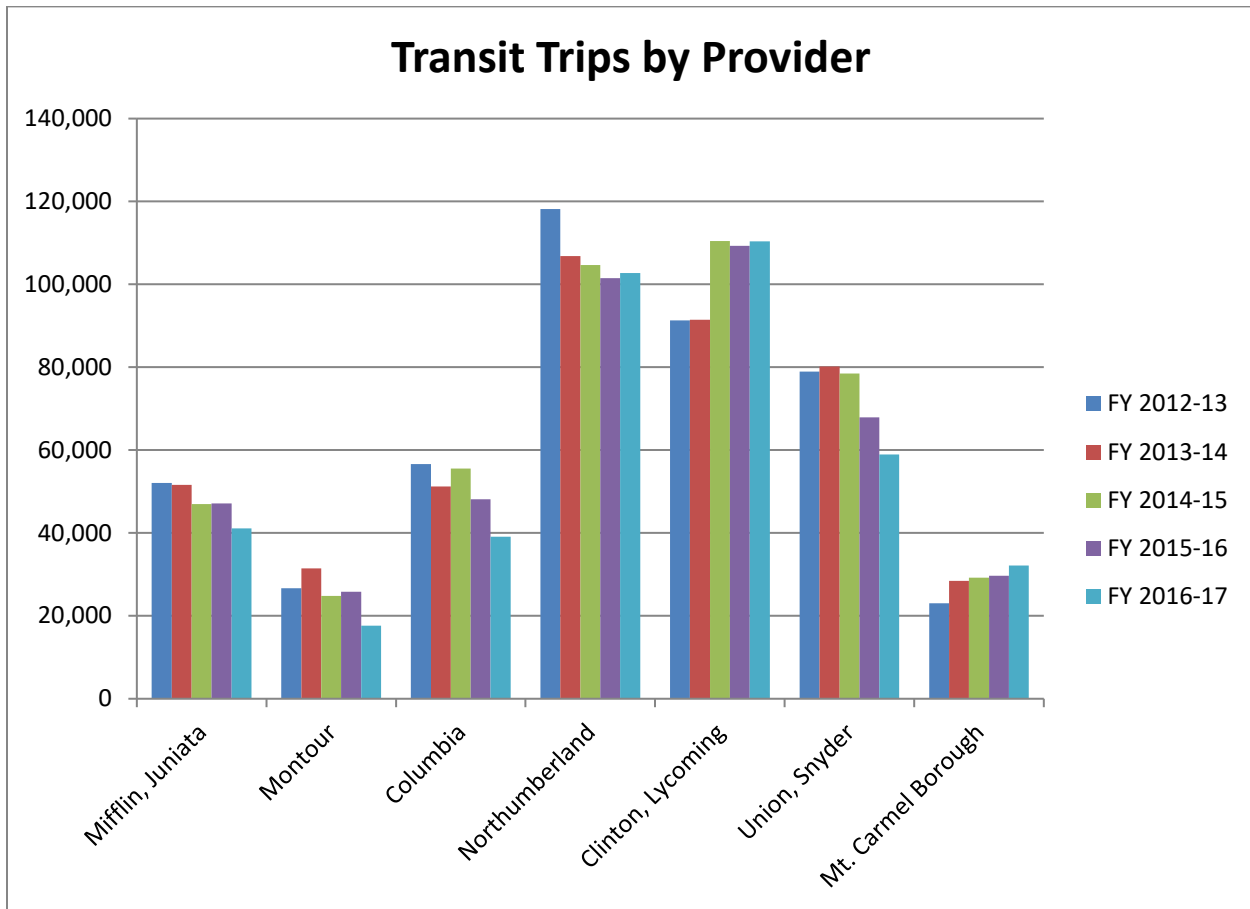


Source: U.S. Census Bureau OnTheMap Application

Transit Trips by Provider:

Transit trips by provider statistics are drawn from the PennDOT Bureau of Public Transportation’s Public Transportation Annual Performance Reports, which follow the State Fiscal Year. **Figure 12** on the next page represents the number of Total Passengers or Total Shared-Ride Trips listed for the transit provider under its profile in the PennDOT reports by SFY. (If providers handle Non-Public Trips, these numbers were added to their Total Shared-Ride Trips to prepare the chart.) The region’s transit providers have seen consolidation in recent years, with rabbittransit taking over the Northumberland, Columbia, Montour, and Union/Snyder County transit operations. The chart below continues to show the statistics broken out by county for these new divisions of rabbittransit. Both STEP, Inc. (Clinton, Lycoming Counties) and Mt. Carmel Borough (Lower Anthracite Transportation System) experienced increases in total trips from FY 2012-13 to FY 2016-17.

Figure 12



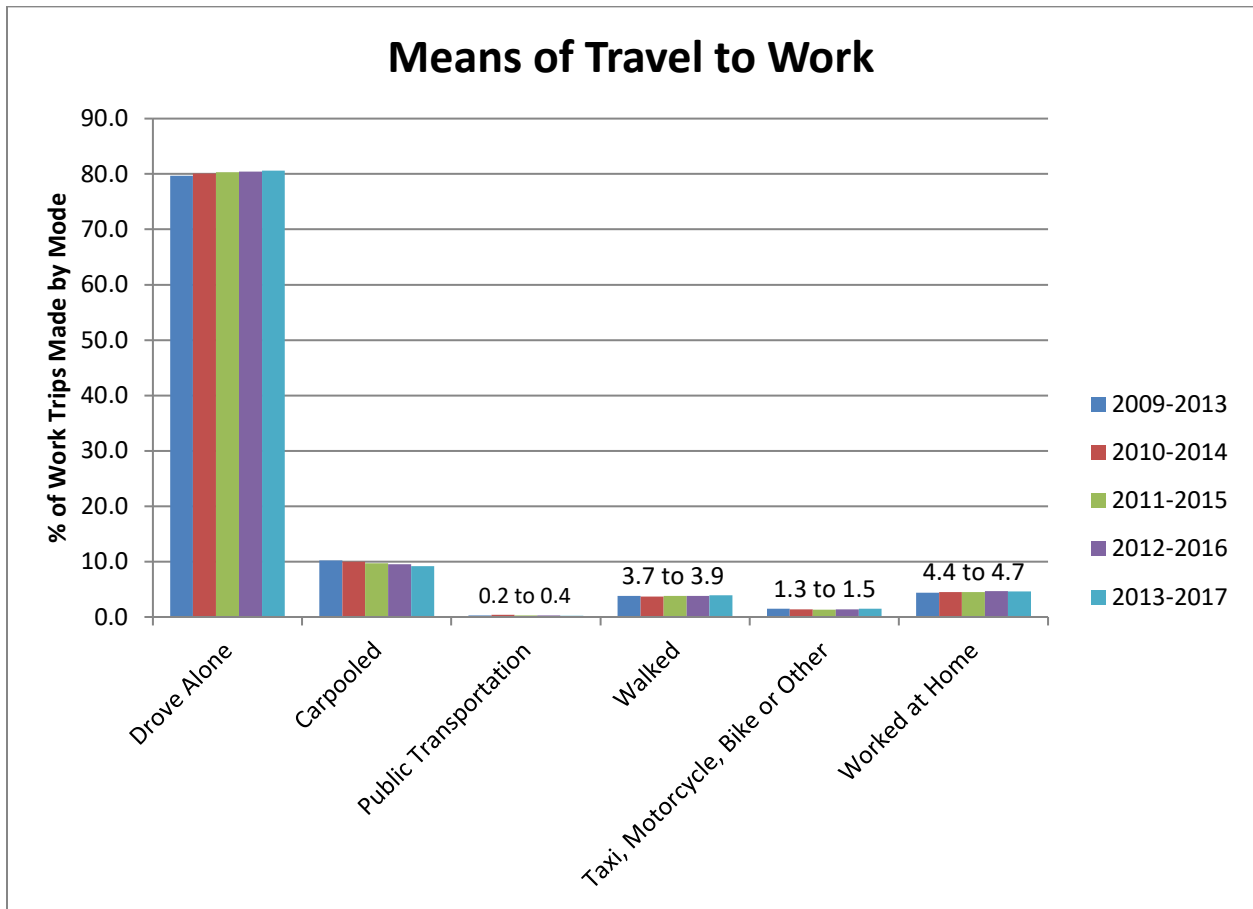
Source: PennDOT Public Transportation Annual Performance Reports

Mode Choice:

Means of travel to work statistics are obtained using the U.S. Census Bureau’s American FactFinder website. With the elimination of the decennial Census long form, American Community Survey (ACS) estimates are used from the FactFinder website, with the 5-year estimates available at the widest geographic levels. 5-year ACS estimates aggregate the sample responses from households collected from January 1 of the beginning year to December 31 of the ending year, and they represent the average estimate of a characteristic over the entire 5-year time period.

By far, the single occupant vehicle is the most common means of travel across the SEDA-COG region, with 79.7% of workers over age 16 using this mode from the 2009-2013 ACS 5-year estimates, 80.1% from the 2010-2014 ACS 5-year estimates, 80.3% from the 2011-2015 ACS 5-year estimates, 80.4% from the 2012-2016 ACS 5-year estimates, and 80.6% from the 2013-2017 ACS 5-year estimates. The next most popular mode is carpooling, at approximately 10% during each of the 5-year estimates. Additional mode choice data from the 2009-2013, 2010-2014, 2011-2015, 2012-2016, and 2013-2017 ACS estimates are summarized in **Figure 13** on the next page. The data are drawn from samples of the population and thus involve margins of error.

Figure 13



Source: U.S. Census Bureau 5-year American Community Survey Estimates

Table 5 on the next page provides a breakdown of the means of travel to work by county from the 2013-2017 ACS data. Juniata County (11.5%), Mifflin County (11.5%), Union County (10.1%), and Clinton County (9.9%) see higher rates of carpool usage, likely due to residents carpooling to major worksites located several miles away in the Harrisburg, State College, and Williamsport urbanized areas. High carpooling rates may indicate areas where commuting costs and roadway congestion can be mitigated through public transportation use, vanpooling, or more organized commuter services. Residents' use of public transportation (bus or trolley bus, streetcar or trolley car, subway, railroad, or ferryboat) as a means of travel to work is extremely limited in most counties, particularly due to a general lack of fixed-route transit service.

Table 5

Geographic Area	Means of Transportation to Work					
	Drove Alone	Carpooled	Public Transportation	Walked	Taxi, Motorcycle, Bike, or Other	Worked at Home
Clinton County	79.4%	9.9%	0.1%	5.4%	2.0%	3.2%
Columbia County	84.5%	7.5%	0.4%	3.5%	0.7%	3.4%
Juniata County	78.3%	11.5%	0.3%	3.5%	0.9%	5.5%
Mifflin County	79.2%	11.5%	0.2%	3.2%	2.1%	3.8%
Montour County	81.6%	6.0%	0.6%	6.1%	1.4%	4.3%
Northumberland County	83.2%	8.8%	0.1%	2.8%	1.3%	3.8%
Snyder County	78.3%	9.0%	0.2%	3.4%	1.9%	7.2%
Union County	73.9%	10.1%	0.2%	5.8%	2.7%	7.3%

Source: U.S. Census Bureau, 2013-2017 ACS