

ENVIRONMENTAL JUSTICE BENEFITS & BURDENS ANALYSIS

**SEDA-COG MPO
2025-2028 Transportation Improvement Program
April 2023**



Introduction

Environmental Justice

In 1994, **Executive Order 12898** focused government attention on the environmental and human health effects of federal actions on minority and low-income populations in the United States. It set a goal to achieve environmental protection for all communities through the implementation of environmental justice considerations. This Executive Order was later supplemented by **Executive Order 14096**, in 2023, which directed the Federal Government to strengthen its commitment to deliver environmental justice to American communities by using scientific research, high-quality data, and meaningful government engagement.^[1]

The U.S. Department of Transportation (USDOT) defines **environmental justice** (EJ) as the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability, in decision-making activities that affect human health and the environment.^[2]

Based on the standard created by USDOT, the transportation field aims to comprehensively incorporate EJ considerations into all programs, policies, and activities. This standard is guided by **three core principles**:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

South-Central EJ Unified Process and Methodology Guide

A collaborative effort between the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Pennsylvania Department of Transportation (PennDOT), and PennDOT District 8-0 transportation planning partners created the **South-Central Pennsylvania Environmental Justice Unified Process and Methodology Guide** in 2019.

This guide aids a Metropolitan Planning Organization (MPO) by recommending a general analytical guidance for performing a comprehensive EJ analysis process during a given transportation planning effort. It further recommends how the MPO should meaningfully assess the benefits and burdens of plans and programs on EJ populations.^[3]

The core methodology outlined in the guide is as follows:

- Identify Environmental Justice Populations
- Assess Conditions and Identify Needs
- Evaluate Benefits and Burdens Program
- Identify and Address Disproportionately High and Adverse Impacts

The following report summarizes the activities, analyses, and outcomes that were completed as part of the **SEDA-COG MPO 2025-2028 Transportation Improvement Program (TIP)** development process in compliances with federal EJ policies and the *South-Central Environmental Justice Unified Process and Methodology Guide*.

SEDA-COG MPO

The **SEDA-COG MPO** was designated by the Commonwealth of Pennsylvania in 2013. It is the official transportation planning organization for eight central Pennsylvania counties: **Clinton, Columbia, Juniata, Mifflin, Montour, Northumberland, Snyder, and Union**. These eight counties were formerly organized for transportation planning purposes as a Rural Planning Organization (RPO) designated by PennDOT, with essentially the same status and responsibilities as an MPO.

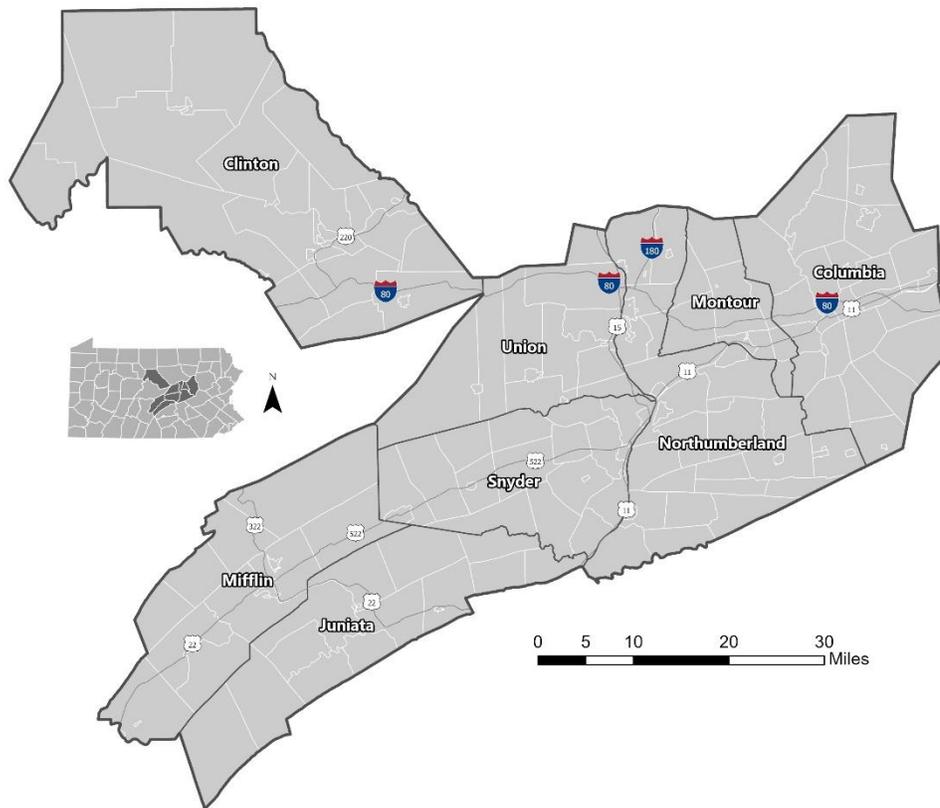


Figure 1. SEDA-COG MPO Regional Reference Map

The SEDA-COG MPO works closely with PennDOT, local governments, area transit agencies, economic development entities, and other partners to identify and prioritize transportation improvement projects throughout the region. In executing its work, the MPO strives to fulfill its vision of providing a balanced transportation system for the maximum benefit of all people, businesses, and communities located within its member counties.

The SEDA-COG MPO is required to maintain and update a program of activities to address Environmental Justice, to prevent or mitigate adverse impacts to areas with concentrations of minority and low-income populations and to ensure that no one is excluded from participation in, denied the benefits of, or subjected to discrimination based on race, color, or national origin. The MPO analyzes EJ population spatial data to determine how well the benefits and burdens generated by the LRTP, TYP, or in this case, TIP projects are balanced between areas with concentrations of minority and low-income populations, and all other areas of the SEDA-COG MPO region.

Environmental Justice Populations

Identify Environmental Justice Populations

In response to the previously outlined federal EJ policies, a distributive geographic analysis must be conducted during a planning effort to identify the locations and concentrations of minority and low-income populations.

The identification of EJ populations is essential to establishing effective strategies for engaging them in the transportation planning process. When meaningful opportunities for interaction are established, the transportation planning process can draw upon the perspectives of these communities to identify existing transportation needs, localized deficiencies, and demand for transportation services. Locating and mapping these populations not only provides a baseline for assessing impacts of the transportation investment program, but also aids in the development of valuable public involvement.

To effectively identify and map these populations, they must first be defined. USDOT defines a “**minority individual**” as a person who is (1) Black, (2) Hispanic or Latino, (3) Asian American, (4) American Indian or Alaskan Native, or (5) Native Hawaiian or Other Pacific Islander.^[4] USDOT defines a “**low-income individual**” as a person whose median household income is less than or equal to the Department of Health and Human Services (HHS) Federal Poverty Level (FPL); an approximate household income of \$14,580 in 2023 United States dollars.^[5]

When conducting EJ demographic analyses, MPOs are expected to:

- Avoid the use of thresholds. The use of thresholds can cause some populations to be unaccounted for in the analysis because they are not of a certain size in comparison to the region.
- Use more disaggregated Census geographies (e.g., block groups) when mapping. The more aggregated the geographic level of the analysis, the higher the probability that pockets of low-income and minority populations will be missed.
- Consider geographically dispersed or transient persons. USDOT guidance directs funding recipients to consider all people present in an area, not just the residents. Non-resident persons who travel through or to an area and belong to minority or low-income populations should be considered.
- Engage representatives and leaders of minority or low-income populations. MPOs should conduct outreach to leaders of minority or low-income populations to verify data and gain a deeper understanding of the culture and diversity of the area.
- Verify data and be aware of limitations. Much of the data used in the process are estimates and may have significant margins of error.

The **American Community Survey (ACS)** was used to identify EJ populations within the SEDA-COG MPO region. It provides information on the characteristics of the United States population annually but is not meant to count the population. ACS data are sample data, and different samples yield different estimates of the actual population value.

Approximately 1 in 38 (2.6%) U.S. households per year receives an invitation to participate in the ACS.^[6] With such a small sample size, ACS estimates carry large margins of error, or the measure of possible variation of an estimate to its true value. This is especially valid for small geographical areas and population groups, such as a Census block group. Therefore, the margin of error corresponding to ACS demographic data must be considered when studying the Census block group populations located within the SEDA-COG MPO region for this demographic analysis.

During the development of the 2023-2026 TIP, the Williamsport MPO, in collaboration with PennDOT, constructed a **new statewide methodology** for this identification process. By using ACS demographic data, Census block groups were classified into categorical intervals (1 to 5) based on the ratio of block group EJ population percentage to the regional EJ population percentage, instead of referring to the block group percentage for the analysis. This development resulted in a uniform demographic scale that is usable and comparable across all MPOs and RPOs within the Commonwealth. The following demographic analysis displays these EJ population ratio intervals in the SEDA-COG MPO region based on *2017-2021 American Community Survey 5-Year Estimates* to describe the social composition of the SEDA-COG MPO region and illustrate how its demographic patterns vary spatially.

Minority Populations

Within the SEDA-COG MPO region, **the percentage of minority population is approximately 8.1%**. Table 1 displays the Census block group minority population percentage intervals based on the Williamsport MPO/PennDOT methodology. Table 2 and Figure 2 present the spatial concentrations of minority populations by Census block groups gathered from the *2017-2021 American Community Survey 5-Year Estimates*.

Table 1. Ratio of Minority Population Percentage Intervals

INTERVAL	DESCRIPTION
1	Census Block Minority Population Percentage / Planning Partner Minority Population Percentage ≤ 0.5 (Census Block Group Minority Population Percentage less than or equal to half of Regional Minority Population Percentage)
2	Census Block Minority Population Percentage / Planning Partner Minority Population Percentage > 0.5 and ≤ 1 (Census Block Group Minority Population Percentage greater than half and less than or equal to Regional Minority Population Percentage)
3	Census Block Minority Population Percentage / Planning Partner Minority Population Percentage > 1 and ≤ 2 (Census Block Group Minority Population Percentage greater than Regional Minority Population Percentage and less than or equal to twice the Regional Minority Population Percentage)
4	Census Block Minority Population Percentage / Planning Partner Minority Population Percentage > 2 and ≤ 4 (Census Block Group Minority Population Percentage greater than twice and less than or equal to four times the Regional Minority Population Percentage)
5	Census Block Minority Population Percentage / Planning Partner Minority Population Percentage > 4 (Census Block Group Minority Population Percentage greater than four times the Regional Minority Population Percentage)

Table 2. SEDA-COG MPO Minority Population Percentage Intervals

POPULATION		MINORITY POPULATION INTERVALS					TOTAL
		1	2	3	4	5	
MPO Total Population	#	167,895	93,619	56,405	33,140	14,563	365,622
	%	45.9%	25.6%	15.4%	9.1%	4.0%	100.0%
Minority Population	#	2,991	5,472	6,551	7,001	7,457	29,472
	%	0.8%	1.5%	1.8%	1.9%	2.0%	8.1%

Ratio of Minority Population Percentage in Census Block Groups to the SEDA-COG MPO Minority Population Percentage

Source: US Census Bureau, 2017-2021 American Community Survey 5-Year Estimates | Map prepared by SEDA-COG GIS (2024)

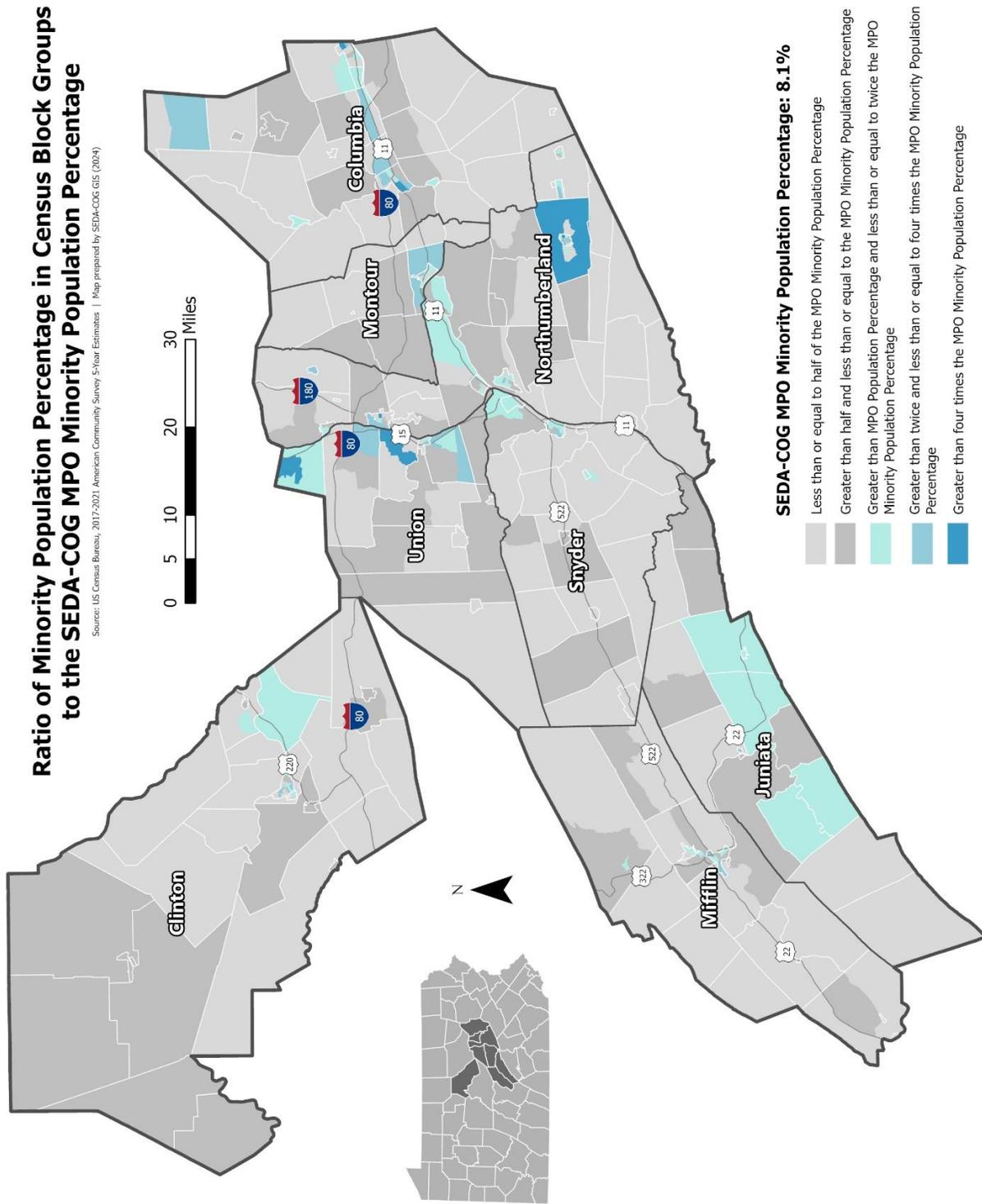


Figure 2. SEDA-COG MPO Minority Population Census Block Group Map

Low-Income Populations

Within the SEDA-COG MPO region, **the percentage of low-income population is approximately 11.9%**. Table 3 displays the Census block group low-income population percentage intervals based on the Williamsport MPO/PennDOT methodology. Table 4 and Figure 4 present the spatial concentrations of low-income populations by Census block groups gathered from the *2017-2021 American Community Survey 5-Year Estimates*.

Table 3. Ratio of Low-Income Population Percentage Intervals

INTERVAL	DESCRIPTION
1	Census Block Low-Income Population Percentage / Planning Partner Low-Income Population Percentage ≤ 0.5 (Census Block Group Low-Income Population Percentage less than or equal to half of Regional Low-Income Population Percentage)
2	Census Block Low-Income Population Percentage / Planning Partner Low-Income Population Percentage > 0.5 and ≤ 1 (Census Block Group Low-Income Population Percentage greater than half and less than or equal to Regional Low-Income Population Percentage)
3	Census Block Low-Income Population Percentage / Planning Partner Low-Income Population Percentage > 1 and ≤ 2 (Census Block Group Low-Income Population Percentage greater than Regional Low-Income Population Percentage and less than or equal to twice the Regional Low-Income Population Percentage)
4	Census Block Low-Income Population Percentage / Planning Partner Low-Income Population Percentage > 2 and ≤ 4 (Census Block Group Low-Income Population Percentage greater than twice and less than or equal to four times the Regional Low-Income Population Percentage)
5	Census Block Low-Income Population Percentage / Planning Partner Low-Income Population Percentage > 4 (Census Block Group Low-Income Population Percentage greater than four times the Regional Low-Income Population Percentage)

Table 4. SEDA-COG MPO Low-Income Population Percentage Intervals

POPULATION		LOW-INCOME POPULATION INTERVALS					TOTAL
		1	2	3	4	5	
MPO Total Population	#	124,294	105,793	93,136	41,309	1,090	365,622
	%	34.0%	28.9%	25.5%	11.3%	0.3%	100.0%
Low Income Population	#	4,282	9,331	15,963	13,257	501	43,334
	%	1.2%	2.6%	4.4%	3.6%	0.1%	11.9%

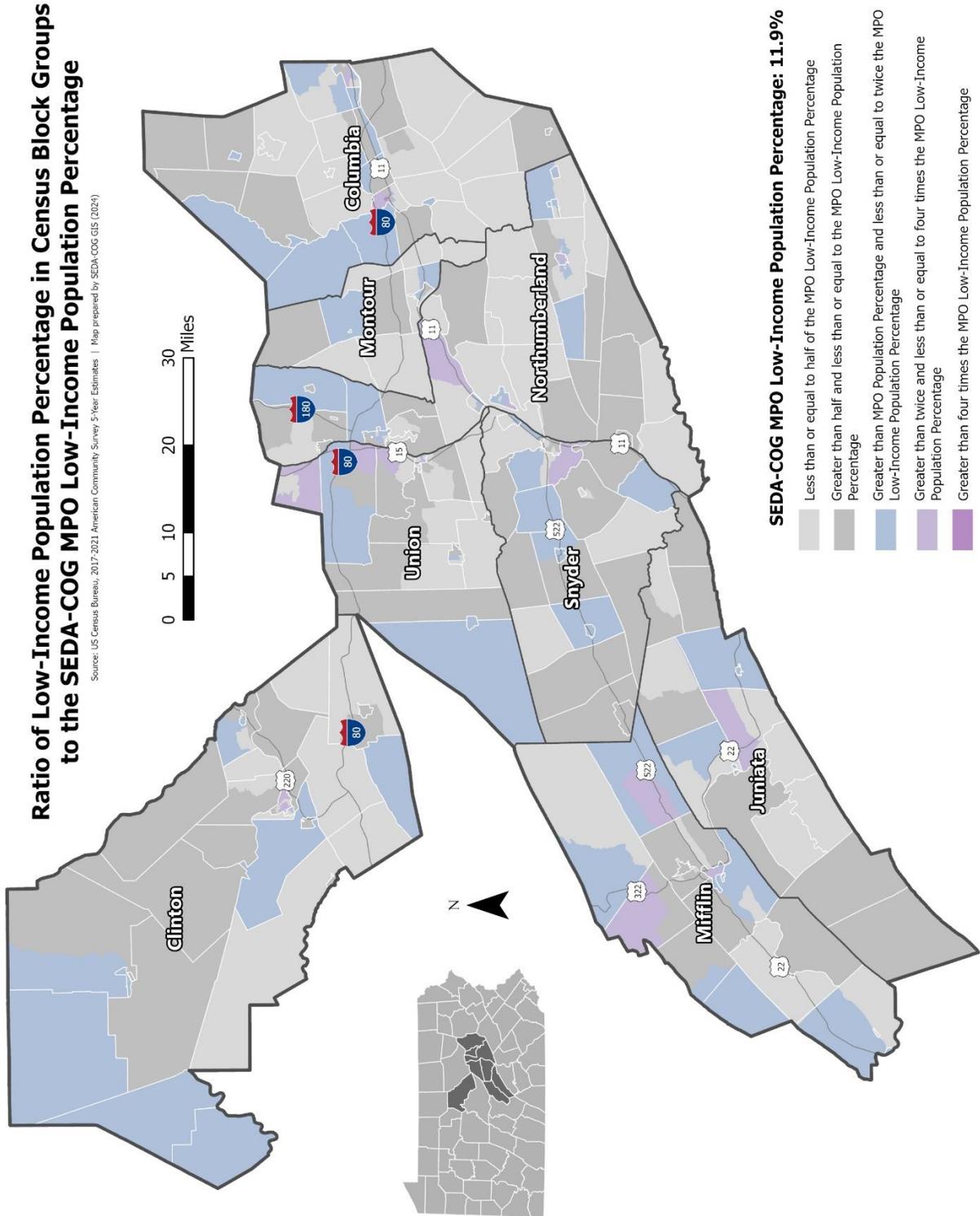


Figure 3. SEDA-COG MPO Low-Income Population Census Block Group Map

Conditions Assessment

Current Transportation Conditions

A quantitative and geospatial analysis was conducted to study the relationship between current SEDA-COG MPO transportation conditions (i.e., bridge conditions, pavement conditions, etc.) and minority and low-income population concentrations. The goal of this assessment is to understand if existing transportation conditions disproportionately impact EJ populations within the SEDA-COG MPO region in a negative manner.

Transportation-related spatial data used during this conditions assessment were obtained from *PennShare*, the PennDOT open data portal and later analyzed in the *ArcGIS Pro* GIS software. The following conditions of the SEDA-COG MPO transportation system were summarized by minority and low-income population concentration intervals, and are further outlined in maps and data tables in this section of the report:

- **Bridge Conditions**
 - Amount of “Good,” “Fair,” and “Poor” bridges
 - Deck Area of “Good,” “Fair,” and “Poor” bridges
- **Pavement Conditions**
 - Federal aid segment miles based on the International Roughness Index (IRI)
 - “Excellent,” “Good,” “Fair,” “Poor,” and “Other” IRI pavement
- **Safety Conditions**
 - Vehicle Crashes (2017-2021)
 - Total reportable crashes, suspected serious injuries, fatalities
 - Bicycle/Vehicle Crashes (2017-2021)
 - Suspected serious injuries, fatalities
 - Pedestrian/Vehicle Crashes (2017-2021)
 - Suspected serious injuries, fatalities

To effectively evaluate the spatial distribution of negative transportation conditions located within high EJ population areas in the SEDA-COG MPO region, “High EJ Populated Areas” transportation conditions will be compared to those around the region. The MPO recognizes any Census Block Group categorized into **Intervals 3, 4, or 5 to be considered “High EJ Populated Areas”** since those Census Block Groups have an EJ population greater than the regional average. On the other hand, any Census Block Group categorized into **Intervals 1 or 2 is considered as “Low EJ Populated Areas”** since those Census Block Groups have an EJ population lower than the regional average.

Bridge Conditions

There is no significant disparity between the condition of bridges and concentration of minority populations within the SEDA-COG MPO region. Table 5 exhibits that the average percentage of poor bridges located within Census Block Groups with a high concentration of minority population (Intervals 3-5, 0.3%) is less than the regional average of 1.3% (Intervals 1-5). Furthermore, the percentage of deck area for the same poor bridges (Intervals 3-5, 0.2%) is less than the regional average of 0.5% (Intervals 1-5).

Additionally, there is no significant disparity between the condition of bridges and concentration of low-income populations within the SEDA-COG MPO region. Table 6 exhibits that the average percentage of poor bridges located within Census Block Groups with a high concentration of low-income population (Intervals 3-5, 0.6%) is less than the regional average of 1.3% (Intervals 1-5). Also, the percentage of deck area for the same poor bridges (Intervals 3-5, 0.3%) is less than the regional average of 0.5% (Intervals 1-5).

Figures 4 and 5 display the spatial distribution of bridges in the SEDA-COG MPO region by condition and deck area (square feet) overlaid on minority and low-income population percentage reference maps.

Table 5. SEDA-COG MPO Minority Population Intervals: 2023 Bridge Condition Summary

POOR BRIDGES		MINORITY POPULATION INTERVALS					TOTAL	AVG.
		1	2	3	4	5		
Amount	#	78	52	19	3	1	153	30.6
	%	3.4%	2.3%	0.8%	0.1%	0.0%	6.7%	1.3%
Deck Area (SQFT)	#	85,226.8	68,799.9	38,625.1	8,164.2	313.5	201,129.5	40,225.9
	%	1.1%	0.9%	0.5%	0.1%	0.0%	2.6%	0.5%
≥ FAIR BRIDGES		MINORITY POPULATION INTERVALS					TOTAL	AVG.
		1	2	3	4	5		
Amount	#	1,155	691	183	75	26	2,130	426.0
	%	50.6%	30.3%	8.0%	3.3%	1.1%	93.3%	18.7%
Deck Area (SQFT)	#	3,241,695.4	3,169,328.1	632,012.2	371,720.3	110,129.6	7,524,885.5	1,504,977.1
	%	42.0%	41.0%	8.2%	4.8%	1.4%	97.4%	19.5%

Table 6. SEDA-COG MPO Low-Income Population Intervals: 2023 Bridge Condition Summary

POOR BRIDGES		LOW-INCOME POPULATION INTERVALS					TOTAL	AVG.
		1	2	3	4	5		
Amount	#	53	60	29	11	0	153	30.6
	%	2.3%	2.6%	1.3%	0.5%	0.0%	6.7%	1.3%
Deck Area (SQFT)	#	66,464.5	73,310.6	35,920.8	25,433.6	0.0	201,129.5	40,225.9
	%	0.9%	0.9%	0.5%	0.3%	0.0%	2.6%	0.5%
≥ FAIR BRIDGES		LOW-INCOME MINORITY POPULATION INTERVALS					TOTAL	AVG.
		1	2	3	4	5		
Amount	#	710	832	495	93	0	2,130	426.0
	%	31.1%	36.4%	21.7%	4.1%	0.0%	93.3%	18.7%
Deck Area (SQFT)	#	2,418,978.2	2,766,495.4	1,787,241.8	552,170.1	0.0	7,524,885.5	1,504,977.1
	%	31.3%	35.8%	23.1%	7.1%	0.0%	97.4%	19.5%

(View Reference Map Figures 4 & 5 on the following pages)

Bridge Conditions & Ratio of Minority Population Percentage in Census Block Groups to the SEDA-COG MPO Minority Population Percentage

Sources: PennDOT, 2023 Bridge Conditions & US Census Bureau, 2017-2021 American Community Survey 5-Year Estimates
Map prepared by SEDA-COG GIS (2024)

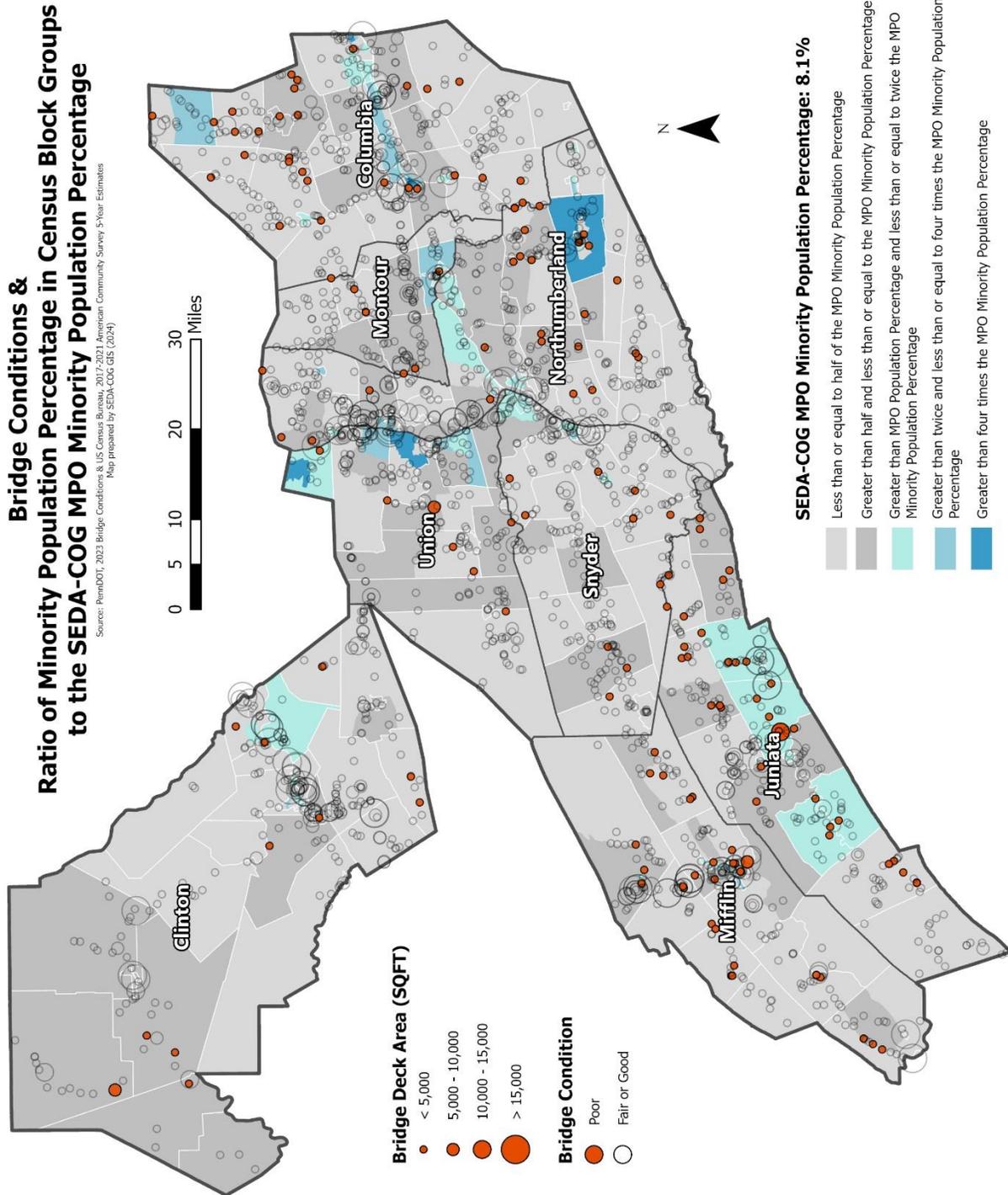


Figure 4. SEDA-COG MPO Minority Population Census Block Group & Bridge Conditions Map

Bridge Conditions & Ratio of Low-Income Population Percentage in Census Block Groups to the SEDA-COG MPO Low-Income Population Percentage

Source: PennDOT, 2023 Bridge Conditions & US Census Bureau, 2017-2021 American Community Survey 5-Year Estimates
Map prepared by SEDA-COG GIS (2024)

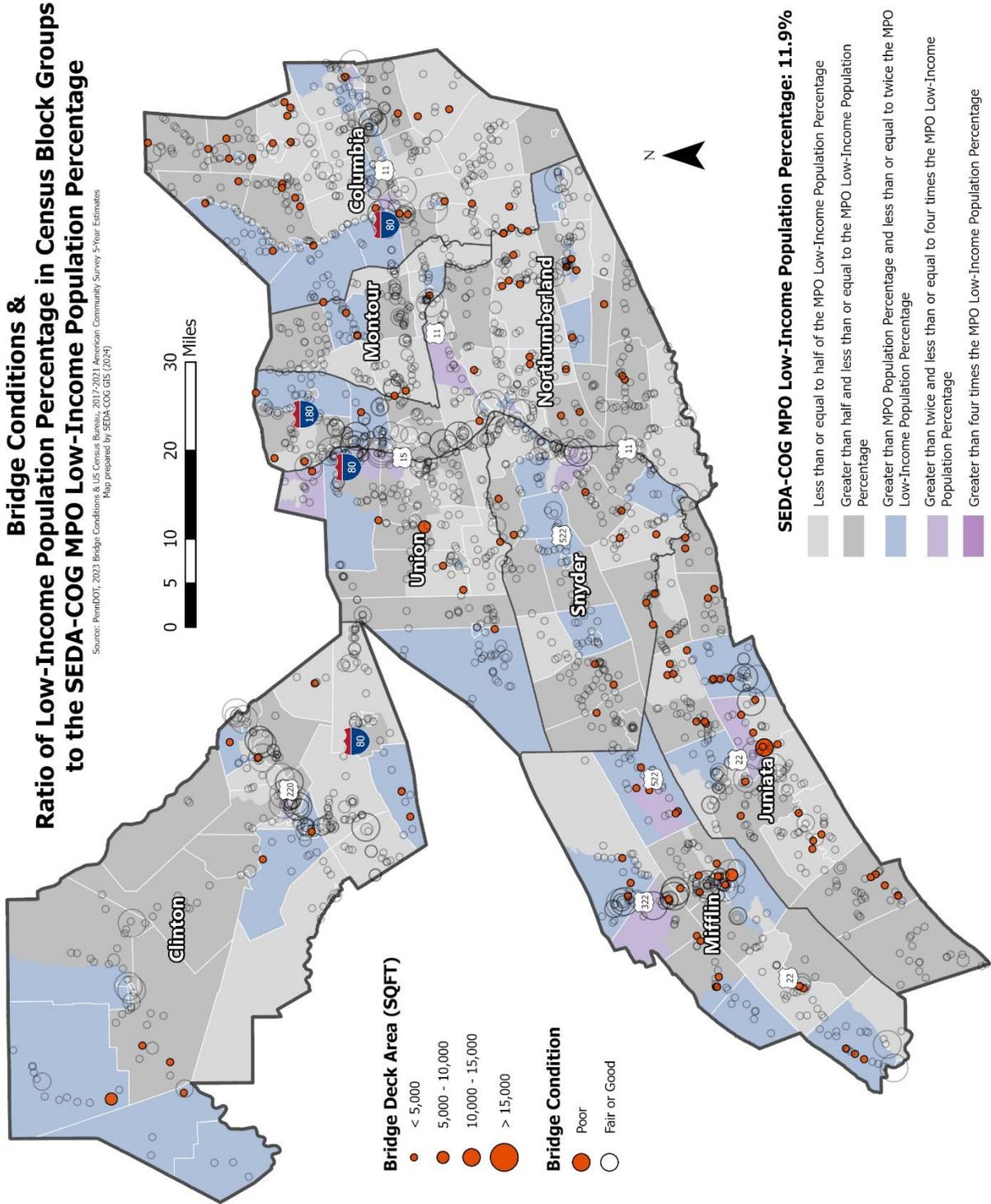


Figure 5. SEDA-COG MPO Low-Income Population Census Block Group & Bridge Conditions Map

Pavement Conditions

There is no significant disparity between the condition of pavement on federal aid segment miles and concentration of minority populations within the SEDA-COG MPO region. Table 7 exhibits that the average percentage of pavement listed as “Poor” on the International Roughness Index (IRI) located within Census Block Groups with a high concentration of minority population (Intervals 3-5, 0.2%) equals the regional average of 0.2% (Intervals 1-5).

However, there is a slight disparity between the condition of pavement on federal aid segment miles and concentration of low-income populations within the SEDA-COG MPO region. Table 8 exhibits that the average percentage of pavement listed as “Poor” on the International Roughness Index (IRI) located within Census Block Groups with a high concentration of low-income population (Intervals 3-5, 0.3%) is greater than the regional average of 0.2% (Intervals 1-5).

Figures 6 and 7 display the spatial distribution of federal aid segment miles by International Roughness Index (IRI) condition categories and PennDOT traffic volumes (Annual Average Daily Traffic, AADT) overlaid on minority and low-income population percentage reference maps.

Table 7. SEDA-COG MPO Minority Population Intervals: 2023 Pavement Condition Summary

FED. AID SEGMENT MILES		MINORITY POPULATION INTERVALS					TOTAL	AVG.
		1	2	3	4	5		
Poor IRI	#	3.3	3.3	3.3	1.2	0.2	11.3	2.3
	%	0.3%	0.3%	0.4%	0.1%	0.0%	1.2%	0.2%
Fair IRI	#	25.7	16.3	6.1	1.7	0.2	50.0	10.0
	%	2.7%	1.7%	0.6%	0.2%	0.0%	5.3%	1.1%
Good IRI	#	123.5	83.9	22.3	9.8	8.8	248.2	49.6
	%	13.1%	8.9%	2.4%	1.0%	0.9%	26.3%	5.3%
Excellent IRI	#	354.2	169.8	60.9	34.6	12.5	632.0	126.4
	%	37.5%	18.0%	6.4%	3.7%	1.3%	66.9%	13.4%
Other IRI	#	2.8	0.1	0.6	0.0	0.0	3.5	0.7
	%	0.3%	0.0%	0.1%	0.0%	0.0%	0.4%	0.1%

Table 8. SEDA-COG MPO Low-Income Population Intervals: 2023 Pavement Condition Summary

FED. AID SEGMENT MILES		LOW-INCOME POPULATION INTERVALS					TOTAL	AVG.
		1	2	3	4	5		
Poor IRI	#	2.4	1.7	4.7	2.5	0.1	11.3	2.3
	%	0.3%	0.2%	0.5%	0.3%	0.0%	1.2%	0.2%
Fair IRI	#	13.7	13.3	16.3	6.6	0.0	50.0	10.0
	%	1.5%	1.4%	1.7%	0.7%	0.0%	5.3%	1.1%
Good IRI	#	69.1	95.5	64.0	19.7	0.0	248.2	49.6
	%	7.3%	10.1%	6.8%	2.1%	0.0%	26.3%	5.3%
Excellent IRI	#	202.5	247.8	150.7	31.0	0.0	632.0	126.4
	%	21.4%	26.2%	15.9%	3.3%	0.0%	66.9%	13.4%
Other IRI	#	0.6	2.6	0.2	0.1	0.0	3.5	0.7
	%	0.1%	0.3%	0.0%	0.0%	0.0%	0.4%	0.1%

(View Reference Map Figures 6 & 7 on the following pages)

Pavement Conditions & Ratio of Minority Population Percentage in Census Block Groups to the SEDA-COG MPO Minority Population Percentage

Source: PennDOT RIMS, 2022 Pavement Conditions and Traffic Volume & US Census Bureau, 2017-2021 American Community Survey 5 Year Estimates
Map prepared by SEDA-COG GIS (2024)

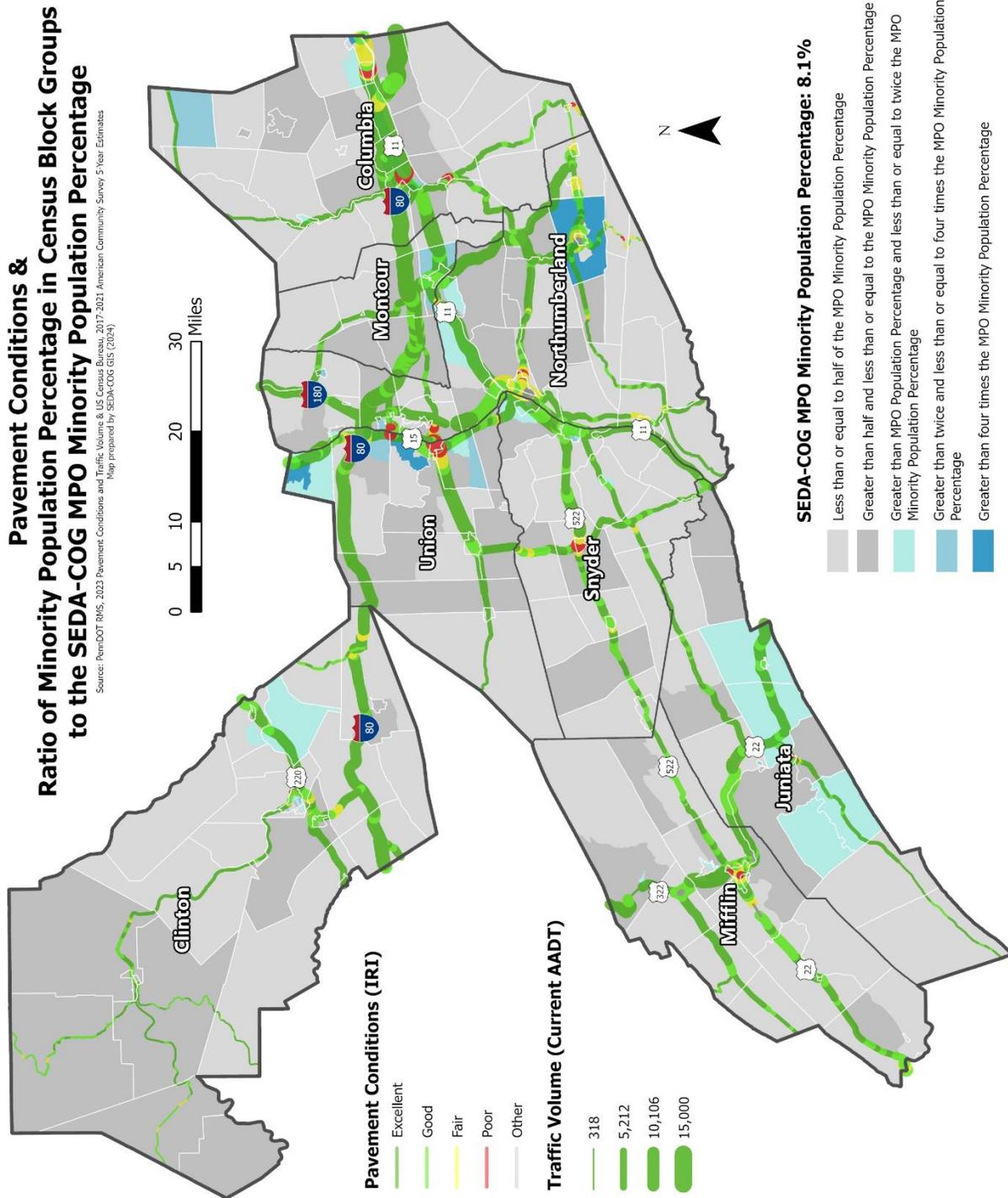


Figure 6. SEDA-COG MPO Minority Population Census Block Group & Pavement Conditions Map

Pavement Conditions & Ratio of Low-Income Population Percentage in Census Block Groups to the SEDA-COG MPO Low-Income Population Percentage

Source: PennDOT RMS, 2023 Pavement Conditions and Traffic Volume & US Census Bureau, 2017-2021 American Community Survey, 5-Year Estimates
Map prepared by SEDA-COG GIS (2024)

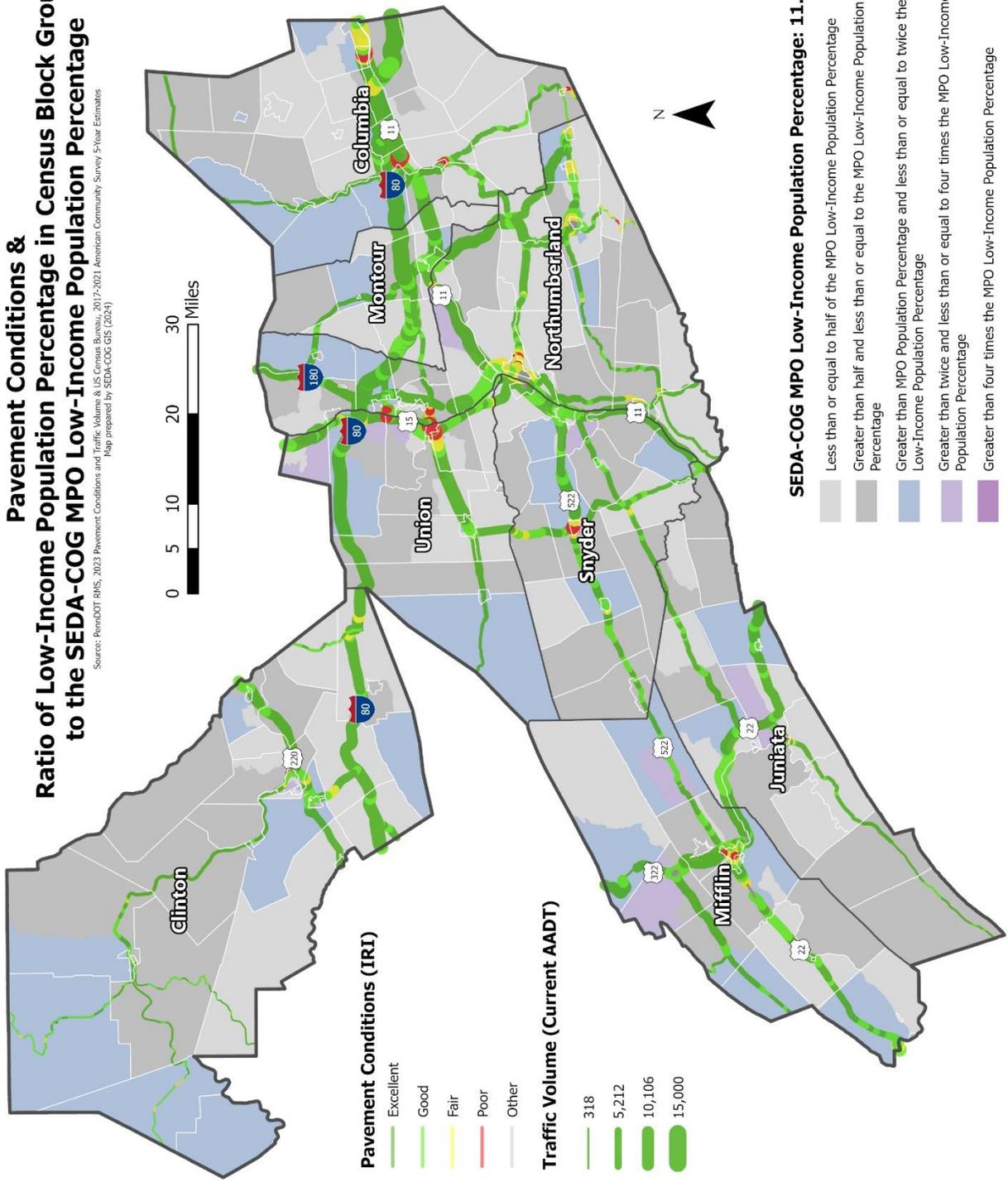


Figure 7. SEDA-COG MPO Low-Income Population Census Block Group & Pavement Conditions Map

Safety Conditions

Overall, **there are not higher incidence rates of reportable crashes, suspected serious injuries, and fatalities in high concentration minority and low-income population areas present compared to those without high concentrations of EJ populations within the SEDA-COG MPO region.**

For high concentration minority population areas (Intervals 3-5) between 2017 and 2021, there were 3,952 reportable crashes (23.7% of the SEDA-COG MPO total), 162 suspected serious injuries (22.5%) and 34 recorded fatalities (15.9%). Tables 9, 10, and 11 display these vehicle crash data, along with their bicycle and pedestrian crash data subsets.

High concentration low-income population areas (Intervals 3-5) witnessed higher crash incident rates than high concentration minority population areas in the SEDA-COG MPO region. Between 2017 and 2021, there were 5,945 reportable crashes (35.7% of the SEDA-COG MPO total), 239 serious suspected injuries (33.2%), and 57 recorded fatalities (26.6%) in high concentration low-income population areas. Tables 12, 13, and 14 display these vehicle crash data, along with their bicycle and pedestrian crash data subsets.

Figures 8 and 9 exhibit the spatial distribution of the PennDOT crash and safety data overlaid on minority and low-income population percentage reference maps.

Table 9. SEDA-COG MPO Minority Population Intervals: 2017-2021 Vehicle Crash Data Summary

VEHICLE CRASHES		MINORITY POPULATION INTERVALS					TOTAL
		1	2	3	4	5	
Reportable Crashes	#	7,975	4,715	2,214	1,290	448	16,642
	%	47.9%	28.3%	13.3%	7.8%	2.7%	100.0%
Suspected Serious Injuries	#	355	203	94	46	22	720
	%	49.3%	28.2%	13.1%	6.4%	3.1%	100.0%
Fatalities	#	108	72	17	12	5	214
	%	50.5%	33.6%	7.9%	5.6%	2.3%	100.0%

(View Tables 10-14 and Reference Map Figures 8 & 9 on the following pages)

Table 10. SEDA-COG MPO Minority Population Intervals: 2017-2021 Bicycle Crash Data Summary

BICYCLE CRASHES		MINORITY POPULATION INTERVALS					TOTAL
		1	2	3	4	5	
Suspected Serious Injuries	#	4	4	5	1	0	14
	%	28.6%	28.6%	35.7%	7.1%	0.0%	100.0%
Fatalities	#	2	0	0	0	0	2
	%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%

Table 11. SEDA-COG MPO Minority Population Intervals: 2017-2021 Ped. Crash Data Summary

PEDESTRIAN CRASHES		MINORITY POPULATION INTERVALS					TOTAL
		1	2	3	4	5	
Suspected Serious Injuries	#	16	9	19	5	2	51
	%	31.4%	17.6%	37.3%	9.8%	3.9%	100.0%
Fatalities	#	9	5	0	1	0	15
	%	60.0%	33.3%	0.0%	6.7%	0.0%	100.0%

Table 12. SEDA-COG MPO Low-Income Population Intervals: 2017-2021 Crash Data Summary

VEHICLE CRASHES		LOW-INCOME POPULATION INTERVALS					TOTAL
		1	2	3	4	5	
Reportable Crashes	#	5,585	5,112	4,219	1,686	40	16,642
	%	33.6%	30.7%	25.4%	10.1%	0.2%	100.0%
Suspected Serious Injuries	#	228	253	162	76	1	720
	%	31.7%	35.1%	22.5%	10.6%	0.1%	100.0%
Fatalities	#	79	78	45	12	0	214
	%	36.9%	36.4%	21.0%	5.6%	0.0%	100.0%

(View Tables 13 & 14 and Reference Map Figures 8 & 9 on the following pages)

Table 13. SEDA-COG MPO Low-Income Population Intervals: 2017-2021 Bike Crash Data Summary

BICYCLE CRASHES		LOW-INCOME POPULATION INTERVALS					TOTAL
		1	2	3	4	5	
Suspected Serious Injuries	#	5	3	3	3	0	14
	%	35.7%	21.4%	21.4%	21.4%	0.0%	100.0%
Fatalities	#	0	2	0	0	0	2
	%	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%

Table 14. SEDA-COG MPO Low-Income Population Intervals: 2017-2021 Ped. Crash Data Summary

PEDESTRIAN CRASHES		LOW-INCOME POPULATION INTERVALS					TOTAL
		1	2	3	4	5	
Suspected Serious Injuries	#	8	9	14	19	1	51
	%	15.7%	17.6%	27.5%	37.3%	2.0%	100.0%
Fatalities	#	6	6	3	0	0	15
	%	40.0%	40.0%	20.0%	0.0%	0.0%	100.0%

(View Reference Map Figures 8 & 9 on the following pages)

Safety Conditions & Ratio of Minority Population Percentage in Census Block Groups to the SEDA-COG MPO Minority Population Percentage

Sources: PennDOT, 2017-2021 Crash Data & US Census Bureau, 2017-2021 American Community Survey 5-Year Estimates
Map prepared by SEDA-COG GIS (2024)

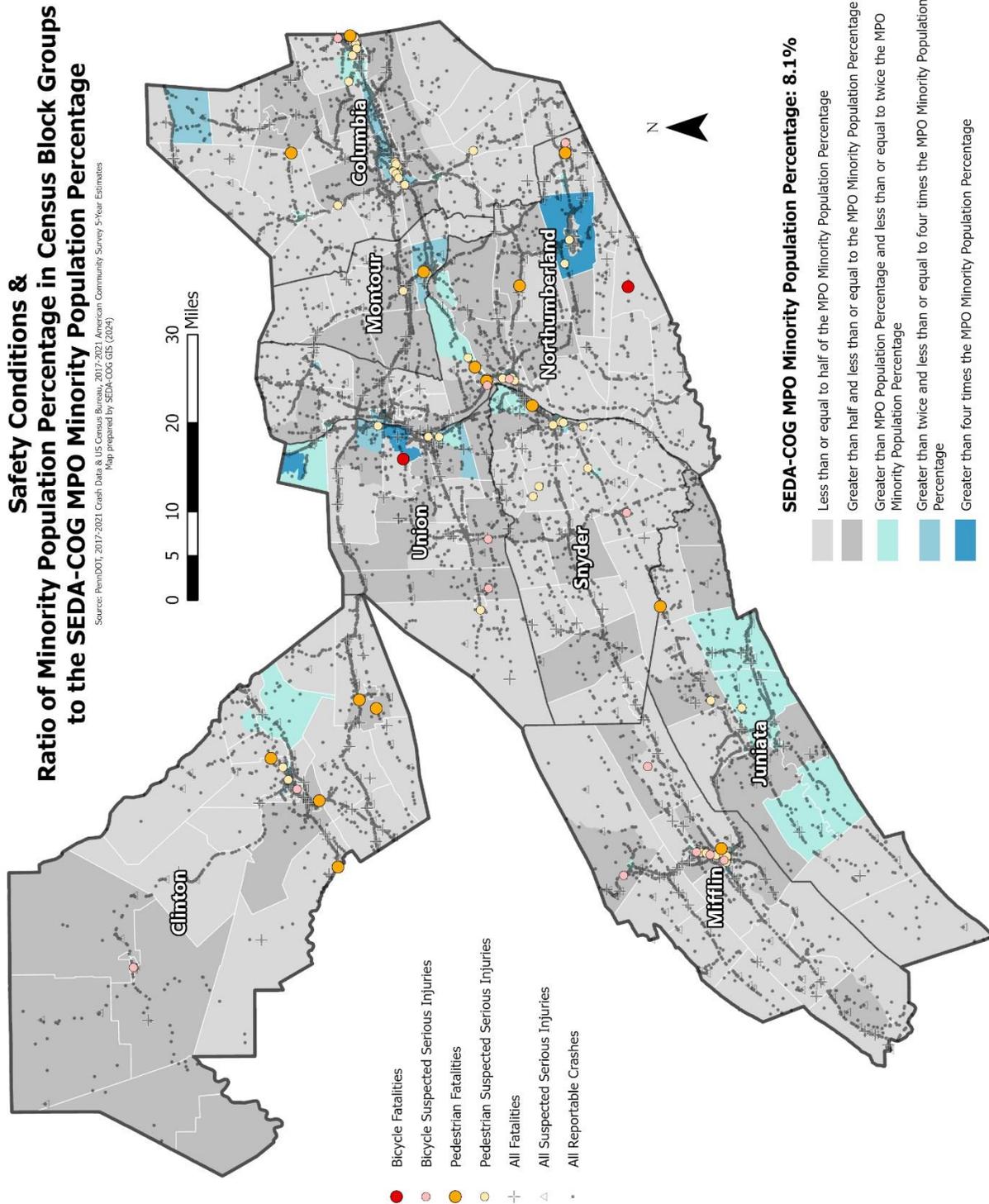


Figure 8. SEDA-COG MPO Minority Population Census Block Group & Safety Conditions Map

Safety Conditions & Ratio of Low-Income Population Percentage in Census Block Groups to the SEDA-COG MPO Low-Income Population Percentage

Source: PennDOT, 2017-2021 Crash Data & US Census Bureau, 2017-2021 American Community Survey 5-Year Estimates
Map prepared by SEDA-COG GIS (2024)

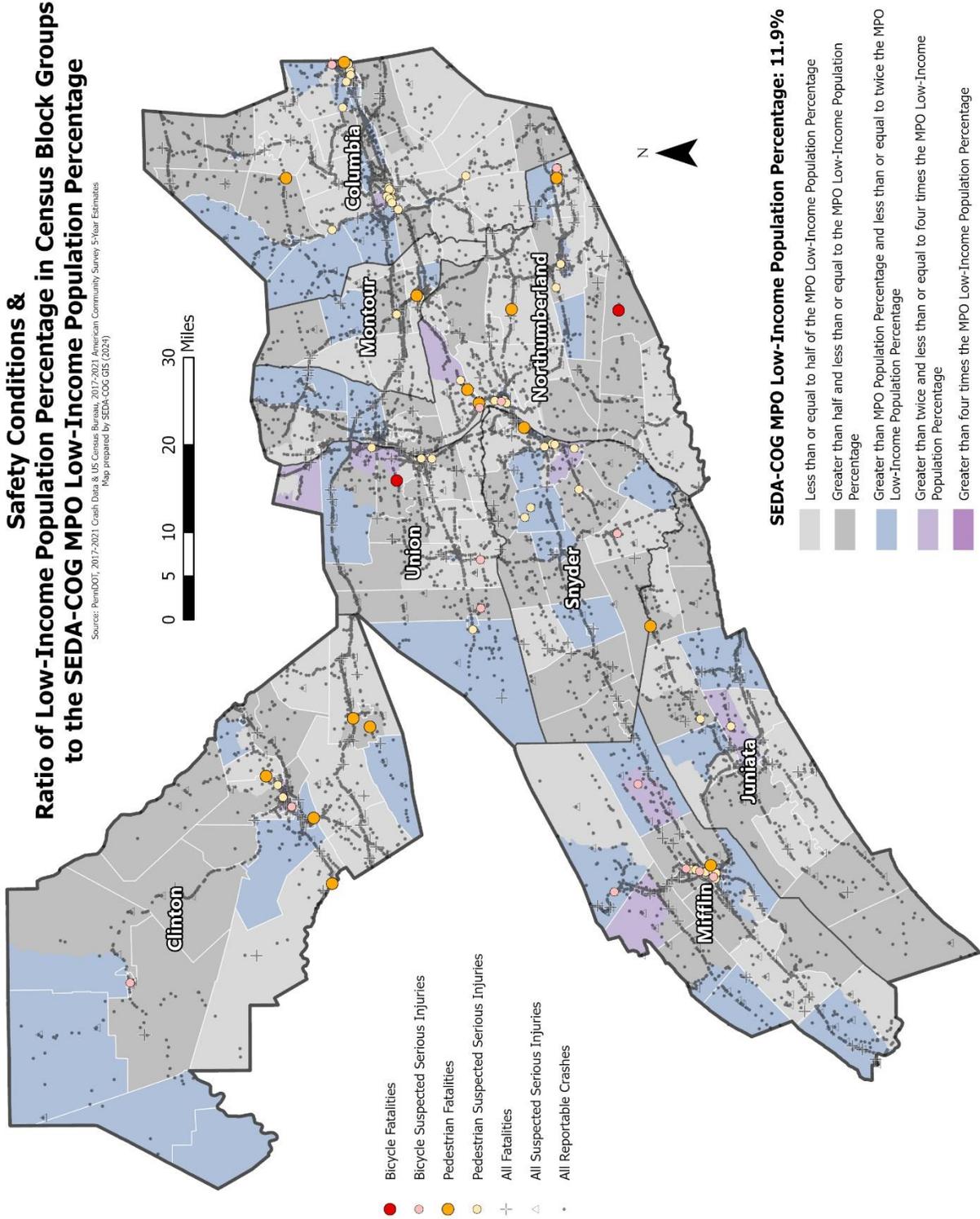


Figure 9. SEDA-COG MPO Low-Income Population Census Block Group & Safety Conditions Map

Benefits & Burdens Analysis

2025-2028 Transportation Improvement Program

As outlined in this report for the development of the *2025-2028 Transportation Improvement Program (TIP)*, the SEDA-COG MPO reviewed programmed transportation projects to determine their locations within Census Block Groups categorized by EJ population concentrations.

The total cost value of programmed transportation projects on the 2025-2028 SEDA-COG MPO Transportation Improvement Program is \$521,059,336. The mappable projects on the TIP, those that could be located and plotted on a map, have a total cost value of **\$474,327,959**. Table 15 summarizes the dollar value of these projects in more detail.

Table 16 breaks down the mappable TIP projects by funding category (Roadway, State Bridge, Local Bridge, Safety, or Transportation Alternatives Set-Aside) and EJ population percentage intervals. **There was a total investment of approximately \$185,125,787 (39.1% of the TIP) in high concentration minority population areas and \$114,777,440 (24.1% of the TIP) in high concentration low-income population areas.**

Table 15. SEDA-COG MPO 2025-2028 TIP Cost Breakdown by Mappable Projects

TIP PROJECTS	COST		PCT (%)
Mappable Projects	\$	\$473,327,959	90.8%
Non-Mappable Projects	\$	\$47,731,377	9.2%
TOTAL	\$	\$521,059,336	100.0%

(View Table 16 on the following page)

Table 16. SEDA-COG MPO 2025-2028 TIP Cost Breakdown by Mappable Projects & EJ Populations

TIP PROJECT CATEGORY		MINORITY INTERVALS		LOW-INCOME INTERVALS		SEDA-COG REGION
		LOW _(1, 2)	HIGH _(3, 4, 5)	LOW _(1, 2)	HIGH _(3, 4, 5)	
Roadway	\$	\$93,816,871	\$134,748,759	\$209,263,318	\$37,750,562	\$247,013,880
	%	45.4%	54.6%	84.7%	15.3%	100.0%
State Bridge	\$	\$122,766,072	\$44,691,228	\$104,547,422	\$62,909,878	\$167,457,300
	%	73.3%	26.7%	62.4%	37.6%	100.0%
Local Bridge	\$	\$23,056,200	\$3,366,800	\$14,679,500	\$11,743,500	\$26,423,000
	%	87.3%	12.7%	55.6%	44.4%	100.0%
Safety	\$	\$29,494,150	\$1,519,000	\$29,439,650	\$1,573,500	\$31,013,150
	%	95.1%	4.9%	94.9%	5.1%	100.0%
TASA	\$	\$620,629	\$800,000	\$620,629	\$800,000	\$1,420,629
	%	43.7%	56.3%	43.7%	56.3%	100.0%
Total Projects	\$	\$288,202,172	\$185,125,787	\$358,550,519	\$114,777,440	\$473,327,959
	%	60.9%	39.1%	75.8%	24.2%	100.0%

TIP Impacts & Evaluation of Benefits and Burdens

Conducting a “Benefits and Burdens” analysis provides feedback on the equity of the *2025-2028 Transportation Improvement Program* (TIP) through the examination of disproportionate impacts of the programmed transportation projects on minority and low-income populations within the SEDA-COG MPO region.

Benefits are the positive impacts from investment, such as improved public safety, enhancements in transportation services and options, congestion relief, increased economic vitality, or reduced travel times. Conversely, **burdens are the adverse effects of investment**, such as pollution (noise and air), displacement and disruption of persons or businesses, decrease of economic vitality, decline in tax base or property values, diminished esthetics, or the denial, delay, or reduction of receipt of benefits. Per federal guidance, the evaluation of benefits and burdens for a transportation program is to include **(1) project categorization, (2) mapping, and (3) a qualitative narrative**. These three steps are outlined in the following section.

The SEDA-COG MPO categorized each project listed on the *2025-2028 Transportation Improvement Program* by level of impact. These level categories are defined as follows:

- **High Impact: Projects with High Potential for Adverse Impacts**
 - Bridge Replacement
 - New Right-of-Way
 - Roadway Expansion & Creation
- **Medium Impact: Projects with Lower Potential for Adverse Impacts**
 - Bridge Maintenance
 - Roadway Maintenance
- **Low Impact: Projects with Low Potential for Adverse Impacts**
 - Bicycle/Pedestrian
 - Safety
 - Transit
 - Transportation Studies

Table 17 exhibits the *2025-2028 Transportation Improvement Program* projects for the SEDA-COG MPO by level of impact and EJ population percentage intervals. Center points extrapolated from *PennDOT OneMap* TIP project GIS lines were used to identify what Census Block Group the project belonged to. If a project was within proximity (25 feet) of a Census Block Group with a higher EJ population percentage interval, the higher interval was favored and listed in Table 17. Projects that appear in Table 17 multiple times have work programmed at more than one location within the region (i.e., MPMS #117043, SEDA-COG Bridge Preservation 1). Table 18 displays the projects on the TIP that did not have a spatial reference and could not be mapped.

Figures 10 and 11 present the spatial distribution of the *2025-2028 Transportation Improvement Program* projects for the SEDA-COG MPO by funding category overlaid on minority and low-income population percentage reference maps.

Based on the distribution of current TIP funding and the analysis of asset conditions, there do not appear to be disparities in investment linked to concentrations of minority or low-income populations.

Table 17. SEDA-COG MPO 2025-2028 Mappable TIP Projects Impacts

PENNDOT DISTRICT 2-0 CLINTON COUNTY						
MPMS	MUNI.	PROJECT	CATEGORY	IMPACT	M	LI
3763	18-215	T-537 over Fishing Creek Bridge	Local Bridge	High	1	3
3793	18-216	PA 120/Milligan Run	State Bridge	Medium	2	2
3840	18-207	Rauchtown Bridge	State Bridge	Medium	1	1

3861	18-202	Laurel Run Bridge	State Bridge	Medium	2	3
69038	18-202	Bridge over Laurel Run	State Bridge	High	2	3
85149	18-207	SR 0880 Rauchtown Cr II	State Bridge	Medium	1	1
91546	18-209	SR 120 Upper Stimpson Run	State Bridge	Medium	2	3
101535	18-213	Bridge over Long Run	State Bridge	High	1	1
112317	18-211	I-80 ICM (Exit 173 to 185)	Safety	Low	2	2
112317	18-213	I-80 ICM (Exit 173 to 185)	Safety	Low	1	1
112317	18-218	I-80 ICM (Exit 173 to 185)	Safety	Low	1	1
113133	18-216	SR 120 over Dry Run	State Bridge	Medium	2	2
114298	18-216	SR 120 West Port Fill Slide	Roadway	Medium	2	2
114302	18-214	2024 SEDA-COG Bridge Preservation	State Bridge	Medium	2	3
117043	18-204	SEDA-COG Bridge Preservation 1	State Bridge	Medium	1	2
117043	18-219	SEDA-COG Bridge Preservation 1	State Bridge	Medium	3	2
117043	18-403	SEDA-COG Bridge Preservation 1	State Bridge	Medium	3	3
117043	18-405	SEDA-COG Bridge Preservation 1	State Bridge	Medium	2	2
119232	18-213	SEDACOG Concrete Preservation	Roadway	Medium	1	1
119232	18-213	SEDACOG Concrete Preservation	Roadway	Medium	1	1
119411	18-219	SR 220 Youngdale Bridges	State Bridge	Medium	3	2
119926	18-201	SR 120 Bridge Preservations	State Bridge	Medium	1	2
119926	18-202	SR 120 Bridge Preservations	State Bridge	Medium	2	3
119926	18-205	SR 120 Bridge Preservations	State Bridge	Medium	2	2
119928	18-208	SR 150 Bridge Preservations	State Bridge	Medium	1	1
119928	18-402	SR 150 Bridge Preservations	State Bridge	Medium	2	2
119935	18-405	SR 220 over Private Drive	State Bridge	Medium	2	2
120759	18-218	SR 64 Concrete Preservation	Roadway	Medium	1	1
120760	18-202	Hogan Blvd Drainage	Roadway	Medium	2	3
120761	18-403	Flemington Canal Brdg	State Bridge	Medium	3	3
120763	18-211	SR 220 Concrete Preservation	Roadway	Medium	2	1
120763	18-213	SR 220 Concrete Preservation	Roadway	Medium	1	1
120763	18-213	SR 220 Concrete Preservation	Roadway	Medium	1	1
120763	18-213	SR 220 Concrete Preservation	Roadway	Medium	1	1
120763	18-401	SR 220 Concrete Preservation	Roadway	Medium	1	2

JUNIATA COUNTY

MPMS	MUNI.	PROJECT	CATEGORY	IMPACT	M	LI
4096	34-208	Mahantango Creek Bridge	State Bridge	Medium	1	2
4160	34-205	Stoney Run Bridge	State Bridge	Medium	2	2
4582	34-204	Lewistown Narrows Rehab	Roadway	Medium	1	1
69423	34-204	2023 SEDACOG Bridge Preservation	State Bridge	Medium	1	3
69423	34-213	2023 SEDACOG Bridge Preservation	State Bridge	Medium	3	4
69511	34-211	SR 0074 over Hunters Crk	State Bridge	High	2	1
69512	34-212	SR 0850 Little Laurel Run	State Bridge	Medium	1	2
85170	34-212	SR 0850 over Trib. Tuscar	State Bridge	Medium	1	2
85176	34-212	SR 0075 over Trib Tuscarora	State Bridge	Medium	1	2
85178	34-212	SR 0075 over Trib Tuscaro	State Bridge	Medium	1	2
85183	34-211	SR 0333 over Trib Juniata BOX	State Bridge	Medium	2	1
85188	34-213	SR 2007 over Doe Run	State Bridge	Medium	3	4
91516	34-201	SR 3014 Doyle Run Bridge	State Bridge	Medium	3	1
93942	34-205	SR 235 Cranes Run Bridge	State Bridge	High	2	2

109717	34-213	SR 2003 over Doe Run II	State Bridge	Medium	3	4
112751	34-202	Trib Cocolamus Creek BOX	State Bridge	Medium	3	3
113143	34-201	SR 3008 over Trib Tuscarora Creek	State Bridge	Medium	3	1
113146	34-201	SR 3019 over Doyle Run	State Bridge	Medium	3	1
114302	34-202	2024 SEDA-COG Bridge Preservation	State Bridge	Medium	3	3
114302	34-213	2024 SEDA-COG Bridge Preservation	State Bridge	Medium	3	4
114303	54-215	2025 SEDA-COG Bridge Preservation	State Bridge	Medium	1	2
116804	34-202	SR 333 over Delaware Creek	State Bridge	Medium	3	3
116805	34-202	SR 333 over Delaware Creek II	State Bridge	Medium	3	3
116886	34-202	2025 SEDA-COG Bridge Preservation	State Bridge	Medium	3	3
116886	34-213	2025 SEDA-COG Bridge Preservation	State Bridge	Medium	3	1
116889	34-213	2027 SEDA-COG Bridge Preservation	State Bridge	Medium	3	4
116994	34-211	Trib Tuscarora Creek BOX	State Bridge	Medium	2	1
119232	34-213	SEDACOG Concrete Preservation	Roadway	Medium	3	4
119232	34-213	SEDACOG Concrete Preservation	Roadway	Medium	3	4
119410	34-202	SR 22 Thompsontown Bridges	State Bridge	Medium	3	3
119959	34-204	SR 22 over Lost Creek	State Bridge	Medium	1	3
119962	34-213	SR 22 over Wagner Rd	State Bridge	Medium	3	1
119967	34-202	SR 22 over T-554 Pfoutz Valley Rd	State Bridge	Medium	3	3
119978	34-212	SR 850 over Woodward Run	State Bridge	High	1	2
119981	34-203	SR's 2015 & 2016 Bridge Preservation	State Bridge	Medium	1	1
119981	34-208	SR's 2015 & 2016 Bridge Preservation	State Bridge	Medium	1	2
119983	34-209	SR's 3030 & 3019 over Tuscarora Crk	State Bridge	Medium	3	1
119983	34-209	SR's 3030 & 3019 over Tuscarora Crk	State Bridge	Medium	3	1
120112	34-203	SR 235 HFST	Safety	Low	2	2
MIFFLIN COUNTY						
MPMS	MUNI.	PROJECT	CATEGORY	IMPACT	M	LI
4551	44-201	SR 1002 over Honey Creek	State Bridge	Medium	2	3
4582	44-205	Lewistown Narrows Rehab	Roadway	Medium	1	2
69387	44-210	Long Hollow Run Bridge	State Bridge	Medium	2	3
72767	44-204	Lewistown to Co. Line Betterment	Roadway	Medium	1	4
81491	44-207	Co. Line to Belleville	Roadway	Medium	1	3
81528	44-205	SR 2005 Br. Kish Cr. BOX	State Bridge	Medium	2	2
85290	44-204	SR 0522 over Jacks Creek	State Bridge	Medium	1	3
85299	44-403	Lewistown Bridge	State Bridge	Medium	2	4
85300	44-403	Lewistown Bridge II	State Bridge	Medium	2	4
91608	44-201	SR 1012 Laurel Run Br	State Bridge	Medium	3	3
95971	44-203	T-439 ov Kishacoquillas	Local Bridge	High	1	2
105922	44-210	SR 22 ov Branch Long Hollow Run	State Bridge	Medium	2	3
110175	44-205	T-420 over Kish Creek	Local Bridge	High	1	2
113151	44-204	SR 2008 over Br Jacks Creek	State Bridge	Medium	2	3
113153	44-208	SR 22 over Abandoned RR	State Bridge	Medium	1	1
113155	44-405	SR 3017 over Trib Juniata River	State Bridge	Medium	1	1
114010	44-205	SR 522 Betterment	Roadway	Medium	2	2
114048	44-205	Kish Pike RR Device Install	Safety	Low	3	2
114302	44-206	2024 SEDA-COG Bridge Preservation	State Bridge	Medium	1	2
114302	44-206	2024 SEDA-COG Bridge Preservation	State Bridge	Medium	2	3
114303	44-205	2025 SEDA-COG Bridge Preservation	State Bridge	Medium	1	2

116799	44-208	SR 22 over Wakefield Run	State Bridge	Medium	1	1
116889	44-206	2027 SEDA-COG Bridge Preservation	State Bridge	Medium	1	2
116889	44-210	2027 SEDA-COG Bridge Preservation	State Bridge	Medium	2	3
116986	44-205	Tributary Jacks Creek BOX	State Bridge	Medium	1	2
117782	44-403	Walnut St RR Device Install	Safety	Low	4	2
117782	44-403	Walnut St RR Device Install	Safety	Low	4	4
119232	44-203	SEDACOG Concrete Preservation	Roadway	Medium	1	4
119464	44-206	Delaware Ave RR Warning Device	Safety	Low	2	3
119778	44-201	SR 1002 Honey Creek Rd Slide Restoration	Roadway	Medium	2	3
119987	44-210	SR 22 over Beaver Dam Run	State Bridge	High	2	3
119994	44-207	SR 655 over Kishacoquillas Crk	State Bridge	High	1	3
119996	44-403	SR 3006 over Jacks Creek	State Bridge	Medium	1	2
120767	44-204	SR 2008 over Brower Run	State Bridge	Medium	2	3
120795	44-208	SR 22 over Musser Run	State Bridge	Medium	1	1
121033	44-206	SR 3002/Bus 22 Resurfacing	Roadway	Medium	1	2

PENNDOT DISTRICT 3-0

COLUMBIA COUNTY

MPMS	MUNI.	PROJECT	CATEGORY	IMPACT	M	LI
5375	19-205	T-373 over Roaring Creek Co Br #11	Local Bridge	Medium	1	1
78825	19-224	SR 4049 over W Branch Fishing Creek	State Bridge	Medium	1	2
82774	19-207	SR 1020 over Pine Creek	State Bridge	Medium	2	1
88034	19-212	SR 2005 over Roaring Creek	State Bridge	Medium	1	1
88051	19-207	SR 1020 over Fishing Creek	State Bridge	Medium	2	1
88777	19-217	SR 4008 ov Tb Fishing Crk	State Bridge	High	2	1
88798	19-204	Substructure Contract	State Bridge	Medium	1	1
88798	19-215	Substructure Contract	State Bridge	Medium	2	2
93643	19-222	SR 1001 over Tributary to Susquehanna River	State Bridge	High	4	2
97622	19-224	SR118 ov E Br Fishing Crk	State Bridge	Medium	4	2
97622	19-224	SR118 ov E Br Fishing Crk	State Bridge	Medium	4	2
97738	19-211	West Creek to PA 118	Roadway	Medium	1	2
98398	19-219	SR 1013 over Stony Brook	State Bridge	High	1	1
98400	19-203	SR 1014 over Kashinka Hollow	State Bridge	High	3	3
98483	19-201	Catawissa Crk. to SR 2009	Roadway	Medium	1	1
98506	19-204	SR 42 to Airport Rd	Roadway	Medium	2	1
98506	19-204	SR 42 to Airport Rd	Roadway	Medium	2	1
98941	19-202	SR 254 over Tributary Fishing Creek	State Bridge	High	1	2
99147	19-204	SR 2009 Soil Slide Repair	Roadway	Medium	2	1
100443	19-204	Roaring Cr to Southern Dr	Roadway	Medium	1	1
100443	19-204	Roaring Cr to Southern Dr	Roadway	Medium	1	1
100443	19-212	Roaring Cr to Southern Dr	Roadway	Medium	1	1
103011	19-222	SR 487 over Abandoned RR	State Bridge	High	1	3
103833	19-213	T-557 over Little Fishing Creek	Local Bridge	Medium	1	3
106181	19-401	SR 239 over Fishing Creek	State Bridge	Medium	2	3
106733	19-402	SR 93 to Briar Ln	Roadway	Medium	5	2
107019	19-209	Adjacent Box Beam Bridge Bundle	Local Bridge	Medium	1	2
107019	19-224	Adjacent Box Beam Bridge Bundle	Local Bridge	Medium	1	2
107019	19-224	Adjacent Box Beam Bridge Bundle	Local Bridge	Medium	4	2
107019	19-224	Adjacent Box Beam Bridge Bundle	Local Bridge	Medium	4	2

107019	19-409	Adjacent Box Beam Bridge Bundle	Local Bridge	Medium	2	1
107111	19-402	Reagans Alley to SR 11	Roadway	Medium	1	4
109377	19-223	SR 11 to SR 2028 (Hettleville Rd) EB	Roadway	Medium	1	3
109377	19-223	SR 11 to SR 2028 (Hettleville Rd) EB	Roadway	Medium	2	2
109577	19-222	I-80 Bridge Piers Rehab	State Bridge	Medium	4	2
114157	19-402	SR 1027 over Tributary of Susquehanna River	State Bridge	High	5	2
114231	19-213	SR 4016 over Black Run	State Bridge	High	1	3
116203	19-402	Park Blvd to Luzerne Co	Roadway	Medium	3	3
116356	19-222	Park St to Shaffer Rd (SR 1001)	Roadway	Medium	4	2
117137	19-206	Poor House Rd to White Church Rd	Roadway	Medium	1	1
117139	19-212	Gaswell Rd to Roaring Cr	Roadway	Medium	1	1
117576	19-219	SR 4020 over Green Creek	State Bridge	Medium	1	1
117577	19-221	SR 2001 over Roaring Creek	State Bridge	Medium	1	1
118286	19-401	SR 487 to Mendenhall Lane	Roadway	Medium	2	3
118769	19-501	SR 11 North and South over Fishing Creek	State Bridge	Medium	5	2
120083	19-204	D3 SEDA-COG Bridge Lighting	Roadway	Medium	2	1
120083	19-216	D3 SEDA-COG Bridge Lighting	Roadway	Medium	2	2
120083	19-215	D3 SEDA-COG Bridge Lighting	Roadway	Medium	3	3
120888	19-202	Columbia County Bridges Paint/Steel	State Bridge	Medium	1	2
120888	19-207	Columbia County Bridges Paint/Steel	State Bridge	Medium	2	1
120888	19-209	Columbia County Bridges Paint/Steel	State Bridge	Medium	1	3
120888	19-217	Columbia County Bridges Paint/Steel	State Bridge	Medium	2	4
120888	19-224	Columbia County Bridges Paint/Steel	State Bridge	Medium	4	2
120889	19-209	D3 SEDA-COG Bridges Paint/Steel	State Bridge	Medium	1	3
120889	19-409	D3 SEDA-COG Bridges Paint/Steel	State Bridge	Medium	2	1

MONTOUR COUNTY

MPMS	MUNI.	PROJECT	CATEGORY	IMPACT	M	LI
6303	47-203	T-396 over E Branch Chillisquaque Ck	Local Bridge	High	1	3
93524	47-203	SR 54 over Stony Brook	State Bridge	High	1	3
98507	47-204	SR 642 over Mouses Creek	State Bridge	High	2	1
98991	47-208	SR 54 WBL ov Mahoning Crk	State Bridge	Medium	2	2
100451	47-202	SR 2008 from Byrd Ave to Grovania Drv	Roadway	Medium	1	1
100483	47-208	SR 54 from SR 254 to SR 3008	Roadway	Medium	2	2
103841	47-204	T-308 over Beaver Run Bridge Removal	Local Bridge	High	2	1
103853	47-208	SR 54 Corridor Safety Improvement	Safety	High	2	2
106671	47-203	T-392 over Mud Run Bridge Removal	Local Bridge	High	1	3
107128	47-401	SR 54 under Market Street	State Bridge	Medium	3	1
109577	47-204	I-80 Bridge Piers Rehab	State Bridge	Medium	2	1
111599	47-401	Danville North Branch Canal Trail Levee Trail	TASA	Low	1	1
113972	47-203	SR 44 to SR 254	Roadway	Medium	1	3
114031	47-205	SR 54 to North'd Co Line	Roadway	Medium	1	1
115544	47-401	1500ft W of Montour St to Clinic Rd	Roadway	Medium	1	3
115545	47-206	Riverside to Columbia Hill Rd	Roadway	Medium	4	1
115545	47-207	Riverside to Columbia Hill Rd	Roadway	Medium	1	1
116227	47-401	Ferry St to Cherry St	Roadway	Medium	4	3
116308	47-206	Sechler Run to Columbia C	Roadway	Medium	1	1
117506	47-202	T-412 over Sechler Run	Local Bridge	High	1	1
117510	47-205	T-422 over Limestone Run	Local Bridge	High	2	1

118583	47-206	Bloom Rd Intersection	Roadway	Medium	4	1
120377	47-401	Railroad St to Clinic Rd	Roadway	Medium	3	2
NORTHUMBERLAND COUNTY						
MPMS	MUNI.	PROJECT	CATEGORY	IMPACT	M	LI
6615	49-213	SR 4020 over Little Shamokin Creek	State Bridge	Medium	2	1
6667	49-217	SR 4018 over Unnamed Trib Susquehanna	State Bridge	High	1	1
6725	49-101	SR 901 over SEDA-COG Railroad	State Bridge	Medium	5	1
6736	49-212	SR 2016 over Millers Run	State Bridge	High	2	1
78935	49-209	SR 225 over Mahantango Creek	State Bridge	Medium	1	1
79049	49-205	SR 3018 over Mahantango Creek	State Bridge	Medium	1	1
87994	49-201	SEDA-COG Scour Contract	State Bridge	Medium	2	1
88778	49-212	SR 54 over Unnamed Trib to Shamokin Creek	State Bridge	High	2	1
88798	49-213	Substructure Contract	State Bridge	Medium	2	1
97593	49-210	SR 54 from Locust Gap to Locust Summit	Roadway	Medium	1	1
98531	49-206	SR 1007 over Tributary of Warrior Run Creek	State Bridge	High	1	3
98674	49-221	SR 147 to Housels Run	Roadway	Medium	2	2
99009	49-101	SR 61 over SR 2026 & 901	State Bridge	Medium	5	3
99238	49-210	SR 54 Soil Slide Repair	Roadway	High	1	3
99327	49-402	16th St to 4th St	Roadway	High	4	2
99391	49-101	Kulpmont to Lancaster Switch	Roadway	Medium	5	1
102810	49-211	CSVT to SR 11	Roadway	Medium	1	1
102811	49-211	CSVT ITS	Roadway	Low	2	1
103917	49-213	T-696 over Plum Creek	Local Bridge	High	2	1
103928	49-301	8th St over Shamokin Crk	Local Bridge	Medium	2	3
108431	49-215	Miles Rd to Hollow Rd (SR 4015)	Roadway	Medium	2	1
109577	49-216	I-80 Bridge Piers Rehab	State Bridge	Medium	2	3
109833	49-211	SR 405 (CSVT Gap) from Eighth St to SR 147	Roadway	Medium	2	1
110224	49-101	SR 61 from 5th St to Dark Run	Roadway	Medium	4	2
110224	49-101	SR 61 from 5th St to Dark Run	Roadway	Medium	5	3
110224	49-402	SR 61 from 5th St to Dark Run	Roadway	Medium	3	3
110829	49-215	SR 61 - Paxinos Drainage	Roadway	Medium	1	1
111352	49-212	SVRR RRX Northumberland County	Safety	Low	2	1
111352	49-215	SVRR RRX Northumberland County	Safety	Low	1	1
111352	49-215	SVRR RRX Northumberland County	Safety	Low	2	1
111352	49-215	SVRR RRX Northumberland County	Safety	Low	2	1
111352	49-215	SVRR RRX Northumberland County	Safety	Low	2	1
111352	49-409	SVRR RRX Northumberland County	Safety	Low	2	1
111760	49-201	SR 44 to River Rd	Roadway	Medium	2	1
114134	49-216	SR 1016 over Muddy Run	State Bridge	High	2	3
114142	49-205	SR 3003 over Mouse Creek	State Bridge	High	1	1
114158	49-217	SR 4012 over Deicks Run	State Bridge	High	2	1
114175	49-217	SR 4004 over Tributary of Susquehanna River	State Bridge	High	2	1
114320	49-204	SEDA-COG Off System Bridge Paint	State Bridge	Medium	1	2
115507	49-221	Water St to SR 147	Roadway	Medium	2	2
115509	49-410	Pine St to Montour Co	Roadway	Medium	4	2
115579	49-216	North'd SR 254 Grind & Patch	Roadway	Medium	2	3
115584	49-302	Church St to Shikellamy Ave	Roadway	Medium	3	3
115821	49-213	SR 225 to SR 61	Roadway	Medium	2	1

116005	49-101	SR 61 to Ash St	Roadway	Medium	5	2
116005	49-402	SR 61 to Ash St	Roadway	Medium	4	3
117608	49-205	SR 3018 over Mahantango Creek	State Bridge	Medium	1	1
117615	49-211	SR 11 over W Branch Susquehanna River	State Bridge	Medium	2	1
118290	49-201	Lycoming Co Line to River Rd	Roadway	Medium	1	2
118341	49-302	Front St to 13th St	TASA	Low	3	3
119249	49-210	Columbia Co to 5th St	Roadway	Medium	1	3
119833	49-201	SR 54 Park and Ride Pipe Replacement	Roadway	Medium	2	2
120083	49-405	D3 SEDA-COG Bridge Lighting	Roadway	Medium	4	2
120083	49-405	D3 SEDA-COG Bridge Lighting	Roadway	Medium	4	2
120602	49-201	180/147 HTCMB Northumberland County	Safety	Low	2	1
120889	49-213	D3 SEDA-COG Bridges Paint/Steel	State Bridge	Medium	2	1
120889	49-213	D3 SEDA-COG Bridges Paint/Steel	State Bridge	Medium	2	1
120889	49-302	D3 SEDA-COG Bridges Paint/Steel	State Bridge	Medium	1	3
120889	49-409	D3 SEDA-COG Bridges Paint/Steel	State Bridge	Medium	2	1
SNYDER COUNTY						
MPMS	MUNI.	PROJECT	CATEGORY	IMPACT	M	LI
6797	54-210	SR 3016 over Aline Creek	State Bridge	High	1	1
6860	54-206	T-481 over Tuscarora Crk	Local Bridge	High	1	2
6899	54-211	SR 522 over Beaver Creek	State Bridge	High	2	2
6902	54-211	SR 522 over Tb Beaver Crk	State Bridge	High	2	2
6902	54-211	SR 522 over Tb Beaver Crk	State Bridge	High	2	2
6907	54-401	SR 522 over Tb Middle Crk	State Bridge	High	1	3
6909	54-401	SR 522 ov Tb Middle Creek	State Bridge	High	1	3
67736	54-206	Perlinson (T-488) Wolf Run	Local Bridge	High	1	2
76402	54-208	CSVT Structures South Sec	Roadway	High	3	1
76403	54-208	CSVT Paving South Sec	Roadway	High	3	1
87994	54-205	SEDA-COG Scour Contract	State Bridge	Medium	1	3
87994	54-210	SEDA-COG Scour Contract	State Bridge	Medium	1	1
87994	54-211	SEDA-COG Scour Contract	State Bridge	Medium	2	2
88798	54-208	Substructure Contract	State Bridge	Medium	3	1
97589	54-211	SR 4006 over Middle Creek	State Bridge	High	2	2
98548	54-209	SR 1011 over Tb Penn's Crk	State Bridge	High	1	3
98578	54-202	SR 3010 over Unnamed Trib to Middle Creek	State Bridge	High	1	3
98885	54-208	SR 204 to SR 11	Roadway	Medium	2	1
98887	54-208	SR 1023 to SR 1017	Roadway	Medium	3	1
99241	54-212	SR 11 from N. Main St to Penn's Creek	Roadway	Medium	1	2
102811	54-208	CSVT ITS	Roadway	Low	3	1
109837	54-203	Dry Run to Union Co	Roadway	Medium	2	2
110228	54-404	Penns Cr to SR 522 NB	Roadway	Medium	3	2
110229	54-404	Penns CR to SR 522 SB	Roadway	Medium	3	2
113787	54-208	Roosevelt Ave to SR 15/11 Split	Roadway	Medium	1	3
114143	54-215	SR 3006 over Trib of WB of Mahantango Crk	State Bridge	High	1	2
114176	54-210	SR 3016 over Trib of Mahantango Creek	State Bridge	High	1	1
114320	54-207	SEDA-COG Off System Bridge Paint	State Bridge	Medium	1	3
115551	54-208	SR 11 to Union Co	Roadway	Medium	3	1
115557	54-210	Troup Valley Rd to Heister Valley Rd	Roadway	Medium	1	1
115560	54-208	SR 11 to Union Co NB & SB	Roadway	Medium	3	1

116339	54-208	Old Trail Rd to App Rd	Roadway	Medium	2	1
116340	54-403	Gregor Hill Ln to Spring Alley	Roadway	Medium	2	3
116341	54-209	Smalsh Barrick Rd to Mountain Dr	Roadway	Medium	1	1
117579	54-201	SR 4016 over N Branch Middle Creek	State Bridge	Medium	1	1
119246	54-209	Snyder County RRX Improvements	Safety	Low	1	4
119246	54-404	Snyder County RRX Improvements	Safety	Low	3	1
120369	54-204	Ulsh Rd to N. Main St	Roadway	Medium	1	3
120882	54-210	T-356 over N Branch Mahantango Creek	Local Bridge	High	1	1
120883	54-205	T-399 over Trib to Middle Creek	Local Bridge	High	1	3
120889	54-404	D3 SEDA-COG Bridges Paint/Steel	State Bridge	Medium	3	2
UNION COUNTY						
MPMS	MUNI.	PROJECT	CATEGORY	IMPACT	M	LI
72352	59-203	T-421 over White Deer Hole Creek	Local Bridge	High	3	4
74042	59-201	SR 2001 over Buffalo Crk	State Bridge	Medium	2	2
87994	59-402	SEDA-COG Scour Contract	State Bridge	Medium	1	1
88798	59-205	Substructure Contract	State Bridge	Medium	1	2
88798	59-207	Substructure Contract	State Bridge	Medium	2	1
88798	59-210	Substructure Contract	State Bridge	Medium	4	4
97633	59-208	US 15 over Winfield Creek	State Bridge	Medium	2	1
97720	59-403	SR 3007 to Buffalo	Roadway	Medium	1	2
97746	59-205	JPM Rd to Col John Kelly	Roadway	Medium	1	1
98772	59-210	SR 1003 over Tributary to Little Buffalo Creek	State Bridge	High	2	3
98777	59-203	SR 1014 over South Creek	State Bridge	High	3	4
98786	59-201	SR 2003 over Tributary to Buffalo Creek	State Bridge	High	1	1
98826	59-401	SR 3006 over Cold Run	State Bridge	High	1	3
98828	59-207	SR 3014 over Turkey Run	State Bridge	High	2	1
99141	59-210	SR 1011 over Tributary to Susquehanna River	State Bridge	High	4	4
99242	59-203	US15 North Bound Lane Slope Failure Repair	Roadway	Medium	3	4
99249	59-210	SR 1011 from High St to SR 1010	Roadway	Medium	4	4
99273	59-203	White Deer Twp to Allenwood	Roadway	Medium	3	4
105516	59-209	I-80 W from Union County Line to Mile Run	Roadway	Medium	2	2
105516	59-206	I-80 W from Union County Line to Mile Run	Roadway	Medium	2	2
107303	59-210	Gray Hill Rd to Northumberland	Roadway	Medium	1	3
108425	59-210	Joe Rd to SR 1010	Roadway	Medium	1	3
110231	59-210	I-80 East form Mile Run to SR 1010	Roadway	Medium	1	3
110337	59-209	T-357 ov NB of Buffalo Creek Bridge Removal	Local Bridge	High	1	1
113459	59-204	T-319 over Penns Creek (Union Cnty #23)	Local Bridge	Medium	1	3
113612	59-209	I-80 West from Mile Run to SR 1010	Roadway	Medium	2	2
113612	59-210	I-80 West from Mile Run to SR 1010	Roadway	Medium	1	3
114379	59-208	Snyder Co Line to SR 304	Roadway	Medium	2	1
115565	59-203	S. Hill Rd to Columbia Ave	Roadway	Medium	3	4
116354	59-206	Penn St to Kaiser Run Rd	Roadway	Medium	2	2
117418	59-203	SR 15 to Susquehanna River	Roadway	Medium	3	4

(View Table 18 and Reference Map Figures 10 & 11 on the following pages)

Table 18. SEDA-COG MPO 2025-2028 Unmappable TIP Projects

DIST.	MPMS	PROJECT
2-0	92421	SC Bridge Plank/Channel Program
3-0	7588	Cent. Susq. Val. Sty
3-0	113590	Environmental Remediation & SCM Monitoring SEDA-COG
3-0	115593	Columbia Co 2025 Creak Seal
3-0	117758	24-25 RPM Contract SEDA-COG
3-0	117759	25-26 RPM Contract SEDA-COG
3-0	120928	26-27 RPM Contract SEDA-COG
3-0	120929	27-28 RPM Contract SEDA-COG
3-0	121000	Columbia Co 2026 Crack Seal
3-0	121001	Columbia Co 2027 Crack Seal
3-0	121002	Columbia Co 2028 Crack Seal
3-0	121004	Southern RAR 2026
3-0	121005	Southern RAR 2027
3-0	121008	Southern RAR 2028
3-0	121013	Southern RAR 2029

(View Reference Map Figures 10 & 11 on the following pages)

Mappable 2025-2028 TIP Projects & Ratio of Minority Population Percentage in Census Block Groups to the SEDA-COG MPO Minority Population Percentage

Source: PennDOT OneMap & US Census Bureau, 2017-2021 American Community Survey 5 Year Estimates
Map prepared by SEDA-COG GIS (2024)

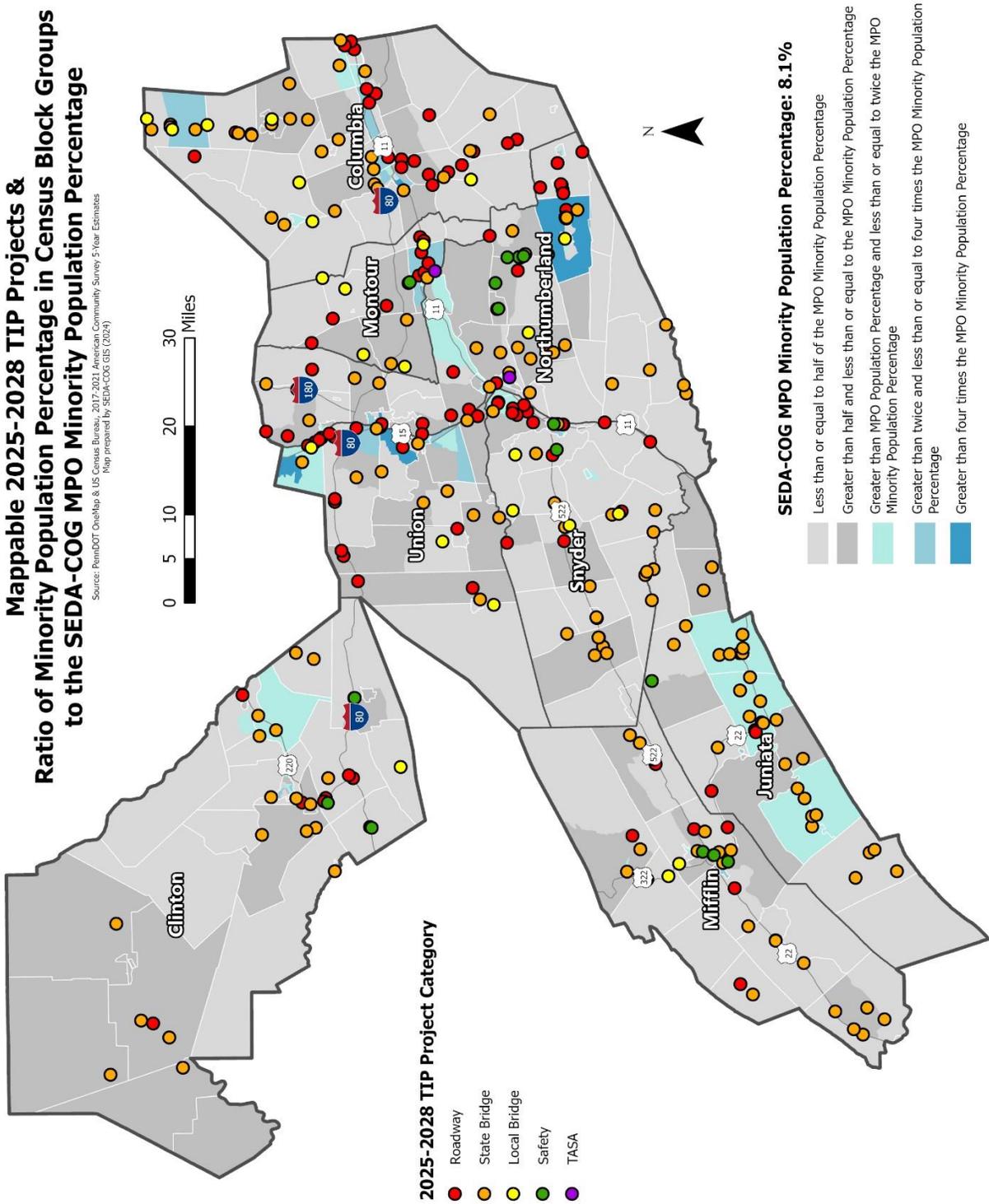


Figure 10. SEDA-COG MPO 2025-2028 TIP Projects- Minority Concentration Map

Mappable 2025-2028 TIP Projects & Ratio of Low-Income Population Percentage in Census Block Groups to the SEDA-COG MPO Low-Income Population Percentage

Source: PennDOT OneMap & US Census Bureau, 2017-2021 American Community Survey 5-Year Estimates
Map prepared by SEDA-COG GIS (2024)

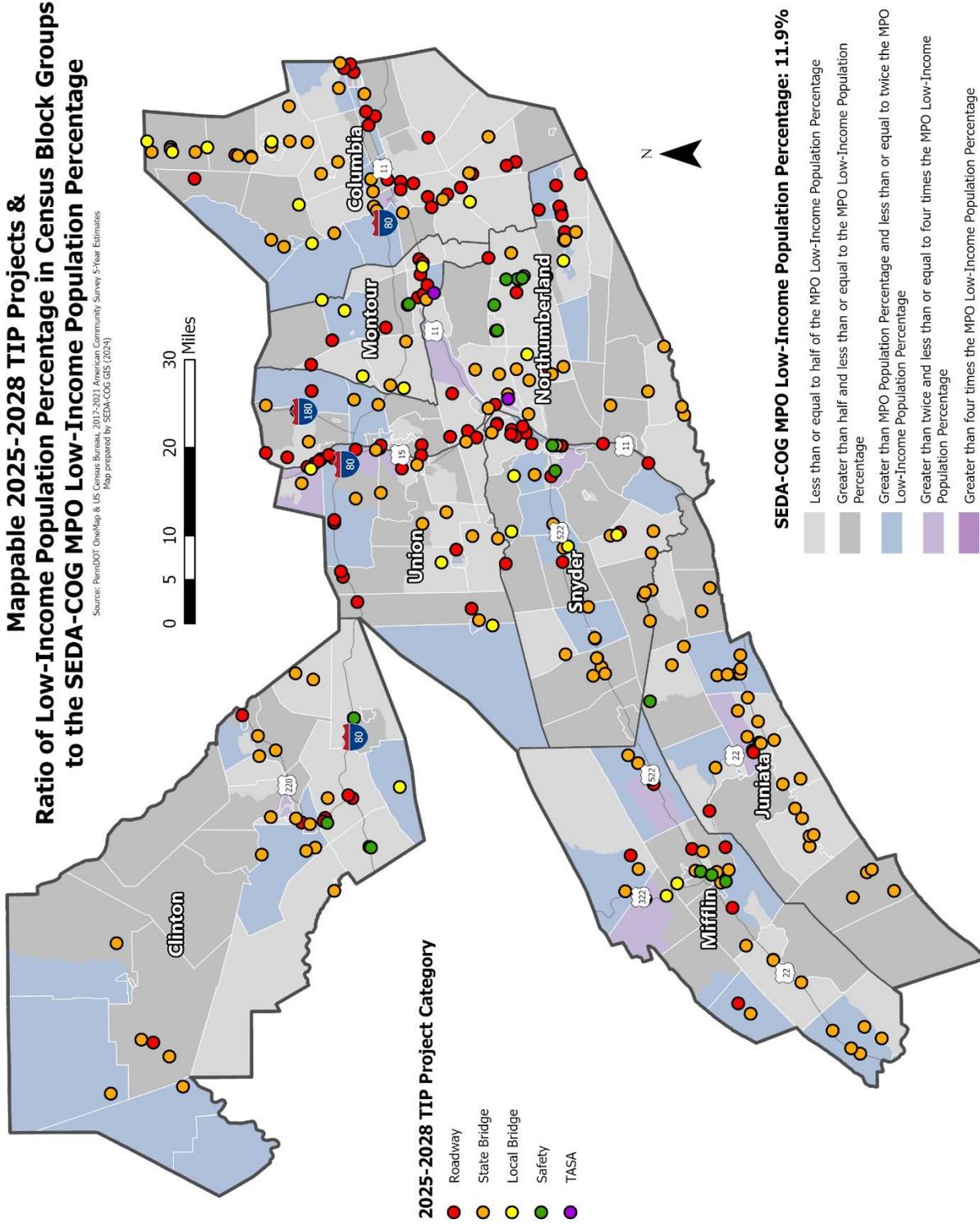


Figure 11. SEDA-COG MPO 2025-2028 TIP Projects- Low Income Concentration Map

Considerations

The SEDA-COG MPO has considered the needs of traditionally underserved populations in the development of the TIP by providing opportunities for public comment and completing this analysis to show spatially what specific transportation improvement projects are going to impact these populations. The vast majority of TIP projects relate to asset management and safety improvements, with limited occurrences of right-of-way acquisition. The projects located in high EJ population concentration areas may contribute to some short-term impacts during construction but will generally benefit EJ populations by improving travel conditions and safety for all transportation system users.

Upon examination of Table 17, there is only one project that is shown to have a high impact on the highest EJ population concentration interval (Minority, Interval 5): **MPMS #114157, SR 1027 over Tributary of Susquehanna River in the Borough of Berwick, Columbia County**. A thorough analysis of this project will be completed to ensure the mitigation of hardship on the EJ population of Berwick during its development.

Through this report and analysis, the SEDA-COG MPO was better able to highlight where areas of minority and low-income populations are located and what projects will impact their standard of living the most. Overall, this process allows better communication during the planning and construction progression to mitigate those impacts.

Online Map Viewer

An online map viewer has been developed by the SEDA-COG MPO in *ArcGIS Online* to display the maps/data outlined in this report in more detail.

Explore the Online Map Viewer at:

<https://experience.arcgis.com/experience/da9feb0bb67a4121aa81f716fbedc3db/>

Work Cited & Resources

1. United States Environmental Protection Agency (EPA). 2023. *Summary of Executive Order 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. US EPA. <https://www.epa.gov/laws-regulations/summary-executive-order-12898-federal-actions-address-environmental-justice>
2. United States Department of Transportation (DOT). 2019. *Environmental Justice*. DOT. <https://www.transportation.gov/transportation-policy/environmental-justice>

3. York Area Metropolitan Planning Organization. 2019. *South Central Pennsylvania Environmental Justice Unified Process and Methodology Guide. Volume I*. York County Planning Commission.
<https://ycpc.org/DocumentCenter/View/1219/Volume-I---Methodology-Guide>
4. Federal Highway Administration (FHWA). 2011. *Environmental Review Toolkit-Guidance on Environmental Justice and NEPA*. United States Department of Transportation (DOT).
https://www.environment.fhwa.dot.gov/env_topics/ej/guidance_ejustice-nepa.aspx#:~:text=Minority%3A%20Black%20or%20African%20American,Native%20Hawaiian%20or%20Pacific%20Islander
5. Department of Health & Human Services. 2024. *Federal Poverty Level (FPL)*. U.S. Centers for Medicare & Medicaid Services.
<https://www.healthcare.gov/glossary/federal-poverty-level-fpl/>
6. United States Census Bureau. 2017. *American Community Survey (ACS) Information Guide*. United States Department of Commerce, Economics and Statistics Administration.
https://www.census.gov/content/dam/Census/programs-surveys/acs/about/ACS_Information_Guide.pdf