

# CHAPTER 3

## REQUIREMENTS SPECIFIC TO MPOS

### **3.1 MPO LANGUAGE AND ACCESSIBILITY COSTS AND RESOURCES**

The MPO is committed to ensuring that its public documents and meetings are accessible to people with physical and/or cognitive disabilities, as well as to people with limited English proficiency. To that end, the MPO has allotted financial resources and staff time, as resources allow, accommodating these populations. Between April 1, 2016 and March 31, 2017, the MPO spent \$91,536 to provide materials in accessible formats (staff time costs), and \$3,354 on LEP services (staff time costs and as well as direct expenses associated with translation and interpretation services).

The MPO currently does not have statistics identifying the usage of translated and accessible documents on the MPO website. However, in 2017 staff initiated a comprehensive effort to collect this data via Google Analytics (see subsection 3.6 for more details on this effort).

No requests for interpretation services or for additional translations of MPO documents have been submitted in the last three years.

More details regarding the MPO's efforts to provide language services to LEP persons may be found in the Boston Region MPO's LAP (included in Appendix D) and in subsection 3.6. Details regarding the MPO's disability accommodations may be found in subsection 3.6.

### **3.2 DEMOGRAPHIC PROFILES**

Metropolitan planning organizations are required to develop demographic profiles for the purpose of identifying minority populations under the FTA's Title VI Circular 4703.1B. The MPO also prepares demographic profiles for other Title VI EJ, LEP, and low-income populations. The data gathered during these efforts, as well as the profiles themselves—which consist of detailed maps and tables—contribute to the MPO's planning and analysis efforts in the course of developing 3C documents and programs, conducting UPWP studies, and undertaking public outreach.

The MPO has also identified other transportation equity populations—elderly, people with disabilities, zero-vehicle households, and female-headed households with children—based on other federal regulations. They are part of the MPO's TE program to improve outreach to populations who may be particularly affected by changes in the region's transportation system and who may face significant barriers to participating in the MPO's planning process.

MPO staff updates demographic profiles as new data become available. For this report, data from the 2010 Decennial Census and the 2010–2014 American Community Survey (ACS) were used. Because the MPO uses the transportation analysis zone

(TAZ) as the unit of analysis, population and household totals are adjusted to the 2010 Decennial Census totals; therefore, region-wide totals vary slightly between populations.<sup>6</sup>

### 3.2.1 Definitions of Title VI Populations, Environmental Justice Populations, and Other Transportation Equity Populations

Demographic profiles identify those TAZs within the MPO's region that exceed the regional threshold set for each of the seven transportation equity populations identified above. For most, the regional threshold is defined as the average of the population within the MPO region. The exception is the low-income population, whose threshold is 60 percent of the region's median household income. Data from the 2010–2014 ACS show that the region-wide median income is \$76,040 and that the low-income threshold is \$45,624. This threshold is used in most efforts related to the MPO's Title VI reporting and in the MPO's TE program, as well as equity analyses conducted for the LRTP. The MPO selected the 60 percent threshold because it more accurately reflects the high cost of living in the region than does the federal poverty guidelines that the FTA and FHWA recommend as an alternative for the low-income threshold. (The MPO's proposed TIP equity analysis uses 200 percent of the poverty level as the low-income threshold; see subsection 3.3 for a discussion of the analysis. Staff currently is evaluating the use this threshold in the other aspects of the MPO's TE program.) Low-income populations are defined as readily identifiable groups of low-income persons who live in geographic proximity, or, if warranted, geographically dispersed or transient populations.

The MPO uses the FTA's and FHWA's definition of minority persons: people who are American Indian/Alaska Native; Asian; Black/African American; Hispanic/Latino, regardless of race; and/or Native Hawaiian or other Pacific Islander. Minority populations are defined as readily identifiable groups of minority persons who live in geographic proximity, or, if warranted, geographically dispersed or transient populations. Persons with limited English proficiency are defined by federal regulations as persons for whom English is not their primary language and who have a limited ability to read, write, or understand English. For the purposes of Title VI reporting, FTA defines LEP persons as those aged five and older who report to the U.S. Census Bureau that they speak English less than "very well."<sup>7</sup> (Non-LEP individuals are those who report speaking English "very well.") This definition is used by the MPO.

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<sup>6</sup> Because ACS data must be adjusted to the 2010 census population and household totals, the MPO will continue to use 2010–2014 ACS data until 2020 Census data is released, as it is the last ACS release that contains 2010 survey data.

<sup>7</sup> "Less than very well" includes individuals who report to the U.S. Census Bureau that they speak English "well," "not well," or "not at all."

### 3.2.2 Demographic Profiles for Title VI and EJ Populations

#### Minority

For the purposes of Title VI, individuals are classified as “minority” on the basis of both race and ethnicity. Table 1 shows the racial characteristics of the Boston Region MPO area, based on self-identification as one of the racial categories on the Census form. Table 2 shows the ethnic characteristics of the population—regardless of race—based on self-identification as being of Hispanic or Latino descent. Table 3 shows the total minority population for both race and ethnicity. Data for all three tables are derived from the 2010 Decennial Census, according to which 878,164 people belong to a minority race or ethnicity in the MPO region, or 27.8 percent of the total population. The largest racial minority group is Black/African American, making up 8.6 percent of the region’s population. Hispanics/Latinos, of any race, make up 9.1 percent of the region’s population.

**Table 1**  
**Racial Characteristics of the Boston Region MPO**

Racial Minority*	Population	Percent of Population
Black/African American	272,320	8.6%
American Indian/Alaska Native	7,625	0.2%
Asian	239,640	7.6%
Native Hawaiian/other Pacific Islander	1,052	0.03%
Another race	142,703	4.5%
Two or more races	84,889	2.7%
White	2,413,532	76.3%
<b>Total Racial Minority Population</b>	<b>748,229</b>	<b>23.7%</b>
<b>Total Population</b>	<b>3,161,761</b>	<b>100%</b>

\*Includes those who identify their ethnicity as either Hispanic/Latino or non-Hispanic/Latino.  
MPO = Metropolitan planning organization.  
Source: Source: Decennial US Census, 2010.

**Table 2**  
**Hispanic Characteristics of the Boston Region MPO**

<b>Ethnicity*</b>	<b>Population</b>	<b>Percent of Population</b>
Hispanic (White)	129,935	4.1%
Hispanic (non-White)	159,125	5.0%
Non-Hispanic (any race)	2,872,701	90.9%
<b>Total Hispanic Population</b>	<b>289,060</b>	<b>9.1%</b>
<b>Total Population</b>	<b>3,161,761</b>	<b>100%</b>

\*Includes those who identify as any race, including White.  
MPO = Metropolitan planning organization.  
Source: Source: Decennial US Census, 2010.

**Table 3**  
**Minority Characteristics of the Boston Region MPO**

<b>Minority</b>	<b>Population</b>	<b>Percent of Population</b>
Racial minority (Hispanic or non-Hispanic)	748,229	23.7%
Hispanic (White)	129,935	4.1%
<b>Total Minority Population</b>	<b>878,164</b>	<b>27.8%</b>
<b>Total Population</b>	<b>3,161,761</b>	<b>100.0%</b>

MPO = Metropolitan planning organization.  
Source: Source: Decennial US Census, 2010.

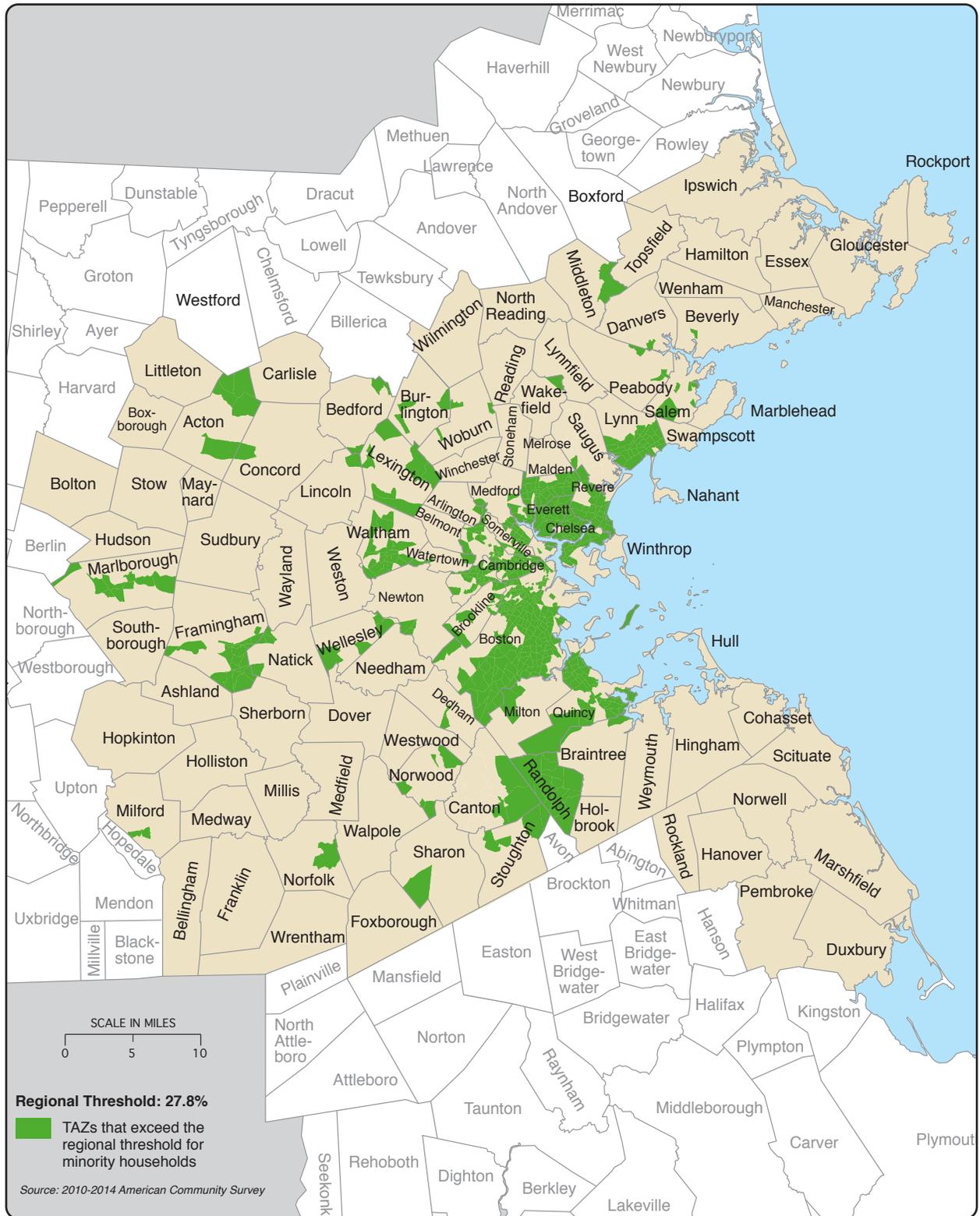
One-third of the MPO's 1,943 TAZs (653) exceed the regional minority threshold of 27.8 percent (Table 4). Figure 1 illustrates those TAZs that exceed the regional threshold for minority population.

**Table 4**  
**Minority Population and Transportation Analysis Zones**

<b>Total Population</b>	<b>Minority Population*</b>		<b>Total TAZs</b>	<b>Minority TAZs</b>	
	<b>Count</b>	<b>Regional Threshold</b>		<b>Count</b>	<b>Percent</b>
3,161,761	878,164	27.8%	1,943	653	33.6%

\*Includes all who identify as any race other than White (regardless of ethnicity), as well as those who identify their race as White and their ethnicity as Hispanic/Latino.  
 TAZ = Transportation analysis zone.  
 Source: Decennial US Census, 2010.

**Figure 1**  
**Minority Transportation Analysis Zones**



## Limited English Proficiency

Data from the 2010–2014 ACS show that 10.4 percent of the MPO population who are five years and older have limited English proficiency. Table 5 shows the number and percent of the general population and the LEP population that are LEP, as well as those TAZs that exceed the regional threshold of 10.4 percent.

**Table 5**  
**LEP Population and Transportation Analysis Zones**

Population ≥ 5 Years	LEP Population*		Total TAZs	LEP TAZs	
	Count	Regional Threshold		Count	Percentage
2,985,274	311,134	10.4%	1,943	606	31.2%

\*Persons who speak English less than “very well” according to the American Community Survey.  
LEP = Limited English proficiency. TAZ = Transportation analysis zone.  
Source: American Community Survey, 2010–2014.

Figure 2 shows where LEP TAZs are located within the MPO region. Maps that show the distribution of where safe harbor languages are spoken may be found in Appendix D, the Boston Region MPO’s 2017 Language Assistance Plan.



The MPO identified the region’s safe harbor languages as part of the LAP—non-English languages that are spoken “well,” “not well,” or “not at all” by at least 1,000 people or at least 5 percent of the population (whichever is less). These languages are listed in Table 6. Note that the number of LEP persons who speak safe harbor languages (286,379) is less than the total number of LEP persons in the region (310,999). This is because safe harbor languages do not include every non-English language that is spoken, only those that meet one or both of the thresholds. Spanish is the most commonly spoken non-English language, with approximately 105,380 speakers, which is 33.9 percent of all LEP persons and 3.5 percent of the entire population aged five and older. It is followed by Chinese, Portuguese, French Creole, and Vietnamese. Speakers of safe harbor languages make up 9.6 percent of the region’s population age five and older.<sup>8</sup>

Although the MPO identifies all of the safe harbor languages within the region, vital documents are not translated into all of these languages. The MPO does not come into contact with LEP persons on a frequent or regular basis; thus, translating vital documents into all 19 safe harbor languages would be unnecessarily cost-prohibitive. Additionally, while transportation improvements resulting from the MPO’s planning and programming decisions have an impact on all residents’ mobility and quality of life, denial or delay of access to the MPO’s activities would not have immediate or life-threatening implications for LEP persons.

The MPO will continue to evaluate language needs and balance these with available resources by collecting website translation usage, reaching out to LEP persons and organizations that represent them, and analyzing language datasets such as the ACS.

**Table 6**  
**Safe Harbor Languages Spoken in the Boston Region MPO**

Language	LEP Population <sup>a</sup>	Pct. of LEP Population <sup>b</sup>	Pct. of MPO Population
Spanish	105,380	33.9%	3.5%
Chinese	49,909	16.0%	1.7%
Portuguese	34,795	11.2%	1.2%
French Creole	21,566	6.9%	0.7%

<sup>8</sup> Data suppression inherent to language tables in the ACS causes LEP totals from these data to differ from those in the ACS tables from which overall English language proficiency is derived. The total LEP population from the language tables is 310,999, while the LEP population estimate is 311,134 from the English language proficiency tables. To address this issue, the MPO uses overall English language proficiency totals when calculating the LEP population for the region, and uses the language LEP population when identifying safe harbor languages.

**Table 6 (cont.)**

Language	LEP Population <sup>a</sup>	Pct. of LEP Population <sup>b</sup>	Pct. of MPO Population
Vietnamese	15,086	4.9%	0.5%
Russian	11,761	3.8%	0.4%
Arabic	9,747	3.1%	0.3%
Italian	7,792	2.5%	0.3%
French	5,796	1.9%	0.2%
Korean	5,330	1.7%	0.2%
Greek	3,701	1.2%	0.1%
Mon-Khmer, Cambodian	3,145	1.0%	0.1%
Japanese	2,749	0.9%	0.1%
Hindi	2,063	0.7%	0.1%
Polish	1,747	0.6%	0.1%
Armenian	1,627	0.5%	0.1%
Gujarati	1,562	0.5%	0.1%
Tagalog	1,376	0.4%	0.0%
Persian	1,247	0.4%	0.0%
<b>Total LEP Safe Harbor Language Speakers</b>	<b>286,379</b>	<b>92.1%<sup>c</sup></b>	<b>9.6%</b>
<b>Total LEP Population</b>	<b>310,999</b>	<b>100.0%</b>	<b>10.4%</b>
<b>Total LEP Population ≥ 5 Years</b>	<b>2,985,333</b>	<b>N/A</b>	<b>100.0%</b>

<sup>a</sup>Persons who speak English less than “well,” not well,” or “not at all” according to the ACS. Non-LEP individuals are those who report speaking English “very well.”

<sup>b</sup>The total LEP population used in this column is 310,999. Note that it differs from the estimate given in Table 5 (311,134). See Footnote 4 for an explanation.

<sup>c</sup>7.9% of LEP persons does not speak a safe harbor language.

LEP = Limited English proficiency. MPO = Metropolitan planning organization. N/A = Not available or applicable.

Source: American Community Survey, 2010–2014.

## Low-income

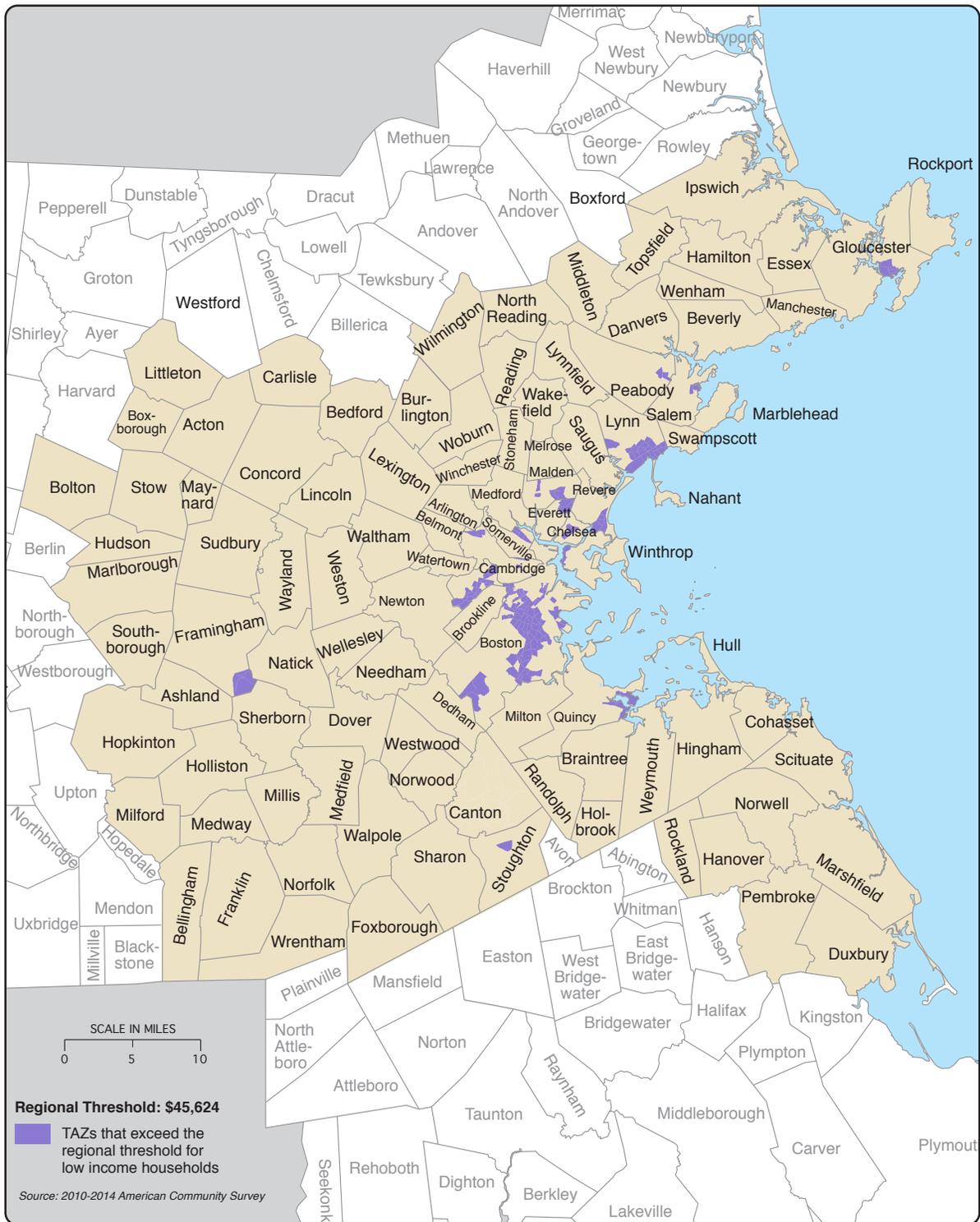
Table 7 shows the number of low-income households in the region and the number of TAZs with a median household income that falls below the regional threshold of \$45,624. Of the 1,943 TAZs in the MPO region, 10.0 percent are low-income TAZs, while 32.2 percent of households are in low-income TAZs. Figure 3 shows the location of low-income TAZs in the MPO region.

**Table 7**  
**Low-income Households and Transportation Analysis Zones**

Median HH Income	Regional Threshold	Total HHs	Low-income HHs		Total TAZs	Low-income TAZs	
			Count	Pct.		Count	Pct.
\$76,040	\$45,624	1,243,195	399,815	32.2%	1,943	194	10.0%

HH = Household. TAZ = Transportation analysis zone.  
Source: American Community Survey, 2010–2014.

**Figure 3**  
**Low-Income Transportation Analysis Zones**



### 3.2.3 Demographic Profiles for Other TE Populations

In addition to the populations protected under Title VI and the EJ EO, FHWA includes populations defined on the basis of sex, age, and disability under its Title VI/non-discrimination program. The MPO consequently includes other populations in its TE program with the goal of improving their access to the MPO's transportation-planning process and considering their needs in the decision-making process.

To select additional populations, the MPO identified indicators of potential disadvantage. These are based on demographic characteristics that are associated with populations that rely heavily on public transportation, have limited resources to adapt to significant changes in the transportation system, and are under-represented in the metropolitan transportation-planning process. In addition to minority, low-income, and LEP status, the indicators of potential disadvantage that the MPO selected include the concentrations of people with disabilities, the elderly (75 years of age and older), female-headed households with children (FHWC), and zero-vehicle households. MPO staff makes concerted efforts to understand the transportation needs of these populations through a combination of data analysis and public outreach.

In demographic profiles, the MPO identifies TAZs in which the population of each indicator of potential disadvantage equals or exceeds the percent in the entire MPO region. The maps that show the distribution of these TAZs for elderly, female-headed households with children, people with disabilities, and zero-vehicle households are contained in Appendix E of this report. Table 8, below, shows the distribution of TAZs that exceed the regional thresholds for each of the four other indicators of potential disadvantage.

**Table 8**  
**Other Transportation Equity Populations**

TE Population	MPO Population or HHs	TE Population or HHs	TE Pct of MPO Population or HHs	Total MPO TAZs	TE TAZs	Pct. TE TAZs
Elderly population	3,161,844	211,355	6.7%	1,943	744	38.3%
Female-headed households with children	1,243,176	143,781	11.6%	1,943	622	32.0%
People with disabilities	3,161,436	317,559	10.0%	1,943	816	42.0%
Zero-vehicle households	1,243,223	197,898	15.9%	1,943	659	33.9%

MPO = Metropolitan planning organization. HH = Household. TE = Transportation Equity  
TAZ = Transportation analysis zone.

Sources: American Community Survey, 2010–2014; Decennial US Census, 2010.

### *Elderly*

The MPO considers elderly persons those who are 75 years of age or older. As of the 2010 Decennial Census, 6.7 percent of the MPO’s population (211,355 people) is elderly (Figure E-1, Appendix E), and 38.3 percent, or 744 TAZs, equals or exceeds the threshold based on the regional average of 6.7 percent.

### *Female-Headed Households with Children*

Female-headed households with children are family households maintained by a female in which no spouse is present (Figure E-2, Appendix E). The region has 197,898 FHWC households, which is 11.6 percent of all households, and 32.0 percent, or 622 TAZs, equals or exceeds the threshold based on the regional average of 11.6 percent.

### *People with Disabilities*

This profile includes people with a physical or cognitive disability, as self-reported in the 2010–2014 ACS. Ten percent of the population (or 317,559 people) has a disability (Figure E-3, Appendix E). Forty-two (42) percent of TAZs equal or exceed the threshold based on the regional average of 10.0 percent.

### *Zero-Vehicle Households*

The final demographic indicator is households that do not have access to a personal vehicle (Figure E-4, Appendix E). Out of 1,243,223 households, 15.9 percent, or 197,898,

do not have access to a vehicle, and thus rely on other means of transportation. Of the TAZs in the region, 33.9 percent, or 659 TAZs, equals or exceeds the threshold based on the regional average of 15.9 percent.

In response to comments during the Boston Region MPO's latest certification review, the MPO has also identified populations of youth (younger than age 18) and those who live in group quarters.

## Youth

The MPO region contains 655,290 people who are younger than 18 years, or 20.7 percent of the population (Figure E-6, Appendix E). Table 9 below shows the age distribution of the MPO region's population.

**Table 9**  
**Age Distribution of Boston Region MPO**

Age Group	Population	Pct. of Population
Younger than five years	176,380	5.6%
Five to nine years	179,023	5.7%
10 to 14	184,084	5.8%
15 to 19 years	212,981	6.7%
Younger than 18 years	655,290	20.7%
20 to 24	248,446	7.9%
25 to 29	248,700	7.9%
30 to 34	215,618	6.8%
35 to 39	208,006	6.6%
40 to 44	223,929	7.1%
45 to 49	240,779	7.6%
50 to 54	229,927	7.3%

**Table 9 (cont.)**

<b>Age Group</b>	<b>Population</b>	<b>Pct. of Population</b>
55 to 59	200,307	6.3%
60 to 64	170,433	5.4%
65 to 69	121,557	3.8%
70 to 74	90,319	2.9%
75 and older	211,355	6.7%
65 and older	423,231	13.4%
<b>Total</b>	<b>3,161,844</b>	<b>100.0%</b>

Source: Decennial US Census, 2010.

### *Group Quarters*

The MPO has also identified people who live in group quarters within the MPO region (Figure E-7, Appendix E). These people do not live in housing units (house, apartment, mobile home, or rented rooms); rather, they live in institutional group quarters that include correctional facilities, nursing homes, and mental hospitals; or in non-institutional group quarters that include college dormitories, military barracks, group homes, missions, and shelters. Within the MPO region, 31,302 people live in institutional group quarters, and 93,107 people live in non-institutional group quarters. Of the latter, 78,812 people live in college dormitories, which represents 63.4 percent of the group quarters population.

### *Demographic Profile for Communities of Potential Disadvantage*

For public participation purposes, the MPO has developed a method to identify communities that may be especially vulnerable to changes in the transportation system, and that might be excluded from participating in the MPO's transportation planning process. These are called "communities of potential disadvantage." Knowing about them helps the MPO to prioritize its outreach to and communication with these communities; and staff anticipates that it will use this identification method for public participation purposes in the upcoming fiscal year.

The MPO now defines communities of potential disadvantage as TAZs in which the percent of the population meets the MPO's regional thresholds for either 1) minority or low-income, or 2) three other demographic indicators (such as LEP, elderly, FHWC, people with disabilities, or zero-vehicle households). There is no minimum population a TAZ must have for it to be considered a community of potential disadvantage. Figure E-5 in Appendix E shows the TAZs in the region that are communities of potential disadvantage. It indicates that 1,382,811 people live in communities of potential disadvantage, within 52 municipalities; 809 TAZs, or 41.6 percent, are communities of potential disadvantage.

This analysis is an important source of information for the MPO's public participation efforts, as it helps to identify opportunities for public outreach with communities that are the most at risk of not being heard. It also provides information about how to address the language needs of communities. Identifying communities of potential disadvantage does not replace the MPO's practice of recognizing individual populations within TAZs; rather, it contributes to the MPO's public outreach as it allows staff to identify communities that are potentially at the greatest risk of not being involved in the MPO transportation-planning process.

### **3.3 IDENTIFICATION OF BENEFITS AND BURDENS**

The potential impacts of proposed projects—disparate impacts for minority populations and disproportionate burdens for low-income populations—have been considered in the MPO's LRTP since 2006. In addition, the MPO recently undertook an effort to develop a methodology that will enable staff to do a similar analysis for the MPO's TIP. The goal of both analyses is to determine whether projects within each plan/program would cause disparate impacts or disproportionate burdens to minority or low-income communities compared to non-minority and non-low-income communities. The MPO calls this type of analysis an equity analysis.

To complete an equity analysis, although not required to, MPO staff has developed a draft disparate impact/disproportionate burden policy that sets thresholds for determining whether a set of projects will cause a disparate impact or disproportionate burden for minority and low-income populations, respectively. The analysis comprises several steps. First, the MPO uses a travel demand model to evaluate the impacts of a collection of projects. Selected metrics are calculated for minority, non-minority, low-income, and non-low-income populations. This is done twice, once for the build scenario and once for the no-build scenario. Then, for each population, the differences between the results of the two scenarios are calculated. Finally, these results are compared: between minority and non-minority populations and between low-income and non-low-income populations. If the ratio of each equals or exceeds the threshold of 1.20, then there is a disparate impact or disproportionate burden, respectively.

The threshold of 1.20—which is widely used by other MPOs—is based on two insights. First, because the model will never produce perfect results, a 10 percent margin of error is included in the model as a matter of course. Second, staff has determined that as much as a 10 percent difference in receipt of benefits or burdens is reasonable. Therefore, the MPO’s policy states that a disparate impact exists for a metric if the result shows that minority populations are subject to 20 percent or more of a burden or receive 20 percent or less of a benefit relative to non-minority populations. A disproportionate burden exists if low-income populations are subject to 20 percent or more of a burden or receive 20 percent or less of a benefit relative to non-low-income populations. As a part of the TE program, staff will revisit this draft policy and anticipates that it will be finalized during FFY 2018.

### 3.3.1 Long-Range Transportation Equity Analyses

In 2015, the MPO adopted a new LRTP, *Charting Progress to 2040*. Using the thresholds in the draft DI/DB policy, staff performed an equity analysis on two scenarios to determine whether the projects in the proposed plan would cause a disparate impact or disproportionate burden to minority and low-income populations, respectively. The MPO’s draft DI/DB policy states that if the ratio between the investments for low-income/minority and non-low-income/non-minority populations exceeds 1.20, then a disparate impact or disproportionate burden exists. (You may find the full analysis in Appendix F, along with an updated analysis resulting from a 2016 LRTP amendment.) The draft policy was developed in the context of the LRTP, and is not meant to be used for other analyses that need a DI/DB policy. Based on recent studies, staff has determined that different DI/DB policies should be developed for the TIP equity analysis (see subsection 3.3.2) and the analysis of TIP public transit investments (see subsection 3.4.2), and that all three DI/DB policies should set distinct thresholds for each metric that is being analyzed.

The two scenarios analyzed in the LRTP are:

1. **No-build scenario:** the set of projects that are currently funded by the MPO until 2040
2. **Build scenario:** the set of projects recommended in the LRTP, in addition to those that are currently funded, through 2040

The analysis looked at how the scenarios would impact mobility, accessibility, and auto emissions for low-income and minority communities, and compared these impacts to those on non-low-income and non-minority communities.

These three categories included the following metrics:

- **Accessibility:**
  - o Average transit travel times within a 40-minute transit ride to 1) industrial, retail, and service jobs; 2) institutions of higher education (weighted by enrollment); and 3) hospitals (weighted by number of beds)
  - o Average highway travel times within a 20-minute drive to 1) industrial, retail, and service jobs; 2) institutions of higher education (weighted by enrollment); and 3) hospitals (weighted by number of beds)
- **Mobility:**
  - o Average transit travel times for trips produced and attracted to each TAZ
  - o Average highway travel times for trips produced and attracted to each TAZ
- **Emissions:**
  - o Average congested vehicle-miles traveled (VMT)
  - o Average VMT
  - o Carbon monoxide emitted per square mile

The results showed that the recommended projects in *Charting Progress to 2040* would not cause disparate impacts or disproportionate burdens to minority or low-income populations for any of the metrics. The MPO will continue to examine and refine the methodology used for this analysis in future L RTPs in order to ensure that it accurately reflects best practices as well as the transportation challenges that low-income and minority communities within the region face.

### 3.3.2 Transportation Improvement Program Equity Analysis

In 2016 and 2017, MPO staff undertook a UPWP study, *Systemwide Title VI/ Environmental Justice Assessment of TIP Projects*, to develop a methodology for determining whether programmed projects, in the aggregate, within a given TIP will cause disparate impacts for minority populations and disproportionate burdens for low-income populations. The goal of this was to develop a workable “proof-of-concept” that showed that the analysis could be completed.

The study was performed on roadway projects in the FFYs 2016–2020 TIP. Staff selected two metrics with which to analyze the impacts on drivers traveling on TIP project roads, traffic safety, and travel time. New analysis methods were developed

that used the travel demand model as well as off-model approaches. Staff successfully developed a “proof-of-concept” methodology, showing that identifying disparate impacts and disproportionate burdens on minority and low-income populations is feasible. Because the methodology has not been finalized, the results are not presented here. The MPO expects to finalize the methodology in FFY 2018.

The methodology will continue to be refined, and DI/DB policy will be developed that determines whether the results of this analysis cause disparate impacts and disproportionate burdens. Based on the challenges they encountered during the study, MPO staff identified several potential modifications to the methodology that they will examine. These include analyzing people who live adjacent to TIP projects, exploring additional roadway user metrics, and including public transit projects in the analysis. Other methodological refinements related to the MPO’s travel demand model are also planned. It is anticipated that the final methodology will be used on future TIPs adopted by the MPO.

### **3.4 ANALYSES OF FEDERAL FUNDS DISTRIBUTION**

The Boston Region MPO has completed three analyses that examined the distribution of TIP funding. The first consists of a geography-based method that determined the percent of Title VI, EJ, and other protected populations that are served by TIP projects of all modes. The second is a funding distribution analysis that shows where TIP projects are located relative to the location of TAZs that exceed the minority and/or low-income thresholds. The third TIP analysis is a use-based method, which, based on the share of their use of public transit, analyzes the impacts of the distribution of state and federal funds for public transit purposes in the aggregate to low-income and minority passengers. Staff also completed an analysis that examined the geographical distribution of UPWP funds among municipalities in the MPO region. As per federal guidance, minority and low-income populations were analyzed separately in all three analyses.

#### **3.4.1 Geographical Distribution Analysis and Mapping of TIP Projects**

MPO staff completed an analysis and map of projects in the FFYs 2017–2021 TIP. This report examined the distribution of all MPO target-funded projects that serve TAZs that exceed regional thresholds for TE populations, relative to their population within the MPO region. The map shows the location of transit projects in the TIP, overlaid upon TAZs that exceed the regional thresholds of low-income and/or minority populations.

## *Analysis of TIP Target-funded Projects*

MPO staff analyzed target-funded projects in the FFYs 2017–2021 TIP to assess whether they were distributed equitably among TAZs that exceed the regional thresholds of TE populations. These populations were: minority, low-income, LEP, elderly, people with disabilities, and zero-vehicle households. The regional threshold for each TE population was based on the average percent of that population in the MPO region, with the exception of the low-income group. For many years, the MPO has set the threshold for low-income at 60 percent of the MPO region’s median household income. The MPO included low-income populations and other transportation equity populations in order to understand how transportation investments impact EJ and other vulnerable populations.

Table 10 shows the percent of each TE population (persons or households) that is served by TIP projects, as well as the entire population that is served. A project was considered to serve a TE population if it was located within one-half mile of a TAZ in which a TE population exceeded its regional threshold. (The thresholds are the same as those identified in the demographic profiles in section 3.2.) The fourth column shows the percent of the TE population or households that were served. These exceeded the respective thresholds for all of the TE populations, indicating that projects within the TIP were equitably distributed among residents who belong to TE populations and those that do not, relative to their proportion of the total population.

**Table 10**  
**Transportation Equity Populations Served by MPO Investments in**  
**FFYs 2017–2021 TIP**

TE Population	TE Population/ HHs Served	Total Population/ HHs Served	Pct. TE Population/ HHs	Regional Threshold
Minority population	138,618	323,265	42.9%	27.8%
Low-income households	50,815	128,028	39.7%	32.2% <sup>a</sup>
LEP population	53,531	304,904	17.6%	10.4%
Elderly population <sup>b</sup>	44,555	323,265	13.8%	6.7%
Population with disabilities	32,631	320,135	10.2%	10.0%
Zero-vehicle households	35,947	128,028	28.1%	15.9%

a The income threshold is \$45,624.

b Age 75 years or older.

HH = Household. LEP = Limited English proficiency. TE = Transportation Equity.

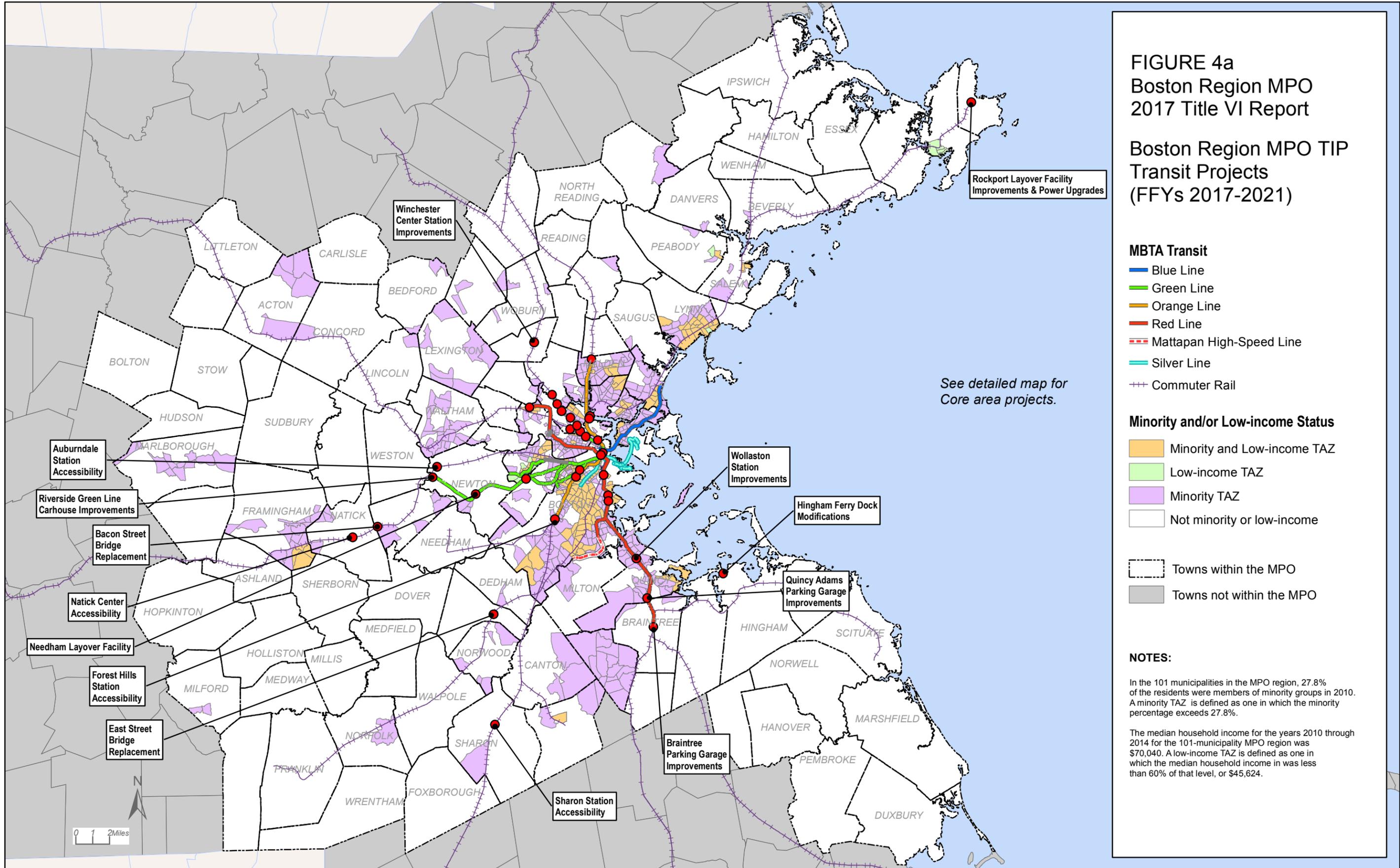
Sources: American Community Survey, 2010–2014; Central Transportation Planning Staff; Decennial US Census, 2010.

### *Mapping of TIP Public Transit Projects*

Figures 4a and 4b show the location of transit projects in the FFYs 2017–2021 TIP in the MPO region, as well as the location of TAZs that exceed the thresholds for low-income and/or minority populations. The projects included are only those with a physical location, such as improvements to stations, garages, and commuter rail or subway lines. Vehicle purchases, for example, are not included. The maps also do not indicate whether the investments are system-wide or which transit lines or passengers they benefit. To investigate the distribution of these benefits, staff undertook an analysis of all public transit investments whether or not they were mapped; these are described in subsection 3.4.2.

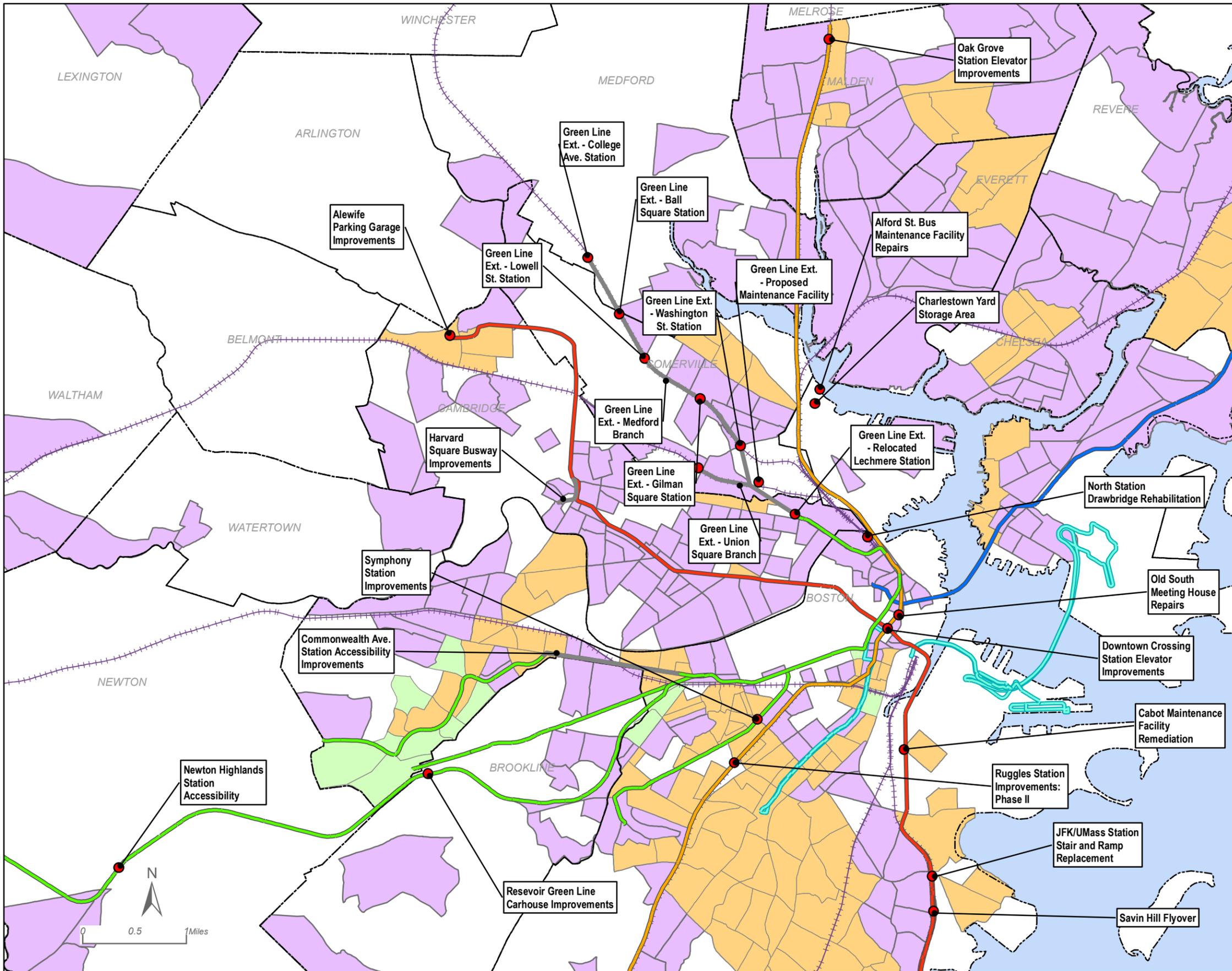
There are several data challenges that would facilitate a more accurate mapping of public transit-related TIP projects. For example, beyond the first year of the TIP, it is often unclear which projects will be undertaken under the various MBTA

funding programs. Data are especially scarce for bus improvements, such as vehicle acquisition—that is, for which lines or garages will the new buses be used. Without this information, bus improvements cannot be mapped. Similarly, transit funding programs such as the elevator program, positive train control, and systems upgrades often cannot be mapped because the stations, facilities, or lines that will receive the improvements have not yet been identified. (These challenges are also applicable to the analysis of public transit-related TIP projects described in subsection 3.4.2. They are compounded by the fact that ridership data will necessarily be coarse as some of the funding programs have not yet been allocated to specific routes and lines.)



**FIGURE 4b**  
**Boston Region MPO**  
**2017 Title VI Report**

**Boston Region MPO TIP**  
**Transit Projects**  
**(FFTs 2017-2021):**  
**Detailed Map**



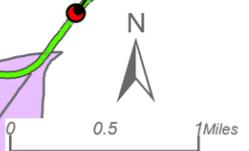
- MBTA Transit**
- Blue Line
  - Green Line
  - Orange Line
  - Red Line
  - Mattapan High-Speed Line
  - Silver Line
  - Commuter Rail

- Minority and/or Low-income Status**
- Minority and Low-income TAZ
  - Low-income TAZ
  - Minority TAZ
  - Not minority or low-income
- Towns within the MPO
- Towns not within the MPO

**NOTES:**

In the 101 municipalities in the MPO region, 27.8% of the residents were members of minority groups in 2010. A minority TAZ is defined as one in which the minority percentage exceeds 27.8%.

The median household income for the years 2010 through 2014 for the 101-municipality MPO region was \$70,040. A low-income TAZ is defined as one in which the median household income in was less than 60% of that level, or \$45,624.



### 3.4.2 Analysis of TIP Public Transit Investments

In keeping with FTA Title VI requirements, the MPO analyzed the distribution to low-income and minority passengers of state and federal funds in the aggregate for public transit projects in the FFYs 2017–2021 TIP. Included in this analysis were MBTA, MetroWest Regional Transit Authority (MWRTA), and Cape Ann Transportation Authority (CATA) projects, as well as MPO target-funded transit projects. Projects were included only if they were expressly for transit purposes, such as infrastructure improvements, maintenance, and vehicle purchases, and if they were funded with state and/or federal dollars. Roadway improvements were not included, even if they would potentially benefit bus passengers. The analysis was performed with the assumption that all investments result in a net benefit to transit passengers.

#### *Analytical Methodology*

Public transit ridership was derived from the 2008–2009 MBTA Systemwide Passenger Survey (SPS). Respondents were divided into four populations: low-income or non-low-income and minority or non-minority. Data from the 2010 Census and ACS were used to calculate thresholds for low-income and minority populations within the MPO because these data releases were concurrent with the SPS. Using data from the 2010 ACS, low-income respondents were those whose annual household income was less than 60 percent of the MPO region's median household income of \$70,829, or \$42,427. (However, the SPS income category that most closely matched the low-income threshold was between \$43,000 and \$39,999. Therefore, any respondent who selected this category or a lower income one was considered low-income for the purposes of this analysis.) Minority respondents were those who reported being American Indian or Alaskan Native, Asian, Black/African American, Hispanic/Latino of any race, and/or Native Hawaiian or Pacific Islander in the 2010 Decennial Census. Tables 11 and 12 show the transit mode shares from the SPS for low-income, non-low-income, minority, and non-minority respondents. Note that the totals are not identical because of the variation in weights<sup>9</sup> that were applied to each population.

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<sup>9</sup> The SPS only sampled a portion of the total ridership. Therefore, the survey responses from each station or route were weighted to equal typical boardings during the survey hours using the most recently available ridership figures.

**Table 11**  
**MBTA Ridership by Minority Status**

Transit Mode	Minority	Non-minority	Percent Minority	Pct. Non-minority
Rapid transit	81,183	203,518	28.5%	71.5%
Bus	94,461	104,489	47.5%	52.5%
Commuter rail	7,894	46,864	14.4%	85.6%
Commuter boat	140	2,219	5.9%	94.1%
<b>MBTA System Total</b>	<b>183,678</b>	<b>357,090</b>	<b>34.0%</b>	<b>66.0%</b>

Source: MBTA Systemwide Passenger Survey, 2008–2009.

**Table 12**  
**MBTA Ridership by Income**

Transit Mode	Low-income	Non-low-income	Percent Low-income	Pct. Non-low-income
Rapid transit	64,107	201,869	24.1%	75.9%
Bus	74,127	104,666	41.5%	58.5%
Commuter rail	3,602	46,682	7.2%	92.8%
Commuter boat	97	2,006	4.6%	95.4%
<b>MBTA System Total</b>	<b>141,932</b>	<b>355,222</b>	<b>28.5%</b>	<b>71.5%</b>

Source: Central Transportation Planning Staff; MBTA Systemwide Passenger Survey, 2008–2009.

The analysis compared the investment per passenger for the low-income population to that for the non-low-income population and the investment per passenger for the minority population to that for the non-minority population.

The following steps were taken to determine the investment per passenger:

1. Using the SPS, the ridership percentages of minority, non-minority, low-income, and non-low-income populations were calculated for each transit mode (bus, rapid transit, commuter rail, and commuter boat). Percentages were also calculated by line for rapid transit and commuter rail.
2. Ridership percentages for each project were based on the mode/line percentages calculated in step one.
3. For each project, state and federal funding was multiplied by the ridership percentage. If the project resulted in a system-wide improvement, the ridership funding was multiplied by the system-wide ridership. This resulted in the per-project investment for low-income, non-low-income, minority, and non-minority passengers. These were summed by population across all projects to get the total investment for each population.
4. The investment per passenger for each of the populations was calculated by dividing the total investment by the total ridership.
5. Finally, the ratio of investments per passenger between minority and non-minority populations and between low-income and non-low-income populations was determined.

### *Results of the Analysis*

Table 13 shows the total transit investments and percent of all transit investments for minority and non-minority passengers. The investment per passenger is shown in column five of Tables 13 and 14. Table 13 shows the total transit investments and percent of all transit investments for minority and non-minority passengers. Approximately 26.0 percent of the transit investments benefit minority riders, who consist of 34.0 percent of all public transit passengers within the MPO region. Although the investment per passenger for both low-income and minority populations is lower, compared to non-low-income and non-minority populations, respectively, this does not necessarily indicate that a disparate impact or disproportionate burden exists. The results should be compared over time to determine whether action by the MPO is necessary, and because this is a new analysis for the MPO, such a comparison is not yet possible. Additionally, the MPO plans to develop a DI/DB policy that determines whether the results of this analysis cause disparate impacts and disproportionate burdens.

**Table 13**  
**TIP Public Transit Investments by Minority Status**

Population	Total Transit Investment	Pct. of Investment	Pct. of Passengers	Per Passenger Investment
Minority	\$742,979,926	26.0%	34.0%	\$4,045
Non-minority	\$2,119,704,091	74.0%	66.0%	\$5,936
<b>Total</b>	<b>\$2,862,684,018</b>	<b>100.0%</b>	<b>100.0%</b>	<b>N/A</b>

N/A = Not applicable or available.

Sources: Central Transportation Planning Staff; MBTA Systemwide Passenger Survey, 2008–2009.

Table 14 shows the total transit investments and percent of all transit investments for low-income and non-low-income passengers. Approximately 22.8 percent of the transit investments benefit minority riders, who consist of 28.5 percent of the all public transit passengers within the MPO region.

**Table 14**  
**TIP Public Transit Investments by Income**

Population	Total Transit Investment	Pct. of Investment	Pct. of Passengers	Per Passenger Investment
Low-income	\$653,743,689	22.8%	28.5%	\$4,606
Non-low-income	\$2,208,940,328	77.2%	71.5%	\$6,218
<b>Total</b>	<b>\$2,862,684,018</b>	<b>100.0%</b>	<b>100.0%</b>	<b>N/A</b>

N/A = Not applicable or available.

Sources: Central Transportation Planning Staff; MBTA Systemwide Passenger Survey, 2008–2009.

### 3.4.3 Geographical Distribution of UPWP Investments

In the FFY 2017 UPWP, the MPO initiated a geographical assessment of the distribution of MPO-funded UPWP studies and technical support activities. (Appendix H contains the complete analyses for the FFYs 2017 and 2018 UPWPs.) It showed which communities in the region have been the subjects of MPO transportation studies or recipients of technical support. For each municipality, the assessment documented the population that is minority and low-income, the number of UPWP tasks that have occurred in each FFY since 2010 and the municipality’s number of roadway miles.

The geographical assessment of the UPWP was revised slightly in the FFY 2018 UPWP, which contains additional TE data for each municipality, including the percent of the population that is minority or low-income, as well as the number of FFY 2018 UPWP studies. Not all municipalities have a study in any given FFY, but as the assessment that covers several years, it provides the MPO with a fuller picture of which municipalities that UPWP studies are and are not serving. Assessments for both FFYs excluded client-funded studies, which had a regional focus, and all work related to certification requirements and MPO administration, resource management, and support activities.

The assessments in the FFY 2017 and FFY 2018 UPWPs show how many studies each municipality and subregion has received. However, they do not identify which municipalities receive relatively more or less UPWP funding. Future assessments may address this issue, which could include analyzing the dollar amount spent per capita in each community, or the dollar amount spent per road mile. Other documentation could include the types of benefits that communities may receive from UPWP studies (such as congestion reduction), or the needs of communities, identified by either themselves, or the MPO's LRTP.

### **3.5 EQUITY IMPACTS ON MPO ACTIVITIES**

The MPO consistently considers transportation equity when developing MPO-funded studies for the UPWP, programming projects in the TIP, and selecting projects for inclusion in the LRTP. These three documents are complementary and inform each other. For example, UPWP studies and technical support can inform the projects chosen to be in the TIP, as do the goals and objectives identified in the LRTP. Chapter 4 explains in detail how the MPO selects projects and studies for the UPWP, LRTP, and TIP, focusing on how transportation equity informs this process.

### **3.6 TRANSPORTATION EQUITY PUBLIC OUTREACH**

The MPO's interdisciplinary TE program is the avenue through which the MPO considers the transportation needs of protected populations within the MPO region. Staff developed this program to enable the MPO to evaluate the transportation needs of these residents systematically and to incorporate these needs into the MPO's multi-faceted work. The program builds upon and evolves according to the results of previous transportation-planning work and current demographic data, and strives to conduct up-to-date analyses about and provide information to Title VI and EJ populations (although it is not limited to these populations). Results are incorporated into and inform the MPO's ongoing certification documents, as well as discrete studies completed by MPO staff.

The MPO's TE program has evolved over time to respond to the changing federal requirements that underpin the program and to the diverse needs of residents in the Boston region. Originally designed to serve populations protected under Title VI of the Civil Rights Act of 1964, the program now also includes low-income populations, LEP persons, the elderly, and people with disabilities, zero-vehicle households, and female-headed households with children.

The MPO implements the TE program through three ongoing activities:

1. Reaching out to protected populations and organizations that represent them to receive feedback on the MPO's activities, including during development of the LRTP, TIP, UPWP, and other MPO documents
2. Methodically considering demographic equity as a factor when selecting studies for the UPWP and projects for the LRTP and TIP
3. Analyzing potential impacts of projects selected for inclusion in the TIP and LRTP on populations in the TE program

The second activity is discussed in Chapter Four, while the third activity is discussed earlier in Chapter Three. The remainder of this chapter discusses the process that MPO staff undertakes to complete the first activity, public participation. (Activities specific to the LRTP, TIP, and UPWP are discussed separately in Chapter Four.) The public participation part of the TE program is carried out in concert with the MPO's public participation program; all of the public participation activities subsequently described are also cited in the MPO's Public Participation Plan (PPP) (Appendix G), which was updated in October 2014. The MPO has recently expanded its outreach and communications capacity, which will enable it to strengthen its TE program.

### **3.6.1 Communication Channels and Strategies**

The MPO's communications strategy is multifold, as it makes use of several forms of communication, with the goal of reaching as much of the public and concerned organizations as possible. The MPO focuses on disseminating information about MPO board meetings; public outreach events; development or amendment of the LRTP, TIP, and UPWP; and opportunities for the public to submit comments.

#### *MPO Website*

The MPO's website is the main way the agency distributes information about MPO activities, documents, and opportunities for public input, and for posting notices of public outreach events. The website is a broad resource, providing information about upcoming MPO events, meeting minutes (including those of the MPO board and

Advisory Council), reports, and studies. It also contains extensive transportation data about the region, including *The State of Boston Region Transportation Dashboard*, which staff launched in 2017 to offer the public and stakeholders a visual representation of key transportation metrics in the region. The *Dashboard* was created in concert with the development of performance-based programming and planning (see section 4.5), and contains information about the region’s demographics, among other metrics. Website users are also invited to submit comments to the MPO electronically and to sign up for the MPO email lists and *TRANSREPORT* blog updates.

The MPO has begun using Google Analytics to track how users interact with the website. For the purposes of the MPO’s Title VI and TE programs, staff will, in FFY 2018, be able to identify the how many website visitors access accessible vital documents, download PDFs that are in languages other than English, and who view the website in languages other than English—including the exact pages they visit. Because the MPO has only recently begun systematically tracking and documenting this information, the results are not yet available. In concert with the MPO’s other outreach efforts, these data will help the MPO to identify the public’s translation and accessibility needs more precisely, and provide for them in a cost-effective way.

## Accessibility

MPO staff post all documents on the website in both PDF and HTML formats to accommodate people with low or no vision. In addition, certification documents, MPO studies, informational materials, and notices may be obtained from the MPO in a variety of formats, including Braille and large-print. Members of the public may also requests meeting materials in accessible formats by email, telephone, fax, or US mail. The accessible versions of the MPO’s vital documents are posted in HTML and may be translated with Google Translate.

## Translations

In accordance with the MPO’s LAP (Appendix D of this report), vital documents are translated into the three most commonly spoken non-English languages in the MPO region—Spanish, Chinese, and Portuguese. Vital documents include the notice of non-discrimination rights and protections to beneficiaries, complaint procedures, and complaint forms. In addition, the MPO has identified other vital documents to translate into Spanish, Chinese, and Portuguese. Currently, these include translations of the executive summaries of the MPO’s three major transportation-planning documents: the LRTP, TIP, and UPWP. As resources allow, the MPO will also translate vital documents into Chinese (traditional) and French Creole. Meeting notices in the form of web banners on the MPO website are also translated. Additionally, the MPO website has an embedded Google Translate widget that allows visitors to the site to translate web pages (including the HTML versions of all posted documents) into more than 100 languages, which includes all of the 19 safe harbor languages in the region.

## *TRANSREPORT* Blog

In December 2016, the MPO published its final *TRANSREPORT* newsletter in print format; it has since transitioned to a web-based blog format on the MPO website in order to provide information in a timelier manner. *TRANSREPORT* informs readers about upcoming MPO events, news, and transportation issues relevant to the region.

## *Public Notices*

Staff provides notifications to the public in a variety of ways, including via the MPO website, press releases for newspapers, Twitter, the *TRANSREPORT* blog, and email lists. Staff is will translate the MPO's brochure that outlines our procedures and ways that members of the public may participate.

## Email Lists

The MPO uses several email lists to notify interested parties about upcoming MPO meetings, document amendments, and other ways in which they may be involved in the MPO planning process. The MPO maintains six email lists: MPO Notices, MPO Meeting Reminders, Advisory Council Notices, Access Advisory Committee to the MBTA (AACT) Notices, *TRANSREPORT*, and Transportation Equity. Recently the email lists were overhauled and transferred to an email delivery service. Subscribers now can manage the lists to which they belong and customize the frequency of communications that they receive from the MPO more easily. The MPO can gauge the success of its messaging strategies better, and can respond to the needs and interests of subscribers more rapidly.

Subscribers to the transportation equity email list also benefit. The list disseminates information about upcoming MPO events, meetings, and other activities related to transportation equity at the MPO. Staff can now easily provide translations of emails to those who require it for announcements that the MPO deems vital, such as upcoming TIP and LRTP amendments and MPO meetings. As subscribers now have direct control over which email lists they subscribe to, those who may not be aware of the transportation equity list will have the opportunity to sign up. Combined, the email lists currently have approximately 3,036 subscribers, with the transportation equity list having about 366 subscribers.

Currently, to help LEP email recipients to stay informed of MPO activities, staff customize emails pertaining to vital documents and activities (such as, public comment periods) so that the email can determine whether the recipient's internet browser is set to Spanish, Portuguese, or Chinese; if it is, the email will be automatically translated into that language using professionally translated material that staff provides. This is a very resource-intensive effort, given the cost of translations and the

number of emails that the MPO sends. Staff intend to add to the MPO website's email list sign-up form an option for subscribers to select the language in which they would like to receive email communications. Based on the requests of email recipients, staff will decide for which languages email translations will be provided. To ensure that non-English language access is available, a link will be provided in every MPO email notifying recipients that they can receive translations upon request. This will reduce the burden on staff resources and time, while still allowing email recipients to receive translated emails if necessary.

## Twitter

The MPO opened its official Twitter account in 2010 to improve its communication with the public. Staff uses Twitter regularly, largely to advertise upcoming public events, including MPO board meetings, public outreach events, non-MPO transportation-related events of interest, upcoming office hours with MPO staff, completion of transportation studies, and commendation that staff receives for its work. With 725 followers, the MPO's Twitter account has developed into a news source for transportation planning in the region. Meeting notices and links to other vital documents posted on Twitter also are translated. Given that these translations are not very resource-intensive, staff will continue to provide Twitter translations for key notices regarding vital documents.

### 3.6.2 Public Participation Strategies

The MPO takes a proactive approach to identifying transportation equity issues in the region, including identifying new contacts that represent or are involved in transportation equity; strengthening existing relationships; collecting, analyzing, and reporting relevant data and information about transportation equity in the region; and facilitating transportation equity populations' participation in the MPO's transportation-planning process. In addition, MPO staff provides administrative support to the Advisory Council and AACT.

Central to the success of the MPO's Public Participation Program is the development and maintenance of several contact databases, including one specifically for transportation equity contacts. These databases are used to inform the public about opportunities to become involved in developing the MPO's LRTP, TIP, and UPWP, as well as to invite contacts to participate in MPO-hosted events such as equity forums, surveys, or focus groups. The biggest challenge has been ensuring that attendees are representative of the region's diverse communities. The MPO plans to address this challenge by using these contact databases to identify potential partners for MPO-hosted events so that the MPO can expand its reach.

Further, while the MPO has found that most attendees of MPO-sponsored events hear of the event through email, there may be populations that have limited or no access to email and therefore are not represented at MPO events. So, under the public participation program, staff will explore the possibility of utilizing non-email communications such as paper advertisements. Conversely, the MPO has had success in ensuring that municipalities within the MPO are notified of and represented at MPO events. Switching to a new electronic communications tool, MailChimp has greatly facilitated this success, improving the regularity and comprehensiveness of the MPO's communications. The MPO's ongoing initiative is to increase the number of contacts in its transportation equity outreach database, strengthen partnerships with existing contacts, and ensure that the database represents the region's diversity.

### *Identifying New Contacts and Strengthening Current Relationships*

MPO staff regularly identifies new community contacts involved in and knowledgeable about the transportation needs of transportation equity populations, many of whom are identified through the MPO's TE contact database. These contacts include social service organizations, cultural organizations, community development corporations, civic groups, transportation advocates, councils on aging, environmental groups; immigration services establishments, and civil rights organizations. The MPO's TE database tool tracks the types of organizations and which TE populations they represent. Using this tool, which is hosted in the cloud using Google Sheets and Google Fusion, staff can easily see which geographic regions these organizations belong to and which types of organizations are missing from the list. This enables staff to target outreach to organizations that may benefit from being informed of MPO activities and involved in the MPO planning process. In the past year, more than 30 organizations have been added to the TE contact database—which includes organizations that staff have identified as having missions that align with the MPO's transportation equity program, whether or not they have chosen to subscribe to the TE email list—several of which have been added to the TE email list and/or have met with MPO staff. These include Transportation for Massachusetts, MassMobility, Neponset Valley Regional Coordinating Council, and AARP.

To ensure that the MPO continues to expand this network, staff attend out-of-office meetings, conferences, other professional networking events, and follows up with new contacts to foster their continued engagement with MPO activities. These events often result in new contacts being added to the MPO's TE outreach database for ongoing involvement, as well as the transportation equity email list. As needed, staff schedules one-on-one meetings in order to identify areas of common interest and potential collaboration. The most successful of these have been those events with an interactive component—whether it's an opportunity for networking prior to a conference or a meeting that involves group discussions. Staff will continue to meet with organizations

that have been identified as key partners and who have the interest and capacity to further the transportation equity mission of the MPO. Future planned activities will include staff attendance at events that focus on the transportation concerns and needs of TE populations. For example, staff has attended and will continue to attend meetings of Massachusetts regional coordinating councils that are within the MPO region. Staff will also attend events as speakers or by tabling, as opportunities arise, in order to inform the public about opportunities for participation in the MPO's planning process. Finally, staff will also reach to organizations that they think would be interested in the MPO's work to inquire about attending one or more of their meetings.

### *Collecting and Reporting Information*

MPO staff collects information about the transportation needs of Boston residents from a variety of data sources. The most important source of information is the United States Census Bureau, specifically the ACS and Decennial Census. Other data sources are being explored, such as education data from the Massachusetts Department of Elementary and Secondary Education regarding LEP students. MPO staff is committed to ensuring that data used in the TE program are the most up-to-date data available and that data analyses reflect best practices in transportation planning. In that regard, staff track and integrate innovations in transportation planning into the TE program regularly.

Staff also receives written and oral comments from the public as part of the TIP, LRTP, and UPWP public participation processes, as well as from specialized TE events and meetings. MPO staff interprets, summarizes, and classifies the needs identified by participants, and incorporates them into the MPO's TE program.

### *Facilitating Participation through the MPO's Planning Process*

Perhaps the most substantial way for transportation equity populations and other members of the public to be involved is through the public outreach process of the MPO's LRTP, TIP, and UPWP. Members of the public have an opportunity to comment on these documents throughout their development; during this time, MPO staff holds public meetings throughout the region, hosts regular office hours (that is, open visiting hours), and provides an opportunity for written public comments upon completion of the draft documents. Details about this process for each of the three documents are described in Chapter Four.

Location-specific public outreach, such as public meetings, may be located in areas that have distinct language needs. Therefore, staff uses demographic data to identify other languages that the relevant meeting documents and notifications may need to be translated into. Additionally, MPO staff is tracking changes in languages in the region, and are committed to expanding translations to other, non-vital documents as

well as into other non-English languages beyond the three most commonly spoken as resources allow. Staff will continue to explore the possibility of providing translations of these documents in other languages. These translation policies are consistent with the MPO's public participation policies as identified in the MPO's PPP.

### *Making MPO and MPO-sponsored Meetings Accessible*

The MPO makes all meetings accessible to people with disabilities and to those without access to a vehicle. All MPO-sponsored meetings are held in locations that are accessible to people with disabilities and are near public transportation. To ensure accessibility for people with disabilities, locations for meetings held outside of the State Transportation Building are selected based on the results of an on-site visit. As part of this review, MPO staff uses an accessibility checklist with a list of physical characteristics that are necessary to accommodate individuals with a variety of mobility and other disabilities.

### *Access Advisory Committee to the MBTA*

For many years, MPO staff has provided administrative support to AACT, which is a consumer advocacy organization that strives to ensure that the public transit system in Boston is accessible, in accordance with the ADA. AACT is composed primarily of people with disabilities, seniors, and representatives of human service agencies. The MBTA is currently working with ACCT and another group of advocates who have been deeply involved in monitoring the settlement agreement with the Boston Center for Independent Living (BCIL), which committed the MBTA to undertaking major improvements to the accessibility of the system. It is anticipated that the two groups will merge to form a single organization. It is unclear whether or not MPO staff will continue to provide direct support to the new organization. However, staff will definitely maintain close contact with the group to better understand and serve the needs of the disability community in the Boston region.

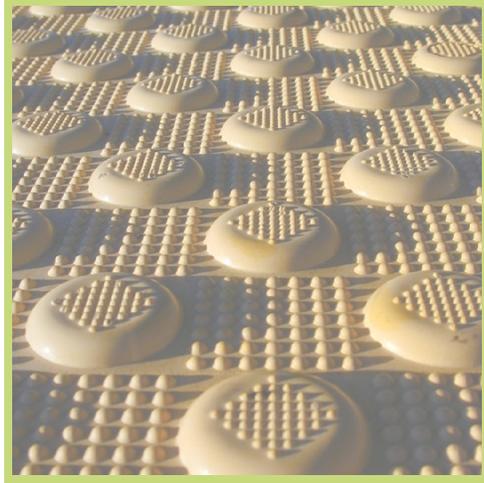
## **3.7 BUILDING STAFF CAPACITY**

In 2015, the MPO hosted a National Transit Institute (NTI) Environmental Justice training course that several MPO staff members attended; and in 2017, the MPO's Transportation Equity Program manager participated in the two-day Advanced-Level Environmental Justice Workshop. In addition, those on staff with expertise related to environmental justice and Title VI regulations have led workshops for all staff to educate them about equity issues and how those issues relate to the work of the MPO. Further relevant staff trainings and workshops will build upon these efforts.

### **3.8 MPO-DETERMINED FOCUS AREAS**

The MPO will continue to work to enhance its public outreach to TE populations and organizations that represent the transportation needs of these populations. Using the TE contact database tool, staff will be more systematic in their approach to TE outreach. The tool will be used to identify gaps in the contact list (for example, a lack of organizations representing the disability community or those representing Spanish language speakers) and to identify organizations that represent these populations and that might want to be informed by about the MPO's work. MPO staff will then reach out to these organizations to set up either one-on-one meetings or attendance at their regular member meetings. Staff will also continue to attend events such as conferences to help establish additional connections with TE organizations that are not represented in the TE contact database, and further integrate Title VI work with the MPO's public participation program. Staff will strengthen partnerships and conduct transportation equity-specific outreach to help inform TE populations about MPO activities and ways that they may participate in the planning process.

Staff will also continue to refine its equity analyses for the LRTP and TIP. In order to improve the effectiveness of these analyses, staff will undertake to efforts to refine current methods and develop novel approaches, with particular emphasis on off-model analyses. These efforts will enable the MPO to ensure that projects selected for inclusion in the TIP and LRTP do not cause disparate impacts or disproportionate burdens for minority and low-income populations, respectively.



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