

2022 BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

TITLE VI REPORT



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The preparation of this document was supported
by MPO Combined Planning and §5303 Contract #118967

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December 2022



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The Boston Region Metropolitan Planning Organization (MPO) operates its programs, services, and activities in compliance with federal nondiscrimination laws including Title VI of the Civil Rights Act of 1964 (Title VI), the Civil Rights Restoration Act of 1987, and related statutes and regulations. Title VI prohibits discrimination in federally assisted programs and requires that no person in the United States of America shall, on the grounds of race, color, or national origin (including limited English proficiency), be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination under any program or activity that receives federal assistance. Related federal nondiscrimination laws administered by the Federal Highway Administration, Federal Transit Administration, or both, prohibit discrimination on the basis of age, sex, and disability. The Boston Region MPO considers these protected populations in its Title VI Programs, consistent with federal interpretation and administration. In addition, the Boston Region MPO provides meaningful access to its programs, services, and activities to individuals with limited English proficiency, in compliance with U.S. Department of Transportation policy and guidance on federal Executive Order 13166.

The Boston Region MPO also complies with the Massachusetts Public Accommodation Law, M.G.L. c 272 sections 92a, 98, 98a, which prohibits making any distinction, discrimination, or restriction in admission to, or treatment in a place of public accommodation based on race, color, religious creed, national origin, sex, sexual orientation, disability, or ancestry. Likewise, the Boston Region MPO complies with the Governor's Executive Order 526, section 4, which requires that all programs, activities, and services provided, performed, licensed, chartered, funded, regulated, or contracted for by the state shall be conducted without unlawful discrimination based on race, color, age, gender, ethnicity, sexual orientation, gender identity or expression, religion, creed, ancestry, national origin, disability, veteran's status (including Vietnam-era veterans), or background.

A complaint form and additional information can be obtained by contacting the MPO or at http://www.bostonmpo.org/mpo_non_discrimination.

To request this information in a different language or in an accessible format, please contact

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By Telephone:

857.702.3700 (voice)

For people with hearing or speaking difficulties, connect through the state MassRelay service:

- Relay Using TTY or Hearing Carry-over: 800.439.2370
- Relay Using Voice Carry-over: 866.887.6619
- Relay Using Text to Speech: 866.645.9870

For more information, including numbers for Spanish speakers, visit <https://www.mass.gov/massrelay>.

Please note that the text of some pages in this report may not be accessible to individuals with low or no vision who use a screen reader. These include the Federal Transit Administration and Federal Highway Administration certifications and assurances and the Title VI program MPO member endorsement page. If you would like to request these or any other material in this report in a different format, please contact the Central Transportation Planning Staff via email at civilrights@ctps.org.

Certifications and Assurances here upon MPO Board endorsement.

ABSTRACT

The Boston Region Metropolitan Planning Organization (MPO) has prepared this 2022 Title VI Report in response to the Massachusetts Department of Transportation's (MassDOT) Title VI reporting request. Title VI of the Civil Rights Act of 1964 states that "no persons in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving federal financial assistance." As a subrecipient of federal funds through MassDOT, the MPO complies with Federal Transit Administration (FTA) and Federal Highway Administration (FHWA) Title VI guidance. FTA and FHWA require that recipients of their financial assistance periodically submit documentation that demonstrates compliance with their Title VI requirements. This report documents that compliance, which is consistent with the principles, federal laws and guidelines, and related requirements of Title VI.



EXECUTIVE SUMMARY

ES.1 BACKGROUND AND PURPOSE

This document responds to the Massachusetts Department of Transportation's (MassDOT) 2022 Title VI reporting requirements for the Boston Region Metropolitan Planning Organization (MPO). As a subrecipient of federal funding from both the Federal Transit Administration (FTA) and Federal Highway Administration (FHWA) through MassDOT, the MPO is required to comply with these agencies' civil rights guidance for MPOs—FTA's triennial reporting requirements under Title VI of the Civil Rights Act of 1964 and FHWA's annual reporting requirements under its Title VI/non-discrimination program.

The authorities that underpin FTA and FHWA guidance include the following:

- **Title VI of the Civil Rights Act of 1964** prohibits intentional and unintentional discrimination based on race, color, and national origin by any recipient of federal assistance.
- **Executive Order 13166—Improving Access to Services for Persons with Limited English Proficiency** directs federal agencies, and recipients of federal funding to provide meaningful language access to their services. Under Title VI, limited English proficiency is considered the primary indicator of national origin.
- **Executive Order 12898—Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations** requires federal agencies, and recipients of their funding, to address environmental justice (EJ) concerns.
- **The Americans with Disabilities Act** prohibits public entities from discriminating against persons with disabilities or excluding them from participation in, or denying them of the benefits of, their services, programs, or activities.

Both the FTA and FHWA require the MPO to comply with these civil rights mandates by implementing a Civil Rights Program and to monitor and report regularly on the program's efforts. The MPO's compliance efforts are fulfilled under its Transportation Equity (TE) program, which includes civil rights compliance activities. The broader TE program works to engage with and improve transportation outcomes for traditionally underserved and overburdened populations, collectively referred to as TE populations: minority populations, low-income populations, people with limited English proficiency, people with disabilities, older adults, and youth.

The report reflects the MPO's Title VI compliance efforts since July 2021, as requested by MassDOT. These efforts are critical not only because they comply with federal regulations, but also because they are sound transportation-planning practices that further the MPO's vision of providing equitable transportation access and meaningful involvement in its decision-making process to all residents in the region regardless of their background.

ES.2 GENERAL REPORTING REQUIREMENTS

The following general reporting requirements are included in this report:

- ◉ **MassDOT Title VI Assurances:** Forms signed by the MPO board to assure that MPO programs and activities are fulfilled in compliance with MassDOT/FHWA Title VI regulations (signed and inserted in the final report after public review and subsequent approval by the MPO). Signed assurances are located at the front of this document.
- ◉ **FTA Title VI Certifications and Assurances:** Forms signed by the MPO board to assure that MPO programs and activities are fulfilled in compliance with FTA Title VI regulations (signed and inserted in the final report after public review and subsequent approval by the MPO). Signed assurances are located at the front of this document.
- ◉ **Title VI Notice of Nondiscrimination:** A statement by the MPO to apprise members of the public of the protections against discrimination afforded to them by Title VI.
- ◉ **Complaint Forms and Procedures:** A process through which individuals can file discrimination complaints against the MPO and which allows the MPO to track and investigate these complaints.
- ◉ **Title VI Complaint Log:** A list of any allegations of discrimination by the MPO in its programs and activities since July 2021.
- ◉ **Public Engagement Plan:** Documentation of the MPO's public engagement activities to ensure that all members of the public have meaningful opportunities to participate in the MPO's transportation planning process.
- ◉ **Language Assistance Plan:** The MPO's plan to identify populations with limited English proficiency, the languages spoken by them, and provision of language assistance.
- ◉ **Subrecipient Monitoring Process:** The MPO does not pass through federal financial assistance to additional subrecipients.
- ◉ **Title VI Program Approval:** Evidence that the MPO has reviewed and approved the Title VI program and report (inserted in the final report after public review and subsequent approval by the MPO).
- ◉ **Organization and Staffing:** Documentation that identifies the MPO Title VI Coordinator and their ready access to the Executive Director.
- ◉ **Program Review Procedures:** Description of how the Title VI Coordinator confirms that the Title VI compliance requirements are met.
- ◉ **Title VI Training:** Title VI related trainings that staff have participated in since July 2021.
- ◉ **Dissemination of Title VI Information:** Description and examples of how Title VI-related information is shared with the public.

ES.3 REPORTING REQUIREMENTS RELATED TO MPO PLANNING PRACTICES

ES.3.1 DEMOGRAPHIC PROFILES

Demographic profiles are a collection of maps and tables that show the locations and concentrations of protected populations in the Boston region. The MPO includes demographic profiles for minority populations, people with limited English proficiency, and people with disabilities—as well as other covered populations included among the MPO’s TE populations, people with disabilities, older adults (ages 75 and older), and youth (17 and younger).

ES.3.2 DEMOGRAPHIC MAPS AND CHARTS OF FUNDING DISTRIBUTION

GEOGRAPHICAL MAPPING OF TIP PROJECTS

This map shows the geographical distribution of projects in the federal fiscal years (FFYs) 2023–27 Transportation Improvement Program (TIP)—both target and non-target funded projects—overlaid on the distribution of minority and low-income populations in the Boston region.

FUNDING ANALYSIS OF TIP INVESTMENTS

This analysis compares the distribution of the MPO’s discretionary (or “regional target”) funding allocated to TE populations to their respective share of the regional population. It covers the last five TIP cycles, the FFYs 2019–23 through FFYs 2023–27 TIPs. Results show that the percent of funding allocated to the minority population has consistently been less than the percent of their population in the Boston region. The other TE populations have been allocated approximately the same percent of funding compared to their respective share of the population in the region.

ANALYSIS OF TIP PUBLIC TRANSIT INVESTMENTS

This analysis examines the distribution of state and federal funds, in the aggregate, to minority and low-income passengers for public transit projects, and compares it to that for non-minority and non-low-income passengers, respectively. It covers the last five TIP cycles, the FFYs 2019–23 through FFYs 2023–27 TIPs.

Over the past five years, funding for transit investments from all sources, including MPO target funds, peaked in the FFYs 2019–23 TIP for all populations and then decreased. Among target funds, the amount of funding allocated to minority and low-income populations on a per-person basis has consistently been less than for the non-minority and non-low-income populations, respectively; however, that difference has decreased over the past few years. This has also been the case for all public transit investments made in the Boston region.

ANALYSIS OF UNIFIED PLANNING WORK PROGRAM (UPWP) INVESTMENTS

Each year in the UPWP, the MPO produces a geographical assessment of the distribution of MPO-funded studies. It cites which communities in the region have been the subject of these studies, as well as the share of the low-income population, minority population, and people with limited English proficiency in these communities. The results can be found in Appendix G. Overall, there does not appear to be a clear pattern between the number of studies and the percent of a municipality's residents who are minority or low-income, or who have limited English proficiency. Boston, for example, has been the subject of 60 studies since 2010 and has among the highest percentages of these populations. In contrast, Randolph, where 73.4 percent of the population is minority, had only six studies.

ES.3.3 ANALYSIS OF MPO SYSTEM INVESTMENTS: IDENTIFYING AND ADDRESSING DISPARATE IMPACTS

LONG-RANGE TRANSPORTATION PLAN (LRTP) TITLE VI AND ENVIRONMENTAL JUSTICE ANALYSES

The MPO analyzes the projects, in the aggregate, that are proposed in its LRTP to identify potential impacts—called disparate impacts—for minority populations and disproportionate burdens for low-income populations. In 2020, the MPO adopted its Disparate Impact and Disproportionate Burden (DI/DB) Policy that, sets thresholds for determining whether a collection of projects would cause disparate impacts and/or disproportionate burdens. The MPO's most recent LRTP, Destination 2040, evaluated these impacts, using several metrics related to accessibility, mobility, and air quality. The analysis found that the LRTP would not cause disparate impacts or disproportionate burdens.

TRANSPORTATION IMPROVEMENT PROGRAM (TIP) TITLE VI AND ENVIRONMENTAL JUSTICE ANALYSES

The TIP Title VI and EJ analyses assess which TE populations are likely to be served or impacted by regional target-funded projects programmed in the TIP. There are several analyses that provide this insight:

- ▣ The total number of people in TE populations served or impacts by regional target projects, compared to their respective regionwide percentages
- ▣ Percent of people in TE populations served or impacted by target projects, by investment program
- ▣ Reduction in carbon monoxide, volatile organic compounds, and nitrogen oxide emissions per 1,000 people, for TE and non-TE populations
- ▣ Percent of regional target funding allocated to TE populations, compared to their respective percentage of the regionwide population

ES.3.4 PUBLIC ENGAGEMENT: IDENTIFYING MOBILITY NEEDS

Meaningful and equitable public engagement is foundational to the MPO's planning and decision-making. The MPO's approach to engagement is centered on the development of strong relationships with members of the community, particularly groups and organizations representing Title VI and EJ populations who have historically been underrepresented in the planning process.

There are several ways through which the MPO identifies transportation needs. One is through the ongoing Needs Assessment for the LRTP, which supports the development of investment programs and projects in the LRTP. Needs voiced by the public during a wide range of engagement activities are cataloged in the Needs

Assessment, and all feedback and comments are organized into theme areas. They are further grouped by equity tags (such as transportation concerns that are related to minority populations or people with limited English proficiency).

Another avenue is the MPO's Coordinated Public Transit-Human Services Transportation Plan (Coordinated Plan). One of the main functions of the plan is to identify unmet transportation needs for seniors and people with disabilities in the Boston region through extensive public engagement and identify strategies and actions to meet those needs. Public engagement for the Coordinated Plan is done in conjunction with the Needs Assessment to ensure the input from seniors and people with disabilities informs LRTP decisions.

Several other examples illustrate specifically how public engagement is facilitated through the MPO planning process. One is the comprehensive public engagement process undertaken between 2018 and 2022 to develop the LRTP DI/DB Policy. At the core was a stakeholder working group convened with the primary purpose of guiding the MPO's decision on setting the values of the three thresholds included in the DI/DB Policy. Another was in 2021 when staff conducted extensive surveying and public engagement, with a focus on getting input from disadvantaged populations and communities, to update the criteria for the TIP project selection process. A final example is in MPO-funded studies and technical assistance. Staff strive to include the collection of qualitative data through meaningful community participation in all studies, particularly those that have an equity focus or involve communities where there is a high share of EJ or Title VI populations.

ES.3.5 DATA COLLECTION, REPORTING, AND ANALYSES

The MPO staff collects demographic data on Title VI, EJ, and other nondiscrimination populations primarily from the Decennial Census (DC) and American Community Survey (ACS). Staff collect new data each year when new datasets are released. They are used in equity-related analyses in the TE Program, including the Language Assistance Plan, and Title VI and EJ analyses for the LRTP and TIP, among other analyses for the TE Program.

The MPO has shifted toward analyses that focus on understanding project impacts on TE populations, rather than assuming that people who live near a project will benefit from it. To do so, staff also collect a variety of transportation-related data, such as crash data, climate change data, and air quality data through other MPO programs, and these data are shared with the TE Program. The MPO's new Data Program will also facilitate a more comprehensive approach to managing data across the agency. From the perspective of the Title VI Program, this will help ensure consistency in how the data are collected and used by the MPO staff, as well as allow the program to capitalize on emerging datasets, demographic and otherwise, and analysis tools.

CHAPTER 1—PURPOSE AND BACKGROUND

1.1 PURPOSE AND CONTENT OF THE TITLE VI REPORT

This document describes the Boston Region Metropolitan Planning Organization's (MPO) work related to its Title VI Program as requested by the Massachusetts Department of Transportation (MassDOT). A subrecipient of MassDOT, the MPO receives federal dollars from the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) and must comply with these agencies' Title VI reporting requirements. In their roles in carrying out the mission and directives of Title VI, the FHWA and FTA each issue guidance for recipients of their financial assistance regarding compliance with Title VI.

This report conforms with the requirements set out in FHWA's Environmental Justice Reference Guide and FTA's Title VI Circular 4702.1B and environmental justice (EJ) Circular C 4703.1. To demonstrate compliance with FHWA's Title VI and non-discrimination requirements, this document also reports on parallel efforts to engage and accommodate a broader set of protected populations through the MPO's Transportation Equity (TE) Program.

This chapter provides background on the MPO and the federal mandates that underpin the MPO's Title VI Program. Chapter 2 demonstrates how the Boston Region MPO has satisfied general reporting requirements. Chapter 3 demonstrates how the MPO has satisfied requirements related to MPO planning practices.

1.2 THE BOSTON REGION MPO APPROACH TO TRANSPORTATION EQUITY

Covering 97 municipalities in eastern Massachusetts, the MPO consists of a 22-member board of state agencies, regional transportation-planning organizations, and elected local officials. MPO members, supported by the MPO staff, are responsible for allocating federal funds for public transit, roadway, bicycle, and pedestrian projects in the Boston region. They are also responsible for setting the region's transportation vision, goals, and objectives. These are reflected in the MPO's studies, public engagement process, project selection, and the federally required documents that MPO staff produces.

One of the MPO's goal areas is Transportation Equity. This goal, along with its accompanying objectives, is the foundation of the MPO's approach to its TE Program. The TE Program, while encompassing the MPO's Title VI Program, goes beyond these requirements to fully incorporate TE in all MPO planning activities and decision-making. The MPO's TE goal is to

Ensure that all people receive comparable benefits from, and are not disproportionately burdened by, MPO investments, regardless of race, color, national origin, age, income, ability, or sex

Several objectives provide measurable specifics that help staff develop concrete work activities to advance the MPOs goals:

- Prioritize MPO investments that benefit equity populations
- Minimize potential harmful environmental, health, and safety effects of MPO-funded projects for all equity populations
- Promote investments that support transportation for all ages (age-friendly communities)
- Promote investments that are accessible to all people regardless of ability

1.3 FEDERAL REQUIREMENTS AND GUIDANCE

Through the MPO's TE Program, the MPO ensures compliance with federal nondiscrimination laws and several Executive Orders (EOs). The following subsections discuss the federal statutes and EOs that govern the MPO's civil rights activities, the regulations and guidance that direct their implementation, and the populations covered by each.

1.3.1 TITLE VI

Title VI of the Civil Rights Act of 1964 states that “no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.” As a recipient of federal financial assistance from FHWA and the FTA, the MPO documents its efforts to ensure that its activities, programs, and services are not discriminatory on these grounds.

Discrimination on the basis of limited English language proficiency (LEP) also qualifies as discrimination on the basis of national origin. EO 13166, Improving Access to Services for Persons with Limited English Proficiency, and several subsequent iterations of clarifying guidance led to LEP being recognized as the primary way of identifying national origin. EO 13166 directs federal agencies to take reasonable steps to provide meaningful language access in their services, and for all recipients of any federal financial assistance to do the same.

1.3.2 ENVIRONMENTAL JUSTICE

Environmental justice at the federal level is based on EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations. This EO instructs federal agencies to identify and address any disproportionately high and adverse human health and environmental effects of their programs, policies, and activities on minority and low-income populations. To this end, each agency must develop strategies to incorporate EJ principles into their operations and into those of the recipients of their financial assistance; these requirements are passed through to their recipients of federal financial assistance.

1.3.3 AMERICANS WITH DISABILITIES ACT (ADA)

The ADA prohibits public entities from discriminating against people with disabilities or excluding them from participating in, or denying them the benefits of, the entities' services, programs, or activities. Although disability protections are not explicitly a part of Title VI, they are implied in the inclusive public participation requirements and are part of FHWA's EJ reference guide. For MPOs, this means that public meetings are held in accessible buildings and that MPO documents are available in accessible formats to members of the public.

CHAPTER 2— GENERAL REPORTING REQUIREMENTS

2.1 MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (MASSDOT) TITLE VI ASSURANCES

Signed assurances are located at the front of this document.

2.2 FEDERAL TRANSIT ADMINISTRATION (FTA) TITLE VI CERTIFICATIONS AND ASSURANCES

Signed certifications and assurances are at the front of this document.

2.3 TITLE VI NOTICE OF NONDISCRIMINATION

The Boston Region MPO's notice of nondiscrimination, updated in 2022 and adapted from a MassDOT prototype, can be found in Appendix A. The notice is translated into the MPO's six Safe Harbor languages, available in full on the MPO's website. Modified versions are included in all documents and public engagement materials and include links to the full version online. Should analysis show the need to include additional languages, the notice will be updated accordingly.

2.4 COMPLAINT FORM AND PROCEDURES

The MPO's Title VI complaint forms and procedures were updated in 2022 and adapted from MassDOT prototypes. They may be found in Appendices B and C.

2.5 TITLE VI COMPLAINT LOG

The MPO has not received any Title VI complaints or been involved in any Title VI investigations or lawsuits since July 2021.

2.6 PUBLIC ENGAGEMENT PLAN

The MPO's Public Engagement Plan (PEP) may be found in Appendix H. No major overhauls of the current PEP, which was endorsed on September 15, 2022, are currently planned. MPO staff continue to make minor changes as needed to ensure that the PEP reflects and supports the public engagement processes for the MPO's certification documents and state and federal guidance. Staff await the release of MassDOT's updated Public Participation Plan and will update the PEP as necessary to reflect any changes.

Minor changes to the PEP currently planned include updating Appendix B of the PEP with a revised set of demographic questions included in MPO surveys based on demographic data collection best practices. The Regional Transportation Advisory Council section of the PEP also will be updated to reflect the Communications and Engagement Program's administration of the MPO's Advisory Council and plans for closer coordination and collaboration on engagement work.

2.7 LANGUAGE ASSISTANCE PLAN

The MPO's Language Assistance Plan (LAP) was updated in 2021. A copy of the LAP may be found in Appendix D.

2.8 SUBRECIPIENT MONITORING PROCESS

The MPO does not pass through federal financial assistance to additional subrecipients.

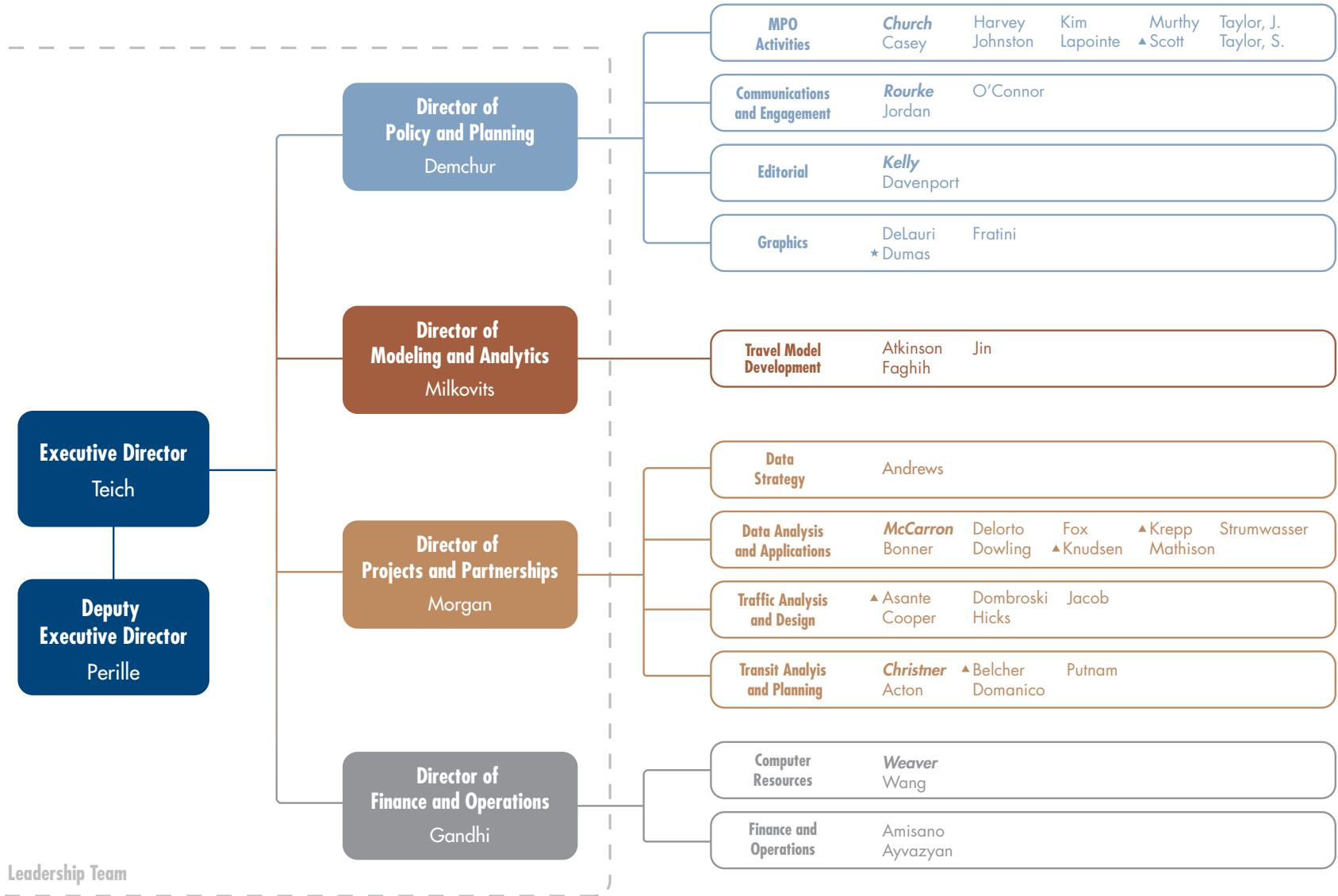
2.9 TITLE VI PROGRAM APPROVAL

The MPO's endorsement of this report is pending and will be added to the front of the document when it is received.

2.10 ORGANIZATION AND STAFFING

The diagram in Figure 1 shows the organizational chart for the Central Transportation Planning Staff (CTPS), which is the staff to the Boston Region MPO, and the Title VI Coordinator position in relation to the Executive Director position.

FIGURE 1
CTPS Organizational Chart





2.11 PROGRAM REVIEW PROCEDURES

The MPO's Title VI Program is part of the broader Transportation Equity (TE) Program. The TE Program carries out the civil rights, environmental justice (EJ), nondiscrimination, and other equity-related activities for the Boston Region MPO. The program seeks to ensure that people who historically have been excluded from participating in the MPO transportation-planning process, and who have been unfairly burdened by the transportation system, have a voice in the selection of transportation investments in their communities, and are no longer overburdened or underserved by the transportation system. Through the TE Program, the Boston Region MPO remains committed to a transparent and accessible transportation-planning process as it considers all residents' needs when developing its plans and selecting the studies and projects it funds, toward the goal of improving transportation outcomes for TE populations.

More specifically, the TE Program houses the MPO's Title VI Program, which ensures compliance with all federal nondiscrimination requirements and coordinates with MassDOT on compliance requests, issues, and best practices. The TE Program also supports the core functions of the MPO, including the Transportation Improvement Program (TIP), Long-Range Transportation Plan (LRTP), Unified Planning Work Program (UPWP), and Public Engagement Program (PEP). The TE Program conducts various equity analyses—including Title VI and EJ analyses—supports public engagement, and leads equity-related studies, with an aim of improving transportation outcomes for overburdened and underserved communities in the Boston region. While the exact nature of the TE Program varies from year to year, several activities are completed at regular intervals to ensure compliance with Title VI, EJ, and other nondiscrimination requirements.

YEARLY ACTIVITIES

Each year, staff carry out the following activities to maintain compliance with Title VI, EJ, and other nondiscrimination requirements.

- **Monitor use of web translations.** Staff use Google Analytics to track how users interact with the MPO's website, including the languages in which visitors read the site. Each year, staff identify the number of website visitors who access vital documents, download documents in languages other than English, and the languages in which visitors view the website.
- **TIP Title VI and EJ analysis.** This analysis is completed in the spring of each year.
- **Funding analysis of TIP investments.** This analysis is completed in the spring of each year.
- **Funding analysis of TIP public transit investments.** This analysis is completed in the summer of each year.
- **UPWP geographic distribution of federal funds.** This analysis is completed in the spring of each year.

EVERY THREE YEARS

- ▣ **Language Assistance Plan:** The LAP, including the four-factor analysis, is updated every three years.

EVERY FOUR YEARS

- ▣ **LRTP Disparate Impact and Disproportionate (D/DB) Burden Analysis.** The DI/DB analysis (which encompasses the Title VI and EJ analyses) is conducted on the same schedule as the rest of the LRTP, every four years.
- ▣ **Equity-related analyses for the Needs Assessment.** Every four years, staff conduct analyses and public engagement to identify transportation needs in the region in preparation for the completion of the LRTP.

ONGOING

- ▣ **Public engagement.** The TE Program manager collaborates with the MPO's Communications and Engagement team to facilitate engagement with civil rights, EJ, and other nondiscrimination populations, and to ensure appropriate measures are taken to ensure civil rights procedures are followed, such as providing translations and interpreter services, documents in accessible formats, and notices of participants' rights.
- ▣ **Maintenance of demographic and other data relevant to the TE Program.** As new data are released from the US Census Bureau and other sources, staff review, download, and clean the data for use in a variety of MPO work, including project scoring, DI/DB analyses, public engagement, and identifying transportation needs.

AS NEEDED

- ▣ **Updates to DI/DB analysis metrics and data.** Between LRTPs, staff review existing DI/DB metrics and determine whether the methodology or data sources need to be updated, and if new metrics are needed.
- ▣ **Geographical maps of TIP projects.** Maps are typically completed when requested for Title VI compliance.
- ▣ **Demographic profiles.** These are developed each year for use in the TIP but are updated only if newly available demographic data merit it. They are also used in other work products, as needed.
- ▣ **Updates to notice of nondiscrimination, complaint forms, and procedures.** These are updated upon request from MassDOT or as needed.

2.12 TITLE VI TRAINING

CTPS staff have not attended Title VI-specific trainings hosted by state or federal partners since July 2021. However, staff have attended these trainings in the past and will continue to do so as opportunities arise. Additionally, the MPO is a member of the Association of Metropolitan Planning Organizations (AMPO) and have attended meetings of AMPO working groups as Title VI and EJ topics arise, including the Public Participation Working Group and the Data and GIS Working Group. Staff also attend Transportation Management Group (TMG) meetings and TMG's Data Working Group, where Title VI and EJ content are often discussed. Staff also regularly present at the state and national level on equity- and Title VI-related topics; in the past year, these events have included the following:

- Massachusetts Transportation Innovation Conference
- A Transportation Research Board webinar, Enhancing Health and Equity Through Transportation
- An FHWA peer exchange on Shared Mobility Planning and Equity

Additionally, staff are in the process of developing internal training guides for CTPS staff on providing language access. This will help the MPO maintain consistency throughout its various translation and interpretation practices and provide clarity among staff for their responsibilities. Guides on additional Title VI and other nondiscrimination topics will likely be developed as well.

2.13 DISSEMINATION OF TITLE VI INFORMATION

The MPO's communications strategy is multifold, using several forms of communication with the goal of reaching as many members of the public as possible. These include messaging on the MPO's MailChimp email account, social media (Twitter, Facebook, LinkedIn, YouTube, and Instagram), the MPO's website, and at the various board and committee meetings, stakeholder meetings, and public events that are hosted both virtually and in person. In the past, physical notifications of events, such as flyers, have been used, but the COVID-19 pandemic accelerated the MPO's use of digital media as the main way through which information is communicated to the public, including the dissemination of Title VI information.

The MPO's website is the main way the agency distributes information about MPO activities, documents, and opportunities for public input, and where notices of public engagement events are posted. It is also the main hub for the MPO's Title VI information. It contains the full notice of nondiscrimination, complaint forms, and complaint procedures, which are all translated into the MPO's Safe Harbor languages. To ensure accessibility, all documents are posted on the website in both PDF and HTML formats to accommodate people with low or no vision. In addition, documents may be obtained upon request in a variety of formats, including Braille and large print. Members of the public may also request meeting materials in accessible formats by email, telephone, or US mail.

Additionally, the MPO website has an embedded Google Translate widget that allows visitors to the site to translate web text into more than 100 languages. In FFY 2023, CTPS acquired a new web translator tool, Localize, which allows a customized experience and higher quality translations for the website. The transition

to Localize is currently underway. It will limit the number of languages the website can be translated into to the MPO's six Safe Harbor languages—Spanish, Chinese (simplified and traditional), Portuguese, Haitian Creole, and Vietnamese, which cover 75 percent of non-English speakers. However, the quality of the translations will be far greater than is currently available. Once Localize is implemented, staff will track the usage of Localize and other language data.

All public facing documents (such as memos and reports) contain the full or abbreviated notice of nondiscrimination, notification that translations are available upon request, and that accessible accommodations can be made available upon request. MPO board and committee meetings, when they are in-person, contain a mounted foam-core board with the notice of nondiscrimination. In virtual MPO board and committee meetings, the slide deck contains the notice of nondiscrimination and information about how to obtain information in other languages and accessible formats. This information is read out loud by the meeting chair.

The MPO uses several email lists to notify interested parties about upcoming MPO meetings and associated agendas, public review periods, amendments to documents, and other ways in which they may be involved in the MPO planning process. Every email contains Title VI information, including an abbreviated notice of nondiscrimination and a link to the full notice on the website, information about how to translate emails (which is done via machine translation through Google Translate), and a notice that additional translations can be provided upon request.

All public engagement materials, including surveys, plain language booklets, meeting agendas, and presentations, contain the notice of nondiscrimination and information about how to request translations and accessible accommodations. Registration forms for MPO events also include a field that asks if translations or accessible accommodations will be needed.

In accordance with the MPO's LAP (see Appendix D), vital documents are translated into the six most spoken non-English languages in the Boston region—Spanish, Chinese (simplified and traditional), Portuguese, Vietnamese, and Haitian Creole. Vital documents include the notice of nondiscrimination rights and protections to beneficiaries, complaint forms and procedures, public engagement documents such as surveys and meeting materials, executive summaries of the MPO's core planning documents (the LRTP, TIP, UPWP, Coordinated Public Transit-Human Services Transportation Plan, Public Engagement Plan, and the Title VI Triennial Report). Anyone may request a translation of any document in any language. The LAP is translated in its entirety. All translated documents also include translated versions of the notice of nondiscrimination and the ability to request translated and accessible versions of documents.

CHAPTER 3—REPORTING REQUIREMENTS RELATED TO MPO PLANNING PRACTICES

3.1 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. In addition to Title VI and EJ populations, the MPO also includes other TE populations—older adults, people with disabilities, and youth—in the MPO's TE Program. These three populations were chosen because of nondiscrimination protections afforded to them, as well as because they often encounter transportation disadvantage and may face barriers to participating in the transportation planning process. The data gathered during these efforts, as well as the profiles themselves, contribute to the MPO's planning and analysis efforts while developing 3C documents and programs, conducting UPWP studies, and undertaking public engagement.

MPO staff updates demographic profiles as new Census data become available. For this report, data from the 2020 Decennial Census and the 2016–20 American Community Survey (ACS) were used.¹

3.1.1 DEMOGRAPHIC PROFILES FOR TITLE VI AND ENVIRONMENTAL JUSTICE POPULATIONS

MINORITY POPULATION

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.

Table 1 shows the number and percent of the minority population in the Boston region, while Figure 2 shows the percent of the minority population in block groups in the Boston region. In all, 1,223,835 people identify as a minority in the Boston region, or 36.5 percent of the total population. This is an increase of 40.6 percent compared to 2010.

¹ACS data are estimates and are subject to privacy controls at the tract and block group geographies. Therefore, demographics from these datasets are controlled to the overlapping Decennial Census population counts. Because some of the TE population universes are subsets of the total population (for example, the universe for people with LEP are people aged 5 and older), the TE population estimates are higher than the raw ACS estimates.

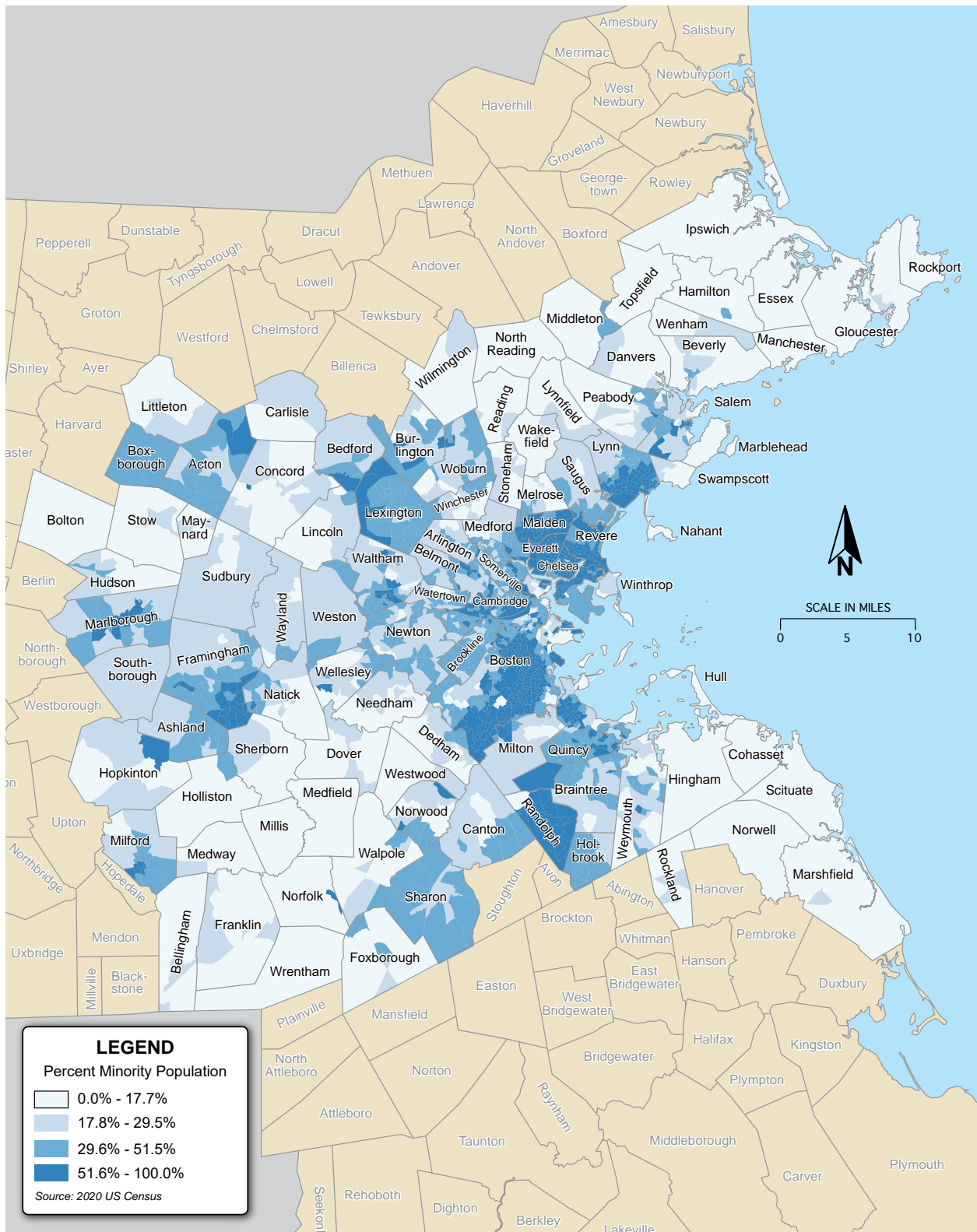
TABLE 1
Minority Population in the Boston Region

| | 2010 Population | Percent of the Total Population, 2010 | 2020 Population | Percent of the Total Population, 2020 | Percent Change, 2010 to 2020 |
|---------------------------------|----------------------------|--|----------------------------|--|---|
| Minority Population | 870,459 | 28.2% | 1,223,835 | 36.5% | 40.6% |
| T o t a l Population | 3,087,979 | 100.0% | 3,357,194 | 100.0% | 8.7% |

Source: 2020 and 2010 Decennial Censuses Redistricting Files, Table P2.

FIGURE 2

Percent of the Minority Population in the Boston Region



Source: 2020 Decennial Census Redistricting File, Table P2.

LOW-INCOME POPULATION

The MPO defines the low-income population as people whose family income is less than or equal to 200 percent of the federal poverty level (FPL) for their family size. Because the FPLs are recalculated each year, the MPO's low-income thresholds vary slightly in accordance with these changes. Table 2 shows the low-income thresholds that the MPO uses based on the 2021 FPL.

TABLE 2
2021 MPO Low-income Thresholds

| Size of Family Unit | Weighted Average Threshold |
|---------------------|----------------------------|
| One | \$27,576 |
| Two | \$35,058 |
| Three | \$43,118 |
| Four | \$55,480 |
| Five | \$65,730 |
| Six | \$74,322 |
| Seven | \$84,312 |
| Eight | \$94,186 |
| Nine or More | \$112,650 |

Note: The MPO's low-income thresholds use the weighted averages across all family sizes as determined by the US Census Bureau. Where the MPO use data directly from Census Table CI7002 (such as in demographic profiles; see Table 3 and Figure 2), thresholds correspond with those based on family size (rather than weighted averages).

Source: US Census Bureau.

Table 3 shows the number and percent of the low-income population in the Boston region, while Figure 2 shows the percent of the low-income population in block groups in the Boston region. In all, about 715,740 people have low incomes in the Boston region, or 20.1 percent of the total population. This is a decrease of 5.8 percent compared to 2010.

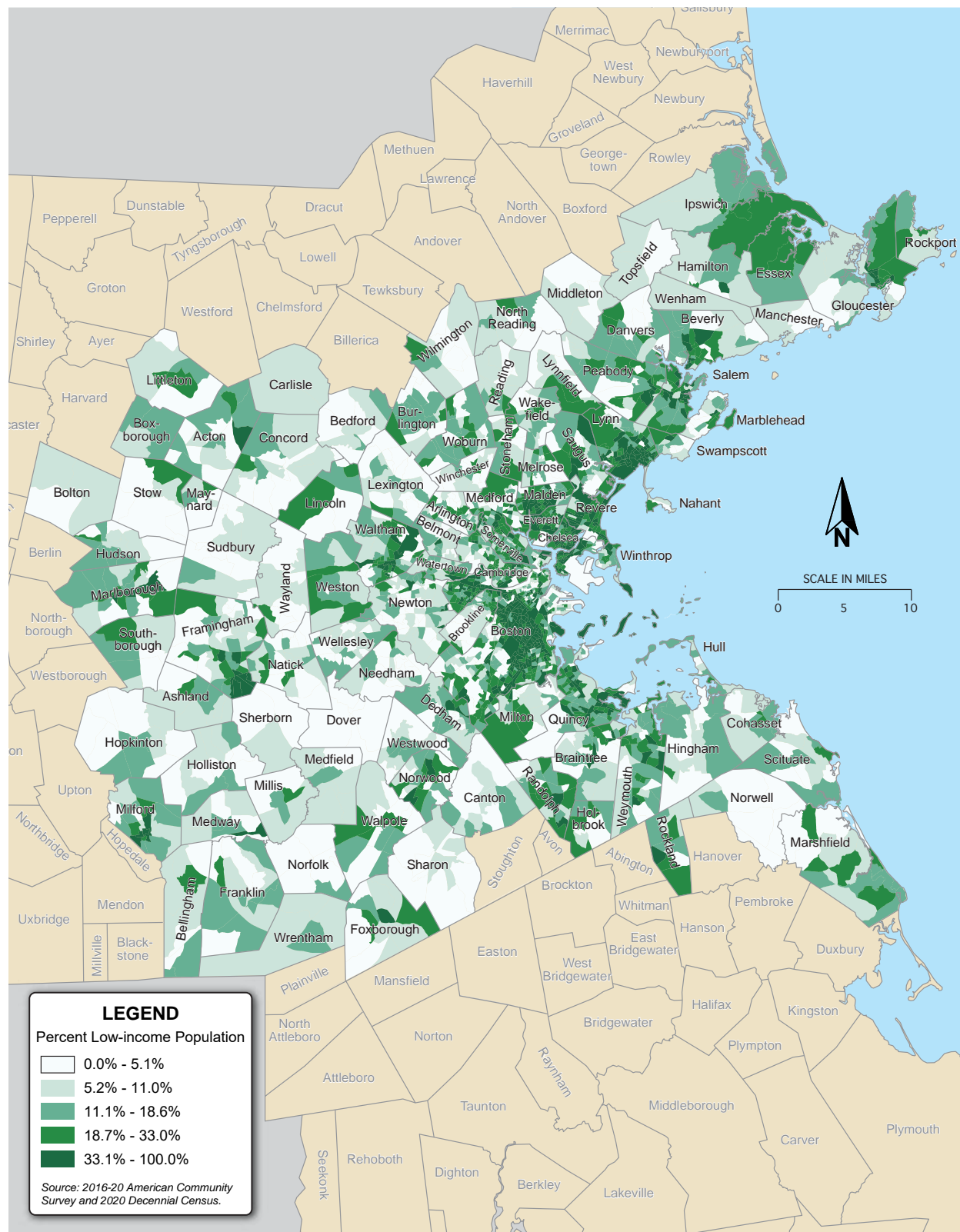
TABLE 3

Low-income Population in the Boston Region

| | 2010 Population | Percent of the Total Population, 2010 | 2020 Population | Percent of the Total Population, 2020 | Percent Change, 2010 to 2020 |
|--------------------------------|--------------------|--|--------------------|--|---------------------------------------|
| Low-income Population Estimate | 715,740 | 23.2% | 674,215 | 20.1% | -5.8% |
| Total Population Count | 3,087,979 | 100% | 3,357,194 | 100% | 8.7% |

Source: 2016–20 and 2010–14 American Community Surveys, Table C17002; 2020 and 2010 Decennial Census Redistricting File, Table P2.

FIGURE 3
Percent of the Low-income Population in the Boston Region



Source: 2016-20 America Community Survey, Table CI7002.

PEOPLE WITH LIMITED ENGLISH PROFICIENCY

People with LEP 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 US Census Bureau that they speak English less than “very well.” This definition is used by the MPO.

Data from the 2016–20 ACS show that 11.2 percent of the Boston region population five years and older have LEP. Table 4 shows the count of the LEP population and total population, the percentage of the general population that are LEP, and the percentage change in LEP population from 2010 to 2020. About 375,848 people have LEP, which is 8.7 percent of the total population. This is a 14.7 percent increase compared to 2010.

TABLE 4

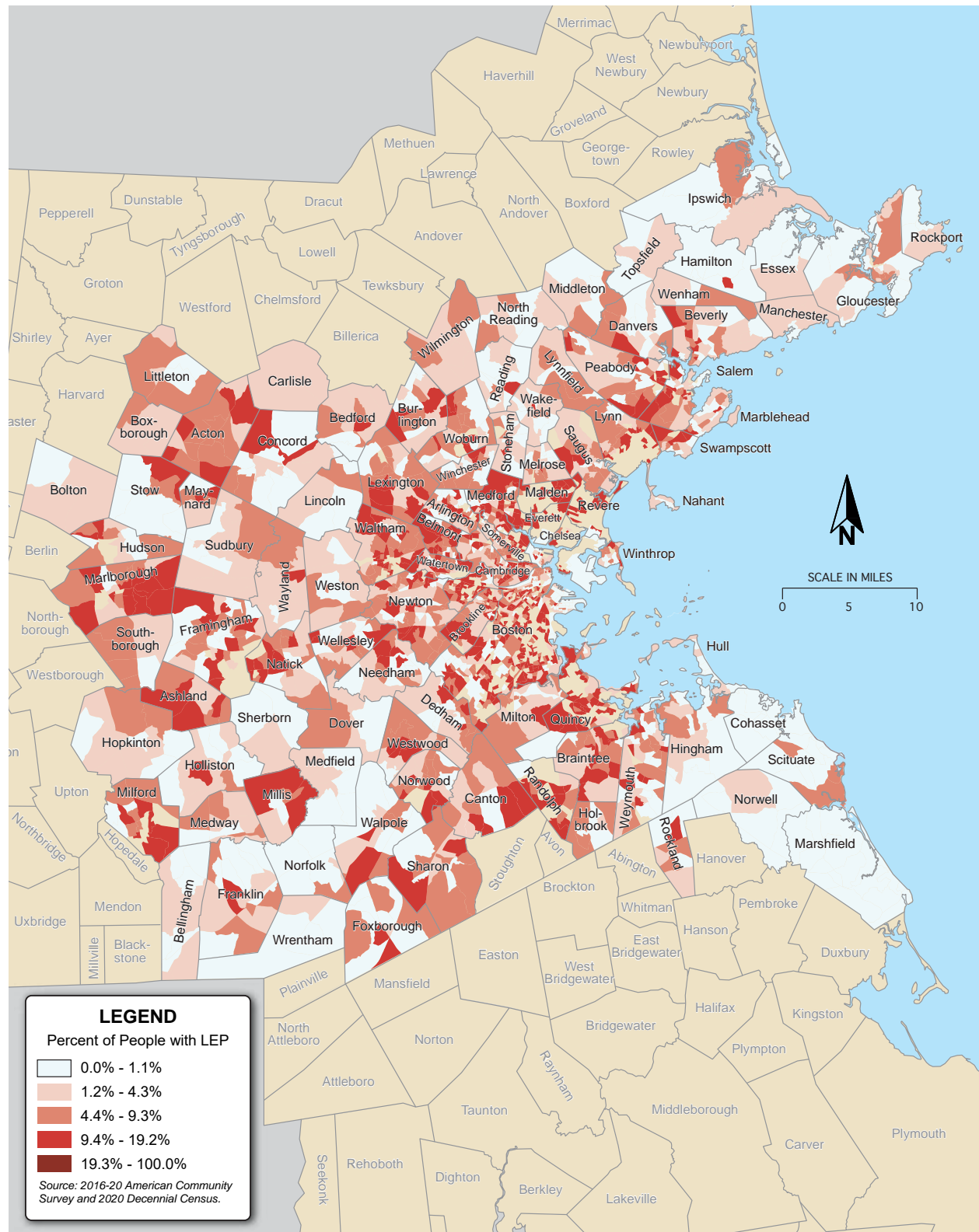
People with LEP in the Boston Region

| | 2010 Population | Percent of the Total Population, 2010 | 2020 Population | Percent of the Total Population, 2020 | Percent Change, 2010 to 2020 |
|-------------------------------|--------------------|--|--------------------|--|---------------------------------------|
| LEP Population Estimate | 329,282 | 10.7% | 375,848 | 11.2% | 14.7% |
| Total Population Count | 3,087,979 | 100% | 3,357,194 | 100% | 8.7% |

Source: 2020 and 2010 Decennial Censuses Redistricting Files, Table P2; 2016–20 and 2010–14 American Community Surveys, Table B16004.

Figure 4 shows the distribution of people with LEP within the Boston region. Maps that show the distribution of where Safe Harbor languages are spoken may be found in Appendix D, the Boston Region MPO’s 2021 LAP.

FIGURE 4
Percent of the Population with LEP in the Boston Region



Source: 2016-20 American Community Survey, Table B16004.

The Boston MPO last updated the LAP in 2021 and therefore did not conduct a new update for this report. The data shown in Table 4 and Figure 3 are from the 2016–20 five-year ACS, while the data in the LAP included in the Appendix are from 2015–19 five-year ACS and Public Use Microdata Sample (PUMS) as these were the data available at the time.

In the LAP, the MPO identified the region’s Safe Harbor languages—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 5. Note that the number of LEP persons who speak Safe Harbor languages (345,218) is less than the total number of LEP persons in the region (349,345). This is because Safe Harbor languages do not include every non-English language that is spoken, only those that meet one or both thresholds. Spanish is the most spoken non-English language in the region, with approximately 126,018 speakers, which is 36.5 percent of all LEP persons and 4.0 percent of the entire population aged five and older. It is followed by Chinese, Portuguese, French Creole, and Vietnamese.

Vital documents are not translated into all of these languages. Vital documents are translated into the six most commonly spoken non-English languages—Spanish, Chinese (including traditional and simplified), Portuguese, Haitian Creole, and Vietnamese. They account for about three-quarters of all non-English language speakers in the region. The MPO does not encounter LEP persons on a frequent or regular basis; thus, translating vital documents into all Safe Harbor languages would not be an effective use of limited resources. 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, engaging with LEP persons and organizations that represent them, and analyzing language datasets such as the ACS.

TABLE 5
Safe Harbor Languages in the Boston Region

| Language | Number of Speakers ¹ | Percent Change from the 2017 LAP | Percent of People with LEP | Percent of Boston Region Population |
|---|---------------------------------|----------------------------------|----------------------------|-------------------------------------|
| Spanish | 126,018 | 19.60% | 36.5% | 4.0% |
| Chinese (including Mandarin and Cantonese) | 57,687 | 15.60% | 16.7% | 1.9% |
| Portuguese and Portuguese Creoles | 39,144 | 12.50% | 11.3% | 1.3% |
| Haitian ² | 24,623 | 14.20% | 7.1% | 0.8% |
| Vietnamese | 17,361 | 15.10% | 5.0% | 0.6% |
| Russian | 11,236 | -4.50% | 3.3% | 0.4% |
| Arabic | 7,124 | -26.90% | 2.1% | 0.2% |
| Italian | 5,871 | -24.70% | 1.7% | 0.2% |
| French (including Cajun) ³ | 5,574 | 3.80% | 1.6% | 0.2% |
| Other Indo-European languages | 5,447 | N/A | 1.6% | 0.2% |
| Korean | 4,474 | 16.10% | 1.3% | 0.1% |
| Greek | 3,909 | 5.60% | 1.1% | 0.1% |
| Amharic, Somali, or other Afro-Asiatic languages | 3,652 | N/A | 1.1% | 0.1% |
| Japanese | 2,903 | 5.60% | 0.8% | 0.1% |
| Nepali, Marathi, or other Indic languages | 2,810 | N/A | 0.8% | 0.1% |
| Khmer | 2,629 | 16.40% | 0.8% | 0.1% |
| Hindi | 2,500 | 21.20% | 0.7% | 0.1% |
| Other languages of Asia | 2,323 | N/A | 0.7% | 0.1% |
| Yoruba, Twi, Igbo, or other languages of Western Africa | 1,794 | N/A | 0.5% | 0.1% |
| Gujarati | 1,745 | 11.70% | 0.5% | 0.1% |
| Swahili or other languages of Central, Eastern, and Southern Africa | 1,658 | N/A | 0.5% | 0.1% |
| Polish | 1,639 | -6.20% | 0.5% | 0.1% |
| Tagalog (including Filipino) | 1,319 | -4.20% | 0.4% | 0.0% |

| Language | Number of Speakers ¹ | Percent Change from the 2017 LAP | Percent of People with LEP | Percent of Boston Region Population |
|--|---------------------------------|----------------------------------|----------------------------|-------------------------------------|
| Serbo-Croatian | 1,308 | N/A | 0.4% | 0.0% |
| Persian (including Farsi and Dari) | 1,304 | 4.60% | 0.4% | 0.0% |
| Ukrainian or other Slavic languages | 1,261 | N/A | 0.4% | 0.0% |
| Thai, Lao, or other Tai-Kadai languages | 1,228 | N/A | 0.4% | 0.0% |
| Other and unspecified languages | 1,171 | N/A | 0.3% | 0.0% |
| Bengali | 1,147 | N/A | 0.3% | 0.0% |
| Telugu | 1,134 | N/A | 0.3% | 0.0% |
| Armenian | 1,124 | 30.90% | 0.3% | 0.0% |
| Punjabi | 1,094 | N/A | 0.3% | 0.0% |
| Tamil | 1,007 | N/A | 0.3% | 0.0% |
| Total LEP Safe Harbor Language Speakers | 345,218 | 20.5% | 98.8% | 11.2% |
| Total LEP Population | 349,345 | 12.3% | 100.0% | 11.2% |
| Total Population Age 5 or Older | 3,114,612 | 4.3% | N/A | 100.0% |

¹ Of the population that is five years of age or older, people with LEP include those who self-identify as speaking English well, not well, or not at all.

² Prior to 2016, French-based creole languages were coded as French Creole. Because most of these speakers speak Haitian Creole, starting in 2016 Haitian Creole was recoded to Haitian, which includes Haitian Creole and all other mutually intelligible French-based creoles.

³ Prior to 2016, Patois was grouped with French. Starting in 2016, Patois was usually coded as Jamaican Creole English, unless a more appropriate code was available.

LAP = Language Assistance Plan. LEP = Limited English proficiency. MPO = Metropolitan Planning Organization. N/A = Not available.

Source: American Community Survey Public Use Microdata Sample, 2015–19; and 2010–14 American Community Survey summary tables.

3.1.2 DEMOGRAPHIC PROFILES FOR OTHER TE POPULATIONS

In addition to the populations protected under Title VI and the EJ EO, the MPO includes other populations in its TE program with the goal of improving their access to the MPO's transportation-planning process and improving their transportation outcomes through MPO investments, studies, and policies. These additional three TE populations are: people with disabilities, older adults (75 years of age and older), and youths (under age 18). MPO staff makes concerted efforts to understand the transportation needs of these populations through a combination of data analysis and public engagement.

Table 6 shows the distribution of older adults, youth, and people with disabilities in the Boston region. The percent of the population who are older adults or who have disabilities has increased since 2010 (12.5 percent and 0.1 percent, respectively), while the percentage of the youths in the total population has decreased slightly, by 0.4 percent.

TABLE 6

People with Disabilities, Older Adults, and Youth in the Boston Region

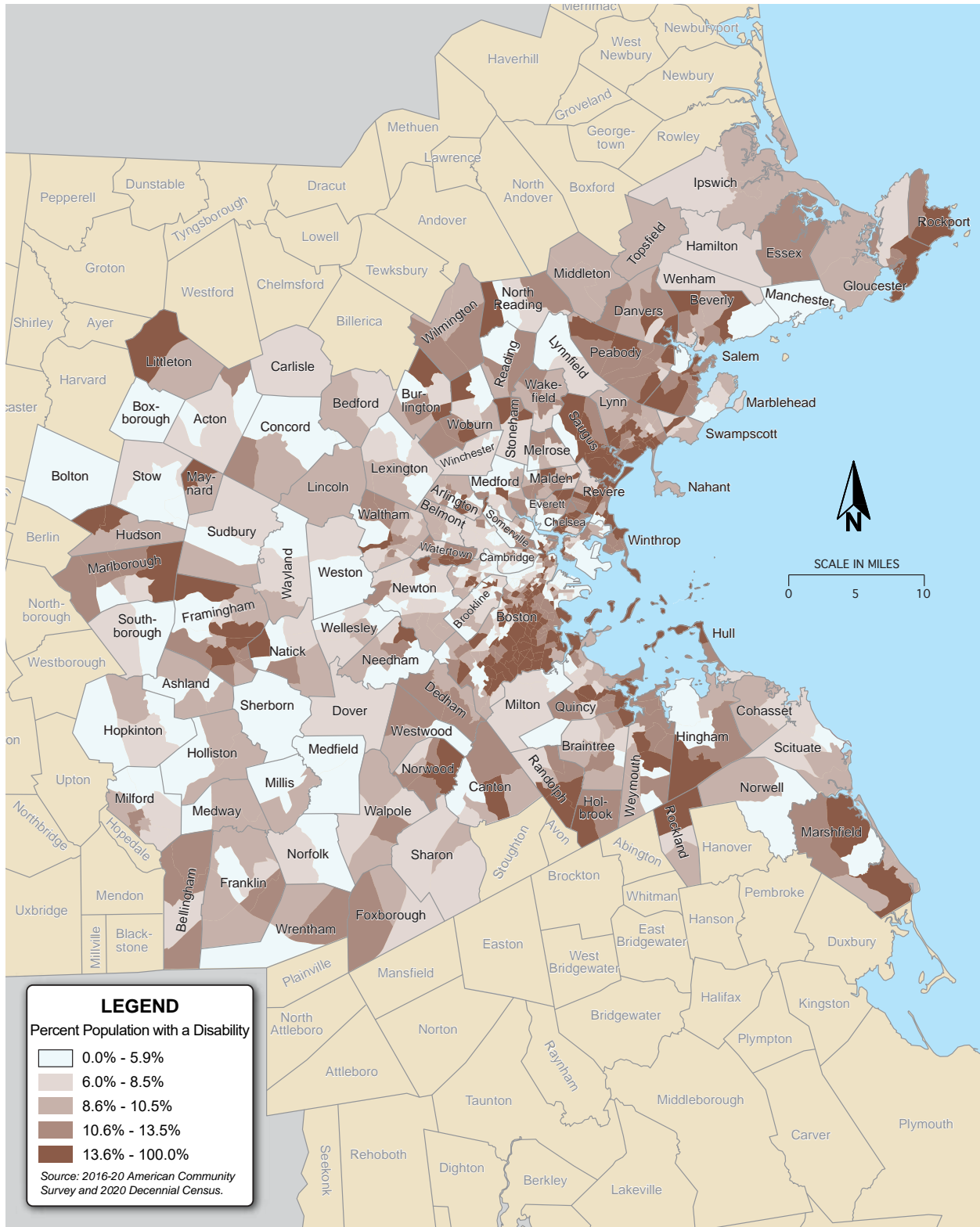
| | 2010 Population | Percent of the Total Population, 2010 | 2020 Population | Percent of the Total Population, 2020 | Percent Change, 2010 to 2020 |
|-----------------------------------|--------------------|--|--------------------|--|---------------------------------------|
| Older Adults Population Count | 206,568 | 6.7% | 232,286 | 6.9% | 12.5% |
| Youth Population Count | 636,771 | 20.6% | 634,550 | 18.9% | -0.4% |
| People with Disabilities Estimate | 314,081 | 10.0% | 342,552 | 10.2% | 9.1% |
| Total Population Count | 3,087,979 | 100% | 3,357,194 | 100% | 8.7% |

Source: 2016–20 and 2010–14 American Community Surveys, Tables B01001 and B18101; 2020 and 2010 Decennial Censuses Redistricting Files, Table P2.

PEOPLE WITH DISABILITIES

This profile includes people with a physical or cognitive disability, as self-reported in the 2016–20 ACS; 10.2 percent of the population (342,552 people) has a disability. Figure 5 shows the percent of the population in the Boston region that has a disability.

FIGURE 5
Percent of the Population with a Disability in the Boston Region



Source: 2016–20 American Community Survey, Table B18101.

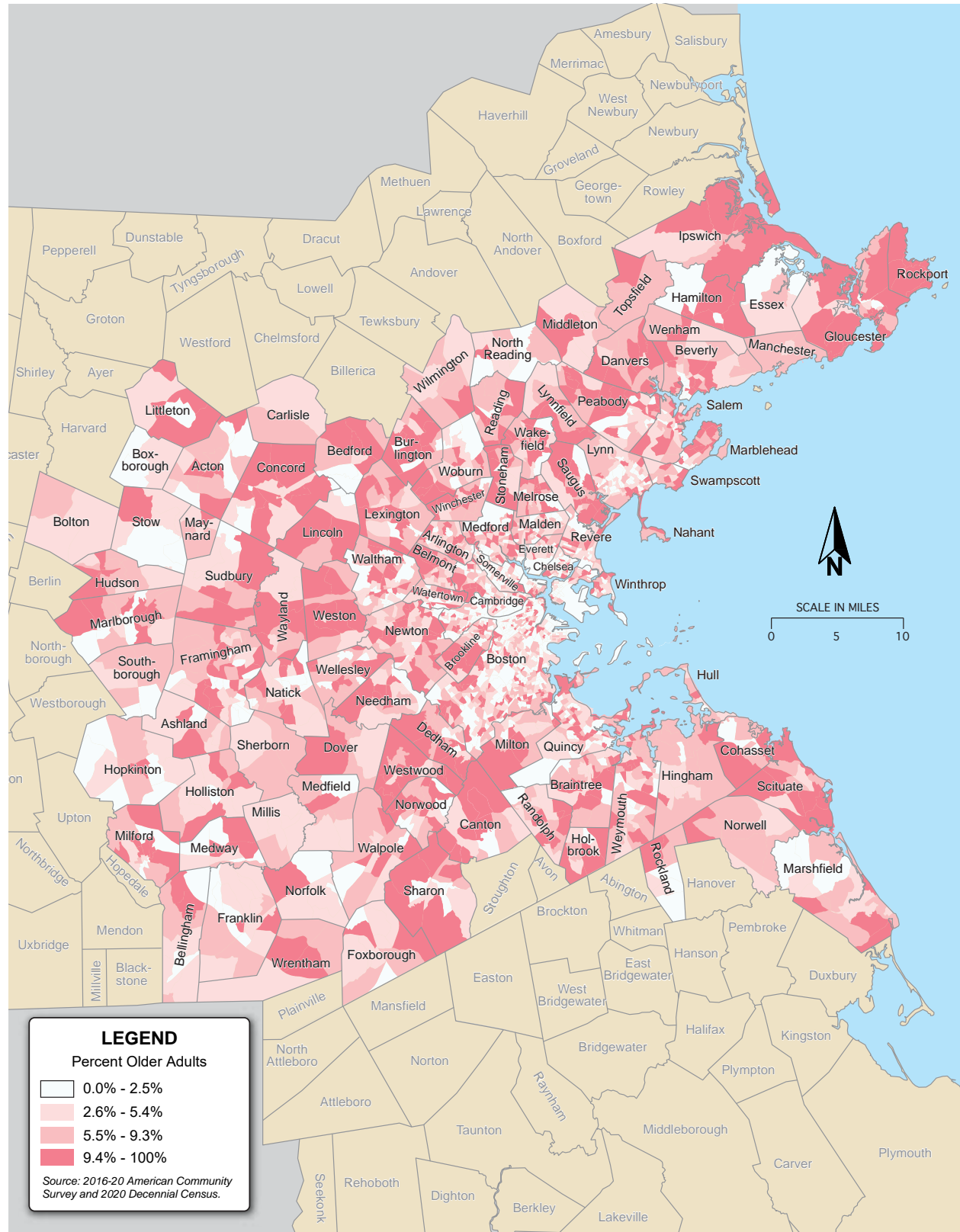
OLDER ADULT POPULATION

The MPO considers older adults as those who are 75 years of age or older. As of the 2016–20 ACS, 6.9 percent of the MPO's population (232,286 people) are older adults. Figure 6 shows the percent of the population in the Boston region who are older adults.



FIGURE 6

Percent of the Older Adult Population in the Boston Region



Source: 2016-20 American Community Survey, Table B01001.

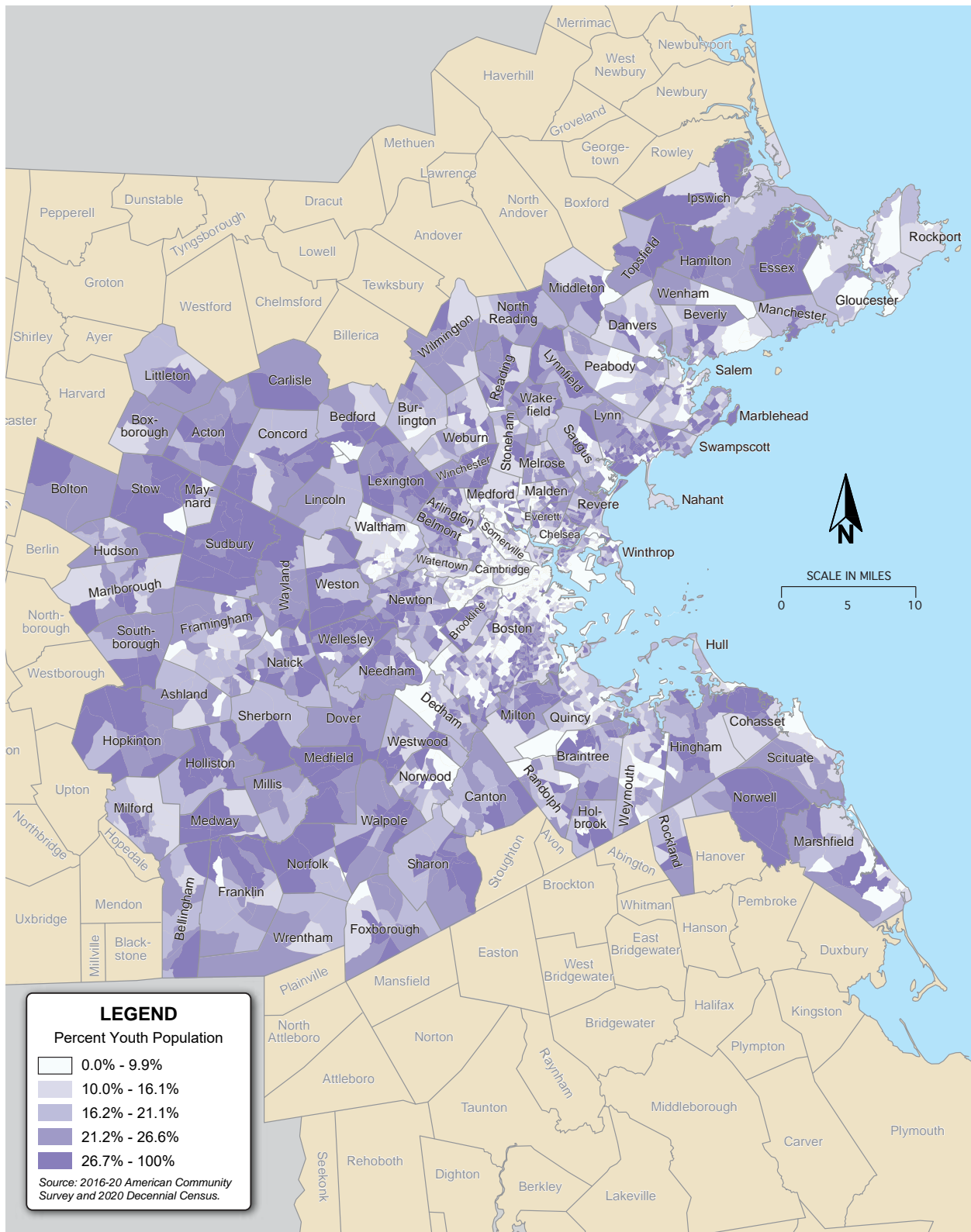
YOUTH POPULATION

There are 634,550 people who are younger than 18 years in the Boston region, or 18.9 percent of the population. Figure 7 shows the percent of the population in the Boston region who are under age 18.



FIGURE 7

Percent of the Youth Population in the Boston Region



Source: 2016-20 American Community Survey, Table B01001.

3.2 DEMOGRAPHIC MAPS AND CHARTS OF FUNDING DISTRIBUTION

The MPO has completed several analyses that examine the distribution of MPO funding. As per federal guidance, minority and low-income populations are analyzed separately in all of them.

- ▣ A **geographical mapping of TIP projects** that explores the percent of Title VI, EJ, and other protected populations that are served by transit projects in the TIP.
- ▣ A **funding analysis of TIP investments** that shows the minority and low-income populations who are likely to benefit from TIP projects.
- ▣ An **analysis of TIP public transit projects** that assesses the distribution of state and federal funds for public transit purposes in the aggregate to low-income and minority riders based on the share of their use of public transit.
- ▣ An analysis that examines the **geographical distribution of UPWP funds** among municipalities in the Boston region, as well as the minority, low-income, and LEP populations in each municipality.

3.2.1 GEOGRAPHICAL MAPPING OF TIP PROJECTS

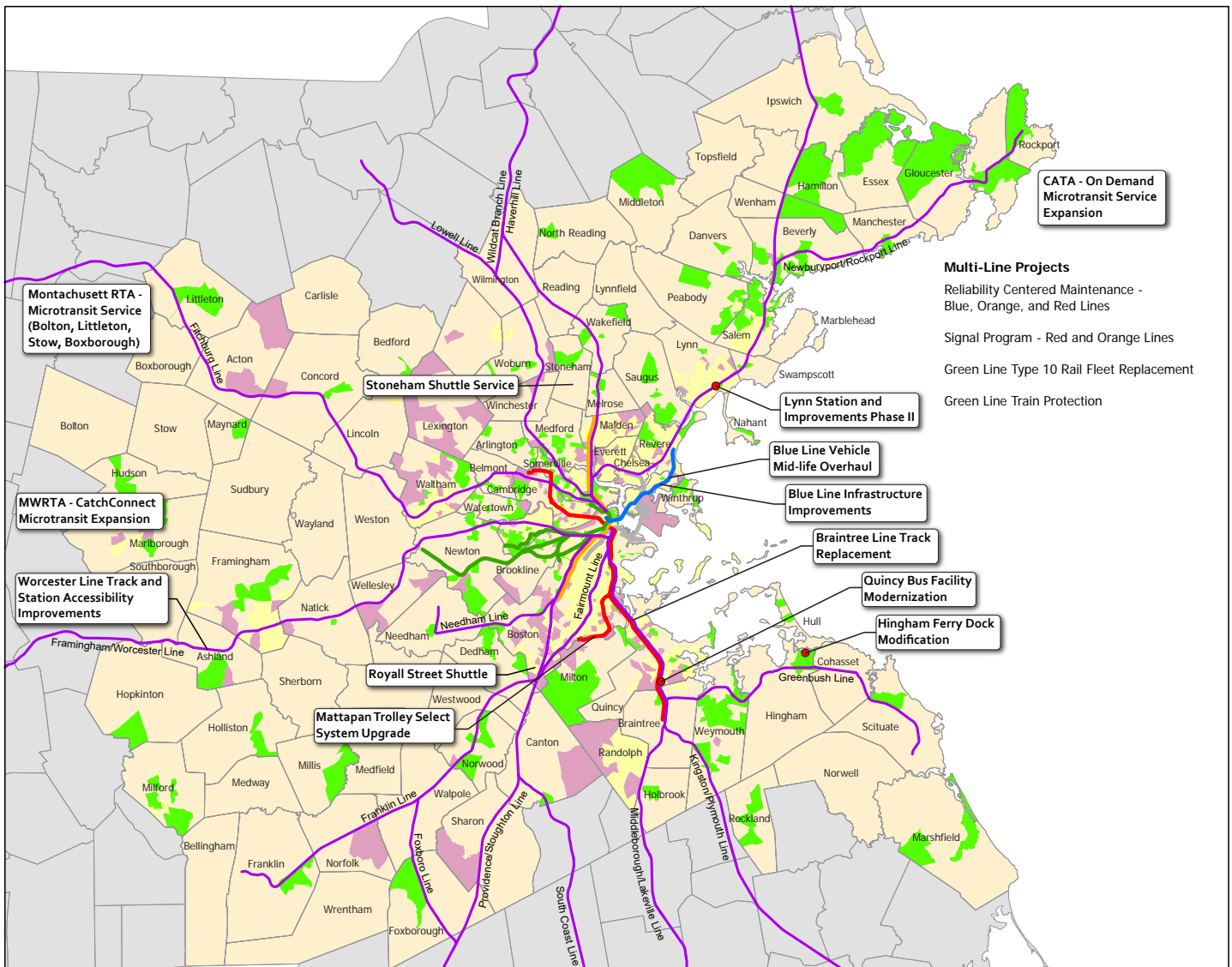
MPO staff completed an analysis and map of public transit projects in the FFYs 2023–27 TIP. The analysis shows the distribution of all transit projects relative to the distribution of minority and low-income populations in the Boston region. Figures 8a and 8b show the location of transit projects in the TIP, overlaid upon block groups that show the percentage of low-income and/or minority populations. The projects included are only those with a physical location, such as improvements to stations, vehicle purchases, and commuter rail or subway lines.

There are several data challenges that if resolved 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 improvement projects, such as vehicle acquisition—that is, data on the routes or garages where the new buses will be deployed. 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.



FIGURE 8A

Boston Region MPO TIP Transit Projects (FFYs 2023–27 TIP)



LEGEND

Minority and/or Low-income Percent

- Low-income percent exceeds average
- Minority percent exceeds average
- Minority and low-income percent exceeds average
- Neither exceeds regional average

- MPO Municipalities
- MBTA Commuter Rail Lines
- Rapid Transit Lines**
- Blue Line
- Green Line
- Orange Line
- Mattapan Trolley
- Red Line
- Silver Line

Notes:

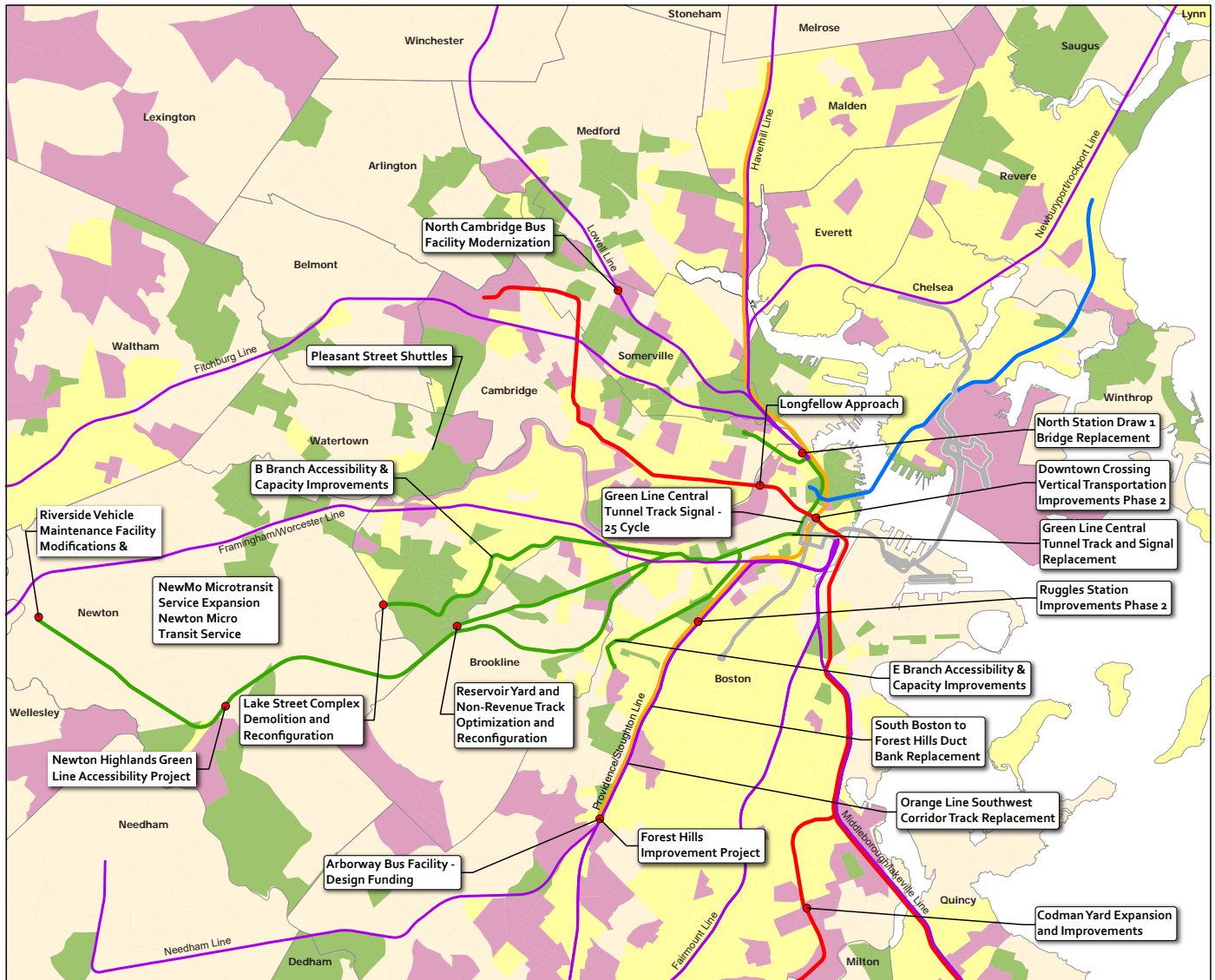
In the MPO region, the regionwide average for the minority population is 35.6%.

The low-income population is defined as people whose family income is less than or equal to 200% of the federal poverty level for their family size. In the MPO region, the regionwide average for the low-income population is 20.1%.

Sources: MBTA, MassGIS, 2020 US Census, and 2016-20 American Community Survey.

FIGURE 8B

Boston Region MPO TIP Transit Projects (FFYs 2023–27 TIP): Detailed Map



LEGEND

Minority and/or Low-income Percent

- Low-income percent exceeds average
- Minority percent exceeds average
- Minority and low-income percent exceeds average
- Neither exceeds regional average

- MPO Municipalities
- MBTA Commuter Rail Lines

Rapid Transit Lines

- Blue Line
- Green Line
- Orange Line
- Mattapan Trolley
- Red Line
- Silver Line

Notes:

In the MPO region, the regionwide average for the minority population is 35.6%.

The low-income population is defined as people whose family income is less than or equal to 200% of the federal poverty level for their family size. In the MPO region, the regionwide average for the low-income population is 20.1%.

Sources: MBTA, MassGIS, 2020 US Census, and 2016-20 American Community Survey.

3.2.2 FUNDING ANALYSIS OF TIP INVESTMENTS

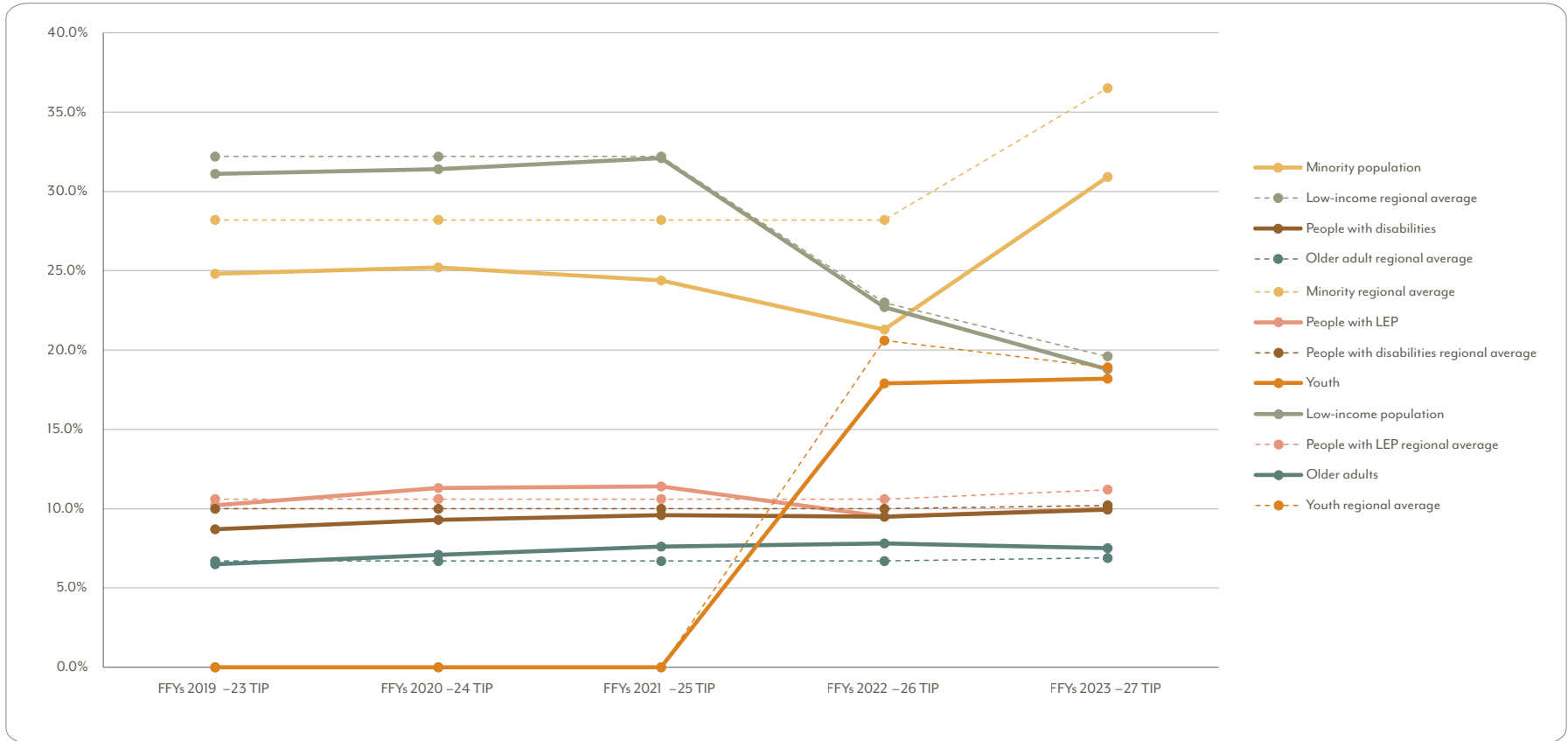
Each year, MPO staff analyze MPO target-funded projects in the TIP to assess funding distribution among TE populations. Low-income populations and other TE populations are included to understand how transportation investments impact these populations.

Figure 9 shows the percent of TIP target funding allocated to projects benefiting TE populations for the last five TIP cycles, the FFYs 2019–23 through FFYs 2023–27 TIPs. A project is considered to benefit people who live within one-half mile of the project. The percent of funding allocated to projects benefiting the minority population has consistently been about five percentage points less than the percent of their population in the Boston region. The other TE populations have been allocated approximately the same percent of funding compared to the share of the population in the region.



FIGURE 9

Change in the Percent of Funding Allocated to TE Populations in the TIP



Notes: People ages 17 or younger were not considered as a TE population until the FFYs 2022–26 TIP cycle. Additionally, starting in the FFYs 2022–26 TIP, people with low incomes were defined based on their poverty status for their family size. (Formerly, the definition was based on household income.) The decrease in percent of the low-income population served in the FFYs 2022–26 TIP is largely due to this change, as is the change in the regionwide average.

As is its usual practice, the MPO has left some funds unallocated in the outer years of the TIP, and this analysis does not reflect those funds.

FFY = federal fiscal year. LEP = limited English proficiency. TE = transportation equity. TIP = Transportation Improvement Program.

Sources: US Census Bureau, 2015–17 MBTA Systemwide Passenger Survey, and Boston Region MPO.



3.2.3 ANALYSIS OF TIP PUBLIC TRANSIT INVESTMENTS

Each year, MPO staff determine the investment per passenger for public transit projects, in the aggregate, funded in the Boston region with state and federal funds for low-income and minority passengers. Included in this analysis are 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. (However, bus-specific improvements, such as bus rapid transit lanes, are included). The analysis was performed with the assumption that all investments result in a net benefit to transit passengers.

Public transit ridership and demographics were derived from the 2015–17 MBTA Systemwide Passenger Survey (SPS), the most recent MBTA passenger survey. Respondents were classified according to four demographic categories: low-income, non-low-income, minority, and non-minority. Because the MBTA and MPO definitions for low-income populations differ, the analysis used the MBTA definition since the data for these populations are available in the SPS. Minority respondents were those who reported being American Indian or Alaskan Native, Asian, Black or African American, Hispanic/Latino of any race, and/or Native Hawaiian or Pacific Islander.

Tables 7 and 8 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 that were applied to each population.

TABLE 7
MBTA Ridership by Minority Status

| Transit Mode | Minority | Non-minority | Percent Minority | Percent Non-minority |
|--------------------------|----------------|----------------|------------------|----------------------|
| Rapid Transit | 203,951 | 457,921 | 30.8% | 69.2% |
| Bus | 149,270 | 160,923 | 48.1% | 51.9% |
| Silver Line | 12,218 | 17,096 | 41.7% | 58.3% |
| Commuter Rail | 15,987 | 93,618 | 14.6% | 85.4% |
| Commuter Boat | 67 | 3,244 | 2.0% | 98.0% |
| MBTA System Total | 381,493 | 732,802 | 34.2% | 65.8% |

Source: 2015–17 MBTA Systemwide Passenger Survey.

TABLE 8
MBTA Ridership by Income

| Transit Mode | Low-income | Non-low-income | Pct. Low-income | Pct. Non-low-income |
|--------------------------|----------------|----------------|-----------------|---------------------|
| Rapid Transit | 160,199 | 444,384 | 26.5% | 73.5% |
| Bus | 117,443 | 166,176 | 41.4% | 58.6% |
| Silver Line | 6,626 | 19,936 | 24.9% | 75.1% |
| Commuter Rail | 6,508 | 89,174 | 6.8% | 93.2% |
| Commuter Boat | 76 | 2,748 | 2.7% | 97.3% |
| MBTA System Total | 381,493 | 722,418 | 28.7% | 71.3% |

Source: 2015–17 MBTA Systemwide Passenger Survey.

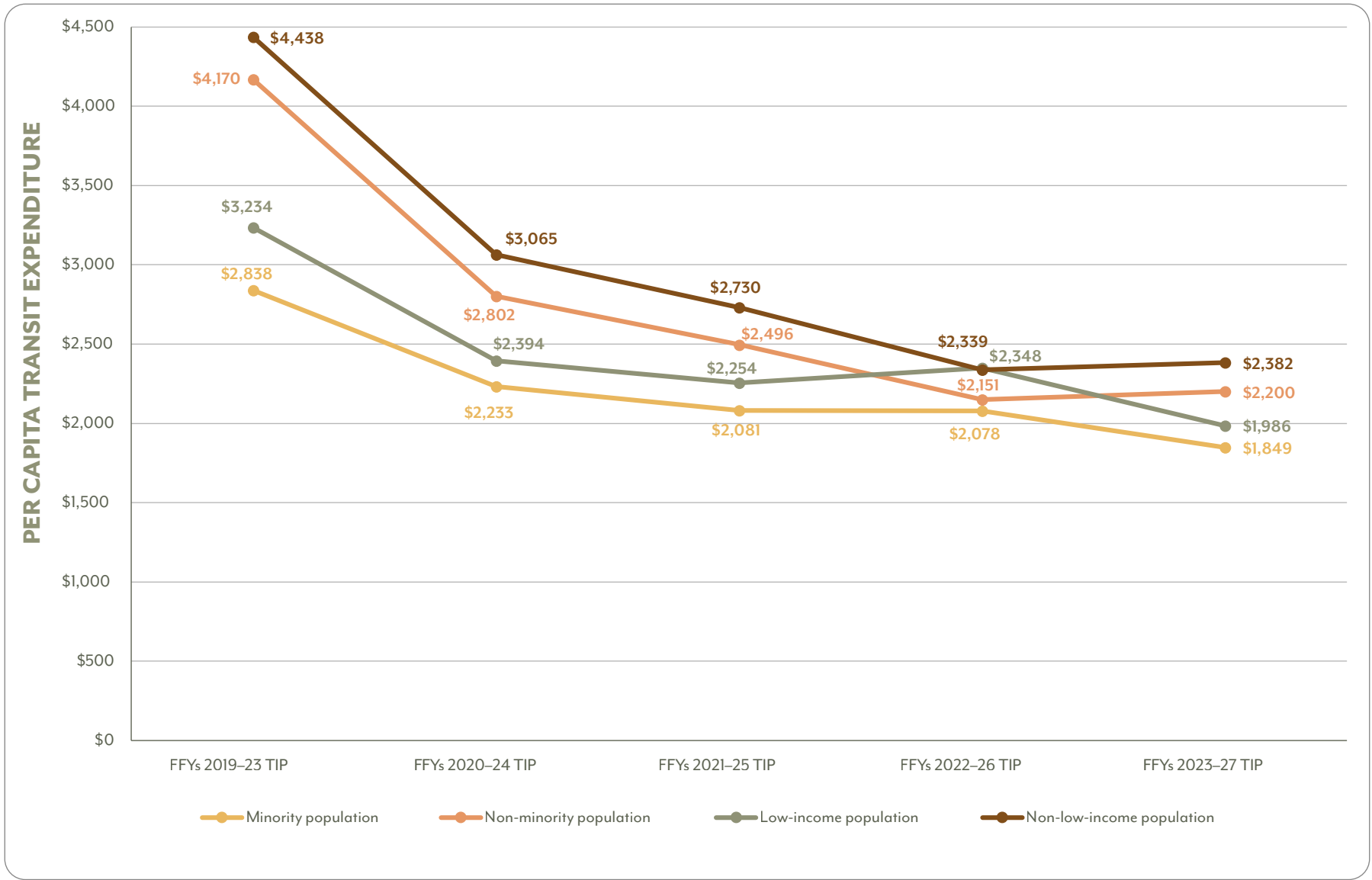
Figures 10a and 10b show the per person transit investments for minority, non-minority, low-income, and non-low-income public transit passengers for the FFYs 2019–23 through FFYs 2023–27 TIPs. Over the past five years, transit investments from all sources in the Boston region peaked in the FFYs 2019–23 TIP for all populations and then decreased. For projects funded only with MPO target funds this is in large part a function of the completion of the Green Line Extension, which the MPO funded through several TIP cycles, ending in the FFYs 2020–24 TIP. Public transit investments from target funding are likely to go back up again—indeed, funding is already on an upswing in the FFYs 2023–27 TIP—with the implementation of the MPO’s new Transit Modernization Program. It is less clear how public transit investments from all sources will change since most of that funding comes from the MBTA and Regional Transit Authorities.

Among target funds, the amount of funding allocated to minority and low-income populations on a per-person basis has consistently been less than for the non-minority and non-low-income populations, respectively. In the FFY 2019 TIP, the minority population received 55 percent of the amount the non-minority population received. In the FFY 2023 TIP, the figure was 75 percent. The low-income population received 68 percent of the amount the non-low-income population received in the FFY 2019 TIP; in the FFY 2023 TIP, that figure decreased to 64 percent.

Among all transit projects funded in the Boston region, these ratios are slightly better but still unequal. In the FFY 2019 TIP, the minority population received 68 percent of the amount the non-minority population received. In the 2023 TIP, the figure was 84 percent. In the FFY 2019 TIP, the low-income population received 73 percent of the amount the non-low-income population received; in the FFY 2023 TIP, that figure increased to 83 percent.

FIGURE 10A

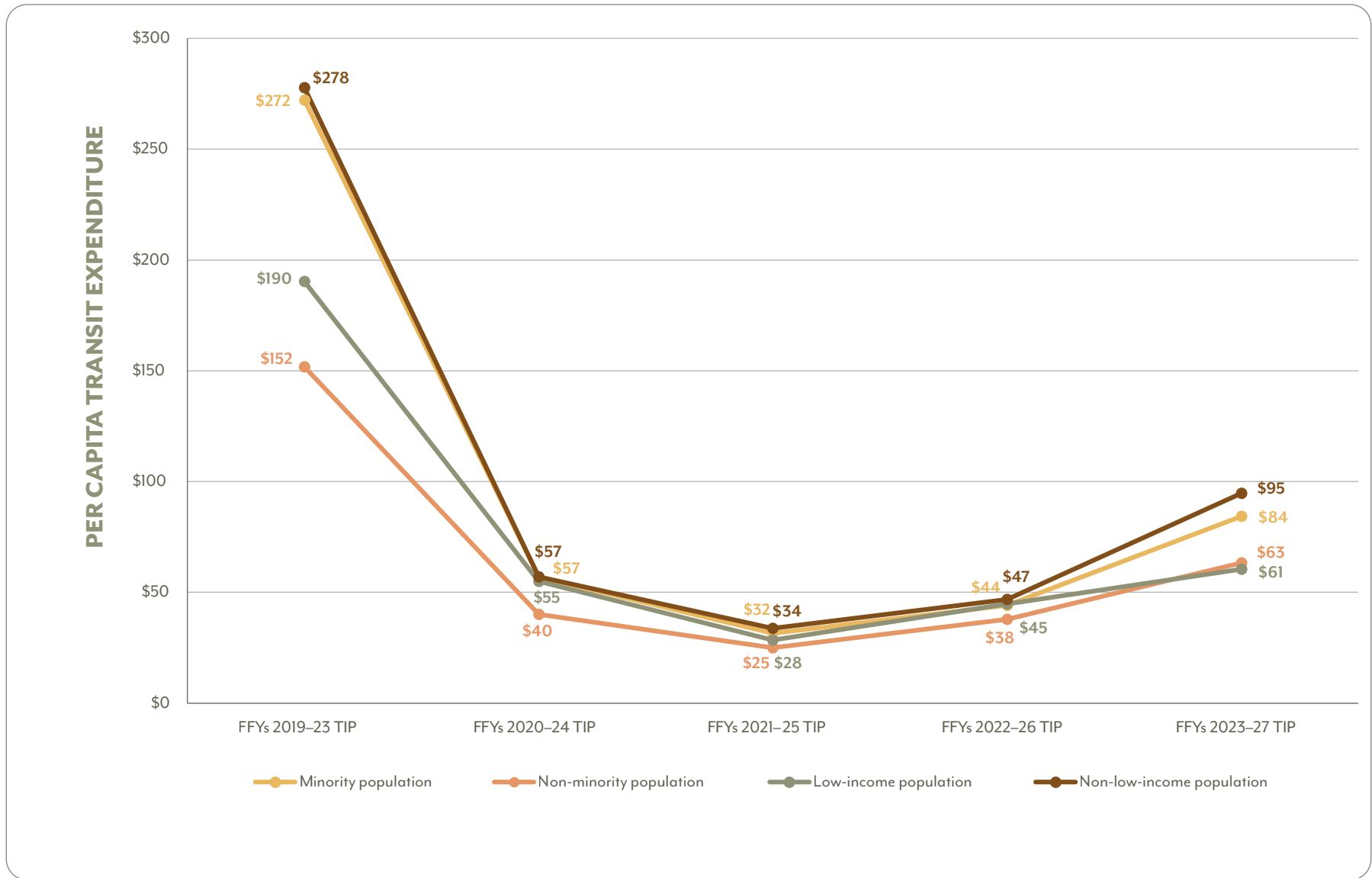
Public Transit Investments in the TIP: All Investments



Source: 2015-17 MBTA Systemwide Passenger Survey; MBTA.

FIGURE 10B

Public Transit Investments in the TIP: Target-funded Investments



Source: 2015-17 MBTA Systemwide Passenger Survey; MBTA.

3.2.4 ANALYSIS OF THE GEOGRAPHICAL DISTRIBUTION OF UPWP FUNDS

Each year, the MPO conducts a geographical assessment of the distribution of MPO-funded UPWP studies and technical support activities. Appendix G shows which communities in the region have been the subjects of MPO-funded studies or recipients of technical support from the MPO, as well as 3C-funded work completed by the Metropolitan Area Planning Council, for the FFYs 2010 through 2022 UPWPs. For each municipality, the table includes the population that is minority, low-income, or has limited English proficiency, as well as the number of UPWP tasks that have occurred in each FFY.

Overall, there does not appear to be a strong relationship between the number of studies and the percent of a municipality's residents who are minority, low-income, or have limited-English proficiency. Boston, for example, has been the subject of 60 studies since 2010 and has among the highest percentages of these populations. In contrast, Randolph, where 73.4 percent of the population is minority, had only six studies.

Not all municipalities have a study in any given FFY, but the assessment covers several years to provide the MPO with a fuller picture of which municipalities UPWP studies are and are not serving. Assessments excluded client-funded studies, those with a regional focus, and all work related to certification requirements and MPO administration, resource management, and support activities.

3.3 ANALYSIS OF MPO TRANSPORTATION SYSTEM INVESTMENTS, IDENTIFYING AND ADDRESSING DISPARATE IMPACTS

3.3.1 LONG-RANGE TRANSPORTATION PLAN TITLE VI AND ENVIRONMENTAL JUSTICE ANALYSES

DEVELOPMENT OF A DISPARATE IMPACT AND DISPROPORTIONATE BURDEN POLICY

One of the ways the MPO works toward achieving equity is to ensure that transportation projects that the MPO funds, in the aggregate, are not discriminatory toward minority and low-income communities. Between 2018 and 2020, MPO staff undertook an extensive public engagement process to develop a Disparate Impact and Disproportionate Burden (DI/DB) Policy that would help achieve that goal. The policy allows the MPO to evaluate the impacts of the projects in the LRTP, as a group, on the minority and low-income populations living in the Boston region. Impacts on minority populations are compared to those on non-minority

populations. Similarly, impacts on low-income populations are compared to those on non-low-income populations. The DI/DB Policy determines whether the difference in impacts between each of the two population groups is likely the result of unintentional discrimination.

In developing the policy, the MPO's goal was to create a policy that reflected the need for minority and low-income populations to be protected from unintentional discrimination and would be useful as a proactive planning tool to prevent such discrimination. MPO staff turned to the processes established by the US Department of Justice to identify disparate impacts for Title VI analyses and by the US Department of Transportation for identifying disproportionate burdens for EJ analyses. Because the criteria for determining disparate impacts and disproportionate burdens are similar in nature, the evaluation for both involve the three steps below:

1. The impact must be caused by the projects, as a group, that the MPO proposes to fund.
2. The impact must significantly affect peoples' quality of life.
3. The minority or low-income population must be more adversely affected compared to the non-minority or non-low-income population, respectively.

The MPO developed a DI/DB Policy that consisted of three thresholds, one for each step. A disparate impact or disproportionate burden would be indicated if all three thresholds, shown below, were passed:

- **Baseline uncertainty threshold:** Determines whether the predicted impact to each population group is likely to occur or whether it is due to the uncertainty inherent in travel forecasting
- **Practical impact threshold:** Determines whether the impact would be practically significant
- **Disproportionality threshold:** Determines whether the impact would disproportionately and adversely affect the minority or low-income population compared to the non-minority or non-low-income population

The MPO analyzes several metrics for disparate impacts and disproportionate burdens in the LRTP. In the current LRTP, Destination 2040, the following metrics were used:

- Access to jobs within 60-minute drive and public transit trips
- Access to healthcare within 40-minute drive and public transit trips
- Access to higher education within 40-minute drive and public transit trips
- Access to retail within 60-minute drive and public transit trips
- Average travel times by driving and public transit
- Traffic congestion per square mile
- Carbon monoxide emissions per square mile

With the next LRTP, Destination 2050, planned to be completed by the summer of 2023, staff will use updated metrics, including new ones such as access to essential places and access to parks, as well as updated data for existing metrics, such as access to higher education.

2019 LRTP, DESTINATION 2040, DI/DB ANALYSIS RESULTS

In 2019, staff completed a DI/DB analysis for the LRTP, Destination 2040, which included both MPO target-funded projects and all federal-funded projects in the Boston region. As the final DI/DB Policy was not approved until November 2020, staff used an interim one. In sum, it stated that there would be a potential future disparate impact or disproportionate burden if

- the minority or low-income population would likely be more adversely affected than the non-minority or non-low-income population, respectively; and
- this result is not due to the metric's forecasting error.

Both the draft policy and the final policy incorporate uncertainty into the MPO's DI/DB analyses. As a result, the DI/DB analysis results show the range of values for the build scenario (the scenario in which all programmed projects are implemented) that is expected based on the uncertainty. (For example, if a change in carbon monoxide emissions is predicted to be 10 kilograms and the forecasting error is 10 percent, then the range of expected values would be 9 to 11.) The full results for the DI/DB analysis for Destination 2040 can be found in Appendix E.

Below are additional links to the DI/DB analysis and policy documentation:

- [Moving Toward Equity: Engaging the public to prevent discrimination \(StoryMap\)](#) (April 2021)
- [Final DI/DB Policy](#) (November 2020)
- [Disparate Impact Metrics Study memo](#) (November 2020)
- [Development of the DI/DB Policy: Phase I memo](#) (November 2019)
- [Results of the DI/DB analysis for the 2019 LRTP](#) (July 2019)
- [Interim Draft DI/DB Policy used in the 2019 LRTP](#) (May 2019)

3.3.2 TIP TITLE VI AND ENVIRONMENTAL JUSTICE ANALYSES

The MPO assesses the impacts of all target-funded projects, as a group, on TE populations in each TIP. As standard practice, the MPO leaves some target funds unprogrammed each year to accommodate cost increases and future projects. In addition, the MPO reserves funds for certain investment programs, such as Community Connections and Transit Modernization, with the expectation that they will be allocated when projects are ready to be funded. These unprogrammed funds are not included in the analyses. (See Appendix F for the results of the FFYs 2023–27 TIP Title VI and EJ analyses.)

The TIP Title VI and EJ analyses assess which TE populations are likely to be served or impacted by regional target-funded projects programmed in the TIP. There are several analyses that provide this insight:

- The total number of people in TE populations served or impacted by regional target projects, compared to their respective regionwide percentages

- Percent of TE populations served or impacted by target projects, by investment program
- Reduction in carbon monoxide, volatile organic compounds, and nitrogen oxide emissions per 1,000 people, comparing TE and non-TE populations
- Percent of regional target funding allocated to TE populations, compared to their respective percentage of the regionwide population

The major constraint to implementing more sophisticated analyses is the limited time available to perform these analyses. TIP projects are typically not selected until March of each year and the full TIP document is released for public review by the end of April. Therefore, any analyses must be completed within that time-frame. In addition, there is often limited quantitative data on project impacts that can be analyzed for the purposes of EJ and Title VI analyses.

A potential new tool that could help with the analysis is the destination access tool, Conveyal, which analyzes the ability of people to access destinations in the region within a given travel time. Because it is quick to run, it could potentially be used to analyze access for the Title VI and EJ analyses in the TIP. Staff will continue to explore this and other opportunities for adding new metrics to the TIP Title VI and EJ analyses.

3.4 PUBLIC ENGAGEMENT: IDENTIFYING MOBILITY NEEDS

3.4.1 BUILDING A FOUNDATION: DEVELOPING AND STRENGTHENING COMMUNITY RELATIONSHIPS

Meaningful and equitable public engagement is foundational to the MPO's planning and decision-making. The MPO's approach to engagement is centered on the development of strong relationships with members of the community, particularly groups and organizations representing TE populations who have historically been underrepresented in the planning process.

This approach requires an understanding of the historical and demographic contexts of the communities that are engaged, and a commitment to meeting these communities where they are by developing creative and flexible engagement strategies. This is especially important when engaging harder-to-reach equity communities. Approaches include attending both virtual and in-person community meetings and events during and outside of regular business working hours, building trust with small-scale neighborhood, civic, and advocacy organizations, and partnering with other organizations to distribute surveys and conduct focus groups in languages other than English.

It also requires a commitment to equity in the collection of qualitative data, through awareness of the effectiveness of our engagement in terms of what types of communities staff are reaching and being more intentional about seeking representation from TE populations.

3.4.2 COLLECTING AND IDENTIFYING NEEDS

L RTP NEEDS ASSESSMENT

The LRTP Needs Assessment is the process by which staff identify transportation needs in the Boston region. While the development of the Needs Assessment is most intense in the year leading up to the release of the MPO's LRTP every four years, it includes all input received through public engagement in the years since the last LRTP.

To support the Needs Assessment, staff engage a diverse range of stakeholders in the region. This engagement happens continuously as staff track needs expressed by stakeholders in various settings, including both LRTP-focused engagement and conversations or events happening in other venues or contexts. Conversations with municipalities and transportation professionals are an important component of the Needs Assessment process, but staff also prioritize the inclusion of diverse perspectives from individuals and groups representing a broad range of demographic and community types throughout the region, with a particular emphasis on engaging historically underrepresented and underserved/overburdened communities about their transportation needs. To that end, staff seek to ensure that engagement for the LRTP and across other programs is not just holistic and meaningful, but also quantifiable. (See Section 3.5.2 on staff's use of qualitative data.)

Needs voiced by the public during a wide range of engagement activities are cataloged, and all feedback and comments are organized into themes. They are further grouped by equity tags (such as transportation concerns that are related to minority populations or people with limited English proficiency). The collection and analysis of this information is coordinated across engagement, TE, and planning staff to assess the effectiveness of engagement efforts, share information that is relevant to multiple programs or projects, and shape strategies to continuously improve the effective and equitable collection of qualitative data.

COORDINATED PUBLIC TRANSIT-HUMAN SERVICES TRANSPORTATION PLAN (COORDINATED PLAN)

Transportation needs are also collected through the development of the Coordinated Plan. One of the main functions of the plan is to identify unmet transportation needs for seniors and people with disabilities in the Boston region through extensive public engagement and identify strategies and actions to meet those needs.

The Coordinated Plan is completed every four years, along the same timeline as the LRTP. This is intentional so as to coordinate public engagement for both processes and to help ensure that the input from seniors and people with disabilities can inform LRTP decisions, such as the development of new investment programs, which define how the MPO spends its target funds through the TIP. Engagement is largely done through focus groups and interviews with people who work closely with seniors and people with disabilities, such as councils on aging and regional coordinating councils. The MPO's newly established Transit Working Group also hosts coffee chats on specific topics related to transit, including human services transportation, and staff use these meetings to gather input and inform attendees about the Coordinated Plan. Additionally, staff use surveys to gather needs more directly from seniors and people with disabilities themselves.

3.4.3 FACILITATING ENGAGEMENT THROUGH THE MPO PLANNING PROCESS

DI/DB POLICY

At the core of the MPO's public engagement process for the DI/DB Policy was a stakeholder working group convened with the primary purpose of guiding the MPO's decision on setting the values of the three thresholds contained in the Policy (see Section 3.3.1). Creating a DI/DB Policy through a transparent public process, with the involvement of both stakeholders who work with and represent the interests of minority or low-income populations and the MPO board, built trust that the policy will be an effective tool for preventing unintentional discrimination. In addition, stakeholders brought with them an intimate understanding of the lived experiences of people in minority and low-income communities and the inequities they face.

The role of the stakeholders was to help staff

- ▣ identify which transportation impacts are the most important to address with the DI/DB Policy, and
- ▣ craft the policy to ensure it strongly reflects the interests of low-income and minority populations.

Throughout three meetings in 2018, stakeholders discussed the role of the DI/DB Policy in advancing equity in the Boston region, how the DI/DB Policy could be designed to prevent discrimination, and impacts that the MPO should analyze for potential disparate impacts and disproportionate burdens. At the third meeting staff asked stakeholders to provide recommendations for the policy's three thresholds. MPO staff spent the subsequent two years addressing this and other recommendations.

In 2020, MPO staff developed a proposal for a final DI/DB Policy. The policy reflects an important recommendation from stakeholders, which is that any impact that adversely affects either the low-income or minority population more than the non-low-income or non-minority population, respectively, would be considered a disparate impact or disproportionate burden. In August 2020, MPO staff brought this proposal back to the stakeholders for their discussion and recommendations. In general, stakeholders were supportive of the proposed policy. On November 5, 2020, the MPO board endorsed the DI/DB Policy.

TIP CRITERIA UPDATES

In 2021, staff completed updates to project selection criteria for the TIP. The TIP criteria include several equity-related criteria; the update doubled the share of these criteria of the total possible score (from 10 to 20 percent). Also, rather than being a stand-alone set of criteria that only assesses the percent of TE populations living in project study areas, each project now receives equity points based how well the project improves transportation outcomes for these populations.

To help determine which transportation outcomes should be part of the new equity criteria, staff conducted extensive surveying and public engagement, with a focus on getting input from disadvantaged populations and communities. While this informed all the criteria, not just the equity criteria, staff used this input to select criteria that emerged as most critical to evaluate in the equity scoring.

MPO STUDIES

Another key touchpoint facilitating public engagement through planning processes are MPO-funded studies and technical assistance. Staff strive to include the collection of qualitative data through meaningful community participation in all studies, particularly those that have an equity focus or involve communities where there is a high share of TE populations. Staff seek input from municipal and agency stakeholders as well as advocates, community-based organizations, and members of the public when conducting studies. Staff employ a variety of both virtual and in-person engagement methods including one-on-one conversations, attendance at community or organizational meetings, focus groups, advisory committees, and surveys to collect qualitative data.

For surveys, staff always include a block of demographic questions to track and evaluate the distribution of responses alongside the responses themselves. In doing so, staff can identify over- and under-represented communities and adjust engagement strategies accordingly to address feedback disparities. When advertising surveys, staff use demographic data from the Census and MassDOT's Engage tool to understand the demographic nuances of the audiences that are being engaged, especially in terms of the prevalence of languages other than English that are spoken. This enables staff to distribute translated materials efficiently and effectively and ensure that surveys are accessible to all audiences.

The MPO also conducts studies in response to community input. For example, a coalition of advocacy and community organizations proposed an FFY 2022 study, Equity and Access in the Blue Hills. Those proposing the project noted that the Blue Hills Reservation just south of Boston is very difficult to get to from Boston without a car, and that it is often easier for people driving from suburbs to get there than it is for people living just a few miles away in EJ communities such as Dorchester, Roxbury, and Mattapan, where many residents rely on public transit. MPO staff scoped the study based on the coalition's proposal and began the study by convening an advisory group composed of the proponent coalition and additional community, agency, and municipal stakeholders. This study was led by staff in the MPO's Communications and Engagement group, who also conducted additional targeted engagement throughout the study to community-based organizations and neighborhood associations in and around Mattapan (including organizations representing EJ and LEP communities).

Staff worked with the advisory group throughout the study, and the group's input directed all aspects of staff work, from a research review to external engagement activities to technical analysis, final recommendations for public transit interventions to improve access, and the presentation of results. Staff intend for this type of continuous stakeholder engagement to be a model for future UPWP studies that have strong community engagement components, and that this approach will be a meaningful step for the MPO towards stronger community involvement in decision-making processes.

3.5 DATA COLLECTION, REPORTING, AND ANALYSES

3.5.1 QUANTITATIVE DATA

The MPO collects demographic data on TE populations primarily from the Decennial Census (DC) and American Community Survey (ACS). Staff collect new data each year when new datasets are released. They are used in equity-related analyses, including scoring of TIP projects, LRTP Needs Assessment, Title VI reporting, LAP, and the LRTP and TIP Title VI and EJ analyses, among others.

Datasets that complement the ACS and DC data are also used as needed. For example, for the LAP, staff use English-language-learner data from the Massachusetts Department of Education, which has more detailed information about the languages spoken in MPO communities, as a supplement to ACS data.

Data are generally reported at the census block group or tract level. Staff balance the granularity that smaller geographies provide with the larger margins of error that are present. Particularly considering the increased privacy protections employed in the 2020 DC, staff continue to seek to better understand the benefits and drawbacks of using different geographies for different analysis purposes.

Over the past several years, the MPO has shifted toward analyses that focus on understanding project impacts on TE populations, rather than assuming that people who live near a project will benefit from it. This change is reflected in the project selection criteria for the TIP that were updated starting in FFY 2022. This approach is also used with the DI/DB analysis for the LRTP and the air quality analysis that is part of the TIP Title VI and EJ analyses.

With the acquisition of Conveyal in 2021, the MPO can measure access to destinations far more quickly and easily than it could in the past using the travel demand model. In 2022, staff completed a study, Identifying Transportation Inequities in the Boston Region, that used Conveyal to determine if there are inequities in access to various destinations for minority populations, low-income populations, and zero-vehicle households. In FFY 2023, staff will explore opportunities for expanding on the work done on that study to develop a broader set of metrics that identify baseline inequities for several different transportation metrics, such as travel time and air quality. The intention is to use these data to support the MPO's decision-making process to improve transportation outcomes for equity populations.

Additionally, with the introduction of CTPS's new Data Program in FFY 2023, staff will be developing a more comprehensive approach to managing data across the agency, including demographic data. From the perspective of the Title VI Program, this will help ensure consistency in how the data are collected and used throughout CTPS, as well as allow the program to capitalize on emerging datasets, demographic and otherwise, and analysis tools.

CTPS contains many programs outside of the MPO's core documents and engagement processes developed for certification purposes. The data collected and analyzed under the TE Program are also used to support these efforts. Examples include the following:

- Supporting equity-related analyses for various MPO-funded studies
- Conducting EJ analyses for client projects, including public transit and highway projects
- Selecting studies for the MPO's Multimodal Mobility Infrastructure Program, which conducts technical assistance and feasibility studies for MPO municipalities

3.5.2 QUALITATIVE DATA

In addition to the quantitative data cited above, staff also rely on on-the-ground knowledge of community partners about the languages that are spoken in communities. Staff seek out and build upon relationships with those communities by engaging community-based organizations, associations, and advocates to discuss transportation needs, priorities, and concerns, and disseminate surveys and other engagement materials to help us collect that feedback.

As described in Section 3.4.2, staff organize and categorize input that is received through public engagement. Comments are tagged based on whether they relate to transportation needs for any TE populations. Staff also create tables and charts and maps where appropriate, for example with responses to multiple choice or ranking survey questions. Finally, staff track the demographics of survey respondents using a standardized list of questions that align with federal definitions of Title VI, EJ, and other non-discrimination populations.

Staff also continue to explore new strategies and tools to support and improve the collection, organization, and analysis of qualitative data such as the needs of equity populations for the Needs Assessment. Staff are currently identifying methods of providing incentives and compensation for participation in focus groups to create more equitable engagement opportunities for harder-to-reach communities. Staff are also exploring digital platforms for tracking engagement and organizing feedback, which would allow better visualizations of which communities are being reached and how across various projects and to plan future engagement accordingly.

APPENDIX A—NOTICE OF NONDISCRIMINATION SAMPLES



64 FIGURE A-1

Full Notice of Nondiscrimination



BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

Jamey Tesler, MassDOT Secretary and CEO and MPO Chair
Tegin L. Teich, Executive Director, MPO Staff

CIVIL RIGHTS NOTICE TO THE PUBLIC

The Boston Region Metropolitan Planning Organization (MPO) complies with Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin (including limited English proficiency). Related federal and state nondiscrimination laws prohibit discrimination on the basis of age, sex, disability, and additional protected characteristics. The MPO is committed to nondiscrimination in all activities.

Individuals who believe they have been discriminated against may file a complaint with the Massachusetts Department of Transportation (MassDOT) or the MPO:

MassDOT Title VI Specialists
Office of Diversity and Civil Rights—Title VI Unit
10 Park Plaza, Suite 3800
Boston, MA 02116
Phone: (857) 368-8580 or 7-1-1 for Relay Service
Email: MassDOT.CivilRights@state.ma.us

Boston Region MPO Title VI Specialist
10 Park Plaza, Suite 2150
Boston, MA 02116
Phone: (857) 702-3700
Email: civilrights@ctps.org

Complaints may also be filed directly with the United States Department of Transportation:

U.S. Department of Transportation
Office of Civil Rights
1200 New Jersey Avenue, SE
Washington, DC 20590
Website: civilrights.justice.gov/

For additional information, language service requests, or reasonable accommodations visit mass.gov/nondiscrimination-in-transportation-program or https://www.bostonmpo.org/mpo_non_discrimination.

MPO Email Notice of Nondiscrimination

Welcome. Bem Vinda. Bienvenido. Akeyi. 欢迎. 歡迎. Chào mừng.

You are invited to participate in our transportation planning process, regardless of your race, color, national origin (including limited English proficiency), religion, creed, gender, ancestry, ethnicity, disability, age, sex, sexual orientation, gender identity or expression, veteran’s status, or background. Read our [full notice](#) of rights and protections.

To request special accommodations, or if you need this information in another language, contact the MPO at 857.702.3700 (voice), 617.570.9193 (TTY) or civilrights@ctps.org (please allow 14 days).



Español (Spanish)

Si necesita esta información en otro idioma, por favor contacte la Boston Region MPO al 857.702.3700.

繁體中文 (Traditional Chinese)

如果需要使用其他語言瞭解資訊，請聯繫波士頓大都會規劃組織 (Boston Region MPO) 《民權法案》第六章專員，電話 857.702.3700。

Kreyòl Ayisyen (Haitian Creole)

Si yon moun vle genyen enfòmasyon sa yo nan yon lòt lang, tanpri kontakte Espesyalis Boston Region MPO Title VI la nan nimewo 857.702.3700.

简体中文 (Simplified Chinese)

如果需要使用其它语言了解信息，请联系波士顿大都会规划组织 (Boston Region MPO) 《民权法案》第六章专员，电话 857.702.3700。

Português (Portuguese)

Caso estas informações sejam necessárias em outro idioma, por favor, contate o MPO da Região de Boston pelo telefone 857.702.3700.

Tiếng Việt (Vietnamese)

Nếu quý vị cần thông tin này bằng một ngôn ngữ khác, vui lòng liên lạc Boston Region MPO theo số 857.702.3700.

66 FIGURE A-3

MPO Agenda Notice of Nondiscrimination

Meeting materials are posted on the MPO's meeting calendar webpage at [ctps.org/calendar/month](https://www.ctps.org/calendar/month).

Times reflect the expected duration of each item and do not constitute a schedule.

Meeting locations are accessible to people with disabilities and are near public transportation. Upon request (preferably two weeks in advance of the meeting), every effort will be made to provide accommodations such as assistive listening devices, materials in accessible formats and in languages other than English, and interpreters in American Sign Language and other languages. Please contact MPO staff to request these services. See below for contact information.

The Boston Region Metropolitan Planning Organization (MPO) operates its programs, services, and activities in compliance with federal nondiscrimination laws including Title VI of the Civil Rights Act of 1964 (Title VI), the Civil Rights Restoration Act of 1987, and related statutes and regulations. Title VI prohibits discrimination in federally assisted programs and requires that no person in the United States of America shall, on the grounds of race, color, or national origin (including limited English proficiency), be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination under any program or activity that receives federal assistance. Related federal nondiscrimination laws administered by the Federal Highway Administration, Federal Transit Administration, or both, prohibit discrimination on the basis of age, sex, and disability. The Boston Region MPO considers these protected populations in its Title VI Programs, consistent with federal interpretation and administration. In addition, the Boston Region MPO provides meaningful access to its programs, services, and activities to individuals with limited English proficiency, in compliance with U.S. Department of Transportation policy and guidance on federal Executive Order 13166.

The Boston Region MPO also complies with the Massachusetts Public Accommodation Law, M.G.L. c 272 sections 92a, 98, 98a, which prohibits making any distinction, discrimination, or restriction in admission to, or treatment in a place of public accommodation based on race, color, religious creed, national origin, sex, sexual orientation, disability, or ancestry. Likewise, the Boston Region MPO complies with the Governor's Executive Order 526, section 4, which requires that all programs, activities, and services provided, performed, licensed, chartered, funded, regulated, or contracted for by the state shall be conducted without unlawful discrimination based on race, color, age, gender, ethnicity, sexual orientation, gender identity or expression, religion, creed, ancestry, national origin, disability, veteran's status (including Vietnam-era veterans), or background.

A complaint form and additional information can be obtained by contacting the MPO or at http://www.bostonmpo.org/mpo_non_discrimination. To request this information in a different language or in an accessible format, please contact

Title VI Specialist, Boston Region MPO, 10 Park Plaza, Suite 2150, Boston, MA 02116
civilrights@ctps.org

By Telephone:

857.702.3700 (voice)

For people with hearing or speaking difficulties, connect through the state MassRelay service:

- **Relay Using TTY or Hearing Carry-over:** 800.439.2370
- **Relay Using Voice Carry-over:** 866.887.6619
- **Relay Using Text to Speech:** 866.645.9870

For more information, including numbers for Spanish speakers, visit <https://www.mass.gov/massrelay>.

Memo and Report Notice of Nondiscrimination

The Boston Region Metropolitan Planning Organization (MPO) operates its programs, services, and activities in compliance with federal nondiscrimination laws including Title VI of the Civil Rights Act of 1964 (Title VI), the Civil Rights Restoration Act of 1987, and related statutes and regulations. Title VI prohibits discrimination in federally assisted programs and requires that no person in the United States of America shall, on the grounds of race, color, or national origin (including limited English proficiency), be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination under any program or activity that receives federal assistance. Related federal nondiscrimination laws administered by the Federal Highway Administration, Federal Transit Administration, or both, prohibit discrimination on the basis of age, sex, and disability. The Boston Region MPO considers these protected populations in its Title VI Programs, consistent with federal interpretation and administration. In addition, the Boston Region MPO provides meaningful access to its programs, services, and activities to individuals with limited English proficiency, in compliance with U.S. Department of Transportation policy and guidance on federal Executive Order 13166.

The Boston Region MPO also complies with the Massachusetts Public Accommodation Law, M.G.L. c 272 sections 92a, 98, 98a, which prohibits making any distinction, discrimination, or restriction in admission to, or treatment in a place of public accommodation based on race, color, religious creed, national origin, sex, sexual orientation, disability, or ancestry. Likewise, the Boston Region MPO complies with the Governor's Executive Order 526, section 4, which requires that all programs, activities, and services provided, performed, licensed, chartered, funded, regulated, or contracted for by the state shall be conducted without unlawful discrimination based on race, color, age, gender, ethnicity, sexual orientation, gender identity or expression, religion, creed, ancestry, national origin, disability, veteran's status (including Vietnam-era veterans), or background.

A complaint form and additional information can be obtained by contacting the MPO or at http://www.bostonmpo.org/mpo_non_discrimination.

To request this information in a different language or in an accessible format, please contact

Title VI Specialist
Boston Region MPO
10 Park Plaza, Suite 2150
Boston, MA 02116
civilrights@ctps.org

By Telephone:

857.702.3700 (voice)

For people with hearing or speaking difficulties, connect through the state MassRelay service:

- **Relay Using TTY or Hearing Carry-over:** 800.439.2370
- **Relay Using Voice Carry-over:** 866.887.6619
- **Relay Using Text to Speech:** 866.645.9870

For more information, including numbers for Spanish speakers, visit <https://www.mass.gov/massrelay>.

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Office Notice of Nondiscrimination



Additional Information

To request this information in a different language or in an accessible format, please contact

Title VI Specialist

Boston Region MPO
10 Park Plaza, Suite 2150
Boston, MA 02116
civilrights@ctps.org

Complaint Filing

To file a complaint alleging a violation of Title VI or other federal nondiscrimination law (based on race, color, national origin [including limited English proficiency], sex, age, or disability), contact the Title VI Specialist (above) within 180 calendar days of the alleged discriminatory conduct.

To file a complaint alleging a violation of the state's Public Accommodation Law (based on race, color, religious creed, national origin, sex, sexual orientation, disability, or ancestry) or the Governor's Executive Order 526, section 4 (based on race, color, age, gender, ethnicity, sexual orientation, gender identity or expression, religion, creed, ancestry, national origin, disability, veteran's status [including Vietnam-era veterans], or background), contact the Title VI specialist (above) within 300 calendar days of the alleged discriminatory conduct, or

MassDOT Title VI Specialist Office of Diversity and Civil Rights

10 Park Plaza, Suite 3800
Boston, MA 02116
Massdot.civilrights@state.ma.us
857.368.8580 (voice)

Notice of Nondiscrimination Rights and Protections to Beneficiaries

Federal "Title VI/Nondiscrimination" Protections

The Boston Region Metropolitan Planning Organization (MPO) operates its programs, services, and activities in compliance with federal nondiscrimination laws including Title VI of the Civil Rights Act of 1964 (Title VI), the Civil Rights Restoration Act of 1987, and related statutes and regulations. Title VI prohibits discrimination in federally assisted programs and requires that no person in the United States of America shall, on the grounds of race, color, or national origin (including limited English proficiency), be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination under any program or activity that receives federal assistance. Related federal nondiscrimination laws administered by the Federal Highway Administration, Federal Transit Administration, or both, prohibit discrimination on the basis of age, sex, and disability. The Boston Region MPO considers these protected populations in its Title VI Programs, consistent with federal interpretation and administration. In addition, the Boston Region MPO provides meaningful access to its programs, services, and activities to individuals with limited English proficiency, in compliance with U.S. Department of Transportation policy and guidance on federal Executive Order 13166.

State Nondiscrimination Protections

The Boston Region MPO also complies with the Massachusetts Public Accommodation Law, M.G.L. c 272 section 92a, 98, 98a, which prohibits making any distinction, discrimination, or restriction in admission to, or treatment in a place of public accommodation based on race, color, religious creed, national origin, sex, sexual orientation, disability, or ancestry. Likewise, the Boston Region MPO complies with the Governor's Executive Order 526, section 4, which requires that all programs, activities, and services provided, performed, licensed, chartered, funded, regulated, or contracted for by the state shall be conducted without unlawful discrimination based on race, color, age, gender, ethnicity, sexual orientation, gender identity or expression, religion, creed, ancestry, national origin, disability, veteran's status (including Vietnam-era veterans), or background.

如果需要使用其它语言了解信息，请联系波士顿大都会规划组织 (Boston Region MPO) 《民权法案》第六章专员，电话 857-702-3700。

如果需要使用其他语言瞭解資訊，請聯繫波士頓大都會規劃組織 (Boston Region MPO) 《民權法案》第六章專員，電話 857-702-3700。

Si yon moun vle genyen enfòmasyon sa yo nan yon lòt lang, tanpri kontakte Espesyalis Boston Region MPO Title VI la nan nimewo 857-702-3700.

Caso estas informações sejam necessárias em outro idioma, por favor, contate o Especialista em Título VI da MPO da Região de Boston pelo telefone 857-702-3700.

Если Вам необходима данная информация на любом другом языке, пожалуйста, свяжитесь со Специалистом по Титулу VI в Boston Region MPO по тел: 857-702-3700.

Si necesita esta información en otro idioma, por favor contacte al especialista de la Boston Region MPO del Título VI al 857-702-3700.

Nếu quý vị cần thông tin này bằng tiếng khác, vui lòng liên hệ Chuyên viên Luật VI của MPO Vùng Boston theo số điện thoại 857-702-3700.

Public Meeting Notice of Nondiscrimination



VIRTUAL MEETING

Notice of Nondiscrimination

You are invited to participate in our transportation planning process, regardless of your race, color, national origin (including limited English proficiency), religion, creed, gender, ancestry, ethnicity, disability, age, sex, sexual orientation, gender identity or expression, veteran's status, or background.

简体中文 (Simplified Chinese)

如果需要使用其它语言了解信息, 请联系波士顿大都会规划组织 (Boston Region MPO) 《民权法案》第六章专员, 电话 857.702.3700.

繁體中文 (Traditional Chinese)

如果需要使用其他語言瞭解資訊, 請聯繫波士頓大都會規劃組織 (Boston Region MPO) 《民權法案》第六章專員, 電話 857.702.3700.

Kreyòl Ayisyen (Haitian Creole)

Si yon moun vle genyen enfòmasyon sa yo nan yon lòt lang, tanpri kontakte Espesyalis Boston Region MPO Titil VI la nan nimewo 857.702.3700.

Español (Spanish)

Si necesita esta información en otro idioma, por favor contacte la Boston Region MPO al 857.702.3700.

Português (Portuguese)

Caso estas informações sejam necessárias em outro idioma, por favor, contate o MPO da Região de Boston pelo telefone 857.702.3700.

Tiếng Việt (Vietnamese)

Nếu quý vị cần thông tin này bằng một ngôn ngữ khác, vui lòng liên lạc Boston Region MPO theo số 857.702.3700.

Read the full notice of your rights and protections at www.bostonmpo.org/mpo_non_discrimination.

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Notice of Nondiscrimination for Public Engagement Materials

WELCOME. BEM VINDA. BIENVENIDO. AKEYI. 欢迎. 歡迎.

You are invited to participate in our transportation planning process, regardless of your race, color, national origin (including limited English proficiency), religion, creed, gender, ancestry, ethnicity, disability, age, sex, sexual orientation, gender identity or expression, veteran's status, or background. Read our full notice of rights and protections at www.bostonmpo.org/mpo_non_discrimination.

To request special accommodations, or if you need this information in another language, contact the MPO at 857.702.3700 (voice), 617.570.9193 (TTY) or civilrights@ctps.org (please allow 14 days).

Español (Spanish) - Si necesita esta información en otro idioma, por favor contacte la Boston Region MPO al 857.702.3700.

简体中文 (Simplified Chinese) - 如果需要使用其它语言了解信息，请联系波士顿大都会规划组织 (Boston Region MPO) 《民权法案》第六章专员，电话 857.702.3700.

繁體中文 (Traditional Chinese) - 如果需要使用其他語言瞭解資訊，請聯繫波士頓大都會規劃組織 (Boston Region MPO) 《民權法案》第六章專員，電話 857.702.3700.

Kreyòl Ayisyen (Haitian Creole) - Si yon moun vle genyen enfòmasyon sa yo nan yon lòt lang, tanpri kontakte Espesyalis Boston Region MPO Title VI la nan nimewo 857.702.3700.

Português (Portuguese) - Caso estas informações sejam necessárias em outro idioma, por favor, contate o MPO da Região de Boston pelo telefone 857.702.3700.

Complaint Forms



BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

Jamey Tesler, MassDOT Secretary and CEO and MPO Chair
Tegin L. Teich, Executive Director, MPO Staff

Discrimination Complaint Form

Please provide the following information in order for us to process your complaint. This form is available in alternate formats and multiple languages. Should you require these services or any other assistance in completing this form, please let us know.

Name: _____

Address: _____

Telephone Numbers: (Home) _____ (Work) _____ (Cell) _____

Email Address: _____

Please indicate the nature of the alleged discrimination:

Categories protected under Title VI of the Civil Rights Act of 1964:

- Race Color National Origin (including limited English Proficiency)

Additional categories protected under related Federal and/or State laws/orders:

- Disability Age Sex Sexual Orientation Religion Ancestry
Gender Ethnicity Gender Identity Gender Expression Creed
Veteran's Status Background

Who do you allege was the victim of discrimination?

- You A Third Party Individual A Class of Persons

Name of individual and/or organization you allege is discriminating:

Do you consent to the investigator sharing your name and other personal information with other parties to this matter when doing so will assist in investigating and resolving your complaint?

- Yes No

**BOSTON REGION METROPOLITAN PLANNING ORGANIZATION**

Jamey Tesler, MassDOT Secretary and CEO and MPO Chair
Tegin L. Teich, Executive Director, MPO Staff

TITLE VI COMPLAINT PROCEDURES**Purpose and Applicability**

The purpose of this document is to establish procedures for the processing and disposition of both discrimination complaints filed directly with the Boston Region Metropolitan Planning Organization (MPO) and discrimination complaints that the Massachusetts Department of Transportation (MassDOT) has the delegated authority to process under Title VI of the Civil Rights Act of 1964 (Title VI) and related state and federal nondiscrimination authorities, including the Americans with Disabilities Act (ADA). The procedures described in this document apply to MassDOT and its subrecipients, contractors, and subcontractors in the administration of federally funded programs and activities. This includes the Boston Region Metropolitan Planning Organization (MPO).

Definitions

Complainant – A person who files a complaint with MassDOT, the Federal Highway Administration (FHWA), or the Federal Transit Administration (FTA) regarding the MPO.

Complaint – A written, verbal, or electronic statement concerning an allegation of discrimination that contains a request for the receiving office to take action. Where a complaint is filed by a person with a disability, the term *complaint* encompasses alternative formats to accommodate the complainant's disability.

Discrimination – That act or inaction, whether intentional or unintentional, through which a person in the United States, solely because of race, color, national origin, or bases covered by other nondiscrimination authorities, such as gender, age, or disability, has been subjected to unequal treatment or disparate impact under any program or activity receiving federal assistance.

Operating Administrations – Agencies of the US Department of Transportation (USDOT), including the FHWA, the FTA, the Federal Rail Administration (FRA), the National Highway Traffic Safety Administration (NHTSA), and the Federal Motor Carrier Safety Administration (FMCSA), that fund transportation programs or activities.

Respondent – The person, agency, institution, or organization alleged to have engaged in discrimination.

Complaint Procedures

The procedures described below outline an administrative process aimed at identifying and eliminating discrimination in federally funded programs and activities. The procedures do not provide an avenue for relief for complainants seeking individual

remedies, including punitive damages or compensatory remuneration; they do not prohibit complainants from filing complaints with other state or federal agencies; nor do they deny complainants the right to seek private counsel to address acts of alleged discrimination.

These procedures, modeled on recommended complaint procedures promulgated by the US Department of Justice (USDOJ), are designed to provide a fair opportunity to have complaints addressed that respect due process for both complainants and respondents. In addition to the formal complaint resolution process detailed herein, MassDOT shall take affirmative steps to pursue informal resolution of any and all Title VI complaints, when possible.

The processing of discrimination complaints will follow the steps outlined below:

- Step 1:** Complainant submits the complaint.
- Step 2:** MassDOT issues the complainant an acknowledgment letter.
- Step 3:** Complaint is assigned to, and reviewed by, an investigator.
- Step 4:** Investigator conducts interviews of complainant, witnesses, and the respondent.
- Step 5:** Investigator reviews the evidence and testimonies to determine whether a violation has occurred.
- Step 6:** Complainant and respondent are issued a letter of resolution or a letter of finding and offered appeal rights.
- Step 7:** Once the appeal period has expired, the investigation is closed.

As part of its efforts to comply with Title VI, the MPO, as a subrecipient of federal financial assistance distributed through MassDOT, has adopted these complaint procedures. In so doing, the MPO acknowledges its obligation to afford members of the public with an opportunity to file complaints alleging violations of nondiscrimination policies in effect in the organization and applying to its programs, services, and activities. In accordance with federal guidance, the MPO, as a subrecipient of transit-related funds, must understand that it has the authority to process Title VI complaints and must inform MassDOT of complaints received and the outcome of investigations as the matters are resolved.

As a subrecipient of highway-related funds, the MPO understands that it does not have the authority to investigate Title VI violation claims filed against the MPO (where the MPO is the respondent or party alleged to have violated Title VI). All such claims will be forwarded to the MassDOT Office of Diversity and Civil Rights (ODCR) to determine the appropriate investigative authority. Subrecipients of highway funding retain the right to consider Title VI violation allegations as a matter of assurance and/or internal policy compliance but are precluded from making determinations as to possible violations of Title VI. It is the MPO's policy to communicate with ODCR's Title VI Specialists, the

Director of Title VI and Accessibility, and/or the Director of Investigations when Title VI complaints are received to ensure proper handling.

Federal law and regulations governing Title VI of the Civil Rights Act of 1964 places the overall coordination authority for the investigation of civil rights complaints with the USDOJ, which works collaboratively with federal agencies that carry out this responsibility. In the transportation sector, this investigative authority rests with the USDOT and its agencies, the FHWA and FTA. In coordination with USDOT requirements, FHWA and FTA have established regulations and guidance that require recipients and subrecipients of federal financial assistance to establish procedures for processing Title VI complaints filed with these organizations.

Questions and Answers

1. Who can file a complaint?

Any member of the public, along with all MPO customers, applicants, contractors, or subrecipients who believe that they themselves, a third party, or a class of persons were mistreated or treated unfairly because of their race, color, or national origin (including limited English proficiency), may file a complaint claiming violation of Title VI of the Civil Rights Act of 1964, related federal and state laws and orders.

2. How do I file a complaint?

A complaint may be filed with the following:

Boston Region MPO Title VI Specialist
10 Park Plaza, Suite 2150
Boston, MA 02116
Phone: (857) 702-3700
Email: civilrights@ctps.org

MassDOT Title VI Specialists
Office of Diversity and Civil Rights—Title VI Unit
10 Park Plaza, Suite 3800
Boston, MA 02116
Phone: (857) 368-8580 or 7-1-1 for Relay Service
Email: MassDOT.CivilRights@state.ma.us

MassDOT, Assistant Secretary and Chief Diversity Officer
Office of Diversity and Civil Rights—Investigations Unit
10 Park Plaza, Suite 3800
Boston, MA 02116
Phone: (857) 368-8580

Email: odcrcomplaints@dot.state.ma.us

The Federal Highway Administration
Federal Highway Administration
U.S. Department of Transportation Office of Civil Rights
1200 New Jersey Avenue, SE
8th Floor E81-105
Washington, DC 20590
Email: CivilRights.FHWA@dot.gov
Phone: (202) 366-0693

The Federal Transit Administration
Federal Transit Administration
U.S. Department of Transportation
Office of Civil Rights Attention: Complaint Team East Building, 5th Floor—TCR
1200 New Jersey Avenue, SE Washington, DC 20590

Please note:

- When FTA receives a Title VI complaint regarding MassDOT, a subrecipient, or a contractor, the FTA may request the matter be investigated by MassDOT.
- If a Title VI complaint is received by MassDOT that is filed against a subrecipient of the MassDOT Highway Division, then MassDOT may process and investigate the complaint or may refer the complaint to FHWA Headquarters Office of Civil Rights for investigation.

3. *What do I need to include in a complaint?*

A Title VI/Nondiscrimination Complaint form is available electronically on the [MassDOT Title VI website](#), the [Boston Region MPO Title VI website](#), or in hardcopy at the offices of the MPO or MassDOT's Office of Diversity and Civil Rights. Alternatively, a complainant may submit correspondence in an alternative format that should include the following information:

- Your name, signature and, current contact information (i.e., telephone number, email address, and postal mailing address)
- The name and badge number (if known and applicable) of the alleged perpetrator
- A description of how, when, and where the alleged prohibited conduct occurred
- A detailed description of why you believe you were treated differently
- Names and contact information of any witnesses
- Any other information you believe is relevant to your complaint

In cases where the complainant is unable to provide a written statement, a verbal complaint may be made to the MassDOT Office of Diversity and Civil Rights.

Complainants will be interviewed by a Civil Rights Investigator (CRI). If necessary, the CRI will assist the person in converting the verbal complaint to writing. All complaints should be signed by the complainant.

Anonymous complaints may be filed in the same manner. Anonymous complaints shall be investigated in the same manner as any other complaint.

Complaints will be accepted in any recognized language. Multilingual complaint forms are available.

4. How long do I have to file a complaint?

A complaint alleging violation of Title VI should be filed no later than one hundred and eighty (180) days from the date of the alleged violation.

Complaints alleging violations of state or federal law must be filed within the time frames established by statute, regulation, or case law—in certain instances, no later than to three hundred (300) days from the date of the alleged violation.

5. How will my complaint be handled?

When a complaint is received, it is assigned to a Civil Rights Investigator. The CRI will take the following steps:

Step 1: Determine Jurisdiction.

ODCR has jurisdiction if the complaint is timely filed and involves a statement or conduct that violates either

- MassDOT's legal obligation and commitment to prevent discrimination, harassment, or retaliation on the basis of a protected characteristic with regard to any aspect of the Agency's service to the public; or
- the commitment made by subrecipients and contractors working with MassDOT to adhere to MassDOT policies.

Step 2: Acknowledge receipt of the complaint and provide jurisdictional determination within ten (10) business days of receipt of the complaint.

If the CRI determines that any complaint does not have the potential to establish a civil rights violation, then the CRI shall notify the complainant and Title VI Specialist in writing of its finding and the matter shall be closed.

Step 3: Conduct a thorough investigation of the allegations contained in the complaint in accordance with the MassDOT Internal Complaint Procedures.

6. How will I be notified of the findings and recommendations?

At the conclusion of the investigation, the CRI will transmit to the complainant and the respondent one of the following three letters based on the findings:

- A letter of resolution that explains the steps the respondent has taken or will take to comply with Title VI.
- A letter of finding that is issued when the respondent is found to be in compliance with Title VI. This letter will include an explanation of why the respondent was found to be in compliance and provide notification of the complainant's appeal rights.
- A letter of finding that is issued when the respondent is found to be in noncompliance. This letter will include each violation referenced as to the applicable regulations, a brief description of findings/recommendations, the consequences of failure to achieve voluntary compliance, and an offer of assistance in devising a remedial plan for compliance, if appropriate.

7. Can I appeal a finding?

If a complainant or respondent does not agree with the findings of the CRI then he/she/they may appeal to MassDOT's Assistant Secretary and Chief Diversity Officer. The appealing party must provide any **new information that was not readily available during the course of the original investigation that would lead MassDOT to reconsider its determinations**. The request for an appeal and any new information must be submitted within thirty (30) days of the date the letter of finding was transmitted. After reviewing this information, MassDOT will respond either by issuing a revised letter of resolution or by informing the appealing party that the original letter of resolution or finding remains in force.

Boston Region Metropolitan Planning Organization 2021 Language Assistance Plan



Boston Region Metropolitan Planning Organization 2021 Language Assistance Plan

Project Manager
Betsy Harvey

Project Principal
Jonathan Church

Data Analyst
Margaret Atkinson

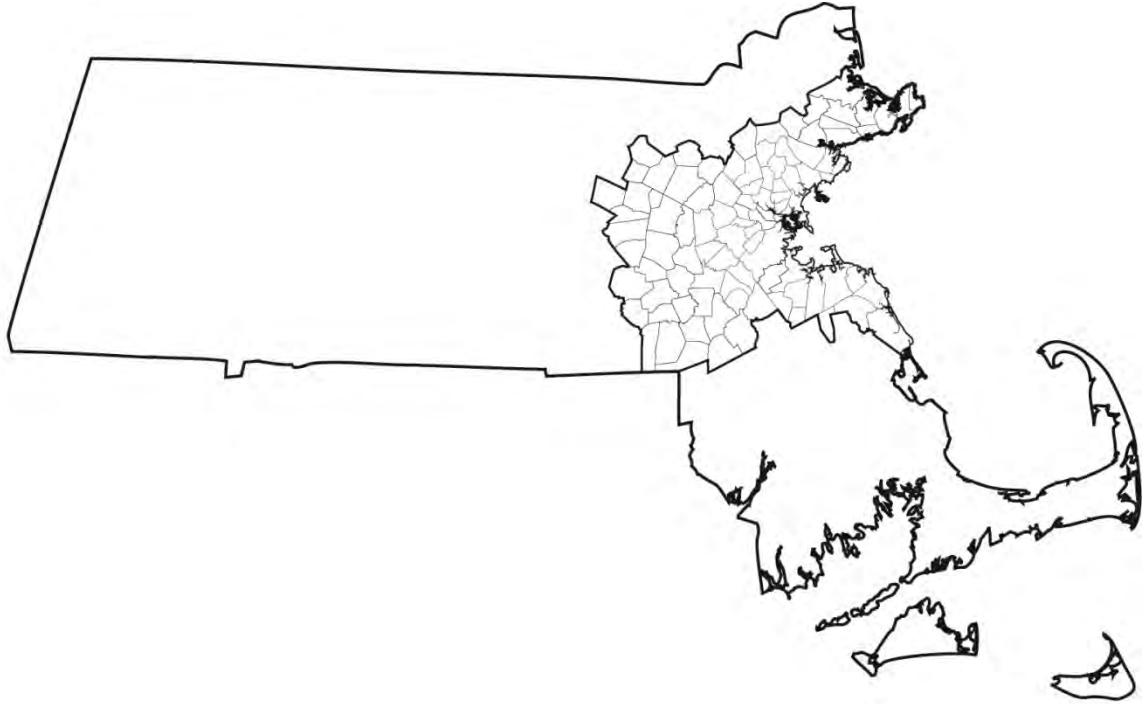
Graphics
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Cover Design
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The preparation of this document was supported
by Federal Highway Administration through
MPO Combined PL and 5303 #112310.

Central Transportation Planning Staff is
directed by the Boston Region Metropolitan
Planning Organization (MPO). The MPO is composed of
state and regional agencies and authorities, and
local governments.

May 2021



For general inquiries, contact

Central Transportation Planning Staff
State Transportation Building
Ten Park Plaza, Suite 2150
Boston, Massachusetts 02116

857.702.3700
ctps@ctps.org
ctps.org

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The Boston Region MPO also complies with the Massachusetts Public Accommodation Law, M.G.L. c 272 sections 92a, 98, 98a, which prohibits making any distinction, discrimination, or restriction in admission to, or treatment in a place of public accommodation based on race, color, religious creed, national origin, sex, sexual orientation, disability, or ancestry. Likewise, the Boston Region MPO complies with the Governor's Executive Order 526, section 4, which requires that all programs, activities, and services provided, performed, licensed, chartered, funded, regulated, or contracted for by the state shall be conducted without unlawful discrimination based on race, color, age, gender, ethnicity, sexual orientation, gender identity or expression, religion, creed, ancestry, national origin, disability, veteran's status (including Vietnam-era veterans), or background.

A complaint form and additional information can be obtained by contacting the MPO or at http://www.bostonmpo.org/mpo_non_discrimination.

To request this information in a different language or in an accessible format, please contact

Title VI Specialist
Boston Region MPO
10 Park Plaza, Suite 2150
Boston, MA 02116
civilrights@ctps.org

By Telephone:

857.702.3702 (voice)

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- **Relay Using TTY or Hearing Carry-over:** 800.439.2370
- **Relay Using Voice Carry-over:** 866.887.6619
- **Relay Using Text to Speech:** 866.645.9870

For more information, including numbers for Spanish speakers, visit

<https://www.mass.gov/massrelay>

Abstract

Executive Order 13166—*Improving Access to Services for Persons with Limited English Proficiency (LEP)*—directs recipients of federal funding to “ensure that the programs and activities they normally provide in English are accessible to LEP persons and thus do not discriminate on the basis of national origin in violation of Title VI of the Civil Rights Act of 1964.” In response to subsequent rules and regulations developed by the United States Department of Transportation, this Language Assistance Plan (LAP) describes the language needs of residents within the 97 municipalities served by the Boston Region Metropolitan Planning Organization (MPO) and the oral and written language assistance that the MPO provides to meet those needs. As the MPO is a recipient of federal funding from the Federal Transit Administration and the Federal Highway Administration, this LAP meets the requirements set forth by these agencies regarding the provision of language assistance in the MPO’s activities and programs.

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Executive Summary

ES.1 INTRODUCTION

As a recipient of federal funding from the Federal Transit Administration (FTA) and the Federal Highway Administration (FHWA), the Boston Region Metropolitan Planning Organization (MPO) is required to comply with federal civil rights statutes and executive orders. These laws include Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, and national origin. Executive Order 13166—*Improving Access to Services for Persons with Limited English Proficiency (LEP)*—clarifies that national origin protections include people with LEP. It instructs recipients of federal funding to provide meaningful language access to their services. As instructed by United States Department of Transportation (USDOT) regulations, this Language Assistance Plan (LAP) describes the population with LEP living in the 97 municipalities in the Boston region and the MPO’s approach to providing meaningful language assistance.

ES.2 DETERMINING LANGUAGE NEEDS

Chapter 2 of the LAP describes the results of the “four-factor” analysis required by recipients of federal funding by USDOT. The analysis describes the population with LEP in the Boston region, the MPO’s programs and services, the frequency with which LEP individuals come in contact with the MPO’s programs and services, and the MPO’s resources to provide language assistance.

ES.2.1 Number and Proportion of People with LEP in the Boston Region

In the past, MPO staff relied on the American Community Survey (ACS) summary tables, as those provided the most detailed information on the number of people with LEP in the Boston region and the languages they speak. Since the MPO’s last LAP was published in 2017, the ACS changed how languages are categorized in the summary tables and updated the controls placed on the data to protect respondents’ privacy. As a result, the ACS summary tables no longer provide sufficient language detail to satisfy the federal requirements for LAPs.

To meet those requirements, staff turned to the US Census Bureau’s Public Use Microdata Sample (PUMS) data. While PUMS data uses the same raw data that underpins the ACS summary tables, it contains individual person or household records, allowing users to create detailed data tables that would not be possible to create with the pre-tabulated ACS summary tables. However, to protect privacy PUMS data are aggregated to larger geographies called Public Use Microsample Areas (PUMA), which do not align perfectly with the Boston region’s boundary. By estimating the share of people in the portion of PUMAs within the

Boston region, staff were able to determine the number and share of people who speak non-English languages and who have LEP to a level of detail not available with ACS summary tables.

MPO staff collected 2015–19 PUMS data, which show that 11.2 percent of people in the Boston region have LEP. Twenty-six languages meet the “Safe Harbor” threshold of having at least 1,000 speakers or five percent of the total LEP population, whichever is less. Spanish (36.5 percent), Chinese (16.7 percent), Portuguese (11.3 percent), Haitian (7.1 percent), and Vietnamese (5.0 percent) continue to be the five most widely spoken languages by people with LEP in the Boston region.¹

To get more detail on where within the Boston region these languages are spoken, staff analyzed language data for public municipal and regional school districts. The Massachusetts Department of Education (MDOE) collects data on the number of English language learners (ELLs) and the languages they speak. Spanish (52.6 percent), Portuguese (18.3 percent), Chinese (5.9 percent), Haitian Creole (5.0 percent), and Arabic (2.9 percent) are the five most widely spoken languages by ELLs. This more detailed data also allows MPO staff to see in which municipalities each language is spoken, which assists in public outreach.

ES.2.2 Frequency of Contact

The MPO has infrequent contact with people with LEP. Contact most often occurs through the MPO’s online communications, such as the website, emails, and surveys. MPO staff also conduct outreach activities in communities where people with LEP reside and with organizations that involve people with LEP. These activities most often support the development of the MPO’s certification documents—the Long-Range Transportation Plan (LRTP), Transportation Improvement Program (TIP), and Unified Planning Work Program (UPWP). However, other events also occur throughout the regular course of the MPO’s public engagement activities.

ES.2.3 Nature and Importance of the MPO’s Programs, Services, and Activities

The MPO conducts transportation studies, chooses transportation projects to fund, conducts long-range planning, and provides technical assistance. While the

¹ Prior to 2016, French-based creole languages were coded as French Creole in the ACS. Because most of these speakers speak Haitian Creole, starting in 2016 Haitian Creole was recoded to Haitian, which includes Haitian Creole and all other mutually intelligible French-based creoles. This LAP uses this new terminology and definition, except when referring to Massachusetts Department of Education data, which uses the term Haitian Creole.

denial or delay of access to these activities would not have immediate or life-threatening implications for people with LEP, transportation improvements resulting from the MPO's decisions have an impact on all residents' mobility and quality of life. Public engagement is critical to the success of the MPO's activities and programs. As such, MPO staff make every effort to ensure that all people, regardless of the language they speak, have the opportunity to provide input on how regional transportation planning is carried out.

ES.2.4 Resources Available to the MPO

Based on the number and type of meetings for which written materials must be translated, the MPO has budgeted sufficient funds to translate vital documents into the five languages most widely spoken by people with LEP in the region, as identified through this LAP. The budget also includes sufficient funds to translate documents into other languages, as needed, for public outreach or to accommodate requests. In addition, the MPO has sufficient resources to provide interpreter services as requested or needed at MPO-sponsored meetings and outreach events.

ES.3 PROVIDING LANGUAGE ASSISTANCE

ES.3.1 Oral Language Assistance

The MPO provides language assistance at both in-person and online public engagement events. At MPO board meetings, interpreter services may be requested at least seven days in advance for both in-person meetings and virtual meetings. Staff also conduct public outreach events specifically in communities where people with LEP reside and with organizations that involve people with LEP. To determine language assistance needs, staff rely on data collected for this LAP and coordinate with local partners. Because ACS and MDOE data are not always detailed enough, local partners are critical to enabling the MPO to provide appropriate interpreter services that are tailored to the community.

ES.3.2 Written Language Assistance

The MPO provides written translations of "vital documents," as required by federal regulations. Vital documents are those that contain information that is critical for obtaining MPO services or that are required by law. The following documents and materials are considered vital documents:

- Notice of Nondiscrimination Rights and Protections
- Complaint procedures and forms
- Documents and media that allow people with LEP to participate in the MPO's core functions, including public outreach documents, surveys, and other media through which to provide input

- Executive summaries of the LRTP, TIP, UPWP, and Title VI Triennial Report
- LAP
- Meeting notices

These documents are translated into, at minimum, the five languages most widely spoken by people with LEP in the region: Spanish, Chinese (simplified and traditional), Portuguese, Haitian, and Vietnamese. Any member of the public may request a translation of any MPO document into a language not regularly provided.

To accommodate website translation needs, the MPO website hosts Google Translate, a browser-based tool that translates website content into more than one hundred languages, including all Safe Harbor languages within the Boston region. All content on the MPO's website is available in HTML format so that Google Translate can provide a translation. Additionally, using Google Translate, all emails from the MPO can be translated into dozens of languages. Surveys, which staff frequently use and which are primarily distributed online, are translated into Spanish, Chinese (simplified and traditional), Portuguese, Haitian, and Vietnamese.

ES.4 MONITORING AND UPDATING THE PLAN

MPO staff continue to monitor the changing language needs of the region and to update language assistance services as appropriate. Staff continuously explore new sources of data that provide a more nuanced understanding of the language needs of residents in the region. MPO staff will continue to strive to improve its engagement of people with LEP and community organizations that serve them. As new language data become available and approaches to assisting people with LEP evolve, this LAP will be revised.

Chapter 1—Introduction

1.1 PURPOSE

The policy of the Boston Region Metropolitan Planning Organization (MPO) is to ensure that people with limited English proficiency (LEP) are neither discriminated against nor denied meaningful access to and participation in the programs, activities, and services provided by the MPO. This Language Assistance Plan (LAP) describes how MPO staff provide appropriate language assistance to people with LEP by assessing language needs, implementing language services that provide meaningful access to the MPO's transportation planning process, and publishing information regarding these services without placing undue burdens on the MPO's resources.

Conducting meaningful public engagement is a core function of the MPO, critical to ensuring that regional transportation planning is conducted in a fair and transparent manner. While this LAP is designed to meet federal requirements, it also supports the MPO staff in the development and implementation of public engagement and communication efforts. These efforts are described in the MPO's Public Outreach Plan (POP). This update to the LAP was developed in coordination with the most recent POP.

1.2 FEDERAL REGULATORY BACKGROUND

Title VI of the Civil Rights Act of 1964 prohibits discrimination by federal agencies and recipients of their financial assistance on the basis of national origin, which is signified by LEP. Further, Executive Order 13166, *Improving Access to Services for Persons with Limited English Proficiency*, was signed on August 11, 2000, directing federal agencies and recipients of federal financial assistance (such as MPOs) to provide meaningful language access for people with LEP to agency services. In response to these regulations, the United States Department of Transportation (USDOT) published policy guidance in 2005 for its recipients of financial assistance, describing recipients' responsibilities to provide meaningful access for people with LEP and identifying the factors they must consider when doing so.

To fulfill these responsibilities, the Boston Region MPO has developed a LAP based on guidance from the USDOT and Federal Transit Administration (FTA). This LAP is updated every three years. As specified in FTA Circular 4702.1B, the LAP assesses the following four factors when determining language needs of people with LEP served by the MPO:

- Factor 1: The number and proportion of people with LEP eligible to be served by or likely to encounter a program, activity, or service of the recipient
- Factor 2: The frequency with which people with LEP come in contact with the program, activity, or service
- Factor 3: The nature and importance of the program, activity, or service provided by the recipient to people's lives
- Factor 4: The resources available to the recipient, and their costs

Chapter 2 describes the results of this four-factor analysis.

Chapter 2—Determining Language Needs

The following sections discuss each of the four factors listed in the previous chapter and describes the results of the analysis completed for each factor.

2.1 FACTOR 1: NUMBER AND PROPORTION OF PEOPLE WITH LEP IN THE BOSTON REGION

In previous LAPs, MPO staff used American Community Survey (ACS) summary tables to identify the languages spoken by people with LEP living within the Boston region. However, starting with the 2016 ACS, the US Census Bureau changed how it reports non-English languages spoken at home in ACS summary tables. Coding for languages spoken at home was updated to reflect the changes in the number of people who speak different languages, resulting in the addition of some new languages and the reorganization of others (for example, French Creole became Haitian). In addition, in an effort to protect the privacy of the speakers of less widely spoken languages, at smaller geographies these languages have been collapsed and reported in aggregated form with others in the same language family (such as Other Indo-European Languages).²

In the past, data were collected by municipality and aggregated to the MPO region to determine the number and percent of people with LEP; however, many languages are no longer reported for smaller municipalities. This means that MPO staff could not identify many of the individually spoken languages that were identified in the last (2017) LAP using ACS summary tables. To overcome these challenges, staff gathered language data from other sources to provide a fuller picture of language needs in the Boston region.

2.1.1 Public Use Microdata Sample (PUMS)

The Census Bureau's PUMS data use the same raw data gathered for the ACS but are provided as untabulated records of individual people or housing units to allow users to create custom tables that are not available in the summary tables created for standard ACS products. Because of the disaggregated nature of the data, they are subject to more stringent privacy controls. These controls limit the size of the geographic areas for which data can be identified. The smallest area for which PUMS data are available is the Public Use Microdata Area (PUMA).

PUMAs are PUMS-specific geographies that have a population of 100,000 to approximately 200,000 people. They are based on continuous aggregations of

² See: https://www.census.gov/content/dam/Census/programs-surveys/acs/tech-doc/user-notes/2016_Language_User_Note.pdf.

tracts or counties within a state. While some PUMAs within the Boston region align with the MPO's boundaries, a few do not.³ However, PUMS data do provide the level of detail regarding languages spoken at home by people with LEP as required by FTA regulations; PUMS data are, therefore, the best option for the MPO to comply with federal requirements.

2015–19 PUMS Data

Although the population with LEP in the Boston region can be identified using standard ACS summary tables, in order to be consistent with how non-English languages spoken are identified, this LAP uses ACS PUMS data to report both types of information. According to data from the 2015–19 PUMS, 11.2 percent (349,345 people) of the region's population of 3,114,612 who are five years of age and older have LEP. The largest proportion of people with LEP speak Spanish (36.5 percent), followed by Chinese (either Mandarin or Cantonese) (16.7 percent), and Portuguese or Portuguese Creole (11.3 percent). Altogether, these three languages represent almost two-thirds (64.6 percent) of people in the region with LEP.

USDOT guidance specifies circumstances that signify strong evidence of a recipient's compliance with their written translation obligations. If a recipient provides written translation of vital documents into languages that meet a certain threshold—called "Safe Harbor languages"—then their obligation is likely met. Safe Harbor languages are those non-English languages that are spoken by people with LEP (of those eligible to be served or likely to be affected or encountered by the recipient) who make up at least five percent of the population or 1,000 individuals, whichever is less. In the Boston region, Safe Harbor languages include speakers of the languages in Table 1. There are 33 Safe Harbor languages in the Boston region.⁴ Because the cost of providing translations in all 33 Safe Harbor languages is prohibitive, and as the top five languages make up over three-quarters of all languages spoken by people with LEP in the region, the MPO focuses its written translation resources on those five

³ Where a PUMA includes towns on either side of the MPO boundary, a split factor was applied. This factor was estimated by first calculating the average Census-estimated population by town and PUMA for the years 2015–19. The factor is equal to the percentage of the PUMA total that falls within MPO municipalities.

⁴ This number of languages is significantly more than the 19 Safe Harbor languages reported in the 2017 LAP. This variance is likely due in part to the changes in how languages are coded, as described earlier in this document, and the difference in data sources (ACS summary tables versus PUMS data).

languages: Spanish, Chinese (traditional and simplified), Portuguese, Haitian, and Vietnamese.⁵ (See Chapter 4 for details.)

The comparison between this LAP and the one completed in 2017 is imperfect. A full comparison of data from the MPO’s last LAP is not possible due to the changes in how ACS language data are categorized and the privacy controls, as described above. Some individual languages can be compared, however. Where possible, Table 1 shows the percent change in the number of people with LEP for each language since the last LAP was completed in 2017. For that LAP, data were used from the 2010–14 ACS summary tables. Because the years for the data used in this and the 2017 LAP are not overlapping, they can be compared for those languages that the Census Bureau recommends.⁶ The geographies used to aggregate the data differ, however, as does the coding of some languages. Therefore, readers should compare data with caution and focus on the directionality and magnitude of the percent change between the LAPs, rather than the precise number.

Table 1
Safe Harbor Languages Spoken in the Boston Region

| Language | Number of Speakers¹ | Percent Change from the 2017 LAP | Percent of People with LEP | Percent of Boston Region Population |
|--|---------------------------------------|---|-----------------------------------|--|
| Spanish | 126,018 | 19.6% | 36.5% | 4.0% |
| Chinese (including Mandarin and Cantonese) | 57,687 | 15.6% | 16.7% | 1.9% |
| Portuguese and Portuguese Creoles | 39,144 | 12.5% | 11.3% | 1.3% |
| Haitian ² | 24,623 | 14.2% | 7.1% | 0.8% |
| Vietnamese | 17,361 | 15.1% | 5.0% | 0.6% |
| Russian | 11,236 | -4.5% | 3.3% | 0.4% |
| Arabic | 7,124 | -26.9% | 2.1% | 0.2% |
| Italian | 5,871 | -24.7% | 1.7% | 0.2% |
| French (including Cajun) ³ | 5,574 | 3.8% | 1.6% | 0.2% |

⁵ For spoken dialects, Chinese includes Mandarin and Cantonese. For written Chinese, the MPO translates documents into traditional and simplified Chinese. Prior to 2016, French-based creole languages were coded as French Creole in the ACS. Because most of these speakers speak Haitian Creole, starting in 2016 Haitian Creole was recoded to Haitian, which includes Haitian Creole and all other mutually intelligible French-based creoles. This LAP uses this new terminology and definition, except when referring to Massachusetts Department of Education data, which uses the term Haitian Creole.

⁶ For information about how to compare ACS language data before and after 2016, see https://www.census.gov/content/dam/Census/programs-surveys/acs/tech-doc/user-notes/2016_Language_User_Note.pdf.

| Language | Number of Speakers ¹ | Percent Change from the 2017 LAP | Percent of People with LEP | Percent of Boston Region Population |
|---|---------------------------------|----------------------------------|----------------------------|-------------------------------------|
| Other Indo-European languages | 5,447 | N/A | 1.6% | 0.2% |
| Korean | 4,474 | 16.1% | 1.3% | 0.1% |
| Greek | 3,909 | 5.6% | 1.1% | 0.1% |
| Amharic, Somali, or other Afro-Asiatic languages | 3,652 | N/A | 1.1% | 0.1% |
| Japanese | 2,903 | 5.6% | 0.8% | 0.1% |
| Nepali, Marathi, or other Indic languages | 2,810 | N/A | 0.8% | 0.1% |
| Khmer | 2,629 | 16.4% | 0.8% | 0.1% |
| Hindi | 2,500 | 21.2% | 0.7% | 0.1% |
| Other languages of Asia | 2,323 | N/A | 0.7% | 0.1% |
| Yoruba, Twi, Igbo, or other languages of Western Africa | 1,794 | N/A | 0.5% | 0.1% |
| Gujarati | 1,745 | 11.7% | 0.5% | 0.1% |
| Swahili or other languages of Central, Eastern, and Southern Africa | 1,658 | N/A | 0.5% | 0.1% |
| Polish | 1,639 | -6.2% | 0.5% | 0.1% |
| Tagalog (including Filipino) | 1,319 | -4.2% | 0.4% | 0.0% |
| Serbo-Croatian | 1,308 | N/A | 0.4% | 0.0% |
| Persian (including Farsi and Dari) | 1,304 | 4.6% | 0.4% | 0.0% |
| Ukrainian or other Slavic languages | 1,261 | N/A | 0.4% | 0.0% |
| Thai, Lao, or other Tai-Kadai languages | 1,228 | N/A | 0.4% | 0.0% |
| Other and unspecified languages | 1,171 | N/A | 0.3% | 0.0% |
| Bengali | 1,147 | N/A | 0.3% | 0.0% |
| Telugu | 1,134 | N/A | 0.3% | 0.0% |
| Armenian | 1,124 | 30.9% | 0.3% | 0.0% |
| Punjabi | 1,094 | N/A | 0.3% | 0.0% |
| Tamil | 1,007 | N/A | 0.3% | 0.0% |
| Total LEP Safe Harbor Language Speakers | 345,218 | 20.5% | 98.8% | 11.2% |
| Total LEP Population | 349,345 | 12.3% | 100.0% | 11.2% |
| Total Population Age 5 or Older | 3,114,612 | 4.3% | N/A | 100.0% |

¹ Of the population that is five years of age or older, people with LEP include those who self-identify as speaking English well, not well, or not at all.

² Prior to 2016, French-based creole languages were coded as French Creole. Because most of these speakers speak Haitian Creole, starting in 2016 Haitian Creole was recoded to Haitian, which includes Haitian Creole and all other mutually intelligible French-based creoles.

³ Prior to 2016, Patois was grouped with French. Starting in 2016, Patois was usually coded as Jamaican Creole English, unless a more appropriate code was available.

LAP = Language Assistance Plan. LEP = Limited English proficiency. MPO = Metropolitan Planning Organization. N/A = Not available.

Source: American Community Survey Public Use Microdata Sample, 2015–19; and 2010–14 American Community Survey summary tables.

The data show that there has been an increase in the number of people with LEP regionwide. This increase is concentrated among people who speak certain languages. More people with LEP speak one of the MPO's Safe Harbor languages; there are now 33 Safe Harbor languages, which is an increase from the 19 documented in the 2017 LAP. Additionally, there has been an increase in the percent of people with LEP who speak Safe Harbor languages. Spanish, the most widely spoken non-English language in the region, saw a large increase. Of all languages, Armenian saw the largest percent increase. There was a consistent increase in the share of speakers of languages in Asia—including Khmer, Korean, Chinese, Vietnamese, Japanese, and Persian. Additionally, several languages are new to the Safe Harbor languages, including Punjabi, Tamil, and Bengali. However, five languages saw a decline in the number of speakers: Arabic, Italian, Polish, Russian, and Tagalog.

2.1.2 Massachusetts Department of Education Data

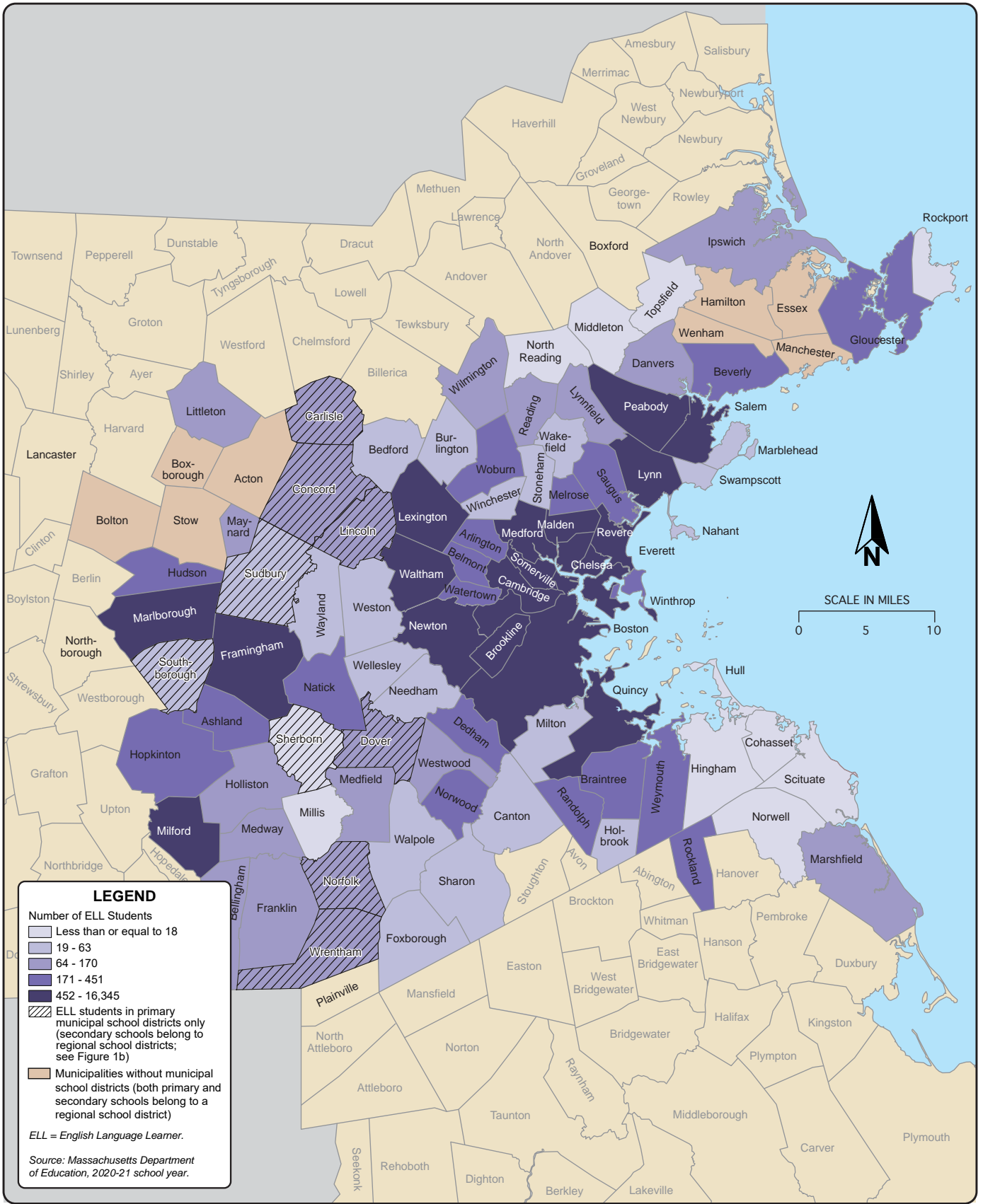
In light of the changes to how ACS summary table language data are reported and the course geography used for PUMS data, MPO staff sought out other sources of data about languages spoken by people with LEP that are available at a smaller geography. Some Massachusetts state agencies provide language data about the people that they serve, including the Massachusetts Department of Education (MDOE). MPO staff looked at public school districts (municipal and regional school districts) within the Boston region. The MDOE collects data on the number of students who are English language learners (ELL) in each school district, as well as the languages they speak.⁷ It can be assumed that if a student is an ELL, their parents are likely not proficient in the English language. While these data do not correlate perfectly with the USDOT's LEP definition, they allow staff to identify where language needs are presents at smaller geographies, which is especially helpful when staff conduct public outreach in communities in

⁷ An ELL student is defined by the MDOE as “a student whose first language is a language other than English who is unable to perform ordinary classroom work in English.”
<http://profiles.doe.mass.edu/help/data.aspx?section=students#selectedpop>.

the Boston region. According to 2020–21 school year data, 11.8 percent of primary and secondary school students in public districts in the Boston region were ELLs, out of 413,881 students. That figure is very close to the 11.1 percent of people with LEP in the region as reported in the PUMS data.

Figure 1a shows the number of ELL students in municipal public school districts, while Figure 1b shows the number of ELL students in regional public school districts in the Boston region.⁸ The school districts with the most ELL students are those in and around Boston, as well as those in and around Framingham.

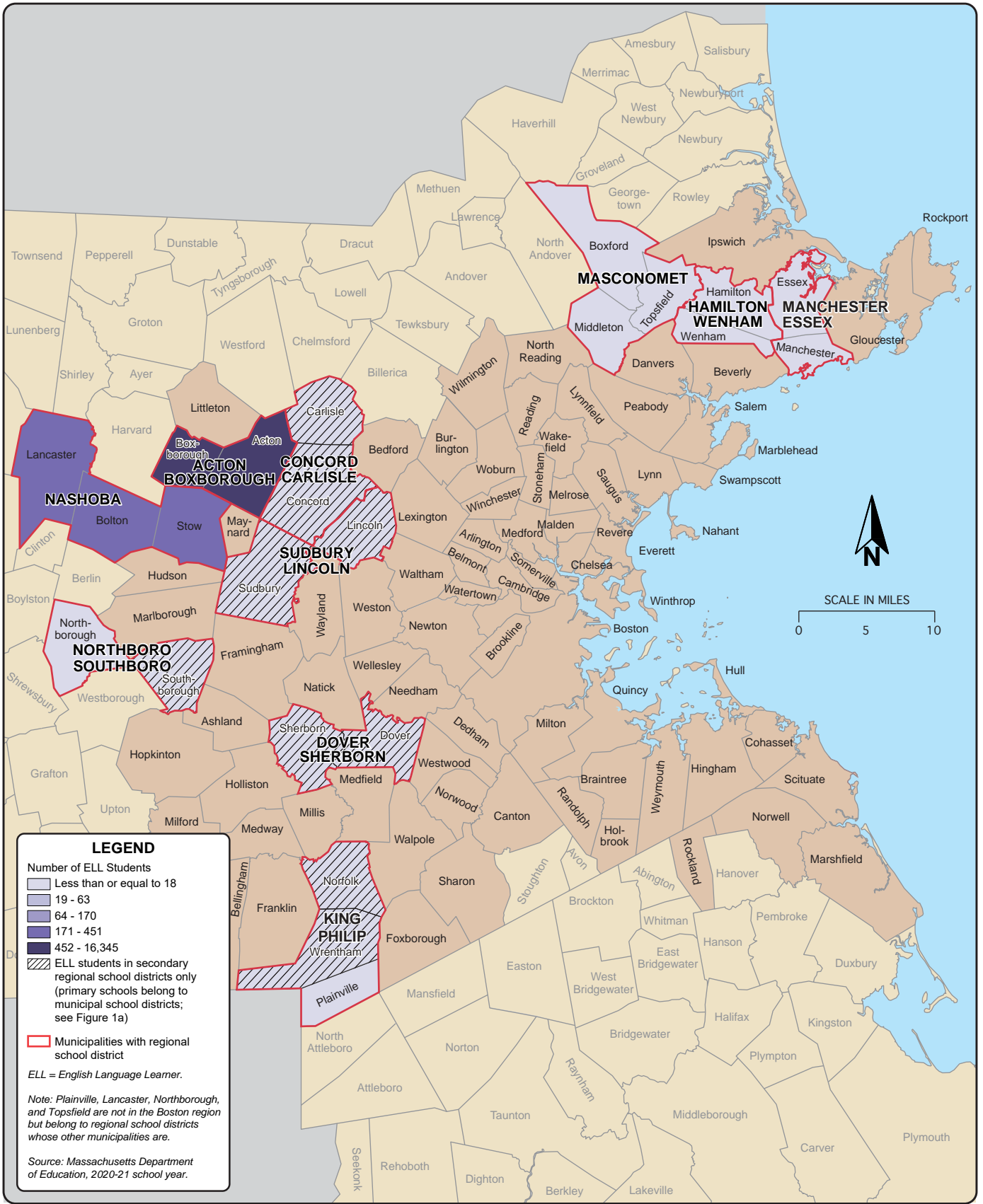
⁸ A few public school districts include towns outside of the Boston region: King Phillips School District (which includes Plainville); Northboro-Southboro School District (which includes Northborough); Masconomet School District (which includes Boxborough); and the Nashoba School District (which includes Lancaster and Stow).



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Figure 1a
Number of English Language Learners
in Municipal School Districts

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Figure 1b
Number of English Language Learners
in Regional School Districts

Language
Assistance
Plan

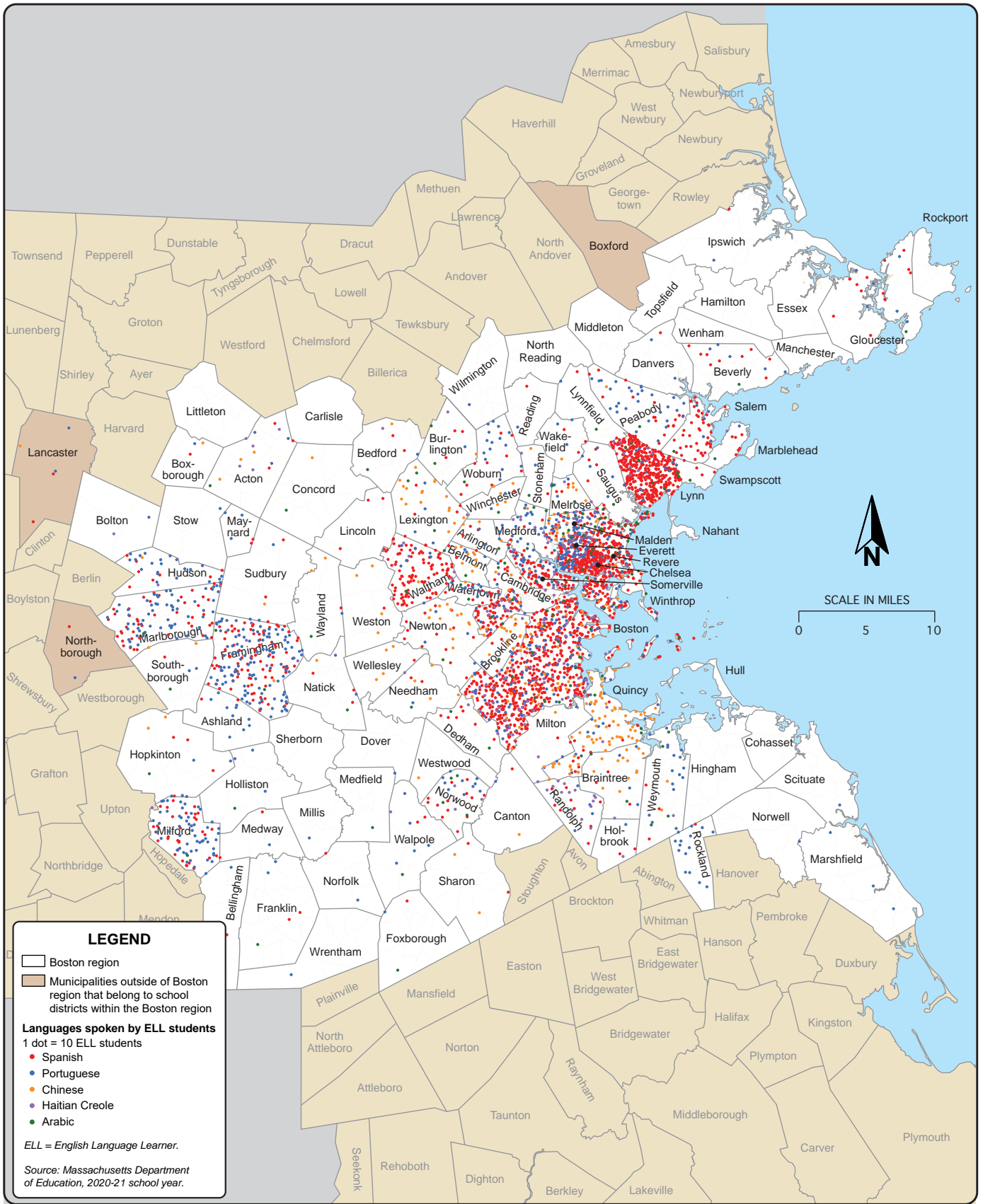
The table below shows the ten non-English languages spoken most frequently by ELLs.

Table 2
Top Ten Non-English Languages Spoken by English Language Learners

| Language | Number of ELL Students | Percent of Students |
|--|-------------------------------|----------------------------|
| Spanish | 24,608 | 52.6% |
| Portuguese (including Cape Verdean Creole) | 8,579 | 18.3% |
| Chinese | 2,762 | 5.9% |
| Haitian Creole | 2,350 | 5.0% |
| Arabic | 1,372 | 2.9% |
| Vietnamese | 1,156 | 2.5% |
| Russian | 662 | 1.4% |
| Japanese | 401 | 0.9% |
| French | 399 | 0.9% |
| Somali | 282 | 0.6% |

ELL = English language learner.
 Source: Massachusetts Department of Education, 2020–21 school year.

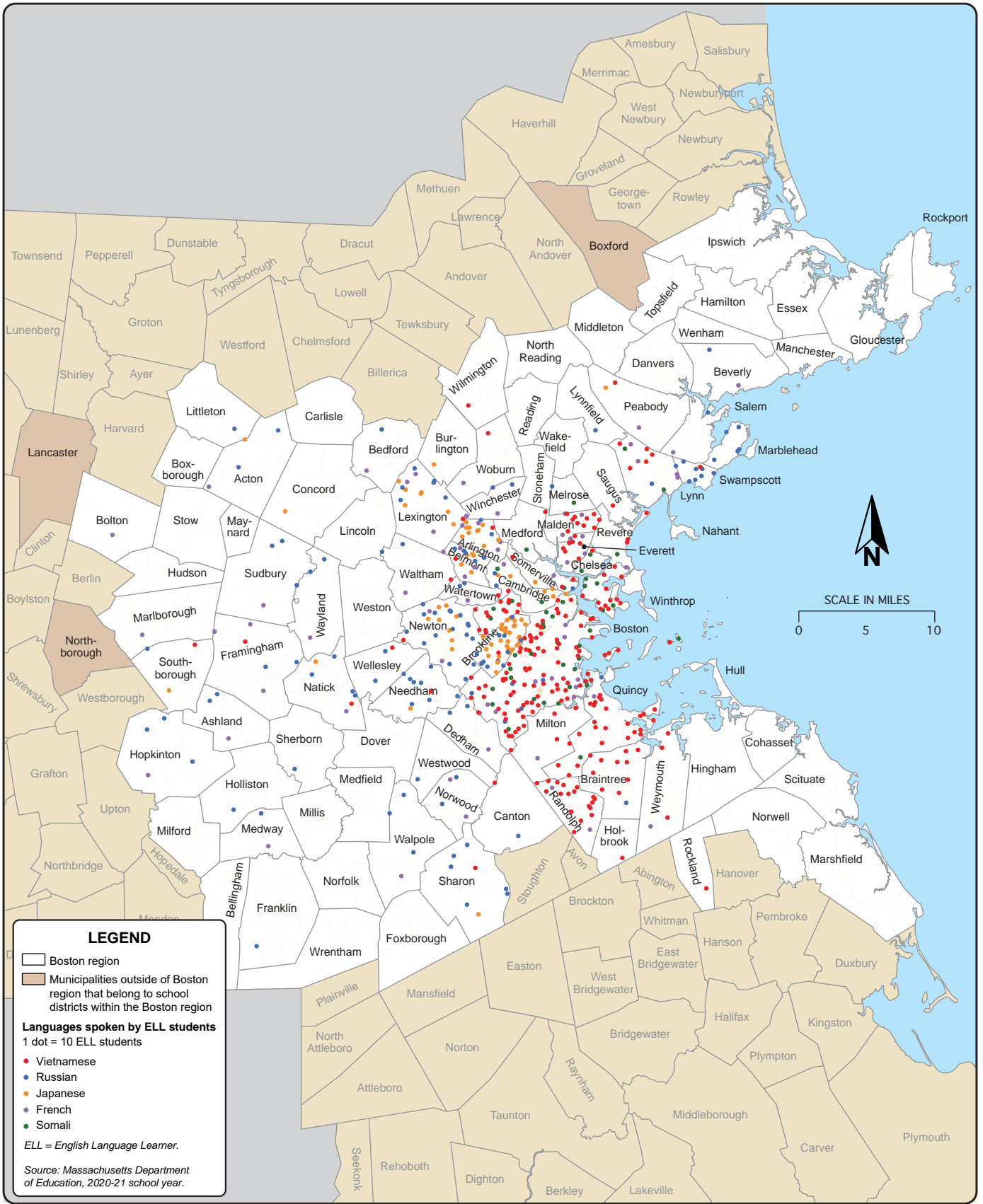
Figures 2a and 2b, below, show the distribution of these top ten languages, in municipal and regional school districts. Note that the dots are randomly distributed within each school district and do not represent the actual locations of ELL students.



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Figure 2a
Top Languages Spoken in Public School Districts:
Spanish, Portuguese, Chinese, Haitian Creole, and Arabic

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Figure 2b
Top Languages Spoken in Public School Districts:
Vietnamese, Russian, Japanese, French, and Somali

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In terms of the languages that are most commonly spoken, the magnitude of the MDOE data align with PUMS data. Spanish is the most widely spoken language among ELLs, followed by Portuguese, Chinese, and Haitian Creole. However, the percent of ELLs does not always match the ACS data. For three languages, there is a higher percentage of ELL speakers than people with LEP. While 36.5 percent of people with LEP speak Spanish, over half of all ELLs do. Portuguese speakers make up 11.3 percent of people with LEP but 18.3 percent of ELLs. Arabic speakers make up 2.1 percent of people with LEP but 2.9 percent of ELLs. Several languages have a lower share of ELLs than people with LEP: Chinese (5.9 percent compared to 16.7 percent), Haitian (5.0 percent compared to 7.1 percent), Vietnamese (2.5 percent compared to 5.0 percent), Russian (1.4 percent compared to 3.3 percent), French (0.9 percent compared to 3.8 percent), and Somali (0.6 percent compared to 1.1 percent).⁹ Japanese is about the same among both groups (0.8 percent compared to 0.9 percent).

These data suggest that for those who speak Chinese, Haitian, French, Vietnamese, and Russian, it is more often older adults or adults without children who have a greater need for language services, whereas for Portuguese and Spanish, it is more likely that children and their families require services. This is important information that can help the MPO tailor outreach more effectively based on the communities and languages that are spoken.

2.2 FACTOR 2: FREQUENCY OF CONTACT

The MPO has infrequent and unpredictable contact with people with LEP, largely because of the nature of MPO programs and activities. Online avenues for contact are the MPO website, *TRANSREPORT* blog, MPO emails, and online surveys. Other occasions for contact with people with LEP include when staff participate in meetings held by organizations that include people with LEP and MPO-hosted events, such as public workshops and open houses. Some meetings are held in concert with the development of the MPO's certification documents—the Transportation Improvement Program (TIP), Long-Range Transportation Plan (LRTP), and Unified Planning Work Program (UPWP)—while others are done during the course of regular public engagement activities conducted throughout the year.

2.3 FACTOR 3: NATURE AND IMPORTANCE OF THE MPO'S PROGRAMS, SERVICES, AND ACTIVITIES

The MPO plans and funds transportation projects and carries out studies within the Boston region. While the MPO does not provide transportation services or

⁹ In the PUMS data, Somali is grouped with Amharic and other Afro-Asiatic languages, so the percentage that speak Somali is likely less than 1.1 percent.

implement improvements directly, and although denial or delay of access to the MPO's programs and activities would not have immediate or life-threatening implications for people with LEP, transportation improvements resulting from the MPO's decisions have an impact on all residents' mobility and quality of life.

Projects selected to receive federal funding by the MPO progress through planning, design, and construction stages under the responsibility of municipalities, state transportation agencies, and regional transit authorities. These implementing agencies have their own policies in place to provide opportunities for people with LEP to shape where, how, and when a project is implemented. MPO staff focus their language assistance efforts on the work tasks on which MPO dollars are spent.

Input from all stakeholders is critical to the transportation planning process, so the MPO invests considerable effort to conduct inclusive public engagement. Staff helps the public to understand the transportation planning process and provides ongoing opportunities for the public to shape transportation in the Boston region. The specific public engagement activities carried out by staff are described in the MPO's POP.

Staff conduct public engagement to support carrying out the MPO's core functions. Core functions include the development of the MPO's three certification documents, MPO-funded studies, projects, and civil rights and environmental justice-related activities. These functions provide structured opportunities for staff to ensure people with LEP can provide meaningful input as this work is carried out. Critically, relationship-building with LEP communities and organizations that represent them is ongoing, whether or not it is for a specific work effort. This work allows staff to build trust, understand needs and effective methods of communication, increase transparency, expand the MPO's reach, and ensure people with LEP have opportunities to be involved early and often.

2.4 FACTOR 4: RESOURCES AVAILABLE TO THE MPO

Based on the number and type of meetings for which written materials must be translated, the MPO has budgeted sufficient funds to translate vital documents into the five languages most widely spoken by people with LEP, as identified above. The budget also includes sufficient funds to translate documents into other languages, as needed, for public outreach or to accommodate requests. To date, only a few individuals have made such requests.

The MPO's policy is to provide translation and interpreter services when they are requested at MPO-sponsored meetings. Although the MPO has advertised the availability of interpreters, none have been requested to date. While the MPO

has been able to provide language translation services with existing resources thus far, the region is dynamic and continues to attract diverse ethnic and cultural populations. Therefore, the MPO will continue to monitor the need for translation and interpretation services based on factors one through three of the four-factor Analysis and the number of requests received. The MPO will also determine whether the current policy should be adjusted because of resource constraints.

Chapter 3—Providing Language Assistance

3.1 ORAL LANGUAGE ASSISTANCE

3.1.1 In-Person Public Engagement

The MPO provides interpreter services upon request with two weeks advance notice. Notices for all meetings state this information and how to request an interpreter. The number of people with LEP in the Boston region, along with their infrequent interaction with the MPO, has meant that the MPO is rarely asked to provide oral language services. This, however, does not necessarily mean that there is no need for translation among the region's population or that this need will not be made known in the future.

Staff also provide interpreters at outreach events where it is expected that people with LEP will attend. Staff study language data from the ACS and schools and talk with local partners to determine potential language needs, as ACS and school data may not be sufficiently localized to get the full picture of language needs. When engaging with the public, staff specifically seek to partner with organizations whose members have LEP and use interpreters to ensure that they can provide input.

3.1.2 Virtual Public Engagement

The need to conduct public engagement virtually during the COVID-19 pandemic has led staff to expand opportunities to engage with the MPO online. All MPO meetings and MPO-hosted events are held via the Zoom online meeting platform. Staff make every effort to provide services equivalent to those offered at in-person meetings. Attendees may request an interpreter at least two weeks ahead of time.

3.2 WRITTEN LANGUAGE ASSISTANCE

3.2.1 Vital Documents

The MPO provides written translations of vital documents, as required by federal regulations. Vital documents are those that contain information that is critical for obtaining MPO services, or that are required by law. The MPO has determined that documents and materials are considered vital if they enable the public to understand and participate in the regional transportation planning process. These documents include the following:

- Notice of Nondiscrimination Rights and Protections
- Complaint procedures and forms

- Documents and media that allow people with LEP to participate in the MPO's core functions, including public outreach documents, surveys, and other media through which to provide input
- Executive summaries of the LRTP, TIP, UPWP, and Title VI Triennial Report
- LAP
- Meeting notices prepared for all MPO-sponsored meetings, workshops, forums, and other public engagement events, which may include physical notices (flyers) and electronic notices, such as Twitter and email messages and website banners

Staff translates vital documents into, at minimum, the five languages most widely spoken by people with LEP: Spanish, Chinese (simplified and traditional), Portuguese, Haitian, and Vietnamese. The MPO does not translate vital documents into all of the Safe Harbor languages for several reasons: 1) staff do not come into contact with people with LEP on a frequent or regular basis; 2) translation is a resource-intensive effort; and 3) within the MPO region, the top five Safe Harbor languages make up over three-quarters of the non-English languages spoken. Further, the Notice of Nondiscrimination Rights and Protections was developed for use by all Massachusetts MPOs by the Massachusetts Department of Transportation (MassDOT). MassDOT also provided translations of the notice in seven languages: Spanish, Chinese (traditional and simplified), Portuguese, Haitian, Russian, and Vietnamese. The MPO's complaint form and procedures are translated into eleven languages in addition to English.

The MPO's approach may not meet all language needs. Based on analyses of MDOE language data, whereas many LEP speakers of the five most common Safe Harbor languages are concentrated in urban areas, especially in and around Boston and Framingham, speakers of the other languages tend to be more geographically dispersed. With that in mind, the MPO's policy is to identify language needs for areas in which it conducts outreach—for example, public meetings for the LRTP, TIP, or UPWP—and provide written translations in other languages as necessary. To aid in this approach, staff identify the languages spoken in locations where they hold public events through collaboration with community partners.

3.2.2 MPO Website

To accommodate website translation needs, the MPO website hosts Google Translate, a browser-based tool that translates website content into more than one hundred languages, including all Safe Harbor languages within the Boston region. MPO documents are posted on the website as PDF files and in HTML

format, which allows them to be read aloud by a screen reader and enables the use of Google Translate for all documents on the website. In addition, people with LEP may also set their internet browser language to one of their choosing.

3.2.3 Emails, Surveys, and Social Media

Email is the main method by which MPO staff communicate with the public. Any member of the public may sign up for any of several MPO email lists. All of these emails can be translated by clicking the appropriate language at the top of the email. Translations are performed by Google Translate and are available in dozens of languages, including all Safe Harbor languages.

MPO surveys are nearly always conducted online because of the frequency with which staff produce surveys, their affordability, and their wide reach. Surveys also allow staff to easily provide multiple translations at a reasonable cost to the MPO. For respondents who access surveys through an MPO email, staff provide links to the translated surveys. Surveys are translated into Spanish, Chinese (simplified and traditional), Portuguese, Haitian, and Vietnamese.

Chapter 4—Monitoring and Updating the Plan

MPO staff continue to monitor the changing language needs of the region and to update language-assistance services as appropriate. Staff continuously explore new sources of data that provide more nuanced understanding of the language needs of residents in the region and new technologies that expand the reach of MPO activities to more people. While the MPO has not received any requests for oral language assistance at MPO-sponsored meetings in the past three years, this does not mean that there will not be a need in the future. To make sure that more people with LEP are aware of the MPO and services and programs it provides, staff will continue to improve its engagement with members of this population and community organizations that serve them. As new language data become available and approaches to assisting people with LEP change, this LAP will be revised.

chapter 6

Transportation Equity Performance Report



INTRODUCTION

This chapter contains the federally required Title VI and environmental justice (EJ) analyses completed for the Recommended Plan programmed in the Long-Range Transportation Plan (LRTP), *Destination 2040*.¹ The role of these analyses is to assess how the projects may affect the minority and low-income populations in the Boston region.² The analyses include the mapping of projects funded by the Boston Region Metropolitan Planning Organization (MPO) in the Recommended Plan overlaid on areas where the minority and/or low-income populations exceed their regional thresholds, and disparate impact and disproportionate burden (DI/DB) analyses that determine whether minority and low-income populations may be disproportionately affected by the projects in the Recommended Plan that can be modeled in the aggregate.³

These analyses demonstrate the Boston Region MPO's compliance with Title VI and EJ analytical requirements as they pertain to the LRTP. They also serve to assist the MPO in future decision making concerning minimizing, avoiding, or mitigating any potential future disparate impacts and disproportionate burdens that have been identified. Finally, they help the MPO meet its transportation equity goal.

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- ¹ The Recommended Plan consists of regionally significant projects, including those that are financed by MPO Regional Target funds. Regionally significant projects are those that change the capacity of the transportation network and/or cost more than \$20 million.
- ² A minority person is one who identifies as American Indian or Alaska Native; Asian; Native Hawaiian or other Pacific Islander; Black or African American; some other race other than White; and/or Hispanic or Latino/a/x. A low-income person is one who lives in a household in which the annual household income is less than or equal to 60 percent of the Boston region's average of \$75,654. This threshold equals \$45,392. It reflects the high cost of living in the Boston region.
- ³ A DI/DB analysis is conducted for both regionally significant Target-funded projects that can be modeled, as well as for all regionally significant projects that can be modeled.

The transportation needs of minority and low-income populations (as well as other transportation equity [TE] populations) considered during the development of *Destination 2040* are described in the *Destination 2040* Needs Assessment.⁴ Chapter 8 of the Needs Assessment, Transportation Equity Needs, describes the unmet transportation needs of these populations gathered from public outreach, as well as from data analyses that identify transportation service and infrastructure gaps for TE populations. While Chapter 8 of the Needs Assessment contributed to the programming and planning decisions in *Destination 2040*, this chapter focuses on the potential impacts of the MPO-funded projects in the Recommended Plan that resulted from that decision-making process.

FEDERAL GUIDANCE

Two federal mandates underpin the analyses in this chapter: Title VI of the Civil Rights Act of 1964 and the EJ Executive Order (EJ EO), *Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations*. As a recipient of federal funding from the Federal Transit Administration (FTA) and the Federal Highway Administration (FHWA), the MPO complies with their Title VI and EJ requirements.

Title VI of the Civil Rights of 1964

Title VI of the Civil Rights Act prohibits discrimination on the basis of race, color, and national origin under any program or activity that receives federal financial assistance.⁵ This includes unintentional discrimination, which is referred to as disparate impact discrimination. FTA and FHWA require MPOs to conduct several Title VI analyses that apply to the Recommended Plan. These requirements are described in FTA's Title VI Circular (C) 4702.1B and FHWA's *Environmental Justice Reference Guide*, which provides guidance for its nondiscrimination program that covers Title VI and the EJ EO.

⁴ The MPO considers TE populations to include those protected by federal laws and regulations and those that have specific transportation needs beyond federally protected groups. Specifically, TE populations include the following demographic groups:

- People who identify as minority, have limited English proficiency, are 75 years of age or older or 17 years of age or younger, or who have a disability; and,
- People who are members of low-income households or transit-dependent households.

⁵ These protections were subsequently clarified to include people with limited English proficiency through Executive Order 13166, *Improving Access to Services for Persons with Limited English Proficiency*, which was signed on August 11, 2000.

Environmental Justice Executive Order

In 1994, President Clinton issued the EJ EO, which made achieving EJ part of the mission of the executive branch of the federal government. The EJ EO directs federal agencies to incorporate EJ principles into their activities. As part of doing so, they are required to identify and address any potential disproportionately high and adverse environmental and human health effects of their activities on minority populations and low-income populations. These requirements are described in FTA's EJ Circular (C) 4703.1 and FHWA's *Environmental Justice Reference Guide*.

TRANSPORTATION EQUITY ANALYSES

The remainder of this chapter discusses the results of analyses required by FTA and FHWA guidance:

- The Geographic Distribution of Transportation Investments analysis maps the locations of MPO-funded projects programmed in the Recommended Plan overlaid on areas that have a high share of minority and/or low-income populations. They include all MPO-funded projects in the Recommended Plan; this is different from those that are analyzed in the DI/DB analysis.
- Two DI/DB analyses are conducted to determine if projects in the Recommended Plan that can be modeled, when analyzed in the aggregate, may disproportionately affect minority and low-income populations compared to nonminority and non-low-income populations, respectively. (Because this Recommended Plan does not include any transit projects, FTA's Title VI analysis to analyze the distribution of state and federal funds in the aggregate for public transit is not necessary.)

The MPO's approach to conducting these analyses began with identifying the share of the minority population and low-income population that lives within defined geographical areas, called transportation analysis zones (TAZ).⁶ First, for each TAZ, MPO staff identified the share of the population that meets the definition of minority and the share that meets the MPO's definition of low-income. Then the share of each TAZ that belongs to the minority or low-income population is compared to that population's regional threshold. The threshold

⁶ The TAZ is the unit of geography most commonly used in regional travel demand models. The spatial extent of TAZs typically ranges from very large (less densely developed) areas in suburban communities to as small as city blocks or buildings in (more densely developed) central business districts. The MPO region is divided into 1,901 TAZs.

for defining a minority population is the average percentage of the minority population for the Boston region, 28.2 percent. The threshold for defining a low-income population is 60 percent of the regional annual household income (\$45,392).⁷ If the TAZ meets or exceeds the threshold for the minority population, and/or has an average household income that is equal to or less than the low-income threshold, it is considered a transportation equity zone (TEZ).⁸

Geographic Distribution of Transportation Investments Analysis

Using the approach described above, MPO staff then mapped the minority and low-income TEZs in the Boston region. Figure 6-1 shows the projects in the Recommended Plan that are MPO funded overlaid on TAZs that meet the definition of minority and/or low-income TEZs. (Although the analysis is required only for the minority population, it is also completed for the low-income population to incorporate EJ principles more fully.) About 34 percent of TAZs in the MPO region are minority TEZs, about 10 percent are low-income TEZs, and about 9 percent are both minority and low-income TEZs.⁹ The analysis shows that 6 of the 11 MPO-funded projects in the Recommended Plan intersect with minority and/or low-income TEZs.

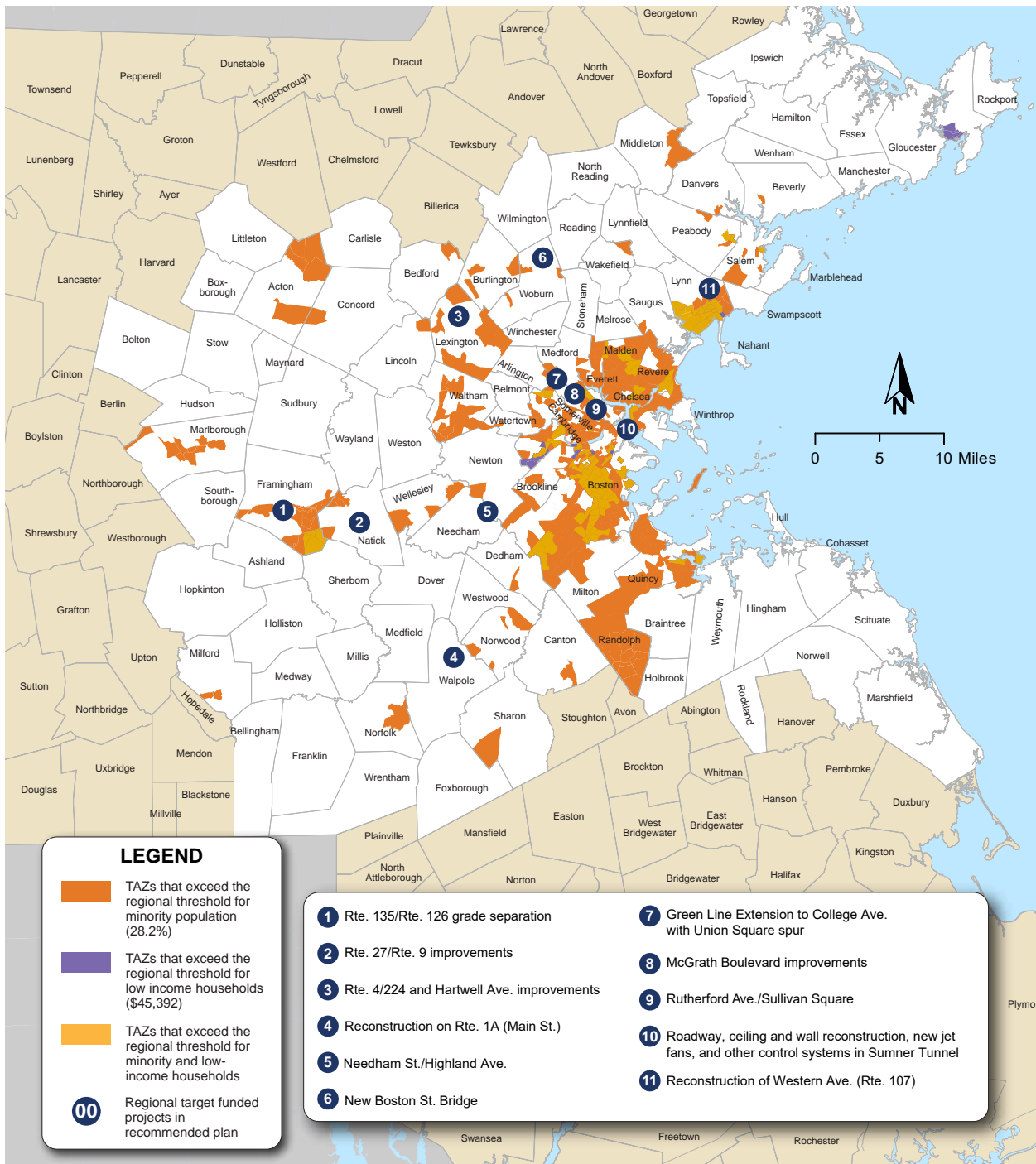
⁷ Minority and low-income status are derived from the 2010 US Census and the 2010–14 American Community Survey, respectively.

⁸ These thresholds were developed based on federal guidance. The FTA Title VI Circular states that a predominantly minority area is one where the share of the minority population exceeds the average in the region. It also states that a predominantly low-income area is one where the share of the low-income population exceeds the average in the region.

⁹ Individual maps of TEZs for each population can be found in Chapter 8 of the Needs Assessment.

Figure 6-1

Recommended Plan Projects in Minority and Low-income Transportation Equity Zones



Notes: TEZs are determined as follows:

- Criteria for low-income TEZs—A TAZ in which the median household income is less than or equal to 60 percent of the MPO’s region’s median household income (\$45,392).
- Criteria for minority TEZs—A TAZ in which the minority population is greater than or equal to the MPO region’s average minority population, 28.2%.
- Criteria for minority and low-income TEZs—A TAZ that meets the definition for both minority TEZs and low-income TEZs.

TAZ = transportation analysis zone. TEZ = transportation equity zone.

Sources: 2010 US Census, 2010–14 American Community Survey, and the Boston Region MPO.

Disparate Impact and Disproportionate Burden Analysis

The DI/DB analyses identify potential future disparate impacts that may result from the modeled projects on minority populations, as well as potential future disproportionate burdens on low-income populations.¹⁰ Disparate impacts refer to potential future adverse effects that would disproportionately affect minority populations. Disproportionate burdens refer to potential future adverse effects that would disproportionately affect low-income populations. Adverse effects may be either a delay or denial of benefits or an imposition of burdens. The DI/DB analyses assessed a suite of 10 metrics for potential future disparate impacts or disproportionate burdens. The MPO's draft DI/DB Policy describes how the MPO determines whether impacts are disparate or disproportionate (see Appendix C).

Methodology

Federal regulations provide MPOs direction on how to conduct DI/DB analyses. Projects must be analyzed as a group and not individually. In addition, potential impacts must be analyzed for the entire minority or low-income population in the region. The analysis does not assess potential impacts to individual communities or municipalities. It also only assesses the impacts of the regionally significant projects in the Recommended Plan that are not already programmed in the Transportation Improvement Program (TIP) and that can be modeled—specifically, those that change the capacity of the transportation network. Those that do not change capacity are analyzed in the TIP, along with projects that are programmed in the other investment programs through the TIP.

MPO staff conducted two DI/DB analyses. The first analyzes only the MPO's Regional Target-funded projects and the second analyzes MPO- and MassDOT-funded regionally significant projects that are within the Boston region. The projects that were included in the first DI/DB analysis include the following:

- Reconstruction of Rutherford Avenue, from City Square to Sullivan Square (Boston)
- McGrath Boulevard (Somerville)
- Bridge replacement, New Boston Street over MBTA (Woburn)
- Route 4/225 (Bedford Street) and Hartwell Avenue (Lexington)
- Intersection improvements at Route 126/Route 135/MBTA and CSX railroad (Framingham)

¹⁰ A disparate impact is a facially neutral policy or practice that results in impacts that disproportionately affect members of a group based on their race, color, or national origin, where the recipient's policy or practice lacks a substantial legitimate justification and where there exists one or more alternatives that would serve the same legitimate objectives but with a less disproportionate effect on the basis of race, color, or national origin.

A disproportionate burden refers to a neutral policy or practice that disproportionately affects low-income populations more than non-low-income populations. A finding of a disproportionate burden requires the recipient to evaluate alternatives and mitigate burdens where practicable.

The projects that were included in the second DI/DB analysis are as follows:

- Reconstruction of Rutherford Avenue, from City Square to Sullivan Square (Boston)
- McGrath Boulevard (Somerville)
- Bridge replacement, New Boston Street over MBTA (Woburn)
- Route 4/225 (Bedford Street) and Hartwell Avenue (Lexington)
- Intersection improvements at Route 126/Route 135/MBTA and CSX railroad (Framingham)
- Cypher Street Extension (Boston)
- Allston Multimodal Improvement Project (Boston)
- Reconstruction of I-90 and I-495 (Hopkinton and Westborough)

For the purpose of the analyses, MPO staff assumed that the distribution of the minority population would remain unchanged in 2040 and that the growth rate would be the same as that forecast for the overall population in the region. For the low-income population, the analyses used a forecast of the distribution of various income categories in 2040.

The process for identifying potential future disparate impacts and disproportionate burdens involves comparing the projected impacts on minority populations to those on nonminority populations, and those on low-income populations to those on non-low-income populations. First, two scenarios are run using a regional travel demand model that analyzes these metrics to identify the projected impacts of the transportation network on each of the four populations. One scenario is run in which the transportation network in 2040 includes the modeled projects (build scenario), and one scenario is run where the transportation network in 2040 does not include them (no-build scenario).¹¹

¹¹ The modeling region includes all of Massachusetts, Rhode Island, and southeastern New Hampshire, in addition to the MPO region. This allows travel demand modeling analyses to account for trips that originate in or end outside of the MPO region. Model results are only reported for the MPO region's 1,901 TAZs.

For each TAZ, the model produces results for each scenario for the following 10 metrics:

- Accessibility metrics¹²
 - Access to jobs within a 60-minute transit trip
 - Access to retail opportunities within a 60-minute transit trip
 - Access to healthcare services within a 40-minute transit trip
 - Access to two- and four-year institutes of higher education within a 40-minute transit trip
- Mobility metrics
 - Average travel time for transit trips produced in MPO TAZs
 - Average travel time for transit trips attracted to MPO TAZs
 - Average travel time for highway trips produced in MPO TAZs¹³
 - Average travel time for highway trips attracted to MPO TAZs
- Environmental metrics
 - Carbon monoxide (CO) emissions per square mile
 - Congested vehicle-miles traveled (VMT) per square mile

Then, the weighted regionwide average for each metric is calculated for the minority, nonminority, low-income, and non-low-income populations by TAZ. This is calculated for both the no-build and build scenarios. For example, for the minority population, the projected CO emissions per square mile, weighted by the entire minority population in the region, is calculated for both the no-build and build scenarios. The CO emissions per square mile for the no-build scenario are then subtracted from the CO emissions per square mile for the build scenario. This determines the change in CO emissions per square mile that is projected to occur in 2040 as a result of implementing the projects.

¹² Accessibility metrics only analyze public transit trips; there is a high degree of uncertainty in modeling highway trips, so accessibility by highway metrics were not used in this analysis. The access to jobs and retail metrics were updated in this LRTP to reflect the unweighted average travel times to jobs reported in the American Community Survey. Given a lack of data about average travel times to healthcare facilities and higher education, travel time thresholds remained at 40 minutes.

¹³ Highway trips consist of automobile and truck trips taken on any road in the MPO region. It does not include bus trips.

After completing this process for all populations, MPO staff applies the LRTP draft DI/DB Policy to determine whether there may be a potential disparate impact for the minority population or a disproportionate burden for the low-income population. In this example, the DI/DB Policy would compare the projected impact on the minority population to that on the nonminority population to determine whether there may be a potential future disparate impact for the minority population.

Applying the Draft DI/DB Policy

The MPO's LRTP draft DI/DB Policy states how the MPO identifies and addresses potential future disparate impacts and disproportionate burdens that may result from the modeled projects. The policy enables the MPO to meet federal requirements in a clear and consistent manner, and it makes the MPO's approach to identifying and addressing potential future disparate impacts and disproportionate burdens transparent to the public. Because of the similarities between FTA's and FHWA's EJ requirements to identify and address disproportionately high and adverse effects of MPO activities and their Title VI disparate impact requirements, the draft policy was developed to meet both.

The policy was used for the first time in *Destination 2040*. In federal fiscal year (FFY) 2018, MPO staff began the first of a two-phase effort to develop a DI/DB policy for the modeled projects. Over the course of a year, MPO staff conducted public outreach to get input on the policy and the metrics that staff could analyze for potential future disparate impacts and disproportionate burdens. Staff responded to this input by updating those metrics, as well as the DI/DB analysis methodology that is described in this chapter. This included identifying the forecasting error for each metric, which was critical for determining whether the impacts were outside the bounds of the uncertainty inherent to travel demand modeling. Subsequently, MPO staff developed this draft DI/DB Policy that allows the MPO to identify only those impacts that would likely be due to implementation of the modeled projects and avoid labeling impacts as disparate impacts or disproportionate burdens when they would likely be due to forecasting error.

The full draft DI/DB Policy can be found in Appendix C. In sum, it states that there would be a potential future disparate impact or disproportionate burden if

- the minority or low-income population would likely be more adversely affected than the nonminority or non-low-income population, respectively; and
- this result is not due to the metric's forecasting error.

Analysis Results

This section describes the results of the two DI/DB analyses. Tables 6-1 through 6-10 report the results for each evaluation metric. Table numbers followed by an "a" indicate that the

results are for the MPO's Regional Target-funded projects only, while table numbers followed by a "b" indicate that the results are for MPO- and MassDOT-funded regionally significant projects. (Both sets of projects refer only to those that can be modeled.) Each table includes the forecasting error (expressed as a percentage) that was calculated for each metric as part of the development of the draft DI/DB Policy and the no-build scenario results.¹⁴ They also show the range of values for the build scenario that is expected based on the forecasting error. (For example, if the no-build scenario result is 1,000 and the forecasting error is 10 percent, then the expected range of values would be 900 to 1,100.) Finally, the tables show whether the analysis indicates a potential disparate impact or disproportionate burden. If the no-build scenario result for both the protected and non-protected populations falls within the expected range of values for the build scenario, then there is no disparate impact or disproportionate burden. This is because an overlap indicates that any difference between the build and no-build scenarios is likely due to model uncertainty, not the MPO projects that are being analyzed. It is statistically unlikely that the projects being analyzed disproportionately affect the protected population.

Accessibility Metrics

The MPO's accessibility metrics are based on the number of destinations of various types (jobs, retail, education, and health care) by TAZ that are reachable within a given travel time by transit. The average number of destinations is then calculated for minority, nonminority, low-income, and non-low-income populations, based on their respective shares within each TAZ. These metrics use the number of total jobs, healthcare facilities, institutes of higher education, and retail opportunities as proxies for activity opportunities at destination TAZs. Travel times to jobs were updated to reflect average commute times for the MPO region as documented in the American Community Survey. Access to retail opportunities uses retail jobs as a proxy. Access to higher education uses enrollment data for two- and four-year institutes of higher education as a proxy. Access to health care uses the number of hospital beds as a proxy.

Tables 6-1a and 6-1b show the DI/DB analysis results for access to jobs, Tables 6-2a and 6-2b show the results for access to retail opportunities, Tables 6-3a and 6-3b show the results for access to higher education, and Tables 6-4a and 6-4b shows the results for access to healthcare facilities. The results of the DI/DB analysis of the MPO's Regional Target-funded projects show that the differences for all four metrics between the build and no-build scenarios are within the forecasting error. Therefore, the analysis indicates that there are no potential disparate impacts or disproportionate burdens for these metrics.

¹⁴ Note that in the tables, the no-build results are the same for both the MPO Regional Target-funded projects analysis and the analysis of the MassDOT- and MPO-funded regionally significant projects. This is because the same no-build scenario was used in both analyses.

The analysis for the MPO- and MassDOT-funded regionally significant projects also shows that likely there will not be any disparate impacts or disproportionate burdens. The results for two other metrics show there likely will be a positive impact in terms of access to healthcare facilities for minority and nonminority populations and for low-income and non-low-income populations, and access to jobs for minority and nonminority populations. In both cases, the minority or low-income population is projected to benefit more than their respective nonminority or non-low-income populations.

Table 6-1a
DI/DB Analysis Results for Access to Jobs by Transit—MPO-Funded Regional Target Projects

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 3.3% | 481,608 | 462,864 to 494,455 | No |
| Nonminority | 6.2% | 265,441 | 248,984 to 281,899 | |
| Low-income | 3.7% | 404,775 | 387,326 to 417,090 | No |
| Non-low-income | 5.0% | 305,360 | 288,423 to 318,783 | |

Notes: The no-build and build scenarios are for the year 2040. Access to jobs is calculated for those within a 60-minute transit trip and is reported in number of jobs.

DI/DB = Disparate impact and disproportionate burden.

Source: Boston Region MPO.

Table 6-1b
DI/DB Analysis Results for Access to Jobs by Transit—MPO- and MassDOT-Funded Regionally Significant Projects

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 3.3% | 481,608 | 481,771 to 514,653 | No |
| Nonminority | 6.2% | 265,441 | 258,741 to 292,946 | |
| Low-income | 3.7% | 404,775 | 403,167 to 434,148 | No |
| Non-low-income | 5.0% | 305,360 | 301,338 to 333,058 | |

Notes: The no-build and build scenarios are for the year 2040. Access to jobs is calculated for those within a 60-minute transit trip and is reported in number of jobs.

DI/DB = Disparate impact and disproportionate burden.

Source: Boston Region MPO.

Table 6-2a
DI/DB Analysis Results for Access to Retail Opportunities by Transit—MPO-Funded Regional Target Projects

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 9.1% | 52,609 | 47,538 to 57,056 | No |
| Nonminority | 16.6% | 29,522 | 24,485 to 34,232 | |
| Low-income | 10.2% | 44,513 | 39,731 to 48,757 | No |
| Non-low-income | 13.7% | 33,810 | 29,013 to 38,224 | |

Notes: The no-build and build scenarios are for the year 2040. Access to retail opportunities is calculated for those within a 60-minute transit trip and are reported in number of retail jobs.
 DI/DB = Disparate impact and disproportionate burden.
 Source: Boston Region MPO.

Table 6-2b
DI/DB Analysis Results for Access to Retail Opportunities by Transit—MPO- and MassDOT-Funded Regionally Significant Projects

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 9.1% | 52,609 | 49,695 to 59,645 | No |
| Nonminority | 16.6% | 29,522 | 25,778 to 36,040 | |
| Low-income | 10.2% | 44,513 | 41,583 to 51,030 | No |
| Non-low-income | 13.7% | 33,810 | 30,512 to 40,200 | |

Notes: The no-build and build scenarios are for the year 2040. Access to retail opportunities is calculated for those within a 60-minute transit trip and are reported in number of retail jobs.
 DI/DB = Disparate impact and disproportionate burden.
 Source: Boston Region MPO.

Table 6-3a
DI/DB Analysis Results for Access to Higher Education by Transit—MPO-Funded Regional Target Projects

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 3.5% | 50,776 | 48,897 to 52,444 | No |
| Nonminority | 6.0% | 29,372 | 27,563 to 31,082 | |
| Low-income | 3.4% | 44,968 | 43,358 to 46,410 | No |
| Non-low-income | 5.6% | 33,692 | 32,065 to 35,157 | |

Notes: The no-build and build scenarios are for the year 2040. Access to higher education is calculated for those within a 40-minute transit trip and is reported in number of students enrolled.

DI/DB = Disparate impact and disproportionate burden.

Source: Boston Region MPO.

Table 6-3b
DI/DB Analysis Results for Access to Higher Education by Transit—MPO- and MassDOT-Funded Regionally Significant Projects

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 3.5% | 50,776 | 49,947 to 53,571 | No |
| Nonminority | 6.0% | 29,372 | 28,336 to 31,954 | |
| Low-income | 3.4% | 44,968 | 44,493 to 47,625 | No |
| Non-low-income | 5.6% | 33,692 | 32,573 to 35,912 | |

Notes: The no-build and build scenarios are for the year 2040. Access to higher education is calculated for those within a 40-minute transit trip and is reported in number of students enrolled.

DI/DB = Disparate impact and disproportionate burden.

Source: Boston Region MPO.

Table 6-4a
DI/DB Analysis Results for Access to Healthcare Facilities by Transit—MPO-Funded Regional Target Projects

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 3.2% | 987 | 950 to 1,013 | No |
| Nonminority | 5.8% | 563 | 529 to 594 | |
| Low-income | 3.3% | 892 | 859 to 918 | No |
| Non-low-income | 4.5% | 641 | 610 to 667 | |

Notes: The no-build and build scenarios are for the year 2040. Access to healthcare facilities is calculated for those within a 60-minute transit trip and is reported in number of hospital beds.
 DI/DB = Disparate impact and disproportionate burden.
 Source: Boston Region MPO.

Table 6-4b
DI/DB Analysis Results for Access to Healthcare Facilities by Transit—MPO- and MassDOT-Funded Regionally Significant Projects

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 3.2% | 987 | 1,003 to 1,069 | No |
| Nonminority | 5.8% | 563 | 554 to 622 | |
| Low-income | 3.3% | 892 | 898 to 959 | No |
| Non-low-income | 4.5% | 641 | 640 to 701 | |

Notes: The no-build and build scenarios are for the year 2040. Access to healthcare facilities is calculated for those within a 60-minute transit trip and is reported in number of hospital beds.
 DI/DB = Disparate impact and disproportionate burden.
 Source: Boston Region MPO.

Mobility Metrics

The mobility metrics are used to evaluate the door-to-door travel time for trips produced in and attracted to MPO TAZs. Average travel times are then calculated for minority, nonminority, low-income, and non-low-income populations, based on their respective shares within each TAZ. Trips attracted to TAZs are those that are generated by non-household land uses (such as retail, employment, health care, and education) within the MPO region. They can originate from either households within the MPO region or from outside of the region.¹⁵ Trips produced in TAZs are those trips generated by households (trip generation varies based on

¹⁵ Trips ending or originating outside of the MPO region are only those within the modeled area, which includes all of Massachusetts and Rhode Island, as well as southern New Hampshire. Only surface transportation trips are included—air travel is not.

household income, number of cars, and the number of people in the household, among other characteristics). The trips can end either within another TAZ in the region or outside of the region.

Tables 6-5a, 6-5b, 6-6a, and 6-6b show the DI/DB analysis results for the transit trip attraction and production metrics. Tables 6-7a, 6-7b, 6-8a, and 6-8b show the results for the highway trip attraction and production metrics. The results for the DI/DB analysis for both the MPO-funded Regional Target projects and MPO- and MassDOT-funded regionally significant projects for all four of the mobility metrics show that the changes between the build and no-build scenarios fall within the forecasting error. Therefore, both analyses indicate that neither disparate impacts nor disproportionate burdens are likely to occur.

Table 6-5a
DI/DB Analysis Results for Average Transit Travel Times: Trip Attractions—MPO-Funded Regional Target Projects

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 14.5% | 47.8 | 40.9 to 54.7 | No |
| Nonminority | 12.0% | 51.8 | 45.3 to 58.3 | No |
| Low-income | 13.0% | 49.5 | 43.0 to 55.9 | No |
| Non-low-income | 12.2% | 51.5 | 45.2 to 57.7 | No |

Notes: The no-build and build scenarios are for the year 2040. Travel times are in minutes.
DI/DB = Disparate impact and disproportionate burden.
Source: Boston Region MPO.

Table 6-5b
DI/DB Analysis Results for Average Transit Travel Times: Trip Attractions—MPO- and MassDOT-Funded Regionally Significant Projects

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 14.5% | 47.8 | 39.4 to 52.8 | No |
| Nonminority | 12.0% | 51.8 | 43.4 to 55.8 | No |
| Low-income | 13.0% | 49.5 | 41.4 to 53.8 | No |
| Non-low-income | 12.2% | 51.5 | 43.3 to 55.3 | No |

Notes: The no-build and build scenarios are for the year 2040. Travel times are in minutes.
DI/DB = Disparate impact and disproportionate burden.
Source: Boston Region MPO.

Table 6-6a
DI/DB Analysis Results for Average Transit Travel Times: Trip Productions—MPO-Funded Regional Target Projects

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 17.3% | 46.9 | 38.7 to 55.0 | No |
| Nonminority | 15.5% | 51.4 | 43.4 to 59.3 | |
| Low-income | 16.1% | 49.0 | 41.1 to 56.8 | No |
| Non-low-income | 15.7% | 50.9 | 42.9 to 58.9 | |

Notes: The no-build and build scenarios are for the year 2040. Travel times are in minutes.
 DI/DB = Disparate impact and disproportionate burden.
 Source: Boston Region MPO.

Table 6-6b
DI/DB Analysis Results for Average Transit Travel Times: Trip Production—MPO- and MassDOT-Funded Regionally Significant Projects

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 17.3% | 46.9 | 37.3 to 52.9 | No |
| Nonminority | 15.5% | 51.4 | 41.5 to 56.8 | |
| Low-income | 16.1% | 49.0 | 39.5 to 54.6 | No |
| Non-low-income | 15.7% | 50.9 | 41.1 to 56.4 | |

Notes: The no-build and build scenarios are for the year 2040. Travel times are in minutes.
 DI/DB = Disparate impact and disproportionate burden.
 Source: Boston Region MPO.

Table 6-7a
**DI/DB Analysis Results for Average Highway Travel Times: Trip Attractions—MPO-
 Funded Regional Target Projects**

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 13.9% | 19.1 | 16.4 to 21.8 | No |
| Nonminority | 13.1% | 19.0 | 16.5 to 21.6 | |
| Low-income | 13.2% | 18.8 | 16.3 to 21.3 | No |
| Non-low-income | 13.2% | 19.0 | 16.5 to 26.1 | |

Notes: The no-build and build scenarios are for the year 2040. Travel times are in minutes.
 DI/DB = Disparate impact and disproportionate burden.
 Source: Boston Region MPO.

Table 6-7b
**DI/DB Analysis Results for Average Highway Travel Times: Trip Attractions—MPO- and
 MassDOT-Funded Regionally Significant Projects**

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 13.9% | 19.1 | 16.4 to 21.7 | No |
| Nonminority | 13.1% | 19.0 | 16.5 to 21.5 | |
| Low-income | 13.2% | 18.8 | 16.3 to 21.2 | No |
| Non-low-income | 13.2% | 19.0 | 16.5 to 21.5 | |

Notes: The no-build and build scenarios are for the year 2040. Travel times are in minutes.
 DI/DB = Disparate impact and disproportionate burden.
 Source: Boston Region MPO.

Table 6-8a
DI/DB Analysis Results for Average Highway Travel Times: Trip Productions—MPO-Funded Regional Target Projects

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 13.2% | 19.1 | 16.6 to 21.6 | No |
| Nonminority | 13.2% | 19.0 | 16.5 to 21.6 | |
| Low-income | 13.1% | 18.8 | 16.4 to 21.3 | No |
| Non-low-income | 13.3% | 19.0 | 16.5 to 21.6 | |

Notes: The no-build and build scenarios are for the year 2040. Travel times are in minutes.
 DI/DB = Disparate impact and disproportionate burden.
 Source: Boston Region MPO.

Table 6-8b
DI/DB Analysis Results for Average Highway Travel Times: Trip Productions—MPO- and MassDOT-Funded Regionally Significant Projects

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 13.2% | 19.1 | 16.5 to 21.5 | No |
| Nonminority | 13.2% | 19.0 | 16.5 to 21.5 | |
| Low-income | 13.1% | 18.8 | 16.3 to 21.2 | No |
| Non-low-income | 13.3% | 19.0 | 16.5 to 21.5 | |

Notes: The no-build and build scenarios are for the year 2040. Travel times are in minutes.
 DI/DB = Disparate impact and disproportionate burden.
 Source: Boston Region MPO.

Environmental Metrics

The two environmental metrics are congested VMT and CO emissions per square mile. While the other metrics evaluate the impacts affecting users of the roadway or transit system, these metrics assess the VMT and CO impacts on residents. Both are calculated based on highway trips, not transit trips. The CO metric assesses the CO emissions per square mile within each TAZ. The congested VMT metric assesses the volume-to-capacity ratio on the roads within or adjacent to each TAZ; those with a ratio of 0.75 or greater are considered congested.

Tables 6-9a and 6-9b show the DI/DB analysis results for congested VMT per square mile and Tables 6-10a and 6-10b show the results for CO emissions per square mile. The results for the DI/DB analysis for both the MPO-funded Regional Target projects and MPO- and MassDOT-funded regionally significant projects show that the projected differences for both metrics are within the forecasting error. Therefore, both analyses indicate that neither disparate impacts nor disproportionate burdens are likely to occur for these metrics.

Table 6-9a
DI/DB Analysis Results for Congested VMT—MPO-Funded Regional Target Projects

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 16.3% | 110,490 | 89,797 to 124,772 | No |
| Nonminority | 22.6% | 81,396 | 61,390 to 97,241 | |
| Low-income | 16.5% | 102,537 | 83,379 to 116,331 | No |
| Non-low-income | 20.3% | 92,044 | 71,169 to 107,423 | |

Notes: The no-build and build scenarios are for the year 2040. Congested VMT is determined by analyzing the volume-to-capacity ratio on the roads within each TAZ. Those with a ratio of 0.75 or greater are considered congested. DI/DB = Disparate impact and disproportionate burden. VMT = vehicle-miles traveled. Source: Boston Region MPO.

Table 6-9b
DI/DB Analysis Results for Congested VMT—MPO- and MassDOT-Funded Regionally Significant Projects

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 16.3% | 110,490 | 90,759 to 126,108 | No |
| Nonminority | 22.6% | 81,396 | 62,184 to 98,498 | |
| Low-income | 16.5% | 102,537 | 84,761 to 118,259 | No |
| Non-low-income | 20.3% | 92,044 | 71,992 to 108,665 | |

Notes: The no-build and build scenarios are for the year 2040. Congested VMT is determined by analyzing the volume-to-capacity ratio on the roads within each TAZ. Those with a ratio of 0.75 or greater are considered congested. DI/DB = Disparate impact and disproportionate burden. VMT = vehicle-miles traveled. Source: Boston Region MPO.

Table 6-10a
DI/DB Analysis Results for CO Emissions—MPO-Funded Regional Target Projects

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 11.9% | 184 | 158 to 201 | No |
| Nonminority | 17.2% | 134 | 109 to 154 | |
| Low-income | 12.6% | 172 | 147 to 189 | No |
| Non-low-income | 15.4% | 150 | 123 to 168 | |

Notes: The no-build and build scenarios are for the year 2040. CO emissions are per square mile and are reported in kilograms. CO = Carbon monoxide. DI/DB = Disparate impact and disproportionate burden.
 Source: Boston Region MPO.

Table 6-10b
DI/DB Analysis Results for CO Emissions—MPO-Funded Regional Target Projects

| Population | Forecasting Error | No-build Scenario Result | Range of Expected Values for the Build Scenario | Disparate Impact or Disproportionate Burden? |
|----------------|-------------------|--------------------------|---|--|
| Minority | 11.9% | 184 | 160 to 203 | No |
| Nonminority | 17.2% | 134 | 110 to 156 | |
| Low-income | 12.6% | 172 | 149 to 192 | No |
| Non-low-income | 15.4% | 150 | 125 to 171 | |

Notes: The no-build and build scenarios are for the year 2040. CO emissions are per square mile and are reported in kilograms. CO = Carbon monoxide. DI/DB = Disparate impact and disproportionate burden.
 Source: Boston Region MPO.

CONCLUSION AND NEXT STEPS

The MPO’s DI/DB analyses found that both the MPO’s Regional Target-funded projects and the MPO- and MassDOT-funded regionally significant projects that can be modeled in the Recommended Plan, in the aggregate, would likely not result in any potential future disparate impacts or disproportionate burdens. This means that no further action is required by the MPO.

In FFY 2020, MPO staff will conduct a study to develop thresholds for each metric that will allow the MPO to determine when a potential impact to the minority or low-income

populations would be significantly greater than the potential impact to the nonminority or non-low-income population, respectively. Federal guidance states that disparate impacts and disproportionate burdens are those impacts where the minority or low-income population may be affected significantly more than the nonminority or non-low-income population. The study will define the meaning of *significantly more* for each metric. When the study is completed, MPO staff will update the draft DI/DB Policy to reflect the findings, and subsequently seek MPO endorsement.

TRANSPORTATION EQUITY ANALYSES

As required by federal regulations, the MPO assesses the impacts of all Regional Target-funded projects, as a group, in each TIP on TE populations.³ These analyses help the MPO to better understand the extent to which investments help the MPO meet its TE goal. This information will inform future changes or updates to MPO work and decision-making. As new tools are identified and analyses are developed, they will be added to subsequent TIPs.

In the FFYs 2023–27 TIP, the MPO has left unprogrammed Regional Target funds for projects which have not yet been identified. As a standard practice, the MPO reserves funds for these programs with the expectation that they will be allocated when projects are ready to be funded. Specifically, \$6.7 million for the Community Connections and \$19.5 million for the Transit Modernization investment programs have been left unprogrammed. Except for the funding distribution analysis, the equity analyses in this chapter do not account for these funds. Additionally, the analyses in this chapter do not include roadway projects in the region that are funded by the Massachusetts Department of Transportation or public transit projects funded by regional transit authorities.

³ The following sources for the TE populations were used for the analyses in this section:

FFYs 2022–26 TIP and earlier:

- Minority population: US Census Bureau; 2010 Decennial Census Redistricting Data (P.L. 94-171), Table P2: Hispanic or Latino, and Not Hispanic or Latino by Race; generated by CTPS; using data.census.gov.
- Low-income population: US Census Bureau; 2010–14 American Community Survey, Table C17002: Ratio of Income to Poverty Level in the Past 12 Months; generated by CTPS; using data.census.gov.
- People with limited English proficiency: US Census Bureau; 2010–14 American Community Survey, Table B16004: Age by Language Spoken at Home by Ability to Speak English for the Population 5 Years and Older; generated by CTPS; using data.census.gov.
- People with disabilities: US Census Bureau; 2010–14 American Community Survey, Table B18101: Sex by Age by Disability Status; generated by CTPS; using data.census.gov.
- Older adults and youth population: US Census Bureau; 2010 Census, Table P12: Sex by Age; generated by CTPS; using data.census.gov.

FFYs 2023–27 TIP:

- Minority population: US Census Bureau; 2020 Decennial Census Redistricting Data (P.L. 94-171), Table P2: Hispanic or Latino, and Not Hispanic or Latino by Race; generated by CTPS; using data.census.gov.
- Low-income population: US Census Bureau; 2016–20 American Community Survey, Table C17002: Ratio of Income to Poverty Level in the Past 12 Months; generated by CTPS; using data.census.gov.
- People with limited English proficiency: US Census Bureau; 2016–20 American Community Survey, Table B16004: Age by Language Spoken at Home by Ability to Speak English for the Population 5 Years and Older; generated by CTPS; using data.census.gov.
- People with disabilities: US Census Bureau; 2016–20 American Community Survey, Table B18101: Sex by Age by Disability Status; generated by CTPS; using www.data.census.gov.
- Older adult and youth population: US Census Bureau; 2016–20 American Community Survey, Table B18101: Sex by Age; generated by CTPS; using data.census.gov.

Geographical Analyses

Transportation Equity Populations in the Boston Region

Table 6-5 shows the total number of people in the Boston region who belong to each TE population, as well as the percentage of each TE population relative to the Boston region's population. Values from the FFYs 2022–26 TIP are also shown as a comparison.

Table 6-5
Transportation Equity Populations in the Boston Region

| TE Population Group | MPO Region Population | | Percent of the Total Population | |
|--------------------------|-----------------------|---------------------|---------------------------------|---------------------|
| | FFYs 2022–26 TIP | FFYs 2023–27 TIP | FFYs 2022–26 TIP | FFYs 2023–27 TIP |
| Minority population | 870,459 | 1,223,835 | 28.2% | 36.5% |
| Low-income population | 683,548 | 674,215 | 23.0% | 19.6% |
| People with LEP | 308,770 | 375,848 | 10.6% | 11.1% |
| People with disabilities | 306,776 | 342,552 | 10.0% | 10.2% |
| Older adult population | 206,578 | 232,286 | 6.7% | 6.8% |
| Youth population | 636,761 | 634,550 | 20.6% | 19.3% |

Note: To calculate the TE population values, the population in each block group was controlled to the total 2020 census population count and then summed to get the total TE population in the Boston region.

FFY = federal fiscal year. LEP = limited English proficiency. TE = transportation equity. TIP = Transportation Improvement Program.

Source: US Census Bureau.

Figures 6-2 to 6-7 show the percent of each TE population throughout the Boston region. In general, the minority population, people with low incomes, and people with LEP tend to live closer to or in Boston. On the other hand, people aged 75 or older, people 17 or younger, and people with disabilities are dispersed throughout the region.

Figure 6-2
Percentage of the Minority Population in the Boston Region

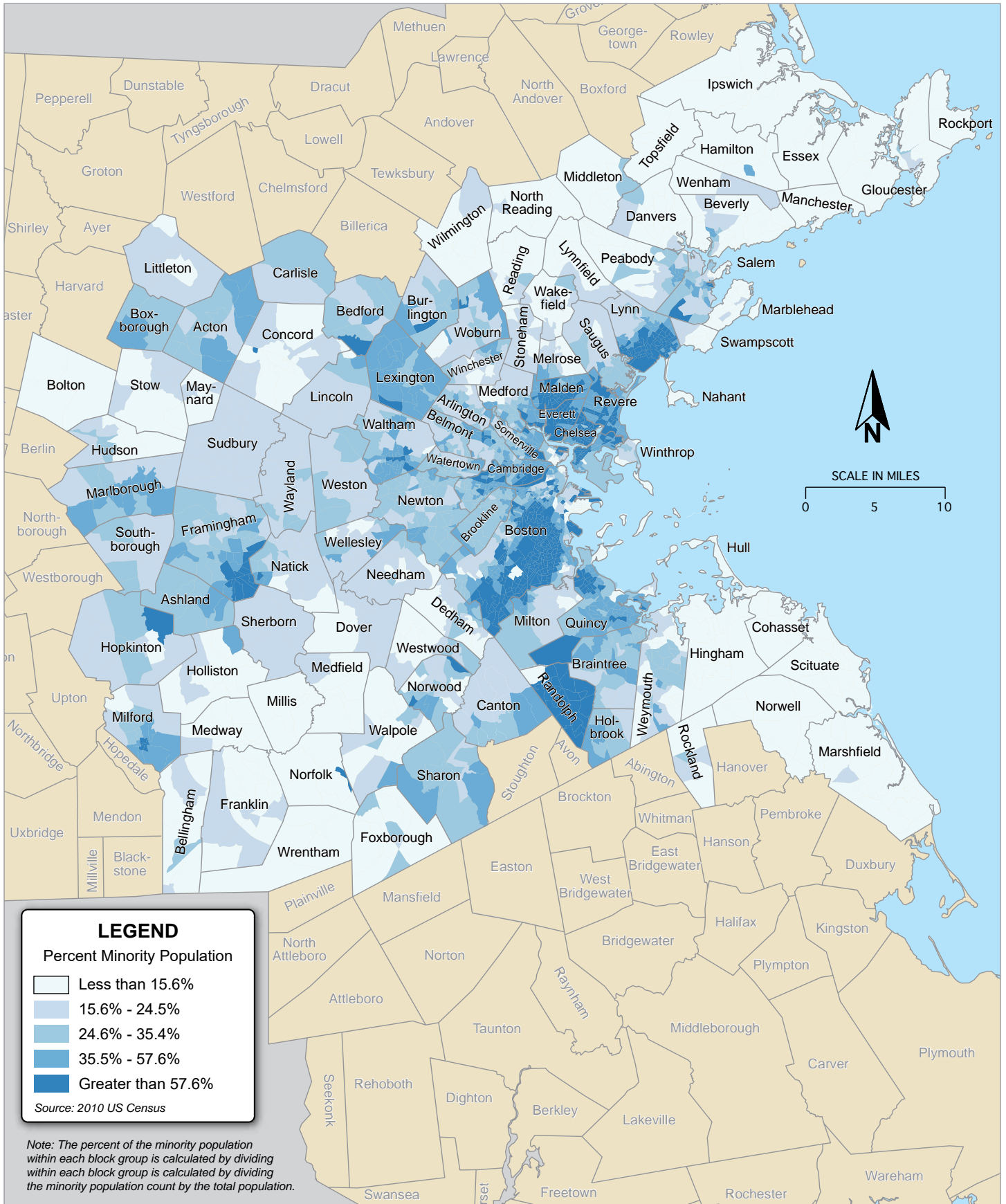


Figure 6-3
Percentage of the Low-income Population in the Boston Region

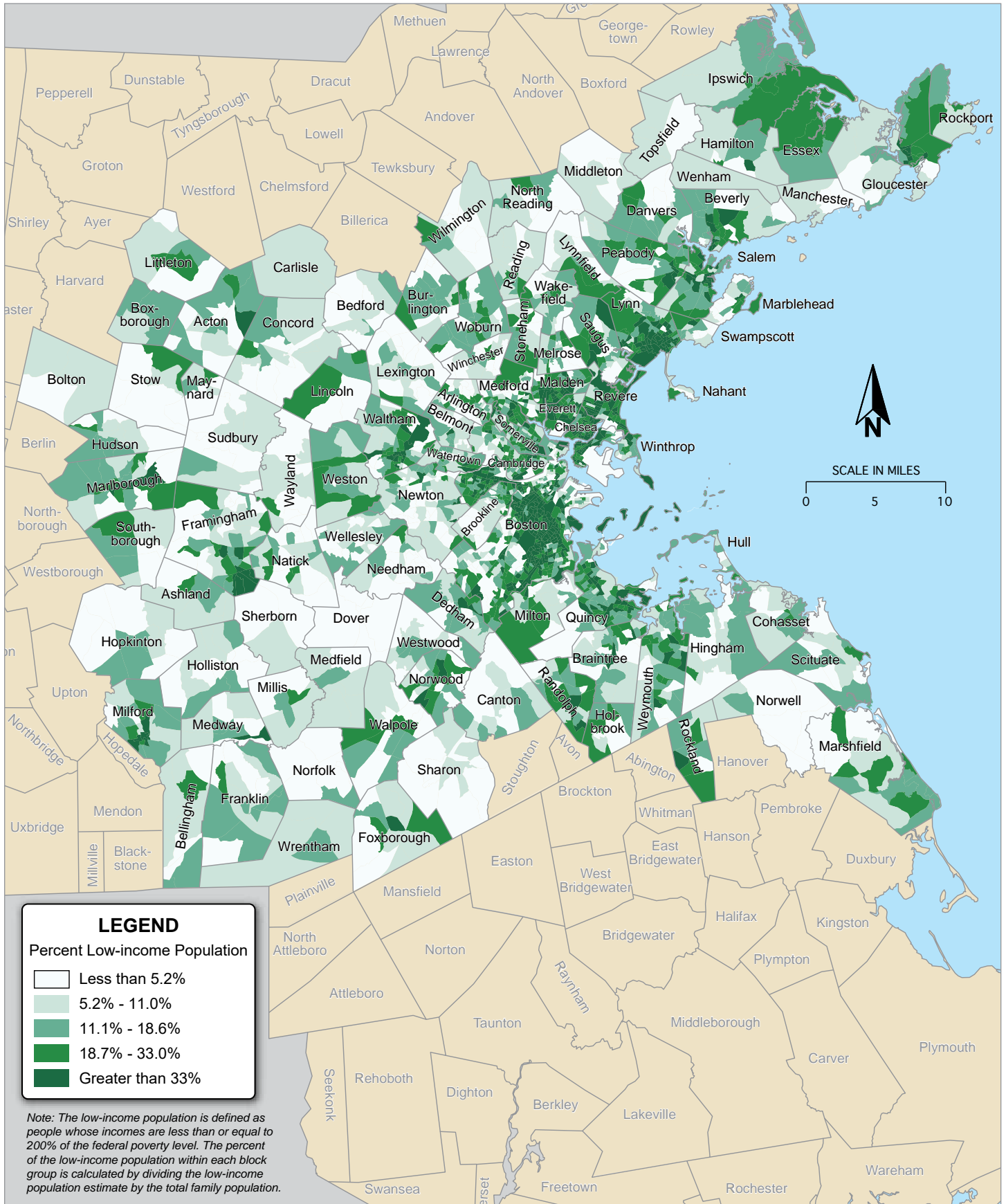


Figure 6-4
Percentage of People with Limited English Proficiency in the Boston Region

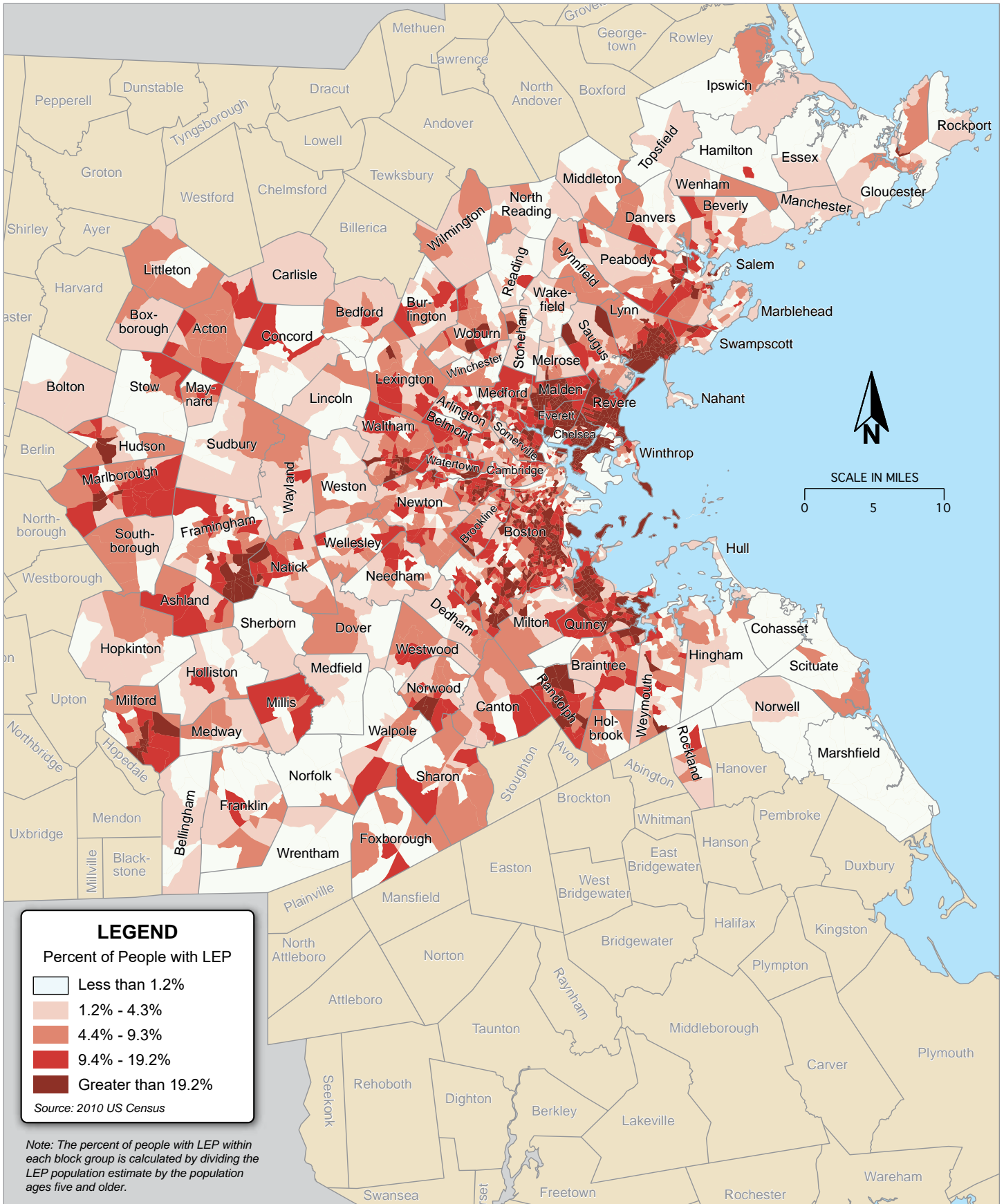


Figure 6-5
Percentage of People with Disabilities in the Boston Region

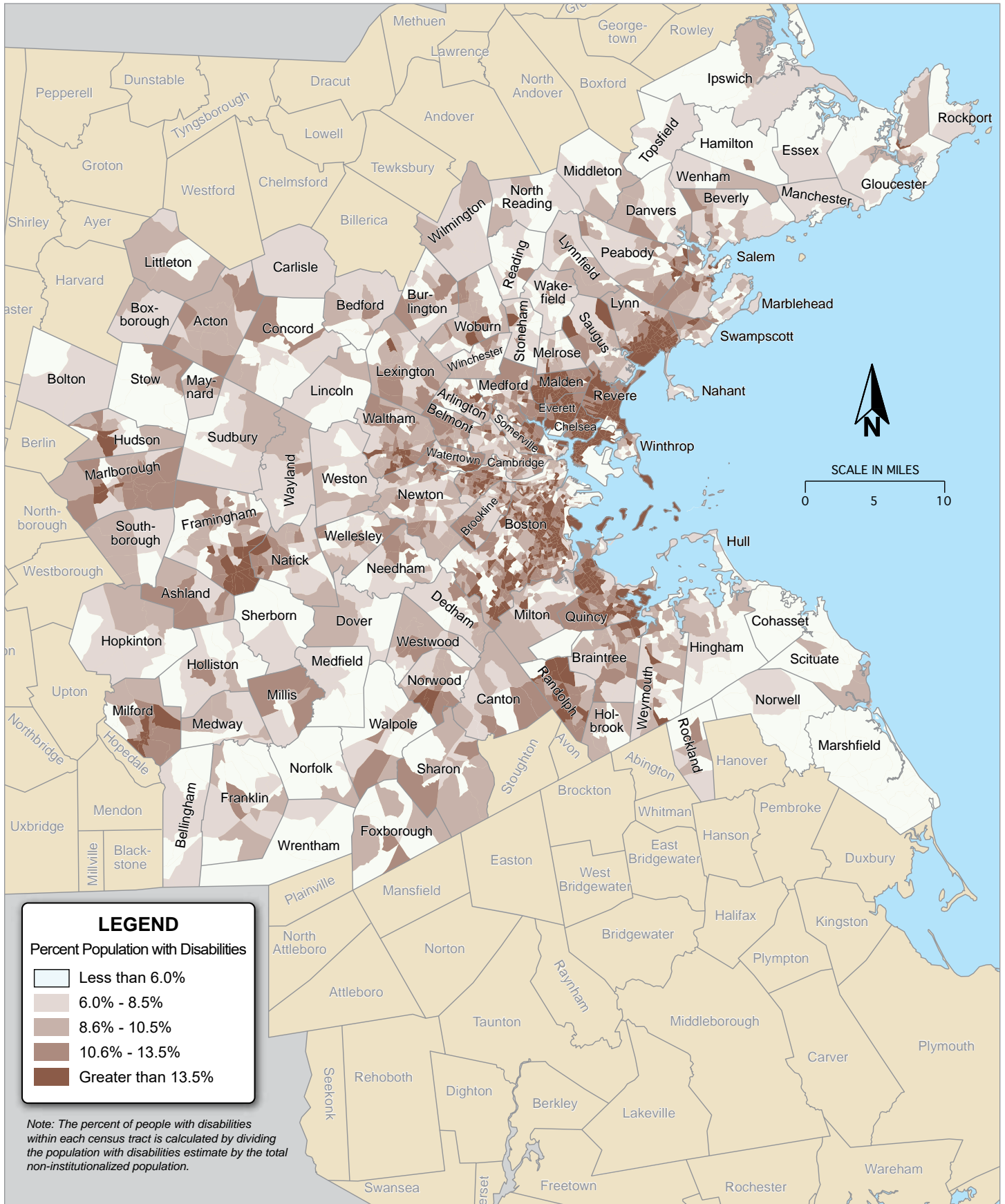


Figure 6-6
Percentage of Older Adults in the Boston Region

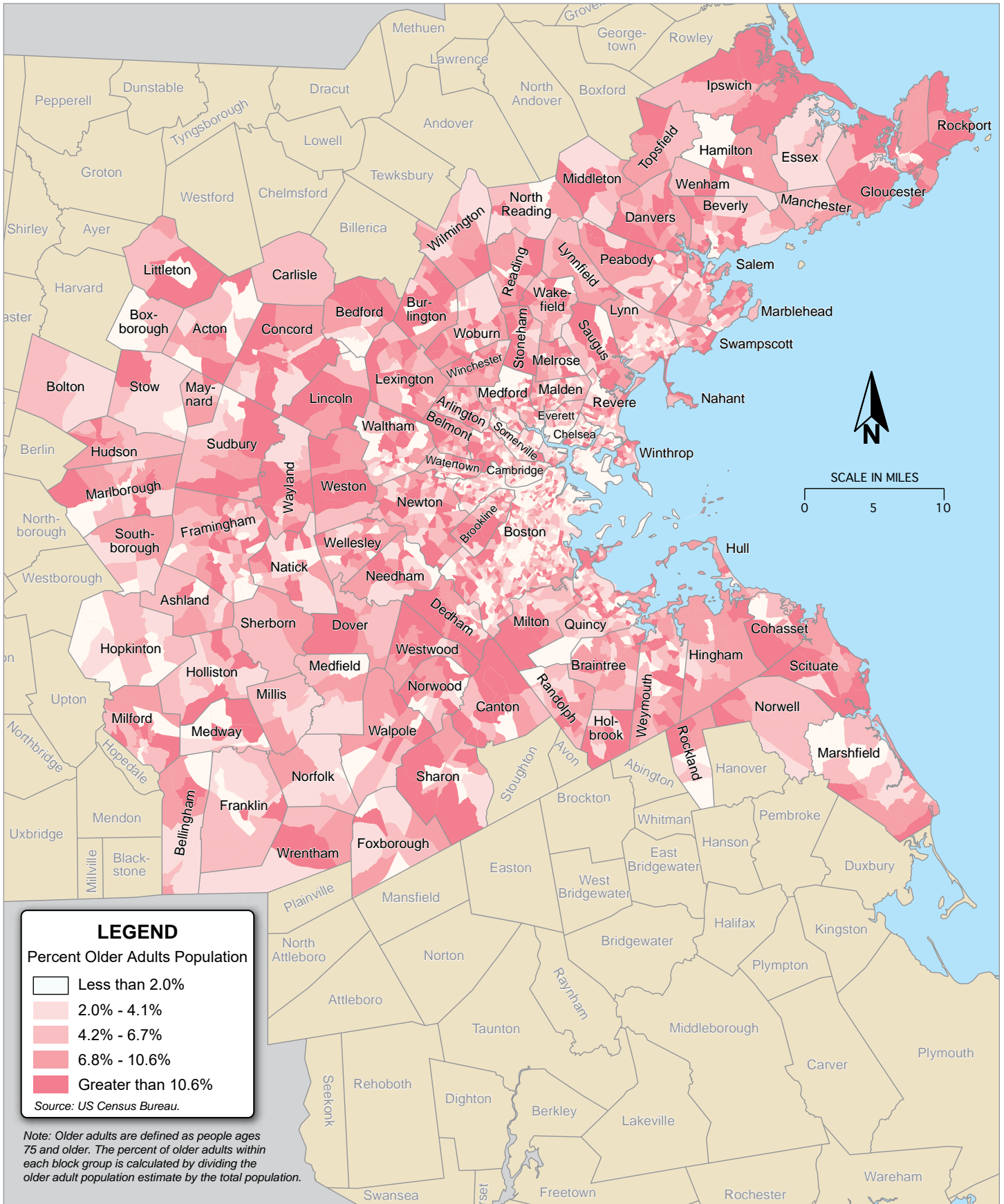
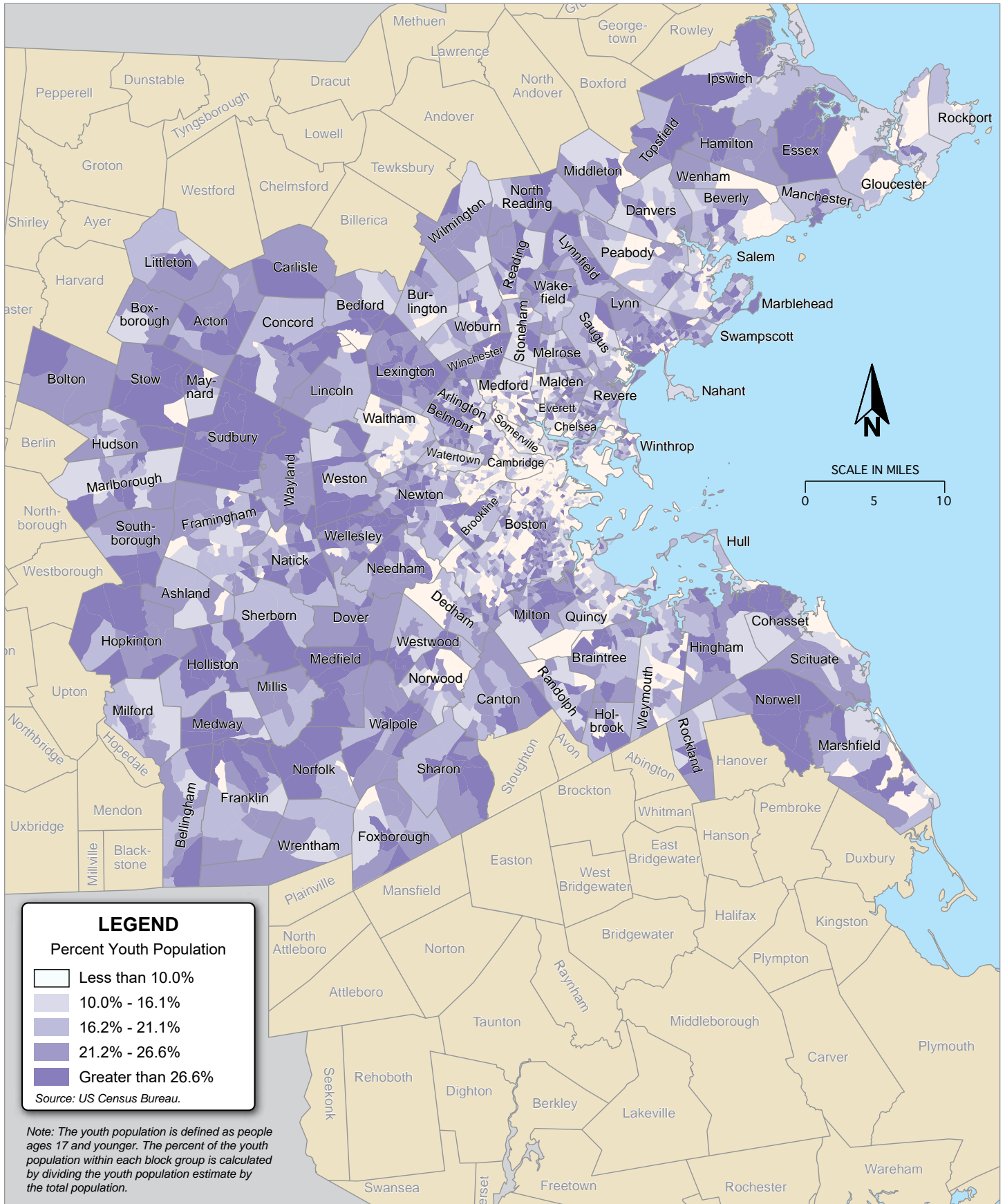


Figure 6-7
Percentage of Youth Population in the Boston Region



Transportation Equity Populations Served or Impacted by Regional Target-funded Projects

The analyses in this section assess which TE populations are likely served or impacted by Regional Target-funded projects. Affected populations are considered those who live in close proximity, defined as one-half mile, from project extents. Geographic proximity is an approximation that helps determine who is likely to use and be impacted by a project. For some projects, such as those in the Bicycle Network and Pedestrian Connections and Complete Streets Programs, this measure is a reasonable representation as these projects are often designed and located in such a way so as to serve local residents. For other projects, such as those in the Major Infrastructure Program, this may be a less accurate representation, given that many users of these types of roadways or public transit lines live outside of the half-mile boundary. Some impacts, however, are local regardless of investment program, such as pollution from carbon monoxide (CO) and other transportation-related emissions. Despite drawbacks, geographical analyses are a readily available approximation of who may be most served and affected by projects funded by the MPO.

Table 6-6
Transportation Equity Populations Served or Impacted by Regional Target Projects

| TE Population Group | Regionwide Population | Population Served | Percentage of Total Population Served | Percentage of Regionwide Population |
|--------------------------|-----------------------|-------------------|---------------------------------------|-------------------------------------|
| Minority population | 1,223,835 | 278,341 | 39.4% | 36.5% |
| Low-income population | 674,215 | 147,568 | 21.4% | 20.1% |
| People with LEP | 375,848 | 79,880 | 11.5% | 11.2% |
| People with disabilities | 342,552 | 70,085 | 9.9% | 10.2% |
| Older adult population | 232,286 | 45,609 | 6.5% | 6.9% |
| Youth population | 634,550 | 132,508 | 18.8% | 18.9% |

Notes: As is its usual practice, the MPO has left some funds unallocated in the outer years of the TIP, and this analysis does not reflect those funds.

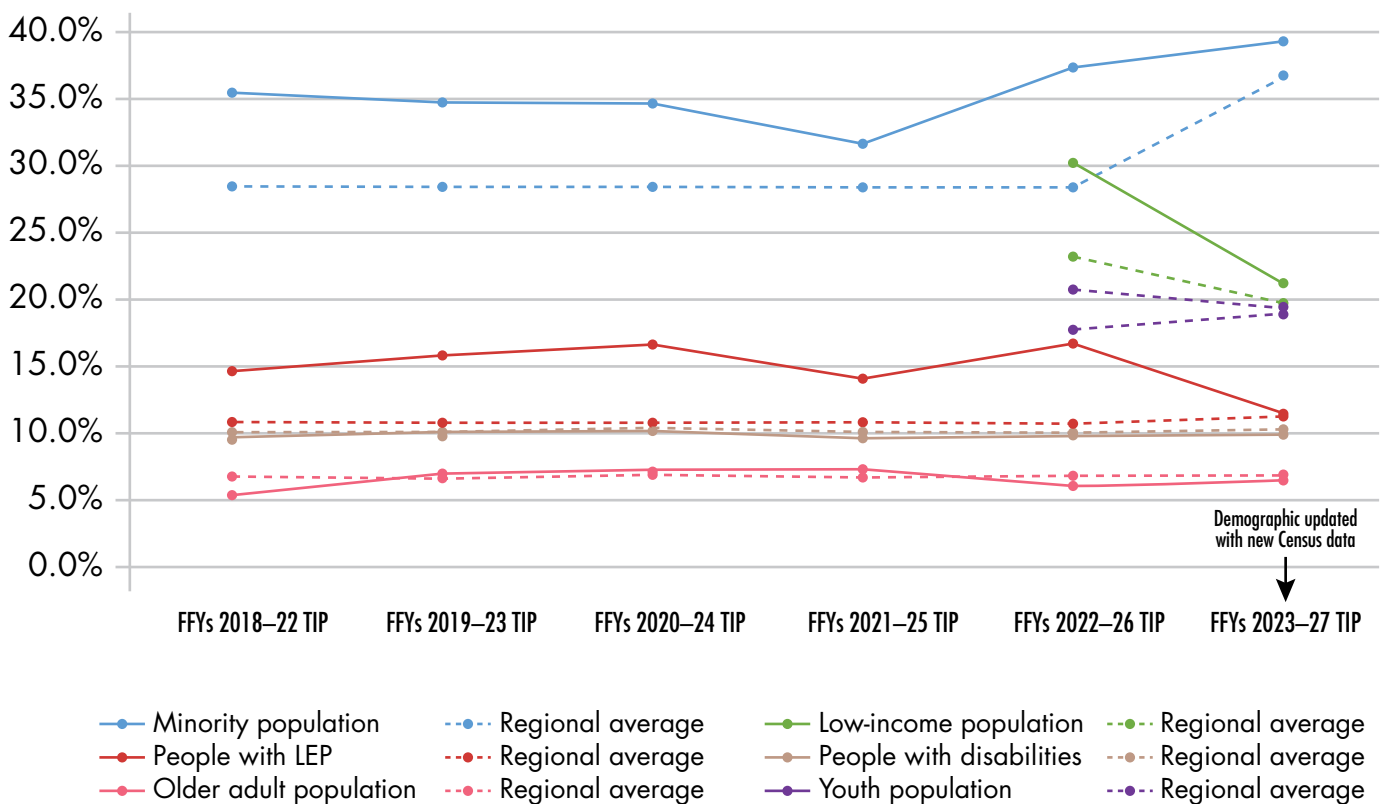
This table does not include the Bridge Rehabilitation of Commonwealth Avenue over the Charles River project as it was evaluated by MassDOT.

LEP = limited English proficiency. TE = transportation equity.

Sources: US Census Bureau, 2015–17 MBTA Systemwide Passenger Survey, and Boston Region MPO.

Figure 6-8 shows the percentage of TE populations served or impacted (out of the entire population served or impacted) by Regional Target projects in the FFYs 2018–22, 2019–23, 2020–24, 2021–25, 2022–26, and 2023–27 TIPs.⁴ (Note that the youth population was added and that the low-income definition changed to its current definition starting in the FFYs 2022–26 TIP; therefore data are shown for these populations starting with the FFYs 2022–26 TIP.) The results show that the percent of TE populations served or impacted have continued to be on par with their respective shares of the Boston region’s population. For the minority population in particular, the percentage has been several percentage points above the regionwide average in every TIP since FFYs 2018–22. For the youth population, the percentage was below its share of the region’s population in the FFYs 2022–26 TIP but is now on par in the FFYs 2023–27 TIP.

Figure 6-8
Change in the Percentage of Transportation Equity Populations Served or Impacted by Regional Target Projects



Notes: People aged 17 or younger were not considered among the TE population until the FFYs 2022–26 TIP. Additionally, starting in the FFYs 2022–26 TIP, the low-income population was defined based on poverty status. (Formerly it was based on household income; this is not shown in the figure as it cannot be compared with the current low-income definition. For information about the data for the FFYs 2018–22, 2019–23, 2020–24, and 2021–25 TIPs, [see the respective documents](#).

As is its usual practice, the MPO has left some funds unallocated in the outer years of each TIP, and this analysis does not reflect those funds. This figure also does not include the Bridge Rehabilitation of Commonwealth Avenue over the Charles River project (110980) as it was evaluated by MassDOT.

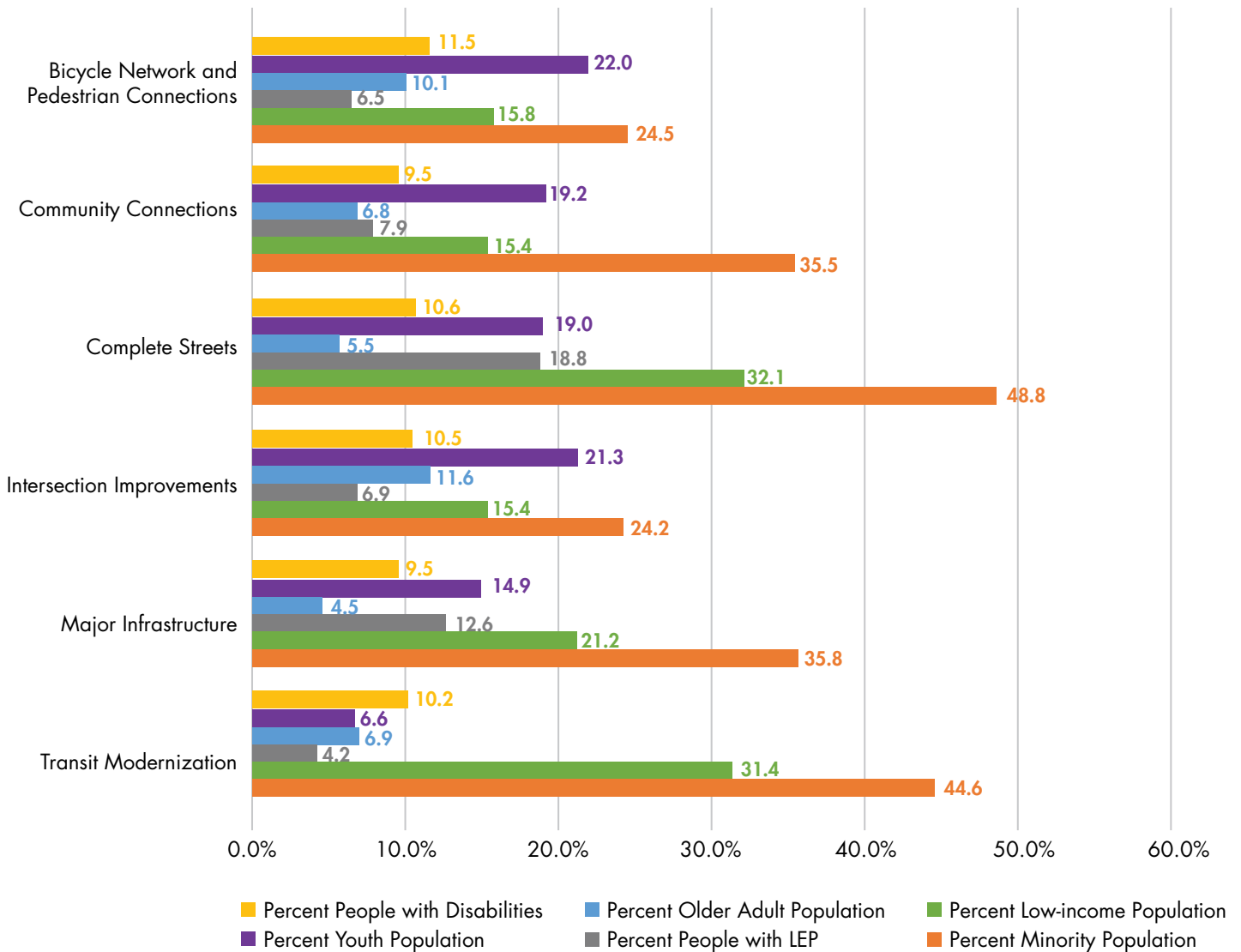
FFY = federal fiscal year. LEP = limited English proficiency. TE = transportation equity. TIP = Transportation Improvement Program.

Sources: US Census Bureau, 2015–17 MBTA Systemwide Passenger Survey, and Boston Region MPO.

⁴ Starting in the FFYs 2022–26 TIP, the methodology for determining the population within a half-mile of projects was updated. A half mile is now measured along the roadway network (excluding limited access highways) rather than as-the-crow-flies, as was done in previous TIPs.

Figure 6-9 shows the percentage of TE populations served or impacted (out of the entire population served or impacted) for each investment program in the FFYs 2023–27 TIP. Some TE populations are likely to benefit from or be impacted by projects in certain investment programs. For example, approximately 19 percent of the population served or impacted by Complete Streets projects are expected have LEP; this percentage is significantly higher than the LEP share of the Boston region’s population, which is 11.2 percent. However, people with LEP are underserved by projects in the Bicycle and Pedestrian Network Connections investments program, with only 6.5 percent of the total population served.

Figure 6-9
Percent of Transportation Equity Populations Served or Impacted by Regional Target Projects by Investment Program



Notes: As is its usual practice, the MPO has left some funds unallocated in the outer years of the TIP, and this analysis does not reflect those funds.

This figure does not include the Bridge Rehabilitation of Commonwealth Avenue over the Charles River project as it was evaluated by MassDOT.

LEP = limited English proficiency. TIP = Transportation Improvement Program.

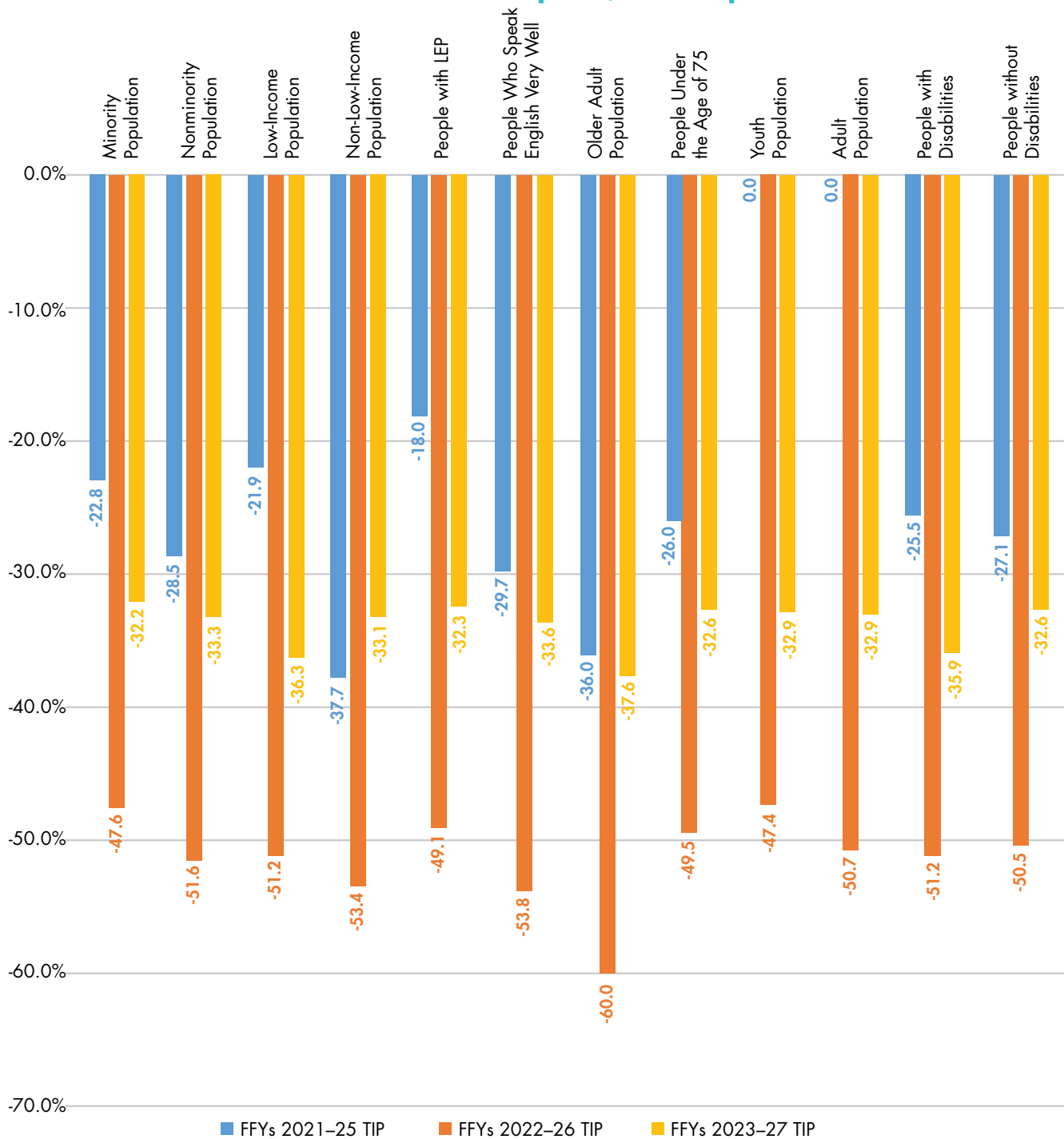
Sources: US Census Bureau, 2015–17 MBTA Systemwide Passenger Survey, and Boston Region MPO.

Transportation Emission Impacts Analysis

Figure 6-10 shows projected changes in emissions for CO, volatile organic compounds (VOC), and nitrogen oxides (NO_x) that would result from the implementation of Regional Target-funded projects and affect TE populations and their non-TE counterparts. Reductions are reported in kilograms per 1,000 people and are shown for the FFYs 2021–25, 2022–26, and 2023–27 TIPs. The changes shown are for each TIP and are not cumulative across all TIPs.

In the FFYs 2021–25 TIP, only the older adult population was likely to receive greater emission reductions than their non-TE counterpart, while in the FFYs 2022–26 TIP this was the case for only older adults and people with disabilities. However, in the FFYs 2023–27 TIP, reductions in emissions are likely to be greater for people with disabilities, the youth population, the older adult population, and the low-income population than for their non-TE counterparts. People with LEP and the minority population are likely to continue to receive less of a reduction of emissions compared their non-TE counterparts; however, that difference is likely to be less than it was in previous TIPs. These results show that the MPO is making progress toward reducing emissions disparities for some TE populations; however, future funding should ensure that the minority population and people with LEP in particular benefit at least as much or more from the emissions reductions resulting from Regional Target projects as their non-TE counterparts.

Figure 6-10
Reduction in Carbon Monoxide, Volatile Organic Compounds, and Nitrogen Oxide Emissions per 1,000 People



Notes: As is its usual practice, the MPO has left some funds unallocated in the outer years of the TIP, and this analysis does not reflect those funds. This table does not include the Bridge Rehabilitation of Commonwealth Avenue over the Charles River project as it was evaluated by MassDOT.

The youth population was not considered a TE population in the FFYs 2021-25 TIP.

CO = carbon monoxide. CMAQ = Congestion Mitigation and Air Quality. FFY = federal fiscal year. LEP = limited English proficiency. N/A = not applicable. NOx = nitrogen oxide. TIP = Transportation Improvement Program. TE = transportation equity. VOC = volatile organic compounds.

Source: US Census Bureau, 2015-17 MBTA Systemwide Passenger Survey, and Boston Region MPO's Congestion Mitigation and Air Quality analyses.

Funding Distribution Analysis

The results of the analyses reported in this section show how Regional Target funds are distributed to projects serving TE populations based on the percentage of the population served by the Regional Target-funded projects. The MPO has programmed approximately \$645 million in Regional Target funding in the FFYs 2023–27 TIP. Like the geographical analyses shown above, this funding distribution analysis assumes that funds allocated to TE populations indicate a benefit. While the MPO strives to ensure that projects selected for funding provide significant transportation improvements to and mitigate potential burdens on TE populations, the complexity of projects and their varied impacts limit the degree to which these outcomes can be ensured.

Table 6-7 shows the percent of funding allocated in the FFYs 2023–27 TIP to Regional Target projects, in the aggregate, that are expected to serve or impact TE populations compared to the share of each TE population within the Boston region. Except for the older adult population, all TE populations will receive a smaller share of funding relative to their share of the regionwide population. The share of TE populations served or impacted is on par or greater than their respective share of the Boston region population (see Table 6-6), which suggests that projects that are expected to serve or impact TE populations are generally smaller projects or projects that will receive a small amount of funding. This does not mean that projects are not providing significant benefits to TE populations, as more funding does not necessarily mean more benefits. While the MPO strives to ensure that projects selected for funding provide significant transportation improvements to and mitigate potential burdens on TE populations, the complexity of projects and their varied impacts limit the degree to which these outcomes can be ensured. More detailed analyses of specific impacts are required to better understand the benefits and burdens TE populations may experience from Regional Target projects, as well as the relationship between funding levels and project benefits.

Table 6-7
Percent of Funding Allocated to Transportation Equity Populations

| TE Population | Percentage of Funding Allocated | Percentage of Regionwide Population |
|--------------------------|---------------------------------|-------------------------------------|
| Minority population | 30.9% | 36.5% |
| Low-income population | 18.8% | 20.1% |
| People with LEP | 10.0% | 11.2% |
| People with disabilities | 9.9% | 10.2% |
| Older adult population | 7.5% | 6.9% |
| Youth population | 18.2% | 18.9% |

Notes: As is its usual practice, the MPO has left some funds unallocated in the outer years of the TIP, and this analysis does not reflect those funds.

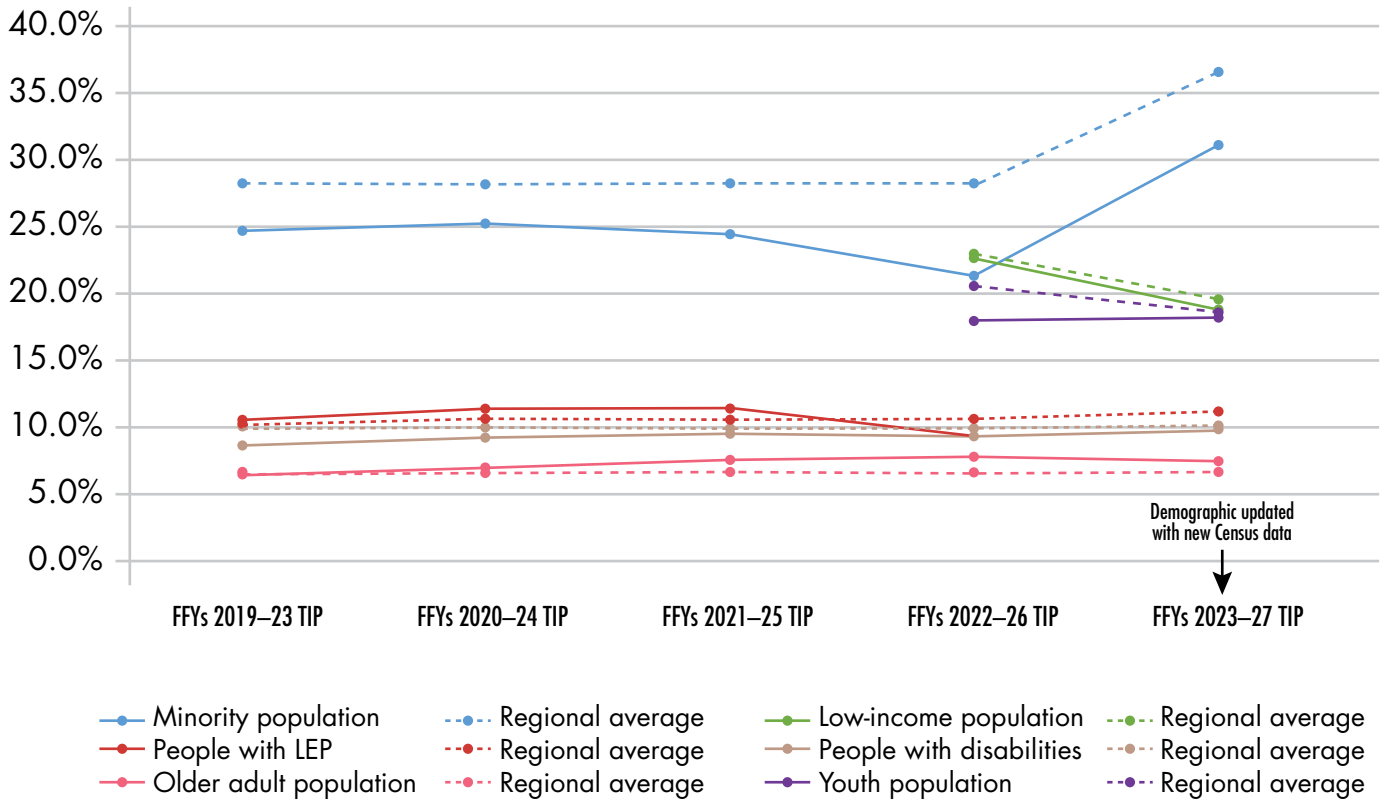
This table does not include the Bridge Rehabilitation of Commonwealth Avenue over the Charles River project as it was evaluated by MassDOT.

LEP = limited English proficiency. TE = transportation equity. TIP = Transportation Improvement Program.

Sources: US Census Bureau, 2015–17 MBTA Systemwide Passenger Survey, and Boston Region MPO.

Figure 6-11 shows the percentage of funding allocated to Regional Target projects that are expected to serve or impact TE populations for the FFYs 2019–23, 2020–24, 2021–25, 2022–26, and 2023–27 TIPs. These data are shown relative to each TE population’s share of their population in the Boston region. Over the past five TIPs, the share of funding allocated to TE populations is approximately level to their share of the Boston region population, except for the minority population. Funding for the minority population has consistently been several percentage points below their share of the region’s population. As described above, funding is only an approximate measure of whether Regional Target projects will likely serve or benefit TE populations, though in general the MPO strives to provide equal or greater funding to TE populations.

Figure 6-11
Change in the Percentage of Funding Allocated to
Transportation Equity Populations



Notes: People ages 17 or younger were not considered as a TE population until the FFYs 2022-26 TIP cycle. Additionally, starting in the FFYs 2022-26 TIP, people with low incomes were defined based on their poverty status for their family size. (Formerly, the definition was based on household income.) The decrease in percent of the low-income population served in the FFYs 2022-26 TIP is largely due to this change, as is the change in the regionwide average. For more information about the data for the FFYs 2019-23, 2020-24, and 2021-25 TIPs, [see the respective documents](#).

As is its usual practice, the MPO has left some funds unallocated in the outer years of the TIP, and this analysis does not reflect those funds.

This figure does not include the Bridge Rehabilitation of Commonwealth Avenue over the Charles River project as it was evaluated by MassDOT.

FFY = federal fiscal year. LEP = limited English proficiency. TE = transportation equity. TIP = Transportation Improvement Program.

Sources: US Census Bureau, 2015-17 MBTA Systemwide Passenger Survey, and Boston Region MPO.

FUTURE ACTIVITIES TO IMPROVE MONITORING OF TRANSPORTATION EQUITY PERFORMANCE

The MPO will continue to explore more sophisticated methods of identifying specific impacts of projects funded with Regional Target dollars and evaluating, as a group, their benefits and burdens on TE populations. MPO staff has developed a similar analysis for the MPO's LRTP and will continue to use it to inform updates and refinements to the equity analyses in the TIP. New analyses are also being developed for the LRTP Needs Assessment, which will involve expanding accessibility analyses and analyses of health and climate impacts. In addition, staff are working on a study, Identifying Transportation Inequities in the Boston Region, which will complement the LRTP work and contribute to the further development of future TIP equity analyses.

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Analysis of the Geographic Distribution of UPWP Funds

| Municipality | Number of Work Products | | | | | | | | Demographics | | | | |
|------------------------|-------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------------|------------------|------------------|--------------------|------------------|
| | 2010-15 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2010-22 | Total Population | Percent Minority | Percent Low-income | Percent with LEP |
| Hudson | 7 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 10 | 20,092 | 21.4% | 10.9% | 9.7% |
| Lexington | 10 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 15 | 34,454 | 43.3% | 6.6% | 7.1% |
| Lincoln | 9 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 13 | 7,014 | 23.8% | 15.5% | 1.8% |
| Littleton | 5 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 8 | 10,141 | 16.9% | 10.9% | 2.9% |
| Maynard | 7 | 0 | 1 | 2 | 1 | 1 | 0 | 0 | 12 | 10,746 | 17.0% | 10.0% | 5.8% |
| Stow | 4 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 6 | 7,174 | 14.3% | 5.7% | 2.7% |
| Sudbury | 7 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 12 | 18,934 | 19.1% | 4.4% | 2.4% |
| MAGIC Subtotals | 78 | 2 | 5 | 16 | 16 | 9 | 6 | 4 | 136 | 181,858 | 26.8% | 8.7% | 5.4% |
| Ashland | 3 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 5 | 18,832 | 31.5% | 10.0% | 8.1% |
| Framingham | 14 | 1 | 2 | 1 | 2 | 0 | 1 | 1 | 22 | 72,362 | 46.3% | 20.0% | 15.0% |
| Holliston | 4 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 6 | 14,996 | 15.8% | 5.7% | 2.9% |
| Marlborough | 6 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 9 | 41,793 | 40.9% | 19.6% | 12.1% |
| Natick | 9 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 13 | 37,006 | 24.4% | 9.6% | 7.0% |
| Southborough | 8 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 10 | 10,450 | 24.5% | 9.1% | 5.0% |
| Wayland | 3 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 6 | 13,943 | 23.2% | 5.4% | 3.7% |
| Wellesley | 11 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 14 | 29,550 | 26.7% | 6.3% | 4.4% |
| Weston | 14 | 2 | 2 | 1 | 0 | 0 | 1 | 0 | 20 | 11,851 | 26.0% | 15.0% | 3.1% |
| MWRC Subtotals | 72 | 5 | 12 | 2 | 2 | 0 | 9 | 3 | 105 | 250,783 | 33.8% | 13.8% | 9.2% |
| Burlington | 11 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 14 | 26,377 | 30.0% | 11.0% | 6.1% |
| Lynnfield | 4 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 6 | 13,000 | 13.5% | 10.2% | 3.1% |
| North Reading | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 15,554 | 11.5% | 7.1% | 2.4% |
| Reading | 10 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 12 | 25,518 | 12.8% | 9.4% | 2.6% |
| Stoneham | 4 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 6 | 23,244 | 18.6% | 11.5% | 4.4% |
| Wakefield | 3 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 7 | 27,090 | 14.3% | 11.0% | 2.5% |
| Wilmington | 5 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 9 | 23,349 | 13.8% | 9.8% | 3.0% |
| Winchester | 4 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 8 | 22,970 | 25.4% | 7.8% | 4.7% |
| Woburn | 7 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 12 | 40,876 | 27.2% | 13.1% | 8.6% |
| NSPC Subtotals | 50 | 10 | 10 | 2 | 3 | 1 | 1 | 1 | 78 | 217,978 | 19.8% | 10.5% | 4.6% |
| Beverly | 5 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 10 | 42,670 | 15.4% | 20.5% | 4.2% |
| Danvers | 6 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 9 | 28,087 | 12.7% | 12.6% | 3.6% |
| Essex | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 3,675 | 7.5% | 18.8% | 0.9% |
| Gloucester | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 29,729 | 11.7% | 21.0% | 3.5% |
| Hamilton | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 3 | 7,561 | 11.1% | 14.5% | 2.0% |
| Ipswich | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 13,785 | 9.0% | 14.5% | 2.2% |
| Manchester-by-the-Sea | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 1 | 5 | 5,395 | 6.7% | 4.5% | 1.4% |
| Marblehead | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 4 | 20,441 | 9.2% | 9.5% | 2.9% |
| Middleton | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 9,779 | 15.7% | 5.1% | 3.7% |
| Peabody | 4 | 0 | 2 | 2 | 1 | 1 | 0 | 1 | 11 | 54,481 | 22.7% | 18.1% | 9.6% |
| Rockport | 3 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 6 | 6,992 | 6.9% | 13.2% | 0.6% |
| Salem | 7 | 1 | 3 | 2 | 1 | 1 | 1 | 2 | 18 | 44,480 | 31.5% | 29.8% | 9.2% |
| Swampscott | 3 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 7 | 15,111 | 14.2% | 13.8% | 9.5% |
| Topsfield | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 6,569 | 10.0% | 6.9% | 1.2% |
| Wenham | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 3 | 4,979 | 12.6% | 7.4% | 2.4% |
| NSTF Subtotals | 35 | 2 | 23 | 10 | 7 | 4 | 1 | 6 | 88 | 293,734 | 17.0% | 17.6% | 5.5% |
| Braintree | 9 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 12 | 39,143 | 29.9% | 12.6% | 9.3% |
| Cohasset | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 8,381 | 7.2% | 11.2% | 0.2% |
| Hingham | 2 | 0 | 0 | 1 | 2 | 1 | 1 | 2 | 9 | 24,284 | 8.5% | 9.1% | 2.1% |
| Holbrook | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 11,405 | 34.4% | 14.8% | 3.8% |
| Hull | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 10,072 | 8.3% | 11.1% | 0.8% |
| Marshfield | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 25,825 | 6.8% | 13.6% | 0.2% |
| Norwell | 2 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 7 | 11,351 | 8.8% | 5.6% | 0.8% |
| Rockland | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 17,803 | 17.5% | 18.6% | 3.7% |
| Situate | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 5 | 19,063 | 6.6% | 8.9% | 1.7% |
| Weymouth | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 8 | 57,437 | 22.6% | 17.9% | 5.5% |
| SSC Subtotals | 35 | 1 | 0 | 5 | 3 | 3 | 1 | 9 | 57 | 224,764 | 17.5% | 13.5% | 3.9% |
| Bellingham | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 16,945 | 14.6% | 9.4% | 1.1% |
| Franklin | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 33,261 | 14.9% | 10.0% | 2.8% |
| Hopkinton | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 18,758 | 26.8% | 7.3% | 2.0% |
| Medway | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 13,115 | 11.7% | 9.7% | 2.4% |
| Milford | 8 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 10 | 30,379 | 34.0% | 19.0% | 13.7% |
| Millis | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 8,460 | 12.0% | 10.9% | 6.9% |
| Norfolk | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 11,662 | 15.9% | 2.8% | 1.2% |
| Sherborn | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 5 | 4,401 | 18.3% | 7.3% | 1.5% |
| Wrentham | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 12,178 | 10.4% | 7.8% | 0.7% |
| SWAP Subtotals | 37 | 0 | 0 | 2 | 0 | 0 | 3 | 1 | 43 | 149,159 | 19.6% | 10.7% | 4.5% |
| Canton | 2 | 0 | 2 | 2 | 1 | 3 | 0 | 1 | 11 | 24,370 | 27.1% | 7.9% | 6.1% |
| Dedham | 5 | 1 | 0 | 0 | 1 | 2 | 1 | 1 | 11 | 25,364 | 22.0% | 13.9% | 4.5% |
| Dover | 4 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 6 | 5,923 | 19.2% | 2.6% | 2.8% |
| Foxborough | 4 | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 8 | 18,618 | 16.4% | 16.0% | 4.0% |
| Medfield | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 3 | 12,799 | 12.5% | 7.6% | 1.2% |
| Milton | 5 | 0 | 0 | 2 | 2 | 1 | 3 | 2 | 15 | 28,630 | 29.0% | 14.0% | 5.2% |
| Needham | 7 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 12 | 32,091 | 18.9% | 6.4% | 5.0% |
| Norwood | 2 | 0 | 0 | 0 | 2 | 2 | 1 | 2 | 9 | 31,611 | 27.5% | 15.9% | 9.4% |
| Randolph | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 6 | 34,984 | 73.4% | 19.9% | 18.9% |
| Sharon | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 18,575 | 33.2% | 3.4% | 6.1% |
| Walpole | 4 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 9 | 26,383 | 17.1% | 10.0% | 3.9% |
| Westwood | 6 | 0 | 0 | 1 | 1 | 2 | 1 | 1 | 12 | 16,266 | 17.2% | 6.9% | 5.6% |
| TRIC Subtotals | 44 | 2 | 2 | 6 | 15 | 14 | 10 | 10 | 103 | 275,614 | 29.1% | 11.5% | 7.0% |
| Grand Total | 506 | 41 | 73 | 75 | 72 | 48 | 45 | 54 | 914 | 3,357,194 | 36.5% | 19.6% | 11.2% |

**BOSTON REGION
METROPOLITAN PLANNING
ORGANIZATION**



Public Engagement Plan

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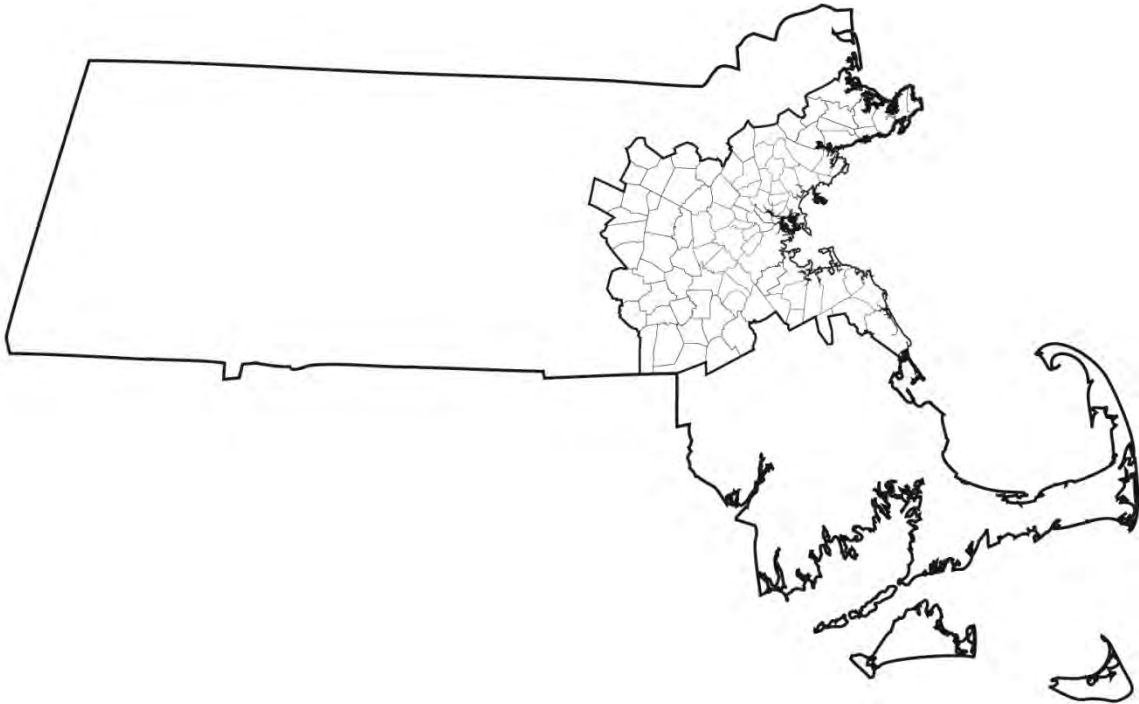
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The preparation of this document was supported by Federal Highway Administration and Federal Transit Administration through MPO Planning Contract #112310.

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August 2021
Revised July 2022



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By Telephone:

857.702.3702 (voice)

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Executive Summary

The Boston Region Metropolitan Planning Organization (MPO) created this Public Engagement Plan (The Plan) to provide guidelines for achieving effective engagement in the regional transportation planning process. The Plan guides the MPO's Public Engagement Program (PEP), which comprises all engagement activities, public meetings, and communications, to ensure that all members of the public—including people who have been underserved by the transportation system and/or have lacked access to the decision-making process—are given the opportunity to be part of the metropolitan planning process. The PEP guides the MPO's efforts to offer continuous and meaningful opportunities for members of the public to influence MPO transportation planning decision-making in the Boston region. The Plan lists the procedures that guide the PEP.

The Plan is reviewed by the Federal Highway Administration and Federal Transit Administration. Members of the public have an opportunity to provide comments and suggestions prior to the MPO board endorsing the Plan throughout the development and public comment period. Contained in the Plan are the details of

- the Boston Region MPO's composition;
- the MPO's public engagement vision, guidelines, and principles;
- opportunities to be informed by and involved in MPO activities;
- guidelines for MPO, MPO Committee, and MPO-sponsored meetings;
- notices and procedures; and
- physical, virtual, and transportation access guidelines.

The Boston Region MPO encourages public comment. This document is available on the Boston Region MPO website in addition to the companion PEP Guidebook. For any questions or comments, please contact the Public Engagement Coordinator, at publicinfo@ctps.org or 857.702.3658.

Chapter 1—The Boston Region’s Background, Function, and Structure

1.1 BACKGROUND

The purpose of the Public Engagement Plan (the Plan) is to describe the Boston Region Metropolitan Planning Organization’s (MPO) Public Engagement Program (PEP), which comprises the various engagement activities that the MPO engages in to ensure that all members of the public—including people who have been underserved by the transportation system and/or lacked access to the decision-making process—are given the opportunity to participate in the Boston regional transportation planning process.

The Plan guides the MPO’s efforts to offer continuous and meaningful opportunities for people to influence transportation decision-making in the Boston region.

The Plan describes federal and state public participation requirements, and the MPO’s specific engagement guidelines, policies, principles, schedules, and opportunities for public involvement. The Plan also includes several appendices that list federal laws guiding MPO engagement and more.

This plan reflects recent updates in information, communication technologies, and public engagement practices. The MPO has incorporated new virtual public involvement strategies for engagement activities and MPO meetings.

1.2 FEDERAL REQUIREMENTS FOR PUBLIC PARTICIPATION

Federal metropolitan transportation planning rules require MPO public participation plans include the following:

- define details about how the MPO provides opportunities to be involved in its planning process, including methods used and the goals set
- establish strategies for engagement with all interested parties
- undergo periodic reviews and updates with involvement of the public, who are provided at a minimum a 45-day review and comment period before the updated plan is adopted by the MPO

Other federal legislation, such as the Americans with Disabilities Act (ADA) and Title VI of the Civil Rights Act of 1964, also have public participation requirements that MPOs must implement to ensure access to the planning process for equity populations. Transportation equity populations include people who identify as minorities; have limited English proficiency; are 75 years of age

or older or 17 years of age or younger; have a disability; or are members of low-income or transit-dependent households. People who identify as minorities are those who identify as Hispanic or Latino/Latina/x/e and/or a race other than "white.". The United States Department of Transportation's Environmental Justice Order also requires that the agency and recipients of federal funding provide meaningful opportunities for public involvement for minority and low-income populations. To meet these requirements, the MPO, through the Transportation Equity Program, takes steps to include equity populations in engagement and regional planning. Details of these laws are listed in Appendix A.

MPO staff continues to adapt and innovate the PEP to be responsive to the community. Staff will continue to update the Plan in the future to reflect changes in federal guidance, requirements, and regional needs.

1.2.1 Federal Transit Administration (FTA) Meeting Requirements

The Massachusetts Bay Transportation Authority (MBTA), Cape Ann Transportation Authority (CATA), and MetroWest Regional Transit Authority (MWRTA), which are FTA Section 5307 applicants, have consulted with the MPO and concur that the public engagement process adopted by the MPO for the development of the Transportation Improvement Program (TIP) satisfies the public hearing requirements that pertain to the development of the Program of Projects for regular Section 5307, Urbanized Area (UZA) Formula Program, grant applications, including the provision for public notice and the time established for public review and comment.

1.3 COMPOSITION OF THE BOSTON REGION MPO

A Memorandum of Understanding (MOU) establishes the MPO's membership composition, structure, committees, processes for developing its certification documents, voting rules, and more. The full text of the MOU is available in Appendix C. The MPO will undergo an effort to produce an Operations Plan starting in 2021, proceeding the adoption of the Central Transportation Planning Staff (CTPS) Strategic Plan to expand on board practices and policies.

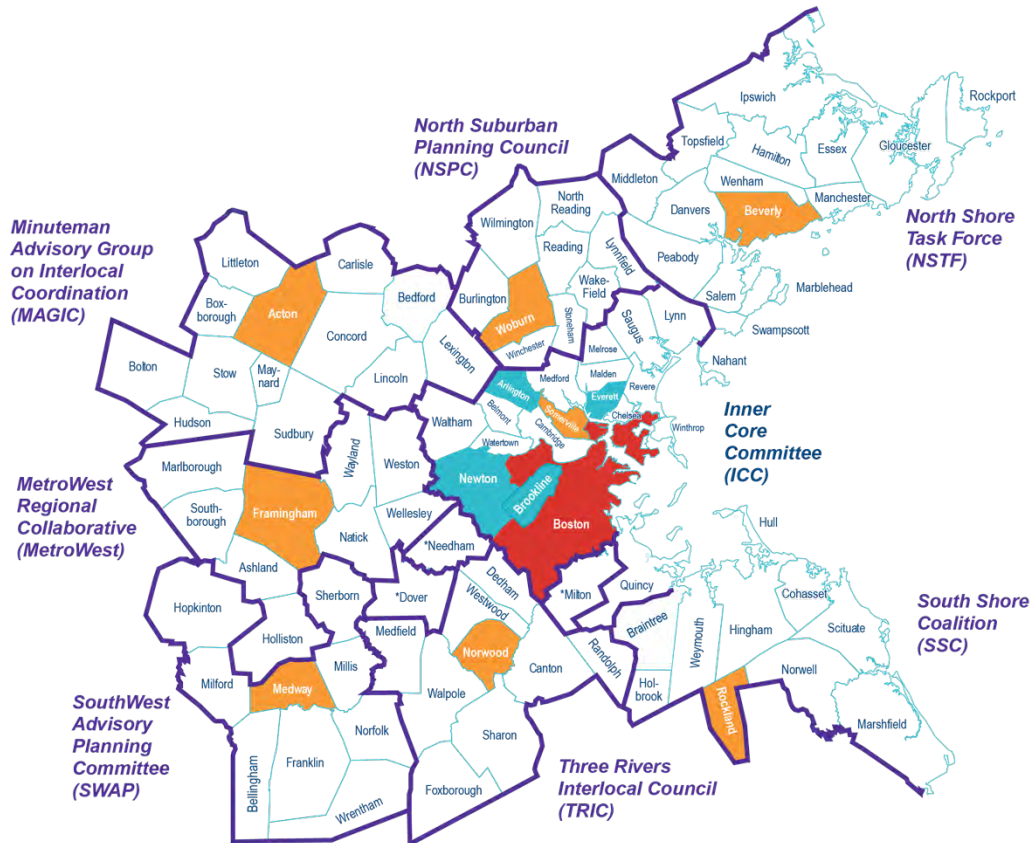
The MPO board is made up of 22 state, regional, municipal, and council members who work cooperatively to make decisions about regional planning and federal funding for transportation projects. The MPO's membership includes the following voting members:

- Eight municipalities represent subregions (elected)
 - Inner Core Committee (ICC)
 - MetroWest Regional Collaborative (MWRC)
 - Minuteman Advisory Group on Interlocal Coordination (MAGIC)

- North Shore Task Force (NSTF)
- North Suburban Planning Council (NSPC)
- South Shore Coalition (SSC)
- SouthWest Advisory Planning Committee (SWAP)
- Three Rivers Interlocal Council (TRIC)
- Two cities, at-large (elected)
- Two towns, at-large (elected)
- Two City of Boston representatives (permanent)
 - Boston Transportation Department (BTD)
 - Boston Planning and Development Agency (BPDA)
- Five transportation agencies (permanent)
 - Three seats for the Massachusetts Department of Transportation (MassDOT)
 - MBTA
 - Massachusetts Port Authority (Massport)
- Two advisory councils
 - The Regional Transportation Advisory Council (Advisory Council) (Chair and Vice Chair elected)
 - The MBTA Advisory Board (permanent)
- One Metropolitan Area Planning Council (MAPC) (permanent)

The Federal Highway Administration (FHWA) and FTA serve as ex officio members. Figure 1 displays a map of the MPO subregions and current representatives as of August 2021.

Figure 1
Map of the Boston Region MPO



*Community is in more than one subregion: Dover is in TRIC and SWAP; Milton and Needham are in ICC and TRIC.

- 97 Cities and towns
- Subregion boundary
- MPO representative from subregion
- MPO city or town at-large representative
- Boston has two permanent MPO representatives

Elected municipal members serve three-year terms. Terms are staggered and each year, four seats are up for election. The chief elected officials of all the municipalities in the region can vote on the elected municipal seats. MAPC and the MBTA Advisory Board jointly administer the election. Elections take place in the fall annually.

The Massachusetts Secretary of Transportation (or a designee) serves as the Chair to the MPO, and the Executive Director of MAPC (or a designee) serves as the Vice Chair. It is not required by the federal government for the MPO to be chaired by the state's Department of Transportation, but in Massachusetts, MassDOT chairs each MPO.

The MPO currently has three recurring committees. The MPO Chair appoints MPO members as representatives to the committees. Any MPO member can ask to join a committee at any time. The three committees and their responsibilities are as follows:

- Administration and Finance (A&F) Committee—Reviews the MPO's operating budget, staffing, and spending
- Congestion Management Process (CMP) Committee—Discusses congestion in the region and makes recommendations for certain improvements to traffic flow that would reduce congestion and improve mobility and air quality
- Unified Planning Work Program (UPWP) Committee—Works with staff on recommendations for developing the UPWP each year, which includes selecting discrete studies for MPO staff to carry out; the committee also reviews the MPO's quarterly financial reports and progress reports for the various planning studies underway

1.4 MPO STAFF

CTPS was created in 1974 as staff to the Boston Region MPO and to be a permanent resource of expertise in comprehensive multimodal transportation planning and analysis. CTPS authors planning studies, produces the MPO's certification documents, and develops and maintains technical tools that help the MPO conduct its work. CTPS also provides technical assistance to municipalities and transit providers and conducts contract work for government entities.

1.5 THE MPO'S CORE FUNCTIONS

Congress created MPOs to promote cooperation among state agencies, organizations, and local cities and towns in regional transportation planning. MPO funding is established through federal transportation legislation, the most recent of which is the Fixing America's Surface Transportation (FAST) Act of 2015.

The Boston Region MPO carries out seven core functions:

1. Establish and manage a fair and impartial setting for effective regional decision-making in the Boston region
2. Evaluate potential improvements to the transportation system in the Boston region and study regionally significant transportation issues through the UPWP
3. Prepare and maintain a Long-Range Transportation Plan (LRTP) for the Boston region, with a minimum of a 20-year horizon that establishes the MPO's transportation vision, goal areas, and objectives; establishes investment programs; and plans major transportation investments
4. Develop a five-year TIP of transportation projects funded in each investment program annually to fulfill the goals of the LRTP
5. Engage the public by offering all interested persons opportunities to engage in all the decision-making functions of the MPO through the PEP
6. Ensure compliance with federal and state civil rights and nondiscrimination requirements through the Transportation Equity Program, and invest in transportation projects and studies that improve access, mobility, safety, and other outcomes for underserved groups while minimizing burdens
7. Conduct performance-based planning by establishing targets and evaluating the impact of MPO actions

Chapter 2—The MPO’s Public Engagement Vision, Principles, and Guidelines

Transportation enables mobility, social interaction, commerce, personal development, and fulfillment. The region relies on transportation to move people and to move goods, such as food, fuel, and medical supplies. The MPO’s challenge is to maintain the regional transportation network to meet existing needs, increase equity in the transportation system, and adapt and modernize it for future demand, while working within the reality of constrained fiscal resources.

2.1 THE MPO’S PUBLIC ENGAGEMENT VISION

The Boston Region MPO envisions a modern, well-maintained transportation system that supports a sustainable, healthy, livable, and economically vibrant region. To achieve this vision, the transportation system must be safe and resilient; incorporate emerging technologies; and provide equitable access, excellent mobility, and varied transportation options. This vision was endorsed in the MPO’s recent LRTP, *Destination 2040*, in 2019. The vision was developed over several years of engagement—a process that included technical analyses, studies of transportation needs, and incorporating public feedback. The vision guides the MPO in all of its work, and paints a picture of the desired regional transportation system of the future.

Public engagement improves decision-making by helping to illuminate the social, economic, and environmental benefits and drawbacks of transportation decisions. Public engagement also supports a continuous feedback loop in ever changing circumstances. The MPO’s vision for public engagement in the region is to hear, value, and consider, throughout all planning work, the views of and feedback from the full spectrum of the public and incorporate this input in all decision-making.

2.2 THE MPO’S PUBLIC ENGAGEMENT PRINCIPLES

The Boston Region MPO is committed to fostering a robust and inclusive public engagement process for regional transportation planning. The following principles guide the MPO’s efforts in public engagement:

- **Transparency**—Decision-making processes are accessible, open, honest, and understandable
- **Inclusion and Equity**—Dialogue and decision-making processes intentionally identify, reach, and encourage participation from diverse members of the community, with specific efforts made to engage people of color, people with limited English proficiency, youth, older adults, people

with disabilities, people with low incomes, and other people who have been traditionally marginalized using creative opportunities, tools, and technologies

- **Early and continuous public involvement opportunities**—Community engagement is an early and integral part of design and implementation of regional plans, policies, studies, and programs
- **High-quality process**—Community engagement processes are well designed to appropriately fit a plan, program, or project, and adapt to changing needs
- **Building relationships with diverse community members**—Staff develops long-term, collaborative working relationships and learning opportunities with members of the public, community organizations, municipalities, and advocacy groups
- **Continuous evaluation and improvement**—Staff continually evaluates engagement efforts through quantitative and qualitative measures to enhance the agency’s practice of public engagement and sharing public feedback

2.3 THE MPO’S PUBLIC ENGAGEMENT GUIDELINES

Through the MPO’s public engagement guidelines, the MPO makes every effort to

- make MPO processes and activities easy to understand;
- communicate information that is clear, concise, direct, current, and easily available;
- produce creative visuals to enhance understanding;
- cast an inclusive net to invite participation of interested parties and the general public to bolster engagement with people of color, people with low incomes, older adults, youth, people with limited English proficiency, people with disabilities, and other people who have been traditionally marginalized;
- produce and host convenient, timely, and meaningful engagement opportunities;
- create a framework that encourages constructive contributions by members of the public;
- promote respect among all participants and create safe spaces for exchanges;
- measure effectiveness of engagement through quantitative and qualitative means;
- continue to adapt methods of communications and engagement to support the needs of community members in changing contexts;
- maximize effectiveness and efficiency by coordinating with partner agencies and community organizations in their engagement activities; and

- embrace new technologies and use virtual public involvement techniques to compliment in-person engagement.

2.4 MEASURING PUBLIC ENGAGEMENT EFFECTIVENESS

MPO staff uses a combination of quantitative and qualitative measures to evaluate public engagement effectiveness. The different methods used include:

- Quantitative
 - Number and types of events held
 - Number of documents or products distributed to the public
 - Number of participants at each event
 - Number of recurring participants and number of times they have participated in MPO events
 - Number of organizations represented at an event or throughout a project
 - Presence of public officials in events
 - Number of public comments throughout development and in the comment period of MPO products
 - Mode of receipt
 - Number of website hits
 - Number of social media engagements
 - Number of press inquiries
 - Average response time to inquiries (in days)
 - Resources dedicated to public engagement
- Qualitative
 - Evaluation surveys post event
 - Demographic information collected in all surveys
 - Feedback from MPO members
 - Presentations to the MPO and public on how public input was incorporated and information on demographics and organizations who participated in the project
 - Public comment letters

Beginning in FFY 2022, MPO staff will produce memorandums describing the effectiveness of public engagement activities at the end of each federal fiscal year and present them to the MPO. MPO staff also maintains a Consolidated Stakeholder Database to manage the contact information of stakeholders, and track event attendance and comments.

Chapter 3—Opportunities for Engagement

The MPO’s engagement activities and programs are designed to meet the needs and preferences of the public. This section covers specifics on how the MPO provides opportunities for public engagement. Activities include presentations and discussions, interactive opportunities in various in-person venues, and online platforms for meetings, forums, workshops, and focus groups. Staff also uses the MPO website, digital and print flyers, emails, and social media channels to communicate with the public.

3.1 WAYS TO BE INFORMED

The MPO website provides comprehensive up-to-date information about all of the MPO’s work, such as:

- studies, reports, technical memoranda, dashboards, certification documents, and other work products related to the regional planning process;
- information about the structure and composition of the MPO, including the full MPO members and designee lists with contact information;
- MPO meeting agendas, minutes, virtual platform links to MPO meeting, and links to event video recordings;
- contact information for all staff members;
- tweets that highlight MPO activities, programs, and the results of MPO studies and reports in addition to retweeting partner agencies’ updates;
- the MPO’s blog, which covers timely MPO activities and transportation issues around the region; new posts are announced via email to subscribers;
- a feedback form where people can express their views to the MPO and receive a response from staff; and
- online surveys to collect public input on important MPO activities and projects.

To ensure web access for people with low or no vision who use screen readers, all documents and digital engagement materials are posted in both PDF and HTML versions. In addition, the MPO makes every effort to make data represented in tables fully navigable by a screen reader and provides alternative text to describe tables, figures, and images.

MPO staff is committed to producing materials in plain language following the Plain Language Act of 2010. The Plain Language Act requires that federal agencies use, “clear government communication that the public can understand and use...to enhance citizen access to government information and services by

establishing that government documents issued to the public must be written clearly.”

The MPO’s Language Assistance Plan (LAP) identifies the most commonly spoken non-English languages and the percent of the population in the Boston region that speak that language. Based on this information, the LAP describes the MPO’s strategies for providing oral interpreter services and written translations. The LAP is updated every three years to reflect changes in demographics in the region. The most recent LAP was produced and endorsed in 2021.

The MPO website features a translation function through Google Translate for more than 100 languages. In addition, vital documents (as designated in the LAP), engagement materials, and surveys are professionally translated into the six most commonly spoken non-English languages, which are:

- Spanish
- Brazilian Portuguese
- Haitian
- Simplified Chinese
- Traditional Chinese
- Vietnamese

The digital translated materials are posted on the website and the print translated materials are available at engagement events and upon request. Documents currently defined as vital in the LAP include:

- Notice of Nondiscrimination Rights and Protections
- Discrimination complaint procedures and form
- LAP
- Executive summaries of the LRTP, TIP, UPWP, and the PEP

All emails are automatically translated by the MPO’s email service, which is currently MailChimp. Readers can select the language to view the message by opening the email in the MailChimp browser window and selecting translate, and then selecting the language to see the content in.

As of March 13, 2020, videos of past MPO meetings and virtual MPO-sponsored activities are posted to the Boston Region MPO YouTube channel and linked to the corresponding Meeting Calendar date on the website. YouTube provides Closed Captions on all videos. Prior to March 13, 2020, MPO meetings were recorded audibly. These recordings, available as MP3 files, can be found on each of the corresponding Meeting Calendar dates on the website in addition to the support documents and endorsed minutes from that meeting.

The MPO uses a variety of other tools to inform the public, including email subscriptions, MPOinfo, and Twitter, Facebook, Instagram, and LinkedIn. The MPO has email lists for the Transportation Equity Program, the Advisory Council, Bike and Pedestrian Activities, and other programs and projects. The MPOinfo email communications focus on major MPO updates, projects, and programs, such as certification document releases, amendments, and announcements of public comment periods, survey releases, and engagement event details.

3.2 WAYS TO BE INVOLVED

The MPO hosts a number of meetings and events where members of the public can learn about MPO activities and participate in the regional transportation planning process. These include official MPO board meetings, MPO committee meetings, and hosting or presenting at engagement events. The purpose of these meetings is to present and discuss pertinent information, solicit feedback, and gather input from the public on specific topics to inform transportation planning decisions for the region.

3.2.1 MPO Board Meetings

The MPO typically meets on the first and third Thursday of each month at 10:00 AM. During busier times of the year, an additional meeting might be scheduled during the month, while during slower times of the year, there might be one meeting scheduled per month. Most in-person components of the meetings are held at the State Transportation Building at 10 Park Plaza in Boston. Every quarter, the MPO works with MPO member communities to host an off-site meeting in a MPO municipality. Starting on March 13, 2020, the MPO hosted virtual meetings through video conferencing platforms. Links to virtual meetings are available on the MPO Meeting Calendar webpage along with agendas and support materials for that day. The MPO will maintain a virtual component of MPO meetings through video conferencing so that participants can attend either in-person or virtually, in compliance with the Massachusetts Open Meeting Law.

Each MPO meeting follows the general process below:

- The Chair leads the meetings, recognizing speakers and managing the flow of discussion.
- Agendas always include a public comment section where members of the public will be recognized to speak and present information.
- At the discretion of the Chair, members of the public may be recognized to speak during discussions of other agenda items.

Members of the public can also submit comments through the online Feedback Form on the MPO website or by emailing MPO staff. Members of the public can also call staff to provide comments or to ask questions. Staff responds to

questions and comments promptly by phone or email. Staff shares public comments on MPO agenda items on the corresponding date on the MPO meeting calendar web page in advance of meetings and summarize comments received during MPO presentations. If comments are not connected to specific agenda items, but are about MPO activities, MPO staff will routinely share these comments back to the board through the Executive Director's report.

Individuals with low or no vision or with low literacy are informed on the website and at meetings that they may submit comments through a recording or staff transcription of their spoken remarks before or after MPO meetings and MPO committee meetings. Any member of the public can provide a live public comment during the public comment section of the MPO meeting and MPO committee meetings.

Members of the public can provide a comment in any language. Staff will translate comments received in languages other than English. By request, MPO meetings can include interpreter service with two weeks' notice. However, if it is less than two weeks' notice, MPO staff encourages any interested individual to reach out and request interpretive services and staff will do their best to obtain those services.

3.2.2 MPO Committee Meetings

The UPWP, CMP, and A&F committees meet as needed. Committee meetings are usually held before or after MPO meetings. All committee meetings are open to the public and have a virtual participation component. The Chair can also create ad-hoc committees for specific issues and activities. The ad-hoc committees follow the same policies as the permanent committees. Video recordings of committee meetings are available on the Boston Region MPO's YouTube channel and are linked in the MPO Meeting Calendar on the corresponding date.

3.2.3 The Advisory Council

The Advisory Council is an independent body of community and professional organizations, advocacy groups, transportation management associations, and municipalities. Municipalities that sit on the MPO board cannot be part of the Advisory Council. The primary function of the Advisory Council is to help communicate information to different stakeholders and coordinate feedback to the MPO to advise on transportation policy and planning. Members of the Advisory Council elect their own Chair and Vice Chair annually.

Advisory Council meetings are designed to foster robust discussion on transportation topics related to planning and programming. Meetings are

generally held on the second Wednesday of the month at 2:30 PM in the State Transportation Building at 10 Park Plaza, Boston. As of March 13, 2020, Advisory Council meetings are held with a virtual component through video conferencing platforms. Links to virtual meetings are available on the MPO Meeting Calendar webpage, along with agendas and support materials. Video recordings of Advisory Council meetings are available on the Boston Region MPO's YouTube channel. Advisory Council meetings follow the same guidelines as MPO meetings. Agendas do not routinely include a specific item for public comment, but members of the public are allowed to speak and ask questions at the discretion of the Chair.

To improve public engagement opportunities offered by the Advisory Council, MPO staff works with members to hear and share ideas on specific MPO topics and supports the Advisory Council's membership engagement with organizations that focus on individuals who are more underserved by the region's transportation system.

3.2.4 MPO-Sponsored Meetings and Activities

The MPO sponsors a variety of public engagement opportunities that are planned and managed by MPO staff:

- workshops
- information sessions
- forums
- focus groups
- pop-up engagement activities
- open houses

MPO engagement events are designed for as much interaction as possible among all in attendance. MPO staff also partners and collaborates with other regional, state, and municipal agencies and community organizations for engagement events and pop-up engagement activities.

MPO staff strives to host public engagement opportunities in areas with higher concentrations of people of color, people with limited English proficiency, people with low incomes and other people who have been traditionally marginalized, to expand inclusion in the regional planning process. In addition, staff works with local stakeholders to learn about particular cultural or language issues that should be recognized and respected when planning and operating the event, such as dates of community celebration or observations, and/or cultural preferences or restrictions.

3.2.5 Surveys

MPO staff frequently conducts surveys to learn perspectives on topics like certification document activities, corridor issues, MPO policy decisions, and other transportation study issues. The MPO website houses survey links on project pages and/or homepage banners. The survey information and links are shared on social media, email blasts, and newsletters, in addition to staff directly reaching out to community stakeholders who forward the information and links to their members and community. MPO surveys always include a slate of demographic questions, the notice of nondiscrimination, and contact information for specific MPO staff. The current demographic questions are listed in Appendix B and are subject to change to adapt to more inclusive language in the future.

3.2.6 Website Feedback Form

The MPO website features a feedback form section that viewers can reach from any page on the website. Using this function, members of the public are invited to submit a comment on any topic. Comments are directed to the appropriate staff member who responds to the comments promptly and considers the input for future MPO work. MPO staff also answers questions and directs members of the public to other helpful information, resources or contacts. Comments submitted during a formal comment period for a document under review, such as the TIP and UPWP, are summarized along with the staff responses and reported to the MPO when the MPO votes to endorse the document. Those comments are listed in the final document and posted to the website.

3.2.7 Coordinated Activities with MAPC

MAPC Subregional Coordinators facilitate monthly or bimonthly subregional meetings of member municipalities and other stakeholders to discuss topics related to land use, community development, transportation, climate change, housing, and other issues. MPO staff regularly meets with MAPC's subregional coordinators and shares updates in the *MAPC Matters* monthly newsletter and subsequent subregional newsletters. MPO staff attends subregional meetings to present TIP and UPWP engagement opportunities and engages in conversations around subregional and regional transportation issues.

3.2.8 MPO "Invite Us Over"

MPO staff works with advocacy groups, community organizations, professional organizations, and other stakeholder groups to host activities to discuss transportation issues that are important to them. MPO staff specifically focuses on connecting and collaborating with organizations that serve and/or are primarily comprised of people who are often underserved by the regional transportation

system. Staff will continue to work to increase the number of in-person and virtual “Invite Us Over” events to bolster the MPO’s visibility and expand engagement.

3.3 NOTICE OF MPO ACTIVITIES

The MPO provides notification of meetings through the Meeting Calendar on the MPO website and email lists. MPO, MPO committee, and Advisory Council meeting agendas and materials are posted on the website one week in advance of the meeting, except in cases of emergency or other constrained circumstances. Under Massachusetts Open Meeting Law, materials have to be posted 48 hours in advance of a public meeting. Engagement event information is also posted on the MPO Meeting Calendar and sent through the MPOinfo and Transportation Equity email lists, and to the Advisory Council members and contact lists of stakeholder groups. Flyers for engagement events in communities with a higher proportion of non-English speakers are translated into the most spoken languages in that community.

3.4 ACCESS TO MPO MEETINGS AND MPO-SPONSORED MEETINGS

The MPO aims to make all meetings accessible to all members of the public whether that be in person or virtually, and accessed in different languages.

3.4.1 Transportation and Physical Access

All MPO-sponsored in-person meetings are held in locations that are accessible to people with disabilities and are located near public transportation. To ensure accessibility for persons with disabilities, locations for meetings held outside the State Transportation Building are selected through a process that includes an on-site review of the meeting facilities. As part of this review, staff refers to an accessibility checklist with a list of physical characteristics necessary to accommodate individuals with a variety of mobility limitations. This checklist is listed in Appendix D.

3.4.2 Language Access

When selecting meeting venues, staff consults the MPO’s LAP. The LAP identifies locations of people with limited English proficiency. Based on the meeting location, the LAP provides information regarding languages into which materials may need to be translated, and describes the language services that will be provided. Staff also frequently brings engagement material in the six most spoken languages in the region to events and meetings with community organizations. Staff also brings an interpreter(s) if the partner organization’s meeting provides activities in multiple languages or the event is conducted in a language other than English.

Members of the public can request interpreter services for MPO and MPO-sponsored activities whether the event is virtual, in-person, or both. Staff asks that requests be made two weeks in advance to ensure that an interpreter can be booked. Staff encourages participants to still request interpreter services if it is less than two weeks in advance, and staff will do their best to secure an interpreter. Upon request, interpreter services include, but are not limited to, Sign Language, Spanish, Brazilian Portuguese, Haitian, Vietnamese, Cantonese and Mandarin.

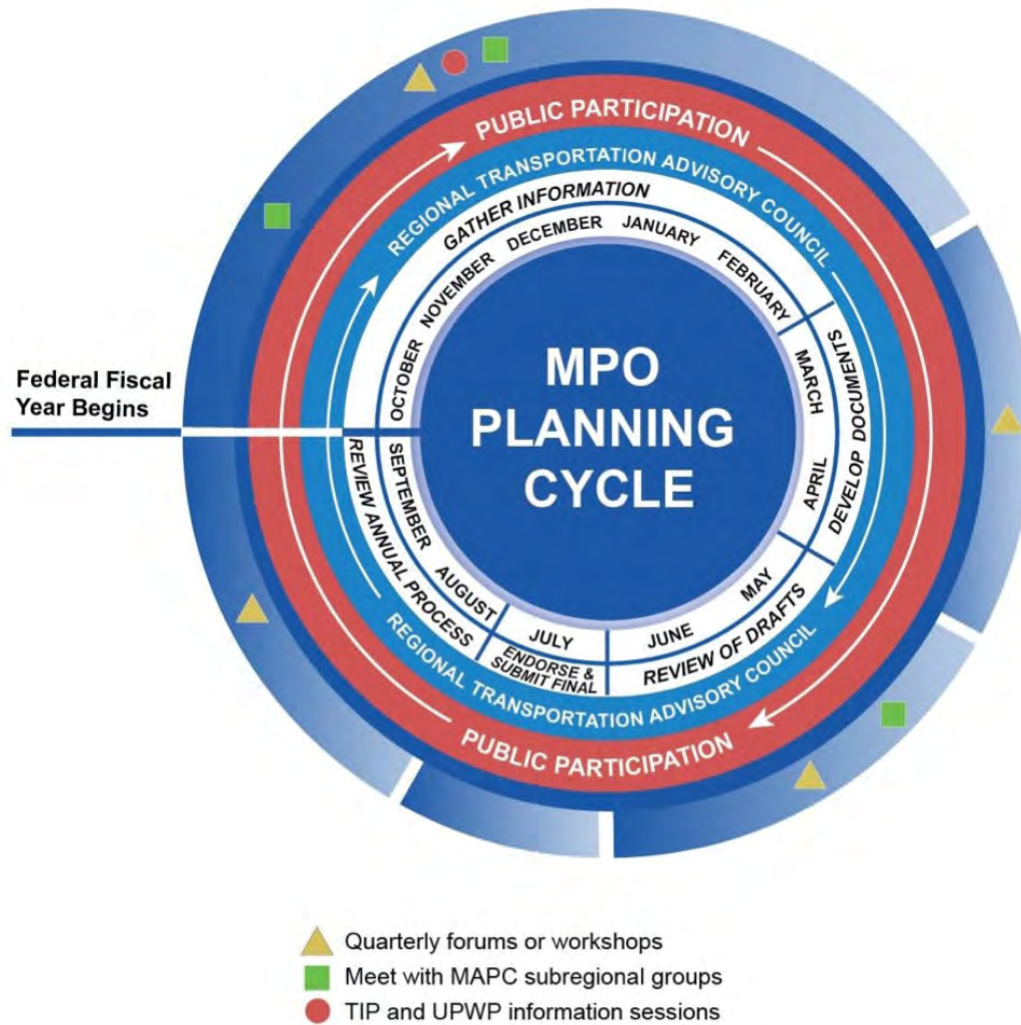
3.4.3 Virtual Access

As of March 13, 2020, MPO meetings, MPO committee meetings, and online MPO-sponsored events are hosted virtually through a video conferencing platform. The MPO is exploring a hybrid format with in-person and virtual engagement for future MPO meetings and MPO committee meetings. MPO-sponsored events will take place either virtually or in-person. Virtual access is available through Zoom links on the MPO meeting calendar.

Chapter 4—Public Engagement Schedules

The regional transportation planning process includes the development of the certification documents and other programs and studies annually. Development of the certification documents follows established cycles as depicted in Figure 2.

Figure 2
Annual Planning Cycle for the TIP, UPWP, and Public Engagement



Public engagement to support this work follows similar cycles and is paired with general MPO outreach. The MPO makes the public aware of the details of each year's public engagement time frames at the beginning of the federal fiscal year to assure predictability for those who wish to participate in the transportation planning process. Public engagement opportunities for other MPO programs and studies occur throughout the year.

4.1 PUBLIC ENGAGEMENT SCHEDULE FOR THE TIP AND UPWP

The TIP and UPWP are produced each year. The schedule may change due to updated guidance from agency partners and MPO board decisions; however, the general schedule for the TIP and UPWP is as follows:

- October
 - MPO staff plans for the development of the documents including the approach to data collection, analyses to be conducted, and steps and activities to inform and involve the public.
 - MPO staff contacts municipalities to confirm municipal representatives, known as TIP contacts, who will provide information to municipalities on how to seek project funding, and to pass along information during the TIP process.
 - MPO staff hosts virtual information meetings and one-on-one conversations with TIP contacts to share details about the TIP process and answer any questions project proponents may have about getting projects funded.
- November and December
 - MPO staff discusses the upcoming document development activities with members of the public by
 - briefing the Advisory Council;
 - presenting at the MAPC Subregional meetings;
 - hosting in-person and virtual information sessions for interested stakeholder groups;
 - producing updated engagement material (if applicable); and
 - sending communications to the MPOinfo email list and posting on the MPO's social media channels.
 - MPO staff sends out a survey asking members of the public for study ideas to be included in the UPWP Universe of Proposed Studies in addition to directly engaging with a variety of stakeholders.
 - TIP contacts send information on new TIP projects to MPO staff.
 - Staff begins evaluating TIP projects using the project evaluation criteria.
- January

- Staff develops ideas for possible studies to include in the UPWP Universe of Study Proposals based on internal research and previous public engagement.
- Staff begins evaluating UPWP study proposals against criteria for emphasis areas.
- Staff completes evaluations of new TIP projects and shares draft scores with project proponents for their review and feedback.
- February
 - MassDOT confirms the specific amount of federal funding that will be available for projects in the TIP for the next five years of the plan.
 - Project proponents and members of the public provide comments on TIP updates at the MPO meetings, in written letters, through the online feedback form, or through emails to staff.
- March
 - Staff presents a series of draft TIP programming scenarios to the MPO board, getting feedback from the MPO board on the approaches that best align with MPO goals and the new projects that should be prioritized for funding.
 - Staff presents the final recommendations for programming TIP Regional Target funds to the MPO based on MPO feedback on earlier scenarios.
 - The MPO reviews other projects that will receive federal funds from MassDOT, the MBTA, MWRTA, and CATA.
 - MPO staff compiles the UPWP Universe of New Projects, capturing ideas heard through public engagement and internal research.
- April
 - The UPWP Committee discusses the UPWP Universe of Proposed Studies.
 - The MPO releases the draft TIP for a 21-day public comment period.
- May
 - MPO staff engages the public to gather feedback on the TIP.
 - The MPO board endorses the final TIP at the end of the public comment period after reviewing and considering all feedback.
 - Staff presents its recommendations for programming UPWP funds to the UPWP Committee.
- June
 - The UPWP Committee reviews the staff recommendations and the budget and makes its own recommendation to the MPO.
 - The MPO discusses the UPWP Committee recommendations and comments on the UPWP.

- The MPO releases the draft UPWP for a 21-day public comment period.
- MPO staff engages the public to gather feedback on the UPWP.
- The MPO submits the TIP to the federal agencies for review and approval.
- July
 - The MPO board endorses the final UPWP at the end of the public comment period after reviewing and considering all feedback.
- August
 - The MPO submits the UPWP to the federal agencies for review and approval.
- October
 - The approved documents go into effect after the beginning of the federal fiscal year on October 1.

4.2 PUBLIC ENGAGEMENT SCHEDULE FOR THE LRTP

The LRTP is updated every four years. Throughout those four years, LRTP engagement work continues, such as gathering data for the Needs Assessment and conducting scenario planning with public input. A specific public engagement plan is developed for each LRTP. The most significant public engagement is conducted during the fourth year, leading up to the endorsement of the LRTP. LRTP public engagement activities are coordinated with TIP and UPWP engagement when applicable. The draft LRTP is released for a public review period of 30 days.

4.3 PUBLIC ENGAGEMENT SCHEDULE FOR CHANGES TO CERTIFICATION DOCUMENTS

The certification documents can be modified or amended to reflect changes made through the course of the federal fiscal year. Any change to the LRTP is generally considered an amendment. For the TIP, consistent with federal guidelines, if a project is valued at five million or less, the threshold for defining a change to the project as an amendment is a change of \$500,000 or more. The threshold for projects valued greater than five million is 10 percent or more of the project value. Changes below these thresholds may be considered administrative modifications. These rules apply to Regional Target-funded projects and non-Regional Target-funded projects in the TIP. Changes to the UPWP, such as the addition or deletion of an MPO-funded study or project, major changes to a UPWP task description, and funding changes to a UPWP task budget of 25 percent or more, also trigger an amendment.

Changes to certification documents that do not rise to the level of an amendment, such as funding changes of less than 25 percent of a project's value, may be addressed through an administrative modification or adjustment. Administrative modifications do not require a public comment period, although one may be scheduled at the MPO's discretion. If a public comment period is scheduled, public notification follows the same process used for amendments.

4.3.1 Amendments Procedure

When the MPO considers amending the LRTP, TIP, or UPWP, the MPO board votes to do so at an MPO meeting. For TIP and LRTP amendments, after the MPO votes to release the proposed amendment for public comment, MPO staff posts the amendment to the MPO's website, notifies interested parties via email, and posts information about the amendment on the MPO's social media channels. A public comment period begins once the amendment is posted on the website or once the notification email is sent, whichever occurs first. For TIP amendments, the public comment period lasts 21 days. For LRTP amendments, the public comment period lasts 30 days.

For UPWP amendments, a public comment period is not required by federal guidelines. When considering an amendment to the UPWP, the MPO's UPWP Committee may vote to recommend that the MPO board vote to waive the public comment period.

Interested parties have the opportunity to comment on pending UPWP amendments during UPWP Committee and MPO meetings. If a public comment period for a UPWP amendment is scheduled, public notification follows the same process used for TIP amendments.

The MPO notifies the Advisory Council and affected municipalities and agencies of pending amendments to inform them about the proposed changes, when and where decisions will be made, and how they can provide comments. The MPO also informs TIP contacts and project proponents of affected projects.

In extreme circumstances, such as an unforeseen regulatory requirement, the MPO may vote to shorten the public comment period to a minimum of 15 days. In emergency circumstances, such as when there is a need to take immediate action to protect public safety or take advantage of an extraordinary funding opportunity, the MPO may waive the public comment period.

The MPO may extend a public comment period for an additional 15 days if a proposed amendment is significantly altered during the initial public comment

period. If a significant alteration occurs after the close of the initial public comment period, the MPO may schedule an additional comment period lasting 21 days for TIP and UPWP amendments and 30 days for LRTP amendments.

MPO staff collect public comments and present them to the MPO in both summary form and full text as submitted. MPO members review and consider these comments as they decide what action to take regarding the proposed amendment.

4.3.2 Administrative Modifications Procedure

Changes to certification documents that do not rise to the level of an amendment may be addressed through an administrative modification. The MPO may decide to make an administrative modification without issuing a public comment period, although one may be scheduled at the MPO's discretion. If a public comment period is scheduled, public notification follows the same process that is used for amendments.

4.4 PUBLIC ENGAGEMENT SCHEDULE FOR LONGER-TIME HORIZON PLANNING ACTIVITIES

4.4.1 The Transportation Equity Program

The MPO's Transportation Equity program is ongoing and is part of all MPO planning work. Equity is an integral part of the MPO's vision, and is reflected in its goal areas and objectives.

The Transportation Equity program focuses on

- providing equity populations with meaningful opportunities to participate in the MPO's decision-making processes;
- ensuring that minority and low-income people receive a fair share of the MPO's transportation investments, and are not subject to undue burdens as a result of these investments;
- analyzing the impacts of MPO-funded projects on all equity populations; and
- considering demographic equity methodically when selecting studies and projects funded by the MPO.

The MPO engages equity populations to center equity in planning work, identify the transportation needs of protected populations, and promote involvement in the planning processes. The Transportation Equity program focuses on engaging organizations comprised of and/or serving communities with a high proportion of equity populations, in addition to engaging the public at community events in areas with a high proportion of equity populations. Staff continually explores

creative ways to conduct outreach and produce communications to engage people who are underserved by the regional transportation system.

4.4.2 The Public Engagement Program

The MPO reviews the PEP's progress and effectiveness on an ongoing basis. The MPO revises the PEP as needed to reflect changes in federal guidance, and regional needs, and improvements in the state of practice. The most recent Plan has specifically taken into account virtual public involvement opportunities and techniques. Changes and revisions to the Plan occur in consultation with members of the public and the MPO board.

4.5 FEDERAL RECERTIFICATION REVIEWS

Federal recertification reviews of MPOs are conducted every four years. The federal transportation agencies evaluate the program and activities of the MPO to determine whether they are in keeping with the required 3C (continuing, cooperative, and comprehensive) process. The federal agencies certify that the MPO is operating as it should. A recertification review is conducted typically over the course of a work week (Monday to Friday) in a series of public events. Members of the public are invited to participate. Members of the public are also invited to submit comments before and during the review sessions. The federal agencies may contact certain parties to hear their views on MPO programming and operations, including public engagement. The material prepared for the recertification review and the recertification report from the federal agencies is posted on the MPO's website. The most recent Boston Region MPO recertification review was conducted in 2018.

Appendix A—Federal Public Participation Mandates

A.1 TITLE 23, SECTION 450 CODE OF FEDERAL REGULATION (CFR)

A.1.1 §450.316 Interested Parties, Participation, and Consultation

The federal regulations concerning public participation in metropolitan transportation planning decision making are specified in Title 23, Section 450.316, of the Code of Federal Regulations (CFR). The regulations include the following.

- a) The MPO shall develop and use a documented participation plan that defines a process for providing individuals, affected public agencies, representatives of public transportation employees, public ports, freight shippers, providers of freight transportation services, private providers of transportation (including intercity bus operators, employer-based commuting programs, such as carpool program, vanpool program, transit benefit program, parking cash-out program, shuttle program, or telework program), representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled, and other interested parties with reasonable opportunities to be involved in the metropolitan transportation planning process.
 1. The MPO shall develop the participation plan in consultation with all interested parties and shall, at a minimum, describe explicit procedures, strategies, and desired outcomes for:
 - i. Providing adequate public notice of public participation activities and time for public review and comment at key decision points, including a reasonable opportunity to comment on the proposed metropolitan transportation plan and the TIP;
 - ii. Providing timely notice and reasonable access to information about transportation issues and processes;
 - iii. Employing visualization techniques to describe metropolitan transportation plans and TIPs;
 - iv. Making public information (technical information and meeting notices) available in electronically accessible formats and means, such as the World Wide Web;
 - v. Holding any public meetings at convenient and accessible locations and times;

- vi. Demonstrating explicit consideration and response to public input received during the development of the metropolitan transportation plan and the TIP;
 - vii. Seeking out and considering the needs of those traditionally underserved by existing transportation systems, such as low-income and minority households, who may face challenges accessing employment and other services;
 - viii. Providing an additional opportunity for public comment, if the final metropolitan transportation plan or TIP differs significantly from the version that was made available for public comment by the MPO and raises new material issues that interested parties could not reasonably have foreseen from the public involvement efforts;
 - ix. Coordinating with the statewide transportation planning public involvement and consultation processes under subpart B of this part; and
 - x. Periodically reviewing the effectiveness of the procedures and strategies contained in the participation plan to ensure a full and open participation process.
 2. When significant written and oral comments are received on the draft metropolitan transportation plan and TIP (including the financial plans) as a result of the participation process in this section or the interagency consultation process required under the EPA transportation conformity regulations (40 CFR part 93, subpart A), a summary, analysis, and report on the disposition of comments shall be made as part of the final metropolitan transportation plan and TIP.
 3. A minimum public comment period of 45 calendar days shall be provided before the initial or revised participation plan is adopted by the MPO. Copies of the approved participation plan shall be provided to the FHWA and the FTA for informational purposes and shall be posted on the World Wide Web, to the maximum extent practicable.
- b) In developing metropolitan transportation plans and TIPs, the MPO should consult with agencies and officials responsible for other planning activities within the MPA that are affected by transportation (including State and local planned growth, economic development, tourism, natural disaster risk reduction, environmental protection, airport operations, or freight movements) or coordinate its planning process (to the maximum extent practicable) with such planning activities. In addition, the MPO shall develop the metropolitan transportation plans and TIPs with due consideration of other related planning activities within the metropolitan

area, and the process shall provide for the design and delivery of transportation services within the area that are provided by:

1. Recipients of assistance under title 49 U.S.C. Chapter 53;
 2. Governmental agencies and non-profit organizations (including representatives of the agencies and organizations) that receive Federal assistance from a source other than the U.S. Department of Transportation to provide non-emergency transportation services; and
 3. Recipients of assistance under 23 U.S.C. 201-204.
- c) When the MPA includes Indian Tribal lands, the MPO shall appropriately involve the Indian Tribal government(s) in the development of the metropolitan transportation plan and the TIP.
- d) When the MPA includes Federal public lands, the MPO shall appropriately involve the Federal land management agencies in the development of the metropolitan transportation plan and the TIP.
- e) MPOs shall, to the extent practicable, develop a documented process(es) that outlines roles, responsibilities, and key decision points for consulting with other governments and agencies, as defined in paragraphs (b), (c), and (d) of this section, which may be included in the agreement(s) developed under §450.314.

A.1.2 §450.318

This section specifies the public participation for MPO planning studies and project development.

A.1.3 §450.322

This section specifies the public transportation requirements for the development and content of the MPO's LRTP.

A.1.4 §450.324

This section specifies the public participation requirements for the development and content of the MPO's TIP.

A.1.4 §450.334

This section specifies the MPOs certify at least every four years that the metropolitan transportation planning process is being carried out in accordance with all applicable requirements including:

- 23 USC 134, 49 USC 5303 regarding metropolitan transportation planning

- Nonattainment and maintenance areas, sections 174 and 176 (c) and (d) of the Clean Air Act, as amended (42 USC. 7504, 7506 (c) and (d)) and 40 CFR part 93
- Title VI of the Civil Rights Act of 1964, as amended (42 USC. 2000d-1) and 49 CFR part 21
- 49 USC. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity
- Section 1101(b) of the SAFETEA-LU (Pub. L. 109-59) and 49 CFR part 26 regarding the involvement of disadvantaged business enterprises in USDOT funded projects
- 23 CFR part 230, regarding the implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts
- Americans with Disabilities Act of 1990 (42 USC. 12101 et seq.) and 49 CFR parts 27, 37, and 38
- Older Americans Act, as amended (42 USC. 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance
- Section 324 of title 23 USC. regarding the prohibition of discrimination based on gender
- Section 504 of the Rehabilitation Act of 1973 (29 USC. 794) and 49 CFR part 27 regarding discrimination against individuals with disabilities

A.2 AMERICANS WITH DISABILITIES ACT OF 1990 (ADA)

The Americans with Disabilities Act of 1990 states that “no qualified individual with a disability shall, by reason of such disability, be excluded from participation in or be denied the benefits of services, programs, or activities of a public entity, or be subjected to discrimination by any such entity.” Therefore, ADA requires that locations for public participation activities, as well as the information presented, must be accessible to persons with disabilities.

A.3 TITLE VI OF THE CIVIL RIGHTS ACT OF 1964

Title VI of the Civil Rights Act of 1964, together with related statutes and regulations, provides that “no person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.” The entire institution, whether educational, private or governmental, must comply with Title VI and related federal civil rights laws, not just the program or activity receiving federal funds.

FTA C 4702.1B (2012), Title VI Requirements and Guidelines for Federal Transit Administration Recipients, provides guidance on promoting inclusive public participation. This circular recommends seeking out and considering the viewpoints of minority, low-income, and LEP populations when conducting public

outreach and involvement activities. It identifies the following effective practices for fulfilling the inclusive public participation requirement:

- Schedule meetings at times and locations that are convenient and accessible for minority and LEP communities
- Employ different meeting sizes or formats
- Coordinate with community- and faith-based organizations, educational institutions, and other organizations to implement public engagement strategies to reach out specifically to members of the affected minority and/or LEP communities
- Consider radio, television, or newspaper ads on stations and in publications that serve LEP populations (could also include audio programming on podcasts)
- Provide opportunities for public participation through means other than written communication, such as personal interviews, or audio and video recording devices

A.4 ENVIRONMENTAL JUSTICE

Executive orders and regulations regarding environmental justice (EJ) also include public participation mandates for recipients of federal funds and their subrecipients.

A.4.1 Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 1994

This executive order states that “each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” Traditionally underserved groups such as low-income and minority populations must be identified and given increased opportunity for involvement in order to ensure effective participation.

A.4.2 Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, 2000

This executive order requires that recipients of federal financial aid ensure that their programs and activities that are normally provided in English are accessible to persons with limited English proficiency.

A.4.3 FTA Circular 4703.1, Environmental Justice Policy Guidance for Federal Transit Administration Recipients, 2012

The purpose of this circular is to provide recipients and subrecipients of FTA financial assistance with guidance in order to incorporate EJ principles into their plans, projects, and activities. The circular identifies full and fair participation by all potentially affected communities in the transportation decision-making process as one of the guiding principles of EJ. The circular provides strategies and techniques for public engagement that are intended to help recipients and subrecipients identify the needs and priorities of EJ populations to inform the planning process and help balance the benefits and burdens of transportation decisions.

Appendix B—Demographic Survey Questions

The demographic survey questions are included on all MPO outreach surveys to better understand who is taking the surveys and any gaps in outreach. These survey questions are adapted to meet inclusive language best practices. As with all survey text, the demographic questions are translated into the six most spoken languages in the Boston region in addition to English.

1. How do you self-identify by race or ethnicity? (Check all that apply.)
 - a. American Indian or Alaskan Native
 - b. Asian
 - c. Black or African American
 - d. Hispanic, Spanish origin or Latino/a/x
 - e. Native Hawaiian or other Pacific Islander
 - f. White
 - g. Prefer not to answer
 - h. Other (please specify)
2. What is your annual household income?
 - a. Less than \$24,000
 - b. \$24,000 to \$27,999
 - c. \$28,000 to \$37,999
 - d. \$38,000 to \$47,999
 - e. \$48,000 to \$57,999
 - f. \$58,000 to \$67,999
 - g. \$68,000 to \$77,999
 - h. \$78,000 to \$87,999
 - i. \$88,000 to \$104,999
 - j. \$105,000 or more
 - k. Prefer not to answer
3. How many people are in your household?
 - a. _____ (include yourself)
4. Do you have a disability?
 - a. Yes
 - b. No
 - c. Prefer not to answer
5. What is your age?
 - a. Under 18
 - b. 18 to 21
 - c. 22 to 34
 - d. 35 to 44
 - e. 45 to 64
 - f. 65 to 75
 - g. 75 and older
 - h. Prefer not to answer
6. How do you identify by gender?

- a. Man
 - b. Woman
 - c. Non-binary
 - d. Prefer to self-describe: _____
7. Do you speak a language other than English in your home? If so, what is that language?
- a. Yes
 - b. No
 - c. Prefer not to answer
8. If yes, what is that language?
9. What is your home zip code?
10. How do you usually travel? (Check all that apply.)
- a. Take a train
 - b. Take a bus
 - c. Ride a bike
 - d. Walk
 - e. Drive my own vehicle
 - f. Take a ride share (Lyft or Uber)
 - g. Other (please specify)

Appendix **C**—**Memorandum of Understanding**

MEMORANDUM OF UNDERSTANDING RELATING TO THE COMPREHENSIVE, CONTINUING AND COOPERATIVE TRANSPORTATION PLANNING PROCESS IN THE BOSTON METROPOLITAN AREA

Approved by the Boston Region Metropolitan Planning Organization
July 7, 2011

Massachusetts Department of Transportation

Massachusetts Bay Transportation Authority

Advisory Board to the MBTA

Massachusetts Port Authority

Metropolitan Area Planning Council

City of Boston

City of Newton

City of Somerville

Town of Bedford

Town of Braintree

Town of Framingham

Town of Hopkinton

Effective November 1, 2011

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Memorandum of Understanding Relating to the
Comprehensive, Continuing and Cooperative
Transportation Planning Process in the
Boston Metropolitan Area

1. INTRODUCTION

WHEREAS, the Massachusetts Department of Transportation (MassDOT), formerly the Executive Office of Transportation and Construction, has the statutory responsibility, under Chapter 25 of the Acts of 2009, An Act Modernizing the Transportation Systems of the Commonwealth, to conduct comprehensive planning for and to coordinate the activities and programs of the state transportation agencies and, under Chapter 161A of the General Laws, to prepare the capital investment program and plans of the MBTA in conjunction with other transportation plans and programs; and its Highway Division, formerly the Massachusetts Highway Department, has the statutory responsibility under this Chapter for the construction, maintenance and operation of state roads and bridges, and also has the responsibility under this Chapter for the ownership, administration, control, operation, and responsibility for maintenance, repair, reconstruction, improvement, rehabilitation, finance, refinance, use, and policing of the Massachusetts Turnpike and the Metropolitan Highway System in the vicinity of Boston and the surrounding metropolitan area; and

WHEREAS, the Massachusetts Bay Transportation Authority ("MBTA") under the provisions of Chapter 161A of the General Laws, has the statutory responsibility to design and construct transit development projects, to determine the character and

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extent of services and facilities to be furnished, as well as to operate the public transportation system for the area constituting the MBTA; and

WHEREAS, the Advisory Board to the MBTA ("Advisory Board") established under Chapter 161A of the General Laws is composed of the chief elected official, or designee, from each of the 175 cities and towns within the MBTA district, and is the body authorized by statute to review and advise the MBTA on its annual operating budget and the Program for Mass Transit; and

WHEREAS, the Metropolitan Area Planning Council ("MAPC") comprises representatives from each of the 101 cities and towns in the Boston Metropolitan Region, gubernatorial appointees, and representatives of various state, regional, and City of Boston agencies; has statutory responsibility for comprehensive regional planning under MGL Chapter 40B; is the designated Economic Development District under Title IV of the Public Works and Economic Development Act of 1965; and promotes smart growth and regional collaboration in order to implement the current regional plan, *MetroFuture: Making a Greater Boston Region*; and

WHEREAS, the Massachusetts Port Authority ("Massport") has the statutory responsibility, under St. 1956, c. 465 (Appendix to Chapter 91 of the General Laws), to plan, construct, own, and operate transportation and related facilities (including Logan Airport, Hanscom Field, Black Falcon Cruise Terminal, and the Conley Terminal), as may be necessary for the development and improvement of commerce in Boston and the surrounding metropolitan area; and

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WHEREAS, the municipalities in the Region, including the City of Boston, as the central city in the Region, and all other municipal governments, have an essential role in transportation planning and programming decisions; and

WHEREAS, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU); or its successors and Federal Highway Administration ("FHWA") / Federal Transit Administration ("FTA") joint planning regulations (23 CFR Part 450 and 49 CFR Part 613) require metropolitan areas to have a comprehensive, continuing, and cooperative transportation planning process ("3-C") that results in plans and programs that consider all transportation modes and supports metropolitan community development and social goals. These plans and programs shall lead to the development and operation of an integrated, intermodal transportation system that facilitates the efficient, economic movement of people and goods;

WHEREAS, the Objectives of the 3-C Process are:

- a comprehensive, continuing, and cooperative transportation planning process resulting in plans, programs and operations consistent with the planning objectives of the metropolitan area.
- Comprehensive, including the effective integration of the various stages and levels of transportation planning and programming for the entire Region and examining all modes so as to assure a balanced planning effort. There is simultaneous analysis of various related non-transportation elements, such

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as land use, economic and residential development, demographics, sustainability, and equity within a total planning process.

- Continuing, affirming the necessity to plan for the short and long range needs of the regional transportation system, emphasizing the iterative character of the progression from systems planning to project planning, programming, operations and implementation. Frequent updating and re-evaluation of data and plans is necessary.
- Cooperative, requiring effective coordination among public officials at all levels of government, and inviting the wide participation of all parties, public or private, at all stages of the transportation planning process. A key objective of the process is to resolve issues and controversies by providing a forum for negotiation and consensus building. At the same time, the process is not intended to operate, and cannot operate, to dilute the ultimate authority or responsibility of those state, regional, or local public officials who, pursuant to statute or under contract, review and/or implement transportation plans, programs, and projects.
- Intermodal, and are intended to help provide the Boston region with the ability to maintain, manage and operate a multimodal transportation system that provides a high level of mobility and safety for people and freight, consistent with fiscal and environmental resources;

WHEREAS, in response to the FHWA/FTA Transportation Planning Certification Review Final Report of April 2004; and

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WHEREAS, the Signatories recognize that transportation planning and programming must be conducted as an integral part of and consistent with the comprehensive planning and development process, and that the process must involve the fullest possible participation by state agencies, regional entities, local governments, private institutions and other appropriate groups;

NOW, THEREFORE, the Signatories hereto jointly agree as follows:

2. COMPOSITION AND ROLES OF THE BOSTON REGION METROPOLITAN PLANNING ORGANIZATION (MPO)

The Boston Region MPO consists of the following entities:

- Massachusetts Department of Transportation, with three representatives appointed by the Secretary, at least one of which is from its Highway Division
- Massachusetts Bay Transportation Authority
- Advisory Board to the MBTA
- Massachusetts Port Authority
- Metropolitan Area Planning Council
- City of Boston, with two representatives
- Twelve other municipalities elected from the Boston Region:
 - four at-large (two cities and two towns), and

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- eight (no city or town designation) from, respectively, each of the eight Metropolitan Area Planning Council subregional groups, and
- The Regional Transportation Advisory Council

In addition, the Federal Highway Administration and the Federal Transit Administration are ex-officio, non-voting members.

Each elected municipality shall be represented by its chief elected official or their designee. The terms of office of the elected municipalities shall be three-years, except, in the initial implementation phase, for six members who will have one four year term (as specified in the Updated MPO Membership election Process, dated 6/30/11). The 101 municipalities of the Boston Region will elect the elected municipalities. Permanent member entities of the MPO are not eligible to run for an elected membership.

A. Officers

The Chair of the Boston Region MPO shall be the Secretary of MassDOT or the Secretary's designee. The Vice Chair shall be a municipal representative or an official of one of the two regional agencies and shall be elected to a one-year term by the MPO members by majority vote. This election shall take place at the first meeting after the election of Boston Region MPO elected municipal representatives.

The Chair or his/her official designee shall: set agenda with the advice and input of the Vice Chair; call meetings; preside at meetings; and disseminate timely information to members. The Vice Chair or his/her official designee

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shall preside at meetings in the absence of the Chair or his/her official designee.

B. Records

The Central Transportation Planning Staff (CTPS) shall be the official custodian of the Boston Region MPO records. These records will be prepared and maintained by the CTPS, and shall be accessible in a central location.

C. Municipal Membership

The City of Boston is a permanent member. The process for nominating and electing the twelve other municipal members shall be approved by the Boston Region MPO to fulfill the objective of having a diverse membership. The municipal nomination and election process shall be administered by MAPC working jointly with the Advisory Board to the MBTA.

Election procedures should allow all municipalities an opportunity to be elected to the Boston Region MPO. Any changes to the election procedures shall be presented to the Boston Region MPO for approval.

D. The Regional Transportation Advisory Council (Advisory Council)

To accomplish the objectives of the 3-C process, the Boston Region MPO has established a special advisory committee, known as the Regional Transportation Advisory Council (Advisory Council). The Boston Region MPO shall support the Advisory Council by providing financial and staff support through the Boston Region MPO staff. The members of the Boston

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Region MPO shall support the Advisory Council individually by rendering institutional support and also by attending the Advisory Council meetings, as practical.

In setting policy and work priorities for said staff, the Boston Region MPO shall be advised by the Advisory Council and, subject to overall work priorities, shall provide information and analysis to the Advisory Council to assist the Advisory Council in advising on issues arising out of the 3-C process.

The principal mission of the Advisory Council is to foster broad and robust participation in the transportation planning process by bringing together concerned citizens, community-based organizations, Environmental Justice populations, business and institutional leaders, representatives of cities and towns, and state agencies.

The Advisory Council will best serve the Boston Region MPO and the public by acting as a primary mechanism for public input to the transportation planning process. To accomplish the Advisory Council mission, the Boston Region MPO acknowledges that:

- the Advisory Council is defined as a principal public outreach and education arm of the Boston Region MPO;
- The Chair of the Advisory Council will also chair any Public Participation Committee of the Boston Region MPO; and

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- The Advisory Council shall assist with the implementation of the public participation plan in cooperation with the agencies and staffs as designated in the Unified Planning Work Program (UPWP).

Boston Region MPO staff will provide ongoing support to the Advisory Council Chair to:

- Implement the Public Participation Plan and
- Further educate members of the public regarding activities of the Boston Region MPO and critical transportation issues generally.

Any additional specific revised functions, duties, and membership of the Advisory Council, proposed by the Boston Region MPO, shall be determined in cooperation with the Advisory Council.

E. Voting Rules

Votes of the Boston Region MPO on all certification documents and amendments to these documents shall be a two-thirds majority vote of those present and voting, provided that a quorum, at least twelve member representatives, is present. Other votes will be by majority, and require a quorum

3. FUNCTIONS AND ROLES OF THE BOSTON REGION MPO AND ITS COMMITTEES

A. Overview

The Boston Region MPO shall perform all functions as required by federal or state law including jointly adopting an annual unified transportation planning

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work program for the region, as well as such transportation plans, programs and conformity determinations as may from time to time be required of the Boston Region MPO by federal and state laws and regulations.

The Boston Region MPO shall be the forum for cooperative decision making by principal elected officials of general purpose governments in the Boston region, and shall endeavor to provide the federal government the views of "responsible local officials" of the Region where called for under federal law with respect to the initiation of certain transportation programs and projects.

In the resolution of basic regional transportation policy, the Boston Region MPO shall seek and consider the advice of the Advisory Council. In so doing, the Boston Region MPO shall provide the Advisory Council with information and analysis in the form of reports, briefings, and discussion concerning their plans, programs, and priorities so that the Advisory Council can carry out its functions in a timely fashion.

In addition to the advice of the Advisory Council, the MPO shall seek the involvement of members of the public and the many entities and organizations with interests and views relative to the Boston Region's planning and programming. To facilitate this, the Boston Region MPO will post on its website, at least 48 hours in advance of meetings, all materials related to meeting action items, unless waived by unanimous consent of the Boston Region MPO. The Boston Region MPO will also meet quarterly at locations outside of the City of Boston.

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The Boston Region MPO will consider geographic and demographic equity a goal when approving all certification documents. This means that after other factors, such as need, are used in evaluating and selecting projects, a final view toward geographic and demographic balance and fairness over the span of the document will be applied.

B. Planning and Programming

The Boston Region MPO is responsible for planning and programming financial resources for a multi-modal transportation system for the Boston region by conducting the federal metropolitan planning process (3C Process) for the region, as referenced in Section 1 of this Memorandum. This includes preparation of the fiscally constrained certification documents (Long-Range Transportation Plan, Unified Planning Work Program, and Transportation Improvement Program), and the Congestion Management Program and other studies supporting MPO decision-making.

The Unified Planning Work Program identifies the transportation planning studies conducted in the region, along with their funding amounts and sources, during a given federal fiscal year.

The Long Range Transportation Plan is the comprehensive transportation planning document for the MPO. It defines transportation visions, establishes goals and policies, and allocates projected revenue to regionally significant programs and projects.

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The Transportation Improvement Program lists projects programmed and expected to be funded over the immediate four-year period. It is developed annually.

The Signatories agree to the arrangements outlined in Section 4 for the allocation of federal and state funds. Nothing in this document shall preclude the Boston Region MPO's ability to use the provisions of SAFETEA-LU (and successors) to transfer funds between highway and transit uses.

C. Establishment of Committees and Task Forces

The Boston Region MPO shall appoint committees it determines necessary and task forces to accomplish its business and assign duties to them.

D. Central Transportation Planning Staff (CTPS)

The Boston Region MPO agencies shall contribute resources in the form of funds, staff, and other contributions, to support a unified inter-agency transportation planning staff, known as the Central Transportation Planning Staff ("CTPS"), to assist in carrying out the Region's 3-C process under the policy control of the Boston Region MPO.

CTPS shall provide planning services to the Boston Region MPO. From time to time, other parties may provide additional resources through the state planning program and through other resources. All work undertaken for the Boston Region MPO shall be in an approved UPWP. All work funded through federal financing for metropolitan transportation planning under 23 USC 104(f) and 49 USC 5338(g)(1) shall be approved by the Boston Region MPO

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in accordance with applicable rules provided that the cities and towns shall have a substantial role in the development of the UPWP particularly in the activities specified for metropolitan planning funds.

Since CTPS is not an agency, the Boston Region MPO retains a fiduciary agent for all of the Boston Region MPO's financial resources. MAPC is currently the fiduciary agent. While the CTPS staff shall be defined legally as employees of the fiduciary agent, they shall be administered according to policies established by the Boston Region MPO subject to applicable federal, state and local laws and regulations and to the availability of funds

At any time during which the fiduciary agent is a member of the Boston Region MPO, the role and actions of the fiduciary agent are distinguished from its role and actions as a policy member of the Boston Region MPO in that the fiduciary agent shall be limited to implementing actions of the Boston Region MPO subject to the applicable federal, state and local laws, and regulations and to the availability of funds.

The Boston Region MPO shall indemnify and hold the fiduciary agent harmless from liabilities occurring out of actions taken under its normal administration of the Boston Region MPO's activities. The Boston Region MPO and the fiduciary agent shall enter into an agreement detailing the financial and legal obligations of each party as determined by the Boston Region MPO.

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All work not subject to federal transportation rules governing metropolitan planning funds must be approved by the Boston Region MPO for inclusion in the UPWP. CTPS may be selected by the sponsoring agency or other parties to deliver transportation planning services using these funds. The Boston Region MPO shall approve such requests provided it determines that: 1) CTPS has sufficient resources to complete such work in a capable and timely manner; and 2) by undertaking such work, CTPS neither delays completion nor reduces the quality of other work in the UPWP.

4. TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

A. Overview

The Boston Metropolitan Region, made up of urban, suburban and rural communities, requires a balanced approach to transportation investment. The Boston Region MPO shall endorse annually a multi-year spending plan for federal highway and transit funding. This Transportation Improvement Program (TIP) shall reflect a multi-modal transportation program that responds to the needs of the region.

The TIP shall be the result of a cooperative, open, and informed process that balances local, regional, and state input and priorities and applies established Boston Region MPO policies and priorities in a fiscally constrained document. TIP development and programming shall be in full compliance with federal regulations and guidance. The TIP may include projects and programs addressing needs on the Interstate and National Highway Systems, repair of deficient bridges, support of inter- and intra-

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regional mobility, community projects, multi-modal facilities, bicycle and pedestrian infrastructure, transportation enhancements, clean air and mobility, operations and management, and all forms of transit. The state, regional, and municipal members of the Boston Region MPO shall work in a unified, timely, and cooperative manner to develop and establish priorities for the TIP.

The Boston Region MPO shall maintain two lists of unfunded projects: a First Tier Projects list and a Universe of Projects list. These lists shall be compiled by the Boston Region MPO for information purposes and shall be included annually in an appendix to the TIP.

B. Establishment of Financial Constraint and Development of TIP Targets

Development of the statewide federal aid and non-federal aid highway funding estimate shall be cooperative and shall be discussed with a statewide group representing regional planning agencies and other MPOs; currently the Massachusetts Association of Regional Planning Agencies (MARPA) is this group.

An initial step in the financial constraint and TIP target development process shall be timely transmission to MARPA of federal funding information on obligation authority. In each TIP year, the state will propose its priorities for non-High Priority Projects, mega-projects, statewide infrastructure, change orders, planning, statewide CMAQ expenditures, and other items as needed. The estimated cost of these will be subtracted from the estimates of federal obligation authority of the state to show the estimated amount available for

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federal funding for MPO targets in the state. This amount and the state match for this funding will be allocated among the MPOs based on the MARPA formula. The Boston Region MPO share of available federal and non-federal aid has provided the Boston Region MPO with 42.97% of available funds since 1991. This will be termed the TIP Target. The resulting targets, federal and state funding levels, and projects and programs and their cost estimates will be discussed with the Boston Region MPO and other members of MARPA at a meeting early in the TIP development process of each year. Boston Region MPO Staff shall accompany MAPC to these MARPA consultation meetings. The state will be responsible for explaining the derived targets and providing additional information as requested.

The Boston Region MPO shall use these numbers as the estimate of available funding. The Boston Region MPO's portion of federal and non-federal aid will be programmed in its constrained TIP and MassDOT shall seek to advertise projects in the region in that amount.

C. Prioritization Criteria

The Boston Region MPO has developed criteria to be used to evaluate projects considered for programming. These criteria are a means to inform the MPO's decisions for all elements of the TIP. These criteria are consistent with and advance the visions and policies adopted for the latest Long-Range Transportation Plan. The criteria shall be reviewed each year and updated and improved as needed.

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MassDOT and other member entities implementing federally-funded transportation projects shall consider MPO priorities when setting their priorities.

D. Transit

It is the responsibility of the Boston Region MPO, working with the MBTA, MassDOT Rail and Transit Division, and other transit providers in the region, to coordinate regional transit planning and funding with other transportation modes within the Boston region. This work shall be conducted in full compliance with federal and state regulations. It shall include programming for all federally-funded transit modes and programs, including the federal Job Access and Reverse Commute and New Freedom Programs.

The MBTA's authorizing legislation directs that every five years the MBTA shall prepare and submit to the Massachusetts General Court its Program for Mass Transportation (PMT), a long-range, fiscally unconstrained plan that outlines a vision for regional mass transit and a process for prioritizing infrastructure investments. Implementation of this plan is through the five-year fiscally constrained Capital Investment Program (CIP), which is updated annually.

Boston Region MPO regulatory requirements call for development every four years of a 25-year fiscally constrained Long-Range Transportation Plan (LRTP) that defines a comprehensive plan and vision for the region's surface transportation network. Implementation of the LRTP with federal

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transportation funds is through the Boston Region MPO's fiscally constrained TIP.

The Boston Region MPO and MassDOT and the MBTA will coordinate the parallel planning activities of the PMT/CIP and the LRTP/TIP and provide consistency between planned outcomes. This includes mutual consideration of visions and priorities articulated in each entity's transportation planning documents and project selection process. The MassDOT Rail and Transit Division will coordinate RTA investment with the MPO when setting priorities for programming.

E. Highway, Bridge, Bicycle, and Pedestrian

The TIP shall contain the Boston region's portion of all federal and state aid for each of the TIP's four federal fiscal years. It shall be prepared in accordance with federal regulation. It shall include programming for all roadway, bridge, bicycle, pedestrian projects and programs in the region, including costs for the Central Artery/Tunnel and the Accelerated Bridge Program. It shall include projects and programs that address the needs of truck and rail freight movement in the region.

1. Central Artery/Tunnel Project

The Boston Region MPO shall detail future federal aid payments for the Central Artery/Tunnel Project through FFY 2014 or until federal aid obligations to the project have been met.

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2. Accelerated Bridge Program

The Boston Region MPO shall be informed of the commitments to Accelerated Bridge Program funding. All bridges leveraging federal aid via this program shall be listed in the appropriate TIP element. There shall continue to be a section in the TIP that details the amount of federal aid returning to the federal government for payment on this program until such time as full obligation repayment is received.

3. Road and Bridge Program

The Boston Region MPO shall have the ability to program projects for federal and non-federal aid. The ability to include non-federal funds in a TIP does not in any respect imply the application of federal standards, regulations or related requirements to state-funded projects, programs or initiatives. The fiscal year shall be from October 1st to September 30th for both federal and non-federal aid.

MassDOT Highway Division shall be responsible for administering the road and bridge elements of the TIP, which includes meeting the requirements for implementing them. These requirements include acquiring right of way, obtaining necessary permits and completing design review before or during the federal fiscal year in which projects are programmed so that they can be advertised in the federal fiscal year in which they are programmed.

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F. Improvement of TIP-Related Information

1. Overview

All members of the Boston Region MPO recognize the importance of delivering timely, accurate and reliable information on projects and on the levels of transportation funding expected to be available to the region. This information is critical for the development of the financially constrained TIP. This information also provides a valuable resource for planning by the cities and towns in the region as future funding levels help inform local decision making about whether, or when, to invest local resources in project design and development.

At the same time, the Boston Region MPO recognizes that funding levels may be affected by circumstances beyond its control, such as changes in state or federal authorizations or appropriations; increased need for emergency or security-related expenditures; legislative requirements; or other unanticipated events. While the Boston Region MPO recognizes these contingencies may affect funding, it nonetheless needs to deliver a regional transportation program based on good project information and a realistic assessment of available funds.

2. TIP Project Information and Dissemination

The implementing agencies shall keep the Boston Region MPO informed of project status on a regular basis to support MPO planning and programming and to enable the Boston Region MPO to notify

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project sponsors of the outstanding issues that could cause the project to be deferred to a subsequent fiscal year. At least quarterly and on request, the implementing agencies shall submit this information to the Boston Region MPO Chair and staff for coordination and for distribution to the MPO members. This information shall include project status and other issues of interest to the MPO members and shall be compiled from all available resources, including municipalities, regional entities, state transportation agencies, and other sources. Boston Region MPO members shall provide needed and relevant information to Boston Region MPO staff for dissemination to the full Boston Region MPO. Staff shall utilize appropriate and up-to-date information systems for maintaining, processing, analyzing, and reporting information.

At the end of the federal fiscal year, the state agencies shall offer a full summary of how projects fared in the previous fiscal year before asking the Boston Region MPO to vote on the new TIP.

Boston Region MPO staff shall have primary responsibility for informing local governments regarding transportation funding and for collecting local input to the Boston Region MPO. All members of the Boston Region MPO, however, shall have a role in informing local governments about transportation aid and the programming process and in considering local input to the Boston Region MPO.

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The Boston Region MPO shall discuss and decide on the TIP development process for the upcoming TIP in the first quarter of each federal fiscal year. The process shall be documented in the TIP Development Memorandum to the MPO. The process shall provide for the collection of current information about projects to be considered for programming; review and possible revision of TIP project-selection criteria; application of the criteria in project evaluations; and maintenance of certain lists of projects, such as the set in use at the signing of this Memorandum of Understanding, the "First Tier" set of projects. (The First Tier Project List is in addition to the set of programmed projects and serves as the first resource pool from which to identify projects for programming. This list is comprised of projects that earn a high score based on the evaluation criteria but that might not meet fiscal-constraint standards or immediate-readiness factors.)

5. OPERATIONS PLAN

The Boston Region MPO shall adopt a revised operations plan, which shall detail the operations of the transportation planning system and the preparation of all certification documents for the Boston Region MPO. The Boston Region MPO shall be responsible for fully complying with all federal and state regulations governing the 3-C transportation planning process in the Boston metropolitan area.

The plan should, at a minimum, address the following functional areas:

- Administration and Finance;

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- Programming;
- Policy; and
- Technical Products

6. REVIEW OF THIS DOCUMENT

This document shall be reviewed every year, beginning in April, by the Signatories. Upon execution of this Memorandum of Understanding and in an effort to enhance municipal understanding of the Boston Region MPO process, the Boston Region MPO shall circulate this document to the municipalities of the Boston Region MPO. Proposed amendments will be circulated to the public prior to consideration by the Boston Region MPO.

7. EFFECT OF MEMORANDUM

This Memorandum follows from: the Memorandum dated January 1973 and its Supplement dated March 1974; the Memorandum dated June 1976 and its Supplement dated May 1984; and the Memorandum dated November 1982; the Memorandum dated January 1997; and the Memorandum dated December 2001. However, in the event of any conflicts between this Memorandum and any previous Memoranda, this Memorandum shall prevail.

This Memorandum shall be effective as of November 1, 2011. Elected Municipal Signatories as of the date of the approval of this Memorandum shall serve in the new appropriate at-large or subregional designations established by this memorandum, until the end of their current term.

Appendix D—Accessibility Checklist

D.1 BOSTON REGION MPO ACCESSIBLE MEETING CHECKLIST

The checklist below should be completed by the person responsible for selecting and reviewing the meeting location for an MPO-sponsored meeting to ensure that it meets all accessibility requirements.

Publicizing the Meeting

- ✓ Has the public meeting been publicized at least three weeks in advance?
- ✓ Has the meeting been publicized in the most spoken languages of the community and in community newspapers where the meeting will be held?
- ✓ Does the public meeting notice include accessibility information, how to request a reasonable accommodation, relevant dates for making requests, and who to contact to request a reasonable accommodation?
- ✓ Does the public meeting notice include information about how to request language interpreters?

Evaluating the Meeting Location

- ✓ Where applicable (in areas where public transportation is available), is the meeting location one-quarter mile or less from the nearest accessible bus stop or rail station? Or is transportation provided from the stop/station to the meeting location?
- ✓ Where applicable, is there an accessible path of travel provided from the public transportation stop to the meeting location and meeting room?
- ✓ If parking will be available at the meeting location, will there be accessible spaces (review number of car and van accessible spaces)?
- ✓ Is there an accessible path of travel provided from the accessible parking area to the meeting area?
- ✓ If the main entrance to the building is not accessible, is there directional signage pointing towards the accessible entrance?
- ✓ Is the accessible entrance unlocked and able to be used independently? If the meeting is taking place at night, is the path leading to the alternate entrance well lit?
- ✓ If there are restrooms that are open to the public, are there accessible restrooms available within close proximity of the meeting area?
- ✓ If a stage or platform will be used during the meeting, is it accessible?
- ✓ If a podium will be used during the meeting, is the podium height adjustable? If not, is there a table (between 28 and 34 inches high) provided at the side of the podium?
- ✓ Is there a high-speed internet connection within the meeting space?

Ensuring Appropriate Accommodations

- ✓ Have language interpreters, if requested, been reserved for the public meeting?
- ✓ Have Communication Access Real Time (CART) services, if requested, been reserved for the meeting?
- ✓ Are assistive-listening devices available for the meeting? Is there a staff person who knows how to use the device? Have the devices been checked at least 24 hours before the meeting and rechecked immediately before the meeting starts?
- ✓ Are at least five large-print copies of meeting handouts available?
- ✓ Are printed materials available upon request, in alternative formats, and/or relevant languages?
- ✓ Are film or video presentations closed captioned?

Facility/Room Setup (prior to meeting)

- ✓ Is the accessible entrance unlocked?
- ✓ Is there an integrated seating area in the meeting room for individuals who use a wheeled-mobility device?
- ✓ Is seating available for attendees who are hearing impaired, and who have requested an accommodation, near the front of the meeting room so that attendees may see the interpreter/captioner or lip read?
- ✓ Is there an appropriately lit area in the front of the room for interpreters and/or CART providers?
- ✓ Are the aisles at least three feet wide and clear of obstacles or tripping hazards?
- ✓ Is an adjustable microphone stand available? Can staff be used as floaters with microphones as an alternative?