CHAPTER 4
EQUITY AND THE MPO’S PLANNING PROCESS
4.1 INTRODUCTION

The purpose of this chapter is to provide an overview of the MPO’s 3C planning process and to highlight how Title VI, EJ, and other non-discrimination mandates are incorporated into planning activities to engage and include diverse populations and perspectives.

Work for the metropolitan transportation-planning process is underway all year, largely centered on the three major certification documents that are developed on a regular schedule: the TIP, UPWP, and LRTP. The development of these documents follows established cycles as depicted in Figure 5, and includes significant public outreach at all stages. MPO staff makes the public aware of the opportunities to be involved with the planning process at the beginning of each federal fiscal year, highlighting key document development milestones and MPO actions. Additional opportunities for participation in the MPO’s other programs, such as the TE program, occur throughout the year, as needed. In addition, project selection for all three documents reflects the goals of the MPO, one of which is to ensure equity, as it relates to Title VI, EJ, and other protected populations, in the selection of its projects.

**Figure 5**

Boston Region MPO Planning Process
For development of the current LRTP, *Charting Progress to 2040*, the MPO began to shift its transportation investment focus from large infrastructure projects to smaller-scale projects that emphasize public transit, walking, and bicycling. This new course reflects the reality of current fiscal constraints in the Boston region, as well as the transportation interests and needs of the area’s residents to prioritize funding of a multimodal, sustainable transportation system. To that end, the MPO established a new overarching transportation vision for the future:

*A modern transportation system that is safe, uses new technologies, provides equitable access, excellent mobility, and varied transportation options—in support of a sustainable, healthy, livable, and economically vibrant region.*

Additionally, *Charting Progress to 2040* established six goals that serve as a guiding framework not only for selecting projects for the LRTP, but also for prioritizing TIP projects and developing studies for inclusion in the UPWP.

The six goals are:

- **Safety**: make all modes safe
- **System preservation**: maintain the system
- **Capacity management/mobility**: use existing facility capacity more efficiently and increase healthy transportation capacity
- **Clean air/clean communities**: create an environmentally friendly transportation system
- **Transportation equity**: provide comparable transportation access and service quality among communities, regardless of income level or minority population
- **Economic vitality**: ensure our transportation network serves as a strong foundation for economic vitality

These goals will steer the region toward its 2040 vision by helping the MPO prioritize studies in the UPWP and projects in the LRTP and TIP over the next 20-plus years. They will also help the MPO develop metrics with which to measure and track performance improvements in the transportation system.
4.2 **UNIFIED PLANNING WORK PROGRAM PROCESS**

The UPWP, published every year, describes how the Boston region’s federal transportation-planning funds will be spent in a given FFY to ensure that the work undertaken by staff reflect the priorities of the MPO as expressed in the LRTP. The UPWP identifies funding that will be used to implement each component of the transportation-planning process that is required for certification, including the development of the LRTP, the TIP, and air quality conformity determinations. The UPWP also details discrete transportation-planning studies, ongoing programs, and technical assistance activities that are federally funded and performed by MPO staff. In addition, the Boston Region MPO’s outlines all UPWP expenditures for support and administrative services and includes information on work performed by staff under contract to transportation agencies.

4.2.1 **Study Selection**

Each year, new studies are selected for funding in the UPWP. MPO staff develops a Universe of New Studies, from which final studies to be included in the UPWP are selected by the MPO’s UPWP Committee. Ideas for the new studies are gathered from public events in the fall and winter of each year, including MAPC subregional meetings with municipal officials, as well as from the Advisory Council and the UPWP Committee. In addition, study ideas are generated from existing transportation issues documented in various other MPO and other state agencies’ plans; FHWA and FTA planning emphasis areas; public comment letters; consultations with MassDOT, MBTA, and the Metropolitan Area Planning Council; and MPO staff-identified needs.

Each proposed study in the Universe of New Studies is evaluated based on the following criteria:

- **Focus on LRTP goal areas**: which of the six LRTP goal areas a study addresses
- **Study scale**: whether a study primarily affects one or two specific communities in the region or the region as a whole
- **Time frame and type of impact**: whether a study results in research findings, low-cost/short-term implementation of improvements, or long-term implementation of improvements
- **Connection to existing work**: whether a study furthers analyses developed from a previous study
- **Continuing or new study**: whether a study is being continued, or is a new idea that has never been undertaken by the MPO
In the spring the draft of the UPWP is released for 30-day public review and comment period. The document is available on the MPO website and staff provides notice of its availability through its several communications outlets. (For the FFY 2018 UPWP, the public comment period was amended to 21 days. The length of the public comment period will be revisited by the MPO for FFY 2019. See Appendix G for the text of this amendment in the Public Participation Plan.)

4.2.2 UPWP Studies that Address Title VI and/or Environmental Justice Transportation Needs

The MPO regularly selects studies for inclusion in the UPWP that address transportation needs of Title VI and EJ populations. The following is a list of studies and MPO work programs that have been funded in the past three years:

- **Transportation Equity/Environmental Justice Support (funded on an ongoing basis):** Identifies and addresses the concerns of a wider range of EJ and other protected populations that have been traditionally under-represented in the transportation-planning process and underserved by the transportation system through data analysis, public outreach, and 3C document support.

- **Boston Region MPO Title VI Reporting (funded on an ongoing basis):** Develops and implements a program that demonstrates the MPO’s compliance with the FTA and FHWA Title VI/non-discrimination reporting requirements.

- **Access Advisory Committee to the MBTA Support (funded on an ongoing basis):** The MPO provides ongoing support to AACT, an MBTA user group representing people with disabilities. AACT advises the MBTA on accessibility matters related to the MBTA’s fixed-route services and THE RIDE paratransit service for people with disabilities.

- **Foxborough JARC Transit Feasibility Study (funded in FFY 2015):** Studied the need for, and the feasibility of, transit services that would serve reverse commuters traveling to and from Foxborough’s train station, specifically people with low-incomes.

- **Addressing Safety, Mobility, and Access on Subregional Priority Roadways (funded in FFYs 2015 and 2016):** Identified priority arterial roadway segments in the MPO region, emphasizing issues cited by the relevant subregional groups, and developed recommendations.

- **Title VI Service Equity Analysis (Phases I and II) (funded in FFYs 2015 and 2017):** Developed an improved a methodology for conducting Title VI service equity analyses to measure the amount of transit opportunity provided to a Census tract, and employed this methodology on a full-scale model of the MBTA bus and rapid transit system.
• **Identifying Opportunities to Alleviate Bus Delay (funded in FFY 2016):** Identified roadway locations where MBTA bus routes regularly experience significant delays and identified causes of the delays.

• **Pedestrian Level of Service Metric Development (funded in FFYs 2016 and 2017):** Developed a pedestrian level-of-service index, which measures the extent to which infrastructure supports pedestrian travel and comfort.

• **Systemwide Title VI/Environmental Justice Assessment of TIP Projects (funded in FFYs 2016 and 2017):** Developed a method to evaluate the benefits and burdens of TIP highway investments for minority and low-income populations.

• **Using General Transit Feed Specification Data to Find Shared Bus Route Segments with Excessively Irregular Headways (funded in FFY 2017):** Analyzed the distribution of headways at bus stops over time and documented the reasons behind any irregularities in the existing schedule compared to General Transit Feed Specification data.

• **Safety Effectiveness of Safe Routes to School Programs (funded in FFY 2017):** Investigated effectiveness of the Safe Routes to School program and the primary factors contributing to its efficacy.

• **First- and Last-mile Shuttle Partnership Models (funded in FFY 2018):** Will investigate potential partnership models for first- and last-mile transit shuttles and identify the most promising models for the purposes of including these services in the MPO’s TIP.

• **Low-cost Improvements to MBTA Service (funded in FFY 2018):** Will examine the transit system within the MPO and identify locations where inadequate service occurs as a result of inefficient passenger queuing, loading, or wayfinding, and suggest low-cost solutions.

### 4.3 TRANSPORTATION IMPROVEMENT PROGRAM PROCESS

Every year, the Boston Region MPO develops a TIP that programs transportation investments over the next five-year period. Three TIPs were finalized within the time frame of this triennial report: FFYs 2015–2018, FFYs 2016–2020, and FFYs 2017–2021. TIP project selection is guided by the MPO’s vision, goals, and objectives stated in the LRTP: prioritizing investments that preserve the current transportation system in a state of good repair, providing safe transportation options for all modes, enhancing livability for residents, and improving mobility throughout the region. Additionally, the TIP often implements recommendations from past studies or reports that were
funded through the UPWP. In this way, the three planning documents work together to achieve the MPO’s vision for the region’s transportation network in a cohesive and comprehensive manner.

Each year, the MPO considers additional projects for funding. To select which projects will be funded with the MPO’s discretionary funds, the MPO uses a set of project evaluation criteria, which are linked to the six LRTP goals, to identify and prioritize projects that advance the MPO’s vision; one of the criteria categories is transportation equity. The remainder of this section describes how projects are selected for the TIP, focusing on the role that transportation equity plays in the selection process.

4.3.1 TIP Development and Project Selection

Public Outreach and Data Collection

Public outreach for the development of each new TIP begins in late fall when MPO staff notifies the 101 municipalities in the region of the start of the TIP development process and asks them to identify projects to be considered for funding. During that time, staff attends meetings in each of the MPO’s subregions to inform municipalities and the public about the TIP process and to gather project feedback. MPO staff then compiles applicable project funding requests into a Universe of Projects list, which, when finalized, is released to the public and municipalities for their feedback. The list includes projects that have been initiated through the MassDOT project development process and have reached a design stage where there is enough information available for MPO staff to evaluate the projects. To ensure that project information is current and accurate, MPO staff coordinates with municipal and TIP contacts to update information for each project in the MPO’s online TIP project database, which provides information about estimated cost, development status, and contribution of the project to the MPO’s goals.

Project Evaluation

Staff uses the MPO’s TIP evaluation criteria to choose which projects from the Universe of Projects to recommend for programming in the TIP. Criteria are divided into six categories, which are the same as the six LRTP goals. A project can earn a range of points from each criterion (the maximum number of points is 134), based on the planned design of the project. A project’s evaluation score is one of several important factors that help MPO members understand the priority of projects and decide which to program for funding. The transportation equity criteria assess whether a project serves one or more EJ, Title VI, and other protected populations, as well as whether it creates a burden on these populations. A total of 12 points is possible.
The transportation equity criteria are:

- Serves minority population
  - High concentration: more than 2,000 people (+2 points)
  - Low concentration: 200–2,000 people (+1)

- Serves low-income households
  - High concentration: more than 2,000 households (+2)
  - Low concentration: 200–2,000 households (+1)

- Serves limited-English proficiency population
  - High concentration: more than 1,000 people (+2)
  - Low concentration: 200–1,000 people (+1)

- Serves elderly population
  - High concentration: more than 2,000 people (+2)
  - Low concentration: 200–2,000 people (+1)

- Serves zero-vehicle households
  - High concentration: more than 1,000 households (+2)
  - Low concentration: 200–1,000 households (+1)

- Serves people with disabilities
  - High concentration: more than 1,000 people (+2)
  - Low concentration: 200–1,000 people (+1)

- Does not serve Title VI or non-discrimination populations (+0)

- Creates a burden for Title VI/non-discrimination populations (-10)

The thresholds used to identify these populations are those described in Chapter Three’s demographic profiles. They are updated as new ACS and Decennial Census data become available. TIP criteria were recently updated to reflect the MPO’s priorities identified in the LRTP, Charting Progress to 2040. When the criteria will next be updated has not been determined. At that time, staff will consider the outcomes of the equity analyses, public outreach, and other results of its transportation equity program when developing new transportation equity criteria to ensure projects selected for the TIP reflect the MPO’s transportation equity goals and objectives.

**Staff Recommendations and Draft TIP**

MPO staff uses the evaluation ratings and project readiness information to prepare a First-Tier List of Projects, which includes all the information that staff will consider when selecting projects for the TIP. This includes evaluation results, inclusion in the LRTP, geographic distribution of investments, fiscal constraints, and project readiness.
Public Review and Endorsement

After approval by the MPO board, staff releases the draft TIP for a 30-day public review and comment period. Members of the public, government officials, and other stakeholders are invited to review and comment on the proposed program. After the comment period ends, the MPO reviews all comments and makes changes to the document as appropriate. The MPO board then endorses the TIP and submits it to FHWA and the FTA for federal approval by the end of the FFY, September 30.

4.3.2 Analysis of Benefits and Burdens

In FFY 2017, MPO staff undertook a UPWP study to develop an analysis of the TIP that determines whether TIP projects in the aggregate cause disparate impacts or disproportionate burdens to minority and low-income populations, respectively. This process is described in detail in Chapter Three.

4.4 Long-Range Transportation Plan Process

The LRTP states the MPO’s transportation policies and goals and lays out a program for preserving and expanding the region’s transportation system for a 20-year-plus period. It is fiscally constrained so the MPO must select projects that best reflect both the goals of the MPO and the region’s transportation needs.

4.4.1 LRTP Development and Project Selection

Goals and Objectives

The Boston Region MPO approved Charting Progress to 2040 in 2015. The plan focuses on six goals described in the beginning of this chapter. These goals and their related objectives steer the region toward its transportation vision by helping the MPO to prioritize studies in its UPWP and projects in its TIP. These same goals and objectives will help the MPO develop metrics with which to measure and track performance of the regional transportation system.

Under the LRTP’s Transportation Equity goal, three objectives were established:

- Target investments to areas that benefit a high percentage of low-income and minority populations
- Minimize any burdens associated with MPO-funded projects in low-income and minority areas
- Break down barriers to participating in MPO decision-making
Charting Progress to 2040 represents a major departure from previous LRTPs completed by the MPO. The MPO re-evaluated its past practices to ensure that the LRTP reflects the MPO’s revised vision. By doing so, the MPO moved away from programming large-scale capital projects to reduce congestion; instead, it set aside more funding for smaller operations-and-management (O&M) roadway improvements to manage roadway capacity for projects that support bicycling, pedestrians, and transit.

**Needs Assessment**

After identifying the goals and objectives that would guide the LRTP, MPO staff assessed the region’s transportation needs based on an inventory of its transportation issues. Among those identified in the realm of transportation equity were coordination of transportation services, transit service improvements, and improved intermodal connections.

**Scenario Planning**

The third step in the LRTP planning process was to analyze the transportation investments that the MPO should make between 2015 and 2040. Staff undertook analyses of three future scenarios—current investment patterns, O&M investments, and high-capital investments—to shed light on their relative merits. Ultimately, the O&M investments scenario proved to be most beneficial to the region. Within that scenario, 180 projects would be located in Title VI areas.

**Project Selection**

The final step was to select projects and programs to include in the LRTP. As with the TIP, staff compiled a Universe of Projects and Programs, a comprehensive list of potential highway and transit projects that could be included in the final LRTP.

Each was associated with one of the six program areas of the O&M investments scenario:

- Intersection improvements
- Complete Streets
- Bicycle network and pedestrian connections
- Community transportation and parking
- Major infrastructure
- Transit
Priority was given to O&M programs and projects beginning in the FFYs 2021–2026 time band of the LRTP, after the existing TIP commitments had been funded. Final selection of projects by the MPO was based on information gleaned through the LRTP development process, including: the regional needs assessment, scenario planning process, project studies (such as, modeling work, environmental impact statements), and public feedback from the LRTP public outreach process.

4.4.2 Public Outreach

The MPO sought to break down barriers to participation for people who have historically had limited involvement in development of the LRTP, including minorities, low-income persons, people with disabilities, and those with limited English proficiency. Public outreach targeted individuals and organizations that represented the interests of these populations, including social service organizations, community development corporations, civic groups, environmental groups, EJ and civil rights groups, and the state’s regional coordinating councils. The MPO maintains a list of these contacts, and regularly provides them with general information about the MPO, and informs them about specific ways they can be involved in the MPO’s transportation-planning process.

Initial public outreach for the LRTP began in 2014 with a series of public meetings to solicit comments on the MPO’s revised PPP, held in areas with a large number of LEP, minority, and low-income residents. These meetings set the stage for LRTP-specific public outreach. Subsequent emails kept attendees and other contacts apprised of all opportunities for participation in LRTP events and public outreach efforts. Events included public meetings, workshops, and forums throughout the year-and-a-half preceding the MPO’s endorsement of the LRTP, where transportation equity was a major topic of discussion. Notices for all MPO-sponsored public meetings were translated into the three most widely spoken non-English languages in the MPO region: Spanish, Portuguese, and Chinese.

4.4.3 Disparate Impact/Disproportionate Burden Analysis

*Charting Progress to 2040* includes equity analyses of the set of projects included in the LRTP. MPO staff used the regional travel demand model to perform two types of equity analyses—accessibility/mobility and congestion/air quality—to determine whether low-income and minority populations would be subject to disproportionate burdens or disparate impacts, respectively. (These are described in more detail in Chapter Three and in Appendix F of this report.) MPO staff continuously examines, and updates when necessary, this analytic methodology, ensuring that it reflects best practices in the transportation-planning field.
4.5 PERFORMANCE-BASED PLANNING AND PROGRAMMING

Moving Ahead for Progress in the 21st Century’s (MAP-21) introduced the requirement that MPOs implement performance-based planning and programming (PBPP) practices, including performance measures and targets to track and report on progress toward regional transportation goals and objectives. The Boston Region MPO’s transition to PBPP is currently underway. It is an ongoing process and will continue to evolve as the MPO monitors and evaluates its progress. As one of the MPO-wide goals, transportation equity is part of the MPO’s PBPP. Staff tracks transportation investments in minority and low-income communities to ensure that all areas of the region benefit from the programming of federal dollars.

One of the initiatives undertaken in support of performance based planning is the development of a performance dashboard. The web-based dashboard includes several types of transportation data, including demographics for TE populations; bicycle infrastructure; pavement and bridge conditions; and roadway congestion. Presently, the demographic data only reflects the latest figures; in the future, the MPO anticipates updating it to include information from past years, and, as appropriate, other equity-related data. As the dashboard evolves, its underlying data will be updated and data for new performance measures will be added.

4.6 PUBLIC PARTICIPATION PLAN

The PPP describes the MPO’s Public Participation program, which comprises the various public outreach and communications activities in which the MPO engages to ensure that all members of the public are given the opportunity to participate in the metropolitan transportation-planning process. The PPP specifically identifies ways in which the MPO promotes participation among populations that have been historically underserved by the transportation system and/or have lacked access to the decision-making process. The PPP guides the MPO’s efforts to offer early, continuous, and meaningful opportunities for the public to help identify social, economic, and environmental impacts of proposed transportation policies and projects. The vision and goals of the program are integrated with the certification activities—TIP, UPWP, and LRTP—that the MPO undertakes.

The MPO has established a vision that guides its public participation efforts in the region: to hear, value, and consider—throughout its planning and programming—the views of and feedback from the full spectrum of the public, and use this input in its decision-making. In support of this vision, the MPO has established a number of public participation guidelines.
The MPO makes every effort to:

- Provide a predictable, easy-to-understand process
- Offer information that is clear, concise, current, and easily available
- Make use of visualization techniques to enhance understanding
- Cast a wide and inclusive net to invite participation of interested parties and the general public: bolster public outreach to minority, low-income, elderly, and youth communities, the LEP population, and people with disabilities
- Respond to participants’ interests, views, and need for information
- Arrange convenient, timely, and meaningful opportunities for involvement
- Respect the view offered by members of the public: utilize these opinions, and other information offered, in programming and planning
- Promote respect among all participants
- Create a framework that encourages constructive contributions by members of the public to the work and decisions made by the MPO
- Allow flexibility in the program
- Remain open to adopting new avenues of communication
- Explore strategies for connecting with people who do not use or don’t have ready access to computers
- Maximize effectiveness by coordinating with partner agencies and their public outreach activities
- Embrace, as feasible, new technologies with which to engage the public in an interactive way

Some of the MPOs efforts that are described in the PPP are also described within this report. Chapter Three discusses how the MPO’s public outreach and communication efforts are applied specifically to EJ and Title VI populations. Additionally, the PPP describes the public participation schedule for the MPO transportation-planning processes, which are summarized in this report’s Chapter Four. The MPO updated the PPP most recently in 2014; followed by an amendment in 2017; it is included in Appendix G of this report.