

**APPENDIX D**  
**GEOGRAPHIC DISTRIBUTION OF UPWP**  
**STUDIES AND TECHNICAL ANALYSES**



## INTRODUCTION

This appendix summarizes the Metropolitan Planning Organization (MPO)-funded work products produced by MPO staff (the Central Transportation Planning Staff [CTPS]) and the staff of the Metropolitan Area Planning Council (MAPC) during federal fiscal years (FFY) 2010 through 2018, as well as work products expected to be completed by the end of FFY 2019. The narrative below describes the methodology used to compile this information, as well as some of the additional factors that could be used to further analyze and use these data to inform and guide public involvement and regional equity purposes.

## PURPOSE AND METHODOLOGY

### Purpose

The purpose of this data collection is to understand better the geographic spread of Unified Planning Work Program (UPWP) work products (that is, reports and technical memoranda) throughout the Boston region. This analysis provides an initial glimpse at which communities and areas of our metropolitan region have benefited from transportation studies and analyses (or have been recipients of technical support) conducted by the MPO staff with continuing, comprehensive, and cooperative (3C) planning funds.

In addition, this Appendix includes a preliminary analysis of the distribution of MPO work products to minority populations, low-income households, and people with limited English proficiency (LEP), by municipality. This is an initial approach to assessing the extent to which MPO studies may benefit these populations. This past year, staff explored the feasibility of other possible analyses that were suggested in the FFY 2019 UPWP. Staff determined that none of them are ideal for determining whether minority, LEP, and low-income populations benefit from MPO work products to the same degree as nonminority, non-LEP, and non-low-income populations. MPO staff are developing a database that will have the capability to track and geocode the location of the work products within the region. Current staff resources do not allow for the significant resource investment necessary to complete geocoding; but if it becomes possible at some point, staff will be able to map each study area precisely and determine which populations will likely benefit from the study and how money is spent. The distribution of federal funds for MPO work products to minority, LEP, and low-income populations will be analyzed and updated at that time.

The data presented in Table D-1 covers UPWP tasks completed from FFY 2010 through FFY 2019 and includes work that resulted in benefits to specific municipalities. Studies that had a regional focus are presented in Table D-2.

Tracking the geographic distribution of UPWP studies (those benefiting specific communities as well as those benefiting a wider portion of the region) can serve as one important input into the UPWP funding decisions made each FFY. When considered in combination with other

information, these data on geographic distribution of MPO-funded UPWP studies can help guide the MPO's public outreach to ensure that, over time, we are meeting the needs of the region with the funds allocated through the UPWP.

## Methodology

As noted above, this analysis examined FFYs 2010 through 2019. To generate information on the number of UPWP studies produced during these FFYs that benefited specific cities and towns in the Boston region, MPO staff performed the following tasks:

- Reviewed all work products listed as complete in UPWPs from FFYs 2010 through 2019
- Excluded all agency and other client-funded studies and technical analyses to focus the analysis on MPO-funded work only
- Excluded all work products that had a focus that was regional or not limited to a specific geography
- Excluded all work related to certification requirements (Chapter 3), resource management, and support activities (Chapter 6), which consist of programs and activities that support the MPO, its staff operations, and its planning and programming activities
- Compiled a count of all reports and technical memoranda completed specifically for one municipality, or reports and technical memoranda directly benefiting multiple municipalities. In the case where multiple municipalities directly benefit from a report or technical memoranda, the work product was counted once for each municipality that benefited
- Reviewed and discussed the status and focus of studies, technical memoranda, and reports with project managers and technical staff
- Refreshed demographic data using American Community Survey 2017 five-year estimates

## PLANNING STUDIES AND TECHNICAL ANALYSES BY COMMUNITY

Table D-I shows the number of completed MPO-funded UPWP work products from FFY 2010 through FFY 2019 that are determined to provide benefits to specific municipalities. Studies and technical analyses are grouped by the year in which they were completed, rather than the year in which they were first programmed in the UPWP. Examples of the types of studies and work in the table include the following:

- Evaluating parking in several municipalities
- Technical assistance on Massachusetts Environmental Policy Act Environmental Impact Reports
- Complete Streets analyses for specific municipalities
- Operations analyses and alternative conceptual design recommendations for specific intersections

**Table D-1**  
**Number of UPWP Tasks by Federal Fiscal Year and Community,**  
**Grouped by Subregion**

Municipality	Number of Work Products							Demographics			
	2010–14 Total	2015	2016	2017	2018	2019	2010–19 Total	Total Population	Percent Minority	Percentage of Low-Income Households	Percentage of Residents Age 5+ with Low English Proficiency
Arlington	3		1	3	3	2	12	44,992	21.60%	23.65%	5.63%
Belmont	3		2	1	2		8	25,965	24.46%	20.83%	7.80%
Boston	18	4	3	2	5	9	41	669,158	55.09%	43.07%	17.39%
Brookline	4	1	1	2		1	9	59,246	28.56%	25.00%	9.50%
Cambridge	8	1	4	5	2	1	21	110,893	38.38%	31.45%	7.74%
Chelsea	9	1		2	1	1	14	39,272	78.05%	48.66%	41.82%
Everett	10	3	2	1	3	1	20	45,212	54.10%	44.02%	28.27%
Lynn	7		1		1	1	10	93,069	62.12%	48.18%	23.89%
Malden	9	1		2	2	1	15	61,212	53.36%	42.53%	24.96%
Medford	6		1		3		10	57,700	26.85%	31.40%	10.90%
Melrose	5	1		1	1		8	28,132	14.72%	29.28%	5.76%
Nahant	0						0	3,488	3.41%	30.24%	3.47%
Newton	10	2			1		13	88,479	26.22%	19.27%	7.13%
Quincy	11					2	13	93,824	39.57%	35.45%	20.33%
Revere	7				2	2	11	53,864	43.83%	46.83%	25.67%
Saugus	3				1		4	28,037	13.75%	30.37%	6.80%
Somerville	12	1	1	1	1	3	19	79,983	29.36%	29.14%	11.77%
Waltham	10	2	3	1	2	1	19	62,832	34.48%	30.75%	12.03%
Watertown	1				1		2	34,553	22.03%	23.01%	7.94%
Winthrop	2				1	1	4	18,391	14.27%	35.79%	7.48%
<b>ICC Subtotals</b>	<b>138</b>	<b>17</b>	<b>19</b>	<b>21</b>	<b>32</b>	<b>26</b>	<b>253</b>	<b>1,698,302</b>	<b>44.32%</b>	<b>37.11%</b>	<b>15.97%</b>

(Table D-1 Cont.)

Municipality	Number of Work Products							Demographics			
	2010–14 Total	2015	2016	2017	2018	2019	2010–19 Total	Total Population	Percent Minority	Percentage of Low-Income Households	Percentage of Residents Age 5+ with Low English Proficiency
Acton	2	4	1		1	3	11	23,455	30.82%	17.80%	6.97%
Bedford	5	2			2	2	11	14,105	23.26%	18.02%	4.96%
Bolton	3	1		1	2	1	8	5,167	9.75%	14.12%	0.94%
Boxborough	1	3			1	1	6	5,546	26.38%	25.79%	4.01%
Carlisle	1	1			1	1	4	5,160	15.97%	13.14%	3.25%
Concord	3	3	1	3	1	1	12	19,357	18.45%	17.74%	3.37%
Hudson	5	2			1	1	9	19,843	12.54%	29.27%	10.51%
Lexington	8	2			1	1	12	33,339	32.95%	17.00%	7.16%
Lincoln	8	1			1	1	11	6,696	26.05%	18.80%	2.06%
Littleton	2	3			1	1	7	9,754	11.03%	22.65%	3.00%
Maynard	3	4		1	2	1	11	10,560	11.35%	32.24%	4.31%
Stow	3	1			1	1	6	7,061	8.95%	19.22%	0.84%
Sudbury	6	1			1	1	9	18,697	15.31%	14.23%	3.35%
<b>MAGIC Subtotals</b>	<b>50</b>	<b>28</b>	<b>2</b>	<b>5</b>	<b>16</b>	<b>16</b>	<b>117</b>	<b>178,740</b>	<b>21.18%</b>	<b>20.04%</b>	<b>5.30%</b>
Ashland	3			1			4	17,478	18.46%	20.42%	6.63%
Framingham	13	1	1	2	1	2	20	71,232	34.04%	37.30%	15.55%
Holliston	4			1			5	14,480	11.05%	18.24%	1.79%
Marlborough	6			2			8	39,771	27.03%	32.80%	13.89%
Natick	9		1	1			11	35,957	19.90%	24.77%	5.73%
Southborough	7	1		1			9	10,021	15.84%	16.31%	2.91%
Wayland	3			1			4	13,700	17.46%	15.60%	4.27%
Wellesley	9	2	1	1			13	29,004	21.52%	14.54%	4.10%

(Table D-1 Cont.)

Municipality	Number of Work Products							Demographics			
	2010–14 Total	2015	2016	2017	2018	2019	2010–19 Total	Total Population	Percent Minority	Percentage of Low-Income Households	Percentage of Residents Age 5+ with Low English Proficiency
Weston	12	2	2	2	1		19	12,027	20.27%	17.99%	3.35%
<b>MWRC Subtotals</b>	<b>66</b>	<b>6</b>	<b>5</b>	<b>12</b>	<b>2</b>	<b>2</b>	<b>93</b>	<b>243,670</b>	<b>24.48%</b>	<b>27.22%</b>	<b>9.24%</b>
Burlington	10	1	1	1		1	14	26,103	25.48%	22.04%	7.86%
Lynnfield	2	2	1	1			6	12,732	9.33%	18.90%	3.11%
North Reading	1	1	1	1			4	15,598	9.85%	16.08%	1.68%
Reading	8	2	1	1			12	25,769	8.85%	21.72%	2.19%
Stoneham	3	1	1	1			6	21,967	9.10%	28.26%	4.43%
Wakefield	3		1	1			5	26,823	8.42%	24.64%	4.22%
Wilmington	5		1	1		1	8	23,538	11.11%	17.93%	2.99%
Winchester	4		2	1	1		8	22,579	17.80%	15.87%	5.31%
Woburn	6	1	1	2	1	1	12	39,500	19.18%	28.18%	8.12%
<b>NSPC Subtotals</b>	<b>42</b>	<b>8</b>	<b>10</b>	<b>10</b>	<b>2</b>	<b>3</b>	<b>75</b>	<b>214,609</b>	<b>14.04%</b>	<b>22.62%</b>	<b>4.89%</b>
Beverly	4	1		1	1	1	8	41,431	8.38%	35.69%	2.34%
Danvers	6			1		1	8	27,527	9.24%	32.36%	2.73%
Essex	0			1		1	2	3,687	1.08%	27.73%	0.29%
Gloucester	2			1			3	29,858	5.37%	40.34%	3.56%
Hamilton	1			1		1	3	7,991	8.47%	26.15%	3.09%
Ipswich	1			1			2	13,810	5.42%	33.45%	2.28%
Manchester	0			2	1	1	4	5,327	2.78%	21.08%	2.42%
Marblehead	2			2			4	20,393	7.33%	25.10%	3.16%
Middleton	0		1	2			3	9,656	13.87%	20.11%	3.64%
Peabody	4			2	2	1	9	52,610	15.58%	38.04%	8.19%
Rockport	3			1	2		6	7,184	4.15%	34.86%	0.67%

(Table D-1 Cont.)

Municipality	Number of Work Products							Demographics			
	2010–14 Total	2015	2016	2017	2018	2019	2010–19 Total	Total Population	Percent Minority	Percentage of Low-Income Households	Percentage of Residents Age 5+ with Low English Proficiency
Salem	5	2	1	3	2	1	14	43,146	28.17%	39.67%	8.12%
Swampscott	3			2	1		6	14,563	8.01%	24.56%	4.44%
Topsfield	0			2			2	6,496	4.65%	15.38%	1.27%
Wenham	1			1	1		3	5,179	10.29%	23.10%	1.88%
<b>NSTF Subtotals</b>	<b>32</b>	<b>3</b>	<b>2</b>	<b>23</b>	<b>10</b>	<b>7</b>	<b>77</b>	<b>288,858</b>	<b>12.02%</b>	<b>34.02%</b>	<b>4.54%</b>
Braintree	8	1	1				10	37,082	18.77%	28.22%	7.46%
Cohasset	2	1					3	8,393	2.30%	19.96%	0.42%
Hingham	2				1	2	7	23,047	4.52%	25.47%	0.71%
Holbrook	3						3	11,029	24.70%	34.14%	7.06%
Hull	1						1	10,402	7.29%	31.85%	2.71%
Marshfield	2						2	25,648	5.07%	29.35%	2.30%
Norwell	2				1	1	5	10,897	5.12%	18.64%	0.48%
Rockland	1				1		2	17,849	8.52%	31.90%	2.86%
Scituate	2	1			1		4	18,491	4.23%	23.17%	1.15%
Weymouth	5	1			1		7	55,890	16.11%	33.71%	4.45%
<b>SSC Subtotals</b>	<b>31</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>5</b>	<b>3</b>	<b>44</b>	<b>218,728</b>	<b>11.36%</b>	<b>29.24%</b>	<b>3.61%</b>
Bellingham	3				1		4	16,929	8.42%	26.37%	3.22%
Franklin	3						3	32,843	11.02%	20.61%	1.92%
Hopkinton	6	1					7	16,720	12.82%	12.34%	1.91%
Medway	4						4	13,162	10.55%	18.33%	1.50%
Milford	7	1			1		9	28,630	21.31%	32.22%	9.45%
Millis	3						3	8,144	7.27%	25.29%	2.79%
Norfolk	2						2	11,671	15.90%	15.58%	1.81%



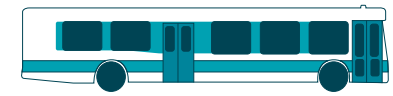
(Table D-1 Cont.)

Municipality	Number of Work Products							Demographics			
	2010–14 Total	2015	2016	2017	2018	2019	2010–19 Total	Total Population	Percent Minority	Percentage of Low-Income Households	Percentage of Residents Age 5+ with Low English Proficiency
Sherborn	4						4	4,302	10.62%	15.81%	0.66%
Wrentham	3						3	11,597	5.93%	23.70%	1.36%
<b>SWAP Subtotals</b>	<b>35</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>39</b>	<b>143,998</b>	<b>12.69%</b>	<b>22.82%</b>	<b>3.48%</b>
Canton	2			2	2	1	7	22,829	19.67%	23.39%	5.05%
Dedham	4	1	1			1	7	25,377	21.50%	28.57%	5.48%
Dover	4					1	5	5,922	17.07%	7.31%	3.00%
Foxborough	3	1				1	5	17,448	12.28%	22.73%	2.54%
Medfield	0	1				1	2	12,610	9.25%	15.87%	1.17%
Milton	5				2	2	9	27,527	28.10%	19.39%	3.48%
Needham	6	1	1		1	2	11	30,429	15.61%	16.11%	4.44%
Norwood	2					2	4	29,121	21.02%	29.00%	5.80%
Randolph	4					1	5	33,704	63.84%	35.53%	15.81%
Sharon	0					1	1	18,245	24.53%	16.12%	7.14%
Walpole	3	1				1	5	24,960	13.05%	21.89%	2.36%
Westwood	5	1			1	1	8	15,597	11.85%	18.51%	4.34%
<b>TRIC Subtotals</b>	<b>38</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>6</b>	<b>15</b>	<b>69</b>	<b>263,769</b>	<b>24.25%</b>	<b>23.36%</b>	<b>5.77%</b>
<b>Grand Total</b>	<b>435</b>	<b>74</b>	<b>41</b>	<b>74</b>	<b>76</b>	<b>72</b>	<b>767</b>	<b>3,250,674</b>	<b>31.44%</b>	<b>32.10%</b>	<b>10.92%</b>

## Notes:

- Demographic data is from American Community Survey (ACS) five-year estimates, 2013–17. Margins of error are at the 90 percent confidence level.
- MPO staff tabulates limited English proficiency (LEP) for the population ages five and older, minority status for the entire population, and low-income status for the number of households.
- The MPO's low-income threshold is 60 percent of the region's median household income. The MPO's official threshold is \$45,392, using data from the 2014 ACS. Because of the availability of municipal-level household income data in the 2017 ACS, this table uses a low-income threshold of \$50,584 that reflects analysis of that data.
- People with LEP are those that speak English less than very well, according to the ACS.
- People who identify as minority are those who identify as Hispanic or Latino/a/x and/or Black or African American, Asian, American Indian or Alaska Native, or Native Hawaiian or other Pacific Islander.
- Duxbury, Hanover, Pembroke, and Stoughton transitioned out of the Boston Region MPO in Federal Fiscal Year 2018, so work product totals for some subregions may have changed from previous UPWPs.

ICC = Inner Core Committee. MAGIC = Minuteman Advisory Group on Interlocal Coordination. MWRC = MetroWest Regional Council. NSPC = North Suburban Planning Council. NSTF = North Shore Task Force. SSC = South Shore Coalition. SWAP = South West Advisory Planning Committee. TRIC = Three Rivers Interlocal Council.



## REGIONWIDE PLANNING STUDIES AND TECHNICAL ANALYSES

In addition to work that benefits specific municipalities, many of the projects funded by the MPO through the UPWP have a regional focus. Table D-2 lists MPO-funded UPWP studies completed from 2010 through 2019 that were regional in focus. Some regionally focused studies may have work products that overlap with those analyzed in table D-1 above.

More information on these studies and other work can be found on the MPO’s website ([https://www.ctps.org/recent\\_studies](https://www.ctps.org/recent_studies)) or by contacting Sandy Johnston, UPWP Manager, at [sjohnston@ctps.org](mailto:sjohnston@ctps.org).

**Table D-2  
Regionally Focused MPO Funded UPWP Studies**

FFY 2019	
CTPS	MAPC
<ul style="list-style-type: none"> <li>• Pedestrian Report Card Assessment Dashboard</li> <li>• New and Emerging Metrics for Roadway Usage</li> <li>• The Future of the Curb</li> <li>• Updates to Express-Highway Volumes Charts</li> </ul>	<ul style="list-style-type: none"> <li>• Coordination and convening of municipalities to implement recommendations of water transportation study</li> <li>• MetroCommon Regional Plan for smart growth and regional prosperity, including extensive stakeholder outreach and public engagement</li> <li>• Support for Bluebikes bikeshare system, Lime dockless bikeshare system, and support for coordinated regulation of electric scooters</li> <li>• Analysis of transportation network company trips from varying data sources</li> </ul>

(Table D-2 Cont.)

FFY 2018	
CTPS	MAPC
<ul style="list-style-type: none"><li>• Community Transportation Program Development</li><li>• Review of and Guide to Regional Transit Signal Priority</li><li>• Crash Rates in Environmental Justice Communities (Staff-Generated Research)</li><li>• Long-Distance Commuting in the Boston MPO Region (Staff-Generated Research)</li><li>• Exploring New Software for Transit Planning (Staff-Generated Research)</li><li>• Safety Effectiveness of Safe Routes to School Programs</li><li>• Planning for Connected and Autonomous Vehicles</li><li>• Study of Promising GHG Reduction Strategies</li></ul>	<ul style="list-style-type: none"><li>• Participation in Water Transportation Advisory Council</li><li>• Regional Plan Update process</li><li>• Evaluation of Transit-Oriented Development Planning Studies</li><li>• Ride-hailing research, literature review, and survey of 900 Uber and Lyft riders in Boston region to indicate how TNCs are affecting travel behavior</li><li>• Participation in suburban mobility working group with MassDOT, MBTA, and CTPS staff to discuss opportunities to pilot dynamic ride dispatching</li></ul>
FFY 2017	
CTPS	MAPC
<ul style="list-style-type: none"><li>• Using GTFS Data to Find Shared Bus Route Segments with Excessively Irregular Headways</li><li>• Pedestrian Level-of-Service Metric Development</li><li>• Exploring the 2011 Massachusetts Travel Survey: MPO Travel Profiles</li><li>• Exploring the 2011 Massachusetts Travel Survey: Barriers and Opportunities Influencing Mode Shift</li><li>• Core Capacity Constraints</li><li>• Barriers and Opportunities Influencing Mode Shift</li><li>• Bicycle Network Gaps: Feasibility Evaluations</li><li>• 2016–17 Bicycle and Pedestrian Counts</li><li>• Bicycle and Pedestrian Count Memo (summarizing counts 2014–17)</li><li>• Memorandum documenting plans for future Boston Region MPO bicycle and pedestrian counting methodologies</li></ul>	<ul style="list-style-type: none"><li>• North Suburban Mobility Study</li><li>• North Shore Mobility Study</li><li>• Perfect Fit Parking Report and Website</li><li>• Hubway Bikeshare Coordination</li><li>• MetroWest LandLine Gaps Analyses</li></ul>

(Table D-2 Cont.)

FFY 2016	
CTPS	MAPC
<ul style="list-style-type: none"><li>• Modeling Capacity Constraints</li><li>• Identifying Opportunities to Alleviate Bus Delay</li><li>• Research Topics Generated by MPO Staff (FFY 2016): Transit dependence scoring system using driver license data</li><li>• Title VI Service Equity Analyses: Methodology Development</li><li>• EJ and Title VI Analysis Methodology Review</li><li>• Transportation Investments for Economic Development</li></ul>	<ul style="list-style-type: none"><li>• Right-Size Parking Report</li><li>• Transportation Demand Management—Case Studies and Regulations</li><li>• Hybrid Electric Vehicle Retrofit Procurement</li><li>• Autonomous Vehicles and Connected Cars research</li><li>• MetroFuture Implementation technical memorandums</li></ul>
FFY 2015	
CTPS	MAPC
<ul style="list-style-type: none"><li>• Greenhouse Gas Reduction Strategy Alternatives: Cost-Effectiveness Analysis</li><li>• Roadway Network for Emergency Needs</li><li>• 2012 Inventory of Bicycle Parking Spaces and Number of Parked Bicycles at MBTA stations</li><li>• 2012–13 Inventory of Park-and-Ride Lots at MBTA Facilities</li><li>• Title VI Service Equity Analyses: Methodology Development</li></ul>	<ul style="list-style-type: none"><li>• Population and Housing Projections for Metro Boston</li><li>• Regional Employment Projections for Metro Boston</li><li>• Right-size parking calculator</li></ul>
FFY 2014	
CTPS	MAPC
<ul style="list-style-type: none"><li>• Bicycle Network Evaluation</li><li>• Household Survey-Based Travel Profiles and Trends</li><li>• Exploring the 2011 Massachusetts Travel Survey: Focus on Journeys to Work</li><li>• Methodology for Evaluating the Potential for Limited-Stop Service on Transit Routes</li></ul>	<ul style="list-style-type: none"><li>• Transportation Demand Management Best Practices and Model Municipal Bylaw</li><li>• Land Use Baseline for Bus Rapid Transit</li><li>• MetroFuture community engagement</li></ul>

(Table D-2 Cont.)

FFY 2013	
CTPS	MAPC
<ul style="list-style-type: none"><li>• Regional HOV-Lane Systems Planning Study, Phase II</li><li>• Roadway Network Inventory for Emergency Needs: A Pilot Study</li><li>• Carbon Dioxide, Climate Change, and the Boston Region MPO: 2012 Update</li><li>• Massachusetts Regional Bus Study</li><li>• Boston Region MPO Freight Program</li></ul>	<ul style="list-style-type: none"><li>• Regional Trail Network Map and Greenway Planning</li><li>• MetroFuture engagement at the local level, updates to the Regional Indicators Reports, and Smart Growth Profiles</li></ul>
FFY 2012	
CTPS	MAPC
<ul style="list-style-type: none"><li>• Analysis of JARC and New Freedom Projects</li><li>• Safety and Security Planning</li><li>• Emergency Mitigation and Hazard Mapping, Phase II</li><li>• Impacts of Walking Radius, Transit Frequency, and Reliability</li><li>• MBTA Systemwide Passenger Survey: Comparison of Results</li><li>• Pavement Management System Development</li><li>• Roundabout Installation Screening Tool</li><li>• TIP Project Impacts Before/After Evaluation</li><li>• Regional HOV System Planning Study</li><li>• Freight Survey</li></ul>	<ul style="list-style-type: none"><li>• Snow Removal Policy Toolkit</li><li>• MetroFuture implementation strategies— updated implementation strategies including focus on equity indicators</li></ul>

(Table D-2 Cont.)

FFY 2011	
CTPS	MAPC
<ul style="list-style-type: none"><li>• Charlie Card Trip Paths Pilot Study</li><li>• Early Morning Transit Service</li><li>• Maintenance Cost of Municipally Controlled Roadways</li><li>• Analysis of Responses to the MBTA Systemwide Onboard Passenger Survey by Respondents in Environmental-Justice Areas</li><li>• MBTA Core Services Evaluation</li><li>• MPO Freight Study, Phase I and Phase II</li><li>• MPO Freight/Rail Study</li></ul>	<ul style="list-style-type: none"><li>• MPO Pedestrian Plan</li><li>• MPO Regional Bike Parking Program</li><li>• Toolkit for Sustainable Mobility—focusing on local parking issues</li></ul>
FFY 2010	
CTPS	MAPC
<ul style="list-style-type: none"><li>• An Assessment of Regional Equity Outreach 2008–09</li><li>• Coordinated Human Services Transportation Plan Update</li><li>• Greenbush Commuter Rail Before and After Study</li><li>• Mobility Assistance Program and Section 5310 Review</li><li>• Safety Evaluation of TIP Projects</li><li>• Red Line-Blue Line Connector Study Support</li></ul>	<ul style="list-style-type: none"><li>• Creation of a GIS coverage and related database of MAPC-reviewed projects and their mitigation commitments</li><li>• Implementation of the regional and statewide bicycle and pedestrian plans, and work on bicycle/pedestrian-related issues, including coordination with relevant national, state, and regional organizations</li></ul>

CTPS = Central Transportation Planning Staff. EJ = environmental justice. FFY = federal fiscal year. GHG = greenhouse gas. GIS = geographic information systems. GTFS = general transit feed specification. HOV = high-occupancy vehicle. JARC = job access reverse commute program. MAPC = Metropolitan Area Planning Council. MassDOT = Massachusetts Department of Transportation. MBTA = Massachusetts Bay Transportation Authority. MPO = Metropolitan Planning Organization. TIP = Transportation Improvement Program. TNC = transportation network companies.

## USES FOR THE DATA

MPO staff intends to continue to collect these data annually to allow use in future analyses and, potentially, UPWP funding decisions. The MPO could potentially use this collected data in concert with other data the MPO holds or collects to inform a number of future analyses, including the following:

- Compare the number of tasks per community to the presence and size of a municipal planning department in each city and town
- Examine the use of different measures to understand the geographic distribution of benefits derived from funding programmed through the UPWP. For example, in addition to analyzing the number of tasks per community, the MPO could consider the magnitude of benefits that could be derived from UPWP studies (for example, congestion reduction or air quality improvement)
- Examine in more detail the geographic distribution of UPWP studies and technical analyses per subregion or per MAPC community type to understand the type of tasks being completed and how these compare to municipally identified needs
- Examine the number of tasks per community and compare the data to the number of road miles or amount of transit service provided in the municipality
- Develop graphics illustrating the geographic distribution of UPWP studies and spending and mapping that distribution relative to Environmental Justice and Transportation Equity concern areas
- Compare the number of tasks directly benefiting each municipality with the geographic distribution of transportation needs identified in the current Long-Range Transportation Plan (LRTP), *Charting Progress to 2040*, and the one currently in development, *Destination 2040*. The transportation needs of the region for the next 25 years are identified and organized in the LRTP according to the MPO's goal areas, which are
  - Safety;
  - System preservation;
  - Capacity management and mobility;
  - Clean air and clean communities;
  - Transportation equity; and
  - Economic vitality.
- Compare the data analyzed in this appendix to the data collected through the MPO's UPWP Study Recommendations Tracking Database, which classifies tasks differently and provides a higher level of detail, but is reliant on provision of data by municipalities

Analyses such as these would provide the MPO with a clearer understanding of the influence of the work programmed through the UPWP.