



BOSTON REGION METROPOLITAN PLANNING ORGANIZATION

Richard A. Davey, MassDOT Secretary and CEO and MPO Chairman
Karl H. Quackenbush, Executive Director, MPO Staff

MEMORANDUM

DATE March 21, 2013
TO Boston Region Metropolitan Planning Organization
FROM Karl H. Quackenbush
CTPS Executive Director
RE Work Program for: Household Survey–Based Travel Profiles and Trends

Action Required

Review and approval

Proposed Motion

That the Boston Region Metropolitan Planning Organization vote to approve the work program for Household Survey–Based Travel Profiles and Trends in the form of the draft dated March 21, 2013.

Project Identification

Unified Planning Work Program Classification

Technical Support/Operations Analysis Projects

CTPS Project Number

11146

Client

Boston Region Metropolitan Planning Organization

CTPS Project Supervisors

Principal: Efi Pagitsas

Manager: William S. Kuttner

Funding

MPO 3C Planning Contract #75086

MPO §5303 Contract #75364

Impact on MPO Work

This is MPO work and will be carried out in conformance with the priorities established by the MPO.

Background

Over a sixteen-month period during 2010-2011, the Massachusetts Household Travel Survey obtained travel information from 15,017 Massachusetts households, of which 10,399 were located in the 164-municipality Boston Region MPO model area, shown in the accompanying graphic. Every household member prepared a diary for a specified day and reported all trips, modes of travel, and prices paid, and the type of activity at each visited location from the beginning of the day to the end. In addition, a wealth of sociodemographic information was obtained from each participating household. The survey is currently undergoing quality control and is being formatted for use in travel model development. Expansion factors are being estimated based upon the American Community Survey (ACS), an annual survey program of the United States Census Bureau.

A similar survey was undertaken during April and May of 1991, which obtained a smaller sample of 3,743 households, all located in the model area. The 1991 survey responses were expanded using the so-called "long form" household data sample that was used by the U.S. Census through 2000. The expanded 1991 survey was used to develop the original equations used in the regional travel demand model and also served as a data resource for subsequent topical studies.

Objectives

The principal objectives of this study are:

1. To create a 2011 household and travel profile of the Boston Region MPO model area using socioeconomic and travel data. The 2011 profile will be able to utilize recently obtained data for which comparable data are not available for 1991.
2. To compare the household surveys conducted in 1991 and 2010-2011 with respect to trip-making patterns and household characteristics such as household size, income, and auto ownership in the model area.

Work Description

Task 1 Develop Regional 2011 Demographic and Transportation Profile

In Task 1, data from the 2010-2011 Massachusetts Household Travel Survey will be analyzed to create a 2011 demographic and transportation profile. Frequency, purpose, and distance of trips will be identified and disaggregated by subregion

and socioeconomic factors to the extent possible given the sample sizes. Information from the 2010 U.S. census and recent ACS surveys may also be used in developing the regional profile. Since the 2010-2011 survey was a statewide survey, commuting patterns between central and southeastern Massachusetts and the Boston Region MPO model area will also be summarized.

Products of Task 1

Tables, charts, and maps depicting 2011 profile.

Task 2 Quantify 20-Year Transportation Trends

In Task 2, staff will quantify transportation trends and related demographic trends that that can be developed from the 1991 and 2010-2011 household travel surveys. Much of the travel information and some of the socioeconomic data obtained in the two household travel surveys are directly comparable. Trends in the frequency, purpose, and distance of trips will be identified, and they will be disaggregated by subregion and socioeconomic factors to the extent possible given the sample sizes. Relevant information from the 1990 and 2010 censuses and recent ACS surveys may be utilized in this analysis.

Products of Task 2

Tables, charts, and maps of identified 20-year trends.

Task 3 Prepare Final Report

In Task 3, staff will prepare a final report that presents key findings of Tasks 1 and 2. Planning and policy implications suggested by the profile and trends will be identified and discussed in the report.

Product of Task 3

Final report

Estimated Schedule

It is estimated that this project will be completed nine months after work commences. The proposed schedule, by task, is shown in Exhibit 2.

Estimated Cost

The total cost of this project is estimated to be \$66,681. This includes the cost of 21.9 person-weeks of staff time and overhead at the rate of 96.58 percent. A detailed breakdown of estimated costs is presented in Exhibit 3.

Exhibit 2
ESTIMATED SCHEDULE
Household Survey-Based Travel Profiles and Trends

Task	Month									
	1	2	3	4	5	6	7	8	9	
1. Develop Regional 2011 Demographic and Transportation Profile										
2. Quantify 20-Year Transportation Trends										
3. Prepare Final Report										1

Products/Milestones
 1: Final Report

Exhibit 3
ESTIMATED COST
Household Survey-Based Travel Profiles and Trends

Direct Salary and Overhead	\$66,681
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Task	Person-Weeks					Direct Salary	Overhead (96.58%)	Total Cost
	M-1	P-5	P-4	P-2	Total			
1. Develop Regional 2011 Demographic and Transportation Profile	0.8	4.4	1.4	0.5	7.1	\$10,941	\$10,567	\$21,509
2. Quantify 20-Year Transportation Trends	0.8	4.1	1.3	0.5	6.7	\$10,312	\$9,959	\$20,271
3. Prepare Final Report	1.2	5.1	1.3	0.5	8.1	\$12,667	\$12,234	\$24,901
Total	2.8	13.6	4.0	1.5	21.9	\$33,921	\$32,761	\$66,681

Other Direct Costs	\$0
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TOTAL COST	\$66,681
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Funding

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