



State Transportation Building
Ten Park Plaza, Suite 2150
Boston, MA 02116-3968
Tel. (617) 973-7100
Fax (617) 973-8855
TTY (617) 973-7089
www.bostonmpo.org

Richard A. Davey
MassDOT Secretary and CEO
and MPO Chairman

Karl H. Quackenbush
Executive Director, MPO Staff

The Boston Region MPO is
composed of:

Massachusetts Department of
Transportation
Metropolitan Area Planning Council
Massachusetts Bay Transportation
Authority Advisory Board
Massachusetts Bay Transportation
Authority
Massachusetts Port Authority
Regional Transportation Advisory
Council
City of Boston
City of Beverly
City of Everett
City of Newton
City of Somerville
City of Woburn
Town of Arlington
Town of Bedford
Town of Braintree
Town of Framingham
Town of Lexington
Town of Medway
Town of Norwood
Federal Highway Administration
(nonvoting)
Federal Transit Administration
(nonvoting)

MEMORANDUM

DATE November 17, 2011
TO Boston Region Metropolitan Planning Organization
FROM Karl H. Quackenbush
CTPS Executive Director
RE Work Program for: MBTA Systemwide Passenger Survey: Comparison
of Results

ACTION REQUIRED

Review and approval

PROPOSED MOTION

That the Boston Region Metropolitan Planning Organization vote to approve the work program for MBTA Systemwide Passenger Survey: Comparison of Results in the form of the draft dated November 17, 2011.

PROJECT IDENTIFICATION

Unified Planning Work Program Classification
Technical Support/Operations Analysis Projects

CTPS Project Number
11379

Client
Boston Region MPO

CTPS Project Supervisors
Principal: Elizabeth Moore
Manager: Thomas J. Humphrey

Funding
MPO §5303 Contract #70172

IMPACT ON MPO WORK

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

BACKGROUND

During 2008 and 2009, CTPS conducted surveys of passengers on all MBTA bus, rail rapid transit, light rail, commuter rail, and water transportation routes. The results were presented in 17 volumes that are available in PDF format on the MPO website. Although these reports present summary tables based on analyses of a large number of variables, time and budget constraints did not allow as much analysis of the results as might otherwise have been desirable. One kind of analysis that could prove useful would be a comparison of the results of the 2008-2009 surveys with those of prior surveys on the same services. Surveys on most of the commuter rail system had been last done in 1993. The rail rapid transit and light rail lines had been surveyed in 1994, the bus system in 1995, the Old Colony commuter rail lines in 1998, and water transportation services in 2000.

Comparisons of the results of the 2008-2009 surveys with those of these prior surveys would show whether there have been significant changes in characteristics of MBTA riders and their use of the system since the 1990s. If there have not been significant changes, this suggests that the 2008-2009 results can be relied on for planning purposes for many years. If there have been significant changes, this suggests that surveys should be conducted at more frequent intervals to enable the MBTA to make service changes that are more consistent with changing needs of riders. Documentation of any significant changes could also be of assistance to MBTA policy makers and planners.

OBJECTIVES

The objectives of this project are to identify significant changes, if any, in characteristics of MBTA riders and their use of the system between the 1990s and 2008-2009, to develop recommendations for future survey strategies needed to ensure the accuracy of databases, and to identify the key policy and planning implications of any significant changes in ridership characteristics.

WORK DESCRIPTION

The work required to accomplish the project objectives will be carried out in two tasks, as described below.

Task 1 Compare Survey Results

CTPS will compare the summary tables of results of the 2008-2009 passenger surveys with the corresponding tables from the most recent previous surveys on the rail rapid transit, light rail, bus, commuter rail and water transportation systems. The following are the variables for which data can be compared:

- Trip purpose, reasons for using the MBTA, and alternative means of travel
- Origin locations and activities
- Means of access to transit
- Means of egress from transit
- Destination locations and activities
- Socioeconomic characteristics
- Usage rate and fare types
- Vehicle availability
- Service quality ratings

Changes in ridership and service use characteristics greater than would be expected from the confidence intervals of the surveys will be tabulated.

Products of Task 1

Tabulations of significant changes in ridership characteristics between surveys

Task 2 Analyze Results for Implications

Based on the results of Task 1, CTPS will identify the key policy/planning implications of any significant changes in ridership characteristic and will make recommendations as to the frequency with which surveys should be conducted in the future, as well as the questions that would be most important to include.

Product of Task 2

Technical memorandum that identifies the key policy/planning implications of any observed significant changes and makes recommendations for future survey strategies

ESTIMATED SCHEDULE

It is estimated that this project will be completed three months after the notice to proceed is received. The proposed schedule, by task, is shown in Exhibit 1.

ESTIMATED COST

The total cost of this project is estimated to be \$30,978. This includes the cost of 11.6 person-weeks of staff time, with overhead at the rate of 94.57%. A detailed breakdown of estimated costs is presented in Exhibit 2.

KQ/TJH/tjh

Exhibit 1
 ESTIMATED SCHEDULE
 MBTA Systemwide Passenger Survey: Comparison of Results

Task	Month		
	1	2	3
1. Compare Survey Results	A		
2. Analyze Results for Implications	B		

Products/Milestones

- A: Tabulations of significant changes
- B: Technical memorandum

Exhibit 2
 ESTIMATED COST
 MBTA Systemwide Passenger Survey: Comparison of Results

Direct Salary and Overhead	\$30,978
-----------------------------------	-----------------

Task	Person-Weeks				Direct Salary	Overhead (@ 94.57%)	Total Cost
	M-1	P-5	P-3	Total			
1. Compare Survey Results	0.0	3.2	4.3	7.5	\$9,626	\$9,104	\$18,730
2. Analyze Results for Implications	1.4	2.0	0.7	4.1	\$6,295	\$5,953	\$12,248
Total	1.4	5.2	5.0	11.6	\$15,921	\$15,057	\$30,978

Other Direct Costs	\$0
---------------------------	------------

TOTAL COST	\$30,978
-------------------	-----------------

Funding
 MPO §5303 Contract #70172