L U R 1 -1 7 A report produced by the Central Transportation Planning Staff for the Massachusetts Bay Transportation Authority -



## MBTA Systemwide Passenger Survey COMMUTER RAIL 2008–09 All Lines

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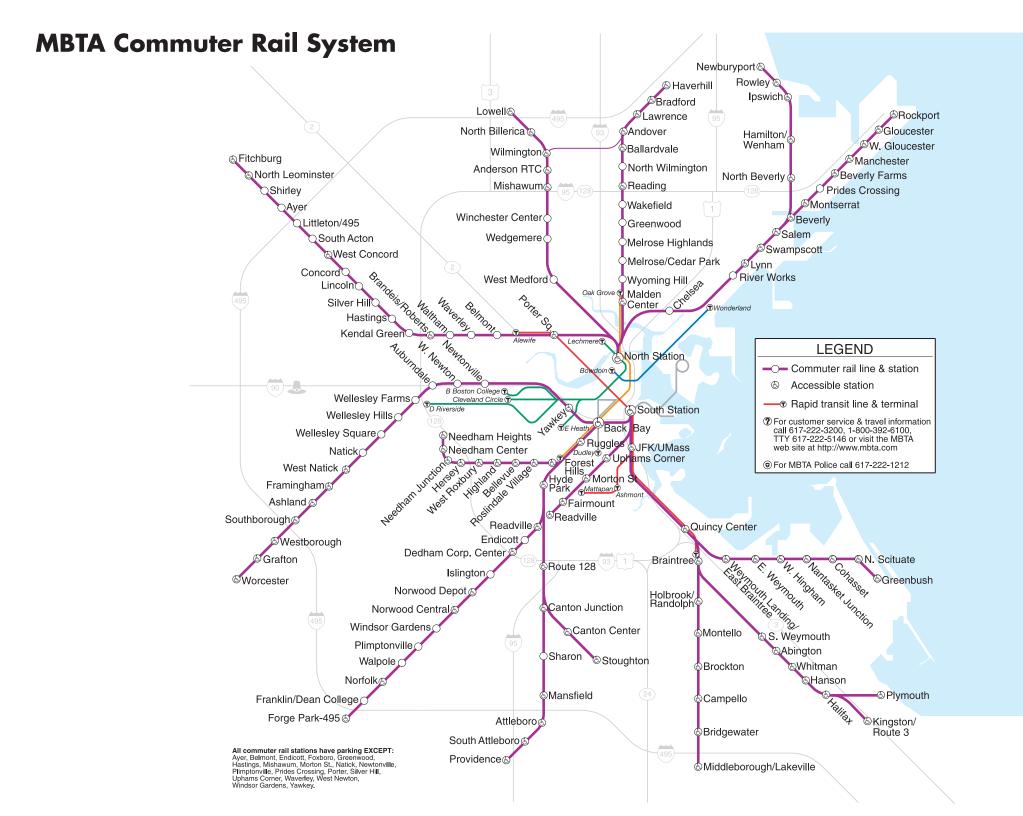
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The preparation of this document was supported by the Federal Transit Administration through MBTA contract #X94PS25.

#### **Central Transportation Planning Staff**

Directed by the **Boston Region Metropolitan Planning Organization**. The MPO is composed of state and regional agencies and authorities, and local governments.

June 2010



# ABSTRACT

This commuter rail report belongs to a multivolume set of reports on the findings of a systemwide survey of Massachusetts Bay Transportation Authority riders that was conducted for the MBTA by the Central Transportation Planning Staff (CTPS) in 2008–09. This survey covers all of the modes operated by the MBTA: bus (including trackless trolley), bus rapid transit, heavy rail (the Blue, Red, and Orange Lines), light rail (the Green Line and the Mattapan High-Speed Line), commuter rail, and boat. <sup>1</sup> The most recent comparable systemwide passenger survey was conducted during 1993–2000.

The purpose of the systemwide survey was to gather data that are not easily obtained through any other means. The data are used to update the regional travel-demand model that is routinely used by the Boston Region Metropolitan Planning Organization (MPO); they are also available for use by other entities, public and private, as well as interested individuals.

This report comprises 12 chapters and 2 appendices. In the chapters, data tables and summary text present information about commuter rail travel, including why trips are made, where riders are coming from and going to, and how riders get to and from the service. Information is also provided on the demographics of commuter rail riders, as well as their automobile ownership, how they pay their fares, and how they perceive the quality of MBTA commuter rail service. The second chapter of this report provides an overview of the results for the entire commuter rail system, while each subsequent chapter covers one or more types of data on a line-by-line basis. The same types of data are tabulated on a station-by-station basis in two companion volumes, one for stations on the North Side lines of the system and one for stations on the South Side lines.

<sup>&</sup>lt;sup>1</sup> Reports on bus rapid transit (the Silver Line) are included in the set, although their data are from surveys conducted by CTPS in 2005 and 2006.

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**KEYWORDS** 

systemwide survey commuter rail system MBTA

# Introduction

## 1.1 THE SYSTEMWIDE SURVEY

This report belongs to a multivolume set of reports on the findings of a systemwide survey of Massachusetts Bay Transportation Authority riders that was conducted for the MBTA by the Central Transportation Planning Staff (CTPS) in 2008–09. This survey covers all of the modes operated by the MBTA: bus (including trackless trolley), heavy rail (the Blue, Red, and Orange Lines), light rail (the Green Line and the Mattapan High-Speed Line), commuter rail, and boat. Reports on bus rapid transit (the Silver Line) are included in the set; their data are from surveys conducted by CTPS in 2005 and 2006. Separate survey instruments were developed for each mode, but the same categories of information were gathered through each.

The purpose of the systemwide survey was to gather data that are not easily obtained through any other means. Some of the data will be used to update the regional travel-demand model that is routinely used by the Boston Region Metropolitan Planning Organization (MPO) to estimate the future impact of projects on the transportation network. In addition, as with past surveys, the data obtained through this survey will be available for use by the MBTA, CTPS, the Massachusetts Department of Transportation, other transportation agencies, academic researchers, consultants, and private citizens.

The most recent comparable systemwide passenger survey was conducted during 1993–2000. Most of the commuter rail system was surveyed in 1993, except for the Old Colony Lines (Middleborough/Lakeville, Kingston/ Plymouth, and Greenbush), which were surveyed in 1998. The heavy rail and light rail networks were last surveyed in 1994, and the bus and trackless trolley lines in 1995. Commuter boat and ferry services were surveyed in 2000. The results of this systemwide survey have become outdated.

## 1.2 COMMUTER RAIL SURVEY METHOD

This volume presents the survey results for riders on the commuter rail system. The commuter rail survey form, a copy of which may be found in Appendix B, contained 24 questions (33 questions, including subquestions). The questions were designed to gather data regarding the specific trip each rider was making when he or she received the survey form (such as trip origin, destination, and purpose), as well as demographic data (such as rider age, gender, income, and ethnicity) and subjective views of the rider regarding service quality. In addition, at the end of the survey form, space was provided in which the rider could write comments and suggestions of his or her own choosing.

A different version of the commuter rail survey was distributed to Greenbush Line riders. Most of the questions were the same, but additional questions were included to gain additional information about the how the restoration of service on the Greenbush Line affected transportation decisions of the line's riders. Results from these questions are not presented in this volume, but they are available upon request.

Survey forms were offered to all riders using commuter rail trains scheduled to arrive at or depart from the Boston terminals between approximately 6:30 AM and 3:00 PM on a typical weekday in 2008 or 2009. Depending on service frequency, train length, the number of stations per route, and the anticipated ridership volume, surveys were distributed on-board trains on some routes and to passengers entering station platforms on other routes These distribution strategies were designed to provide approximately 85% of the weekday commuter rail riders with an opportunity to receive a survey form during what would be considered typical travel conditions.<sup>2</sup> Completed survey forms could be returned to the survey distributors or Customer Service Agents in rapid transit stations, or could be mailed in postage-free. In addition, the riders were informed that they could use an online survey form instead of the paper form.

As in any survey with a response rate of less than 100%, the data that were collected needed to be "expanded." The survey responses from each station were weighted to equal typical boardings during the survey hours using the most recently available ridership figures.

The survey results were entered into a computerized database from which responses to selected combinations of questions can be summarized at any level of aggregation. The particular data tables that have been generated and presented in this volume are ones that will be useful to this report's anticipated users. Other, more specialized tables can be generated if needed.

## 1.3 ORGANIZATION OF DATA IN THIS REPORT

The types of data reported in each chapter are listed below. After Chapter 2's overview of all of the types of data for the entire commuter rail system, each chapter presents a certain type (or set of types) of data by commuter rail line. (The same types of data are provided on a station-by-station basis in two companion volumes, one for the North Side of the system and one for the South Side.) Each chapter's data are either for the riders who were entering the

<sup>&</sup>lt;sup>2</sup> Surveys were not distributed on Monday mornings or Friday afternoons, as the travel at these times is typically lighter than at other times during the week.

commuter rail system along the line where they were surveyed or for those who were exiting the system there.

In each chapter, there is a table or set of tables for each station. The nature of the type (or types) of data presented in the tables is discussed and, if called for, the way in which the tables present the data is explained. In addition, an overview of notable findings is provided.

#### Chapter

- 2 **Results for the Commuter Rail System as a Whole:** Provides an overview of the results for the commuter rail system as a whole.
- **3 Trip Purpose, Reasons for Using Commuter Rail, and Alternative Means:** For each commuter rail line, presents the following data on the riders who were entering the rapid transit system there:
  - Why riders made their trips
  - Why riders used commuter rail to make their trips
  - What mode or modes each rider used if he or she sometimes made the same trip by means other than a commuter rail line
- 4 Origin Locations and Activities: For each commuter rail line, presents the following data on the riders who were entering the commuter rail system there:
  - Where riders started their trips (by city or town, or by neighborhood of Boston, Cambridge, Somerville, or Brookline)
  - What activities riders were engaged in at those origin locations (for example, work, home, school)
- 5 Access to the Commuter Rail System: For each commuter rail line, presents the following data on the riders who were entering the commuter rail system there:
  - What mode riders used to access the commuter rail line, such as walking, biking, other transit mode, etc.
  - For riders who accessed the commuter rail line by any private mode, how long it took them to travel from where their trip began to the station where they boarded the line
  - If riders transferred to the commuter rail line from a rapid transit line, boat, or fixed-route bus (MBTA or other), which service they transferred from
- 6 Egress from the Commuter Rail System: For each commuter rail line, presents the following data on the riders who were exiting the commuter rail system at each station in downtown Boston (or at Ruggles or Porter Square, if applicable) and at all other stations combined:
  - How riders completed their trips after leaving the commuter

rail line (walk, bike, bus, commuter rail, etc.)

- For riders who completed their trips using a private mode, how long it took them to reach their final destinations after leaving the commuter rail line
- For riders who transferred from the commuter rail line to a fixed-route transit service (MBTA or other), which particular service (for example, bus route) they transferred to
- 7 Destination Locations and Activities: For each commuter rail line, presents the following data on the riders who were exiting the commuter rail system at each station in downtown Boston (or at Ruggles or Porter Square, if applicable) and at all other stations combined:
  - Where riders ended their trips (by city or town, or by neighborhood of Boston, Cambridge, Somerville, or Brookline)
  - What activity riders were going to engage in after completing their trips (for example, work, home, school)
- 8 Origin-Destination Cross-tabulation: For each commuter rail line, presents the following data on the riders who were entering the commuter rail system there:
  - Where they began their trips (by city, town, or neighborhood)
  - Where they ended their trips (by city, town, or neighborhood)
- **9** Socioeconomic Characteristics: For each commuter rail line, presents the following data on the riders who were entering the commuter rail system there:
  - Their age, gender, household income, and ethnicity
- **10 Usage Rates and Fare Types:** For each commuter rail line, presents the following data on the riders who were entering the commuter rail system there:
  - How frequently riders used the system
  - How riders paid their fares
  - How the different fare-payment methods were related to how frequently riders used the system
- **11 Vehicle Availability**: For each commuter rail line, presents the following data on the riders who were entering the commuter rail system there:
  - How many riders had driver's licenses
  - How many vehicles riders had in their households
  - Whether riders had access to the use of household vehicles

- The number of vehicles owned per capita for commuter rail riders
- **12 Customer Service Perceptions:** For each commuter rail line, presents the following data on the riders who were entering the commuter rail system there:
  - Riders' perceptions regarding several aspects of MBTA service quality.
- **13 Summary of Comments and Suggestions:** Approximately half of the returned surveys included written comments and suggestions. The topics of these notes were tallied manually and summarized by theme in a series of spreadsheets. The final chapter of this volume discusses the most frequent comments and provides tabular summaries of the comments by station.

It should be noted that, throughout this volume, commuter rail lines are separated into two categories based on each line's terminal station. North Side lines end at North Station and South Side lines end at South Station. Moving counterclockwise around Boston, the four North Side lines are the Newburyport/Rockport, Haverhill, Lowell, and Fitchburg Lines. The eight South Side lines are the Framingham/Worcester, Needham, Franklin, Providence/Stoughton, Fairmount, Middleborough/Lakeville, Kingston/ Plymouth, and Greenbush Lines. In addition, for the purposes of analysis and discussion, some stations on a line may grouped together as a set of stations.

# Results for the Commuter Rail System as a Whole

This chapter provides an overview of the survey results for the commuter rail system as a whole and highlights some of the more important findings. The tables and text in this chapter summarize the survey statistics for all commuter rail lines except the Greenbush Line, while each of the subsequent chapters presents a particular category (or set of categories) of data on a line-by-line or station-by-station basis. Explanations of the nature of the data categories are provided in the subsequent chapters. In those chapters, the data tables present, for each line, findings either on the riders who entered the commuter rail system at that station or on those who exited the system there. (Because of the additional questions included on the Greenbush Line survey form, the responses from that line were entered in a separate database from those of the other lines. This did not allow the Greenbush results to be included in the systemwide data tables in this chapter, but they are included in the line-by-line summaries in subsequent chapters.)

Each of the following numbered sections corresponds to one or more tables that are located at the end of this chapter.

## 2.1 TRIP PURPOSE, REASONS FOR USING THE MBTA, AND ALTERNATIVE MEANS

*Trip Purpose* Over 95% of the trips made on the commuter rail system were in one of the seven categories that are "home-based" (that is, home was either the origin or destination of the trip), Most of these (87% of all commuter rail trips) were "home-based work" (either heading to work from home or to home from work). The other six types of home-based trips were distributed fairly evenly among those categories.

"Work-based trips (those with one end at work and the other end not at home) accounted for nearly 3% of the commuter rail trips. Combining those trips with home-based work trips and home-based work-related trips shows that 91% of all trips had work or a work-related activity as one end of the trip.

The second-most-common trip type was "home-based school" (that is, school was either the origin or destination of the trip). Just over 3% of all commuter rail riders made this type of trip. Approximately 5% of the North Side riders

made a "home-based school trip," while only 2% of the South Side riders made a "home-based school trip."

**Reasons for Using the MBTA** The most common reason for using commuter rail was "avoid driving/traffic" (81%). The next-most-common responses were "convenience" (61%) and "avoid parking at destination" (57%). The least common answer, besides "other," was "only transportation available" (10%).

Alternative Means When asked whether they made the same trip by other means on days that they did not use commuter rail, 41% of the riders answered "yes." Of those riders, most (74%) indicated that they drove alone. The next-most-commonly-reported travel mode option was another MBTA service (22%). Carpool/vanpool was reported by 13% of the alternate mode users.

After placing stations from the Lowell, Framingham/Worcester, Providence/ Stoughton, and Fitchburg Lines in five-mile groups based on their distance from their Boston termini (North Station or South Station), the number and percentage of respondents who selected answers to several survey questions were examined. The percentage of riders who indicated that they sometimes made the same trip using another mode did not vary significantly as the distance between the Boston terminal and the station at the outer end of the trip increased. However, the percentage of alternate-mode users who reported that they sometimes drove alone increased as the trip distance to downtown Boston increased. Conversely, the percentage of riders who indicated they sometimes used another MBTA service decreased as the trip distance to downtown Boston increased. Because there are fewer transit options at locations more distant from Boston, both of these variations were expected results. Due to a lack of choice, on their "other mode" days commuter rail users instead reported taking their cars. There was a "spike" in the percentage of riders who sometimes used other MBTA service among riders taking trips from points 5 to 10 miles away from downtown Boston. There was a corresponding "dip" in the percentage of riders in this distance range who indicated that they sometimes drove alone. In this distance range, there are bus routes that feed transit lines, bus routes that deposit riders at or near their destinations, and, in some communities, rapid transit stations that can serve as alternatives.

## 2.2 ORIGIN LOCATIONS AND ACTIVITIES

Because the systemwide summary table includes results from lines radiating in several different directions from Boston, each serving multiple communities both directly and indirectly, no individual origin locations were dominant. The five most common origins, Beverly, Brockton, Needham, Salem, and Norwood, each accounted for 2% to 3% of the commuter rail system's riders, and each of these except Salem has three or more stations within its borders. Almost 35% of the commuter rail system's riders originated in cities, towns, and neighborhoods that individually accounted for less than 0.5% of the total.

Among the North Side commuter rail lines alone, the top five origin locations and their percentage shares of total boardings were: Beverly (7%), Salem (6%),

Winchester (4%), Lowell (4%), and Gloucester (3%). About 20% of the North Side riders originated in cities, towns, and neighborhoods that individually accounted for less than 0.5% of the total.

Among the South Side lines alone, the top five origin locations and their percentage shares of total boardings were: Brockton (4%), Needham (4%), Norwood (3%), Canton (3%), and Providence, Rhode Island (3%). About 22% of the South Side riders originated in cities, towns, and neighborhoods that individually accounted for less than 0.5% of the total.

The most common "activity" before boarding a commuter rail line was "home." For most of the commuter rail trip origins outside downtown Boston, over 90% of the trips began at home. In contrast, for downtown Boston origins, such as the Financial/Retail District and Government Center, there was a much lower "home" origin percentage, and there was a "work" origin percentage ranging from 40% to 70%.

## 2.3 ACCESS TO THE COMMUTER RAIL SYSTEM

The most common mode of access to the commuter rail system as a whole was driving and parking, which accounted for 53% of the trips. The next-most-common modes were walking (28%), being dropped off (12%), and transferring from rapid transit (4%). Private transportation modes (that is, any means other than using a fixed-route transit service) accounted for 95% of all access trips.

The most-commonly-reported waiting times for commuter rail trains were 5 to 7 minutes (33%), followed by 8 to 10 minutes (24%), for a combined total of 57%. Waiting times of 4 minutes or less were reported by 28% of riders, indicating that they planned their station arrivals to closely correspond with the scheduled departure times of their train.

Among riders accessing commuter rail stations by private transportation, those who were dropped off and those who walked each had a mean reported access time of about 10 minutes. The mean reported access time for park-and-ride passengers was slightly longer, at 12 minutes. Over 98% of private-transportation access trips to commuter rail stations had a reported time of 30 minutes or less.

Riders accessing commuter rail by other fixed-route transit services reported beginning the transit portions of their trip at over 30 different rapid transit stations and on over 20 different MBTA bus routes. The four most common rapid transit stations at which commuter rail riders began their transit journeys were the Harvard, Central, Davis, and Kendall/MIT Stations. All of these stations except Davis Station are located in Cambridge, and together they accounted for 19% of the commuter rail trips that transferred from rapid transit. Many of the transfer trips from these stations were made to the Fitchburg Line at Porter Square.

## 2.4 EGRESS FROM THE COMMUTER RAIL SYSTEM

Overall, the most common commuter rail egress mode was walking directly from the station to the destination of the trip (63%). The next-most-common egress modes were transferring to the rapid transit system (23%), taking a shuttle/van (4%), or driving (3%). (During the hours when the survey was conducted, travel was predominantly inbound, and most riders were making their first trip of the day.) Riders who exited from South Side stations were more likely than their North Side counterparts to complete their trip by walking (68% on the South Side compared to 54% on the North Side). The North Side lines serve only one station in Boston (North Station). All of the South Side lines serve South Station, and four of them also serve Back Bay Station. Yawkey Station, on the Framingham/Worcester Line, and Ruggles Station, on the Needham, Franklin, and Providence/Stoughton Lines, are both within walking distance of the Longwood Medical Area and various colleges and universities. The mean reported egress times for riders who drove away from stations and for those who were picked up were each about 12 minutes. Mean reported walking egress times were slightly shorter, at about 10 minutes. Over 99% of riders who used some form of private transportation for egress reported egress times of 30 minutes or less. Riders who transferred from commuter rail to other fixed-route transit services reported completing the transit portions of their trip at over 30 different rapid transit stations and on over 20 different MBTA bus routes. The five most common stations at which commuter rail riders reported exiting the rapid transit system were Kendall/MIT, State, Back Bay, Harvard, and Downtown Crossing. Together they accounted for 38% of the transfers to rapid transit. Transfers to the Silver Line's Route SL2 alone accounted for 45% of the reported transfers from commuter rail to MBTA buses. Transfers to the EZRide shuttles from North Station to Cambridge accounted for 62% of the reported transfers from commuter rail to non-MBTA buses.

## 2.5 DESTINATION LOCATIONS AND ACTIVITIES

Almost 60% of the riders on the commuter rail system during the survey hours had destinations within Boston Proper. The top three destination neighborhoods were the Financial/Retail District (19%), Government Center (9%), and Boston Waterfront (7%). The most common destinations outside of downtown Boston were in the South Boston Industrial Area (5%), the Longwood Medical Area (4%), Kendall/MIT in Cambridge (4%), and Fenway (2%) neighborhoods. Almost 15% of the commuter rail system's riders were destined for cities, towns, and neighborhoods that individually accounted for less than 0.5% of the total.

The most common "activity" to which riders were destined in the downtown Boston neighborhoods was "work," accounting for over 90% of the trips to most of them. The next-most-common activity was "home," representing people returning from non-work trips or people whose workdays end before 3:00 PM.

## 2.6 ORIGIN-DESTINATION CROSS-TABULATION

The most common origin-destination pair for the commuter rail system overall was from Needham to the Financial/Retail District. The next-most-common pairs were from Brockton, Beverly, and Norwood to the Financial/Retail District. However, with the large number of pairs reported, none of the top four accounted for as much as 1% of the total. Trips from Beverly to the Financial/Retail District accounted for slightly over 1% of all North Side trips, and trips from Needham to the Financial/Retail District accounted for slightly over 1% of all North Side trips, and trips from Needham to the Financial/Retail District accounted for slightly more than 1% of all South Side trips.

## 2.7 SOCIOECONOMIC CHARACTERISTICS

Almost 90% of the surveyed commuter rail riders were between the ages of 25 and 64, 6% were college age (19–24), and 5% were 65 or older. Only 1% of the respondents were under the age of 19. Riders under the age of 19 are typically underrepresented in MBTA passenger surveys, but relatively few school trips by students in this age group are between origins and destinations connected by the commuter rail system. (Fare revenue data indicates that between 1% and 2% of weekday commuter rail rider are age 18 or under.)

Slightly over half (54%) of all the commuter rail survey responses were from females and 46% from males. Less than 1% of the riders identified themselves as transgender.

More than 80% of the riders reported household incomes greater than \$60,000. The single-most-common income bracket checked (by 53%) was "\$100,000 or more." Possible explanations for this are that the question's check-off choices did not include enough higher income ranges for 2008-09 incomes<sup>3</sup> or that people may have (intentionally or unintentionally) inflated their incomes in their answers. This question was left blank by many people.

The average household size across the entire commuter rail system was 2.79.

The majority of commuter rail riders identified themselves as white (86%). The next-most-common races were black or African-American (4%) and Asian (5%). Three percent of respondents chose "other," which called for writing something in; many wrote in "Hispanic." On a separate question, which asked riders if they were "Hispanic/Latino," 3% of the respondents answered "yes."

## 2.8 USAGE RATES AND FARE TYPES

Almost 70% of those surveyed indicated that they used the commuter rail system five days per week, and another 11% used it four days per week. Less than 4% of the riders reported that they used the commuter rail system less

<sup>&</sup>lt;sup>3</sup> The income ranges were selected to be consistent with the ranges used by the U.S. Census Bureau and in earlier MBTA systemwide passenger surveys.

than one day per week, and just over 3% used it either six or seven days per week.

Almost half of the surveyed riders did not use the commuter rail system at all on either Saturday or Sunday. The next-largest group (36%) reported occasional use on both Saturday and Sunday, but less than 3% reported regular use on both Saturday and Sunday. (Some of the latter combined their weekend use with fewer than five days of weekday use.) The majority (67%) of the commuter rail riders paid their fares using a monthly pass, which they used 4.9 days per week on average. Approximately 16% of the riders paid using a 12ride ticket, and 11% paid the full adult fare. These riders used the commuter rail system an average of 3.9 and 3.0 days per week, respectively.

Zone 2, 3, 4, and 6 passes were each used by about 10% of the riders. Zone 7 and 8 passes were used by 6% and 7%, respectively. Less than 1% of the riders used Interzone passes.

## 2.9 VEHICLE AVAILABILITY

Most commuter rail riders (95%) were licensed to drive, and 94% lived in households with at least one vehicle. Over 75% of the respondents had a household vehicle available for use instead of riding commuter rail, and, on a per capita basis, only 18% of the riders owned fewer than 0.5 vehicles.

## 2.10 SERVICE QUALITY

Survey respondents were asked to rate the commuter rail on a scale from "1" (poor) to "5" (excellent) by 10 measures of service quality. The rating "3" was labeled "average." The majority of respondents rated the service quality for most measures as "3" or "4." The two service quality measures with the highest percentage of "excellent" ("5") ratings were the courtesy of train crews (29%) and "safety and security" (25%), while the measure with the highest percentage of "1" and "2" ratings was station amenities (43%).

Based on an averaging of all respondents' ratings, the four measures rated most favorably were safety/security, courtesy of train crews, travel time/speed, and parking availability, and the four measures rated least favorably were station amenities, announcement of stations, cleanliness/condition of vehicles, and frequency of service.

Respondents were also asked to indicate which three of the 10 service quality measures were most important to them. The top three were reliability, frequency of service, and safety/security.

## 2.11 COMMENTS AND SUGGESTIONS

Approximately half of the returned survey forms had comments written on them (either in the form's Comments/Suggestions field or in the margins). These comments varied from vague positive and negative statements such as "Commuter rail is great!" or "MBTA is poorly managed" to specific suggestions such as "Increase Haverhill Line frequency 8:40 to 10:30 PM." Many riders used the Comments/Suggestions field to complain about a specific issue; others used the space to suggest ideas about how the MBTA could improve their transit experience. The most common comments were complaints about unreliable service, uncleanliness, high parking fees, and overcrowded vehicles during peak hours; a significant number of passengers were concerned that not all fares were being collected by train conductors. Other common comments included requests for:

- More service (peak-hour, early morning, late night, and weekend)
- Better communication about delays
- Modern system for collecting parking fees
- Lower fares
- Ability to use a CharlieCard on commuter rail

In general, the passengers who wrote comments felt that the service reliability and frequency should be improved; however, a significant number of them indicated that they were satisfied with the existing service.



Commuter Rail Survey

## Trip Purpose, Reasons for Using

the MBTA, and Alternative Means

Expanded Results

All Commuter Rail Lines Entry Station: All Stations

Trip Purpose:	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	47,366	86.8%	86.8%
Home-based School	1,738	3.2%	90.0%
Home-based Shopping	95	0.2%	90.2%
Home-based Social Activity	626	1.1%	91.3%
Home-based Personal Business	906	1.7%	93.0%
Home-based Work-related	778	1.4%	94.4%
Home-based Other	861	1.6%	96.0%
Nork-based	1,561	2.9%	98.8%
Non-Home/Non-Work-based	637	1.2%	100.0%
FOTAL	54,569		
No Answer	972		
Reasons for		Number of	Percent of
Jsing the MBTA:		Riders	Riders*
Convenience		33,815	61.4%
Speed/travel time		21,384	38.8%
Avoid driving/traffic		44,364	80.5%
Avoid parking at destination		31,243	56.7%
Environmentally responsible		25,022	45.4%
Less expensive		16,413	29.8%
Can read/do work		29,383	53.3%
Only transportation available		5,568	10.1%
Dther		1,337	2.4%

			Other Modes Reported		
Use Other Mode to Make Same Trip?	Number of Riders	Percent of Riders	by Riders Who Checked "Yes":	Number of Riders	Percent of Riders*
Yes	22,200	40.7%	Drive alone	15,662	74.2%
No	32,363	59.3%	Non-MBTA bus	289	1.4%
TOTAL	54,562	100.0%	Carpool/vanpool	2,832	13.4%
No answer	986	100.070	Bicycle	382	1.8%
	,		Other MBTA service	4,717	22.3%
			Other	788	3.7%
			TOTAL RIDERS GIVING AT LEAST 1 OTHER MODE:	21,104	

(No other modes reported) 1,096

\*Note: Percentages may total to more than 100 because of multiple choices checked.

# ) MBTA Surveys: 2008-09

Commuter Rail Survey

## **Origin Locations and Activities**

Expanded Results

ORIGIN LOCATIONS					ORI	GIN ACTI	VITIES				
City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Beverly	1,437	2.6%	0.6%	91.8%	1.9%	1.5%	0.6%	1.4%	0.7%	0.3%	1.4%
Brockton	1,359	2.4%		97.0%		0.9%	0.5%				1.6%
Needham	1,331	2.4%		93.8%	1.4%	1.1%	0.8%	1.8%		0.3%	0.8%
Salem	1,197	2.2%		95.0%	1.3%	1.5%		0.2%	0.9%	0.3%	0.9%
Norwood	1,161	2.1%	0.5%	96.6%		1.3%		1.0%			0.6%
Canton	1,086	2.0%		96.9%	0.6%	0.7%		0.7%		0.6%	0.6%
Providence, RI	1,081	1.9%		93.5%	1.7%	1.7%	0.3%	0.3%	0.6%	0.8%	1.1%
Mansfield	1,034	1.9%		99.1%	0.4%	0.4%					
Natick	931	1.7%		97.2%		1.0%		1.1%			0.7%
Winchester	906	1.6%		97.0%	0.4%	1.3%		1.0%			0.3%
Sharon	862	1.6%		99.6%		0.4%					
Dedham	848	1.5%		93.7%	0.9%	1.9%		2.9%	0.6%		
Attleboro	799	1.4%		95.6%	1.3%	1.3%				1.0%	0.8%
Framingham	778	1.4%		93.2%	1.0%	1.7%	0.5%	0.7%		0.7%	2.3%
Franklin	753	1.4%		96.6%	1.3%	0.4%		0.9%			0.8%
Walpole	752	1.4%		94.7%	0.9%	0.4%	0.9%	0.8%			2.2%
Lowell	747	1.3%	0.7%	84.0%	4.6%	3.4%	1.1%	1.4%	2.9%		2.0%
Boston: West Roxbury	731	1.3%		97.8%	0.6%		0.6%	0.6%			0.6%
Unspecified	709	1.3%	3.7%	83.0%	0.5%	8.9%		1.8%	1.0%		1.1%
Stoughton	700	1.3%		99.1%							0.9%
Boston: Hyde Park	678	1.2%		95.2%		0.8%		1.0%		1.5%	1.5%
Wellesley	670	1.2%		93.1%	0.8%	3.3%		2.8%			
Gloucester	613	1.1%		94.1%	0.5%	2.1%			0.8%	0.8%	1.7%
Westwood	599	1.1%		94.3%		1.2%	0.5%	0.7%			3.2%
Newton	591	1.1%		96.1%	1.2%		0.9%			0.9%	0.9%
Boston: Financial/Retail	583	1.0%	3.0%	1.5%	7.8%	70.6%	1.5%	1.2%	6.6%	2.8%	5.0%
Reading	583	1.0%		98.2%						0.8%	1.0%
Plymouth	568	1.0%		98.5%		0.8%					0.8%
Easton	500	0.9%		95.6%	1.7%	1.1%			1.7%		
Lynn	483	0.9%		90.3%	5.3%	4.4%					
Andover	474	0.9%	0.7%	95.8%	1.4%	0.4%	0.6%				1.1%
Worcester	465	0.8%		90.8%	2.6%	0.7%	1.2%		0.6%	2.2%	1.9%
Bridgewater	464	0.8%		93.8%	2.4%	2.4%			1.4%		
Haverhill	461	0.8%		93.3%		3.7%	1.8%	1.2%			
Waltham	447	0.8%	1.2%	78.1%	12.5%	3.7%			1.7%		2.8%

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CTPS
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**All Commuter Rail Lines** 

Entry Station: All Stations

City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Boston: Govt Center	446	0.8%		8.5%	13.3%	51.4%		7.9%	9.6%	6.2%	3.0%
Wakefield	444	0.8%		96.1%	0.8%	0.8%	1.7%				0.6%
Acton	431	0.8%		99.1%		0.9%					
Boston: Roslindale	431	0.8%		96.4%	1.2%	2.4%					
Medford	431	0.8%		92.4%	2.2%	2.1%		1.6%		1.6%	
North Attleborough	408	0.7%		96.3%	2.0%			1.7%			
Foxborough	403	0.7%		98.9%							1.1%
Concord	381	0.7%	2.5%	84.5%	2.5%	3.7%	1.2%	1.2%		4.4%	
Whitman	370	0.7%		100.0%							
Wilmington	369	0.7%		93.6%		3.1%		1.0%			2.3%
Norfolk	358	0.6%		98.8%				1.2%			
Melrose	352	0.6%		91.5%	3.9%			0.8%		3.9%	
Boston: North End	347	0.6%		46.1%	2.6%	39.5%		4.3%	1.6%	2.3%	3.6%
Pawtucket, RI	333	0.6%		100.0%							
Abington	331	0.6%		97.8%							2.2%
lpswich	322	0.6%		94.0%	1.0%	1.0%	1.0%		1.0%	1.0%	0.8%
Ashland	316	0.6%		97.6%		1.1%					1.3%
Pembroke	309	0.6%		97.7%							2.3%
Swampscott	307	0.6%		99.0%		1.0%					
Billerica	306	0.6%		100.0%							
Medfield	302	0.5%		98.2%				1.8%			
Chelmsford	297	0.5%		94.8%		3.4%					1.8%
Boston: Beacon Hill	296	0.5%		39.0%	2.4%	32.6%		18.0%			8.0%
Taunton	290	0.5%		100.0%							
Danvers	283	0.5%		90.3%		5.2%		2.8%			1.8%
Other (< 0.5 % of riders)	19,305	34.8%	0.3%	87.6%	1.9%	6.2%	0.1%	0.9%	0.6%	0.6%	1.7%
OVERALL TOTAL	55,548	100.0%	0.3%	90.1%	1.5%	4.6%	0.2%	0.9%	0.5%	0.5%	1.3%

Note: Totals shown may differ from column total because of rounding.

## **T** MBTA Surveys: 2008-09

## Commuter Rail Survey

## Access to the Commuter Rail System

**Expanded Results** 

#### Access Mode:

	Number of Riders	Percent of Riders
Walk Access	15,249	27.6%
Drive/Park Access	29,112	52.8%
Drop-off Access	6,501	11.8%
Taxi Access	199	0.4%
Shuttle/Van Access	238	0.4%
Bicycle Access	776	1.4%
Other Access	55	0.1%
Total Private Trans.	52,131	94.5%
MBTA Bus	406	0.7%
Other Bus	420	0.8%
Rapid Transit	2,203	4.0%
Boat	9	0.0%
Other	10	0.0%
Total Public Trans.	3,048	5.5%
TOTAL	55,179	100.0%
No Answer	369	

		Percent
5,398	10.0%	10.0%
9,514	17.5%	27.5%
17,959	33.1%	60.6%
13,203	24.3%	85.0%
4,218	7.8%	92.7%
1,947	3.6%	96.3%
1,992	3.7%	100.0%
54,232	100.0%	100.0%
1,316		
	17,959 13,203 4,218 1,947 1,992 54,232	17,95933.1%13,20324.3%4,2187.8%1,9473.6%1,9923.7%54,232100.0%

#### *Trip time from trip origin to station by private transportation:*

_										
	W	ALK	DRIVE	E/PARK	DRO	P-OFF	OT	HER	тс	DTAL
	Number	Percent								
-										
0-5 minutes	4,543	31.7%	6,605	23.8%	2,404	39.2%	261	22.4%	13,813	28.0%
6-10	5,533	38.6%	10,210	36.8%	2,304	37.5%	394	33.9%	18,441	37.3%
11-15	2,548	17.8%	5,468	19.7%	804	13.1%	238	20.4%	9,058	18.3%
16-20	1,085	7.6%	3,207	11.6%	334	5.5%	131	11.2%	4,757	9.6%
21-30	512	3.6%	1,789	6.4%	191	3.1%	105	9.1%	2,598	5.3%
31-45	105	0.7%	382	1.4%	65	1.1%	8	0.7%	560	1.1%
Over 45	0	0.0%	88	0.3%	33	0.5%	27	2.3%	148	0.3%
TOTAL	14,327	100.0%	27,748	100.0%	6,137	100.0%	1,163	100.0%	49,374	100.0%
No Answer	922		1,365		364		106		2,757	
Avg. Time (min)	1	0.0		11.9		9.5	1	3.3	1	1.1

All Commuter Rail Lines Entry Station: All Stations

## **MBTA** Surveys: 2008-09

## Commuter Rail Survey

## Transfers to the Commuter Rail System

Expanded Results

#### Transferring from:

Rapid Transit, Boarded at Station Indicated:	Number of Riders
Harvard	127
Central	121
Davis	84
Kendall/MIT	79
Sullivan Square	74
South Station	72
JFK/UMass	62
Downtown Crossing	55
Charles/MGH	55
NE Medical Center	52
Park Street	51
Porter	50
Massachusetts Avenue	49
Stony Brook	48
Community College	47
Copley	46
Kenmore	44
Lechmere	44
Ruggles	41
Back Bay	41
Forest Hills	35
State	34
Quincy Center	33
Boylston	32
Chinatown	31
North Station	31
Arlington	30
Allston Street	27
Coolidge Corner	27
Airport	25
Other stations	654

MBTA Bus Routes:	Number of Riders
77	50
SL1	33
111	22
SL2	22
442	19
24	16
47	16
553	14
468	13
220	12
240	11
83	10
Other routes	167
Other Bus Routes:	Number of Riders
RIPTA	110
LRTA	46
BAT	26
RIPTA 60	20
MVRTA	16
GATRA	12
RIPTA 34	10
Other routes	172
Unspecified Bus	8
Boat, Boarded at Dock Indicated:	Number of Riders

Hingham

Other:	Number of Riders
ATK Wells ME	10

All Commuter Rail Lines Entry Station: All Stations

9

## **T** MBTA Surveys: 2008-09

## Commuter Rail Survey

## Egress from the Commuter Rail System

Expanded Results

All Commuter Rail Lines Exit Station: All Stations

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	33,858	62.3%
Drive/Park Egress	1,791	3.3%
Pick-up Egress	784	1.4%
Taxi Egress	202	0.4%
Shuttle/Van Egress	1,993	3.7%
Bicycle Egress	398	0.7%
Other Egress	159	0.3%
Total Private Trans.	39,184	72.1%
MBTA Bus	1,670	3.1%
Other Bus	645	1.2%
Rapid Transit	12,153	22.4%
Commuter Rail	646	1.2%
Boat	22	0.0%
Other	3	0.0%
Total Public Trans.	15,139	27.9%
TOTAL	54,323	100.0%
No Answer	1,226	

#### Trip time from station to trip destination by private transportation:

_										
	WALK		DRIVE	E/PARK	PIC	K-UP	OTH	IER	TOTAL	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
-										
0-5 minutes	10,177	32.5%	385	26.1%	141	26.8%	209	8.9%	10,912	30.6%
6-10	12,164	38.8%	537	36.4%	177	33.5%	865	37.1%	13,743	38.5%
11-15	5,855	18.7%	289	19.6%	97	18.4%	729	31.2%	6,969	19.5%
16-20	2,142	6.8%	141	9.5%	73	13.9%	331	14.2%	2,688	7.5%
21-30	826	2.6%	75	5.1%	39	7.4%	168	7.2%	1,108	3.1%
31-45	154	0.5%	40	2.7%	0	0.0%	25	1.1%	219	0.6%
Over 45	13	0.0%	10	0.7%	0	0.0%	7	0.3%	30	0.1%
TOTAL	31,331	100.0%	1,477	100.0%	527	100.0%	2,334	100.0%	35,668	100.0%
No Answer	2,528		314		258		417		3,516	
Avg. Time (min)		9.8 12.3		1	12.0	1	13.9	10.2		

# **T** <u>MBTA Surveys: 2008-09</u>

## Commuter Rail Survey

## Transfers from the Commuter Rail System

Expanded Results

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
Kendall/MIT	1,373
State	1,066
Back Bay	857
Harvard	707
Downtown Crossing	699
Arlington	503
Central	480
Charles/MGH	475
North Station	414
NE Medical Center	412
Ruggles	371
South Station	362
Chinatown	287
Longwood Medical Area	281
Park Street	270
Government Center	227
Haymarket	219
Kenmore	208
Boylston	206
Massachusetts Avenue	196
JFK/Umass	175
Copley	166
Lechmere	152
Brigham Circle	150
Sullivan Square	140
Fenway	108
Prudential	103
Northeastern	87
Alewife	86
Davis	84
Other stations	1,460

Commuter Rail, Alighted at Station Indicated:	Number of Riders
Porter Square	75
Chelsea	29
Brandeis/Roberts	24
Winchester Center	23
Ipswich	21
Beverly	18
Other stations	211

MBTA Bus Routes:	Number of Riders
SL2	749
39	153
10	140
4	129
SL1	73
7	44
CT3	43
8	42
47	31
455	27
55	23
CT2	22
Other routes	190
Other Bus Routes:	Number of Riders
EZ	401
UMB	38
LRTA	34
MWRTA	34
SCH	21
MVRTA	13
BAT	11
Other routes	79
Unspecified Bus	13
Boat, Alighted at	Number o Riders

Dock Indicated:	Riders
Charlestown Navy Yard	16
Georges Island	7

Other:	Number of Riders
Seaport Shuttle Bus	3

#### All Commuter Rail Lines

Exit Station: All Stations

# **T**) <u>MBTA Surveys: 2008-09</u>

Commuter Rail Survey

## Destination Locations and Activities

**Expanded Results** 

DESTINATION LOCATI		DESTINATION ACTIVITIES									
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Boston: Financial/Retail	10,817	19.5%	0.5%	0.1%	1.0%	96.3%	0.2%	0.2%	1.1%	0.5%	0.1%
Boston: Govt Center	4,710	8.5%	0.3%	0.2%	1.0%	94.6%		0.9%	1.9%	0.5%	0.5%
Boston: Waterfront	3,775	6.8%	1.1%	0.3%	0.2%	95.2%		0.1%	1.6%	0.1%	1.3%
Boston: Prudential/Hancock	3,353	6.0%	0.1%	0.3%	0.2%	97.9%	0.1%	0.2%	0.9%		0.3%
Boston: So Bos Indust	2,665	4.8%	0.8%		0.2%	97.5%		0.5%	0.5%	0.4%	0.2%
Boston: Park Square	2,596	4.7%	0.2%		2.7%	93.0%	0.1%	2.2%	0.4%	1.2%	0.2%
Boston: Back Bay	2,564	4.6%	0.7%	0.4%	2.7%	90.2%	0.2%	1.7%	0.7%	1.2%	2.0%
Boston: Longwood Med Area	2,443	4.4%	0.4%	0.3%	6.5%	88.3%	0.1%	2.2%	0.5%	1.0%	0.5%
Boston: Unspecified	2,225	4.0%	13.7%	1.4%	1.5%	71.6%	0.2%	2.8%	2.1%	2.8%	3.9%
Boston: North End	2,199	4.0%	2.4%	0.4%	0.4%	90.1%		1.5%	1.0%	1.6%	2.7%
Cambridge: Kendall/MIT	2,195	4.0%	0.5%		1.2%	96.1%		0.5%	1.2%	0.5%	
Boston: Beacon Hill	1,806	3.3%	0.7%	1.1%		85.5%		10.6%	0.6%	1.0%	0.5%
Boston: Fenway	1,362	2.5%	0.2%	0.2%	6.9%	86.4%		0.9%	0.8%	4.2%	0.4%
Cambridge: Harvard Square	914	1.6%	2.2%	1.3%	5.1%	86.5%		1.5%	2.4%	0.5%	0.6%
Boston: South End	734	1.3%	1.1%	2.6%	3.7%	85.9%		2.6%	0.6%	1.6%	2.0%
Waltham	539	1.0%	1.0%	0.7%	16.5%	76.3%		0.7%	0.5%	2.2%	2.2%
Boston: Charlestown	416	0.7%			7.2%	88.6%			3.3%		0.9%
Providence, RI	413	0.7%		24.4%	11.1%	46.8%		2.2%	6.7%	4.4%	4.4%
Cambridge: Central Square	401	0.7%	0.7%	3.1%	3.8%	85.0%		2.6%		3.4%	1.4%
Salem	344	0.6%	2.3%	13.7%	16.7%	40.4%	1.6%	3.4%	3.9%	13.8%	4.2%
Lynn	336	0.6%	2.3%	17.9%	15.1%	56.8%		4.0%	4.0%		
Boston: B U	304	0.5%			20.2%	77.7%					2.2%
Boston: North Dorchester	297	0.5%	1.4%		37.0%	56.2%			1.5%		4.0%
Lowell	281	0.5%	5.0%	30.2%	13.5%	28.7%		17.5%	2.5%	2.5%	
Other (< 0.5 % of riders)	7,853	14.1%	2.9%	33.9%	2.8%	46.1%	0.6%	3.4%	2.2%	2.4%	5.6%
OVERALL TOTAL	55,541	100.0%	1.5%	5.6%	2.6%	84.3%	0.2%	1.7%	1.4%	1.2%	1.6%

Note: Totals shown may differ from column total because of rounding.



## Commuter Rail Survey

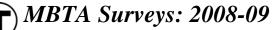
## Origin-Destination Cross-tabulation

Expanded Results

All Commuter Rail Lines Entry Station: All Stations

#### Destination Town/Neighborhood:

Origin Town/ Neighborhood:	Boston: Financial/R	Boston: Govt	Boston: Waterfront	Boston: Prudential/	Boston: So Bos	Boston: Park	Boston: Back Bay				Other & % of Row	& % of
	etail	Center	(7	Hancock	Indust	Square	00	Med Area	d		454	Overal
Beverly	273	168	67	63	54	92	28	29	42	105	451 <i>31.4%</i>	1437 <i>2.6%</i>
Brockton	339	112	166	79	95	52	39	51	152	18	201	1359
											14.8%	
Needham	398	68	129	132	72	113	90	44	37	18	186	1331
											14.0%	2.4%
Salem	157	119	52	47	36	80	56	50	37	80	423	1197
											35.3%	2.2%
Norwood	246	84	118	104	80	116	60	99	33	17	187	1161
											16.1%	2.1%
Canton	181	107	58	114	106	27	92	106	70	21	169	1086
											15.6%	2.0%
Providence, RI	118	72	48	76	39	56	35	91	45	46	419	1081
											38.8%	1.9%
Mansfield	184	42	92	120	89	49	111	68	54	18	143	1034
											13.9%	1.9%
Natick	214	54	53	74	49	22	76	86	41	27	180	931
											19.4%	
Winchester	246	151	31	31	34	41	37	27	51	45	151	906
											16.7%	1.6%
Sharon	162	59	78	44	63	57	81	81	45	25	133	862
							• •				15.4%	
Dedham	230	79	64	111	47	59	45	24	33	9	111	848
boundin	200	.,	01			0,	10	21	00	,	13.0%	1.5%
Attleboro	195	46	68	85	21	40	63	44	46	17	163	848
	170	10		00	21	10	00		10	.,	20.4%	
Framingham	162	57	67	54	67	53	32	43	23	21	147	778
Taringran	102	57	07	54	07	55	52	45	23	21	18.8%	1.4%
Franklin	125	32	88	113	73	35	49	44	13	7	92	753
	125	52	00	113	73	55	47	44	15	,	12.2%	
Walnala	174	70		(1	<b>/</b> F	41		40	20	1/		
Walpole	174	72	66	61	65	41	46	48	39	16	106 <i>14.1%</i>	752 <i>1.4%</i>
	100	400		05	10		00	10	47	(1)		
Lowell	103	130	20	25	12	44	29	43	47	61	207	747
									-		27.7%	
Boston: West Roxbury	176	89	91	46	53	40	59	36	8	21	107	731
											14.6%	
Other & % of Column	7044	3121	2384	1932	1577	1545	1492	1393	1281	1619	12233	37046
	65.1%	66.3%	63.1%	57.6%	59.2%	59.5%	58.2%	57.0%	57.4%		33.0%	66.7%
Column Total &	10817	4710	3775	3353	2665	2596	2564	2443	2232	2199	15999	55548
% of Overall	19.5%	8.5%	6.8%	6.0%	4.8%	4.7%	4.6%	4.4%	4.0%	4.0%	28.8%	



## Commuter Rail Survey

## Socioeconomic Characteristics

All Commuter Rail Lines Entry Station: All Stations

Age of Riders:	Number of Riders	Percent of Riders	Cumulative Percentage
18 and Under	504	0.9%	0.9%
19 - 24	3,085	5.6%	6.5%
25 - 34	10,955	19.9%	26.4%
35 - 44	13,173	24.0%	50.4%
45 - 64	24,744	45.0%	95.4%
65 and Older	2,529	4.6%	100.0%
TOTAL	54,990	100.0%	100.0%
No Answer	559		
Gender of Riders:		Number of Riders	Percent of Riders
Male		24,689	46.4%
Female		28,526	53.6%
Transgender		31	0.1%
TOTAL		53,247	100.0%
No Answer		2,302	

#### Annual Household Income of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under \$20,000	1,165	2.4%	2.4%
\$20,000 - \$29,999	880	1.8%	4.2%
\$30,000 - \$39,999	1,519	3.1%	7.4%
\$40,000 - \$49,999	2,251	4.6%	12.0%
\$50,000 - \$59,999	2,696	5.6%	17.6%
\$60,000 - \$74,999	5,252	10.8%	28.4%
\$75,000 - \$99,999	8,854	18.3%	46.7%
\$100,000 or more	25,854	53.3%	100.0%
TOTAL	48,472	100.0%	100.0%
No Answer	7,076		

Mean Household Size: 2.79

# MBTA Surveys: 2008-09

Commuter Rail Survey

Ethnicity of Riders	All Commuter Rail Lines
Expanded Results	Entry Station: All Stations

Number of Responses	Percent of Responses
525	1.0%
2,233	4.2%
119	0.2%
2,854	5.4%
45,964	86.3%
1,545	2.9%
53,239	100.0%
	Responses 525 2,233 119 2,854 45,964 1,545

Note: Responders were allowed to check more than 1 box; percentages shown represent fractions of total responses.

Are You Hispanic/Latino?:	Number of Responses	Percent of Responses
Yes No	1,648 50,213	3.2% 96.8%
TOTAL No Answer	51,861 3,688	100.0%

MBTA Surveys: 2008-09

Commuter Rail Survey

## Usage Rates and Fare Types

Expanded Results

#### **All Commuter Rail Lines**

Entry Station: All Stations

Number of Days per Week Riders Use the Service:	Number of Riders	Percent of Riders	Cumulative Percentage
Less than One	2,032	3.7%	3.7%
One Day	929	1.7%	5.4%
Two Days	1,722	3.1%	8.5%
Three Days	3,462	6.3%	14.8%
Four Days	5,837	10.6%	25.3%
Five Days	38,507	69.8%	95.1%
Six Days	1,121	2.0%	97.1%
Seven Days	609	1.1%	98.2%
Only Visiting	980	1.8%	100.0%
TOTAL	55,198	100.0%	100.0%
No Answer	350		

Weekend Usage:	Sunday Usage*				Saturday Total
Saturday Usage*	Regularly	Occasionally	Not at All	No Answer	
Regularly	1,291 2.5%	613 1.2%	112 0.2%	449	2,016 3.9%
Occasionally			5,001 9.7%	2,310	23,392 45.6%
Not at all	22 0.0%	281 0.5%	25,614 49.9%	630	25,916 50.5%
No Answer	51	186	43	555	
Sunday Total	1,458 2.8%	19,140 37.3%	30,726 59.9%		51,324 *

\* Totals and percentages reflect only riders who responded to both Saturday and Sunday questions.

Usage Rates by				Zones Reported by		
Fare Type:	Number	Percent	Avg. No. of Days	Users of Zone Passes:	Number	Percent
Fare Payment Type	of Riders	of Riders	Line Used/Wk.	Zone	of Riders	of Riders
Adult full fare	6,169	11.1%	3.0	1A	887	1.6%
Family fare	87	0.2%	1.3	1	2,790	5.0%
Monthly pass	37,368	67.4%	4.9	2	5,742	10.4%
12-ride ticket	8,697	15.7%	3.9	3	5,803	10.5%
Senior citizen half fare	1,519	2.7%	2.9	4	5,848	10.5%
Student half fare	258	0.5%	3.8	5	3,272	5.9%
Blind Access Card	81	0.1%	3.7	6	5,564	10.0%
10-ride half fare ticket	551	1.0%	4.2	7	3,530	6.4%
Disability half fare	348	0.6%	3.0	8	3,759	6.8%
Child under age 12 free fare	19	0.0%	3.3	Interzone	170	0.3%
Other	333	0.6%	4.0			
				No Zone Selected	3	0.0%
All Payment Types	55,429	100.0%		Total Riders Using Zone Passes	37,368	67.4%



Commuter Rail Survey

No Answer

Vehicle Availability Expanded Results	All Commuter Rail Line Entry Station: All Station		
Licensed Drivers:	Number of Riders	Percent of Riders	
Licensed	52,392	95.0%	
Not Licensed	2,736	5.0%	
TOTAL	55,128	100.0%	
No Answer	420		
Usable Vehicles per Household:	Number of Riders	Percent of Riders	
No vehicles	3,362	6.1%	
1 vehicle	15,170	27.6%	
2 vehicles	27,424	49.9%	
3 or more vehicles	8,996	16.4%	
TOTAL	54,953	100.0%	
No Answer	596		
Was a Household Vehicle Available to Rider?:	Number of	Percent of	
	Riders	Riders	
Yes	40,986	75.1%	
No	13,623	24.9%	
TOTAL	54,609	100.0%	

Vehicles Owned per Capita:	Number of Riders	Percent of Riders	Cumulative Percentage	
No vehicles	3,238	6.0%	6.0%	
0.01 to 0.49 vehicles	6,633	12.3%	18.3%	
0.50 to 0.99 vehicles	22,484	41.7%	60.0%	
1.00 to 1.49 vehicles	19,404	36.0%	96.0%	
1.50 to 1.99 vehicles	1,611	3.0%	99.0%	
2 or more vehicles	556	1.0%	100.0%	
TOTAL RESPONSES	53,925			

939

(T) <u>MBTA Surveys: 2008-09</u>

Commuter Rail Survey

### Service Quality

Expanded Results

All Commuter Rail Lines Entry Station: All Stations

Service Quality	Mean	1 (Poor)	2	3 (Average)	4	5 (Excellent)	Total	No Response	Impor- tance*
Reliability (on-time performance)	3.4	5.0%	13.1%	34.0%	36.3%	11.5%	54,245	1,303	31,742
Safety and security	3.9	1.1%	3.3%	24.9%	45.2%	25.4%	53,721	1,828	11,010
Cleanliness/condition of vehicles	3.1	8.0%	16.2%	40.5%	29.1%	6.1%	54,041	1,508	6,607
Courtesy of train crews	3.9	1.5%	5.2%	23.3%	41.4%	28.7%	54,154	1,395	3,357
Announcement of stations	3.1	9.9%	17.2%	34.5%	26.5%	11.9%	53,787	1,761	2,363
Availability of seating on trains	3.4	5.5%	12.3%	33.1%	33.6%	15.6%	54,206	1,343	10,222
Frequency of service	3.2	7.0%	17.1%	37.6%	29.5%	8.8%	54,039	1,509	18,181
Travel time/speed	3.5	3.3%	8.3%	33.4%	40.6%	14.5%	53,969	1,580	10,784
Parking availability	3.5	8.4%	10.9%	27.5%	31.5%	21.7%	45,371	10,178	4,058
Station amenities	2.7	21.2%	21.4%	33.9%	17.3%	6.2%	49,706	5,842	591

\* The number of respondents who indicated that this service quality measure was one of the three most important to them. Many respondents checked no measures, while others checked more than three.



### Trip Purpose, Reasons for Using

the MBTA, and Alternative Means

Expanded Results

All North Side Lines Entry Station: All Stations

Trip Purpose:	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	17,121	82.9%	82.9%
Home-based School	974	4.7%	87.6%
Home-based Shopping	47	0.2%	87.9%
Home-based Social Activity	337	1.6%	89.5%
Home-based Personal Business	436	2.1%	91.6%
Home-based Work-related	307	1.5%	93.1%
Home-based Other	374	1.8%	94.9%
Work-based	647	3.1%	98.1%
Non-Home/Non-Work-based	401	1.9%	100.0%
TOTAL	20,645		
No Answer	460		
Reasons for	N	umber of	Percent of
Using the MBTA:		Riders	Riders*
Convenience		12,698	60.6%
Speed/travel time		7,480	35.7%
Avoid driving/traffic		16,237	77.5%
Avoid parking at destination		11,583	55.3%
Environmentally responsible		10,211	48.7%
Less expensive		6,306	30.1%
Can read/do work		11,191	53.4%
Only transportation available		2,670	12.7%
Other		664	3.2%

			Other Modes Reported		
Use Other Mode to Make Same Trip?	Other Mode Number of Percent of by		by Riders Who Checked "Yes":	Number of Riders	Percent of Riders*
Yes	8,495	41.1%	Drive alone	5,700	70.8%
No	12,195	58.9%	Non-MBTA bus	111	1.4%
TOTAL	20,690	100.0%	Carpool/vanpool	1,239	15.4%
No answer	422	1001070	Bicycle	216	2.7%
	122		Other MBTA service	1,853	23.0%
			Other	347	4.3%
			TOTAL RIDERS GIVING		
			AT LEAST 1 OTHER MODE:	8,054	

(No other modes reported) 442

\*Note: Percentages may total to more than 100 because of multiple choices checked.



### Trip Purpose, Reasons for Using

the MBTA, and Alternative Means

Expanded Results

All South Side Lines Entry Station: All Stations

Trip Purpose:	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	30,246	89.2%	89.2%
Home-based School	764	2.3%	91.4%
Home-based Shopping	48	0.1%	91.5%
Home-based Social Activity	289	0.9%	92.4%
Home-based Personal Business	470	1.4%	93.8%
Home-based Work-related	471	1.4%	95.2%
Home-based Other	487	1.4%	96.6%
Work-based	914	2.7%	99.3%
Non-Home/Non-Work-based	236	0.7%	100.0%
TOTAL	33,924		
No Answer	512		
Reasons for	N	lumber of	Percent of
Using the MBTA:		Riders	Riders*
Convenience		21,116	61.8%
Speed/travel time		13,903	40.7%
Avoid driving/traffic		28,127	82.3%
Avoid parking at destination		19,660	57.6%
Environmentally responsible		14,811	43.4%
Less expensive		10,107	29.6%
Can read/do work		18,192	53.3%
Only transportation available		2,897	8.5%
Other		673	2.0%
TOTAL RIDERS GIVING AT LEAST 1 REASON:		34,158	

			Other Modes Reported		
Use Other Mode to Make Same Trip?	Number of Riders	Percent of Riders	by Riders Who Checked "Yes":	Number of Riders	Percent of Riders*
Yes	13,704	40.5%	Drive alone	9,962	76.3%
No	20,168	59.5%	Non-MBTA bus	179	1.4%
TOTAL	33,872	100.0%	Carpool/vanpool	1,593	12.2%
No answer	564	100.070	Bicycle	166	1.3%
	001		Other MBTA service	2,864	21.9%
			Other	441	3.4%
			TOTAL RIDERS GIVING		
			AT LEAST 1 OTHER MODE:	13,050	

(No other modes reported) 654

\*Note: Percentages may total to more than 100 because of multiple choices checked.

# **T**<u>MBTA Surveys: 2008-09</u>

Commuter Rail Survey

### **Origin Locations and Activities**

Expanded Results

ORIGIN LOCATIONS					ORI	GIN ACTI	VITIES				
City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Beverly	1,437	6.8%	0.6%	91.8%	1.9%	1.5%	0.6%	1.4%	0.7%	0.3%	1.4%
Salem	1,197	5.7%		95.0%	1.3%	1.5%		0.2%	0.9%	0.3%	0.9%
Winchester	906	4.3%		97.0%	0.4%	1.3%		1.0%			0.3%
Lowell	747	3.5%	0.7%	84.0%	4.6%	3.4%	1.1%	1.4%	2.9%		2.0%
Gloucester	613	2.9%		94.1%	0.5%	2.1%			0.8%	0.8%	1.7%
Reading	583	2.8%		98.2%						0.8%	1.0%
Lynn	483	2.3%		90.3%	5.3%	4.4%					
Andover	474	2.2%	0.7%	95.8%	1.4%	0.4%	0.6%				1.1%
Haverhill	461	2.2%		93.3%		3.7%	1.8%	1.2%			
Wakefield	444	2.1%		96.1%	0.8%	0.8%	1.7%				0.6%
Acton	431	2.0%		99.1%		0.9%					
Medford	417	2.0%		94.3%	2.3%			1.7%		1.7%	
Waltham	389	1.8%	1.3%	74.8%	14.4%	4.3%			2.0%		3.2%
Concord	381	1.8%	2.5%	84.5%	2.5%	3.7%	1.2%	1.2%		4.4%	
Wilmington	369	1.7%		93.6%		3.1%		1.0%			2.3%
Melrose	344	1.6%		91.3%	3.9%			0.9%		3.9%	
Ipswich	322	1.5%		94.0%	1.0%	1.0%	1.0%		1.0%	1.0%	0.8%
Swampscott	307	1.5%		99.0%		1.0%					
Chelmsford	297	1.4%		94.8%		3.4%					1.8%
Billerica	296	1.4%		100.0%							
Danvers	283	1.3%		90.3%		5.2%		2.8%			1.8%
Boston: North End	280	1.3%		47.4%		39.9%		5.4%		2.8%	4.5%
North Andover	276	1.3%		97.0%	0.7%	1.0%					1.3%
Tewksbury	266	1.3%		94.0%	2.0%				2.0%		2.0%
Boston: Govt Center	258	1.2%		9.5%	18.1%	47.2%		3.1%	8.9%	8.0%	5.2%
Woburn	257	1.2%		95.5%		2.0%		1.1%			1.4%
Newburyport	240	1.1%	2.1%	92.9%		2.7%		2.2%			
Marblehead	238	1.1%		97.5%		1.2%		1.2%			
Peabody	232	1.1%		96.8%					1.6%		1.6%
Unspecified	221	1.0%	1.6%	78.4%		12.5%		3.8%			3.6%
Hamilton	217	1.0%		93.0%	4.2%	1.4%		1.4%			
Manchester	217	1.0%		93.9%		6.1%					
Lawrence	203	1.0%		96.1%		1.5%		1.4%	1.0%		
Methuen	203	1.0%		100.0%							
Boston: Beacon Hill	199	0.9%		39.2%		38.5%		19.5%			2.7%

All North Side Lines Entry Station: All Stations

# All North Side Li

City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Rockport	196	0.9%		89.9%		1.2%			2.6%	5.0%	1.2%
Boston: Financial/Retail	194	0.9%	3.4%		16.1%	69.1%		3.7%	7.8%		
Fitchburg	167	0.8%		87.2%	10.7%	2.1%					
Leominster	165	0.8%		92.7%			2.4%			4.9%	
Nashua, NH	163	0.8%		100.0%							
Cambridge: North Cambridge	156	0.7%		82.6%						6.2%	11.3%
Somerville: Spring Hill	155	0.7%		100.0%							
Chelsea	154	0.7%		81.6%		18.4%					
Westford	150	0.7%		93.1%	6.9%						
Dracut	140	0.7%		100.0%							
North Reading	128	0.6%		100.0%							
Ayer	123	0.6%		100.0%							
Groton	123	0.6%		96.0%	2.0%	2.0%					
Arlington	110	0.5%		100.0%							
Littleton	110	0.5%		95.7%		2.2%					2.1%
Belmont	107	0.5%		100.0%							
Other (< 0.5 % of riders)	4,283	20.3%	0.9%	80.0%	3.0%	9.1%	0.2%	1.8%	1.1%	1.4%	2.5%
OVERALL TOTAL	21,112	100.0%	0.4%	87.6%	2.2%	5.4%	0.3%	1.2%	0.8%	0.8%	1.4%

Note: Totals shown may differ from column total because of rounding.

### MBTA Surveys: 2008-09 (T)

Commuter Rail Survey

### **Origin Locations and Activities**

Expanded Results

ORIGIN LOCATIONS					ORI	GIN ACTI	VITIES				
City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Brockton	1,359	3.9%		97.0%		0.9%	0.5%				1.6%
Needham	1,323	3.8%		93.8%	1.4%	1.1%	0.8%	1.9%		0.3%	0.8%
Norwood	1,161	3.4%	0.5%	96.6%		1.3%		1.0%			0.6%
Canton	1,086	3.2%		96.9%	0.6%	0.7%		0.7%		0.6%	0.6%
Providence, RI	1,076	3.1%		93.5%	1.7%	1.7%	0.3%	0.3%	0.6%	0.8%	1.1%
Mansfield	1,034	3.0%		99.1%	0.4%	0.4%					
Natick	918	2.7%		97.1%		1.0%		1.1%			0.7%
Sharon	862	2.5%		99.6%		0.4%					
Dedham	848	2.5%		93.7%	0.9%	1.9%		2.9%	0.6%		
Attleboro	799	2.3%		95.6%	1.3%	1.3%				1.0%	0.8%
Framingham	771	2.2%		93.1%	1.0%	1.7%	0.5%	0.7%		0.7%	2.3%
Franklin	753	2.2%		96.6%	1.3%	0.4%		0.9%			0.8%
Walpole	752	2.2%		94.7%	0.9%	0.4%	0.9%	0.8%			2.2%
Boston: West Roxbury	731	2.1%		97.8%	0.6%		0.6%	0.6%			0.6%
Stoughton	700	2.0%		99.1%							0.9%
Boston: Hyde Park	673	2.0%		95.2%		0.8%		1.1%		1.5%	1.5%
Wellesley	665	1.9%		93.0%	0.8%	3.3%		2.8%			
Westwood	599	1.7%		94.3%		1.2%	0.5%	0.7%			3.2%
Plymouth	568	1.6%		98.5%		0.8%					0.8%
Newton	559	1.6%		95.9%	1.3%		1.0%			0.9%	0.9%
Easton	500	1.5%		95.6%	1.7%	1.1%			1.7%		
Unspecified	488	1.4%	4.6%	85.1%	0.7%	7.2%		0.9%	1.5%		
Bridgewater	464	1.3%		93.8%	2.4%	2.4%			1.4%		
Worcester	462	1.3%		90.7%	2.6%	0.7%	1.3%		0.6%	2.2%	1.9%
Boston: Roslindale	431	1.3%		96.4%	1.2%	2.4%					
North Attleborough	408	1.2%		96.3%	2.0%			1.7%			
Foxborough	403	1.2%		98.9%							1.1%
Boston: Financial/Retail	389	1.1%	2.7%	2.3%	3.7%	71.3%	2.3%		6.1%	4.1%	7.5%
Whitman	370	1.1%		100.0%							
Norfolk	358	1.0%		98.8%				1.2%			
Pawtucket, RI	333	1.0%		100.0%							
Abington	331	1.0%		97.8%							2.2%
Ashland	316	0.9%		97.6%		1.1%					1.3%
Pembroke	309	0.9%		97.7%							2.3%
Medfield	302	0.9%		98.2%				1.8%			

CTPS

All South Side Lines

Entry Station: All Stations

City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Taunton	290	0.8%		100.0%							
Rockland	277	0.8%		100.0%							
Shrewsbury	272	0.8%		98.1%		1.9%					
Halifax	266	0.8%		100.0%							
Grafton	242	0.7%		100.0%							
Norton	240	0.7%		100.0%							
Randolph	236	0.7%		100.0%							
Hanson	229	0.7%		100.0%							
Duxbury	226	0.7%		94.5%		1.9%					3.6%
Weymouth	221	0.6%		96.7%		3.3%					
Westborough	211	0.6%		100.0%							
Middleborough	198	0.6%		98.0%						2.0%	
Hopkinton	196	0.6%		96.2%	2.1%						1.8%
Warwick, RI	192	0.6%		98.4%							1.6%
Boston: Govt Center	188	0.5%		7.2%	6.7%	57.3%		14.5%	10.5%	3.8%	
Boston: Longwood Med Area	185	0.5%		23.2%	23.6%	39.6%		8.7%			4.9%
Marlborough	175	0.5%		96.7%		1.7%					1.7%
Other (< 0.5 % of riders)	7,495	21.8%	0.2%	83.6%	2.2%	9.3%	0.2%	1.1%	0.7%	0.4%	2.3%
OVERALL TOTAL	34,436	100.0%	0.2%	91.6%	1.1%	4.1%	0.2%	0.8%	0.4%	0.3%	1.2%

Note: Totals shown may differ from column total because of rounding.

# **T** MBTA Surveys: 2008-09

### Commuter Rail Survey

### Access to the Commuter Rail System

**Expanded Results** 

### Access Mode:

	Number of Riders	Percent of Riders
Walk Access	6,766	32.2%
Drive/Park Access	9,527	45.4%
Drop-off Access	2,452	11.7%
Taxi Access	103	0.5%
Shuttle/Van Access	124	0.6%
Bicycle Access	278	1.3%
Other Access	18	0.1%
Total Private Trans.	19,267	91.8%
MBTA Bus	221	1.1%
Other Bus	137	0.7%
Rapid Transit	1,358	6.5%
Boat	0	0.0%
Other	10	0.0%
Total Public Trans.	1,725	8.2%
TOTAL	20,992	100.0%
No Answer	120	

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	2,361	11.5%	11.5%
2-4	3,514	17.1%	28.5%
5-7	6,449	31.3%	59.9%
8-10	4,532	22.0%	81.9%
11-15	1,642	8.0%	89.9%
16-20	945	4.6%	94.5%
Over 20	1,136	5.5%	100.0%
TOTAL	20,578	100.0%	100.0%
No Answer	534		
Avg. Wait Time	(min)	8.2	

#### *Trip time from trip origin to station by private transportation:*

_										
	W	ALK	DRIVE	E/PARK	DRO	P-OFF	OT	HER	TC	DTAL
	Number	Percent								
—										
0-5 minutes	1,962	30.8%	2,260	24.9%	951	41.1%	113	23.6%	5,286	29.0%
6-10	2,536	39.8%	3,095	34.1%	874	37.8%	198	41.2%	6,703	36.8%
11-15	1,163	18.3%	1,816	20.0%	281	12.2%	80	16.7%	3,340	18.3%
16-20	441	6.9%	1,147	12.6%	107	4.6%	35	7.2%	1,729	9.5%
21-30	240	3.8%	581	6.4%	63	2.7%	49	10.2%	934	5.1%
31-45	28	0.4%	162	1.8%	25	1.1%	5	1.0%	220	1.2%
Over 45	0	0.0%	13	0.1%	11	0.5%	0	0.0%	25	0.1%
TOTAL	6,368	100.0%	9,075	100.0%	2,313	100.0%	479	100.0%	18,235	100.0%
No Answer	397		452		139		43		1,032	
Avg. Time (min)		9.9		12.0		9.2	1	1.8	1	0.9

All North Side Lines Entry Station: All Stations

### **•** MBTA Surveys: 2008-09

### Commuter Rail Survey

### Transfers to the Commuter Rail System

Expanded Results

### Transferring from:

Rapid Transit, Boarded at Station Indicated:	Number of Riders
South Station	72
Davis	54
Sullivan Square	54
Harvard	52
Kendall/MIT	50
Downtown Crossing	46
NE Medical Center	45
Central	45
Lechmere	44
Back Bay	41
Stony Brook	39
Community College	38
JFK/UMass	35
State	34
Copley	33
Arlington	30
Ruggles	30
Massachusetts Avenue	29
Park Street	25
Airport	25
Boylston	23
Allston Street	23
Chinatown	22
Government Center	20
Ashmont	19
Coolidge Corner	18
Oak Grove	16
North Quincy	15
Prudential	15
Quincy Center	15
Other stations	351

MBTA Bus Routes:	Number of Riders
77	50
442	19
111	18
553	14
468	13
83	10
96	10
450	9
70	9
93	7
92	7
441	6
Other routes	48
Other Bus Routes:	Number of Riders
LRTA	46
MVRTA	16
САТА	9
LRTA Downtown Shuttle	8
LRTA 13	5
LRTA 15	5
LRTA North UMass to Station	5

All North Side Lines

35

8

Entry Station: All Stations

Other:	Number of Riders
ATK Wells ME	10

Other routes

Indicated:

Unspecified Bus

Boat, Boarded at Dock

(None identified)

# **T** MBTA Surveys: 2008-09

### Commuter Rail Survey

### Access to the Commuter Rail System

**Expanded Results** 

### Access Mode:

	Number of Riders	Percent of Riders
Walk Access	8,483	24.8%
Drive/Park Access	19,586	57.3%
Drop-off Access	4,049	11.8%
Taxi Access	97	0.3%
Shuttle/Van Access	115	0.3%
Bicycle Access	498	1.5%
Other Access	37	0.1%
Total Private Trans.	32,865	96.1%
MBTA Bus	185	0.5%
Other Bus	283	0.8%
Rapid Transit	845	2.5%
Boat	9	0.0%
Other	0	0.0%
Total Public Trans.	1,322	3.9%
TOTAL	34,187	100.0%
No Answer	249	

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	3,037	9.0%	9.0%
2-4	6,001	17.8%	26.9%
5-7	11,511	34.2%	61.1%
8-10	8,671	25.8%	86.8%
11-15	2,577	7.7%	94.5%
16-20	1,002	3.0%	97.5%
Over 20	857	2.5%	100.0%
TOTAL	33,654	100.0%	100.0%
No Answer	782		
Avg. Wait Time	(min)	7.5	

**All South Side Lines** 

#### *Trip time from trip origin to station by private transportation:*

_										
	W	ALK	DRIVE	E/PARK	DRO	P-OFF	OT	HER	тс	DTAL
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
_										
0-5 minutes	2,581	32.4%	4,344	23.3%	1,453	38.0%	148	21.6%	8,527	27.4%
6-10	2,998	37.7%	7,115	38.1%	1,430	37.4%	196	28.7%	11,738	37.7%
11-15	1,386	17.4%	3,651	19.6%	523	13.7%	158	23.0%	5,718	18.4%
16-20	645	8.1%	2,060	11.0%	228	6.0%	96	14.0%	3,029	9.7%
21-30	272	3.4%	1,208	6.5%	128	3.3%	56	8.2%	1,664	5.3%
31-45	77	1.0%	220	1.2%	41	1.1%	3	0.4%	341	1.1%
Over 45	0	0.0%	74	0.4%	22	0.6%	27	<b>3.9%</b>	123	0.4%
TOTAL	7,958	100.0%	18,673	100.0%	3,824	100.0%	684	100.0%	31,139	100.0%
No Answer	525		913		225		63		1,726	
Avg. Time (min)	1	0.0		11.8		9.7	1	4.4	1	1.2

### MBTA Surveys: 2008-09

### Commuter Rail Survey

### Transfers to the Commuter Rail System

**Expanded Results** 

### Transferring from:

Rapid Transit, Boarded at Station Indicated:	Number of Riders
Central	77
Harvard	75
Charles/MGH	55
Porter	42
Kenmore	31
North Station	31
Davis	30
Kendall/MIT	29
JFK/UMass	27
Park Street	25
Forest Hills	25
Malden	23
Massachusetts Avenue	21
Sullivan Square	20
Andrew	18
Quincy Center	18
Copley	13
Savin Hill	13
St Marys Street	13
Ruggles	11
Maverick	11
Wollaston	11
Boston University West	9
Boylston	9
Brandon Hall	9
Brigham Circle	9
Chinatown	9
Green Street	9
Longwood Medical Area	9
Reservoir	9
Other stations	155

MBTA Bus Routes:	Number of Riders
SL1	33
SL2	22
24	16
47	16
220	12
240	11
10	9
CT2	9
34E	7
30	6
38	6
216	6
Other routes	31
Other Bus Routes:	Number of Riders
RIPTA	110
BAT	26
RIPTA 60	20
	20
	20 12
GATRA	
GATRA RIPTA 34	12
GATRA RIPTA 34	12 10
GATRA RIPTA 34 MWRTA	12 10 9
GATRA RIPTA 34 MWRTA RIPTA 22 Other routes Boat, Boarded at Dock	12 10 9 7
GATRA RIPTA 34 MWRTA RIPTA 22 Other routes	12 10 9 7 89 Number of

Other:

(None identified)

### **T** MBTA Surveys: 2008-09

### Commuter Rail Survey

### Egress from the Commuter Rail System

Expanded Results

All North Side Lines Exit Station: All Stations

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	8,266	53.7%
Drive/Park Egress	500	3.3%
Pick-up Egress	225	1.5%
Taxi Egress	79	0.5%
Shuttle/Van Egress	587	3.8%
Bicycle Egress	149	1.0%
Other Egress	61	0.4%
Total Private Trans.	9,867	64.1%
MBTA Bus	192	1.2%
Other Bus	337	2.2%
Rapid Transit	4,753	30.9%
Commuter Rail	235	1.5%
Boat	0	0.0%
Other	3	0.0%
Total Public Trans.	5,520	35.9%
TOTAL	15,387	100.0%
No Answer	386	

### Trip time from station to trip destination by private transportation:

—	W	ALK	DRIVE	E/PARK	PIC	K-UP	OTH	IER	TO	TAL
	Number	Percent								
—										
0-5 minutes	1,832	24.1%	110	30.5%	28	18.6%	51	6.8%	2,020	22.8%
6-10	2,605	34.3%	127	35.3%	64	43.5%	191	25.6%	2,987	33.7%
11-15	1,922	25.3%	82	22.7%	21	14.5%	285	38.1%	2,310	26.1%
16-20	815	10.7%	27	7.4%	22	14.8%	155	20.7%	1,019	11.5%
21-30	349	4.6%	15	4.0%	13	8.5%	66	8.8%	442	5.0%
31-45	66	0.9%	0	0.0%	0	0.0%	0	0.0%	66	0.7%
Over 45	10	0.1%	0	0.0%	0	0.0%	0	0.0%	10	0.1%
TOTAL	7,598	100.0%	359	100.0%	148	100.0%	747	100.0%	8,852	100.0%
No Answer	668		141		77		128		1,014	
Avg. Time (min)	1	1.5	1	10.6		12.2	1	4.9		11.7

# **T** <u>MBTA Surveys: 2008-09</u>

### Commuter Rail Survey

### Transfers from the Commuter Rail System

Expanded Results

### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
Kendall/MIT	424
Back Bay	357
Downtown Crossing	345
Arlington	342
Harvard	330
State	315
South Station	292
Boylston	173
Central	171
NE Medical Center	144
Ruggles	135
Longwood Medical Area	135
Chinatown	118
Copley	95
Kenmore	93
Government Center	82
Brigham Circle	76
Park Street	71
Prudential	67
JFK/Umass	61
Fenway	60
Massachusetts Avenue	59
Northeastern	50
Brookline Village	49
Hynes Convention Center	48
Lechmere	46
Museum of Fine Arts	44
Sullivan Square	43
Alewife	42
Airport	36
Other stations	446

Commuter Rail, Alighted at Station Indicated:	Number of Riders
Porter Square	75
Chelsea	18
Waverly	16
Mishawum	12
Lowell	12
Brandeis/Roberts	11
Other stations	87

MBTA Bus Routes:	Number of Riders
4	74
455	27
77	18
73	13
93	8
468	8
87	8
96	6
451	5
70A	5
101	4
450	4
Other routes	13
Other Bue Doutee	Number of
Other Bus Routes:	Riders
EZ	295
SCH	17
MVRTA	13
MVRTA 32	9
Unspecified Bus	3

Boat,	Alighted at	
Dock	Indicated:	

(None identified)

Other:	Number of Riders
Seaport Shuttle Bus	3

All North Side Lines

Exit Station: All Stations

### **T** MBTA Surveys: 2008-09

### Commuter Rail Survey

### Egress from the Commuter Rail System

Expanded Results

All South Side Lines Exit Station: All Stations

### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	23,007	68.2%
Drive/Park Egress	1,034	3.1%
Pick-up Egress	457	1.4%
Taxi Egress	110	0.3%
Shuttle/Van Egress	1,107	3.3%
Bicycle Egress	232	0.7%
Other Egress	69	0.2%
Total Private Trans.	26,016	77.1%
MBTA Bus	1,448	4.3%
Other Bus	140	0.4%
Rapid Transit	5,791	17.2%
Commuter Rail	329	1.0%
Boat	22	0.1%
Other	0	0.0%
Total Public Trans.	7,730	22.9%
TOTAL	33,747	100.0%
No Answer	690	

### Trip time from station to trip destination by private transportation:

-	WALK		DRIVE/PARK		PIC	PICK-UP		IER	TOTAL		
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
-											
0-5 minutes	7,933	37.0%	233	26.7%	106	32.8%	148	11.4%	8,420	35.2%	
6-10	8,792	41.0%	332	38.1%	79	24.4%	600	46.2%	9,802	41.0%	
11-15	3,266	15.2%	172	19.7%	75	23.2%	329	25.4%	3,842	16.1%	
16-20	1,014	4.7%	72	8.2%	44	13.7%	105	8.1%	1,235	5.2%	
21-30	366	1.7%	27	3.2%	19	5. <b>9%</b>	87	6.7%	500	2.1%	
31-45	48	0.2%	25	2.9%	0	0.0%	22	1.7%	95	0.4%	
Over 45	3	0.0%	10	1.1%	0	0.0%	7	0.5%	20	0.1%	
TOTAL	21,422	100.0%	872	100.0%	324	100.0%	1,298	100.0%	23,915	100.0%	
No Answer	1,585		162		133		221		2,101		
Avg. Time (min)		8.9	1	12.0		11.8	1	13.0		9.3	

# **T** <u>MBTA Surveys: 2008-09</u>

### Commuter Rail Survey

### Transfers from the Commuter Rail System

Expanded Results

### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
Kendall/MIT	905
State	543
Charles/MGH	452
North Station	414
Harvard	350
Back Bay	302
Central	298
Haymarket	216
Downtown Crossing	212
Ruggles	188
NE Medical Center	183
Park Street	182
Chinatown	113
Massachusetts Avenue	110
JFK/UMass	100
Kenmore	93
Government Center	88
Lechmere	72
Sullivan Square	72
Davis	53
Longwood Medical Area	51
Porter	48
Wellington	45
Alewife	44
Malden	44
Fenway	42
North Quincy	40
Red Line: Unspecified	40
Brigham Circle	39
Arlington	37
Other stations	589

Commuter Rail, Alighted at Station Indicated:	Number of Riders
Winchester Center	14
Anderson/Woburn	12
Salem	11
Route 128	9
Newtonville	8
Lynn	8
Other stations	30

MBTA Bus Routes:	Number o Riders
SL2	749
39	153
10	140
SL1	73
7	44
CT3	43
8	42
4	37
47	31
55	23
CT2	22
32	10
Other routes	77
Other Bus Routes:	Number o Riders
UMB	38
MWRTA	34
BAT	11
RIPTA	9
RIPTA 26	9
RIPTA 31	9
RIPTA Thaber St	9
Other routes	16
Unspecified Bus	4
Boat, Alighted at	Number o

Dock Indicated:	Riders
Charlestown Navy Yard	16
Georges Island	7

### Other:

(None identified)

All South Side Lines

Exit Station: All Stations

# ) <u>MBTA Surveys: 2008-09</u> Commuter Rail Survey

### Destination Locations and Activities

**Expanded Results** 

DESTINATION LOCATIONS DESTINATION ACTIVITIES											
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Boston: Financial/Retail	2,310	14.6%	0.1%		2.1%	94.2%	0.5%	0.4%	1.7%	0.7%	0.1%
Boston: Govt Center	1,532	9.7%			1.5%	92.9%		1.2%	2.7%	1.4%	0.3%
Boston: North End	1,174	7.4%	1.7%	0.7%	0.8%	89.4%		2.4%	0.7%	1.7%	2.4%
Boston: Beacon Hill	941	6.0%		1.1%		86.2%		9.6%	1.2%	1.0%	0.9%
Cambridge: Kendall/MIT	894	5.7%	0.7%		0.7%	95.6%		0.3%	1.3%	1.3%	
Boston: Park Square	693	4.4%			3.7%	89.8%	0.2%	3.7%		2.1%	0.4%
Cambridge: Harvard Square	538	3.4%	3.0%	1.7%	5.2%	88.0%		0.3%	1.4%		0.4%
Boston: Unspecified	517	3.3%	15.9%	2.1%	0.8%	65.9%		5.1%	1.5%	5.5%	3.2%
Boston: Waterfront	513	3.3%	1.6%	1.1%		94.2%		0.7%	1.1%		1.3%
Waltham	509	3.2%	1.0%	0.8%	16.8%	75.6%		0.8%	0.5%	2.3%	2.3%
Boston: Longwood Med Area	499	3.2%		1.0%	8.5%	82.6%	0.7%	2.2%	1.7%	1.7%	1.6%
Boston: Prudential/Hancock	409	2.6%			0.8%	94.9%		1.7%	0.6%		1.9%
Boston: So Bos Indust	395	2.5%	1.0%			97.7%				1.3%	
Boston: Back Bay	368	2.3%			4.4%	88.3%	1.7%	1.7%		1.0%	2.9%
Boston: Fenway	330	2.1%	0.7%		11.8%	74.2%		1.1%	1.1%	9.5%	1.6%
Salem	325	2.1%	2.4%	14.5%	14.1%	40.6%	1.7%	3.6%	4.1%	14.6%	4.4%
Lynn	308	2.0%	2.5%	16.2%	16.5%	56.2%		4.3%	4.3%		
Beverly	264	1.7%	2.2%	36.9%	5. <b>9%</b>	46.1%	0.9%	2.0%		3.0%	3.0%
Boston: Charlestown	179	1.1%			9.8%	85.3%			2.8%		2.1%
lpswich	151	1.0%		10.5%		73.7%				10.5%	5.3%
Cambridge: Central Square	141	0.9%	2.0%		6.2%	84.6%				3.2%	4.0%
Concord	138	0.9%		3.2%	10.7%	81.1%	4.9%				
Boston: Dwntwn Unspecified	133	0.8%	20.1%		1.9%	65.4%				10.0%	2.7%
Cambridge: North Cambridge	122	0.8%		17.2%		76.5%					6.3%
Cambridge: East Cambridge	121	0.8%				97.7%	2.3%				
Boston: B U	117	0.7%			26.8%	67.5%					5.7%
Boston: South End	108	0.7%			2.0%	93.8%				1.5%	2.8%
Unspecified	100	0.6%	33.3%	14.3%	3.0%	24.4%		5.1%		14.2%	5.7%
Acton	95	0.6%		70.6%		19.3%				10.1%	
Wakefield	91	0.6%		63.2%		29.6%					7.3%
Chelsea	88	0.6%	3.9%	14.9%	2.5%	78.7%					
Lawrence	86	0.5%		46.1%		32.6%			5.4%		15.9%
Gloucester	85	0.5%		68.5%		12.7%		9.4%		9.4%	
Rockport	80	0.5%		60.0%						30.0%	10.0%
Other (< 0.5 % of riders)	1,419	9.0%	2.5%	31.0%	8.6%	42.9%		2.5%	2.9%	2.2%	7.5%

City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
OVERALL TOTAL	15,773	100.0%	1.7%	6.5%	4.1%	79.7%	0.3%	2.0%	1.4%	2.3%	2.0%

Note: Totals shown may differ from column total because of rounding.

# **T**<u>*MBTA Surveys: 2008-09*</u>

Commuter Rail Survey

### Destination Locations and Activities

**Expanded Results** 

DESTINATION LOCATIONS					DESTINATION ACTIVITIES						
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Boston: Financial/Retail	7,516	21.8%	0.6%	0.1%	0.4%	97.1%	0.1%	0.2%	1.0%	0.5%	0.1%
Boston: Waterfront	3,101	9.0%	1.0%	0.2%	0.3%	95.4%			1.7%	0.1%	1.4%
Boston: Prudential/Hancock	2,773	8.1%	0.1%	0.4%	0.1%	98.2%	0.1%		1.0%		0.1%
Boston: Govt Center	2,433	7.1%	0.3%	0.1%	0.4%	96.7%		0.4%	1.6%	0.1%	0.3%
Boston: So Bos Indust	2,139	6.2%	0.8%		0.2%	97.3%		0.6%	0.6%	0.3%	0.2%
Boston: Back Bay	2,025	5. <b>9</b> %	0.9%	0.5%	2.6%	89.9%		1.9%	0.8%	1.4%	2.0%
Boston: Longwood Med Area	1,693	4.9%	0.4%	0.2%	4.9%	91.0%		2.3%	0.3%	0.6%	0.2%
Boston: Park Square	1,630	4.7%	0.4%		2.2%	94.0%		1.9%	0.5%	1.0%	
Boston: Unspecified	1,494	4.3%	11.8%	1.1%	1.4%	76.5%	0.3%	1.2%	2.1%	1.6%	4.1%
Cambridge: Kendall/MIT	1,098	3.2%	0.4%		1.3%	96.7%		0.8%	0.9%		
Boston: Fenway	963	2.8%		0.3%	5.3%	90.6%		0.3%	0.7%	2.7%	
Boston: North End	627	1.8%	1.3%			95.3%		0.6%	0.6%	1.5%	0.7%
Boston: Beacon Hill	604	1.8%	1.1%	1.0%		80.5%		15.7%		1.6%	
Boston: South End	591	1.7%	0.6%	3.2%	4.2%	85.2%		2.4%	0.7%	1.7%	2.0%
Providence, RI	413	1.2%		24.4%	11.1%	46.8%		2.2%	6.7%	4.4%	4.4%
Cambridge: Harvard Square	350	1.0%	1.0%	0.9%	4.2%	85.4%		2.3%	4.2%	1.2%	0.9%
Cambridge: Central Square	245	0.7%		3.0%	2.6%	86.4%		4.2%		3.8%	
Needham	237	0.7%		41.6%		34.0%		11.3%	13.0%		
Boston: North Dorchester	209	0.6%	2.0%		29.1%	61.9%			2.1%		4.9%
Norwood	182	0.5%		61.9%		30.3%		7.8%			
Attleboro	181	0.5%	1.7%	57.4%		20.6%	10.1%				10.1%
Other (< 0.5 % of riders)	3,933	11.4%	2.8%	29.6%	3.0%	52.3%	0.2%	2.8%	2.2%	1.3%	5.8%
OVERALL TOTAL	34,436	100.0%	1.3%	4.9%	1.7%	87.2%	0.1%	1.4%	1.3%	0.8%	1.3%

Note: Totals shown may differ from column total because of rounding.



### Origin-Destination Cross-tabulation

Expanded Results

All North Side Lines Entry Station: All Stations

#### Destination Town/Neighborhood:

Origin Town/ Neighborhood:	Boston: Financial/R etail	Boston: Govt Center	Boston: North End	Beacon	Cambridge : Kendall/MI	Boston: Park Square		Boston: Unspecifie d		Boston: Prudential/ Hancock	Other & % of Row	Row Total & % of Overall
Beverly	273	168	105	78	67	92	29	42	67	63	411	1437
											28.6%	6.8%
Salem	157	119	80	73	62	80	50	37	52	47	402	1197
											33.6%	5.7%
Winchester	246	151	45	66	61	41	27	51	31	31	149	906
											16.4%	4.3%
Lowell	103	130	61	13	25	44	43	47	20	25	235	747
											31.4%	3.5%
Gloucester	74	74	27	37	36	56	27	30	10	18	220	613
											35.8%	2.9%
Reading	122	80	49	58	36	37	30	19	19	31	95	583
											16.4%	2.8%
Lynn	53	44	58	37	26	6	23	26	11	20	164	483
, ,											34.0%	2.3%
Andover	119	36	39	21	39	33	19	30	18	11	101	474
											21.4%	2.2%
Haverhill	102	30	33	43	30	15	12	26	33	33 15	111	461
											24.1%	2.2%
Wakefield	112	93	45	36	7	26	23	29	0	0 4	55	444
											12.4%	2.1%
Acton	68	34	29	11	95	8	8	0	22	8	110	431
											25.5%	2.0%
Medford	53	41	50	21	5	35	42	7	14	0	148	417
											35.4%	2.0%
Waltham	59	39	35	29	20	0	5	28	10	0	126	417
											32.3%	2.0%
Concord	72	57	38	21	19	13	11	0	3	3	95	381
											25.0%	1.8%
Wilmington	89	66	28	35	6	16	26	6	24	24	44	369
											11.8%	1.7%
Melrose	63	34	47	40	20	11	9	6	16	0	91	344
											26.4%	1.6%
Ipswich	88	24	13	15	18	20	19	18	11	11	82	322
											25.5%	1.5%
Swampscott	33	36	27	21	30	21	15	15	0	9	93	307
· ·											30.2%	1.5%
Other &	1353	976	746	540	458	394	322	314	293	246	4610	10508
% of Column	41.0%	42.9%	47.4%	45.0%	41.7%	40.8%	42.9%	42.5%	43.5%	42.4%	43.9%	49.8%
Column Total &	3301	2277	1573	1201	1097	966	750	739	673	580	7392	21112
% of Overall	15.6%	10.8%	7.4%	5.7%	5.2%	4.6%	3.6%	3.5%	3.2%	2.7%	35.0%	



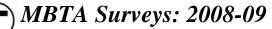
### Origin-Destination Cross-tabulation

Expanded Results

All South Side Lines Entry Station: All Stations

#### Destination Town/Neighborhood:

Origin Town/ Neighborhood:	Boston: Financial/R	Boston: Waterfront		Boston: Govt	Boston: So Bos	Boston: Back Bay	Boston: Longwood	Boston: Park	Unspecifie		Other & % of Row	& % of
	etail		Hancock	Center	Indust		Med Area	Square		Kendall/MI		Overall
Brockton	339	166	79	112	95	39	51	52	152	57	208	1359
											15.3%	3.9%
Needham	398	129	132	68	72	90	44	113	37	45	151	1323
											11.4%	3.8%
Norwood	246	118	104	84	80	60	99	116	33	17	169	1161
											14.6%	3.4%
Canton	181	58	114	107	106	92	106	27	70	34	162	1086
											15.0%	3.2%
Providence, RI	118	48	76	72	39	35	91	56	45	35	372	1076
											34.6%	3.1%
Mansfield	184	92	120	42	89	111	68	49	54	62	139	1034
											13.4%	3.0%
Natick	214	53	74	49	49	76	86	22	41	54	155	918
											16.9%	2.7%
Sharon	162	78	44	59	63	81	81	57	45	32	152	862
		-									17.6%	2.5%
Dedham	230	64	111	79	47	47 45	45 24	59	33	38	104	848
boundin											12.2%	2.5%
Attleboro	195	68	85	46	21	63	44	40	46	13	175	799
	170		00	10	21	00		10	10	10	21.9%	2.3%
Framingham	162	67	54	57	67	32	43	53	23	53	124	771
Trainingnann	102	07	54	57	07	52	45	55	23	55	16.1%	2.2%
Franklin	125	88	113	32	73	49	44	35	13	82	80	753
FIDIKIII	120	00	115	32	/3	49	44	30	13	02	80 10.7%	2.2%
Walnala	174	66	61	72	65	46	48	41	39	16	106	753
Walpole	1/4	00	01	12	00	40	40	41	39	10	14.1%	2.2%
	47/	01		00	50	59	0/	10	0			
Boston: West Roxbury	176	91	46	89	53	59	36	40	8	4	103 <i>14.0%</i>	731 <i>2.1%</i>
		50	74		50	0.4	04		47	04		
Stoughton	164	58	76	66	59	31	31	30	47	21	72	700
											10.3%	2.0%
Boston: Hyde Park	112	57	60	75	19	71	47	25	11	15	128	673
											19.1%	2.0%
Wellesley	254	75	77	38	22	30	15	30	30	11	72	665
											10.8%	1.9%
Westwood	182	61	46	39	71	33	22	20	50	3	66	599
											10.9%	1.7%
Other &	3719	1637	1283	1164	1002	978	690	736	708	484	4921	17761
% of Column	49.5%	52.8%	46.3%	47.8%	46.8%	48.3%	40.8%	45.1%	47.4%	44.0%	27.7%	51.6%
Column Total &	7516	3101	2773	2433	2139	2025	1693	1630	1494	1098	7571	34436
% of Overall	21.8%	9.0%	8.1%	7.1%	6.2%	5.9%	4.9%	4.7%	4.3%	3.2%	22.0%	



### Socioeconomic Characteristics

**Expanded Results** 

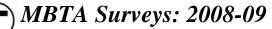
All North Side Lines Entry Station: All Stations

	Number of	Percent of	Cumulative
Age of Riders:	Riders	Riders	Percentage
18 and Under	288	1.4%	1.4%
19 - 24	1,537	7.4%	8.7%
25 - 34	4,392	21.0%	29.8%
35 - 44	4,437	21.2%	51.0%
45 - 64	9,200	44.0%	95.0%
65 and Older	1,038	5.0%	100.0%
TOTAL	20,892	100.0%	100.0%
No Answer	220		
		Number of	Percent of
Gender of Riders:		Riders	Riders
Male		9,091	44.9%
Female		11,142	55.0%
Transgender		21	0.1%
TOTAL		20,254	100.0%
No Answer		858	

#### Annual Household Income of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under \$20,000	651	3.5%	3.5%
\$20,000 - \$29,999	434	2.4%	5.9%
\$30,000 - \$39,999	727	3.9%	9.8%
\$40,000 - \$49,999	1,010	5.5%	15.3%
\$50,000 - \$59,999	1,185	6.4%	21.7%
\$60,000 - \$74,999	2,304	12.5%	34.2%
\$75,000 - \$99,999	3,337	18.1%	52.3%
\$100,000 or more	8,783	47.7%	100.0%
TOTAL	18,431	100.0%	100.0%
No Answer	2,681		

Mean Household Size: 2.67



### Socioeconomic Characteristics

**Expanded Results** 

TOTAL

No Answer

All South Side Lines Entry Station: All Stations

100.0%

Age of Riders:	Number of Riders	Percent of Riders	Cumulative Percentage
18 and Under	216	0.6%	0.6%
19 - 24	1,548	4.5%	5.2%
25 - 34	6,563	19.2%	24.4%
35 - 44	8,735	25.6%	50.0%
45 - 64	15,544	45.6%	95.6%
65 and Older	1,491	4.4%	100.0%
TOTAL	34,098	100.0%	100.0%
No Answer	338		
Gender of Riders:		Number of Riders	Percent of Riders
Male		15,598	47.3%
Female		17,385	52.7%
Transgender		9	0.0%

32,992

1,444

#### Annual Household Income of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under \$20,000	515	1.7%	1.7%
\$20,000 - \$29,999	446	1.5%	3.2%
\$30,000 - \$39,999	792	2.6%	5.8%
\$40,000 - \$49,999	1,241	4.1%	10.0%
\$50,000 - \$59,999	1,511	5.0%	15.0%
\$60,000 - \$74,999	2,948	9.8%	24.8%
\$75,000 - \$99,999	5,518	18.4%	43.2%
\$100,000 or more	17,071	56.8%	100.0%
TOTAL	30,041	100.0%	100.0%
No Answer	4,395		

Mean Household Size: 2.86

## MBTA Surveys: 2008-09

Commuter Rail Survey

Ethnicity of Riders	All North Side Lines
Expanded Results	Entry Station: All Stations

Number of Responses	Percent of Responses
172	0.8%
564	2.8%
44	0.2%
1,107	5.5%
17,717	87.6%
630	3.1%
20,234	100.0%
	Responses 172 564 44 1,107 17,717 630

# Note: Responders were allowed to check more than 1 box; percentages shown represent fractions of total responses.

Are You Hispanic/Latino?:	Number of Responses	Percent of Responses
Yes No	747 18,913	3.8% 96.2%
TOTAL No Answer	19,660 1,453	100.0%

## MBTA Surveys: 2008-09

Commuter Rail Survey

Ethnicity of Riders	All South Side Lines
Expanded Results	Entry Station: All Stations

Self-Identified Race:	Number of Responses	Percent of Responses
American Indian/Alaskan Native	353	1.1%
Black or African-American	1,669	5.1%
Native Hawaiian or Other Pacific Islander	75	0.2%
Asian	1,747	5.3%
White	28,247	85.6%
Other	915	2.8%
TOTAL	33,005	100.0%

Note: Responders were allowed to check more than 1 box; percentages shown represent fractions of total responses.

Are You Hispanic/Latino?:	Number of Responses	Percent of Responses
Yes No	901 31,300	2.8% 97.2%
TOTAL No Answer	32,201 2,235	100.0%

**T** <u>MBTA Surveys: 2008-09</u>

Commuter Rail Survey

### Usage Rates and Fare Types

Expanded Results

### All North Side Lines

Entry Station: All Stations

Number of Days per Week Riders Use the Service:	Number of Riders	Percent of Riders	Cumulative Percentage
Less than One	1,004	4.8%	4.8%
One Day	432	2.1%	6.9%
Two Days	774	3.7%	10.6%
Three Days	1,348	6.4%	17.0%
Four Days	2,276	10.9%	27.9%
Five Days	13,864	66.2%	94.1%
Six Days	450	2.1%	96.3%
Seven Days	277	1.3%	97.6%
Only Visiting	504	2.4%	100.0%
TOTAL	20,929	100.0%	100.0%
No Answer	183		

Weekend Usage:		Sunday Usage*				
Saturday Usage*	Regularly	Occasionally	Not at All	No Answer		
Regularly	580 3.0%	303 1.6%	36 0.2%	190	918 4.7%	
Occasionally	78 78 0.4%	7,627 39.1%	1,386 7.1%	750	9,091 46.6%	
Not at all		129 0.7%	9,376 48.0%	259	9,520 48.7%	
No Answer	33	76	20	253		
Sunday Total	673 3.4%	8,059 41.3%	10,797 55.3%		19,529 *	

\* Totals and percentages reflect only riders who responded to both Saturday and Sunday questions.

Usage Rates by				Zones Reported by		
Fare Type:	Number	Percent	Avg. No. of Days	Users of Zone Passes:	Number	Percent
Fare Payment Type	of Riders	of Riders	Line Used/Wk.	Zone	of Riders	of Riders
Adult full fare	2,948	14.0%	2.8	1A	669	3.2%
Family fare	44	0.2%	1.4	1	1,196	5.7%
Monthly pass	13,999	66.4%	4.9	2	2,699	12.8%
12-ride ticket	2,701	12.8%	3.9	3	2,197	10.4%
Senior citizen half fare	702	3.3%	2.8	4	1,506	7.1%
Student half fare	125	0.6%	3.6	5	1,588	7.5%
Blind Access Card	33	0.2%	4.7	6	2,014	9.6%
10-ride half fare ticket	201	1.0%	3.8	7	907	4.3%
Disability half fare	178	0.8%	3.1	8	1,105	5.2%
Child under age 12 free fare	12	0.1%	5.0	Interzone	116	0.6%
Other	139	0.7%	3.8			
				No Zone Selected	0	0.0%
All Payment Types	21,082	100.0%		Total Riders Using Zone Passes	13,999	66.4%

**T** <u>MBTA Surveys: 2008-09</u>

Commuter Rail Survey

### Usage Rates and Fare Types

Expanded Results

### **All South Side Lines**

Entry Station: All Stations

Number of Days per Week Riders Use the Service:	Number of Riders	Percent of Riders	Cumulative Percentage
Less than One	1,028	3.0%	3.0%
One Day	497	1.4%	4.4%
Two Days	948	2.8%	7.2%
Three Days	2,114	6.2%	13.4%
Four Days	3,561	10.4%	23.8%
Five Days	24,643	71.9%	95.7%
Six Days	671	2.0%	97.6%
Seven Days	332	1.0%	98.6%
Only Visiting	475	1.4%	100.0%
TOTAL	34,269	100.0%	100.0%
No Answer	167		

Weekend Usage:		Sunday Usage*				
Saturday Usage*	Regularly	Occasionally	Not at All	No Answer		
Regularly	711 2.2%	310 1.0%	76 0.2%	259	1,098 3.5%	
Occasionally	67 0.2%	10,619 33.4%	3,615 11.4%	1,560	14,301 45.0%	
Not at all	6 0.0%	152 0.5%	16,238 51.1%	370	16,397 51.6%	
No Answer	18	110	23	302		
Sunday Total	784 2.5%	11,081 34.9%	19,929 62.7%		31,795 *	

\* Totals and percentages reflect only riders who responded to both Saturday and Sunday questions.

Usage Rates by				Zones Reported by		
Fare Type:	Number	Percent	Avg. No. of Days	Users of Zone Passes:	Number	Percent
Fare Payment Type	of Riders	of Riders	Line Used/Wk.	Zone	of Riders	of Riders
Adult full fare	3,222	9.4%	3.2	1A	217	0.6%
Family fare	43	0.1%	1.1	1	1,593	4.6%
Monthly pass	23,369	68.0%	4.9	2	3,043	8.9%
12-ride ticket	5,995	17.5%	3.9	3	3,606	10.5%
Senior citizen half fare	817	2.4%	3.0	4	4,341	12.6%
Student half fare	133	0.4%	3.9	5	1,684	4.9%
Blind Access Card	48	0.1%	3.0	6	3,549	10.3%
10-ride half fare ticket	350	1.0%	4.4	7	2,623	7.6%
Disability half fare	169	0.5%	3.0	8	2,654	7.7%
Child under age 12 free fare	7	0.0%	0.5	Interzone	55	0.2%
Other	194	0.6%	4.2			
				No Zone Selected	3	0.0%
All Payment Types	34,347	100.0%		Total Riders Using Zone Passes	23,369	68.0%



<i>icle Availability</i> nded Results	All North Side Entry Station: All St		
Licensed Drivers:	Number of Riders	Percent of Riders	
Licensed	19,447	93.0%	
Not Licensed	1,462	7.0%	
TOTAL	20,910	100.0%	
No Answer	202		
Usable Vehicles per Household:	Number of Riders	Percent of Riders	
No vehicles	1,869	8.9%	
1 vehicle	6,295	30.1%	
2 vehicles	9,535	45.7%	
3 or more vehicles	3,184	15.2%	
TOTAL	20,883	100.0%	
No Answer	229		
Was a Household Vehicle Available to Rider?:	Number of	Percent of	
	Riders	Riders	
Yes	14,421	69.6%	
No	6,314	30.4%	

TOTAL	20,735	100.0%
No Answer	378	

Vehicles Owned per Capita:	Number of Riders	Percent of Riders	Cumulative Percentage
No vehicles	1,804	8.8%	8.8%
0.01 to 0.49 vehicles	2,515	12.3%	21.1%
0.50 to 0.99 vehicles	7,803	38.1%	59.2%
1.00 to 1.49 vehicles	7,531	36.8%	95.9%
1.50 to 1.99 vehicles	624	3.0%	99.0%
2 or more vehicles	207	1.0%	100.0%
TOTAL RESPONSES	20,484		



nicle Availability nded Results	All South Side L Entry Station: All Stat		
Licensed Drivers:	Number of Riders	Percent of Riders	
Licensed	32,945	96.3%	
Not Licensed	1,273	3.7%	
TOTAL	34,218	100.0%	
No Answer	218		
Usable Vehicles per Household:	Number of Riders	Percent of Riders	
No vehicles	1,493	4.4%	
1 vehicle	8,875	26.0%	
2 vehicles	17,889	52.5%	
3 or more vehicles	5,812	17.1%	
TOTAL	34,070	100.0%	
No Answer	367		
Was a Household Vehicle Available to Rider?:	Number of	Percent of	
	Riders	Riders	
Yes	26,565	78.4%	
No	7,309	21.6%	

TOTAL	33,875	100.0%
No Answer	562	

Vehicles Owned per Capita:	Number of Riders	Percent of Riders	Cumulative Percentage
No vehicles	1,434	4.3%	4.3%
0.01 to 0.49 vehicles	4,118	12.3%	16.6%
0.50 to 0.99 vehicles	14,681	43.9%	60.5%
1.00 to 1.49 vehicles	11,873	35.5%	96.0%
1.50 to 1.99 vehicles	986	2.9%	99.0%
2 or more vehicles	349	1.0%	100.0%
TOTAL RESPONSES	33,441		

(T) <u>MBTA Surveys: 2008-09</u>

Commuter Rail Survey

### Service Quality

Expanded Results

All North Side Lines Entry Station: All Stations

Service Quality	Mean	1 (Poor)	2	3 (Average)	4	5 (Excellent)	Total	No Response	Impor- tance*
Reliability (on-time performance)	3.4	4.8%	12.4%	31.7%	37.3%	13.8%	20,532	580	11,991
Safety and security	4.0	0.8%	3.0%	23.7%	43.5%	29.0%	20,306	806	4,098
Cleanliness/condition of vehicles	3.1	8.5%	16.4%	40.9%	28.0%	6.2%	20,501	611	2,547
Courtesy of train crews	4.0	0.9%	4.0%	21.1%	41.2%	32.8%	20,544	568	1,492
Announcement of stations	3.3	7.3%	14.6%	33.6%	29.4%	15.0%	20,370	742	622
Availability of seating on trains	3.6	2.9%	9.1%	31.6%	37.4%	19.1%	20,519	593	3,230
Frequency of service	3.2	7.8%	17.0%	35.5%	28.8%	10.9%	20,514	599	7,382
Travel time/speed	3.6	3.3%	7.7%	30.9%	40.5%	17.6%	20,507	605	3,949
Parking availability	3.2	12.2%	15.3%	27.9%	25.7%	18.9%	16,384	4,728	1,886
Station amenities	2.6	23.6%	21.9%	32.0%	16.1%	6.4%	18,806	2,306	295

\* The number of respondents who indicated that this service quality measure was one of the three most important to them. Many respondents checked no measures, while others checked more than three.

(T) <u>MBTA Surveys: 2008-09</u>

Commuter Rail Survey

### Service Quality

**Expanded Results** 

All South Side Lines Entry Station: All Stations

Service Quality	Mean	1 (Poor)	2	3 (Average)	4	5 (Excellent)	Total	No Response	Impor- tance*
Reliability (on-time performance)	3.3	5.2%	13.6%	35.5%	35.6%	10.1%	33,713	723	19,752
Safety and security	3.9	1.3%	3.5%	25.7%	46.2%	23.3%	33,415	1,022	6,913
Cleanliness/condition of vehicles	3.1	7.7%	16.1%	40.3%	29.8%	6.1%	33,540	896	4,060
Courtesy of train crews	3.8	1.9%	5.9%	24.6%	41.5%	26.1%	33,609	827	1,865
Announcement of stations	3.0	11.4%	18.8%	35.0%	24.8%	10.0%	33,417	1,019	1,741
Availability of seating on trains	3.3	7.0%	14.2%	34.0%	31.3%	13.5%	33,686	750	6,992
Frequency of service	3.2	6.5%	17.1%	38.9%	30.0%	7.5%	33,525	911	10,799
Travel time/speed	3.5	3.3%	8.7%	34.9%	40.6%	12.5%	33,462	974	6,835
Parking availability	3.6	6.2%	8.3%	27.3%	34.8%	23.3%	28,987	5,449	2,172
Station amenities	2.7	19.7%	21.1%	35.0%	18.0%	6.1%	30,900	3,536	295

\* The number of respondents who indicated that this service quality measure was one of the three most important to them. Many respondents checked no measures, while others checked more than three.



The three types of data presented in this chapter, taken as a whole, could be said to "frame" the trips the riders made. These data help answer the questions: What kinds of trips were commuter rail riders making? Why did they choose to use commuter rail service? What were their alternatives?

The tables (at the end of the chapter) present these data by commuter rail line. For each line, three tables presenting the three respective types of data are grouped on a single page. The data for each line are based on the survey responses from riders who started the commuter rail portions of their trips on that line. Chapter 2 addresses the same categories of data that are addressed in the present chapter, but at the level of the commuter rail system as a whole. It includes tables and discussion.

### 3.1 TRIP PURPOSE

### 3.1.1 DESCRIPTION OF TABLE

The trip purpose table for each line shows the allocation of the trips among nine categories: home-based work, home-based school, home-based shopping, home-based social activity, home-based personal business, home-based work-related, home-based other, work-based, and non-home/non-work-based. This allocation was done using information from survey questions 4a and 9a: "Where were you before starting this entire one-way trip?" and "Where will/did this one-way trip end?" The actual origins and destinations (by municipality or neighborhood) of the trips by purpose are shown in Chapters 4 and 7, respectively.

Trips with home at either end were classified as home-based. For example, trips either from home to work or from work to home were counted as home-based work trips, and there was no "work-based home" category. Work-based trips were those with work at one end and an activity other than home at the other end. Non-home/non-work-based trips did not have home or work at either end.

For each of the trip purposes, the table shows the number of riders and the percentage that these riders represent relative to the total number of riders

entering the commuter rail system at a station along the line who specified their activities at both trip ends. It also gives the cumulative percentages that result as one adds each trip purpose category of riders to the ones preceding it in the table.

### 3.1.2 OVERVIEW OF RESULTS

### North Side

Along all of the North Side commuter rail lines, the most common trip purpose category was overwhelmingly home-based work. Such trips accounted for 81% to 87% of the trips on the individual lines. The second-most common trip purpose was home-based school, accounting for 3% to 5% of the trips on each North Side line. The third-most-common trip purpose on three of the lines was work-based, at about 3% to 4%, but on the Fitchburg Line home-based social and non-home/non-work-based trips, with 2% to 3%, respectively, both exceeded work-based trips, at less than 2%.

### South Side

Work-based trips accounted for 87% to 94% of the trips on the individual South Side lines. On five of the eight lines, work-based trips were secondmost-common, at about 2% to 4%. However, on the Franklin Line, home-based school trips exceeded home-based work trips (4% to 3%). On the Middleborough/Lakeville Line, home-based "other" trips exceeded homebased work trips (3% to 2%). On the Greenbush Line, home-based personal business trips were second, but accounted for less than 2% of total trips.

### 3.2 REASONS FOR USING THE MBTA

### 3.2.1 DESCRIPTION OF TABLE

The table for each line showing the reasons for using MBTA commuter rail service summarizes the results from question 22 on the survey. This question listed eight possible reasons riders might have for using commuter rail rather than some other mode of transportation. These were "convenience," "speed/ travel time," "avoid driving/traffic," "avoid parking at destination," "environmentally responsible," "less expensive than other choices," "can read/ do work on the train," and "only transportation available." There was also a space for writing in other reasons.

The table presents both the number and percent of riders who selected each reason. Riders were allowed to check as many reasons as they felt were relevant. Therefore the values in the "Number of Riders" column have not been totaled in the table; the number at the bottom of that column is the number of riders who checked at least one reason. The values in the "Percent of Riders" column may add up to more than 100%. The percentages were calculated by dividing the number of responses for each reason by the total number of people who checked at least one reason.

### 3.2.2 OVERVIEW OF RESULTS

### North Side

Along all of the North Side lines, the most frequently selected reason for using commuter rail was "avoid driving/traffic." This reason was cited by 76% to 79% of the riders on the four individual lines. The second-most-frequently-selected reason along the Newburyport/Rockport and Lowell Lines was "convenience" accounting for 67% and 60%, respectively, of the responses. On these lines, "avoid parking at destination" was third, at 57% and 59%. Along the Haverhill Line "avoid parking at destination" was slightly ahead of "convenience," but both were checked by about 56%. The second-most-frequent reason along the Fitchburg Line was "can read/do work," at 59%. This was followed by "convenience" (56%) and "environmentally responsible" (55%). Between 10% and 15% of the riders on each line indicated that their reason for using commuter rail was "only transportation available."

### South Side

Along six of the eight South Side lines, the most frequently selected reason for using commuter rail was "avoid driving/traffic." This reason was cited by 78% to 87% of the riders on these six lines. On the Greenbush Line, "convenience" was slightly ahead of "avoid driving/traffic," 85% to 84%. On the Fairmount Line, "convenience was far ahead of "avoid driving/traffic," 82% to 69%.

On five of the six lines where "avoid driving/traffic" was the most common reason for riding, "convenience" was second, with 60% to 76%. On these lines, as well as on the Fairmount Line, "avoid parking at destination" was third, with 48% to 65%, and "can read or do work on the train" was fourth, with 46% to 60%. On the Framingham/Worcester Line, "convenience" was in fourth place, at only 51%. On the Greenbush Line, "can read or do work on the train" was ahead of, "avoid parking at destination," 63% to 54%.

Between 8% and 10% of the riders on each line indicated that their reason for using commuter rail was "only transportation available," except on the Kingston/Plymouth Line (5%) and the Greenbush Line (3%). The Greenbush Line had been open for less than two years when the survey was conducted, and a population that could depend on it exclusively for the same trips had not yet built up to the same extent as along the older lines.

### 3.3 ALTERNATIVE MEANS OF TRANSPORTATION

### 3.3.1 DESCRIPTION OF TABLES

The two tables for each station on alternative means of transportation summarize the results of question 13b, which asked riders to indicate whether they used other means of making the same trip on days when they did not use the commuter rail system, and, if so, what mode or modes of transportation they used. The first table shows the breakdown of passengers responding "yes" and "no" to use of alternative modes. The second table shows, for riders responding "yes," the number and percent checking off each listed mode. The modes listed were "drive alone," "non-MBTA bus," "carpool/vanpool," "bicycle," "other MBTA service," and "other" (with a write-in option).

Riders were allowed to check more than one mode. Therefore the values in the "Number of Riders" column have not been totaled in the table; the number at the bottom of that column is the number of riders who checked at least one mode. The values in the "Percent of Riders" column may add up to more than 100%. The percentages were calculated by dividing the number of responses for each mode by the total number of people who checked at least one alternative mode. Some riders indicated that they do use alternative modes of transportation but did not check any listed options (including "other").

### 3.3.2 OVERVIEW OF RESULTS

### **North Side**

Among North Side riders who sometimes made the same trip by other means when not using commuter rail, the most common alternative mode of transportation was "drive alone." This alternative was checked by 66% to 75% of these respondents. "Other MBTA service" was the second-most-commonlychecked alternate mode along these lines, ranging from 19% to 29%. "Carpool/vanpool" was next, being checked by about 13% to 17% of the alternate-mode users along each North Side line.

"Other" was checked by 2% to 5% of the alternate-mode users along each of the lines, and "bicycle" by 2% to 5%. "Non-MBTA bus" was checked by very few riders along any North Side line. Among those that checked "other" and provided details, common alternatives included walking, taxi, and being dropped off.

### South Side

Among South Side riders who sometimes made the same trip by other means when not using commuter rail, the most common alternative mode of transportation, except along the Fairmount Line, was "drive alone." This alternative was checked by 69% to 83% of these respondents on six of the lines, and by 58% on the Greenbush Line. Along the Fairmount Line, however, the most-commonly-used alternative mode of transportation was "other MBTA service," checked by 64% of the line's users of alternate transportation. The area served by the Fairmount Line has much more MBTA bus service than the areas served by the other South Side lines, and two of the Fairmount Line stations are at or near stations on other commuter rail lines. Nevertheless, 42% of Fairmount Line alternative users sometime drove alone.

Along all of the lines except the Fairmount Line, the second-most common alternative was "other MBTA service," checked by 14% to 38% of the alternate transportation users. This wide range reflected differences in the availability of other MBTA services in the areas along these lines.

### TRIP PURPOSE, REASONS FOR USING THE MBTA, AND ALTERNATIVE MEANS

Except along the Fairmount Line, the third-most-common alternate transportation mode was "carpool/vanpool," at 11% to 15% on six lines, but only 6% along the Greenbush Line. "Other" modes accounted for 1% to 5% of the alternate transportation use on each line. The "other" responses that included write-in details most often specified some form of "dropped off/get a ride," "walk/run," or "taxi." Use of bicycles as alternate transportation exceeded 1% only along the Needham Line (4%) and the Franklin Line (2%).



### Trip Purpose, Reasons for Using

the MBTA, and Alternative Means

Expanded Results

Newburyport/Rockport Line Entry Station: All Stations

56.5%

15.0%

2.8%

Trip Purpose:	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	6,079	80.7%	80.7%
Home-based School	410	5.4%	86.2%
Home-based Shopping	18	0.2%	86.4%
Home-based Social Activity	147	2.0%	88.4%
Home-based Personal Business	188	2.5%	90.8%
Home-based Work-related	125	1.7%	92.5%
Home-based Other	127	1.7%	94.2%
Work-based	271	3.6%	97.8%
Non-Home/Non-Work-based	167	2.2%	100.0%
TOTAL	7,531		
No Answer	186		
Reasons for Using the MBTA:	-	Number of Riders	Percent of Riders*
Convenience		5,089	66.6%
Speed/travel time		3,051	39.9%
Avoid driving/traffic		5,835	76.3%
Avoid parking at destination		4,341	56.8%
Environmentally responsible		4,064	53.1%
Less expensive		2,469	32.3%

TOTAL RIDERS GIVING AT LEAST 1 REASON:

Can read/do work

Other

Only transportation available

**Other Modes Reported Use Other Mode** Number of Percent of by Riders Who Checked Number of Percent of to Make Same Trip? Riders Riders Riders Riders\* "Yes": Yes 2,011 74.7% 2,868 38.3% Drive alone No 4,615 61.7% Non-MBTA bus 1.2% 33 409 Carpool/vanpool 15.2% TOTAL 7,482 100.0% Bicycle 48 1.8% 235 No answer Other MBTA service 514 19.1% Other 5.7% 153 TOTAL RIDERS GIVING AT LEAST 1 OTHER MODE: 2,694

(No other modes reported) 174

4,322

1,147

212 7,646

\*Note: Percentages may total to more than 100 because of multiple choices checked.



#### Trip Purpose, Reasons for Using

the MBTA, and Alternative Means

Expanded Results

Haverhill/Reading Line Entry Station: All Stations

Trip Purpose:	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	3,191	87.3%	87.3%
Home-based School	114	3.1%	90.5%
Home-based Shopping	4	0.1%	90.5%
Home-based Social Activity	29	0.8%	91.3%
Home-based Personal Business	59	1.6%	93.0%
Home-based Work-related	65	1.8%	94.8%
Home-based Other	71	1.9%	96.7%
Work-based	96	2.6%	99.3%
Non-Home/Non-Work-based	25	0.7%	100.0%
TOTAL	3,654		
No Answer	94		
Reasons for	N	lumber of	Percent of
Using the MBTA:		Riders	Riders*
Convenience		2,066	55.7%
Speed/travel time		1,027	27.7%
Avoid driving/traffic		2,880	77.6%
Avoid parking at destination		2,091	56.4%
Environmentally responsible		1,571	42.3%
Less expensive		932	25.1%
Can read/do work		1,842	49.7%
Only transportation available		465	12.5%
Other		142	3.8%
TOTAL RIDERS GIVING AT LEAST 1 REASON:		3,710	

			Other Modes Reported		
Use Other Mode to Make Same Trip?	Number of Riders	Percent of Riders	by Riders Who Checked "Yes":	Number of Riders	Percent of Riders*
Yes	1,555	42.4%	Drive alone	1,007	66.4%
No	2,114	57.6%	Non-MBTA bus	37	2.4%
TOTAL	3,669	100.0%	Carpool/vanpool	240	15.8%
No answer	80		Bicycle	34	2.2%
			Other MBTA service	439	29.0%
			Other	60	4.0%
			TOTAL RIDERS GIVING		
			AT LEAST 1 OTHER MODE:	1,517	

(No other modes reported)

\*Note: Percentages may total to more than 100 because of multiple choices checked.



#### Trip Purpose, Reasons for Using

the MBTA, and Alternative Means

Expanded Results

Lowell Line Entry Station: All Stations

Trip Purpose:	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	4,273	82.3%	82.3%
Home-based School	236	4.5%	86.9%
Home-based Shopping	5	0.1%	87.0%
Home-based Social Activity	56	1.1%	88.0%
Home-based Personal Business	131	2.5%	90.6%
Home-based Work-related	70	1.4%	91.9%
Home-based Other	104	2.0%	93.9%
Work-based	208	4.0%	97.9%
Non-Home/Non-Work-based	107	2.1%	100.0%
TOTAL	5,190		
No Answer	143		
Reasons for	Ν	lumber of Riders	Percent of Riders*
Using the MBTA: Convenience		3,160	59.5%
Speed/travel time		2,059	38.8%
Avoid driving/traffic		4,162	78.4%
Avoid parking at destination		3,151	59.3%
Environmentally responsible		2,216	41.7%
Less expensive		1,721	32.4%
Can read/do work		2,499	47.0%
Only transportation available		543	10.2%
Other		163	3.1%

			Other Modes Reported		
Use Other Mode to Make Same Trip?	Number of Riders	Percent of Riders	by Riders Who Checked "Yes":	Number of Riders	Percent of Riders*
Yes	2,158	40.9%	Drive alone	1,386	68.8%
No	3,119	59.1%	Non-MBTA bus	14	0.7%
TOTAL	5,277	100.0%	Carpool/vanpool	348	17.3%
No answer	62	100.070	Bicycle	50	2.5%
	02		Other MBTA service	463	23.0%
			Other	98	4.9%
			TOTAL RIDERS GIVING AT LEAST 1 OTHER MODE:	2,014	

(No other modes reported) 145

\*Note: Percentages may total to more than 100 because of multiple choices checked.



#### Trip Purpose, Reasons for Using

the MBTA, and Alternative Means

Expanded Results

Fitchburg Line Entry Station: All Stations

Trip Purpose:	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	3,578	83.8%	83.8%
Home-based School	215	5.0%	88.8%
Home-based Shopping	21	0.5%	89.3%
Home-based Social Activity	106	2.5%	91.8%
Home-based Personal Business	59	1.4%	93.1%
Home-based Work-related	46	1.1%	94.2%
Home-based Other	72	1.7%	95.9%
Work-based	71	1.7%	97.6%
Non-Home/Non-Work-based	103	2.4%	100.0%
TOTAL	4,270		
No Answer	37		
Reasons for	N	umber of Riders	Percent of Riders*
Using the MBTA:			
Convenience		2,384	55.7%
Speed/travel time		1,343	31.4%
Avoid driving/traffic		3,360	78.5%
Avoid parking at destination		2,000	46.7%
		0.0/4	
		2,361	55.2%
Environmentally responsible		2,361 1,185	55.2% 27.7%
Environmentally responsible Less expensive		•	
Environmentally responsible Less expensive Can read/do work		1,185	27.7%
Environmentally responsible Less expensive Can read/do work Only transportation available Other		1,185 2,528	27.7% 59.1%

Use Other Mode to Make Same Trip?	Number of Riders	Percent of Riders	Other Modes Reported by Riders Who Checked "Yes":	Number of Riders	Percent of Riders*
Yes	1,914	44.9%	Drive alone	1,296	70.8%
No	2,347	55.1%	Non-MBTA bus	27	1.5%
TOTAL	4,262	100.0%	Carpool/vanpool	243	13.3%
No answer	45		Bicycle	84	4.6%
	10		Other MBTA service	437	23.9%
			Other	36	2.0%
			TOTAL RIDERS GIVING		
			AT LEAST 1 OTHER MODE:	1,830	

(No other modes reported)

\*Note: Percentages may total to more than 100 because of multiple choices checked.



#### Trip Purpose, Reasons for Using

the MBTA, and Alternative Means

Expanded Results

Framingham/Worcester Line Entry Station: All Stations

Trip Purpose:	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	5,816	89.7%	89.7%
Home-based School	123	1.9%	91.6%
Home-based Shopping	8	0.1%	91.7%
Home-based Social Activity	29	0.5%	92.1%
Home-based Personal Business	128	2.0%	94.1%
Home-based Work-related	71	1.1%	95.2%
Home-based Other	86	1.3%	96.5%
Work-based	154	2.4%	98.9%
Non-Home/Non-Work-based	71	1.1%	100.0%
TOTAL	6,487		
No Answer	71		
Reasons for Using the MBTA:		mber of Riders	Percent of Riders*
Convenience		3,315	50.8%
Speed/travel time		1,714	26.3%
Avoid driving/traffic		5,078	77.9%
Avoid parking at destination		3,959	60.7%
Environmentally responsible		2,962	45.4%
Less expensive		2,565	39.3%
Can read/do work		3,727	57.2%
Only transportation available		657	10.1%
Other		96	1.5%

TOTAL RIDERS GIVING AT LEAST 1 REASON:

**Other Modes Reported Use Other Mode** Number of Percent of by Riders Who Checked Number of Percent of to Make Same Trip? Riders Riders Riders Riders\* "Yes": Yes 3,005 46.9% 2,282 79.7% Drive alone No 3,401 53.1% Non-MBTA bus 18 0.6% Carpool/vanpool 340 11.9% 6,406 TOTAL 100.0% Bicycle 0.6% 17 No answer 152 Other MBTA service 540 18.9% Other 2.4% 70 TOTAL RIDERS GIVING AT LEAST 1 OTHER MODE: 2,863

(No other modes reported) 142

6,522

\*Note: Percentages may total to more than 100 because of multiple choices checked.



#### Trip Purpose, Reasons for Using

the MBTA, and Alternative Means

**Expanded Results** 

**Needham Line** Entry Station: All Stations

86.7% 1.3% 0.6% 1.3%	86.7% 88.0% 88.6%
0.6%	
	88.6%
1.3%	
	89.9%
2.5%	92.4%
1.9%	94.3%
1.5%	95.8%
3.7%	99.4%
0.6%	100.0%
	Percent of Riders*
2 355	76.2%
	49.7%
	78.1%
	64.8%
	55.6%
1,058	34.2%
1,848	59.8%
289	9.4%
75	2.4%
3,091	
	1.5% 3.7% 0.6% mber of Riders 2,355 1,537 2,414 2,003 1,719 1,058 1,848 289 75

Use Other Mode to Make Same Trip?	Number of Riders	Percent of Riders	Other Modes Reported by Riders Who Checked "Yes":	Number of Riders	Percent of Riders*
Yes	1,547	50.9%	Drive alone	1,038	69.2%
No	1,494	49.1%	Non-MBTA bus	4	0.3%
TOTAL	3.041	100.0%	Carpool/vanpool	168	11.2%
No answer	62		Bicycle	66	4.4%
	02		Other MBTA service	567	37.8%
			Other	19	1.3%
			TOTAL RIDERS GIVING AT LEAST 1 OTHER MODE:	1,501	

(No other modes reported)

\*Note: Percentages may total to more than 100 because of multiple choices checked.



#### Trip Purpose, Reasons for Using

the MBTA, and Alternative Means

Expanded Results

**Franklin Line** Entry Station: All Stations

Home-based Work4,734Home-based School216Home-based Shopping9Home-based Social Activity35Home-based Personal Business56Home-based Work-related89Home-based Other55	88.2% 4.0% 0.2% 0.7% 1.0% 1.7% 1.0%	88.2% 92.2% 92.4% 93.1% 94.1% 95.8%
Home-based Shopping9Home-based Social Activity35Home-based Personal Business56Home-based Work-related89Home-based Other55	0.2% 0.7% 1.0% 1.7%	92.4% 93.1% 94.1%
Home-based Social Activity35Home-based Personal Business56Home-based Work-related89Home-based Other55	0.7% 1.0% 1.7%	93.1% 94.1%
Home-based Personal Business56Home-based Work-related89Home-based Other55	1.0% 1.7%	94.1%
Home-based Work-related89Home-based Other55	1.7%	
Home-based Other 55		95.8%
	1 0%	
	1.070	96.8%
Work-based 154	2.9%	99.7%
Non-Home/Non-Work-based 18	0.3%	100.0%
TOTAL 5,367		
No Answer 107		
Reasons for	mber of	Percent of
Using the MBTA:	Riders	Riders*
	3,500	64.9%
Speed/travel time	2,110	39.1%
Avoid driving/traffic	4,468	82.9%
Avoid parking at destination	3,164	58.7%
Environmentally responsible	2,281	42.3%
Less expensive	1,553	28.8%
Can read/do work	2,891	53.6%
Only transportation available	430	8.0%
Other	81	1.5%
TOTAL RIDERS GIVING AT LEAST 1 REASON:	5,391	

			Other Modes Reported		
Use Other Mode to Make Same Trip?	Number of Riders	Percent of Riders	by Riders Who Checked "Yes":	Number of Riders	Percent of Riders*
Yes	2,066	38.3%	Drive alone	1,639	82.8%
No	3,328	61.7%	Non-MBTA bus	3	0.2%
TOTAL	5,394	100.0%	Carpool/vanpool	289	14.6%
No answer	80	100.070	Bicycle	42	2.1%
			Other MBTA service	272	13.8%
			Other	37	1.9%
			TOTAL RIDERS GIVING AT LEAST 1 OTHER MODE:	1,980	

(No other modes reported)

\*Note: Percentages may total to more than 100 because of multiple choices checked.



#### Trip Purpose, Reasons for Using

the MBTA, and Alternative Means

**Expanded Results** 

**Providence/Stoughton Line** Entry Station: All Stations

Trip Purpose:	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	10,531	88.7%	88.7%
Home-based School	284	2.4%	91.1%
Home-based Shopping	12	0.1%	91.2%
Home-based Social Activity	145	1.2%	92.4%
Home-based Personal Business	110	0.9%	93.4%
Home-based Work-related	160	1.3%	94.7%
Home-based Other	171	1.4%	96.1%
Work-based	359	3.0%	99.2%
Non-Home/Non-Work-based	98	0.8%	100.0%
TOTAL	11,871		
No Answer	142		
Reasons for	N	lumber of	Percent of
Using the MBTA:		Riders	Riders*
Convenience		7,425	62.2%
Speed/travel time		5,332	44.7%
Avoid driving/traffic		10,164	85.1%
Avoid parking at destination		6,827	57.2%
Environmentally responsible		5,108	42.8%
Less expensive		3,459	29.0%
Can read/do work		6,152	51.5%
Only transportation available		1,018	8.5%
Other		304	2.5%
TOTAL RIDERS GIVING AT LEAST 1 REASON:		11,938	

**Use Other Mode** 

Yes

No

TOTAL

No answer

to Make Same Trip?

**Other Modes Reported** Number of Percent of by Riders Who Checked Number of Percent of Riders Riders Riders Riders\* "Yes": 4,169 35.2% 3,047 78.7% Drive alone 7,686 64.8% Non-MBTA bus 1.7% 66 Carpool/vanpool 485 12.5% 11,855 100.0% Bicycle 1.0% 39 158 Other MBTA service 650 16.8% Other 4.4% 169 TOTAL RIDERS GIVING AT LEAST 1 OTHER MODE: 3,872 (No other modes reported) 297

> \*Note: Percentages may total to more than 100 because of multiple choices checked.



#### Trip Purpose, Reasons for Using

the MBTA, and Alternative Means

Expanded Results

**Fairmount Line** Entry Station: All Stations

Trip Purpose:	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	411	94.3%	94.3%
Home-based School	9	2.0%	96.3%
Home-based Shopping	0	0.0%	96.3%
Home-based Social Activity	0	0.0%	96.3%
Home-based Personal Business	0	0.0%	96.3%
Home-based Work-related	3	0.8%	97.1%
Home-based Other	0	0.0%	97.1%
Work-based	13	2.9%	100.0%
Non-Home/Non-Work-based	0	0.0%	100.0%
TOTAL	436		
No Answer	22		
Reasons for	N	umber of	Percent of
Using the MBTA:		Riders	Riders*
Convenience		376	82.1%
Speed/travel time		281	61.4%
Avoid driving/traffic		315	68.7%
Avoid parking at destination		247	54.0%
Environmentally responsible		154	33.7%
Less expensive		142	31.0%
Can read/do work		233	50.8%
Only transportation available		41	8.9%
Other		11	2.5%
TOTAL RIDERS GIVING AT LEAST 1 REASON:		458	

			Other Modes Reported		
Use Other Mode to Make Same Trip?	Number of Riders	Percent of Riders	by Riders Who Checked "Yes":	Number of Riders	Percent of Riders*
Yes	234	52.5%	Drive alone	91	41.6%
No	211	47.5%	Non-MBTA bus	0	0.0%
TOTAL	445	100.0%	Carpool/vanpool	6	2.7%
No answer	13		Bicycle	0	0.0%
			Other MBTA service	140	63.8%
			Other	10	4.8%
			TOTAL RIDERS GIVING AT LEAST 1 OTHER MODE:	219	

(No other modes reported)

\*Note: Percentages may total to more than 100 because of multiple choices checked.



#### Trip Purpose, Reasons for Using

the MBTA, and Alternative Means

Expanded Results

Middleborough Line

Entry Station: All Stations

Trip Purpose:	Number of Riders	Percent of Riders	Cumulative Percentage		
Home-based Work	2,982	89.6%	89.6%		
Home-based School	64	1.9%	91.5%		
Home-based Shopping	0	0.0%	91.5%		
Home-based Social Activity	22	0.7%	92.1%		
Home-based Personal Business	61	1.8%	94.0%		
Home-based Work-related	32	1.0%	94.9%		
Home-based Other	84	2.5%	97.5%		
Work-based	65	2.0%	99.4%		
Non-Home/Non-Work-based	19	0.6%	100.0%		
TOTAL	3,330				
No Answer	81				
Reasons for	N	umber of Riders	Percent of Riders*		
Using the MBTA: Convenience		2,024	60.0%		
Speed/travel time		1,454	43.1%		
Avoid driving/traffic		2,748	81.5%		
Avoid parking at destination		1,626	48.2%		
Environmentally responsible		1,231	36.5%		
Less expensive		741	22.0%		
Can read/do work		1,557	46.2%		
Only transportation available		283	8.4%		
Other		56	1.7%		
TOTAL RIDERS GIVING AT LEAST 1 REASON:		3,371			

		Other Modes Reported		
Number of Riders	Percent of Riders	by Riders Who Checked "Yes":	Number of Riders	Percent of Riders*
1,346	40.3%	Drive alone	925	71.1%
1,990	59.7%	Non-MBTA bus	74	5.7%
3 336	100.0%	Carpool/vanpool	146	11.2%
	100.070	Bicycle	0	0.0%
		Other MBTA service	370	28.5%
		Other	93	7.2%
		TOTAL RIDERS GIVING AT LEAST 1 OTHER MODE:	1,300	
	Riders 1,346	Riders         Riders           1,346         40.3%           1,990         59.7%           3,336         100.0%	RidersRiders"Yes":1,34640.3%Drive alone1,99059.7%Non-MBTA bus3,336100.0%Carpool/vanpool74BicycleOther MBTA serviceOtherTOTAL RIDERS GIVING	Number of RidersPercent of Ridersby Riders Who Checked "Yes":Number of Riders1,34640.3%Drive alone9251,99059.7%Non-MBTA bus743,336 74100.0%Carpool/vanpool146Bicycle000Other MBTA service370Other93TOTAL RIDERS GIVING

(No other modes reported)

\*Note: Percentages may total to more than 100 because of multiple choices checked.



#### Trip Purpose, Reasons for Using

the MBTA, and Alternative Means

Expanded Results

Kingston/Plymouth Line

Entry Station: All Stations

Trip Purpose:	Number of Riders	Percent of Riders	Cumulative Percentage
Home-based Work	3,105	92.4%	92.4%
Home-based School	28	0.8%	93.2%
Home-based Shopping	0	0.0%	93.2%
Home-based Social Activity	19	0.6%	93.8%
Home-based Personal Business	39	1.2%	94.9%
Home-based Work-related	57	1.7%	96.6%
Home-based Other	44	1.3%	98.0%
Work-based	56	1.7%	99.6%
Non-Home/Non-Work-based	13	0.4%	100.0%
TOTAL	3,361		
No Answer	60		
Reasons for	Nu	Imber of Riders	Percent of Riders*
Using the MBTA: Convenience		2,121	62.6%
Speed/travel time		1,475	43.5%
Avoid driving/traffic		2,940	86.8%
Avoid parking at destination		1,834	54.1%
Environmentally responsible		1,356	40.0%
Less expensive		589	17.4%
Can read/do work		1,783	52.6%
Only transportation available		180	5.3%
Other		49	1.5%
TOTAL RIDERS GIVING AT LEAST 1 REASON:		3,388	

Use Other Mode to Make Same Trip?	Number of Riders	Percent of Riders	Other Modes Reported by Riders Who Checked "Yes":	Number of Riders	Percent of Riders*
Yes	1,338	39.4%	Drive alone	941	71.5%
No	2,057	60.6%	Non-MBTA bus	13	1.0%
TOTAL	3,395	100.0%	Carpool/vanpool	160	12.2%
No answer	26		Bicycle	2	0.2%
	20		Other MBTA service	324	24.6%
			Other	43	3.2%
			TOTAL RIDERS GIVING		
			AT LEAST 1 OTHER MODE:	1,316	

(No other modes reported)

\*Note: Percentages may total to more than 100 because of multiple choices checked.



Greenbush Line Survey

#### Trip Purpose, Reasons for Using

the MBTA, and Alternative Means

Expanded Results

**Greenbush Line** Entry Station: All Stations

Trip Purpose:	Number of Riders	Percent of Riders			
	RIUEIS	RIUELS	Percentage		
Home-based Work	1,919	92.3%	92.3%		
Home-based School	21	1.0%	93.3%		
Home-based Shopping	5	0.3%	93.6%		
Home-based Social Activity	12	0.6%	94.2%		
Home-based Personal Business	34	1.6%	95.8%		
Home-based Work-related	22	1.0%	96.9%		
Home-based Other	27	1.3%	98.2%		
Work-based	25	1.2%	99.4%		
Non-Home/Non-Work-based	13	0.6%	100.0%		
TOTAL	2,078				
No Answer	0				
Reasons for		Number of	Percent of		
Using the MBTA:		Riders	Riders*		
Convenience		1,730	84.7%		
Speed/travel time		1,016	49.7%		
Avoid driving/traffic		1,721	84.2%		
Avoid parking at destination		1,102	53.9%		
Environmentally responsible		1,007	49.3%		
Less expensive		438	21.4%		
Can read/do work		1,296	63.4%		
Only transportation available		58	2.8%		
Other		71	3.5%		
TOTAL RIDERS GIVING AT LEAST 1 REASON:		2,043			

Use Other Mode to Make Same Trip?	Number of Riders	Percent of Riders	Other Modes Reported by Riders Who Checked "Yes":	Number of Riders	Percent of Riders*
Yes	1,206	59.2%	Drive alone	686	58.1%
No	830	40.8%	Non-MBTA bus	98	8.3%
TOTAL	2,036	100.0%	Carpool/vanpool	70	5.9%
No answer	42		Bicycle	13	1.1%
			Other MBTA service	372	31.5%
			Other	58	4.9%
			TOTAL RIDERS GIVING		
			AT LEAST 1 OTHER MODE:	1,182	

(No other modes reported)

\*Note: Percentages may total to more than 100 because of multiple choices checked.

# Origin Locations and Activities

The data in this chapter show where commuter rail riders started their trips (by city, town, or neighborhood) and indicate what their activities were at each of those origin locations. This information is useful in defining the market area of each of the commuter rail lines and for understanding the types of trips made on the commuter rail system. Additional information regarding the reasons for making trips is presented in Chapters 3 and 7.

A table presenting these data is provided for each line; the tables are at the end of the chapter. Each table shows both the origins and origin activities for the riders who entered the commuter rail system on the line in question. Chapter 2 addresses the same categories of data that are addressed in the present chapter, but at the level of the commuter rail system as a whole. It includes tables and discussion.

#### 4.1 ORIGIN LOCATIONS

#### 4.1.1 DESCRIPTION OF THE ORIGIN LOCATIONS SECTION OF THE TABLE

In each line's table, the left side summarizes the results of survey question 4b, which asked where riders began the entire one-way trips they were making when surveyed. The data show origin location by city, town, or neighborhood. In the systemwide passenger survey of which this commuter rail survey is a part, the responses about origin locations were aggregated by city or town, except in four municipalities: in Boston, they were broken into 26 neighborhoods, in Cambridge into 6, in Somerville into 4, and in Brookline into 3. All of these neighborhoods are shown in Figure 4-1. In the table, for trips originating from outside of Massachusetts, the city and the state are given.

Origins reported by less than 0.5% of riders on a line were aggregated and placed in the "other" category; therefore, not all cities, towns, and neighborhoods from which commuter rail trips originated are represented individually in the table. Some survey responses did not contain enough information to determine an origin city, town, or neighborhood; these responses were aggregated into the "unspecified" category. The origin locations are listed in descending order, based on the number of riders.

Along all of the lines, some stations, such as South Station, North Station, and Ruggles, are served by multiple lines. It is important to note that the tables only include riders who boarded trains at these stations along the line in question. That is, riders who boarded a train at South Station and were destined for Providence Station are only counted in the table for the Providence/Stoughton Line. This constraint is relaxed in the complementary "Destination Locations" table in Chapter 7.

#### 4.1.2 OVERVIEW OF RESULTS

#### **North Side**

*Newburyport/Rockport Line* Along the Newburyport/Rockport Line, 88% of the ridership originated in 22 cities, towns, or neighborhoods that each accounted for over 0.5% of the boardings. The top four origins were Beverly (19%), Salem (15%), Gloucester (8%), and Lynn (6%). Each of these has at least one station on the line. Each of the other origins accounted for less than 5% of the total boardings.

*Haverhill Line* Along the Haverhill Line, 91% of the ridership originated in 24 cities, towns, or neighborhoods that each accounted for over 0.5% of the boardings. The top five origins were Reading (15%), Wakefield (12%), Haverhill (12%), Andover (10%), and Melrose (9%). Each of these has at least one station on the line. Each of the other origins accounted for 5% or less of the total boardings. Three New Hampshire communities, Atkinson, Hampstead, and Plaistow, each originated about 1% of the trips.

*Lowell Line* Along the Lowell Line, 89% of the ridership originated in 28 cities, towns, or neighborhoods that each accounted for over 0.5% of the boardings. The top six origins were Winchester (17%), Lowell (14%), Medford (7%), Billerica (6%), Chelmsford (5%), and Wilmington (5%). Each of these has at least one station on the line except Chelmsford, which adjoins both Lowell and Billerica. Each of the other origins accounted for less than 5% of the total boardings. The only New Hampshire community accounting for over 0.5% of the riders was Nashua, with 3%.

*Fitchburg Line* The Fitchburg Line is the longest of the North Side commuter rail lines, and it has the most stations. Along this line, 88% of the ridership originated in 43 cities, towns, or neighborhoods that each accounted for over 0.5% of the boardings. The top three origins were Acton (10%), Concord (9%), and Waltham (9%). Each of these has at least one station on the line. Each of the other origins accounted for less than 4% of the total boardings.

#### South Side

*Framingham/Worcester Line* Along the Framingham/Worcester Line, 88% of the ridership originated in 26 cities, towns, or neighborhoods that each accounted for over 0.5% of the boardings. The top five origins were Natick (14%), Framingham (12%), Wellesley (10%), Newton (8%), and Worcester

(7%). Each of these has at least one station on the line. Each of the other origins accounted for less than 5% of the total boardings.

*Needham Line* The Needham Line is the second-shortest of the South Side commuter rail lines. Along this line, 95% of the ridership originated in 18 cities, towns, or neighborhoods that each accounted for over 0.5% of the boardings. The top three origins were Needham (41%), West Roxbury (23%), and Roslindale (13%). Needham has four stations on the line; West Roxbury and Roslindale each have two. Each of the other origins accounted for 3% or less of the total boardings.

*Franklin Line* Along the Franklin Line, 92% of the ridership originated in 25 cities, towns, or neighborhoods that each accounted for over 0.5% of the boardings. The top five origins were Norwood (19%), Franklin (13%), Walpole (11%), Dedham (11%), and Norfolk (6%). Each of these has at least one station on the line. Each of the other origins accounted for 5% or less of the total boardings. One Rhode Island community, Woonsocket, accounted for 1% of the origins.

*Providence/Stoughton Line* The Providence/Stoughton Line is the only line in the MBTA commuter rail system that extends outside of Massachusetts. Along this line, 88% of the ridership originated in 35 cities, towns, or neighborhoods that each accounted for over 0.5% of the boardings. The top six origins were Canton (9%); Providence, Rhode Island (9%); Mansfield (9%); Sharon (7%); Attleboro (7%); and Stoughton (6%). Each of these has at least one station on the line. Each of the other origins accounted for less than 4% of the total boardings. Seven other Rhode Island communities, Pawtucket, Warwick, Cranston, Cumberland, East Providence, Lincoln, and Barrington, each accounted for 1% to 2% of the origins.

*Fairmount Line* The Fairmount Line is the shortest line in the commuter rail system, and is the only line located entirely within Boston neighborhoods. Along this line, 98% of the ridership originated in 14 cities, towns, or neighborhoods that each accounted for over 0.5% of the boardings. The top five origins were Hyde Park (32%), Dedham (16%), North Dorchester (12%), Mattapan (11%), and South Dorchester (8%). Each of these except Dedham has at least one station. The Dedham town line is a short distance from Readville Station, the outer terminal of the Fairmount Line. Each of the other origins accounted for less than 6% of the total boardings.

*Middleborough/Lakeville Line* Along the Middleborough/Lakeville Line, 94% of the ridership originated in 26 cities, towns, or neighborhoods that each accounted for over 0.5% of the boardings. The top four origins were Brockton (36%), Bridgewater (13%), Middleborough (6%), and Randolph (5%). Each of these has at least one station on the line. Each of the other origins accounted for less than 4% of the total boardings.

*Kingston/Plymouth Line* Along the Kingston/Plymouth Line, 96% of the ridership originated in 19 cities, towns, or neighborhoods that each accounted for over 0.5% of the boardings. The top six origins were Plymouth (17%),

Whitman (10%), Pembroke (9%), Abington (9%), Rockland (8%), and Halifax (8%). Whitman, Abington, and Halifax each have one station on the line. Plymouth has a station, but it is served only in off-peak hours. Kingston Station is near the border of Plymouth. The Abington station is near the border of Rockland. Halifax Station is near the border of Pembroke. Each of the other origins accounted for less than 4% of the total boardings.

*Greenbush Line* Along the Greenbush Line, 97% of the ridership originated in 13 cities, towns, or neighborhoods that each accounted for over 0.5% of the boardings. The top five origins were Scituate (23%), Weymouth (21%), Hingham (20%), Marshfield (10%), and Cohasset (9%). Each of these except Marshfield has at least one station on the line. The Greenbush Station in Scituate is near the border of Marshfield. Each of the other origins accounted for less than 4% of the total boardings.

#### 4.2 ORIGIN ACTIVITIES

#### 4.2.1 DESCRIPTION OF THE ORIGIN ACTIVITIES SECTION OF THE TABLE

In each line's table, the right side of the table summarizes the results of survey question 4a, "Where were you before starting this entire one-way trip?" The survey form provided eight check-off choices: "at work," "at school," "at home," "at a store," "at a doctor or other personal business," "at a work-related errand or meeting," "at a restaurant, or social or recreational activity," and "other" (with a space for write-ins). For each origin location, the table shows the percentages of riders who reported starting from each of these eight "activities." The absolute number of riders starting from each activity can be determined by multiplying these percentages by the origin location totals on the left side of the table.

For each line, the number of survey responses from which the results in the table were expanded was greater for locations in the upper rows and smaller for those in the lower rows. Consequently, the higher the row, the more reliable the distribution of activities given for that origin location.

#### 4.2.2 OVERVIEW OF RESULTS

#### North Side

Origin activities followed the same general pattern from one line to another. For the most part, the origin "activity" of people boarding at locations outside of Boston was "home." The percentage of riders starting their trips at home ranged from 86% on the Lowell Line to 90% on the Haverhill Line. This was partly a reflection of the hours when the survey was handed out (6:00 AM to 3:00 PM). Had the survey been handed out later, more people would likely have been starting from an "activity" other than home. The predominance of the home origin activity also reflects the residential nature of most of the cities and towns that the commuter rail system serves. The commuter rail system is the primary transit connector between the outer suburbs and downtown Boston. The main function of the system is to carry people between their homes and their places of work in Boston (see Chapters 3 and 7).

At the downtown stations, and correspondingly the Boston neighborhoods, the origin activity of the largest number of entering riders was still home, but it accounted for a much smaller share of boardings than at the suburban stations. Of all of the riders boarding at North Station, 41% started their trips at home, 32% started from work; and 8% started from school.

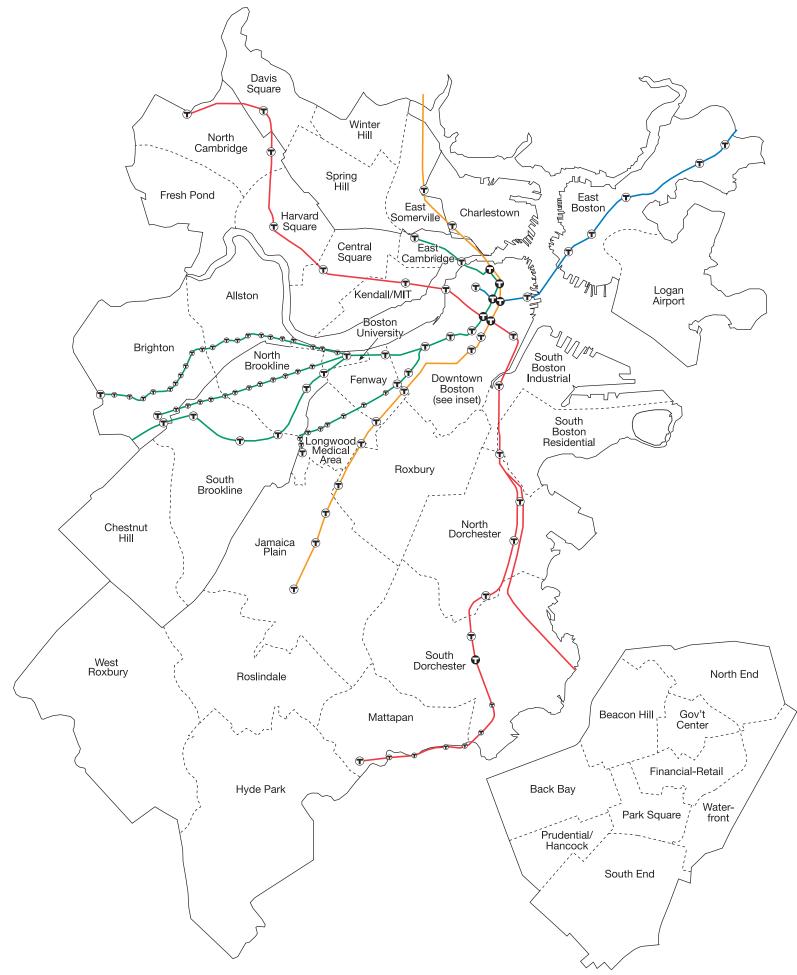
The percentages of trips originating at activities other than home varied among the non-Boston stations and among the origin locations of riders boarding at those stations. For example, about 5% of all riders boarding at Lynn Station on the Newburyport/Rockport Line started from school. At Lowell Station, on the Lowell Line, 3% of all the boarding riders and 5% of those with origins in the city of Lowell alone started from school. At Haverhill Station, on the Haverhill Line, 7% of riders with origins in the city of Haverhill were starting from work, but all of the riders starting from other cities and towns were starting from home. None of the riders starting from origins in Haverhill but boarding at other stations were starting from work.

Among Fitchburg Line riders boarding at all stations in Waltham, 15% were starting from school. However, this was the only case in which any individual non-home origin activity accounted for over 5% of the riders starting from any city, town, or neighborhood that generated at least 5% of all the riders on a given line.

#### **South Side**

On South Side lines, the percentage of riders starting their trips at home ranged from 90% on the Needham, Franklin, and Attleboro/Stoughton Lines to 97% on the Kingston/Plymouth Line. However, among riders boarding at South Station and Back Bay, only 35% were starting from home while 41% were starting from work and 5% from school. Among cities and towns that originated more than 5% of the trips on any given line, no other activity besides "home" accounted for more than 5% of the origin activities.

### Figure 4-1 **Neighborhood Boundaries**



## <u>**MBTA Surveys: 2008-09**</u>

Commuter Rail Survey

#### Origin Locations and Activities

**Expanded Results** 

ORIGIN LOCATIONS		ORIGIN ACTIVITIES									
City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Beverly	1,437	18.6%	0.6%	91.8%	1.9%	1.5%	0.6%	1.4%	0.7%	0.3%	1.4%
Salem	1,187	15.4%		94.9%	1.3%	1.5%		0.2%	0.9%	0.3%	0.9%
Gloucester	613	7.9%		94.1%	0.5%	2.1%			0.8%	0.8%	1.7%
Lynn	474	6.1%		90.1%	5.4%	4.5%					
Ipswich	322	4.2%		94.0%	1.0%	1.0%	1.0%		1.0%	1.0%	0.8%
Swampscott	307	4.0%		99.0%		1.0%					
Danvers	273	3.5%		90.9%		5.4%		1.8%			1.8%
Newburyport	240	3.1%	2.1%	92.9%		2.7%		2.2%			
Marblehead	238	3.1%		97.5%		1.2%		1.2%			
Hamilton	217	2.8%		93.0%	4.2%	1.4%		1.4%			
Manchester	217	2.8%		93.9%		6.1%					
Peabody	208	2.7%		96.4%					1.8%		1.8%
Rockport	196	2.5%		89.9%		1.2%			2.6%	5.0%	1.2%
Chelsea	140	1.8%		79.9%		20.1%					
Boston: Govt Center	114	1.5%			13.9%	53.5%		7.0%	13.9%		11.7%
Rowley	103	1.3%		100.0%							
Boston: North End	99	1.3%		38.0%		40.4%		8.1%		8.1%	5.5%
Unspecified	91	1.2%		75.3%		18.8%		5.9%			
Amesbury	78	1.0%		97.2%							2.8%
Boston: Beacon Hill	77	1.0%		41.7%		41.0%		10.3%			7.0%
Wenham	67	0.9%		94.5%	5.5%						
Essex	60	0.8%		100.0%							
Boston: Park Square	56	0.7%				57.1%		28.6%			14.3%
Newbury	46	0.6%		100.0%							
Other (< 0.5 % of riders)	856	11.1%	2.8%	67.6%	4.6%	15.5%		1.1%	2.8%	0.9%	4.6%
OVERALL TOTAL	7,717	100.0%	0.5%	87.1%	1.9%	6.0%	0.1%	1.2%	1.0%	0.6%	1.7%

Note: Totals shown may differ from column total because of rounding.

Newburyport/Rockport Line

Entry Station: All Stations

## ) MBTA Surveys: 2008-09

Commuter Rail Survey

#### **Origin Locations and Activities**

Expanded Results

ORIGIN LOCATIONS		ORIGIN ACTIVITIES									
City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Reading	556	14.8%		98.8%						0.8%	0.4%
Haverhill	447	11.9%		93.1%		3.8%	1.9%	1.2%			
Wakefield	444	11.8%		96.1%	0.8%	0.8%	1.7%				0.6%
Andover	371	9.9%	0.8%	94.6%	1.8%	0.5%	0.7%				1.5%
Melrose	329	8.8%		90.8%	4.1%			0.9%		4.1%	
North Andover	188	5.0%		97.5%	1.1%	1.4%					
Lawrence	186	5.0%		95.8%		1.6%		1.5%	1.1%		
Methuen	169	4.5%		100.0%							
North Reading	89	2.4%		100.0%							
Wilmington	82	2.2%		100.0%							
Boston: Govt Center	68	1.8%		26.0%		64.4%				9.6%	
Unspecified	62	1.6%		77.7%		9.9%		4.9%			7.5%
Stoneham	61	1.6%		92.0%		3.4%					4.6%
Lynnfield	54	1.4%		100.0%							
Boston: Financial/Retail	53	1.4%	12.5%		12.5%	75.0%					
Boston: North End	34	0.9%		41.5%		58.5%					
Atkinson, NH	33	0.9%		100.0%							
Boston: Back Bay	32	0.8%		58.6%	20.7%	20.7%					
Hampstead, NH	29	0.8%		100.0%							
Plaistow, NH	29	0.8%		100.0%							
Tewksbury	29	0.8%		100.0%							
Middleton	26	0.7%		100.0%							
Groveland	21	0.5%		100.0%							
Peabody	21	0.6%		100.0%							
Other (< 0.5 % of riders)	337	9.0%		71.0%	3.3%	20.4%		1.9%			3.3%
OVERALL TOTAL	3,748	100.0%	0.3%	90.1%	1.3%	5.7%	0.5%	0.6%	0.1%	0.7%	0.8%
		1									

Note: Totals shown may differ from column total because of rounding.

Haverhill Line Entry Station: All Stations

## **T**<u>MBTA Surveys: 2008-09</u>

Commuter Rail Survey

#### **Origin Locations and Activities**

Expanded Results

ORIGIN LOCATIONS	ORIGIN LOCATIONS				ORIGIN ACTIVITIES								
City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other		
Winchester	906	17.0%		97.0%	0.4%	1.3%		1.0%			0.3%		
Lowell	734	13.8%	0.7%	83.7%	4.6%	3.5%	1.1%	1.4%	2.9%		2.0%		
Medford	370	6.9%		96.2%				1.9%		1.9%			
Billerica	293	5.5%		100.0%									
Chelmsford	289	5.4%		94.7%		3.5%					1.8%		
Wilmington	287	5.4%		91.8%		4.0%		1.2%			3.0%		
Woburn	254	4.8%		96.4%		1.1%		1.1%			1.4%		
Tewksbury	236	4.4%		93.3%	2.2%				2.2%		2.2%		
Nashua, NH	163	3.1%		100.0%									
Dracut	134	2.5%		100.0%									
Westford	108	2.0%		90.4%	9.6%								
Andover	103	1.9%		100.0%									
Burlington	93	1.7%		94.2%	2.8%	3.1%							
Boston: Financial/Retail	85	1.6%			8.3%	75.0%		8.3%	8.3%				
North Andover	85	1.6%		95.8%							4.2%		
Boston: North End	77	1.4%		26.7%		55.0%		9.2%			9.2%		
Boston: Beacon Hill	70	1.3%		19.7%		50.0%		30.3%					
Arlington	60	1.1%		100.0%									
Boston: Govt Center	56	1.1%		12.0%	37.7%	12.6%			12.6%	25.1%			
Unspecified	54	1.0%	6.6%	85.1%		8.3%							
Boston: Park Square	43	0.8%				66.7%		16.7%	16.7%				
Lexington	43	0.8%		90.0%		10.0%							
North Reading	39	0.7%		100.0%									
Tyngsborough	37	0.7%		100.0%									
Methuen	34	0.6%		100.0%									
Boston: B U	28	0.5%				25.0%		25.0%		50.0%			
Boston: Charlestown	28	0.5%		74.7%	25.3%								
Boston: Longwood Med Area	28	0.5%		24.1%	25.3%	25.3%				25.3%			
Reading	27	0.5%		86.9%							13.1%		
Other (< 0.5 % of riders)	574	10.8%	2.5%	70.7%	4.9%	9.9%	1.2%	2.2%	1.2%	3.7%	3.7%		
OVERALL TOTAL	5,340	100.0%	0.4%	85.5%	2.4%	6.0%	0.3%	1.8%	1.0%	1.2%	1.4%		

Note: Totals shown may differ from column total because of rounding.

**Lowell Line** Entry Station: All Stations

<u>ys: 2008-09</u> еv

## <u>MBTA Surveys: 2008-09</u>

#### **Origin Locations and Activities**

Expanded Results

ORIGIN LOCATIONS		ORIGIN ACTIVITIES									
City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Acton	431	10.0%		99.1%		0.9%					
Concord	381	8.8%	2.5%	84.5%	2.5%	3.7%	1.2%	1.2%		4.4%	
Waltham	375	8.7%	1.4%	73.9%	14.9%	4.4%			2.0%		3.3%
Fitchburg	167	3.9%		87.2%	10.7%	2.1%					
Leominster	165	3.8%		92.7%			2.4%			4.9%	
Cambridge: North Cambridge	142	3.3%		86.5%						6.7%	6.7%
Ayer	123	2.9%		100.0%							
Somerville: Spring Hill	115	2.7%		100.0%							
Littleton	106	2.5%		95.5%		2.3%					2.1%
Groton	105	2.4%		95.3%	2.3%	2.3%					
Sudbury	99	2.3%		100.0%							
Belmont	96	2.2%		100.0%							
Somerville: Davis Square	95	2.2%		100.0%							
Weston	92	2.1%		85.5%	2.7%			11.8%			
Maynard	86	2.0%		96.9%				3.1%			
Stow	84	2.0%		95.3%						4.7%	
Lincoln	77	1.8%		93.4%		6.6%					
Boston: North End	70	1.6%		86.3%		13.7%					
Cambridge: Harvard Square	69	1.6%		50.0%	14.0%	36.0%					
Boxborough	67	1.6%		100.0%							
Shirley	61	1.4%		100.0%							
Harvard	60	1.4%		100.0%							
Wayland	55	1.3%		100.0%							
Carlisle	47	1.1%		100.0%							
Arlington	45	1.1%		100.0%							
Boston: Beacon Hill	44	1.0%		56.7%		21.6%		21.6%			
Clinton	43	1.0%		100.0%							
Westford	41	1.0%		100.0%							
Boston: South End	40	0.9%		100.0%							
Bedford	39	0.9%		100.0%							
Gardner	39	0.9%		100.0%							
Hudson	33	0.8%		100.0%							
Watertown	33	0.8%		100.0%							
Boston: Charlestown	31	0.7%		100.0%							
Boston: Brighton	30	0.7%		67.5%	32.5%						

Fitchburg Line Entry Station: All Stations

Commuter Rail Survey

City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Cambridge: Central Square	30	0.7%		100.0%							
Medford	30	0.7%		67.5%	32.5%						
Pepperell	28	0.7%		100.0%							
Newton	27	0.6%		100.0%							
Ashby	26	0.6%		86.7%						13.3%	
Boston: Allston	24	0.6%		100.0%							
Boston: Financial/Retail	24	0.6%			39.4%	60.6%					
Ashburnham	23	0.5%		100.0%							
Other (< 0.5 % of riders)	507	11.8%		76.7%	3.8%	7.6%		1.9%	3.8%		6.3%
OVERALL TOTAL	4,307	100.0%	0.3%	88.9%	3.4%	3.4%	0.2%	0.9%	0.6%	1.0%	1.3%

Note: Totals shown may differ from column total because of rounding.

## <u>MBTA Surveys: 2008-09</u>

Commuter Rail Survey

#### Origin Locations and Activities

Expanded Results

ORIGIN LOCATIONS					ORIO	GIN ACTI	VITIES				
City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Natick	910	13.9%		97.1%		1.0%		1.1%			0.7%
Framingham	771	11.8%		93.1%	1.0%	1.7%	0.5%	0.7%		0.7%	2.3%
Wellesley	649	9.9%		94.1%	0.9%	3.4%		1.7%			
Newton	504	7.7%		96.9%			1.1%			1.0%	1.0%
Worcester	462	7.0%		90.7%	2.6%	0.7%	1.3%		0.6%	2.2%	1.9%
Ashland	316	4.8%		97.6%		1.1%					1.3%
Shrewsbury	272	4.1%		98.1%		1.9%					
Grafton	242	3.7%		100.0%							
Westborough	211	3.2%		100.0%							
Hopkinton	188	2.9%		96.0%	2.1%						1.8%
Marlborough	175	2.7%		96.7%		1.7%					1.7%
Southborough	158	2.4%		100.0%							
Holliston	129	2.0%		100.0%							
Sherborn	82	1.2%		100.0%							
Northborough	76	1.2%		100.0%							
Unspecified	71	1.1%	7.8%	92.2%							
Wayland	68	1.0%		100.0%							
Milford	65	1.0%		100.0%							
Waltham	57	0.9%		100.0%							
Boston: Financial/Retail	55	0.8%				70.0%			10.0%		20.0%
Upton	55	0.8%		100.0%							
Weston	54	0.8%		82.1%	17.9%						
Millbury	50	0.8%		100.0%							
Sutton	42	0.6%		100.0%							
Holden	41	0.6%		100.0%							
Boston: Fenway	38	0.6%		85.5%	14.5%						
Sudbury	36	0.6%		100.0%							
Other (< 0.5 % of riders)	783	11.9%		76.1%	3.3%	11.6%		2.1%	2.1%	0.7%	4.1%
OVERALL TOTAL	6,558	100.0%	0.1%	92.9%	1.1%	2.9%	0.2%	0.7%	0.4%	0.4%	1.4%

Note: Totals shown may differ from column total because of rounding.

## MBTA Surveys: 2008-09

#### **Origin Locations and Activities**

**Expanded Results** 

ORIGIN LOCATIONS					ORI	GIN ACTI	VITIES				
City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Needham	1,261	40.6%		95.4%	1.1%	1.1%	0.9%	1.1%		0.3%	
Boston: West Roxbury	722	23.3%		97.8%	0.6%		0.6%	0.6%			0.6%
Boston: Roslindale	417	13.4%		96.2%	1.3%	2.5%					
Dover	92	3.0%		100.0%							
Dedham	61	2.0%		94.3%		5.7%					
Medfield	51	1.6%		100.0%							
Boston: Financial/Retail	45	1.4%		20.0%			20.0%		20.0%	20.0%	20.0%
Boston: Govt Center	36	1.2%		25.0%		50.0%		25.0%			
Boston: Waterfront	36	1.2%		25.0%		50.0%	25.0%				
Boston: Prudential/Hancock	35	1.1%				77.3%	22.7%				
Newton	32	1.0%		100.0%							
Boston: Jamaica Plain	29	0.9%		100.0%							
Boston: Fenway	27	0.9%		33.3%	33.3%	33.3%					
Boston: Beacon Hill	18	0.6%		50.0%				50.0%			
Boston: Mattapan	18	0.6%		100.0%							
Boston: North End	18	0.6%		100.0%							
Cambridge: Kendall/MIT	18	0.6%				50.0%					50.0%
Wellesley	16	0.5%		50.4%				49.6%			
Other (< 0.5 % of riders)	173	5.6%		68.8%	5.2%	15.6%		5.2%			5.2%
OVERALL TOTAL	3,103	100.0%		89.5%	1.3%	4.4%	1.3%	1.7%	0.3%	0.4%	1.0%

Note: Totals shown may differ from column total because of rounding.

Needham Line Entry Station: All Stations

Commuter Rail Survey

## **T**<u>MBTA Surveys: 2008-09</u>

Commuter Rail Survey

#### **Origin Locations and Activities**

Expanded Results

ORIGIN LOCATIONS					ORI	GIN ACTI	VITIES				
City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Norwood	1,056	19.3%	0.6%	97.0%		1.4%		0.4%			0.6%
Franklin	735	13.4%		97.4%	1.4%	0.4%					0.9%
Walpole	615	11.2%		96.7%	1.1%	0.5%					1.7%
Dedham	590	10.8%		92.8%		2.1%		4.2%	0.9%		
Norfolk	349	6.4%		98.8%				1.2%			
Westwood	272	5.0%		98.8%			1.2%				
Medfield	187	3.4%		100.0%							
Bellingham	169	3.1%		100.0%							
Wrentham	145	2.7%		97.9%		2.1%					
Medway	126	2.3%		96.7%	3.3%						
Boston: Hyde Park	97	1.8%		100.0%							
Unspecified	92	1.7%	4.7%	70.8%	3.8%	12.9%			7.7%		
Boston: Financial/Retail	71	1.3%			20.0%	70.0%				10.0%	
Milford	65	1.2%		100.0%							
Mendon	53	1.0%		100.0%							
Woonsocket, RI	53	1.0%		100.0%							
Boston: Govt Center	50	0.9%			14.3%	42.9%			28.6%	14.3%	
Millis	47	0.9%		100.0%							
Boston: Fenway	43	0.8%		34.3%	32.8%	32.8%					
Boston: Waterfront	40	0.7%				100.0%					
Foxborough	37	0.7%		100.0%							
Blackstone	36	0.7%		100.0%							
Uxbridge	36	0.7%		100.0%							
Hopedale	32	0.6%		100.0%							
Boston: Longwood Med Area	28	0.5%			25.0%	50.0%		25.0%			
Boston: Park Square	28	0.5%				50.0%		25.0%			25.0%
Other (< 0.5 % of riders)	419	7.7%	1.7%	56.7%	7.6%	22.1%		7.6%		1.7%	2.6%
OVERALL TOTAL	5,473	100.0%	0.3%	89.3%	1.8%	5.4%	0.1%	1.4%	0.5%	0.4%	0.8%

Note: Totals shown may differ from column total because of rounding.

**Franklin Line** Entry Station: All Stations

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## <u>MBTA Surveys: 2008-09</u>

Commuter Rail Survey

#### **Origin Locations and Activities**

Expanded Results

ORIGIN LOCATIONS					ORI	GIN ACTI	VITIES				
City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Canton	1,076	9.0%		96.9%	0.6%	0.7%		0.7%		0.6%	0.6%
Providence, RI	1,073	8.9%		93.8%	1.4%	1.7%	0.3%	0.3%	0.6%	0.8%	1.1%
Mansfield	1,034	8.6%		99.1%	0.4%	0.4%					
Sharon	855	7.1%		100.0%							
Attleboro	799	6.7%		95.6%	1.3%	1.3%				1.0%	0.8%
Stoughton	696	5.8%		99.1%							0.9%
Easton	450	3.7%		95.1%	1.9%	1.2%			1.9%		
Boston: Hyde Park	422	3.5%		93.6%				1.7%		2.4%	2.4%
North Attleborough	408	3.4%		96.3%	2.0%			1.7%			
Foxborough	366	3.0%		98.8%							1.2%
Pawtucket, RI	333	2.8%		100.0%							
Westwood	319	2.7%		91.4%		2.2%		1.4%			5.0%
Norton	237	2.0%		100.0%							
Unspecified	230	1.9%	5.6%	84.3%		10.1%					
Warwick, RI	188	1.6%		98.4%							1.6%
Cranston, RI	169	1.4%		100.0%							
Boston: Financial/Retail	165	1.4%				88.9%			5.6%		5.6%
Taunton	160	1.3%		100.0%							
Walpole	136	1.1%		85.9%			5.2%	4.6%			4.3%
Cumberland, RI	133	1.1%		100.0%							
Dedham	125	1.0%		93.6%	6.4%						
Boston: Longwood Med Area	119	1.0%		23.1%	30.8%	38.5%					7.7%
Brockton	106	0.9%		89.9%		5.1%					5.1%
Norwood	105	0.9%		93.2%				6.8%			
Boston: Park Square	101	0.8%		9.1%		45.5%		18.2%	9.1%		18.2%
Boston: South End	99	0.8%		46.0%		44.8%				9.2%	
East Providence, RI	93	0.8%		78.3%		6.7%		7.6%			7.3%
Plainville	87	0.7%		100.0%							
Lincoln, RI	79	0.7%		96.2%						3.8%	
Barrington, RI	78	0.7%		86.0%	10.2%						3.8%
Boston: Back Bay	72	0.6%		38.1%		61.9%					
Boston: Prudential/Hancock	72	0.6%		12.7%		61.9%			25.4%		
Milton	69	0.6%		100.0%							
Boston: Govt Center	64	0.5%				71.4%		28.6%			
Seekonk	62	0.5%		100.0%							



Providence/Stoughton Line

Entry Station: All Stations

City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Other (< 0.5 % of riders)	1,433	11.9%		80.1%	4.5%	8.9%		1.0%	0.6%		4.9%
OVERALL TOTAL	12,013	100.0%	0.1%	89.8%	1.4%	5.3%	0.1%	0.8%	0.5%	0.4%	1.6%

Note: Totals shown may differ from column total because of rounding.

## MBTA Surveys: 2008-09

Commuter Rail Survey

#### **Origin Locations and Activities**

Expanded Results

ORIGIN LOCATIONS					ORI	GIN ACTI	VITIES				
City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Boston: Hyde Park	148	32.3%		96.3%		3.7%					
Dedham	72	15.8%		100.0%							
Boston: North Dorchester	54	11.9%		100.0%							
Boston: Mattapan	50	10.9%		100.0%							
Boston: South Dorchester	36	7.9%		100.0%							
Milton	25	5.5%		100.0%							
Boston: Waterfront	12	2.7%				85.4%			14.6%		
Boston: Unspecified	10	2.2%		100.0%							
Somerville: Spring Hill	10	2.3%		100.0%							
Canton	9	2.1%		100.0%							
Unspecified	9	1.9%		100.0%							
Norfolk	3	0.8%		100.0%							
Randolph	3	0.8%		100.0%							
Stoughton	3	0.8%		100.0%							
Westwood	3	0.8%									100.0%
Other (< 0.5 % of riders)	7	1.6%				100.0%					
OVERALL TOTAL	458	100.0%		93.8%		5.1%			0.4%		0.8%

Note: Totals shown may differ from column total because of rounding.

Fairmount Line Entry Station: All Stations

## MBTA Surveys: 2008-09

Commuter Rail Survey

#### **Origin Locations and Activities**

**Expanded Results** 

ORIGIN LOCATIONS					ORI	GIN ACTI	VITIES				
City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Brockton	1,235	36.2%		97.6%		0.5%	0.5%				1.4%
Bridgewater	459	13.4%		93.7%	2.5%	2.5%			1.4%		
Middleborough	186	5.5%		97.9%						2.1%	
Randolph	177	5.2%		100.0%							
Taunton	127	3.7%		100.0%							
Holbrook	123	3.6%		100.0%							
West Bridgewater	93	2.7%		90.0%							10.0%
Lakeville	75	2.2%		100.0%							
Raynham	74	2.2%		100.0%							
Unspecified	66	1.9%		100.0%							
Quincy	62	1.8%		91.4%							8.6%
New Bedford	61	1.8%		100.0%							
Wareham	56	1.6%		88.3%						11.7%	
Easton	50	1.5%		100.0%							
Boston: Financial/Retail	43	1.2%	25.1%			74.9%					
Mattapoisett	40	1.2%		100.0%							
Avon	33	1.0%		100.0%							
Fall River	31	0.9%		100.0%							
Acushnet	30	0.9%		100.0%							
East Bridgewater	29	0.9%		100.0%							
Abington	28	0.8%		100.0%							
Rochester	27	0.8%		100.0%							
Freetown	26	0.8%		100.0%							
Braintree	22	0.7%		100.0%							
Whitman	22	0.6%		100.0%							
Cambridge: Central Square	21	0.6%		100.0%							
Carver	19	0.6%		100.0%							
Other (< 0.5 % of riders)	194	5.7%	5.5%	82.3%		12.2%					
OVERALL TOTAL	3,410	100.0%	0.6%	95.3%	0.3%	2.1%	0.2%		0.2%	0.3%	0.9%

Note: Totals shown may differ from column total because of rounding.

Middleborough Line

Entry Station: All Stations

## **T**<u>MBTA Surveys: 2008-09</u>

Commuter Rail Survey

#### **Origin Locations and Activities**

Expanded Results

ORIGIN LOCATIONS			ORIGIN ACTIVITIES									
City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other	
Plymouth	568	16.6%		98.5%		0.8%					0.8%	
Whitman	342	10.0%		100.0%								
Pembroke	309	9.0%		97.7%							2.3%	
Abington	304	8.9%		97.6%							2.4%	
Rockland	272	7.9%		100.0%								
Halifax	257	7.5%		100.0%								
Hanson	229	6.7%		100.0%								
Duxbury	226	6.6%		94.5%		1.9%					3.6%	
Weymouth	215	6.3%		96.6%		3.4%						
East Bridgewater	125	3.7%		100.0%								
Kingston	120	3.5%		100.0%								
Hanover	107	3.1%		100.0%								
Sandwich	43	1.3%		90.0%		10.0%						
Carver	35	1.0%		87.5%		12.5%						
Braintree	32	0.9%		100.0%								
Plympton	29	0.9%		100.0%								
Holbrook	27	0.8%		100.0%								
Barnstable	26	0.8%		100.0%								
Norwell	24	0.7%		100.0%								
Other (< 0.5 % of riders)	133	3.9%		67.0%		29.7%		3.3%				
OVERALL TOTAL	3,421	100.0%		97.2%		1.9%		0.1%			0.8%	

Note: Totals shown may differ from column total because of rounding.

#### Kingston/Plymouth Line

Entry Station: All Stations

## <u>MBTA Surveys: 2008-09</u>

Greenbush Line Survey

#### **Origin Locations and Activities**

Expanded Results

ORIGIN LOCATIONS					ORI	GIN ACTI	VITIES				
City/Neighborhood Origins	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Scituate	474	22.8%		99.4%							0.6%
Weymouth	426	20.5%		97.0%						2.1%	0.9%
Hingham	421	20.3%		95.4%				2.1%			2.5%
Marshfield	207	9.9%		98.7%	1.3%						
Cohasset	180	8.6%		95.0%							5.0%
Norwell	77	3.7%		100.0%							
Hull	69	3.3%		100.0%							
Braintree	60	2.9%		100.0%							
Duxbury	28	1.4%		100.0%							
Quincy	21	1.0%		100.0%							
Hanover	20	0.9%		100.0%							
Boston: Financial/Retail	18	0.9%				100.0%					
Unspecified	17	0.8%		100.0%							
Rockland	12	0.6%		100.0%							
Other (< 0.5 % of riders)	49	2.4%		8.1%		73.5%			18.4%		
OVERALL TOTAL	2,078	100.0%		94.7%	0.1%	2.6%		0.4%	0.4%	0.4%	1.3%

Note: Totals shown may differ from column total because of rounding.

Greenbush Line Entry Station: All Stations

## Access to the Commuter Rail System

The data presented in this chapter describe aspects of riders' travel between the origins of their entire trips and the commuter rail lines on which they received the surveys. These data consist of three types. One is the modes of transportation used by riders to access the commuter rail lines on which they received their surveys; for riders who used more than one mode previous to commuter rail, this "access mode" is the one used immediately before accessing the commuter rail boarding station. The second type of data in this chapter pertains only to the riders whose access trips were made via private transportation modes; it is the trip times for riders' entire access trips from their trip origins to the commuter rail lines on which they received the surveys. The final type of data in this chapter, which pertains to all riders, is the time that riders waited at a station before embarking on a train.

For trips to the commuter rail system in which the access mode was a public transportation mode, additional details are given about the service used: for bus trips, the specific routes; for rapid transit trips, the initial boarding stations; and for boat trips, the initial boarding docks.

The tables (at the end of the chapter) present all of these data by line. For each line, the table on access mode, the one on access trip time, and the one on wait time appear together on one page, and the six tables specifying bus routes and initial stations or docks are on the following page. The data for each line are based on the survey responses from riders who boarded trains anywhere on that line. Chapter 2 addresses the same categories of data that are addressed in the present chapter, but at the level of the commuter rail system as a whole. It includes tables and discussion.

#### 5.1 ACCESS MODE

#### 5.1.1 DESCRIPTION OF TABLE

The access mode table for each line shows the distribution of trips among 12 transportation modes that riders used immediately before accessing that line. Seven of the modes are private: walk, drive, drop-off, taxi, shuttle/van, bicycle, and "other." Five are public: MBTA bus, other bus, commuter rail, boat, and "other." The private and public access modes are grouped separately in the

table. As explained above, further details on the access trips made by public transportation are given in four subsequent tables.

Two columns present, respectively, the number and the percent of riders who reported using each mode to access the line for which the table was generated. Each column includes subtotals for the private and public modes. The number of expanded survey responses that provided no answer about the access mode appears in the table, but those responses are excluded from the percentage calculations.

#### 5.1.2 OVERVIEW OF RESULTS

#### North Side

Access via some form of private transportation was reported in 89% to 94% of the survey responses on each North Side line. On three of the four lines, the most frequently reported access mode was drive/park, with percentages as follows: Fitchburg Line, 46%; Haverhill Line, 48%; and Lowell Line, 56%. Walk-ins accounted for 24% to 32% of access trips to these lines. However, on the Newburyport/Rockport Line, walk access exceeded drive/park, 41% to 37%. Drop-offs accounted for 11% to 13% of the access trips to each North Side line.

The Fitchburg Line had the highest percentage of riders transferring from rapid transit (8%) as a consequence of having direct connections both at North Station and at Porter Square. On the other lines, rapid transit transfer percentages ranged from 4% to 6%. Transfers from either MBTA buses or other buses accounted for only 1% to 3% of the boardings on each line.

#### South Side

Access via some form of private transportation was reported in 93% to 99% of the survey responses on each South Side line. However, the relative importance of the various private modes varied widely among the lines. On six of the eight lines, drive/park was the most common access mode, with rates ranging from 51% on the Franklin Line to 79% on the Kingston/Plymouth Line. On five of these lines, walk-ins were second in importance, with 14% to 31% of the totals, but on the Kingston/Plymouth Line, drop-offs were ahead of walk-ins, at 11% versus 8%. Walk-ins exceeded drive/park on the Needham Line (55% versus 31%), and on the Fairmount Line (46% versus 35%). Drop-offs ranged from 7% on the Needham Line to 18% on the Greenbush Line, but were 11% to 14% on all other South Side lines.

Transfers from other transit services were insignificant. Rapid transit access rates and bus access rates each ranged from less than 1% to 4% per line. Most of the surveyed riders were traveling inbound, from stations with limited or no transit connections. Outbound trips from downtown Boston stations after 3:00 PM would be expected to show much higher transfer rates.

#### 5.2 WAIT TIME AT BOARD STATION

#### 5.2.1 DESCRIPTION OF TABLE

The wait time table for each line summarizes the responses to question 6b, "How long did you wait at the commuter rail station?" with a space for a writein answer. The open-ended format of the question allowed survey respondents to enter any amount of time. The wait times are summarized by seven ranges, starting with 0 to 1 minute and continuing at varying intervals up to an openended range of anything over 20 minutes. For each range, the table shows the number and percent of riders; it also gives the cumulative percentages that result as one adds each category of user to the ones preceding it in the table. Below this table is a line that reports the mean wait time for the line's riders.

Because there was no question concerning how long riders waited for a Greenbush Line train, the "Wait Time at Board Station" table is not available for the Greenbush Line.

#### 5.2.2 OVERVIEW OF RESULTS

Because of the long headways on most MBTA commuter rail lines, riders who use the service regularly plan their arrivals at stations to connect with specific trains rather than just going to stations and waiting for the next departures. The more predictable the access time is, the more closely the connection can be planned. Riders accessing commuter rail by other transit services have less control over their wait times than riders using private transportation access. However, the vast majority of access trips to all lines in the survey were by private transportation, so most of the wait times reported were for private access trips. The survey form asked riders to report their wait times for the trips on which they were surveyed. Consequently, some riders who boarded trains that were running behind schedule reported wait times longer than they would have planned for.

#### **North Side**

On three of the four North Side lines, 86% to 88% of riders reported wait times of 10 minutes or less, including 60% to 67% with wait times of 7 minutes or less. The mean reported wait times on these lines ranged from 7 to 8 minutes.

On the day that the Fitchburg Line survey was conducted, several of the inbound AM-peak-period trains ran very late. Some riders reported their "usual" wait times, and others reported their wait times on that day. Overall, only 61% of them reported wait times of 10 minutes or less, including only 41% with times of 7 minutes or less. The mean reported wait time on this line was just over 12 minutes. If the survey had been conducted on a day when the trains were running closer to their schedules, reported wait times would likely have been similar to those on the other North Side lines.

#### South Side

On five of the eight South Side lines, 88% to 93% of riders reported wait times of 10 minutes or less, including 60% to 78% with wait times of 7 minutes or less. The mean reported wait times on these lines ranged from 6 to 8 minutes. The Greenbush Line survey did not include the access time question, but based on the information reported on the other trip characteristics of its riders, wait times would be expected to be consistent with those on the South Side summarized above.

The Fairmount Line, which attracted most of its riders from within relatively short distances of the stations, had shorter-than-average wait times, with 95% at 10 minutes or less, 79% at 7 minutes or less, and a mean of just over 5 minutes. The Providence/Stoughton Line, which attracted some riders from relatively long distances, had longer-than-average wait times, with 82% at 10 minutes or less, 51% at 7 minutes or less, and a mean of over 8 minutes.

#### 5.3 TRIP TIME FOR ACCESS VIA PRIVATE TRANSPORTATION

#### 5.3.1 DESCRIPTION OF TABLE

For each line, this table summarizes the reported access times, from trip origin to commuter rail line, for riders who made their access trips entirely by private transportation. Trips in which private transportation was used to access an intermediate, public mode that was then used to reach the commuter rail line are not included. The access times are summarized by seven ranges, starting with 0 to 5 minutes and continuing at varying intervals up to an open-ended range of anything over 45 minutes.

The table shows the number of riders with reported times in each range for the walk, drive/park, and drop-off access modes individually and for all other private access modes combined. Within each of these four groups, it also shows the percent of access trips in each time range and the average access time for the mode.

#### 5.3.2 OVERVIEW OF RESULTS

#### **North Side**

Mean walking access times for all four North Side lines ranged from 9 to 10 minutes. Slightly over 4% of reported times exceeded 20 minutes, or about one mile for an average person. Mean drop-off times for the Newburyport/Rockport and Haverhill Lines averaged 8 to 9 minutes, but were slightly longer, at 10 minutes each, for the Lowell and Fitchburg Lines. Mean driving access times showed the most variation among lines, at about 10 minutes for the Haverhill Line, 11 minutes for the Newburyport/Rockport Line, 12 minutes for the Fitchburg Line, and nearly 15 minutes for the Lowell Line. The longer times for the Lowell Line reflect a combination of relatively long station spacing on the outer end, and attraction of some trips from New

Hampshire. (Driving times do not translate directly to distance, as average speeds on access routes vary.)

### **South Side**

Access times varied more among South Side lines than among North Side lines. Mean walking access times for the Needham, Franklin, Fairmount, and Greenbush Lines were all around 8 to 9 minutes. They were 10 to 11 minutes for the Framingham/Worcester and Providence/Stoughton Lines, 12 minutes for the Kingston/Plymouth Line, and 15 minutes for the Middleborough/Lakeville Line. On most of the South Side lines, no more than 6% of reported walking access times exceeded 20 minutes, but on the Kingston/Plymouth Line, nearly 9% did, and on the Middleborough/Lakeville Line, nearly 13% did. Mean drop-off times ranged from 8 to 11 minutes for five of the lines, but were only about 4 minutes for the Needham and Fairmount Lines and about 6 minutes for the Greenbush Line. Mean driving access times ranged from about 8 to 11 minutes for six lines, but were about 13 minutes for the Framingham/Worcester Line and 15 minutes for the Providence/Stoughton Line.

### 5.4 TRANSFERS TO THE COMMUTER RAIL SYSTEM FROM TRANSIT

### 5.4.1 DESCRIPTION OF TABLES

For each line, five tables provide further details on the public-access-mode trips shown in the access mode table. For riders transferring to a commuter rail line from a rapid transit line, one table lists the rapid transit stations at which riders boarded (the rapid transit *line* that was boarded at each station listed is not, however, specified). Likewise, for transfers from a commuter boat line, a table gives the boat dock at which riders boarded. For riders transferring from some other mode, one table gives a brief description of the service from which they transferred (usually, this is an Amtrak train). Two other tables indicate specific bus routes for riders who transferred from an MBTA or non-MBTA bus to the commuter rail line. Non-MBTA routes are identified as shown in Table 5-1.

If detailed information was provided by the respondents, this information appears after the abbreviation in the table. For example, several Newburyport/ Rockport Line riders reported using Cape Ann Transit Authority (CATA) buses to access stations near the outer end of the Rockport Branch. Some reported only CATA, but others reported specific routes, such as CATA Blue Line. The tables include separate rows for each route that was reported as well as a row for CATA in general.

The tables show only the transit mode used immediately prior to commuter rail. For example, a trip made via bus to rapid transit to commuter rail is included in the tables as a rapid transit access trip rather than a bus access trip, but the complete details are retained in the database to the extent that they were reported. For lines where there were too many bus routes or too many rapid transit stations to list all individually on one page, the table combines those beyond a set number of rows as "other routes" or "other stations." Because the bus routes and rapid transit stations are listed in descending order by number of riders, it is the less used ones that are combined.

Designations Used for Private and Other Non-MBTA Bus Services				
Designation	Definition			
BAT	Brockton Area Transit			
BNZ	Bonanza Bus Lines			
CATA	Cape Ann Transit Authority			
EZ	EZRide			
GATRA	Greater Attleboro Taunton Regional Transit Authority			
LINK	Montachusett Regional Transit Authority			
LRTA	Lowell Regional Transit Authority			
MPA	Massport shuttle at Logan Airport			
MVRTA	Merrimack Valley Regional Transit Authority			
MWRTA	MetroWest Regional Transit Authority			
SCH	School bus (generic)			
RIPTA	Rhode Island Public Transit Authority			
UMB	UMass Boston shuttle			
Unspecified	Respondent checked bus, but listed no route			
WRTA	Worcester Regional Transit Authority			

 TABLE 5-1

 Designations Used for Private and Other Non-MBTA Bus Services

Differences in the totals of the values shown in the transfer tables and those in the access mode tables are a result of rounding weighted records at different levels of aggregation.

### 5.4.2 OVERVIEW OF RESULTS

### **North Side**

The only direct connections from rapid transit lines to North Side commuter rail lines are at North Station, Porter Square, and Malden Center. At North Station, riders can only be transferring to outbound trains, since it is the inner terminal. At the other two stations, transfers are possible to either inbound or outbound trains, but the only reported inbound transfer was one record from a passenger who rode the Red Line from Davis to Porter and transferred to an inbound Fitchburg Line train to North Station.

Overall, rapid transit transfers accounted for about 4% of the boardings on the Haverhill Line, 6% each on the Newburyport/Rockport and Lowell Lines, and 8% on the Fitchburg Line. However, these figures do not include trips made after 3:00 PM, when the majority of outbound travel occurs.

The tables for rapid transit transfers to three of the North Side lines each show trips starting at over 30 rapid transit stations. For the Haverhill Line, only 21 different rapid transit starting stations were reported. In many cases, there was only one actual survey response from a rider transferring to a given commuter rail line after boarding at a given rapid transit station.

Direct transfers from either MBTA or other buses were reported in only about 1% of the trips on the Newburyport/Rockport and Haverhill Lines, 2% on the Lowell Line, and 3% on the Fitchburg Line. All of the transfers from specified non-MBTA bus routes came from routes in various Regional Transit Authority systems. Most of transfers from individual routes shown in the tables are based on only one actual survey response.

### South Side

All eight of the South Side commuter rail lines connect directly with the Red Line at South Station. Four lines also connect directly with the Orange Line and indirectly with the Green Line at Back Bay. Three of these lines also connect with the Orange Line at Ruggles and one of them also connects with the Orange Line at Forest Hills. Three other lines connect with the Red Line at JFK/UMass. These lines also connect with the Red Line at Quincy Center, and two of them connect with the Red Line at Braintree. Except at South Station, passengers transferring from rapid transit at these locations can board either inbound or outbound commuter rail trains, but the only survey responses received were for transfers to outbound trains.

Despite the many connecting points, transfers from rapid transit accounted for 3% or less of the boardings on seven of the South Side lines. On the Needham Line, 4% of the riders transferred from rapid transit. The number of different rapid transit stations at which riders on each commuter rail line reported having boarded ranged from 2 to 27, but in many cases there was only one actual survey response for a given combination of rapid transit station and commuter rail line. As on the North Side, these figures do not include trips made after 3:00 PM, when the majority of outbound travel occurs.

Direct transfers from either MBTA or other buses were reported in 2% or less of the boardings on each South Side line except the Fairmount Line, where the bus access rate was nearly 4%.

On several of the South Side routes, the only bus transfers reported came from MBTA routes. On the lines that did have transfers from non-MBTA routes, all routes were part of various Regional Transit Authority systems. Most of the transfers from individual routes shown in the tables are based on only one actual survey response.

# Commuter Rail Survey

### Access to the Commuter Rail System

**Expanded Results** 

### Access Mode:

	Number of Riders	Percent of Riders
Walk Access	3,105	40.4%
Drive/Park Access	2,844	37.1%
Drop-off Access	909	11.8%
Taxi Access	42	0.5%
Shuttle/Van Access	34	0.4%
Bicycle Access	142	1.8%
Other Access	7	0.1%
Total Private Trans.	7,082	92.3%
MBTA Bus	51	0.7%
Other Bus	38	0.5%
Rapid Transit	506	6.6%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	595	7.7%
TOTAL	7,677	100.0%
No Answer	40	

_	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	798	10.6%	10.6%
2-4	1,634	21.8%	32.4%
5-7	2,577	34.4%	66.8%
8-10	1,610	21.5%	88.3%
11-15	458	6.1%	94.4%
16-20	209	2.8%	97.2%
Over 20	208	2.8%	100.0%
TOTAL	7,494	100.0%	100.0%
No Answer	223		
Avg. Wait Time (	min)	6.9	

#### *Trip time from trip origin to station by private transportation:*

	W	ALK	DRIVE	/PARK	DROF	P-OFF	OT	HER	T	OTAL
	Number	Percent								
—										
0-5 minutes	836	28.6%	825	30.2%	360	42.1%	52	27.1%	2,073	31.0%
6-10	1,179	40.4%	1,012	37.1%	361	42.2%	53	27.3%	2,604	38.9%
11-15	601	20.6%	526	19.3%	85	10.0%	41	21.2%	1,253	18.7%
16-20	200	6.9%	213	7.8%	22	2.6%	10	5.3%	446	6.7%
21-30	97	3.3%	122	4.5%	13	1.5%	32	16.5%	265	4.0%
31-45	7	0.2%	29	1.1%	7	0.8%	5	2.5%	48	0.7%
Over 45	0	0.0%	0	0.0%	7	0.8%	0	0.0%	7	0.1%
TOTAL	2,921	100.0%	2,727	100.0%	855	100.0%	193	100.0%	6,696	100.0%
No Answer	184		118		53		31		386	
Avg. Time (min)	1	0.1		10.5		8.6	1	3.4	1	0.2

### Newburyport/Rockport Line Entry Station: All Stations

# Commuter Rail Survey

# Transfers to the Commuter Rail System

Expanded Results

### Transferring from:

Rapid Transit, Boarded at Station Indicated:	Number of Riders
South Station	29
Sullivan Square	27
Arlington	24
Kendall/MIT	24
Harvard	21
Central	19
Back Bay	19
Lechmere	19
Ruggles	16
Boylston	16
JFK/UMass	16
NE Medical Center	16
Park Street	16
State	16
Stony Brook	16
Kenmore	13
Allston Street	13
Government Center	13
Maverick	13
North Quincy	11
Chinatown	8
Community College	8
Downtown Crossing	8
Harvard Avenue	8
Kent Street	8
Longwood	8
Newton Centre	8
Porter	8
Prudential	8
Quincy Center	8
Other stations	70

MBTA Bus Routes:	Number of Riders
468	13
442	10
441 435	6
435 448	5

Other Bus Routes:	Number of Riders
САТА	9
MVRTA	4
CATA Blue Line	4
CATA Red Line	4
CATA Rockport Line	4
CATA Purple Line	3
MVRTA 51	2
Unspecified Bus	8
Boat, Boarded at Dock Indicated:	
(None identified)	

Other:

455

450 459

(None identified)

### Newburyport/Rockport Line Entry Station: All Stations

5 3

3

# Commuter Rail Survey

# Access to the Commuter Rail System

**Expanded Results** 

### Access Mode:

	Number of Riders	Percent of Riders
Walk Access	1,177	31.5%
Drive/Park Access	1,771	47.5%
Drop-off Access	479	12.8%
Taxi Access	39	1.0%
Shuttle/Van Access	18	0.5%
Bicycle Access	37	1.0%
Other Access	0	0.0%
Total Private Trans.	3,521	94.3%
MBTA Bus	19	0.5%
Other Bus	23	0.6%
Rapid Transit	169	4.5%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	211	5.7%
TOTAL	3,732	100.0%
No Answer	17	

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	586	16.0%	16.0%
2-4	701	19.2%	35.2%
5-7	1,135	31.1%	66.3%
8-10	806	22.1%	88.3%
11-15	244	6.7%	95.0%
16-20	99	2.7%	97.7%
Over 20	84	2.3%	100.0%
TOTAL	3,655	100.0%	100.0%
No Answer	93		
Avg. Wait Time	(min)	6.6	

### Trip time from trip origin to station by private transportation:

_										
	W	ALK	DRIVE	E/PARK	DRO	P-OFF	OT	HER	TC	DTAL
	Number	Percent								
_										
0-5 minutes	431	38.4%	575	34.1%	219	47.2%	27	30.1%	1,252	37.3%
6-10	407	36.3%	624	37.0%	155	33.5%	34	37.9%	1,221	36.3%
11-15	154	13.8%	309	18.3%	59	12.6%	12	12.8%	533	15.9%
16-20	71	6.3%	118	7.0%	14	3.0%	6	6.6%	208	6.2%
21-30	52	4.6%	55	3.2%	6	1.3%	11	12.5%	124	3.7%
31-45	7	0.6%	5	0.3%	6	1.3%	0	0.0%	18	0.5%
Over 45	0	0.0%	0	0.0%	5	1.0%	0	0.0%	5	0.1%
TOTAL	1,121	100.0%	1,686	100.0%	463	100.0%	91	100.0%	3,360	100.0%
No Answer	56		85		16		3		160	
Avg. Time (min)		9.3		9.9		8.7	1	1.2		9.6

Haverhill Line Entry Station: All Stations

# Commuter Rail Survey

### Transfers to the Commuter Rail System

Expanded Results

### Transferring from:

Rapid Transit, Boarded at Station Indicated:	Number of Riders
Downtown Crossing	26
Hynes Convention Center	14
State	13
Copley	11
Arlington	7
Ashmont	7
Beachmont	7
Central	7
Government Center	7
Harvard	7
Lechmere	7
Longwood Medical Area	7
Massachusetts Avenue	7
NE Medical Center	7
Sullivan Square	7
Alewife	5
Davis	5
Forest Hills	5
North Quincy	5
Revere Beach	5
Wellington	5
Wollaston	5

Number of Riders
9
5
5

Other Bus Routes:	Number of Riders
MVRTA	12
MVRTA 73	3
MVRTA 33	3
MVRTA 40	3
MVRTA 32	3

#### Boat, Boarded at Dock Indicated:

(None identified)

Other:

# Commuter Rail Survey

# Access to the Commuter Rail System

**Expanded Results** 

### Access Mode:

	Number of Riders	Percent of Riders
Walk Access	1,251	23.6%
Drive/Park Access	2,944	55.5%
Drop-off Access	565	10.7%
Taxi Access	8	0.2%
Shuttle/Van Access	49	0.9%
Bicycle Access	33	0.6%
Other Access	12	0.2%
Total Private Trans.	4,862	91.7%
MBTA Bus	43	0.8%
Other Bus	73	1.4%
Rapid Transit	322	6.1%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	438	8.3%
TOTAL	5,301	100.0%
No Answer	39	

	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	658	12.6%	12.6%
2-4	777	14.9%	27.5%
5-7	1,721	33.0%	60.5%
8-10	1,306	25.0%	85.5%
11-15	350	6.7%	92.2%
16-20	137	2.6%	94.8%
Over 20	272	5.2%	100.0%
TOTAL	5,221	100.0%	100.0%
No Answer	119		
Avg. Wait Time (	min)	7.9	

### *Trip time from trip origin to station by private transportation:*

_										
	W	ALK	DRIVE	E/PARK	DROF	P-OFF	ОТ	HER	TC	DTAL
	Number	Percent								
_										
0-5 minutes	353	30.3%	397	14.1%	190	36.6%	23	22.3%	964	20.9%
6-10	460	39.4%	863	30.6%	203	39.0%	47	46.1%	1,573	34.1%
11-15	200	17.2%	629	22.3%	67	12.9%	22	21.7%	919	19.9%
16-20	104	8.9%	551	19.5%	25	4.9%	5	4.4%	685	14.9%
21-30	42	3.6%	275	9.8%	26	4.9%	6	5.5%	348	7.6%
31-45	7	0.6%	93	3.3%	9	1.7%	0	0.0%	109	2.4%
Over 45	0	0.0%	13	0.5%	0	0.0%	0	0.0%	13	0.3%
TOTAL	1,166	100.0%	2,823	100.0%	520	100.0%	102	100.0%	4,611	100.0%
No Answer	85		122		45		0		252	
Avg. Time (min)	1	0.0	1	4.6	1	0.0	1	1.0	1	2.8

CTPS

**Lowell Line** Entry Station: All Stations

# Commuter Rail Survey

### Transfers to the Commuter Rail System

Expanded Results

### Transferring from:

Rapid Transit, Boarded at Station Indicated:	Number of Riders
Sullivan Square	21
Boston University Central	14
Broadway	14
Chinatown	14
Community College	14
Reservoir	14
Ruggles	14
South Station	14
Airport	14
Central	14
JFK/UMass	14
Lechmere	14
Roxbury Crossing	14
Stony Brook	14
Back Bay	7
Boylston	7
Coolidge Corner	7
Downtown Crossing	7
Green Line B: Unspecified	7
Green Street	7
Kendall/MIT	7
Massachusetts Avenue	7
NE Medical Center	7
Pleasant Street	7
Prudential	7
Quincy Center	7
Shawmut	7
Ashmont	7
Copley	7
Orient Heights	7
Other stations	7

Number of Riders
14
7
7
7
5
4

Lowell Line

Entry Station: All Stations

Other Bus Routes:	Number of Riders
LRTA	46
LRTA Downtown Shuttle	8
LRTA 13	5
LRTA 15	5
LRTA North UMass to Station	5
LRTA Centerville	3

#### Boat, Boarded at Dock Indicated:

(None identified)

Other:

# Commuter Rail Survey

# Access to the Commuter Rail System

**Expanded Results** 

### Access Mode:

	Number of Riders	Percent of Riders
Walk Access	1,233	28.8%
Drive/Park Access	1,967	45.9%
Drop-off Access	499	11.7%
Taxi Access	14	0.3%
Shuttle/Van Access	23	0.5%
Bicycle Access	66	1.5%
Other Access	0	0.0%
Total Private Trans.	3,802	88.8%
MBTA Bus	108	2.5%
Other Bus	4	0.1%
Rapid Transit	360	8.4%
Boat	0	0.0%
Other	10	0.2%
Total Public Trans.	481	11.2%
TOTAL	4,283	100.0%
No Answer	24	

_	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	319	7.6%	7.6%
2-4	401	9.5%	17.1%
5-7	1,015	24.1%	41.2%
8-10	811	19.3%	60.5%
11-15	589	14.0%	74.5%
16-20	501	11.9%	86.4%
Over 20	572	13.6%	100.0%
TOTAL	4,207	100.0%	100.0%
No Answer	100		
Avg. Wait Time (	min)	12.1	

#### *Trip time from trip origin to station by private transportation:*

	W	ALK	DRIVE	/PARK	DROF	P-OFF	OT	HER	Т	DTAL
	Number	Percent								
—										
0-5 minutes	342	29.5%	463	25.2%	182	38.3%	10	11.1%	997	27.9%
6-10	489	42.2%	596	32.4%	156	32.8%	63	68.1%	1,305	36.6%
11-15	207	17.8%	353	19.2%	70	14.8%	6	5.9%	636	17.8%
16-20	66	5.7%	264	14.4%	46	9.6%	14	14.9%	389	10.9%
21-30	50	4.3%	129	7.0%	18	3.8%	0	0.0%	197	5.5%
31-45	7	0.6%	35	1.9%	3	0.6%	0	0.0%	45	1.3%
Over 45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL	1,161	100.0%	1,840	100.0%	474	100.0%	93	100.0%	3,568	100.0%
No Answer	72		127		25		10		234	
Avg. Time (min)		9.9		12.3	1	0.0	1	0.0	1	1.1

**Fitchburg Line** Entry Station: All Stations

# Commuter Rail Survey

# Transfers to the Commuter Rail System

Expanded Results

### Transferring from:

Rapid Transit, Boarded at Station Indicated:	Number of Riders
Davis	44
South Station	29
Harvard	24
Kendall/MIT	19
Community College	16
NE Medical Center	16
Oak Grove	16
Back Bay	15
Airport	10
Alewife	10
Allston Street	10
Boston College	10
Brigham Circle	10
Copley	10
Dean Road	10
Massachusetts Avenue	10
Northeastern	10
Park Street	10
Stony Brook	10
Suffolk Downs	10
Symphony	10
Central	5
Coolidge Corner	5
Downtown Crossing	5
Green Line B: Unspecified	5
Harvard Avenue	5
Jackson Square	5
JFK/UMass	5
Lechmere	5
State	5
Other stations	10

MBTA Bus Routes:	Number of Riders
77	50
442	10
83	10
96	10
70	9
73	5
553	5
558	5
70A	5

Other Bus Routes:	Number of Riders
LINK	4

Boat, Boarded at Dock Indicated:

(None identified)

	Number of
Other:	Riders
ATK Wells ME	10

**Fitchburg Line** Entry Station: All Stations

# Commuter Rail Survey

### Access to the Commuter Rail System

**Expanded Results** 

### Access Mode:

<u>.</u>		
	Number of Riders	Percent of Riders
Walk Access	1,746	26.7%
Drive/Park Access	3,556	54.4%
Drop-off Access	785	12.0%
Taxi Access	24	0.4%
Shuttle/Van Access	26	0.4%
Bicycle Access	126	1.9%
Other Access	0	0.0%
Total Private Trans.	6,263	95.9%
MBTA Bus	31	0.5%
Other Bus	35	0.5%
Rapid Transit	203	3.1%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	269	4.1%
TOTAL	6,532	100.0%
No Answer	26	

Number of Riders	Percent of Riders	Cumulative Percent
811	12.6%	12.6%
1,217	18.8%	31.4%
2,073	32.1%	63.5%
1,596	24.7%	88.2%
453	7.0%	95.2%
192	3.0%	98.2%
116	1.8%	100.0%
6,459	100.0%	100.0%
99		
	Riders 811 1,217 2,073 1,596 453 192 116 6,459	Riders         Riders           811         12.6%           1,217         18.8%           2,073         32.1%           1,596         24.7%           453         7.0%           192         3.0%           116         1.8%           6,459         100.0%

#### *Trip time from trip origin to station by private transportation:*

_										
	W	ALK	DRIVE	E/PARK	DROF	P-OFF	OT	HER	т	DTAL
	Number	Percent								
_										
0-5 minutes	468	28.4%	643	18.7%	240	32.1%	17	12.0%	1,368	22.9%
6-10	701	42.6%	1,316	38.2%	285	38.2%	31	21.7%	2,333	39.0%
11-15	301	18.3%	801	23.3%	114	15.2%	47	32.8%	1,263	21.1%
16-20	95	5.8%	371	10.8%	71	9.5%	34	24.1%	571	9.6%
21-30	63	3.8%	232	6.7%	26	3.4%	8	5.8%	329	5.5%
31-45	19	1.1%	65	1.9%	4	0.5%	0	0.0%	87	1.5%
Over 45	0	0.0%	16	0.5%	7	1.0%	5	3.6%	28	0.5%
TOTAL	1,646	100.0%	3,443	100.0%	747	100.0%	143	100.0%	5,980	100.0%
No Answer	100		113		38		33		283	
Avg. Time (min)	1	0.2	1	12.6	1	0.5	1	5.5	1	1.7

Framingham/Worcester Line Entry Station: All Stations

### Commuter Rail Survey

### Transfers to the Commuter Rail System

Expanded Results

#### Transferring from:

24 16 11 11 11
11 11 11
11 11
11
11
10
9
9
6
6
6
6
6
6
6
6
6
6
4
4
4
4
4
4
4
4

MBTA Bus Routes:	Number of Riders
SL1	11
11	6
SL2	6
326	4
39	4

Other Bus Routes:	Number of Riders
MWRTA	9
MWRTA 3	5
MWRTA 5	4
MWRTA 4	4
WRTA 15	3
WRTA 30	3
WRTA Grafton Street	3
Other routes	3

#### Boat, Boarded at Dock Indicated:

(None identified)

Other:

(None identified)

### Framingham/Worcester Line Entry Station: All Stations

CTPS

# Commuter Rail Survey

### Access to the Commuter Rail System

**Expanded Results** 

### Access Mode:

	Number of Riders	Percent of Riders
Walk Access	1,697	55.0%
Drive/Park Access	955	31.0%
Drop-off Access	222	7.2%
Taxi Access	0	0.0%
Shuttle/Van Access	9	0.3%
Bicycle Access	44	1.4%
Other Access	0	0.0%
Total Private Trans.	2,928	94.9%
MBTA Bus	40	1.3%
Other Bus	0	0.0%
Rapid Transit	117	3.8%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	156	5.1%
TOTAL No Answer	3,084 19	100.0%

407	13.4%	13.4%
		13.470
834	27.4%	40.8%
1,134	37.3%	78.0%
449	14.8%	92.8%
81	2.7%	95.5%
35	1.1%	96.6%
103	3.4%	100.0%
3,043	100.0%	100.0%
60		
	449 81 35 103 3,043	44914.8%812.7%351.1%1033.4%3,043100.0%

#### *Trip time from trip origin to station by private transportation:*

	W	ALK	DRIVE	E/PARK	DROF	P-OFF	OT	HER	тс	DTAL
	Number	Percent								
—										
0-5 minutes	608	37.5%	458	50.9%	180	82.4%	33	62.4%	1,279	45.8%
6-10	684	42.2%	294	32.7%	38	17.6%	11	20.8%	1,028	36.8%
11-15	245	15.1%	73	8.2%	0	0.0%	0	0.0%	319	11.4%
16-20	70	4.3%	60	6.7%	0	0.0%	0	0.0%	130	4.6%
21-30	15	1.0%	14	1.6%	0	0.0%	0	0.0%	30	1.1%
31-45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Over 45	0	0.0%	0	0.0%	0	0.0%	9	16.8%	9	0.3%
TOTAL	1,623	100.0%	899	100.0%	218	100.0%	53	100.0%	2,794	100.0%
No Answer	74		56		4		0		134	
Avg. Time (min)		8.4		7.8		4.4	1	4.5		8.0

### Commuter Rail Survey

### Transfers to the Commuter Rail System

Expanded Results

#### Transferring from:

Rapid Transit, Boarded at Station Indicated:	Number of Riders
Broadway	9
Central	9
Charles/MGH	9
Community College	9
Downtown Crossing	9
Haymarket	9
Kendall/MIT	9
Kenmore	9
Massachusetts Avenue	9
North Station	9
Porter	9
Savin Hill	9
St Marys Street	9

MBTA Bus Routes:	Number of Riders
47	9
SL1	9
30	6
38	6
34	5
36	4

Other Bus Routes:

(None identified)

Boat, Boarded at Dock Indicated:

(None identified)

Other:

# Commuter Rail Survey

# Access to the Commuter Rail System

**Expanded Results** 

### Access Mode:

	Number of Riders	Percent of Riders
Walk Access	1,663	30.7%
Drive/Park Access	2,757	50.8%
Drop-off Access	752	13.9%
Taxi Access	11	0.2%
Shuttle/Van Access	38	0.7%
Bicycle Access	58	1.1%
Other Access	3	0.1%
Total Private Trans.	5,282	97.4%
MBTA Bus	32	0.6%
Other Bus	0	0.0%
Rapid Transit	109	2.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	141	2.6%
TOTAL	5,423	100.0%
No Answer	51	

_	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	478	8.9%	8.9%
2-4	1,061	19.8%	28.8%
5-7	2,048	38.3%	67.0%
8-10	1,192	22.3%	89.3%
11-15	309	5.8%	95.1%
16-20	106	2.0%	97.0%
Over 20	159	3.0%	100.0%
TOTAL	5,352	100.0%	100.0%
No Answer	121		
Avg. Wait Time (	min)	7.3	

### *Trip time from trip origin to station by private transportation:*

	W	ALK	DRIVE	E/PARK	DROF	P-OFF	OT	HER	TC	DTAL
	Number	Percent								
_										
0-5 minutes	644	41.5%	727	27.5%	331	46.0%	18	17.9%	1,720	34.3%
6-10	462	29.8%	1,096	41.4%	266	37.0%	37	35.7%	1,861	37.1%
11-15	310	20.0%	477	18.0%	70	9.7%	26	25.5%	882	17.6%
16-20	93	6.0%	227	8.6%	28	4.0%	4	3.9%	352	7.0%
21-30	34	2.2%	105	4.0%	13	1.9%	14	14.0%	167	3.3%
31-45	6	0.4%	15	0.6%	10	1.4%	3	3.0%	35	0.7%
Over 45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL	1,549	100.0%	2,646	100.0%	719	100.0%	102	100.0%	5,017	100.0%
No Answer	113		111		33		7		265	
Avg. Time (min)		8.9		10.3		8.4	1	3.9		9.7

### Commuter Rail Survey

### Transfers to the Commuter Rail System

Expanded Results

#### Transferring from:

Rapid Transit, Boarded at Station Indicated:	Number of Riders
Harvard	18
Central	11
Copley	11
Charles/MGH	7
Massachusetts Avenue	7
NE Medical Center	7
Newton Centre	7
North Station	7
Park Street	7
Andrew	4
Longwood	4
Oak Grove	4
Porter	4
Quincy Center	4
Savin Hill	4
St Marys Street	4

MBTA Bus Routes:	Number of Riders
47	7
SL2	7
34E	7
111	4
55	4
SL1	4

Other Bus Routes:

(None identified)

Boat, Boarded at Dock Indicated:

(None identified)

Other:

# Commuter Rail Survey

### Access to the Commuter Rail System

**Expanded Results** 

### Access Mode:

	Number of Riders	Percent of Riders
Walk Access	2,368	19.8%
Drive/Park Access	7,238	60.7%
Drop-off Access	1,469	12.3%
Taxi Access	35	0.3%
Shuttle/Van Access	26	0.2%
Bicycle Access	212	1.8%
Other Access	25	0.2%
Total Private Trans.	11,372	95.3%
MBTA Bus	37	0.3%
Other Bus	203	1.7%
Rapid Transit	311	2.6%
Boat	9	0.1%
Other	0	0.0%
Total Public Trans.	560	4.7%
TOTAL	11,933	100.0%
No Answer	80	

_	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	712	6.1%	6.1%
2-4	1,652	14.1%	20.2%
5-7	3,658	31.2%	51.3%
8-10	3,586	30.6%	81.9%
11-15	1,280	10.9%	92.8%
16-20	518	4.4%	97.2%
Over 20	325	2.8%	100.0%
TOTAL	11,730	100.0%	100.0%
No Answer	282		
Avg. Wait Time (	min)	8.3	

Providence/Stoughton Line

Entry Station: All Stations

#### *Trip time from trip origin to station by private transportation:*

	W	ALK	DRIVE	E/PARK	DRO	P-OFF	OT	HER	тс	DTAL
	Number	Percent								
_										
0-5 minutes	635	28.2%	1,181	17.3%	401	29.1%	55	19.4%	2,271	21.2%
6-10	893	39.7%	2,484	36.5%	580	42.1%	88	31.1%	4,044	37.7%
11-15	382	17.0%	1,554	22.8%	210	15.2%	66	23.2%	2,211	20.6%
16-20	213	9.5%	941	13.8%	97	7.0%	32	11.2%	1,283	12.0%
21-30	114	5.1%	517	7.6%	53	3.9%	30	10.5%	714	6.7%
31-45	14	0.6%	89	1.3%	26	1.9%	0	0.0%	129	1.2%
Over 45	0	0.0%	46	0.7%	10	0.7%	13	4.5%	69	0.6%
TOTAL	2,251	100.0%	6,811	100.0%	1,378	100.0%	282	100.0%	10,721	100.0%
No Answer	117		427		91		16		651	
Avg. Time (min)	1	0.7		13.1	1	0.9	1	4.6	1	2.3

### Commuter Rail Survey

### Transfers to the Commuter Rail System

Expanded Results

### Transferring from:

Rapid Transit, Boarded at Station Indicated:	Number of Riders
Harvard	46
Charles/MGH	27
JFK/UMass	27
Malden	18
Park Street	18
Porter	18
Andrew	9
Boston University West	9
Boylston	9
Brandon Hall	9
Brigham Circle	9
Central	9
Chinatown	9
Davis	9
Forest Hills	9
Green Street	9
Kendall/MIT	9
Kenmore	9
Longwood Medical Area	9
North Station	9
Quincy Center	9
Reservoir	9
Stony Brook	9

# Number of MBTA Bus Routes: Riders

Providence/Stoughton Line

Entry Station: All Stations

MBTA BUS ROULES:	Riders
10	9
CT2	9
SL1	9
SL2	9

Other Bus Routes:	Number of Riders
RIPTA	110
RIPTA 60	20
RIPTA 34	10
GATRA	9
RIPTA 22	7
RIPTA 14	7
RIPTA 22	7
Other routes	35

Boat, Boarded at Dock	Number of
Indicated:	Riders
Hingham	9

Other:

# Commuter Rail Survey

### Access to the Commuter Rail System

**Expanded Results** 

### Access Mode:

	Number of Riders	Percent of Riders
Walk Access	202	46.3%
Drive/Park Access	153	35.1%
Drop-off Access	52	11.9%
Taxi Access	0	0.0%
Shuttle/Van Access	0	0.0%
Bicycle Access	0	0.0%
Other Access	0	0.0%
Total Private Trans.	407	93.4%
MBTA Bus	16	3.8%
Other Bus	0	0.0%
Rapid Transit	12	2.8%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	29	6.6%
TOTAL No Answer	436 22	100.0%

Wait Time at Board			
	Number of Riders	Percent of Riders	Cumulative Percent
0-1 minute	93	21.1%	21.1%
2-4	86	19.5%	40.6%
5-7	170	38.6%	79.2%
8-10	71	16.1%	95.3%
11-15	5	1.2%	96.5%
16-20	11	2.5%	99.0%
Over 20	4	1.0%	100.0%
TOTAL	441	100.0%	100.0%
No Answer	17		
Avg. Wait Time (mir	1)	5.1	

#### *Trip time from trip origin to station by private transportation:*

_	W	ALK	DRIV	E/PARK	DROF	P-OFF	OTH	IER	TC	TAL
	Number	Percent								
_										
0-5 minutes	57	32.3%	66	46.1%	45	92.9%			169	45.7%
6-10	83	46.7%	57	39.5%	3	7.1%			143	38.7%
11-15	22	12.6%	2	1.7%	0	0.0%	(No		25	6.7%
16-20	11	6.4%	15	10.3%	0	0.0%	respon		26	7.1%
21-30	3	1.9%	3	2.4%	0	0.0%			7	1.9%
31-45	0	0.0%	0	0.0%	0	0.0%			0	0.0%
Over 45	0	0.0%	0	0.0%	0	0.0%			0	0.0%
TOTAL	177	100.0%	144	100.0%	49	100.0%			369	100.0%
No Answer	25		9		3				38	
Avg. Time (min)		9.2		8.1		4.4				8.2

CTPS

**Fairmount Line** Entry Station: All Stations

Wait Time at Board Station:

# Commuter Rail Survey

# Transfers to the Commuter Rail System

Expanded Results

**Fairmount Line** Entry Station: All Stations

Transferring from:

Rapid Transit, Boarded at Station Indicated:	Number of Riders
Davis	11
Central	2

MBTA Bus Routes:	Number of Riders
24	16

Other Bus Routes:

(None identified)

Other:

(None identified)

Boat, Boarded at Dock Indicated:

# Commuter Rail Survey

# Access to the Commuter Rail System

**Expanded Results** 

### Access Mode:

	Number of Riders	Percent of Riders
Walk Access	533	15.8%
Drive/Park Access	2,246	66.7%
Drop-off Access	386	11.5%
Taxi Access	27	0.8%
Shuttle/Van Access	4	0.1%
Bicycle Access	18	0.5%
Other Access	9	0.3%
Total Private Trans.	3,223	95.7%
MBTA Bus	29	0.9%
Other Bus	36	1.1%
Rapid Transit	80	2.4%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	145	4.3%
TOTAL	3,367	100.0%
No Answer	43	

236	7.00/	
	7.2%	7.2%
618	18.9%	26.1%
1,104	33.8%	59.9%
914	28.0%	87.9%
183	5.6%	93.5%
89	2.7%	96.2%
124	3.8%	100.0%
3,267	100.0%	100.0%
143		
	914 183 89 124 3,267	91428.0%1835.6%892.7%1243.8%3,267100.0%

#### *Trip time from trip origin to station by private transportation:*

	W	ALK	DRIVE	E/PARK	DROF	P-OFF	OT	HER	тс	DTAL
	Number	Percent								
_										
0-5 minutes	99	21.1%	666	31.3%	147	42.3%	18	30.9%	930	31.0%
6-10	111	23.7%	755	35.4%	94	26.9%	8	13.5%	967	32.2%
11-15	68	14.6%	238	11.1%	59	17.0%	6	11.1%	371	12.4%
16-20	131	28.0%	216	10.1%	27	7.7%	22	37.3%	396	13.2%
21-30	33	7.1%	235	11.0%	21	6.0%	4	7.2%	293	9.8%
31-45	26	5.6%	21	1.0%	0	0.0%	0	0.0%	47	1.6%
Over 45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL	468	100.0%	2,131	100.0%	347	100.0%	58	100.0%	3,005	100.0%
No Answer	65		115		39		0		218	
Avg. Time (min)	1	4.5	1	11.4		9.7	1	3.2	1	1.8

CTPS

### Middleborough Line Entry Station: All Stations

### Commuter Rail Survey

# Transfers to the Commuter Rail System

Expanded Results

Middleborough Line

Entry Station: All Stations

### Transferring from:

Rapid Transit, Boarded at Station Indicated:	Number of Riders
Central	21
Sullivan Square	16
Kenmore	11
Maverick	11
Porter	11
Wollaston	11

MBTA Bus Routes:	Number of Riders
220	12
240	11
216	6

Other Bus Routes:	Number of Riders
BAT	26
BAT 9	6
GATRA	4

Other:

(None identified)

Boat, Boarded at Dock Indicated:

# Commuter Rail Survey

# Access to the Commuter Rail System

**Expanded Results** 

### Access Mode:

	Number of Riders	Percent of Riders
Walk Access	274	8.0%
Drive/Park Access	2,681	78.6%
Drop-off Access	383	11.2%
Taxi Access	0	0.0%
Shuttle/Van Access	13	0.4%
Bicycle Access	39	1.2%
Other Access	0	0.0%
Total Private Trans.	3,390	99.4%
MBTA Bus	0	0.0%
Other Bus	9	0.3%
Rapid Transit	13	0.4%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	22	0.6%
TOTAL	3,412	100.0%
No Answer	9	

8.9% 15.8% 39.4% 25.7%	8.9% 24.8% 64.1% 89.8%
39.4% 25.7%	64.1%
25.7%	0
	89.8%
7.9%	97.7%
1.5%	99.2%
0.8%	100.0%
100.0%	100.0%
	6.8

#### *Trip time from trip origin to station by private transportation:*

	WALK		DRIVE/PARK		DROP-OFF		OT	OTHER		TOTAL	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
—											
0-5 minutes	70	28.8%	604	23.2%	109	29.8%	7	14.4%	789	24.3%	
6-10	64	26.4%	1,114	42.9%	163	44.4%	22	48.5%	1,363	41.9%	
11-15	56	23.2%	506	19.5%	71	19.4%	13	27.6%	646	19.9%	
16-20	31	12.9%	231	8.9%	4	1.2%	4	9.5%	271	8.3%	
21-30	9	3.6%	101	3.9%	15	4.0%	0	0.0%	124	3.8%	
31-45	12	5.1%	30	1.2%	0	0.0%	0	0.0%	43	1.3%	
Over 45	0	0.0%	13	0.5%	4	1.2%	0	0.0%	17	0.5%	
TOTAL	243	100.0%	2,599	100.0%	366	100.0%	45	100.0%	3,253	100.0%	
No Answer	31		82		17		7		137		
Avg. Time (min)	1	2.4	1	11.0	1	0.0	1	1.6	1	1.0	

### Commuter Rail Survey

# Transfers to the Commuter Rail System

Expanded Results

### Transferring from:

Rapid Transit, Boarded at Station Indicated:	Number of Riders
Longwood	4
Brookline Village	2
Copley	2
Kenmore	2
Orient Heights	2

Kingston/Plymouth Line

Entry Station: All Stations

MBTA Bus Routes:	MBTA	Bus	Routes:	
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(None identified)

Other Bus Routes:	Number of Riders
GATRA - PAL - Freedom Link	4
GATRA Sail	4

Other:

(None identified)

Boat, Boarded at Dock Indicated:

# Greenbush Line Survey

# Access to the Commuter Rail System

**Expanded Results** 

Greenbush Line Entry Station: All Stations

### Access Mode:

	Number of Riders	Percent of Riders
Walk Access	292	14.3%
Drive/Park Access	1,294	63.4%
Drop-off Access	364	17.8%
Taxi Access	0	0.0%
Shuttle/Van Access	0	0.0%
Bicycle Access	63	3.1%
Other Access	4	0.2%
Total Private Trans.	2,016	98.8%
MBTA Bus	7	0.3%
Other Bus	0	0.0%
Rapid Transit	18	0.9%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	25	1.2%
TOTAL	2,040	100.0%
No Answer	38	

### *Trip time from trip origin to station by private transportation:*

	WALK		DRIVE/PARK		DROP-OFF		ОТ	OTHER		TOTAL	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
—											
0-5 minutes	76	28.6%	524	42.0%	233	65.0%	22	33.3%	855	44.1%	
6-10	121	45.8%	496	39.8%	103	28.8%	30	45.6%	751	38.8%	
11-15	51	19.2%	151	12.1%	13	3.6%	10	15.2%	224	11.6%	
16-20	13	5.0%	43	3.4%	10	2.7%	4	5. <b>9</b> %	69	3.6%	
21-30	3	1.3%	35	2.8%	0	0.0%	0	0.0%	38	2.0%	
31-45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	
Over 45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	
TOTAL	265	100.0%	1,248	100.0%	358	100.0%	67	100.0%	1,937	100.0%	
No Answer	27		46		5		0		79		
Avg. Time (min)		9.2		8.3		6.1		7.8		8.0	



# Greenbush Line Survey

# Transfers to the Commuter Rail System

Expanded Results

Greenbush Line Entry Station: All Stations

### Transferring from:

Rapid Transit, Boarded at Station Indicated:	Number of Riders
Harvard	9
Kendall/MIT	9

MBTA Bus Routes:	Number of Riders
225	7

Other Bus Routes:

# Egress from the Commuter Rail System

The data presented in this chapter describe aspects of riders' travel between the commuter rail stations where they left the trains on which they received the surveys and the destinations of their entire trips. These data consist of two types. One is the modes of transportation used by riders when leaving the trains on which they received the survey; for riders who used more than one mode following their commuter rail trips, this "egress mode" is the one used immediately after leaving the train on which they received the survey. The other type of data in this chapter pertains only to the riders whose egress trips were made via private transportation modes; it is the trip times for riders' entire egress trips from the station at which they left the train on which they received the survey to their trip destinations.

For trips from the commuter rail system in which the egress mode was a public transportation mode (a.k.a. transfers), additional details are given about the service used: for bus trips, the specific routes; for rapid transit and commuter rail trips, the final exiting stations; and for boat trips, the final exiting docks.

The tables (at the end of the chapter) present all of these data by line and station or set of stations. For each line and station or set of stations, the table on egress mode and the one on egress trip time appear together on one page, and the six tables specifying bus routes and final stations or docks are on the following page. The data for each station or set of stations are based on the survey responses from riders who completed the commuter rail portions of their trips at that station or set of stations. Chapter 2 addresses the same categories of data that are addressed in the present chapter, but at the level of the commuter rail system as a whole. It includes tables and discussion.

### 6.1 EGRESS MODES AND TRANSFERS FROM THE COMMUTER RAIL SYSTEM

### 6.1.1 DESCRIPTION OF TABLE

The egress mode table for each station or set of stations shows the distribution of trips among 12 transportation modes that riders used immediately after departing that station or set of stations. Seven of the modes are private: walk,

drive/park, pick-up, taxi, shuttle/van, bicycle, and "other." Five are public: MBTA bus, other bus, commuter rail, boat, and "other." The private and public egress modes are grouped separately in the table. As explained above, further details on the egress trips made by public transportation are given in four subsequent tables.

Two columns present, respectively, the number and the percent of riders who reported using each mode to depart the station for which the table was generated. Each column includes subtotals for the private and public modes. The number of expanded survey responses that provided no answer about the egress mode appears in the table, but those responses are excluded from the percentage calculations.

### 6.1.2 DESCRIPTION OF TRANSFERS FROM COMMUTER RAIL TABLES

For each station or set of stations, six tables provide further details on the egress trips shown in the egress mode table that were made by a public transportation mode. For riders transferring from commuter rail to commuter rail, one table gives the commuter rail stations at which riders alighted (however, for each station, the commuter rail *line* from which riders alighted is not specified). Similarly, for transfers to a rapid transit line, a table gives the rapid transit station at which riders alighted. Likewise, for transfers to a commuter boat line, a table gives the boat dock at which riders alighted. Two other tables indicate specific bus routes for riders who transferred from the commuter rail line to, respectively, an MBTA or non-MBTA bus. Non-MBTA routes are identified as shown below:

Designation	Definition
BAT	Brockton Area Transit
BOS	Boston Coach
EZ	EZRide
LRTA	Lowell Regional Transit Authority
MPA	Massport shuttle at Logan Airport
MVRTA	Merrimack Valley Regional Transit Authority
MWRTA	MetroWest Regional Transit Authority
SCH	School bus (generic)
RIPTA	Rhode Island Public Transit Authority
UMB	UMass Boston shuttle
Unspecified	Respondent checked bus, but listed no route
WRTA	Worcester Regional Transit Authority

TABLE 6-1 Designations Used for Private and Other Non-MBTA Bus Services

If detailed information was provided by the respondents, this information appears after the abbreviation in the table. For example, several Lowell Line riders reported using Lowell Regional Transit Authority (LRTA) buses as egress from Lowell Station. Some reported only LRTA, but others reported specific routes, such as LRTA 16. The tables include separate rows for each route that was reported, as well as a row for LRTA in general. The tables show only the transit mode used immediately after commuter rail. For example, a trip made via commuter rail to rapid transit to bus is included in the tables as a rapid transit egress trip rather than a bus egress trip, but the complete details are retained in the database to the extent that they were reported. A few surveys were returned showing egress trips via two successive bus routes. In those cases, the route shown in the table is the final one, even though it does not connect directly with the commuter rail line. For example, the table of egress transfers at JFK/UMass station shows some transfers to MBTA Route 66. These trips were made by transferring directly from commuter rail to MBTA Route 8, and then transferring from Route 8 to Route 66 at Dudley Square. However, they are not included in the Route 8 transfer total.

For stations or sets of stations where there were too many bus routes or too many rapid transit or commuter rail stations to list all of them individually on one page, the table combines those beyond a set number of rows as "other routes" or "other stations." Because the bus routes, rapid transit stations, and commuter rail stations are listed in descending order by number of riders, it is the less used ones that are combined.

Differences in the totals of the values shown in the transfer tables and of those shown in the egress mode tables are a result of rounding weighted records at different levels of aggregation.

### 6.1.3 OVERVIEW OF RESULTS

During the hours that the surveys were distributed, ridership on the commuter rail system was predominantly inbound, with the vast majority of riders alighting either at one of the downtown Boston stations or at one of the other stations with rapid transit connections. This pattern was reflected in the survey responses. In most chapters in this volume, results are presented only for each commuter rail line as a whole. In this chapter (and the following one), the lines are broken up based on both the line and the station, or the set of stations. This allows the unique characteristics of each station or set of stations to be shown.

For each line, Table 6-2 shows the percentage of weighted survey responses for exits that occurred at each of the individual downtown stations and the aggregated non-downtown stations. It should be noted that these figures include both inbound and outbound survey results. The majority of the non-downtown totals are from outbound trips; they should not be used as estimates of non-downtown inbound ridership. On the lines serving both Back Bay and South Station, the split of alightings between these two for all four lines combined was 40% at Back Bay and 60% at South Station.

In this table, "–" indicates a value that cannot occur; that is, the line does not stop at the station. If the combination is possible but no rider exited a train at the station, the value "0.0%" is used.

Along Each Line						
North Side Lines	Non- downtown	North Station	Porter Square	Malden Center		
Newburyport/Rockport	20.2%	79.8%	_	-		
Haverhill	11.5%	85.7%	-	2.8%		
Lowell	15.1%	84.9%	-	-		
Fitchburg	23.2%	50.0%	26.8%	-		
South Side Lines	Non- downtown	South Station	Back Bay	Ruggles	Forest Hills	
Framingham/Worcester	16.9%	49.7%	33.4%	_	_	
Needham	10.9%	55.5%	25.8%	7.5%	0.2%	
Franklin	8.9%	50.5%	30.5%	10.0%	-	
Providence/Stoughton	11.7%	46.4%	35.4%	6.5%	_	
South Side Lines	Non- downtown	South Station	JFK/ UMass	Quincy Center	Brain- tree	
Fairmount	6.6%	93.4%	_	_	_	
Middleborough/Lakeville	5.6%	90.1%	3.0%	1.2%	0.1%	
Kingston/Plymouth	1.4%	94.6%	2.7%	0.0%	1.3%	
Greenbush	3.5%	93.1%	2.3%	1.1%	-	

TABLE 6-2 Percentage of the Survey Respondents Alighting at Downtown Stations Along Each Line

# **Exits at Porter Square**

The only commuter rail line that serves Porter Square is the Fitchburg Line. Riders may transfer to the northern end of the Red Line or may walk to areas within Cambridge and Somerville. MBTA Routes 77, 83, and 96 directly serve the station. There is no dedicated parking available at the station.

*Fitchburg Line* Of the riders who left the commuter rail system at Porter Square, 76% transferred to the Red Line. Only 18% walked to their final destinations. About 35 of the alighting riders transferred to MBTA bus Routes 77, 87, or 96, with more than half of these transferring to Route 77.

For inbound Fitchburg Line riders, Porter Square is the first possible transfer point to the rapid transit system, and it is the only direct connecting point with the Red Line. (Direct connections with the Orange and Green Lines can be made at North Station.)

### **Exits at North Station**

North Station is the terminus for all of the North Side commuter rail routes. It is easily within walking distance of many of the downtown Boston neighborhoods, especially Government Center, the North End, Beacon Hill, and the Financial/Retail District. North Station provides access to both the Green and the Orange Lines for riders who want to transfer to rapid transit. There are 1,275 MBTA parking spaces underneath TD Banknorth Garden. Route 4 is the only bus route serving North Station directly, but several other routes have stops within walking distance.

Over half (54%) of the riders who left the commuter rail system at North Station continued their trips on foot. Over one-third (35%) transferred there to either the Green or Orange Lines. To complete their trips, some of these riders made second transfers to the Blue Line, the Orange Line, or Green Line branches that do not serve North Station directly. Only about 3% transferred to MBTA or other buses, and only about 2% transferred between two commuter rail lines. More specific information on each line's exiting riders is discussed below.

*Newburyport/Rockport Line* Just over half (51%) of the riders walked to their final destinations from the station. Few surveys were returned that indicated another private mode, but nearly 4% of the riders used a shuttle or van to access their final destination.

Over one-third (37%) of the line's riders exited the commuter rail system by transferring to either the Green or Orange Line.

Just over 2% of Newburyport/Rockport Line riders alighting at North Station transferred there to other commuter rail lines, mostly to the Fitchburg and Lowell Lines. Less than 1% of the riders transferred to MBTA bus Route 4, but nearly 3% took the EZRide shuttle to their final destinations. This shuttle provides service between North Station and Cambridgeport via the Cambridgeside Galleria in East Cambridge and Kendall/MIT Station.

*Haverhill Line* Over half (55%) of the Haverhill Line respondents reported walking to their final destinations. This was slightly higher than the percentages for other lines' riders who exited at North Station. This was partly because some riders transferring from the Haverhill Line to the Orange Line did so at Malden Center, leaving a higher proportion of "walkers" aboard the trains when they arrived at North Station. Nearly 6% of the riders used a shuttle or van to reach their final destinations.

Slightly under one-third (31%) of the line's riders alighting at North Station transferred to Green or Orange Lines. About 2% of the alighting riders transferred at North Station to one of the other commuter rail lines, with some going to each of the other three.

About 1% of the riders transferred to MBTA bus routes (mostly Route 4), and nearly 4% took the EZRide shuttle to Cambridge.

*Lowell Line* Just over half (51%) of the Lowell Line riders alighting at North Station walked to their final destinations, while another 6% took a shuttle or van.

Over one-third (37%) of the riders transferred to the Green or Orange Lines. About 2% of the alighting riders transferred at North Station to one of the other commuter rail lines, with the largest number going to stations on the Newburyport/Rockport Line.

Less than 1% transferred at North Station to MBTA buses, but nearly 3% transferred to non-MBTA buses. Most of the latter transferred to the EZRide shuttle to Cambridge.

*Fitchburg Line* Nearly two-thirds (64%) of the Fitchburg Line riders exiting at North Station walked to their final destinations. This was the highest walking egress percentage there for any of the four North Side lines. This was at least partly a result of the large number of Fitchburg Line riders who transferred to the Red Line at Porter Square, leaving a higher proportion of "walkers" on the train at North Station. Only 29% of Fitchburg Line riders transferred to the Green Line or the Orange Line at North Station.

About 2% of the alighting riders transferred at North Station to one of the other commuter rail lines, with the largest number going to stations on the Newburyport/Rockport Line. Less than 1% transferred at North Station to either MBTA or other buses. There were almost no transfers from the Fitchburg Line to the EZRide shuttle, because the area that it serves can also be reached by taking the Red Line from Porter Square to Kendall/MIT Station.

### **Exits at Ruggles Station**

Ruggles Station is served by some trains on the Needham, Franklin, and Providence/Stoughton commuter rail lines. Connections can be made there to the Orange Line, but more trains on these commuter rail lines connect with the Orange Line at Back Bay. Needham Line trains also connect with the Orange Line at Forest Hills, but few riders transfer between these lines there. Ruggles Station is immediately adjacent to Northeastern University and the Museum of Fine Arts, and is served directly by 13 MBTA bus routes. Overall, the most common mode of egress for commuter rail riders alighting at Ruggles Station was walking, at 47%, followed by transfers to private shuttles, at 39%. Although not identified as such in the summary tables, the majority of the shuttle transfers were to Longwood Medical Area shuttles sponsored by the Medical Academic and Scientific Community Organization (MASCO).

About 7% of the commuter rail riders alighting at Ruggles transferred to MBTA buses, and about 5% transferred to the Orange Line.

*Needham Line* Almost 57% of the riders alighting at Ruggles walked to their final destinations, and another 33% transferred to shuttles. Nearly 7% transferred to the Orange Line, but just over 2% transferred to MBTA buses.

*Franklin Line* Almost half (47%) of the riders alighting at Ruggles walked to their final destinations, and another 41% transferred to shuttles. Nearly 8% transferred to MBTA buses, but just under 3% transferred to the Orange Line.

*Providence/Stoughton Line* Less than half (44%) of the riders alighting at Ruggles walked to their final destinations, and another 39% transferred to shuttles. Nearly 9% transferred to MBTA buses, and nearly 7% transferred to the Orange Line.

### **Exits at Back Bay Station**

Four of the eight commuter rail lines (the Framingham/Worcester, Needham, Franklin, and Providence/Stoughton Lines) serve Back Bay Station. This is the main transfer point between these lines and the Orange Line (and the only connection to that line from the Framingham/Worcester Line). Three MBTA bus routes serve Back Bay directly, and a few more have stops within walking distance. Copley Station, on the Green Line, is also within walking distance of Back Bay and is announced as a transfer connection. Back Bay Station is also within walking distance of many important downtown Boston destinations.

Overall, 66% of the commuter rail riders alighting at Back Bay walked to their destinations. The next-largest group (27%) transferred either to the Orange Line there or to the Green Line by walking to Copley Station. Nearly 4% of the Back Bay alighting riders transferred to MBTA buses, and about 1% transferred to shuttles.

*Framingham/Worcester Line* Over two-thirds (69%) of the riders alighting at Back Bay walked to their destinations. The next-largest group (25%) transferred to rapid transit, mostly directly to the Orange Line. About 3% of the Back Bay alighting riders transferred to MBTA buses (mostly Route 39), and about 1% transferred to shuttles.

*Needham Line* A substantial majority (81%) of the riders alighting at Back Bay walked to their destinations. Most of the rest (17%) transferred either to the Orange Line there or to the Green Line by walking to Copley Station. Less than 1% of the Back Bay alighting riders transferred to MBTA buses, and none reported transferring to shuttles.

*Franklin Line* Over two-thirds (69%) of the riders alighting at Back Bay walked to their destinations. The next-largest group (25%) transferred either to the Orange Line there or to the Green Line by walking to Copley Station. About 3% of the Back Bay alighting riders transferred to MBTA buses (with the largest number going to Route 10), and about 1% transferred to shuttles.

**Providence/Stoughton Line** This line had the lowest walking egress rate (61%) of the four commuter rail lines serving Back Bay. It also had the highest rate of transfers to the Orange or Green Lines (31%). About 5% of the Back Bay alighting riders transferred to MBTA buses (with over half of these going to Route 39), and about 1% transferred to shuttles.

### **Exits at South Station**

South Station is the terminus for all eight South Side commuter rail lines. It is located very near to the Boston Waterfront, the Financial/Retail District, and Park Square. Commuter rail riders may transfer to either the Red Line or the Silver Line Waterfront routes at South Station. Over 200 parking spaces are located in a nearby parking garage. Several MBTA local and express bus routes directly serve the station. South Station is also the Boston terminus for Amtrak intercity train service from points south and west, and for most of the private-carrier intercity and commuter bus lines serving the region. As discussed above, four of the South Side commuter rail lines (the Framingham/Worcester, Needham, Franklin, and Providence/Stoughton Lines) serve Back Bay Station in addition to South Station. For the other four lines (Fairmount, Middleborough/Lakeville, Kingston/Plymouth, and Greenbush), South Station is the only downtown Boston station served. Some of the riders from these four lines transfer to outbound trains on one of the other four lines to travel to Back Bay Station.

Overall, excluding Greenbush Line riders, 76% of the South Side riders who left the commuter rail system at South Station continued their trips on foot. The next-largest group (17%) transferred to the Red Line. To complete their trips, some of these riders made second transfers to other rapid transit lines. Transfers to buses accounted for slightly under 5% of the egress trips. Transfers to other commuter rail lines (mostly to go to Back Bay Station from the Middleborough/Lakeville and Kingston/Plymouth Lines) accounted for just over 1%. No other egress mode was used by as much as 1% of the alighting riders.

*Framingham/Worcester Line* Just under 80% of the riders alighting at South Station walked to their destinations. The next-largest group (15%) transferred to the Red Line, with more than half of these riders destined for Kendall/MIT, Harvard, or Central Station in Cambridge. About 5% of the South Station alighting riders transferred to MBTA buses (almost all to Silver Line Waterfront routes). All other egress modes accounted for less than 1% each.

*Needham Line* Of the riders alighting at South Station, 84% walked to their destinations. The next-largest group (10%) transferred to the Red Line, with more than half of these riders destined for Kendall/MIT, Harvard, or Central Station in Cambridge. About 6% of the riders alighting at South Station transferred to MBTA buses (all to Silver Line Waterfront routes). All other egress modes accounted for less than 1% each.

*Franklin Line* Of the riders alighting at South Station, 77% walked to their destinations. The next-largest group (15%) transferred to the Red Line, with more than half of these riders destined for Kendall/MIT, Harvard, or Central Station in Cambridge. About 6% of the riders alighting at South Station transferred to MBTA buses (mostly to Silver Line Waterfront routes). All other egress modes accounted for less than 1% each.

*Providence/Stoughton Line* Of the riders alighting at South Station, 76% walked to their destinations. The next-largest group (17%) transferred to the Red Line, with more than half of these riders destined for Kendall/MIT, Harvard, or Central Station in Cambridge. About 5% of the riders alighting at South Station transferred to MBTA buses (mostly to Silver Line Waterfront routes). All other egress modes accounted for less than 1% each.

*Fairmount Line* Of the riders alighting at South Station, 75% walked to their destinations. The next-largest group (15%) transferred to the Red Line. Nearly 4% of the riders alighting at South Station reached their destinations via shuttles or vans to destinations in South Boston or Cambridge. About 3% transferred to other commuter rail lines. About 2% transferred to MBTA buses (either Silver Line Waterfront routes or Route 7, which also serves South Boston). Transfers to the Charlestown ferry (one actual survey) accounted for 1%. All other egress modes accounted for less than 1% each.

*Middleborough/Lakeville Line* Of the riders alighting at South Station, 72% walked to their destinations. The next-largest group (20%) transferred to the Red Line, with more than one-third of these riders (38%) destined for Kendall/MIT, Harvard, or Central Station in Cambridge. Just over 3% of the riders alighting at South Station transferred to other commuter rail lines, mostly to go to Back Bay Station. Another 3% transferred to MBTA buses (mostly to Silver Line Waterfront routes). All other egress modes accounted for less than 1% each.

*Kingston/Plymouth Line* Of the riders alighting at South Station, 70% walked to their destinations. The next-largest group (20%) transferred to the Red Line, with one-third of these riders destined for Kendall/MIT, Harvard, or Central Station in Cambridge. About 5% of the riders alighting at South Station transferred to other commuter rail lines, all to go to Back Bay Station. Another 4% transferred to MBTA buses (mostly to Silver Line Waterfront routes). All other egress modes accounted for less than 1% each.

*Greenbush Line* Of the riders alighting at South Station, 69% walked to their destinations. The next-largest group (5%) transferred to the Red Line, with over one-third of these riders (41%) destined for Kendall/MIT, Harvard, or Central Station in Cambridge. About 5% of the riders alighting at South Station transferred to other commuter rail lines, mostly to go to Back Bay Station. Another 5% transferred to MBTA buses (the majority to Silver Line Waterfront routes). All other egress modes accounted for less than 1% each.

#### **Non-Downtown Exits**

At most of the commuter rail stations other than those discussed in the preceding sections (Porter Square, North Station, Ruggles, Back Bay, and South Station), the number of exiting passengers during the survey hours and the survey response rates were both too low to provide meaningful information on modes of egress from individual stations. Therefore, in the summary tables, egress and transfer information for these stations is aggregated on a line-by-line basis. At many of the non-downtown stations there are no transit connections. Even at the stations that do nominally have transit connections, schedules are often not coordinated to allow convenient transfers. Excluding stations with connections to the rapid transit system, about 85% to 90% of the commuter rail riders exiting on each line used private egress modes. Transfers to non-MBTA routes, especially near the outer ends of lines, were often to regional transit authority routes.

*Newburyport/Rockport Line* Of the riders on this line who exited at any station other than North Station, 96% used private egress modes. Specifically, 68% walked, 15% drove, 5% were picked up, 4% bicycled, and 3% took shuttles or vans to their final destinations. Most of the transfers to public transportation were to MBTA buses (3% of all egress trips). Most of the reported bus transfers were made at Salem Station, from outbound trains. Over half of these were to bus Route 455, to go to Salem State College.

*Haverhill Line* Of the riders on this line who exited at any station other than North Station or Malden Center, 93% used private egress modes. Specifically, 48% walked, 28% drove, 8% were picked up, 7% took taxis, and 2% took shuttles or vans to their final destinations. All of the transfers to public transportation were to non-MBTA buses (7% of all egress trips). All of the reported bus transfers were made at Haverhill, Lawrence, or Andover Stations, and all of these were either to Merrimack Valley Regional Transit Authority buses or to school buses.

At Malden Center Station, all of the survey returns were from inbound riders. Of these, only 11% used private egress modes, including 8% who were picked up and 2% who walked. By far the largest group (86%) transferred to the Orange Line. Another 4% (based on one survey) transferred to MBTA bus Route 101.

*Lowell Line* Of the riders on this line who exited at any station other than North Station, 93% used private egress modes. Specifically, 43% walked, 32% drove, 11% were picked up, 4% took shuttles or vans, and about 1% each took taxis, bicycled, or used other means to get to their final destinations. Most of the transfers to public transportation were to non-MBTA buses (6% of all egress trips). All of these were to Lowell Regional Transit Authority buses at Lowell Station.

*Fitchburg Line* Of the riders on this line who exited at any station other than North Station or Porter Square, 98% used private egress modes. Specifically, 70% walked, 14% drove, 5% were picked up, about 3% each bicycled or took shuttles or vans, and about 2% took taxis to get to their final destinations. All of the transfers to public transportation were to MBTA buses (2% of all egress trips). All of these transfers were made at either Waltham Station or Waverley Station.

*Framingham/Worcester Line* Of the riders on this line who exited at any station other than South Station or Back Bay, 93% used private egress modes. Specifically, 55% walked, 17% took shuttles or vans, 10% drove, 6% were picked up, 4% bicycled, and about 2% took taxis to get to their final destinations. The largest group of transfers to public transportation was to non-MBTA buses (4% of all egress trips). Most of these were to MetroWest Regional Transit Authority buses at Framingham, Natick, or Ashland, or to Worcester Regional Transit Authority buses at Worcester. Small numbers of transfers were reported to MBTA bus routes at Newtonville and Auburndale, and to the Green Line by walking a short distance from Yawkey Station. Many of the trains starting from Worcester run non-stop past some of the stations on the inner half of the line, resulting in train-to train transfers at Framingham by a few riders.

*Needham Line* Of the riders on this line who exited at any station other than South Station, Back Bay, or Ruggles, 97% used private egress modes. Specifically, 66% walked, 21% drove, 8% were picked up, and about 1% each took shuttles or vans or used other means get to their final destinations. All of the transfers to public transportation were to MBTA buses (3% of all egress trips), but there was only one actual survey from such a trip.

*Franklin Line* All of the riders on this line who exited at any station other than South Station, Back Bay, or Ruggles used private egress modes. Specifically, 37% walked, 43% drove, 14% were picked up, and 6% biked to their final destination.

*Providence/Stoughton Line* Of the riders on this line who exited at any station other than South Station, Back Bay, or Ruggles, 97% used private egress modes. Specifically, 33% walked, 39% drove, 14% were picked up, 6% bicycled, 3% took shuttles or vans, and 2% took taxis to get to their final destinations. Of the transfers to public transportation, the largest share went to non-MBTA buses (nearly 3% of all egress trips), with all of these going to Rhode Island Public Transportation Authority buses at Providence. Less than 1% of the riders transferred to MBTA buses, all of them at Hyde Park Station.

*Fairmount Line* Only seven surveys were received from Fairmount Line riders alighting at any stop except South Station. All of these riders were traveling outbound, and all of them completed their trip by private egress modes. Specifically, 88% walked, 6% drove, and 6% were picked up.

*Middleborough/Lakeville Line* This line connects with the Red Line at JFK/UMass, Quincy Center, and Braintree, as well as at South Station. Among riders alighting at stops other than those with Red Line connections, 89% used private egress modes. Specifically, 56% walked, 27% drove, and 6% were picked up. Transfers to public transportation were reported by only one survey each for a transfer to an MBTA bus at Holbrook/Randolph Station and a transfer to a Brockton Area Transit bus at Campello.

Among riders alighting at JFK/UMass, Quincy Center, or Braintree, only 52% used private egress modes. Specifically, 27% walked, 17% took shuttles or vans, 5% were picked up, and 3% used other egress modes. Of the transfers to public transportation, the largest share went to MBTA buses (23% of all egress trips), with most of these transfers taking place at JFK/UMass. Another 16% transferred to non-MBTA buses, all to UMass Boston shuttles at JFK/UMass. Another 10% transferred to the Red Line. (The latter figure was based on only three surveys, including two transfers at Quincy Center and one at JFK/UMass.)

*Kingston/Plymouth Line* This line connects with the Red Line at JFK/UMass and Braintree, as well as at South Station. Among riders alighting at stops other than those with Red Line connections, all used private egress modes. Specifically, 10% walked, 55% drove, 25% were picked up, and 5% each bicycled or took shuttles or vans to complete their trips.

Among riders alighting at JFK/UMass or Braintree, only 63% used private egress modes. Specifically, 36% walked, 24% took shuttles or vans, and 3% were picked up. Of the transfers to public transportation, the largest share went to the Red Line (17% of total egress trips)'; all of those transfers were made at

Braintree. The rest were almost evenly divided between transfers to MBTA buses (10%) and transfers to non-MBTA buses (11%). All of these transfers took place at JFK/UMass. All of the transfers to non-MBTA buses were to UMass Boston shuttles.

*Greenbush Line* This line connects with the Red Line at JFK/UMass and Braintree, as well as at South Station. Among riders alighting at stops other than those with Red Line connections, all used private egress modes. Based on only eight surveys, 38% walked, 38% were picked up, and 25% bicycled.

Among riders alighting at JFK/UMass or Quincy Center, only 67% used private egress modes. Specifically (based on 19 surveys), 13% walked and 55% took shuttles or vans. (All of the latter took Longwood Medical Area shuttles.) Of the transfers to public transportation, the largest share went to the Red Line (22% of total egress trips); most of these transfers were made at Quincy Center. The rest (10%) were all transfers to MBTA buses, with one survey form each for transfers at JFK/UMass and Quincy Center.

## 6.2 TRIP TIME FOR EGRESS VIA PRIVATE TRANSPORTATION

## 6.2.1 DESCRIPTION OF TABLE

For each station or set of stations, this table summarizes the reported egress times, from commuter rail station to trip destination, for riders who made their egress trips entirely by private transportation. Trips in which riders transferred from commuter rail to an intermediate, public mode and then used private transportation as their final egress mode are not included. The egress times are summarized by seven ranges, starting with 0 to 5 minutes and continuing at varying intervals up to an open-ended range of anything over 45 minutes.

The table shows the number of riders with reported times in each range for the walk, drive/park, and pick-up egress modes individually and for all other private egress modes combined. Within each of these four groups, it also shows the percent of egress trips in each time range and the average egress time for the mode.

## 6.2.2 OVERVIEW OF RESULTS

Although the egress mode splits varied on a line-by-line/station-by-station basis depending on the nature of the preceding and following connections, the egress times for a given mode at a given station tended to be similar across lines. Therefore, this section introduces a series of reports based solely on passengers' exit stations, that is, the results for all lines at each downtown station were aggregated. Non-downtown stations were also aggregated, but on a line-by-line basis. In some cases, there were deviations at a given station between lines. When these occurred, they are noted in the text.

#### **Exits at Porter Square**

Of all the North Side lines, only the Fitchburg Line serves Porter Square. Of

the riders who alighted at Porter Square, 18% walked away. Of these riders, 66% made trips that took 15 minutes or less. The mean walking trip time, of just over 14 minutes, exceeded that at any of the downtown Boston stations. No egress trips of more than 30 minutes were reported for any private mode. Too few riders left the station via a mode other than walking to make meaningful conclusions about their egress times.

#### **Exits at North Station**

Most of the riders who left North Station via private transportation did so on foot. Most of the rest transferred to shuttles.

More than half of the walking egress trips took less than 10 minutes, including 20% at less than 5 minutes. Only 6% of the walking trips reported a time longer than 20 minutes. The mean walking egress time of 12.1 minutes was the second-highest among the downtown Boston stations.

Few riders were picked up by another driver. All of the "pick-up" trips took 6 to 30 minutes. Approximately half took less than 15 minutes. The average pick-up egress time was close to 18 minutes, the highest for any of the downtown stations.

Over 40% of the "other" egress trips took 11 to 15 minutes. The mean egress time for this category was 16 minutes, which was similar to the corresponding figures at other downtown stations.

The only line with walking times that varied notably from the average was the Fitchburg Line. Over 28%% of the Fitchburg Line walking trips took 5 minutes or less, compared with only 16% to 18% on the other three lines. This was partly a result of some riders going to downtown Boston points more distant from North Station after having transferred to the Red Line at Porter Square to complete their trips. However, the number that did so was not sufficient alone to explain the difference.

#### **Exits at Ruggles Station**

Over half of the riders who left Ruggles Station via private transportation did so on foot. Most of the rest transferred to shuttles. Overall, nearly 90% of the walking egress trips took 15 minutes or less, with a mean of about 10 minutes. The mean egress time via shuttles was about 12 minutes.

#### **Exits at Back Bay Station**

Almost all of the riders who left Back Bay via private transportation walked. Overall, 86% of the walking trips took 15 minutes or less. The mean walking egress time was a little over 8 minutes.

#### **Exits at South Station**

Almost all of the riders who left South Station via private transportation walked. Overall, 95% of the walking trips took 15 minutes or less. The mean

walking egress time was just under 9 minutes. For individual lines, the mean egress time ranged from about 8 to 10 minutes.

#### **Non-Downtown Exits**

The surveys were distributed only between about 6:00 AM and 3:00 PM, when the majority of commuter rail riders were traveling inbound to stations in downtown Boston. Consequently, the data obtained about egress at nondowntown stations were much more limited than the data for the downtown stations. Although walking egress trips accounted for a smaller percentage of private transportation egress at the non-downtown stations than at the downtown stations, walking was still the most common of the private modes on most of the lines.

*Newburyport/Rockport Line* Walking accounted for 70% of the private transportation egress trips exiting at non-downtown stations on this line. Only 11% of the walking egress trips took more than 15 minutes. The mean walking time was about 9.5 minutes. This was the same as the mean reported time for driving egress trips, but driving trips would cover much more distance in this time.

*Haverhill Line* Walking accounted for 51% of the private transportation egress trips exiting at non-downtown stations on this line. Only 7% of the walking egress trips took more than 15 minutes. The mean walking time was 11 minutes. The mean reported time for driving egress trips was slightly longer. For passengers who were picked up at stations, the mean egress time was about 9 minutes. Passengers using "other" private egress modes, mainly taxis and private shuttles, had the longest egress times, at about 12 minutes.

*Lowell Line* Walking accounted for 46% of the private transportation egress trips exiting at non-downtown stations on this line. Nearly one-third of the walking egress trips took more than 15 minutes, and 14% took over 20 minutes. The mean walking time was just under 15 minutes. The mean reported time for driving egress trips was just under 16 minutes. For passengers who were picked up at stations, the mean egress time was about 13 minutes. Passengers using "other" private egress modes, mainly private shuttles, had the longest egress times, at nearly 17 minutes.

*Fitchburg Line* Walking accounted for 71% of the private transportation egress trips exiting at non-downtown stations on this line. Only 4% of the walking egress trips took more than 15 minutes. The mean walking time was a little over 8 minutes. The mean reported time for driving egress trips was 11 minutes. For passengers who were picked up at stations, the mean egress time was about 13 minutes. Passengers using "other" private egress modes had a mean egress time of about 11 minutes.

*Framingham/Worcester Line* Walking accounted for 59% of the private transportation egress trips exiting at non-downtown stations on this line. About 17% of the walking egress trips took more than 15 minutes. The mean walking time was a little under 12 minutes. The mean reported time for driving egress

trips was just over 12 minutes. For passengers who were picked up at stations, the mean egress time was slightly longer. Passengers using "other" private egress modes had a mean egress time of about 11 minutes. These results include times from Yawkey Station in Boston, where the only reported private transportation egress modes were walking and shuttles.

*Needham Line* Walking accounted for 68% of the private transportation egress trips exiting at non-downtown stations on this line. About 16% of the walking egress trips took more than 15 minutes. The mean walking time was a little under 12 minutes. The mean reported time for driving egress trips was only about 5 minutes, but this was based on a fairly small sample. For passengers who were picked up at stations, the mean egress time was 10 minutes. Passengers using "other" private egress modes had a mean egress time of nearly 18 minutes.

*Franklin Line* Walking accounted for only 37% of the private transportation egress trips exiting at non-downtown stations on this line. About 22% of the walking egress trips took more than 15 minutes. The mean walking time was a little over 12 minutes. The mean reported time for driving egress trips was a little under 13 minutes. For passengers who were picked up at stations, the mean egress time was 11 minutes. Passengers using "other" private egress modes had a mean egress time of about 12 minutes.

**Providence/Stoughton Line** Walking accounted for only 34% of the private transportation egress trips exiting at non-downtown stations on this line. About 23% of the walking egress trips took more than 15 minutes. The mean walking time was a little over 13 minutes. The mean reported time for driving egress trips was a little over 12 minutes. For passengers who were picked up at stations, the mean egress time was just under 14 minutes. Passengers using "other" private egress modes had a mean egress time of about 10 minutes.

*Fairmount Line* Too few riders got off at any station other than South Station to provide useful information on egress times. The overall mean egress time was the lowest of any line, but, because only seven surveys were returned, the results are not especially reliable.

*Middleborough/Lakeville Line* Walking accounted for 60% of the private transportation egress trips exiting at non-downtown stations on this line. About 18% of the walking egress trips took more than 15 minutes. The mean walking time was just under 10 minutes. The mean reported time for driving egress trips was a little over 10 minutes. For passengers who were picked up at stations, the mean egress time was just under 10 minutes. Passengers using "other" private egress modes, mainly MASCO's shuttle between JFK/UMass and the Longwood Medical Area, had a mean egress time of 22 minutes. This was consistent with published schedule information for that shuttle.

*Kingston/Plymouth Line* Walking accounted for 41% of the private transportation egress trips exiting at non-downtown stations on this line. About 24% of the walking egress trips took more than 15 minutes. The mean walking time was 16 minutes. The mean reported time for driving egress trips was just

under 14 minutes. For passengers who were picked up at stations, the mean egress time was just over 9 minutes. Passengers using "other" private egress modes, mainly MASCO's shuttle between JFK/UMass and the Longwood Medical Area, had a mean egress time of about 21 minutes. It should be noted that all of these times were based on relatively small samples.

*Greenbush Line* Walking accounted for 31% of the private transportation egress trips exiting at non-downtown stations on this line. About 25% of the walking egress trips took more than 15 minutes. The mean walking time was about 11 minutes. There were no reported driving egress trips. For passengers who were picked up at stations, the mean egress time was just under 6 minutes. Passengers using "other" private egress modes, predominantly MASCO's shuttle between JFK/UMass and the Longwood Medical Area, had a mean egress time of about 20 minutes. It should be noted that all of these times were based on relatively small samples.

This chapter's tables begin on the following page.

### Commuter Rail Survey

## Egress from the Commuter Rail System

Expanded Results

All Commuter Rail Lines Exit Station: Porter Square

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	205	18.1%
Drive/Park Egress	10	0.8%
Pick-up Egress	0	0.0%
Taxi Egress	0	0.0%
Shuttle/Van Egress	14	1.2%
Bicycle Egress	0	0.0%
Other Egress	11	1.0%
Total Private Trans.	239	21.1%
MBTA Bus	31	2.7%
Other Bus	3	0.3%
Rapid Transit	860	75.9%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	894	78.9%
TOTAL	1,134	100.0%
No Answer	21	

_	W	ALK	DRIVE	E/PARK	PICK-UP	OTI	HER	TO	TAL
	Number	Percent	Number	Percent	Number Percent	Number	Percent	Number	Percent
_									
0-5 minutes	24	14.3%	0	0.0%		0	0.0%	24	13.0%
6-10	46	27.4%	0	0.0%		0	0.0%	46	25.1%
11-15	39	23.5%	0	0.0%	(No	6	100.0%	46	24.9%
16-20	42	25.3%	10	100.0%	responses)	0	0.0%	52	28.4%
21-30	16	9.5%	0	0.0%		0	0.0%	16	8.7%
31-45	0	0.0%	0	0.0%		0	0.0%	0	0.0%
Over 45	0	0.0%	0	0.0%		0	0.0%	0	0.0%
TOTAL	168	100.0%	10	100.0%		6	100.0%	183	100.0%
No Answer	38		0			18		56	
Avg. Time (min)	1	4.2		20.0			15.0		14.6

# **T** <u>MBTA Surveys: 2008-09</u>

## Commuter Rail Survey

## Transfers from the Commuter Rail System

Expanded Results

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
Kendall/MIT	310
Harvard	153
South Station	132
Central	114
Downtown Crossing	29
Alewife	21
Park Street	16
Charles/MGH	16
JFK/Umass	11
Copley	9
Red Line: Unspecified	9
St Paul Street	9
North Quincy	6
Hynes Convention Center	6
Arlington	6
Ashmont	4
Northeastern	3
Back Bay	3

Number of

**All Commuter Rail Lines** 

Exit Station: Porter Square

MBTA Bus Routes:	Number of Riders
77	18
87	8
96	6

Other Bus Routes:	Number of Riders
Unspecified Bus	3

Boat, Alighted at Dock Indicated:

(None identified)

Commuter Rail, Alighted at Station Indicated:

(None identified)

Other:

(None identified)

### Commuter Rail Survey

### Egress from the Commuter Rail System

Expanded Results

All Commuter Rail Lines Exit Station: North Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	8,394	53.7%
Drive/Park Egress	3	0.0%
Pick-up Egress	62	0.4%
Taxi Egress	24	0.2%
Shuttle/Van Egress	749	4.8%
Bicycle Egress	70	0.4%
Other Egress	72	0.5%
Total Private Trans.	9,374	60.0%
MBTA Bus	115	0.7%
Other Bus	414	2.6%
Rapid Transit	5,412	34.6%
Commuter Rail	314	2.0%
Boat	0	0.0%
Other	3	0.0%
Total Public Trans.	6,258	40.0%
TOTAL	15,632	100.0%
No Answer	417	

_	W	ALK	DRIVE/PARK	PIC	K-UP	OTH	IER	TO	TAL
	Number	Percent	Number Percent	Number	Percent	Number	Percent	Number	Percent
0-5 minutes	1,464	18.8%		0	0.0%	34	4.2%	1,498	17.4%
6-10	2,689	34.5%		3	13.6%	164	20.3%	2,857	33.2%
11-15	2,212	28.4%	(No	7	33.2%	338	41.8%	2,557	29.7%
16-20	958	12.3%	responses)	9	39.4%	208	25.7%	1,174	13.6%
21-30	389	5.0%		3	13.7%	61	7.5%	453	5.3%
31-45	69	0.9%		0	0.0%	3	0.4%	72	0.8%
Over 45	5	0.1%		0	0.0%	0	0.0%	5	0.1%
TOTAL	7,785	100.0%		22	100.0%	809	100.0%	8,615	100.0%
No Answer	609		3	41		106		759	
Avg. Time (min)	1	2.1			17.7	1	15.5		12.5

## **T** <u>MBTA Surveys: 2008-09</u>

## Commuter Rail Survey

### Transfers from the Commuter Rail System

Expanded Results

#### Transferring to:

Danid Transit Alighted at	Number of
Rapid Transit, Alighted at Station Indicated:	Riders
Back Bay	535
State	502
Arlington	461
Downtown Crossing	401
Longwood Medical Area	231
NE Medical Center	231
South Station	
	216
Boylston	203
Harvard	200
Ruggles	184
Chinatown	167
Kendall/MIT	155
Copley	153
Government Center	139
Kenmore	116
Brigham Circle	111
Prudential	92
Lechmere	80
Massachusetts Avenue	80
Park Street	72
Central	68
Fenway	66
Sullivan Square	65
JFK/UMass	63
Brookline Village	54
Northeastern	53
Hynes Convention Center	49
Museum of Fine Arts	47
Airport	45
Community College	34
Other stations	501

Commuter Rail, Alighted at Station Indicated:	Number of Riders
Porter Square	75
Chelsea	29
Ipswich	21
Brandeis/Roberts	18
Beverly	18
Waverly	16
Other stations	128

Exit Station:	North Station	<u>า</u>
	Manual and a f	

All Commuter Rail Lines

MBTA Bus Routes:	Number of Riders
4	92
111	12
93	8
450	4

Other Bus Routes:	Number of Riders
EZ	401
EZ/CT2	4
BOS	3
Unspecified Bus	5

Boat,	Alighted at
Dock	Indicated:

(None identified)

Other:	Number of Riders
Seaport Shuttle Bus	3

#### Commuter Rail Survey

## Egress from the Commuter Rail System

Expanded Results

All Commuter Rail Lines Exit Station: Ruggles

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	718	46.7%
Drive/Park Egress	3	0.2%
Pick-up Egress	3	0.2%
Taxi Egress	0	0.0%
Shuttle/Van Egress	598	38.8%
Bicycle Egress	14	0.9%
Other Egress	0	0.0%
Total Private Trans.	1,336	86.8%
MBTA Bus	118	7.7%
Other Bus	0	0.0%
Rapid Transit	85	5.5%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	202	13.2%
TOTAL	1,538	100.0%
No Answer	20	

-	W	ALK	DRIVE/PARK	PIC	K-UP	OTH	IER	TO	TAL
	Number	Percent	Number Percent	Number	Percent	Number	Percent	Number	Percent
0-5 minutes	233	35.1%		0	0.0%	43	7.9%	276	22.7%
6-10	195	29.2%		3	100.0%	306	55. <b>9</b> %	504	41.4%
11-15	169	25.4%	(No	0	0.0%	150	27.5%	319	26.2%
16-20	64	9.6%	responses)	0	0.0%	22	4.1%	86	7.1%
21-30	5	0.7%		0	0.0%	21	3.8%	26	2.1%
31-45	0	0.0%		0	0.0%	4	0.8%	4	0.4%
Over 45	0	0.0%		0	0.0%	0	0.0%	0	0.0%
TOTAL	666	100.0%		3	100.0%	546	100.0%	1,215	100.0%
No Answer	52		3	0		65		121	
Avg. Time (min)		9.7		-	10.0	1	11.9		10.7

## Commuter Rail Survey

## Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
State	17
Massachusetts Avenue	9
North Station	9
Downtown Crossing	8
Wellington	7
Fenway	6
Heath Street	6
Jackson Square	4
NE Medical Center	4
Charles/MGH	4
Airport	4
Brigham Circle	4

MBTA Bus Routes:	Number of Riders
CT3	43
47	31
CT2	25
8	14
39	3

**All Commuter Rail Lines** 

Exit Station: Ruggles

**Other Bus Routes:** 

(None identified)

Boat, Alighted at Dock Indicated:

(None identified)

Commuter Rail, Alighted at Station Indicated:

(None identified)

Other:

(None identified)

### Commuter Rail Survey

## Egress from the Commuter Rail System

Expanded Results

All Commuter Rail Lines Exit Station: Back Bay

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	5,777	66.3%
Drive/Park Egress	21	0.2%
Pick-up Egress	25	0.3%
Taxi Egress	13	0.2%
Shuttle/Van Egress	92	1.1%
Bicycle Egress	43	0.5%
Other Egress	7	0.1%
Total Private Trans.	5,978	68.6%
MBTA Bus	320	3.7%
Other Bus	4	0.1%
Rapid Transit	2,360	27.1%
Commuter Rail	56	0.6%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	2,740	31.4%
TOTAL	8,718	100.0%
No Answer	197	

—	W	ALK	DRIVE	E/PARK	PIC	K-UP	OTH	IER	TO	TAL
	Number	Percent								
0-5 minutes	2,340	43.0%	10	56.9%	6	55.7%	19	14.5%	2,375	42.4%
6-10	2,276	41.8%	0	0.0%	5	44.3%	35	26.9%	2,316	41.4%
11-15	463	8.5%	3	18.9%	0	0.0%	44	34.3%	510	9.1%
16-20	241	4.4%	0	0.0%	0	0.0%	11	8.6%	252	4.5%
21-30	106	1.9%	0	0.0%	0	0.0%	12	9.5%	118	2.1%
31-45	15	0.3%	0	0.0%	0	0.0%	8	6.2%	23	0.4%
Over 45	0	0.0%	4	24.3%	0	0.0%	0	0.0%	4	0.1%
TOTAL	5,440	100.0%	18	100.0%	12	100.0%	129	100.0%	5,598	100.0%
No Answer	337		3		14		26		380	
Avg. Time (min)		8.3	2	22.7		7.2	-	15.1		8.5

## Commuter Rail Survey

### Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
State	516
North Station	342
Haymarket	181
Downtown Crossing	178
NE Medical Center	169
Ruggles	168
Chinatown	105
Massachusetts Avenue	97
Kenmore	57
Sullivan Square	54
Wellington	38
Malden	36
Lechmere	34
Blandford Street	32
St Paul Street	32
Longwood Medical Area	27
Fenway	25
Roxbury Crossing	20
Jackson Square	18
Government Center	17
Airport	16
Community College	16
Central	15
Boston University West	13
Providence	10
Coolidge Corner	9
Northeastern	9
Science Park	9
Brookline Village	9
Orange Line: Unspecified	8
Other stations	94

Commuter Rail, Alighted at Station Indicated:	Number of Riders
Winchester Center	14
Anderson/Woburn	12
Lynn	8
River Works	6
Norwood Central	4
Newburyport	3
Other stations	9

All Commuter Rail Lines
Exit Station: Back Bay

All Commuter Rail Lines

MBTA Bus Routes:	Number of Riders
39	150
10	140
55	23
503	4
502	3

Other Bus Routes:	Number of Riders
Unspecified Bus	4

Boat,	Alighted at
Dock	Indicated:

(None identified)

Other:

(None identified)

### Commuter Rail Survey

### Egress from the Commuter Rail System

Expanded Results

All Commuter Rail Lines Exit Station: South Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	14,863	75.5%
Drive/Park Egress	14	0.1%
Pick-up Egress	50	0.3%
Taxi Egress	47	0.2%
Shuttle/Van Egress	134	0.7%
Bicycle Egress	21	0.1%
Other Egress	50	0.3%
Total Private Trans.	15,178	77.1%
MBTA Bus	925	4.7%
Other Bus	3	0.0%
Rapid Transit	3,302	16.8%
Commuter Rail	262	1.3%
Boat	22	0.1%
Other	0	0.0%
Total Public Trans.	4,514	22.9%
TOTAL No Answer	19,692 380	100.0%
	000	

-	W	ALK	DRIVE	E/PARK	PIC	K-UP	OTH	IER	TO	TAL
	Number	Percent								
-										
0-5 minutes	4,929	35.7%	3	28.6%	10	46.6%	20	10.1%	4,962	35.3%
6-10	5,844	42.3%	0	0.0%	7	31.8%	79	39.4%	5,930	42.2%
11-15	2,314	16.8%	4	41.3%	0	0.0%	49	24.4%	2,367	16.9%
16-20	556	4.0%	0	0.0%	2	7.8%	14	6.8%	572	4.1%
21-30	160	1.2%	3	30.1%	3	13.9%	28	14.2%	195	1.4%
31-45	4	0.0%	0	0.0%	0	0.0%	3	1.5%	7	0.1%
Over 45	0	0.0%	0	0.0%	0	0.0%	7	3.6%	7	0.1%
TOTAL	13,808	100.0%	11	100.0%	21	100.0%	199	100.0%	14,040	100.0%
No Answer	1,055		3		28		52		1,138	
Avg. Time (min)		8.8	1	16.7		10.5	1	15.8		8.9

## **T** <u>MBTA Surveys: 2008-09</u>

## Commuter Rail Survey

### Transfers from the Commuter Rail System

Expanded Results

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
Kendall/MIT	916
Charles/MGH	448
Harvard	345
Central	287
Park Street	178
JFK/UMass	104
Back Bay	72
Government Center	71
North Station	63
Davis	53
Porter	48
Alewife	44
Red Line: Unspecified	40
Lechmere	37
Arlington	37
Kenmore	36
Haymarket	35
Longwood Medical Area	31
Downtown Crossing	30
Brigham Circle	27
Andrew	24
Quincy Center	23
Northeastern	21
Ruggles	20
North Quincy	18
Sullivan Square	17
Revere Beach	13
State	13
Symphony	13
Hynes Convention Center	13
Other stations	225

Commuter Rail, Alighted at Station Indicated:	Number of Riders
Back Bay	230
Route 128	9
Salem	8
Halifax	8
Brandeis/Roberts	6

	All commuter Kall Lines
E	xit Station: South Station
	Number of

All Commuter Rail Lines

MBTA Bus Routes:	Number of Riders
SL2	749
SL1	73
7	44
4	37
11	9
749	5
554	4
92	3

Other Bus Routes:	Number of Riders
BOS	3

Boat, Alighted at Dock Indicated:	Number of Riders
Charlestown Navy Yard	16
Georges Island	7

#### Other:

(None identified)

#### Commuter Rail Survey

## Egress from the Commuter Rail System

Expanded Results

Fitchburg Line Exit Station: Porter Square

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	205	18.1%
Drive/Park Egress	10	0.8%
Pick-up Egress	0	0.0%
Taxi Egress	0	0.0%
Shuttle/Van Egress	14	1.2%
Bicycle Egress	0	0.0%
Other Egress	11	1.0%
Total Private Trans.	239	21.1%
MBTA Bus	31	2.7%
Other Bus	3	0.3%
Rapid Transit	860	75.9%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	894	78.9%
TOTAL	1,134	100.0%
No Answer	21	

—									
	WALK		DRIVE/PARK		PICK-UP	OTHER		TOTAL	
	Number	Percent	Number	Percent	Number Percent	Number	Percent	Number	Percent
0-5 minutes	24	14.3%	0	0.0%		0	0.0%	24	13.0%
6-10	46	27.4%	0	0.0%		0	0.0%	46	25.1%
11-15	39	23.5%	0	0.0%	(No	6	100.0%	46	24.9%
16-20	42	25.3%	10	100.0%	responses)	0	0.0%	52	28.4%
21-30	16	9.5%	0	0.0%		0	0.0%	16	8.7%
31-45	0	0.0%	0	0.0%		0	0.0%	0	0.0%
Over 45	0	0.0%	0	0.0%		0	0.0%	0	0.0%
TOTAL	168	100.0%	10	100.0%		6	100.0%	183	100.0%
No Answer	38		0			18		56	
Avg. Time (min)	14.2		2	20.0		1	5.0		14.6

## Commuter Rail Survey

#### Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Number of Riders			
310			
153			
132			
114			
29			
21			
16			
16			
11			
9			
46			

MBTA Bus Routes:	Number of Riders
77	18
87	8
96	6

Other Bus Routes:	Number of Riders
Unspecified Bus	3

Commuter Rail, Alighted at Station Indicated:

(None identified)

Fitchburg Line

Exit Station: Porter Square

#### Commuter Rail Survey

### Egress from the Commuter Rail System

Expanded Results

Newburyport/Rockport Line Exit Station: North Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	3,071	51.2%
Drive/Park Egress	0	0.0%
Pick-up Egress	39	0.6%
Taxi Egress	16	0.3%
Shuttle/Van Egress	227	3.8%
Bicycle Egress	49	0.8%
Other Egress	42	0.7%
Total Private Trans.	3,444	57.4%
MBTA Bus	39	0.6%
Other Bus	175	2.9%
Rapid Transit	2,218	37.0%
Commuter Rail	128	2.1%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	2,560	42.6%
TOTAL	6,003	100.0%
No Answer	150	

_	WALK		DRIVE/PARK		K-UP	OTHER		TOTAL	
	Number	Percent	Number Percent	Number	Percent	Number	Percent	Number	Percent
_									
0-5 minutes	467	16.3%		0	0.0%	14	4.3%	481	15.0%
6-10	990	34.6%		3	15.8%	55	17.6%	1,048	32.8%
11-15	825	28.8%	(No	7	38.4%	144	45.9%	977	30.5%
16-20	393	13.7%	responses)	6	30.0%	61	19.4%	459	14.4%
21-30	160	5.6%		3	15.8%	40	12.8%	203	6.4%
31-45	24	0.8%		0	0.0%	0	0.0%	24	0.8%
Over 45	5	0.2%		0	0.0%	0	0.0%	5	0.2%
TOTAL	2,864	100.0%		19	100.0%	314	100.0%	3,197	100.0%
No Answer	207			20		20		247	
Avg. Time (min)	12.6				17.3		16.0		13.0

## Commuter Rail Survey

## Transfers from the Commuter Rail System

Expanded Results

#### Transferring to:

Number of
Riders
207
173
166
142
127
118
103
84
78
73

Commuter Rail, Alighted at Station Indicated:	Number of Riders
Porter Square	40
Waverly	16
Mishawum	12
Lowell	11
Winchester Center	9
Brandeis/Roberts	9
Other stations	27

MBTA Bus Routes:	Number of Riders
4	39

Other Bus Routes:	Number of Riders
EZ	175

## Newburyport/Rockport Line

Exit Station: North Station

### Commuter Rail Survey

### Egress from the Commuter Rail System

Expanded Results

Haverhill Line Exit Station: North Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	1,710	55.2%
Drive/Park Egress	0	0.0%
Pick-up Egress	8	0.3%
Taxi Egress	3	0.1%
Shuttle/Van Egress	181	5.9%
Bicycle Egress	11	0.3%
Other Egress	9	0.3%
Total Private Trans.	1,922	62.0%
MBTA Bus	44	1.4%
Other Bus	117	3.8%
Rapid Transit	961	31.0%
Commuter Rail	52	1.7%
Boat	0	0.0%
Other	3	0.1%
Total Public Trans.	1,177	38.0%
TOTAL	3,099	100.0%
No Answer	113	

_	WALK		DRIVE/PARK PICI		K-UP OTHER			TOTAL	
	Number	Percent	Number Percent	Number	Percent	Number	Percent	Number	Percent
_									
0-5 minutes	255	16.1%		0	0.0%	11	6.3%	266	15.1%
6-10	609	38.4%		0	0.0%	38	21.7%	647	36.7%
11-15	458	28.9%	(No	0	0.0%	50	28.3%	508	28.8%
16-20	175	11.1%	responses)	3	100.0%	72	41.3%	250	14.2%
21-30	84	5.3%		0	0.0%	4	2.4%	88	5.0%
31-45	4	0.2%		0	0.0%	0	0.0%	4	0.2%
Over 45	0	0.0%		0	0.0%	0	0.0%	0	0.0%
TOTAL	1,584	100.0%		3	100.0%	175	100.0%	1,763	100.0%
No Answer	126			6		28		159	
Avg. Time (min)	12.0			20.0		1	15.4		12.3

## Commuter Rail Survey

## Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
Arlington	105
Downtown Crossing	85
Back Bay	78
State	67
Longwood Medical Area	56
Chinatown	44
Ruggles	37
South Station	37
Kendall/MIT	33
Harvard	32
Other stations	387

Commuter Rail, Alighted at Station Indicated:	Number of Riders
Porter Square Chelsea	36 9
Lynn	3
North Billerica	2
Brandeis/Roberts	2
Lowell	1

MBTA Bus Routes:	Number of Riders
4	35

Other Bus Routes:	Number of Riders
EZ	117

Other:	Number of Riders
Seaport Shuttle Bus	3

### Haverhill/Reading Line

Exit Station: North Station

#### Commuter Rail Survey

## Egress from the Commuter Rail System

Expanded Results

Lowell Line Exit Station: North Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	2,248	51.1%
Drive/Park Egress	3	0.1%
Pick-up Egress	13	0.3%
Taxi Egress	5	0.1%
Shuttle/Van Egress	262	6.0%
Bicycle Egress	10	0.2%
Other Egress	21	0.5%
Total Private Trans.	2,563	58.3%
MBTA Bus	26	0.6%
Other Bus	119	2.7%
Rapid Transit	1,609	36.6%
Commuter Rail	82	1.9%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	1,836	41.7%
TOTAL	4,399	100.0%
No Answer	131	

—	WALK		DRIVE/PARK PICK-UP		OTHER		TOTAL	
	Number	Percent	Number Percent	Number Percent	Number	Percent	Number	Percent
_								
0-5 minutes	377	18.4%			10	3.6%	387	16.7%
6-10	684	33.3%			61	23.0%	745	32.1%
11-15	613	29.8%	(No	(No	112	42.2%	725	31.3%
16-20	264	12.8%	responses)	responses)	72	27.1%	336	14.5%
21-30	89	4.3%			8	2.9%	97	4.2%
31-45	27	1.3%			3	1.2%	30	1.3%
Over 45	0	0.0%			0	0.0%	0	0.0%
TOTAL	2,054	100.0%			266	100.0%	2,320	100.0%
No Answer	194		3	13	33		243	
Avg. Time (min)	1	2.3				15.1		12.6

## **T** <u>*MBTA Surveys: 2008-09*</u>

## Commuter Rail Survey

## Transfers from the Commuter Rail System

Expanded Results

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
	Thuoro
State	208
Back Bay	198
Downtown Crossing	143
Arlington	124
Longwood Medical Area	96
NE Medical Center	84
Copley	67
South Station	58
Government Center	57
Chinatown	57
Other stations	518

Commuter Rail, Alighted at Station Indicated:	Number of Riders
Ipswich	21
Chelsea	11
Beverly	8
Brandeis/Roberts	7
Canton Center	5
Rockport	5
Other stations	20

MBTA Bus Routes:	Number of Riders
4	18
111	8

Other Bus Routes:	Number of Riders
EZ	107
EZ/CT2	4
BOS	3
Unspecified Bus	5

#### **Lowell Line** Exit Station: North Station

### Commuter Rail Survey

## Egress from the Commuter Rail System

Expanded Results

**Fitchburg Line** Exit Station: North Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	1,364	64.0%
Drive/Park Egress	0	0.0%
Pick-up Egress	2	0.1%
Taxi Egress	0	0.0%
Shuttle/Van Egress	79	3.7%
Bicycle Egress	0	0.0%
Other Egress	0	0.0%
Total Private Trans.	1,445	67.8%
MBTA Bus	7	0.3%
Other Bus	3	0.1%
Rapid Transit	624	29.3%
Commuter Rail	52	2.4%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	685	32.2%
TOTAL	2,131	100.0%
No Answer	24	

_	WALK		WALK DRIVE/PARK		PICK-UP	OTH	IER	TOTAL	
	Number	Percent	Number Percent	Number Percent	Number	Percent	Number	Percent	
_									
0-5 minutes	364	28.4%			0	0.0%	364	27.2%	
6-10	406	31.7%			10	19.2%	417	31.2%	
11-15	315	24.6%	(No	(No	32	59.5%	347	26.0%	
16-20	126	9.8%	responses)	responses)	3	5.1%	129	9.6%	
21-30	56	4.4%			9	16.1%	65	4.9%	
31-45	14	1.1%			0	0.0%	14	1.1%	
Over 45	0	0.0%			0	0.0%	0	0.0%	
TOTAL	1,282	100.0%			54	100.0%	1,335	100.0%	
No Answer	82			2	25		110		
Avg. Time (min)	1	1.0				15.5		11.2	

## Commuter Rail Survey

## Transfers from the Commuter Rail System

Expanded Results

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
State	101
Arlington	59
Downtown Crossing	57
Back Bay	52
NE Medical Center	32
Boylston	32
Ruggles	25
South Station	18
Northeastern	17
Park Street	17
Other stations	214

Commuter Rail, Alighted at Station Indicated:	Number of Riders
Beverly	10
Chelsea	10
Manchester	10
Andover	8
Lawrence	7
Wakefield	5
Other stations	2

MBTA Bus Routes:	Number of Riders
450	4
111	4

Other Bus Routes:	Number of Riders
EZ	3

#### **Fitchburg Line** Exit Station: North Station

### Commuter Rail Survey

## Egress from the Commuter Rail System

Expanded Results

Needham Line Exit Station: Ruggles

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	132	56.8%
Drive/Park Egress	0	0.0%
Pick-up Egress	0	0.0%
Taxi Egress	0	0.0%
Shuttle/Van Egress	76	32.5%
Bicycle Egress	4	1.7%
Other Egress	0	0.0%
Total Private Trans.	212	91.1%
MBTA Bus	5	2.3%
Other Bus	0	0.0%
Rapid Transit	15	6.6%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	21	8.9%
TOTAL	233	100.0%
No Answer	0	

_	WALK		WALK DRIVE/PARK PICK-		OTH	IER	TOTAL	
	Number	Percent	Number Percent	Number Percent	Number	Percent	Number	Percent
_								
0-5 minutes	49	42.6%			12	16.4%	61	32.5%
6-10	22	18.8%			46	62.8%	67	35.8%
11-15	37	32.0%	(No	(No	12	16.0%	49	25.8%
16-20	8	6.6%	responses)	responses)	3	4.8%	11	5. <b>9</b> %
21-30	0	0.0%			0	0.0%	0	0.0%
31-45	0	0.0%			0	0.0%	0	0.0%
Over 45	0	0.0%			0	0.0%	0	0.0%
TOTAL	115	100.0%			73	100.0%	188	100.0%
No Answer	17				7		24	
Avg. Time (min)		8.3				9.8		8.9

## Commuter Rail Survey

### Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
South Station	8
Airport	4
North Station	4

MBTA Bus Routes:	Number of Riders
СТЗ	5

#### Commuter Rail, Alighted at Station Indicated:

(None identified)

Other Bus Routes:

(None identified)

**Needham Line** 

Exit Station: Ruggles

#### Commuter Rail Survey

## Egress from the Commuter Rail System

Expanded Results

Franklin Line Exit Station: Ruggles

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	251	45.9%
Drive/Park Egress	3	0.6%
Pick-up Egress	3	0.6%
Taxi Egress	0	0.0%
Shuttle/Van Egress	223	40.7%
Bicycle Egress	4	0.8%
Other Egress	0	0.0%
Total Private Trans.	484	88.6%
MBTA Bus	45	8.1%
Other Bus	0	0.0%
Rapid Transit	18	3.3%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	62	11.4%
TOTAL	546	100.0%
No Answer	3	

_	WALK		DRIVE/PARK PICK-UP		K-UP	OTHER		TOTAL	
	Number	Percent	Number Percent	Number	Percent	Number	Percent	Number	Percent
0-5 minutes	88	36.6%		0	0.0%	17	8.8%	105	23.8%
6-10	89	37.1%		3	100.0%	121	61.0%	213	48.3%
11-15	35	14.7%	(No	0	0.0%	46	23.4%	82	18.5%
16-20	23	9.6%	responses)	0	0.0%	8	4.3%	31	7.1%
21-30	5	2.1%		0	0.0%	5	2.5%	10	2.3%
31-45	0	0.0%		0	0.0%	0	0.0%	0	0.0%
Over 45	0	0.0%		0	0.0%	0	0.0%	0	0.0%
TOTAL	240	100.0%		3	100.0%	198	100.0%	441	100.0%
No Answer	11		3	0		29		43	
Avg. Time (min)		9.5		1	10.0	1	1.2	ſ	10.3

## Commuter Rail Survey

### Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
Massachusetts Avenue	5
Brigham Circle	4
Wellington	3
State	3

MBTA Bus Routes:	Number of Riders
CT2	15
47	12
CT3	10
39	3

## Commuter Rail, Alighted at Station Indicated:

(None identified)

Other Bus Routes:

(None identified)

Franklin Line Exit Station: Ruggles

#### Commuter Rail Survey

## Egress from the Commuter Rail System

Expanded Results

Providence/Stoughton Line Exit Station: Ruggles

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	334	44.1%
Drive/Park Egress	0	0.0%
Pick-up Egress	0	0.0%
Taxi Egress	0	0.0%
Shuttle/Van Egress	299	39.4%
Bicycle Egress	6	0.8%
Other Egress	0	0.0%
Total Private Trans.	640	84.3%
MBTA Bus	68	8.9%
Other Bus	0	0.0%
Rapid Transit	51	6.8%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	119	15.7%
TOTAL	759	100.0%
No Answer	17	

_	WALK		DRIVE/PARK	PICK-UP	OTHER		TOTAL	
	Number	Percent	Number Percent	Number Percent	Number	Percent	Number	Percent
_								
0-5 minutes	96	31.1%			14	5.0%	110	18.8%
6-10	84	27.1%			139	50.5%	223	38.1%
11-15	97	31.1%	(No	(No	92	33.4%	189	32.2%
16-20	33	10.7%	responses)	responses)	10	3.7%	44	7.4%
21-30	0	0.0%			16	5.8%	16	2.7%
31-45	0	0.0%			4	1.6%	4	0.8%
Over 45	0	0.0%			0	0.0%	0	0.0%
TOTAL	310	100.0%			276	100.0%	586	100.0%
No Answer	24				30		54	
Avg. Time (min)	10.4				12.9		11.6	

## Commuter Rail Survey

### Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at	Number of			
Station Indicated: Rid				
State	11			
Fenway	6			
Heath Street	6			
North Station	5			
Downtown Crossing	4			
Jackson Square	4			
Massachusetts Avenue	4			
NE Medical Center	4			
Wellington	4			

MBTA Bus Routes:	Number of Riders
CT3	28
47	19
8	14
CT2	7

## Commuter Rail, Alighted at Station Indicated:

(None identified)

Other Bus Routes:

(None identified)

## Providence/Stoughton Line

Exit Station: Ruggles

#### Commuter Rail Survey

## Egress from the Commuter Rail System

Expanded Results

Framingham/Worcester Line Exit Station: Back Bay

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	1,493	69.2%
Drive/Park Egress	0	0.0%
Pick-up Egress	10	0.5%
Taxi Egress	5	0.3%
Shuttle/Van Egress	27	1.3%
Bicycle Egress	15	0.7%
Other Egress	3	0.2%
Total Private Trans.	1,555	72.1%
MBTA Bus	60	2.8%
Other Bus	0	0.0%
Rapid Transit	542	25.1%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	601	27.9%
TOTAL	2,156	100.0%
No Answer	34	

_	WALK		DRIVE/PARK	PICK-UP		OTHER		TOTAL	
	Number	Percent	Number Percent	Number	Percent	Number	Percent	Number	Percent
_									
0-5 minutes	626	44.1%		0	0.0%	10	26.1%	636	43.5%
6-10	553	39.0%		5	100.0%	10	24.7%	568	38.9%
11-15	132	9.3%	(No	0	0.0%	16	40.3%	147	10.1%
16-20	84	6.0%	responses)	0	0.0%	0	0.0%	84	5.8%
21-30	18	1.3%		0	0.0%	3	8.9%	22	1.5%
31-45	4	0.3%		0	0.0%	0	0.0%	4	0.3%
Over 45	0	0.0%		0	0.0%	0	0.0%	0	0.0%
TOTAL	1,417	100.0%		5	100.0%	39	100.0%	1,461	100.0%
No Answer	76			5		13		94	
Avg. Time (min)		8.4			10.0	1	11.8		8.5

# Commuter Rail Survey

# Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
State	125
North Station	84
NE Medical Center	44
Massachusetts Avenue	42
Haymarket	39
Downtown Crossing	30
Ruggles	29
Sullivan Square	18
Wellington	16
Chinatown	16
Other stations	99

MBTA Bus Routes:	Number of Riders
39	28
10	24
55	7

# Commuter Rail, Alighted at Station Indicated:

(None identified)

#### Other Bus Routes:

(None identified)

# Framingham/Worcester Line

Exit Station: Back Bay

# Commuter Rail Survey

# Egress from the Commuter Rail System

Expanded Results

Needham Line Exit Station: Back Bay

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	637	80.8%
Drive/Park Egress	0	0.0%
Pick-up Egress	0	0.0%
Taxi Egress	0	0.0%
Shuttle/Van Egress	0	0.0%
Bicycle Egress	9	1.1%
Other Egress	4	0.5%
Total Private Trans.	650	82.4%
MBTA Bus	4	0.5%
Other Bus	0	0.0%
Rapid Transit	135	17.1%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	139	17.6%
TOTAL	789	100.0%
No Answer	11	

—	W	/ALK	DRIVE/PARK	PICK-UP	OTH	IER	TO	TAL
	Number	Percent	Number Percent	Number Percent	Number	Percent	Number	Percent
_								
0-5 minutes	243	40.2%			9	68.2%	252	40.8%
6-10	252	41.6%			4	31.8%	256	41.4%
11-15	82	13.5%	(No	(No	0	0.0%	82	13.2%
16-20	12	1.9%	responses)	responses)	0	0.0%	12	1.9%
21-30	17	2.8%			0	0.0%	17	2.7%
31-45	0	0.0%			0	0.0%	0	0.0%
Over 45	0	0.0%			0	0.0%	0	0.0%
TOTAL	605	100.0%			13	100.0%	618	100.0%
No Answer	32				0		32	
Avg. Time (min)		8.4				5.3		8.4

# Commuter Rail Survey

# Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
State	52
North Station	32
Downtown Crossing	11
Haymarket	8
Malden	7
Government Center	4
Kenmore	4
Sullivan Square	4
Airport	4
Chinatown	4
Other stations	4

MBTA Bus Routes:	Number of Riders
10	4

# Commuter Rail, Alighted at Station Indicated:

(None identified)

#### Other Bus Routes:

(None identified)

Needham Line Exit Station: Back Bay

# Commuter Rail Survey

# Egress from the Commuter Rail System

Expanded Results

Franklin Line Exit Station: Back Bay

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	1,114	68.6%
Drive/Park Egress	6	0.4%
Pick-up Egress	0	0.0%
Taxi Egress	0	0.0%
Shuttle/Van Egress	14	0.8%
Bicycle Egress	10	0.6%
Other Egress	0	0.0%
Total Private Trans.	1,145	70.5%
MBTA Bus	54	3.3%
Other Bus	0	0.0%
Rapid Transit	411	25.3%
Commuter Rail	15	0.9%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	480	29.5%
TOTAL	1,624	100.0%
No Answer	46	

_	W	ALK	DRIVE	E/PARK	PICK-UP	OTH	IER	TO	TAL
	Number	Percent	Number	Percent	Number Percent	Number	Percent	Number	Percent
_									
0-5 minutes	441	42.3%	0	0.0%		0	0.0%	441	41.2%
6-10	475	45.5%	0	0.0%		6	25.1%	481	44.9%
11-15	80	7.7%	3	100.0%	(No	18	74.9%	102	9.5%
16-20	35	3.3%	0	0.0%	responses)	0	0.0%	35	3.2%
21-30	12	1.1%	0	0.0%		0	0.0%	12	1.1%
31-45	0	0.0%	0	0.0%		0	0.0%	0	0.0%
Over 45	0	0.0%	0	0.0%		0	0.0%	0	0.0%
TOTAL	1,042	100.0%	3	100.0%		24	100.0%	1,070	100.0%
No Answer	72		3			0		75	
Avg. Time (min)		8.0		15.0		1	3.5		8.2

CTPS

MBTA Surveys: 2008-09

# Commuter Rail Survey

# Transfers from the Commuter Rail System

Expanded Results

#### Transferring to:

Number of Riders
101
69
42
30
26
17
14
11
9
9
83

Commuter Rail, Alighted at Station Indicated:	Number of Riders
Anderson/Woburn	12
West Medford	3

MBTA Bus Routes:	Number of Riders
10	37
39	7
503	4
55	4
502	3

Other Bus Routes:

(None identified)

Franklin Line Exit Station: Back Bay

### Commuter Rail Survey

# Egress from the Commuter Rail System

Expanded Results

Providence/Stoughton Line Exit Station: Back Bay

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	2,533	61.1%
Drive/Park Egress	14	0.3%
Pick-up Egress	15	0.4%
Taxi Egress	8	0.2%
Shuttle/Van Egress	51	1.2%
Bicycle Egress	8	0.2%
Other Egress	0	0.0%
Total Private Trans.	2,629	63.4%
MBTA Bus	202	4.9%
Other Bus	4	0.1%
Rapid Transit	1,273	30.7%
Commuter Rail	41	1.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	1,520	36.6%
TOTAL	4,149	100.0%
No Answer	106	

_	W	ALK	DRIVE	E/PARK	PIC	K-UP	OTH	IER	TO	TAL
	Number	Percent								
0-5 minutes	1,030	43.4%	10	70.1%	6	100.0%	0	0.0%	1,046	42.7%
6-10	996	41.9%	0	0.0%	0	0.0%	15	28.1%	1,011	41.3%
11-15	169	7.1%	0	0.0%	0	0.0%	11	19.8%	180	7.3%
16-20	110	4.6%	0	0.0%	0	0.0%	11	20.7%	121	4.9%
21-30	59	2.5%	0	0.0%	0	0.0%	9	16.3%	68	2.8%
31-45	11	0.5%	0	0.0%	0	0.0%	8	15.0%	19	0.8%
Over 45	0	0.0%	4	29.9%	0	0.0%	0	0.0%	4	0.2%
TOTAL	2,375	100.0%	14	100.0%	6	100.0%	53	100.0%	2,449	100.0%
No Answer	158		0		8		13		179	
Avg. Time (min)		8.4	2	24.4		5.0	2	20.4		8.7

# Commuter Rail Survey

# Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
State	237
North Station	157
Ruggles	122
Downtown Crossing	110
Haymarket	92
NE Medical Center	91
Chinatown	71
Massachusetts Avenue	44
Kenmore	42
Sullivan Square	32
Other stations	267

Commuter Rail, Alighted at Station Indicated:	Number of Riders
Winchester Center	14
Lynn	8
River Works	6
Norwood Central	4
Newburyport	3
Newtonville	3
Other stations	3

MBTA Bus Routes:	Number of Riders
39	114
10	75
55	12

Other Bus Routes:	Number of Riders
Unspecified Bus	4

# Providence/Stoughton Line

Exit Station: Back Bay

### Commuter Rail Survey

# Egress from the Commuter Rail System

Expanded Results

Framingham/Worcester Line Exit Station: South Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	2,540	79.3%
Drive/Park Egress	0	0.0%
Pick-up Egress	14	0.5%
Taxi Egress	0	0.0%
Shuttle/Van Egress	8	0.2%
Bicycle Egress	3	0.1%
Other Egress	8	0.2%
Total Private Trans.	2,573	80.3%
MBTA Bus	147	4.6%
Other Bus	0	0.0%
Rapid Transit	477	14.9%
Commuter Rail	6	0.2%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	629	19.7%
TOTAL	3,202	100.0%
No Answer	58	

-	WALK		DRIVE/PARK	DRIVE/PARK PICK-UP		OTHER		TOTAL	
_	Number	Percent	Number Percent	Number	Percent	Number	Percent	Number	Percent
0-5 minutes	1,009	42.0%		7	100.0%	7	37.5%	1,022	42.1%
6-10	970	40.4%		0	0.0%	4	22.1%	974	40.1%
11-15	351	14.6%	(No	0	0.0%	0	0.0%	351	14.5%
16-20	61	2.5%	responses)	0	0.0%	0	0.0%	61	2.5%
21-30	11	0.5%		0	0.0%	7	40.4%	19	0.8%
31-45	0	0.0%		0	0.0%	0	0.0%	0	0.0%
Over 45	0	0.0%		0	0.0%	0	0.0%	0	0.0%
TOTAL	2,401	100.0%		7	100.0%	18	100.0%	2,426	100.0%
No Answer	139			8		0		147	
Avg. Time (min)		8.1			5.0	-	15.6		8.1

# **T** <u>MBTA Surveys: 2008-09</u>

# Commuter Rail Survey

# Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
Kendall/MIT	187
Charles/MGH	92
Harvard	36
Central	31
JFK/UMass	19
Park Street	15
Downtown Crossing	12
North Quincy	9
Longwood Medical Area	7
Lechmere	7
Other stations	55
Commuter Rail Alighted at	Number of

Commuter Rail, Alighted at	Number of
Station Indicated:	Riders
Salem	6

# MBTA Bus Routes:Number of<br/>RidersSL2131SL11244

Other Bus Routes:

(None identified)

CTPS

# Commuter Rail Survey

# Egress from the Commuter Rail System

Expanded Results

**Needham Line** Exit Station: South Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	1,423	84.1%
Drive/Park Egress	0	0.0%
Pick-up Egress	3	0.2%
Taxi Egress	0	0.0%
Shuttle/Van Egress	4	0.2%
Bicycle Egress	0	0.0%
Other Egress	0	0.0%
Total Private Trans.	1,430	84.6%
MBTA Bus	97	5.7%
Other Bus	0	0.0%
Rapid Transit	164	9.7%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	261	15.4%
TOTAL	1,691	100.0%
No Answer	32	

_	WALK		WALK DRIVE/PARK PIG		PIC	K-UP	OTHER	TO	TAL
	Number	Percent	Number Percent	Number	Percent	Number Percent	Number	Percent	
0-5 minutes	592	43.7%		3	100.0%		596	43.9%	
6-10	528	39.0%		0	0.0%		528	38.9%	
11-15	184	13.6%	(No	0	0.0%	(No	184	13.5%	
16-20	32	2.4%	responses)	0	0.0%	responses)	32	2.4%	
21-30	18	1.4%		0	0.0%		18	1.4%	
31-45	0	0.0%		0	0.0%		0	0.0%	
Over 45	0	0.0%		0	0.0%		0	0.0%	
TOTAL	1,355	100.0%		3	100.0%		1,358	100.0%	
No Answer	68			0		4	72		
Avg. Time (min)		7.9			5.0			7.9	

CTPS

MBTA Surveys: 2008-09

# Commuter Rail Survey

# Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
Kendall/MIT	54
Harvard	19
Charles/MGH	16
Central	14
Red Line: Unspecified	12
Davis	9
Quincy Center	8
Downtown Crossing	4
Braintree	4
Broadway	4
Other stations	16

MBTA Bus Routes:	Number of Riders
SL2	77
SL1	20

# Commuter Rail, Alighted at

(None identified)

Station Indicated:

#### Other Bus Routes:

(None identified)

**Needham Line** Exit Station: South Station

### Commuter Rail Survey

# Egress from the Commuter Rail System

Expanded Results

Franklin Line Exit Station: South Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	2,096	77.0%
Drive/Park Egress	6	0.2%
Pick-up Egress	6	0.2%
Taxi Egress	4	0.2%
Shuttle/Van Egress	14	0.5%
Bicycle Egress	0	0.0%
Other Egress	13	0.5%
Total Private Trans.	2,140	78.6%
MBTA Bus	174	6.4%
Other Bus	0	0.0%
Rapid Transit	407	15.0%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	582	21.4%
TOTAL	2,722	100.0%
No Answer	43	

	W	ALK	DRIVE	/PARK	PIC	K-UP	OTH	IER	TO	TAL
	Number	Percent								
—										
0-5 minutes	648	33.4%	3	48.7%	0	0.0%	4	13.1%	655	33.1%
6-10	884	45.5%	0	0.0%	0	0.0%	8	28.7%	892	45.1%
11-15	335	17.3%	0	0.0%	0	0.0%	7	27.4%	343	17.3%
16-20	56	2.9%	0	0.0%	2	100.0%	4	15.4%	62	3.1%
21-30	18	0.9%	3	51.3%	0	0.0%	4	15.4%	25	1.3%
31-45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Over 45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL	1,942	100.0%	6	100.0%	2	100.0%	27	100.0%	1,976	100.0%
No Answer	155		0		4		5		164	
Avg. Time (min)		8.7	1	7.8	4	20.0	1	4.6		8.8

# Commuter Rail Survey

# Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
Kendall/MIT	128
Charles/MGH	62
Harvard	44
Central	38
Park Street	32
Davis	24
JFK/UMass	17
Alewife	14
North Station	8
Andrew	7
Other stations	34
Other stations	34

MBTA Bus Routes:	Number of Riders
SL2	133
SL1	21
7	12
SL5	5
4	3

# Commuter Rail, Alighted at Station Indicated:

(None identified)

#### Other Bus Routes:

(None identified)

**Franklin Line** Exit Station: South Station

### Commuter Rail Survey

# Egress from the Commuter Rail System

Expanded Results

Providence/Stoughton Line Exit Station: South Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	4,116	75.2%
Drive/Park Egress	3	0.1%
Pick-up Egress	10	0.2%
Taxi Egress	11	0.2%
Shuttle/Van Egress	48	0.9%
Bicycle Egress	14	0.2%
Other Egress	20	0.4%
Total Private Trans.	4,222	77.1%
MBTA Bus	295	5.4%
Other Bus	3	0.1%
Rapid Transit	944	17.2%
Commuter Rail	8	0.1%
Boat	4	0.1%
Other	0	0.0%
Total Public Trans.	1,255	22.9%
TOTAL	5,477	100.0%
No Answer	109	

_	WALK		DRIVE/PARK PICK		C-UP OTHER			TOTAL	
	Number	Percent	Number Percent	Number	Percent	Number	Percent	Number	Percent
_									
0-5 minutes	1,432	37.2%		0	0.0%	6	7.8%	1,438	36.5%
6-10	1,668	43.4%		7	69.6%	26	32.6%	1,701	43.2%
11-15	555	14.4%	(No	0	0.0%	30	36.7%	585	14.9%
16-20	149	3.9%	responses)	0	0.0%	5	6.6%	154	3.9%
21-30	42	1.1%		3	30.4%	3	3.7%	48	1.2%
31-45	0	0.0%		0	0.0%	3	3.7%	3	0.1%
Over 45	0	0.0%		0	0.0%	7	8.9%	7	0.2%
TOTAL	3,846	100.0%		10	100.0%	80	100.0%	3,936	100.0%
No Answer	270		3	0		13		286	
Avg. Time (min)		8.6			14.6	1	17.8		8.8

# Commuter Rail Survey

# Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
Kendall/MIT	290
Charles/MGH	132
Harvard	129
Central	88
Park Street	72
JFK/UMass	44
Porter	31
Government Center	26
Lechmere	22
Alewife	22
Other stations	70

Commuter Rail, Alighted at Station Indicated:	Number of Riders
Halifax	8

MBTA Bus Routes:	Number of Riders
SL2	242
SL1	20
7	15
4	15
92	3

Other Bus Routes:	Number of Riders
BOS	3

Boat, Alighted at	Number of
Dock Indicated:	Riders
Charlestown Navy Yard	4

# Providence/Stoughton Line

Exit Station: South Station

### Commuter Rail Survey

# Egress from the Commuter Rail System

Expanded Results

**Fairmount Line** Exit Station: South Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	311	74.5%
Drive/Park Egress	0	0.0%
Pick-up Egress	3	0.8%
Taxi Egress	0	0.0%
Shuttle/Van Egress	16	3.8%
Bicycle Egress	0	0.0%
Other Egress	0	0.0%
Total Private Trans.	330	79.2%
MBTA Bus	8	2.0%
Other Bus	0	0.0%
Rapid Transit	62	14.7%
Commuter Rail	12	2.8%
Boat	5	1.3%
Other	0	0.0%
Total Public Trans.	87	20.8%
TOTAL	417	100.0%
No Answer	11	

_	WALK		WALK		DRIVE/PARK	PICK-UP	OTH	IER	TO	TAL
	Number	Percent	Number Percent	Number Percent	Number	Percent	Number	Percent		
_										
0-5 minutes	121	41.8%			3	21.6%	124	40.8%		
6-10	82	28.3%			9	56.8%	91	29.8%		
11-15	67	23.1%	(No	(No	3	21.6%	70	23.0%		
16-20	20	6.9%	responses)	responses)	0	0.0%	20	6.5%		
21-30	0	0.0%			0	0.0%	0	0.0%		
31-45	0	0.0%			0	0.0%	0	0.0%		
Over 45	0	0.0%			0	0.0%	0	0.0%		
TOTAL	290	100.0%			16	100.0%	305	100.0%		
No Answer	21			3	0		25			
Avg. Time (min)		8.8			1	0.0		8.9		

# Commuter Rail Survey

# Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
Government Center	16
Kendall/MIT	15
Central	12
Unspecified	5
Haymarket	3
Charles/MGH	3
Kenmore	3
Bowdoin	2

MBTA Bus Routes:	Number of Riders
SL2	5
7	3

Commuter Rail, Alighted at Station Indicated:	Number of Riders
Route 128	9
Salem	2

#### Other Bus Routes:

(None identified)

Boat, Alighted at	Number of
Dock Indicated:	Riders
Charlestown Navy Yard	5

**Fairmount Line** 

### Commuter Rail Survey

# Egress from the Commuter Rail System

Expanded Results

Middleborough Line Exit Station: South Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	2,166	71.9%
Drive/Park Egress	0	0.0%
Pick-up Egress	8	0.3%
Taxi Egress	17	0.6%
Shuttle/Van Egress	22	0.7%
Bicycle Egress	4	0.1%
Other Egress	9	0.3%
Total Private Trans.	2,227	73.9%
MBTA Bus	92	3.0%
Other Bus	0	0.0%
Rapid Transit	681	22.6%
Commuter Rail	6	0.2%
Boat	6	0.2%
Other	0	0.0%
Total Public Trans.	785	26.1%
TOTAL	3,012	100.0%
No Answer	61	

_	WALK		WALK DRIVE/PARK PICK-UP		OTH	IER	TOTAL	
	Number	Percent	Number Percent	Number Percent	Number	Percent	Number	Percent
_								
0-5 minutes	502	26.3%			0	0.0%	502	25.9%
6-10	923	48.3%			15	52.0%	937	48.3%
11-15	363	19.0%	(No	(No	4	14.8%	368	19.0%
16-20	78	4.1%	responses)	responses)	0	0.0%	78	4.0%
21-30	45	2.4%			9	33.2%	54	2.8%
31-45	0	0.0%			0	0.0%	0	0.0%
Over 45	0	0.0%			0	0.0%	0	0.0%
TOTAL	1,911	100.0%			28	100.0%	1,939	100.0%
No Answer	256			8	24		288	
Avg. Time (min)		9.5			1	6.9		

# Commuter Rail Survey

# Egress from the Commuter Rail System

Expanded Results

Middleborough Line Exit Station: South Station

#### Egress Mode:

	Number of Riders	Percent of Riders		
Walk Egress	2,145	71.2%		
Drive/Park Egress	0	0.0%		
Pick-up Egress	8	0.3%		
Taxi Egress	17	0.6%		
Shuttle/Van Egress	26	0.9%		
Bicycle Egress	4	0.1%		
Other Egress	9	0.3%		
Total Private Trans.	2,210	73.4%		
MBTA Bus	92	3.0%		
Other Bus	0	0.0%		
Rapid Transit	612	20.3%		
Commuter Rail	93	3.1%		
Boat	6	0.2%		
Other	0	0.0%		
Total Public Trans.	802	26.6%		
TOTAL	3,012	100.0%		
No Answer	61			

_	WALK		WALK DRIVE/PARK PICK-UP		OTH	IER	TOTAL	
	Number	Percent	Number Percent	Number Percent	Number	Percent	Number	Percent
0-5 minutes	488	25.9%			0	0.0%	488	25.4%
6-10	918	48.6%			15	45.3%	933	48.6%
11-15	363	19.2%	(No	(No	4	12.9%	368	19.1%
16-20	74	3.9%	responses)	responses)	4	12.9%	78	4.1%
21-30	45	2.4%			9	29.0%	54	2.8%
31-45	0	0.0%			0	0.0%	0	0.0%
Over 45	0	0.0%			0	0.0%	0	0.0%
TOTAL	1,889	100.0%			32	100.0%	1,922	100.0%
No Answer	256			8	24		288	
Avg. Time (min)		9.6				17.3		9.7

### Commuter Rail Survey

# Egress from the Commuter Rail System

Expanded Results

**Kingston/Plymouth Line** Exit Station: South Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	2,232	70.4%
Drive/Park Egress	4	0.1%
Pick-up Egress	4	0.1%
Taxi Egress	14	0.4%
Shuttle/Van Egress	18	0.6%
Bicycle Egress	0	0.0%
Other Egress	0	0.0%
Total Private Trans.	2,273	71.7%
MBTA Bus	111	3.5%
Other Bus	0	0.0%
Rapid Transit	637	20.1%
Commuter Rail	143	4.5%
Boat	7	0.2%
Other	0	0.0%
Total Public Trans.	898	28.3%
TOTAL	3,171	100.0%
No Answer	67	

_	WALK		WALK DRIVE/PARK		PICK-UP	OTH	OTHER		TAL
	Number	Percent	Number	Percent	Number Percent	Number	Percent	Number	Percent
_									
0-5 minutes	639	30.6%	0	0.0%		0	0.0%	639	30.2%
6-10	794	38.1%	0	0.0%		17	65.9%	811	38.3%
11-15	459	22.0%	4	100.0%	(No	4	16.9%	468	22.1%
16-20	164	7.9%	0	0.0%	responses)	0	0.0%	164	7.8%
21-30	26	1.2%	0	0.0%		4	17.2%	30	1.4%
31-45	4	0.2%	0	0.0%		0	0.0%	4	0.2%
Over 45	0	0.0%	0	0.0%		0	0.0%	0	0.0%
TOTAL	2,086	100.0%	4	100.0%		26	100.0%	2,116	100.0%
No Answer	146		0		4	7		157	
Avg. Time (min)	1	0.0		15.0			12.3		10.0

# Commuter Rail Survey

# Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
Back Bay	195
Kendall/MIT	93
Harvard	76
Charles/MGH	65
Central	43
Park Street	30
North Station	28
Brigham Circle	18
Haymarket	17
Ruggles	16
Other stations	197

MBTA Bus Routes:	Number of Riders
SL2	87
4	15
7	9

# Commuter Rail, Alighted at Station Indicated:

(None identified)

#### Other Bus Routes:

(None identified)

Boat, Alighted at	Number of
Dock Indicated:	Riders
Georges Island	7

# Kingston/Plymouth Line

Exit Station: South Station

### Greenbush Line Survey

### Egress from the Greenbush Line

Expanded Results

**Greenbush Line** Exit Station: South Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	1,316	68.7%
Drive/Park Egress	0	0.0%
Pick-up Egress	0	0.0%
Taxi Egress	3	0.2%
Shuttle/Van Egress	8	0.4%
Bicycle Egress	13	0.7%
Other Egress	5	0.3%
Total Private Trans.	1,346	70.3%
MBTA Bus	102	5.4%
Other Bus	0	0.0%
Rapid Transit	353	18.4%
Commuter Rail	101	5.3%
Boat	9	0.5%
Other	3	0.2%
Total Private Trans.	569	29.7%
TOTAL	1,914	100.0%
No Answer	20	

_	WALK		WALK DRIVE/PARK		OTH	IER	TOTAL	
	Number	Percent	Number Percent	Number Percent	Number	Percent	Number	Percent
_								
0-5 minutes	470	37.5%			4	13.4%	474	37.0%
6-10	500	40.0%			7	24.9%	508	39.6%
11-15	176	14.1%	(No	(No	4	13.4%	180	14.1%
16-20	90	7.2%	responses)	responses)	14	48.3%	105	8.2%
21-30	11	0.9%			0	0.0%	11	0.8%
31-45	4	0.3%			0	0.0%	4	0.3%
Over 45	0	0.0%			0	0.0%	0	0.0%
TOTAL	1,252	100.0%			30	100.0%	1,281	100.0%
No Answer	64				0		64	
Avg. Time (min)		8.9			1	14.8		9.0

# Greenbush Line Survey

# Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
Kendall/MIT	83
Charles/MGH	38
Harvard	37
North Station	29
Central	24
Arlington	19
Ruggles	16
Longwood Medical Area	13
Porter	13
Fenway	12
Other stations	69

Commuter Rail, Alighted at Station Indicated:	Number of Riders
Back Bay	95
West Natick	5

MBTA Bus Routes:	Number o Riders		
SL2	69		
7	9		
SL1	9		
459	5		
70A	4		
553	3		
CT2	3		

Other	Bus	Routes:
-------	-----	---------

(None identified)

Boat, Alighted at	Number of
Dock Indicated:	Riders
Central Wharf	5
Charlestown Navy Yard	4

# \_\_\_\_

**Greenbush Line** 

Exit Station: South Station

### Commuter Rail Survey

# Egress from the Commuter Rail System

Expanded Results

**Newburyport/Rockport Line** Exit Station: All Stations North of North Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	1,027	67.8%
Drive/Park Egress	232	15.3%
Pick-up Egress	82	5.4%
Taxi Egress	13	0.9%
Shuttle/Van Egress	44	2.9%
Bicycle Egress	58	3.9%
Other Egress	0	0.0%
Total Private Trans.	1,456	96.1%
MBTA Bus	44	2.9%
Other Bus	11	0.7%
Rapid Transit	0	0.0%
Commuter Rail	4	0.2%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	59	3.9%
TOTAL	1,515	100.0%
No Answer	39	

-	WALK		DRIVE/PARK		PIC	PICK-UP		OTHER		TOTAL	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
-											
0-5 minutes	389	43.7%	61	39.5%	16	30.7%	8	8.6%	474	40.0%	
6-10	286	32.2%	49	31.8%	23	44.2%	36	41.1%	395	33.3%	
11-15	113	12.7%	37	23.7%	0	0.0%	18	20.0%	167	14.1%	
16-20	52	5.8%	0	0.0%	13	25.1%	19	21.3%	84	7.1%	
21-30	26	2.9%	8	5.1%	0	0.0%	8	9.0%	42	3.5%	
31-45	24	2.7%	0	0.0%	0	0.0%	0	0.0%	24	2.0%	
Over 45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	
TOTAL	890	100.0%	155	100.0%	53	100.0%	88	100.0%	1,186	100.0%	
No Answer	137		77		29		27		271		
Avg. Time (min)		9.4		9.4		10.4	1	4.1		9.8	

# **(T)** <u>MBTA Surveys: 2008-09</u>

### Commuter Rail Survey

# Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:

(None identified)

#### Newburyport/Rockport Line

Exit Station: All Stations North of North Station

MBTA Bus Routes:	Number of Riders
455	27
468	8
451	5
465	2
112	2

Commuter Rail, Alighted at Station Indicated:	Number of Riders		
Newburyport	4		

Other Bus Routes:	Number of Riders
SCH	11

### Commuter Rail Survey

# Egress from the Commuter Rail System

Expanded Results

Haverhill Line Exit Station: All Stations North of North Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	196	38.3%
Drive/Park Egress	114	22.4%
Pick-up Egress	42	8.3%
Taxi Egress	28	5.5%
Shuttle/Van Egress	9	1.8%
Bicycle Egress	0	0.0%
Other Egress	0	0.0%
Total Private Trans.	390	76.2%
MBTA Bus	4	0.8%
Other Bus	28	5.5%
Rapid Transit	90	17.5%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	122	23.8%
TOTAL	511	100.0%
No Answer	21	

-	WALK		DRIVE/PARK PICK-UP		K DRIVE/PARK PICK-UP		OTH	IER	TO	TAL
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
-										
0-5 minutes	65	38.3%	20	25.0%	11	50.0%	0	0.0%	95	31.1%
6-10	42	25.0%	39	50.0%	7	29.3%	28	75.0%	116	37.8%
11-15	50	29.4%	7	8.3%	5	20.7%	5	12.5%	65	21.3%
16-20	0	0.0%	7	8.3%	0	0.0%	0	0.0%	7	2.1%
21-30	8	4.6%	7	8.3%	0	0.0%	5	12.5%	19	6.2%
31-45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Over 45	5	2.8%	0	0.0%	0	0.0%	0	0.0%	5	1.5%
TOTAL	169	100.0%	79	100.0%	22	100.0%	37	100.0%	307	100.0%
No Answer	27		36		20		0		83	
Avg. Time (min)	1	1.0	1	1.3		8.5		12.4		1.1

# **T** <u>MBTA Surveys: 2008-09</u>

# Commuter Rail Survey

### Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
State	21
Back Bay	17
Wellington	9
Downtown Crossing	7
Chinatown	7
Massachusetts Avenue	7
Community College	4
Harvard	4
Sullivan Square	4
NE Medical Center	3
Other stations	4

Haverhill/Reading Line

Exit Station: All Stations North of North Station

MBTA Bus Routes:	Number of Riders
101	4

# Commuter Rail, Alighted at Station Indicated:

(None identified)

Other Bus Routes:	Number of Riders
MVRTA	13
MVRTA 32	9
SCH	7

### Commuter Rail Survey

# Egress from the Commuter Rail System

Expanded Results

Lowell Line Exit Station: All Stations North of North Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	338	42.7%
Drive/Park Egress	253	32.0%
Pick-up Egress	90	11.4%
Taxi Egress	7	0.9%
Shuttle/Van Egress	37	4.7%
Bicycle Egress	7	0.9%
Other Egress	7	0.9%
Total Private Trans.	738	93.4%
MBTA Bus	4	0.5%
Other Bus	48	6.1%
Rapid Transit	0	0.0%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	52	6.6%
TOTAL	790	100.0%
No Answer	19	

-	W	WALK DRIVE/PARK PICK-UP		DRIVE/PARK		K-UP	OTH	IER	TOTAL	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
-										
0-5 minutes	36	14.0%	43	17.3%	7	13.0%	0	0.0%	85	14.7%
6-10	84	32.7%	78	31.7%	33	60.9%	14	58.2%	209	35.9%
11-15	53	20.8%	35	14.4%	0	0.0%	3	12.0%	92	15.8%
16-20	48	18.8%	43	17.3%	7	13.0%	0	0.0%	98	16.9%
21-30	21	8.3%	33	13.6%	7	13.0%	7	29.8%	69	11.9%
31-45	14	5.4%	14	5.8%	0	0.0%	0	0.0%	28	4.8%
Over 45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL	256	100.0%	246	100.0%	54	100.0%	24	100.0%	580	100.0%
No Answer	81		7		35		34		158	
Avg. Time (min)	1	4.6	1	15.7		12.6	1	6.6	-	14.9



Commuter Rail Survey

### Transfers from the Commuter Rail System

**Expanded Results** 

Transferring to:

Rapid Transit, Alighted at Station Indicated:

(None identified)

Lowell Line Exit Station: All Stations North of North Station

4

Number of Riders

94

Commuter Rail, Alighted at Station Indicated:

(None identified)

Other Bus Routes:	Number of Riders
LRTA	34
LRTA 7	7
LRTA 16	7

### Commuter Rail Survey

# Egress from the Commuter Rail System

Expanded Results

**Fitchburg Line** Exit Station: All Stations West of Porter Square

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	687	69.9%
Drive/Park Egress	140	14.3%
Pick-up Egress	51	5.1%
Taxi Egress	19	1.9%
Shuttle/Van Egress	33	3.4%
Bicycle Egress	30	3.1%
Other Egress	0	0.0%
Total Private Trans.	961	97.6%
MBTA Bus	23	2.4%
Other Bus	0	0.0%
Rapid Transit	0	0.0%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	23	2.4%
TOTAL	984	100.0%
No Answer	9	

	WALK		DRIVE/PARK		PIC	PICK-UP		OTHER		TAL
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
—										
0-5 minutes	268	41.7%	29	25.8%	0	0.0%	19	25.8%	315	36.0%
6-10	225	35.0%	38	34.4%	31	62.1%	23	32.3%	318	36.3%
11-15	122	19.0%	34	30.5%	10	19.0%	30	41.9%	196	22.3%
16-20	28	4.3%	10	9.3%	0	0.0%	0	0.0%	38	4.3%
21-30	0	0.0%	0	0.0%	10	19.0%	0	0.0%	10	1.1%
31-45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Over 45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL	642	100.0%	111	100.0%	51	100.0%	73	100.0%	877	100.0%
No Answer	45		29		0		10		84	
Avg. Time (min)		8.4	1	11.0	Ĩ	13.4	1	10.7		9.2



### Commuter Rail Survey

### Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:

(None identified)

Fitchburg Line

Exit Station: All Stations West of Porter Square

MBTA Bus Routes:	Number of Riders
73	13
70A	5
556	3
70	3

Commuter Rail, Alighted at Station Indicated:

(None identified)

Other Bus Routes:

(None identified)

### Commuter Rail Survey

# Egress from the Commuter Rail System

Expanded Results

**Framingham/Worcester Line** Exit Station: All Stations West of Back Bay

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	592	54.8%
Drive/Park Egress	110	10.2%
Pick-up Egress	67	6.2%
Taxi Egress	18	1.7%
Shuttle/Van Egress	180	16.6%
Bicycle Egress	42	3.9%
Other Egress	0	0.0%
Total Private Trans.	1,010	93.4%
MBTA Bus	11	1.1%
Other Bus	48	4.4%
Rapid Transit	7	0.7%
Commuter Rail	5	0.5%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	72	6.6%
TOTAL No Answer	1,081	100.0%
NU ALISWEI	27	

-	WALK		DRIVE/PARK		PICK-UP		OTHER		TOTAL	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
-										
0-5 minutes	144	25.6%	22	30.8%	17	33.2%	32	16.6%	215	24.5%
6-10	209	37.3%	39	53.8%	14	27.9%	97	49.8%	358	40.9%
11-15	116	20.7%	6	7.7%	11	22.1%	44	22.8%	177	20.2%
16-20	53	9.4%	0	0.0%	8	16.8%	16	8.4%	78	8.9%
21-30	28	5.0%	0	0.0%	0	0.0%	4	2.3%	32	3.7%
31-45	8	1.4%	0	0.0%	0	0.0%	0	0.0%	8	0.9%
Over 45	3	0.6%	6	7.7%	0	0.0%	0	0.0%	9	1.0%
TOTAL	561	100.0%	72	100.0%	50	100.0%	194	100.0%	876	100.0%
No Answer	32		39		17		46		133	
Avg. Time (min)	1	1.5	1	12.1		10.5	1	0.7	1	11.3

# **(T)** <u>MBTA Surveys: 2008-09</u>

# Commuter Rail Survey

# Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
Brookline Village	4
Pleasant Street	3

# Framingham/Worcester Line

Exit Station: All Stations West of Back Bay

MBTA Bus Routes:	Number of Riders
505	4
59/70	4
59	4

Commuter Rail, Alighted at Station Indicated:	Number of Riders
Newtonville	5

Other Bus Routes:	Number of Riders
MWRTA	34
WRTA	6
MWRTA 7	4
SCH	3

# Commuter Rail Survey

# Egress from the Commuter Rail System

Expanded Results

Needham Line

Exit Station: All Stations West of Ruggles

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	223	65.9%
Drive/Park Egress	72	21.2%
Pick-up Egress	27	8.0%
Taxi Egress	0	0.0%
Shuttle/Van Egress	4	1.1%
Bicycle Egress	0	0.0%
Other Egress	4	1.2%
Total Private Trans.	329	97.3%
MBTA Bus	9	2.7%
Other Bus	0	0.0%
Rapid Transit	0	0.0%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	9	2.7%
TOTAL	338	100.0%
No Answer	9	

-	WALK		WALK DRIVE/PARK		PICK-UP		OTHER		TOTAL	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
_										
0-5 minutes	63	36.8%	54	75.0%	9	50.0%	0	0.0%	126	46.9%
6-10	36	21.1%	18	25.0%	0	0.0%	0	0.0%	54	20.1%
11-15	45	26.3%	0	0.0%	9	50.0%	4	47.4%	57	21.4%
16-20	9	5.3%	0	0.0%	0	0.0%	4	52.6%	13	4.8%
21-30	18	10.5%	0	0.0%	0	0.0%	0	0.0%	18	6.7%
31-45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Over 45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL	171	100.0%	72	100.0%	18	100.0%	8	100.0%	268	100.0%
No Answer	52		0		9		0		61	
Avg. Time (min)	1	1.5		5.1		10.0	1	17.6		9.8



Commuter Rail Survey

### Transfers from the Commuter Rail System

**Expanded Results** 

Transferring to:

Rapid Transit, Alighted at Station Indicated:

(None identified)

**Needham Line** Exit Station: All Stations West of Ruggles

9

MBTA Bus Routes:	Number of
MBTA Bus Routes.	Riders

51

Commuter Rail, Alighted at Station Indicated:

(None identified)

Other Bus Routes:

(None identified)

### Commuter Rail Survey

# Egress from the Commuter Rail System

Expanded Results

Franklin Line Exit Station: All Stations South of Ruggles

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	173	36.8%
Drive/Park Egress	200	42.5%
Pick-up Egress	64	13.6%
Taxi Egress	0	0.0%
Shuttle/Van Egress	0	0.0%
Bicycle Egress	30	6.3%
Other Egress	4	0.8%
Total Private Trans.	471	100.0%
MBTA Bus	0	0.0%
Other Bus	0	0.0%
Rapid Transit	0	0.0%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	0	0.0%
TOTAL	471	100.0%
No Answer	11	

-	WALK		DRIVE/PARK		PICK-UP		OTHER		TOTAL	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
-										
0-5 minutes	69	42.2%	29	16.3%	29	57.1%	7	25.0%	133	31.9%
6-10	51	31.1%	78	44.9%	0	0.0%	4	13.4%	133	31.9%
11-15	7	4.4%	29	16.3%	14	28.6%	11	37.7%	61	14.7%
16-20	11	6.7%	29	16.3%	0	0.0%	7	23.9%	46	11.1%
21-30	15	9.0%	4	2.1%	7	14.3%	0	0.0%	25	6.1%
31-45	11	6.7%	7	4.1%	0	0.0%	0	0.0%	18	4.3%
Over 45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL	162	100.0%	175	100.0%	50	100.0%	30	100.0%	417	100.0%
No Answer	11		25		14		4		54	
Avg. Time (min)	12.3		12.7		11.0		12.4		12.3	



Transfers from the Commuter Rail System Expanded Results

Franklin Line Exit Station: All Stations South of Ruggles

No responders provided information about their modes of egress.

# **T** MBTA Surveys: 2008-09

#### Commuter Rail Survey

### Egress from the Commuter Rail System

Expanded Results

**Providence/Stoughton Line** Exit Station: All Stations South of Ruggles

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	442	32.1%
Drive/Park Egress	540	39.3%
Pick-up Egress	187	13.6%
Taxi Egress	32	2.3%
Shuttle/Van Egress	41	3.0%
Bicycle Egress	80	5.8%
Other Egress	0	0.0%
Total Private Trans.	1,322	96.2%
MBTA Bus	10	0.7%
Other Bus	37	2.7%
Rapid Transit	0	0.0%
Commuter Rail	6	0.5%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	53	3.8%
TOTAL No Answer	1,375 21	100.0%

#### Trip time from station to trip destination by private transportation:

-	W	ALK	DRIVE	/PARK	PIC	K-UP	OTH	IER	TO	TAL
	Number	Percent								
-										
0-5 minutes	78	18.9%	101	21.6%	27	19.3%	18	14.3%	224	19.5%
6-10	102	24.8%	183	39.2%	35	24.4%	80	62.6%	399	34.8%
11-15	142	34.5%	110	23.5%	37	25.7%	20	16.0%	308	26.9%
16-20	62	15.1%	37	7.8%	34	24.1%	9	7.2%	142	12.4%
21-30	27	6.7%	18	3.9%	9	6.4%	0	0.0%	55	4.8%
31-45	0	0.0%	18	3.9%	0	0.0%	0	0.0%	18	1.6%
Over 45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL	410	100.0%	467	100.0%	142	100.0%	128	100.0%	1,147	100.0%
No Answer	32		73		45		25		175	
Avg. Time (min)	1	3.0	1	12.3		13.9	Î	10.1		12.5



Commuter Rail Survey

#### Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:

(None identified)

Providence/Stoughton Line

Exit Station: All Stations South of Ruggles

MBTA Bus Routes:	Number of Riders
32	10

# Commuter Rail, Alighted at Station Indicated:

(None identified)

Other Bus Routes:	Number of Riders
RIPTA	9
RIPTA 26	9
RIPTA 31	9
RIPTA Thaber St	9

# **T** MBTA Surveys: 2008-09

#### Commuter Rail Survey

### Egress from the Commuter Rail System

Expanded Results

Fairmount Line Exit Station: All Stations South of South Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	26	88.0%
Drive/Park Egress	2	6.0%
Pick-up Egress	2	6.0%
Taxi Egress	0	0.0%
Shuttle/Van Egress	0	0.0%
Bicycle Egress	0	0.0%
Other Egress	0	0.0%
Total Private Trans.	30	100.0%
MBTA Bus	0	0.0%
Other Bus	0	0.0%
Rapid Transit	0	0.0%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	0	0.0%
TOTAL	30	100.0%
No Answer	0	

#### Trip time from station to trip destination by private transportation:

_	WALK		WALK DRIVE/PARK		PIC	K-UP	OTHER	TO	TAL
	Number		Number		Number		Number Percent	Number	Percent
_									
0-5 minutes	4	22.6%	2	100.0%	2	100.0%		7	36.9%
6-10	12	77.4%	0	0.0%	0	0.0%		12	63.1%
11-15	0	0.0%	0	0.0%	0	0.0%	(No	0	0.0%
16-20	0	0.0%	0	0.0%	0	0.0%	responses)	0	0.0%
21-30	0	0.0%	0	0.0%	0	0.0%		0	0.0%
31-45	0	0.0%	0	0.0%	0	0.0%		0	0.0%
Over 45	0	0.0%	0	0.0%	0	0.0%		0	0.0%
TOTAL	16	100.0%	2	100.0%	2	100.0%		20	100.0%
No Answer	11		0		0			11	
Avg. Time (min)		6.9		5.0		5.0			6.5



Transfers from the Commuter Rail System Expanded Results

**Fairmount Line** Exit Station: All Stations South of South Station

No responders provided information about their modes of egress.

# **T** MBTA Surveys: 2008-09

#### Commuter Rail Survey

### Egress from the Commuter Rail System

Expanded Results

Middleborough Line Exit Station: All Stations South of South Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	140	43.3%
Drive/Park Egress	48	14.8%
Pick-up Egress	17	5.3%
Taxi Egress	0	0.0%
Shuttle/Van Egress	25	7.7%
Bicycle Egress	0	0.0%
Other Egress	4	1.2%
Total Private Trans.	233	72.3%
MBTA Bus	43	13.2%
Other Bus	33	10.3%
Rapid Transit	14	4.2%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	89	27.7%
TOTAL	322	100.0%
No Answer	15	

#### Trip time from station to trip destination by private transportation:

-	W	ALK	DRIVE	E/PARK	PIC	K-UP	OTH	IER	TO	TAL
	Number	Percent								
-										
0-5 minutes	58	41.9%	11	33.4%	0	0.0%	4	13.6%	73	34.6%
6-10	46	32.9%	5	16.6%	11	100.0%	0	0.0%	62	29.4%
11-15	11	7.6%	16	50.0%	0	0.0%	0	0.0%	27	12.6%
16-20	19	13.8%	0	0.0%	0	0.0%	8	28.1%	27	12.9%
21-30	5	3.8%	0	0.0%	0	0.0%	17	58.3%	22	10.4%
31-45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Over 45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TOTAL	140	100.0%	32	100.0%	11	100.0%	29	100.0%	211	100.0%
No Answer	0		16		6		0		22	
Avg. Time (min)		9.8	1	10.5		10.0	2	22.0		1.5

### Commuter Rail Survey

### Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
Harvard	6
North Quincy	4
Charles/MGH	4

Middleborough Line

Exit Station: All Stations South of South Station

MBTA Bus Routes:	Number of Riders
8	14
238	9
16	8
8/66	6
214	4

Commuter Rail, Alighted at Station Indicated:	Other Bus Routes:	Number of Riders
	UMB	22
(None identified)	BAT	11

# **T** MBTA Surveys: 2008-09

#### Commuter Rail Survey

### Egress from the Commuter Rail System

Expanded Results

**Kingston/Plymouth Line** Exit Station: All Stations South of South Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	53	29.4%
Drive/Park Egress	24	13.5%
Pick-up Egress	15	8.5%
Taxi Egress	0	0.0%
Shuttle/Van Egress	35	19.3%
Bicycle Egress	2	1.2%
Other Egress	0	0.0%
Total Private Trans.	130	72.0%
MBTA Bus	13	7.2%
Other Bus	15	8.4%
Rapid Transit	22	12.4%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Public Trans.	51	28.0%
TOTAL	181	100.0%
No Answer	2	

#### Trip time from station to trip destination by private transportation:

_													
	WALK		DRIVE	E/PARK	PIC	K-UP	OTH	OTHER		OTHER 7		FOTAL	
	Number	Percent											
—													
0-5 minutes	16	32.5%	2	9.1%	7	42.7%	4	12.6%	29	23.5%			
6-10	21	43.1%	9	36.6%	4	29.1%	0	0.0%	34	27.9%			
11-15	0	0.0%	4	18.3%	4	28.2%	7	18.8%	15	12.4%			
16-20	0	0.0%	7	26.9%	0	0.0%	13	37.5%	20	15.9%			
21-30	2	4.6%	2	9.1%	0	0.0%	4	12.4%	9	7.1%			
31-45	10	19.9%	0	0.0%	0	0.0%	7	18.7%	16	13.1%			
Over 45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%			
TOTAL	49	100.0%	24	100.0%	15	100.0%	35	100.0%	123	100.0%			
No Answer	4		0		0		2		7				
Avg. Time (min)	16.0		1	13.9		9.3		20.6		16.0			



### Commuter Rail Survey

#### Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
North Quincy	18
South Station	4

Kingston/Plymouth Line

Exit Station: All Stations South of South Station

MBTA Bus Routes:	Number of Riders
8	13

Commuter Rail, Alighted at	
Station Indicated:	

(None identified)

Other Bus Routes:	Number of Riders			
UMB	15			

# **T** MBTA Surveys: 2008-09

#### Greenbush Line Survey

#### Egress from the Greenbush Line

Expanded Results

Greenbush Line Exit Station: All Stations South of South Station

#### Egress Mode:

	Number of Riders	Percent of Riders
Walk Egress	36	25.4%
Drive/Park Egress	9	6.4%
Pick-up Egress	27	19.2%
Taxi Egress	0	0.0%
Shuttle/Van Egress	37	26.7%
Bicycle Egress	18	12.8%
Other Egress	0	0.0%
Total Private Trans.	118	84.1%
MBTA Bus	7	5.0%
Other Bus	0	0.0%
Rapid Transit	15	10.9%
Commuter Rail	0	0.0%
Boat	0	0.0%
Other	0	0.0%
Total Private Trans.	22	15.9%
TOTAL	141	100.0%
No Answer	3	

#### Trip time from station to trip destination by private transportation:

	WALK		DRIVE	E/PARK	PIC	K-UP	OTH	OTHER		TAL	
	Number	Percent									
—											
0-5 minutes	14	39.9%	0	0.0%	18	66.7%	9	24.2%	41	37.9%	
6-10	9	25.2%	0	0.0%	9	33.3%	0	0.0%	18	16.5%	
11-15	3	9.7%	0	0.0%	0	0.0%	0	0.0%	3	3.2%	
16-20	9	25.2%	9	100.0%	0	0.0%	9	24.2%	27	24.8%	
21-30	0	0.0%	0	0.0%	0	0.0%	19	51.7%	19	17.7%	
31-45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	
Over 45	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	
TOTAL	36	100.0%	9	100.0%	27	100.0%	37	100.0%	109	100.0%	
No Answer	0		0		0		18		18		
Avg. Time (min)	10.5		2	20.0		5.7		19.9		13.3	



### Greenbush Line Survey

### Transfers from the Commuter Rail System

**Expanded Results** 

#### Transferring to:

Rapid Transit, Alighted at Station Indicated:	Number of Riders
JFK/UMass	9
Bowdoin	3
South Station	3

Greenbush Line

Exit Station: All Stations South of South Station

MBTA Bus Routes:	Number of Riders
8	4
CT3	3

# Commuter Rail, Alighted at Station Indicated:

(None identified)

Other Bus Routes:

(None identified)

# Destination Locations and Activities

The data in this chapter show where commuter rail riders ended their trips (by city, town, or neighborhood) and indicate what their activities were at each of those destination locations. This information is useful in defining the market area of each of the commuter rail lines and for understanding the types of trips made on the commuter rail system. Additional information regarding the reasons for making trips is presented in Chapters 3 and 4.

A table presenting these data is provided for each of the downtown Boston stations (North Station, South Station, and Back Bay) and for Ruggles and Porter Square Stations. The information for all of the other stations is summarized on a line-by-line basis. The tables are at the end of the chapter. Each table shows both the destinations and destination activities for the riders who exited the commuter rail system at the station or stations in question. The data include not only the riders who left the entire transit system when they left the commuter rail portion of that system at these stations, but also riders who continued through transfers to bus, other commuter rail lines, rapid transit, or boat. (Details on the means of transportation between commuter rail stations and destinations are provided in Chapter 6.)

Chapter 2 addresses the same categories of data that are addressed in the present chapter, but at the level of the commuter rail system as a whole. It includes tables and discussion.

### 7.1 DESCRIPTION OF TABLES

**Destination Locations Section** In the table for each station or set of stations, the left side summarizes the results of survey question 9b, which asked where riders ended the entire one-way trips they were making when surveyed. The data show destination location by city, town, or neighborhood. In the systemwide passenger survey of which this commuter rail survey is a part, the responses about destination locations were aggregated by city or town, except in four municipalities: in Boston, they were broken into 26 neighborhoods, in Cambridge into 6, in Somerville into 4, and in Brookline into 3. All of these neighborhoods are shown in Figure 4-1. In the table, for trips ending outside of Massachusetts, the city and the state are given.

Destinations reported by less than 0.5% of riders at a station were aggregated and placed in the "other" category; therefore, not all cities, towns, and neighborhoods in which commuter rail trips ended are represented individually in the table. Some survey responses did not contain enough information to determine a destination city, town, or neighborhood; these responses were aggregated into the "unspecified" category. The destination locations are listed in descending order, based on the number of riders.

**Destination Activities Section** In the table for each station or set of stations, the right side of the table summarizes the results of survey question 9a, "Where will/did this one-way trip end?" The survey form provided eight check-off choices: "at work," "at school," "at home," "at a store," "at a doctor or other personal business," "at a work-related errand or meeting," "at a restaurant, or social or recreational activity," and "other" (with a space for write-ins). For each destination location (city, town, or neighborhood), the table shows the percentages of riders who reported ending at each of these eight "activities." The absolute number of riders ending at each activity can be determined by multiplying these percentages by the destination location totals on the left side of the table.

For each exit station, the number of survey responses from which the results in the table were expanded was greater for locations in the upper rows and smaller for those in the lower rows. Consequently, the higher the row, the more reliable the distribution of activities given for that destination location. For similar reasons, if one combines the data from groups of stations in the same general area, the resulting distribution of activities by destination location is more reliable than the results for individual stations.

### 7.2 OVERVIEW OF RESULTS

#### 7.2.1 SUMMARY OF DESTINATION LOCATIONS AND ACTIVITIES

During the hours that the surveys were distributed (approximately 6:00 AM to 3:00 PM), the majority of commuter rail riders were traveling inbound to stations in downtown Boston. Riders exiting at any of the downtown stations and at a few of the outlying stations had the option of transferring to rapid transit to complete their trips, but as discussed in Chapter 6, many walked to their destinations. Even among those who transferred, the rapid transit segment was often fairly short. As shown in the tables at the end of this chapter, the most common destinations for most stations or sets of stations were in nearby neighborhoods, cities, or towns. Although Malden Center, Forest Hills, Quincy Center, JFK/UMass, and Braintree all have rapid transit connections, only a small percentage of survey respondents reported alighting at any of these stations. Therefore, the destination locations and activities for passengers alighting at these stations is included in the reports for the "non-downtown" stations on their respective lines. Table 7-1 shows the distribution of expanded survey exits from commuter rail at the downtown Boston stations, other stations with rapid transit connections, and other non-downtown stations. They

were included in the data tables at the end of the chapter with "non-downtown" stations. As can be seen in Table 7-1, non-downtown stations accounted for just over 13% of the survey exits (note that in Table 7-1, the aforementioned stations are not included in "non-downtown" stations).

TABLE 7-1
Percentage of Survey Exits by Station
or Set of Stations

Exiting Station	Percentage
South Station	36.1%
North Station	28.9%
Back Bay	16.0%
Ruggles	2.8%
Porter Square	2.1%
JFK/UMass	0.4%
Malden Center	0.2%
Quincy Center	0.1%
Braintree	0.1%
Forest Hills	0.0%
Other non-downtown	13.3%

Many of the riders who exit at non-downtown stations were going home, but a significant percentage of the riders were reverse-commuting. It is apparent that many of these reverse-commuters (and some riders making inbound interzone trips) were headed to concentrated attractors near the commuter rail stations, most notably college campuses and, to a lesser extent, office parks.

### 7.2.2 EXITS AT PORTER SQUARE

**Destination Locations** The only commuter rail line that provides direct service to Porter Square is the Fitchburg Line. Some riders transfer to the Fitchburg Line from other North Side lines at North Station to continue to Porter Square, but in the tables in this chapter, these riders are included in the North Station exits rather than in the Porter Square exits.

Most inbound Fitchburg Line riders going to downtown Boston alight at North Station rather than transferring to the Red Line at Porter Square. The Red Line does, however, provide convenient connections to many destinations in Cambridge, as well as to some in Boston. Over 70% of the riders alighting at Porter Square were destined for Cambridge neighborhoods, including Kendall/MIT (30%), Harvard Square (25%), Central Square (7%), North Cambridge (7%), and other Cambridge neighborhoods (3%). (Porter Square Station is in North Cambridge.) Inclusion of transfers from other commuter rail lines in the Porter Square exits would change these distributions only slightly.

The three most common Boston neighborhood destinations were the Boston Waterfront (6%), Financial/Retail District (6%), and South Boston Industrial Area (3%). The first two of these have stations on the Red Line, and the third can be accessed from the Red Line at South Station by walking or transferring to Silver Line Waterfront service or to local bus routes.

**Destination Activities** About 85% of the riders who exited at Porter Square were headed to work, 4% were headed home, and 3% were headed to school. The top three destinations, Kendall/MIT, Harvard Square, and Central Square, had higher "work" percentages, accounting for 90% to 96% of the activities. From 1% to 7% of the riders at these three destinations were headed to "school" including Harvard, MIT, and Cambridge College. Over 18% of the riders destined for North Cambridge were headed home. About 18% of the riders destined to the Financial/Retail District were headed to a store.

### 7.2.3 EXITS AT NORTH STATION

**Destination Locations** The most common destinations for riders who exited the commuter rail system at North Station were the Financial/Retail District (20%), Government Center (14%), and the North End (10%). These were also the top three destinations in the same order for all four North Side lines, except that on the Haverhill Line, the North End and Beacon Hill were tied for third place.

Overall, about 8% of the North Side riders alighting at North Station were going to destinations in Cambridge, with the Kendall/MIT neighborhood alone accounting for nearly 5% of the destinations. Only about 2% of Fitchburg Line riders alighting at North Station had Cambridge destinations, compared with 6% to 10% on the other three North Side lines, because many Fitchburg Line riders with Cambridge destinations alight at Porter Square instead. The EZRide shuttle was one of the most common means of connecting from North Station to Cambridge, used by almost half of those going to East Cambridge or Kendall/MIT. Transfers to the Fitchburg Line from other North Side lines, with exits at Porter Square, were reported by some riders destined for Harvard Square or North Cambridge.

**Destination Activities** For riders destined for the same neighborhoods, the "activities" were quite similar across all of the lines. Overall, 88% of the riders alighting at North Station from all four lines combined were going to work. At over half of the destinations that accounted for at least 0.5% of alightings, work was the destination activity in over 90% of the trips.

There were very few incidences of individual activities other than work accounting for more than 4% of destinations in any neighborhood. About 10% of the riders destined to the Longwood Medical Area, Fenway, or Charlestown were headed to school, as were about 6% of the riders headed to Harvard Square. Although relatively few riders were destined for the Boston University neighborhood, 28% of those who did go there were headed to school. About 8% of the riders destined to Beacon Hill were going to "personal business," and 8% of the riders headed to the Fenway neighborhood were going to a "social/recreational" activity.

#### 7.2.4 EXITS AT RUGGLES STATION

**Destination Locations** Of the five stations for which individual results are presented in this chapter, Ruggles had the most highly concentrated destinations. Over 86% of the riders exiting at Ruggles were destined to two adjacent neighborhoods: the Longwood Medical Area, at 62%, and Fenway, at 25%. A few of the riders transferred to an MBTA bus or the Orange Line there, but as discussed in Chapter 6, 47% overall walked and 39% took the MASCO Longwood Medical Area Shuttle to complete their trips.

Roxbury and the South End each attracted 3% of the riders exiting at Ruggles. These riders were split between walking and taking a bus to their destinations.

**Destination Activities** Overall, 89% of the riders who exited at Ruggles were going to work. Another 6% were headed to school, mostly in the Longwood Medical Area or Fenway. Nearly 25% of the riders headed to Roxbury were headed home; these riders (only two actual surveys) were describing late-afternoon trips.

### 7.2.5 EXITS AT BACK BAY STATION

**Destination Locations** The destination locations for riders who exited at Back Bay were dispersed over several Boston neighborhoods. About 27% of the riders were headed to the immediately adjacent Prudential/Hancock District. About 21% of the riders who exited at Back Bay were destined for the Back Bay neighborhood. About 12% made their way to Park Square (about 75% of this group walked, while 25% took the Orange Line to Chinatown or New England Medical Center (which is now named Tufts Medical Center). Four other downtown Boston neighborhoods each accounted for at least 4% of Back Bay exiting riders: Government Center, 7%; the South End, 6%; the Financial/Retail District, 4%, and the North End, 4%.

**Destination Activities** Of the riders who exited at Back Bay, 93% were headed to work. Back Bay was tied with South Station as having the highest percent of work destinations among the five stations reported individually in this chapter. Nearly 100% of the riders headed to the Prudential/Hancock District and Government Center neighborhoods were bound for work. Over 28% of the trips to the Boston University neighborhood, in which most of the land uses are part of or related to the University, were school-bound; the other 72% were trips to work. Of the trips to Back Bay, the South End, the Longwood Medical Area, Fenway, and Roxbury, 3% to 10% were to school. Overall, few riders exiting at Back Bay had destination activities other than work or school. Each of the other activities was reported by about 1% of the riders.

#### 7.2.6 EXITS AT SOUTH STATION

**Destination Locations** As at other stations, the highest concentrations of riders exiting at South Station were destined for the nearest neighborhoods. About 35% of the riders were destined to the proximate Financial/Retail

District, 15% to the Boston Waterfront (which includes South Station), and 11% to the South Boston Industrial Area. About 70% of the trips ended in one of the Boston Proper neighborhoods. Almost 8% of the trips ended somewhere in Cambridge, with most of these made by transferring to the Red Line. Almost 76% of all commuter rail riders who exited at South Station walked to their final destinations, and almost 23% took transit.

**Destination Activities** As at Back Bay, 93% of the riders who exited the commuter rail system at South Station were work-bound. Almost all of the riders headed to the Financial/Retail District, South Boston Industrial Area, and Prudential/Hancock District neighborhoods were work-bound. Overall, "school" was the destination activity for only 1% of the trips exiting at South Station. Some notable exceptions were that school trips accounted for 24% of those destined for North Dorchester (mostly to the University of Massachusetts), for 10% of those going to the Longwood Medical Area, and for 4% of those going to the Harvard Square neighborhood. Just over 17% of the riders who went to Beacon Hill made the trip to complete "personal business." About 22% of the riders who ended their trips in the Longwood Medical Area had "personal business" destinations, including medical appointments.

#### 7.2.7 NON-DOWNTOWN EXITS AND ACTIVITIES

Compared to the downtown stations, many more of the riders making trips to non-downtown stations were destined for "home." On most of the lines, the percentage of "home" trips ranged from 15% to 50%. In contrast "home" accounted for 1% or less of destinations at North Station, South Station, Back Bay, and Ruggles, and for under 4% at Porter Square. As shown earlier in Table 7-1, about 13% of the survey returns were for trips exiting at one of the non-downtown stations. If surveys had been distributed after 3:00 PM, the percentage of non-downtown alightings would have been much higher. (Most commuter rail trips have a non-downtown station at one end and a downtown station at the other, and most riders make round-trips, so over an entire service day, downtown and non-downtown exits should each be about 50% of the total.) Table 6-2 in chapter 6 shows the percentage of the survey returns from each line that had non-downtown exit stations. Surveys with exits at Malden Center, Forest Hills, JFK/UMass, Quincy Center, and Braintree are all included in the non-downtown reports in Chapter 7. They are not, however, included in the calculation of "non-downtown" trips in Table 6-2.

*Newburyport/Rockport Line* The three most common destinations of riders exiting the Newburyport/Rockport Line at stations other than North Station were Salem (20%), Lynn (20%), and Beverly (17%). Salem was accessed by riders who exited at Salem or Swampscott; Lynn was accessed via Lynn and River Works Stations. (River Works Station is restricted to use by employees of the General Electric complex in West Lynn.) There are five stations in Beverly, but most of the survey responses were from passengers alighting at Beverly Depot.

Overall, the most frequently reported destination activities for those exiting at a non-downtown station were "work," 41%; "home," 30%; and "school," 10%. The town with the highest percentage of "work" activities was Ipswich, at 74%. "Home" and "school" each accounted for 14% to 15% of the destinations in Salem and for 16% and 17% in Lynn. Nearly 15% of those destined for Salem were headed to a social or recreational activity, including visiting multiple museums and historic sites. The majority of Newburyport/Rockport Line riders bound for Gloucester, Rockport, Swampscott, and Peabody were returning home.

*Haverhill Line* The most common destinations of riders exiting the Haverhill Line at stations other than North Station were Wakefield (16%), Lawrence (15%), Haverhill (12%), Andover (12%), and Reading (9%). Due to the inclusion of Malden Center Station, where some inbound riders transfer to the Orange Line, several downtown Boston neighborhoods, including the Financial/Retail District, the Prudential/Hancock District, Park Square, Government Center, and Boston Waterfront each accounted for 1% to 4% of the destinations. About 5% of the riders ended their trips in New Hampshire.

Passengers going to Wakefield exited at Wakefield Station or Greenwood Station (both in that town). Most Lawrence riders used Lawrence Station. Haverhill riders were divided between Haverhill and Bradford Stations (both in Haverhill). Riders going to Andover exited at Andover or Ballardvale Station, both in Andover, and riders bound for Reading used Reading Station.

The most-frequent destination activities were "home" (43%) and "work" (39%). Most of the riders who were headed home boarded their trains after noon, whereas most of those headed to work boarded their trains before noon.

*Lowell Line* By far the most common destination for riders who exited the Lowell Line at stations other than North Station was Lowell, with 33% of the total. Woburn was second, at 12%, and Winchester third, at 10%. About 5% of the riders were returning to southern New Hampshire via either Lowell or North Billerica Station, where they had parked vehicles earlier, and most of them were going home.

Lowell was primarily served by Lowell Station. Most riders going to Woburn exited either at Anderson/Woburn or at Mishawum. The latter station has limited service, and it is scheduled only for reverse-commuting.

Overall, 46% of the exiting riders were going home, 28% were going to work, and 11% were going to personal business destinations. However, of the riders going to Woburn, 79% were going to work, including all of those exiting at Mishawum. About 19% of the riders destined for Lowell had "personal business" destinations, and 13% were headed to "school." Schools to which riders were destined include UMass Lowell and Middlesex Community College.

*Fitchburg Line* Just under 50% of the riders who exited west of Porter Square were destined for Waltham via the Brandeis/Roberts, Waltham, and Waverly

Stations. The only other municipalities that accounted for more than 5% of the destinations were the towns of Concord (14%) and Acton (10%).

The majority of the riders bound for Waltham (76%) and Concord (81%) were destined for work, while 71% of the riders headed to Acton were headed home. The largest concentrations of work destinations in Waltham were in the vicinity of Brandeis/Roberts Station, including Brandeis University and various office buildings. All riders who exited at Brandeis/Roberts for destinations in Waltham completed their trips by walking. Destinations in Concord were somewhat more dispersed than those in Waltham, but were also mostly reached by walking from the exit station.

*Framingham/Worcester Line* Of the riders who exited the Framingham/Worcester Line at a station other than Back Bay or South Station, 43% exited at Yawkey Station, located between Fenway Station and Kenmore Station, on the Green Line adjacent to Fenway Park. All of the riders who alighted from the train at Yawkey Station were traveling inbound, all were going to work, and almost all were traveling before 10:00 AM. Almost half of the Yawkey riders (21% of the non-downtown exits) were going to the Longwood Medical Area. The next largest group (15% of the total) had destinations in the Fenway neighborhood.

Excluding the Yawkey exits, the largest shares of non-downtown alighting riders had destinations in Natick (15%), Wellesley (11%), and Worcester (8%).

Of the riders with destinations in Natick, 55% were work-bound, including many headed for The MathWorks' headquarters. About 29% of the riders going to Natick were headed back home. Within Wellesley, 68% of the riders were work-bound. Many of these riders were headed for work and 14% for home.

*Needham Line* All of the stations on the Needham Line are in either the town of Needham or the city of Boston. Of the riders exiting at non-downtown stations, 67% were going to destinations in Needham, 21% to West Roxbury, and 7% to Roslindale. Overall, 52% of the non-downtown exiting riders were going home, 27% to work, 8% to work-related destinations, and 8% to personal business destinations.

Within Needham, many of the people on work-trips were headed to Highland Avenue, which parallels the Needham Line between Needham Heights and Needham Center.

*Franklin Line* The three largest destinations of riders exiting from the Franklin Line at non-downtown stations were Norwood (32%), Franklin (15%) and Walpole (11%). All other reported destinations accounted for under 10% each. The majority (73%), of these trips were home-bound; only 18% were headed for work. However, of riders going to Norwood 67% were going home, 24% to work and 9% to personal business destinations.

*Providence/Stoughton Line* The most common destination of non-downtown alighting on this route was Providence, Rhode Island, at 29%. Another 8% of

riders had other destinations in Rhode Island. Attleboro accounted for 13% of the destinations, Canton for 10%, Westwood for 7%, and Sharon for 5%. All other destinations accounted for less than 5% each.

In total, 47% the riders were headed home and 31% to work. However, several of the most common destinations had higher percentages of "work" trips. These included Providence (46%), Canton (48%), and Westwood (42%). About 11% of the riders destined for Providence were headed to one of the areas schools. About 10% of the riders headed to Attleboro were destined for a store.

*Fairmount Line* Very few riders on the Fairmount Line during the survey hours alighted at any station other than South Station—only 30 weighted riders from 7 actual surveys. Nearly all of the destinations were inside Boston; about 12% were outside of Boston. The riders with destinations outside Boston alighted at Readville Station.

There are far too few results to make meaningful conclusions about the destination activities of these riders. About 70% were work-bound, about 10% were home-bound, and about 5% were school-bound.

*Middleborough/Lakeville Line* The most common destinations for riders who alighted at stations other than South Station were in Brockton (20%) and Bridgewater (17%). Other reported destinations included North Dorchester (13%), the Longwood Medical Area (12%), and Quincy (11%). No other destination accounted for over 7% of the exits. Most inbound AM-peak-period trains stopped at JFK/UMass Station in North Dorchester, where bus or private shuttle connections to some other Boston neighborhoods could be made. Overall, 59% of the riders exiting from a train other than at South Station were headed to work. There is no indication of a centralized workplace to which riders destined for Brockton went, but in Bridgewater, all of the reported work and school trips to North Dorchester were bound for UMass Boston.

*Kingston/Plymouth Line* Relatively few riders alighted from a Kingston/Plymouth Line except at South Station during the survey hours. Most of those that did exited at JFK/UMass or Braintree Station. Only about 1% of the lines' riders exited at a station south of Braintree—only one or two surveys were returned for each of the destinations shown in the report. The most common reported destinations were North Dorchester (28%), the Longwood Medical Area (15%), and Quincy (14%). All of the other destinations accounted for less than 8% each.

Trips bound for North Dorchester were headed to UMass Boston, Boston College High School, and a few large office buildings near JFK/UMass Station.

*Greenbush Line* Outside of South Station, about half of the Greenbush Line's riders during the survey hours alighted at either JFK/UMass or Quincy Center. About a quarter of the survey riders (26%) ended their trips in the Longwood

Medical Area. Nearly 40% of the riders were destined for locations within Scituate and Weymouth (19% each). The remaining destinations were located in Boston neighborhoods, Braintree, Hingham, and Quincy.

An equal percentage of the trips were headed to work and home (44% each). The neighborhoods and municipalities with the largest number of work trips were Boston neighborhoods and Quincy, while riders headed to the other destinations were mostly headed home.

Commuter Rail Survey

### Destination Locations and Activities

**Expanded Results** 

All Commuter Rail Lines Exit Station: Porter Square

DESTINATION LOCATIONS					DESTINATION ACTIVITIES						
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Cambridge: Kendall/MIT	340	29.4%			1.2%	96.0%				2.8%	
Cambridge: Harvard Square	289	25.0%		3.1%	4.6%	89.6%			2.6%		
Cambridge: Central Square	83	7.2%			6.8%	93.2%					
Cambridge: North Cambridge	77	6.7%		18.2%		71.9%					9.9%
Boston: Waterfront	69	6.0%	4.0%			90.8%					5.2%
Boston: Financial/Retail	68	5. <b>9</b> %				64.2%	17.9%			17.9%	
Boston: So Bos Indust	33	2.8%				100.0%					
Somerville: Spring Hill	18	1.6%		84.7%		15.3%					
Boston: Prudential/Hancock	16	1.4%				56.7%		43.3%			
Cambridge: Unspecified	15	1.3%	35.4%			64.6%					
Somerville: Davis Square	15	1.3%	52.1%					47.9%			
Arlington	14	1.3%				100.0%					
Boston: B U	14	1.2%				100.0%					
Boston: Beacon Hill	12	1.1%				100.0%					
Boston: Longwood Med Area	11	0.9%			33.6%	32.8%				33.6%	
Boston: North Dorchester	11	1.0%				100.0%					
Medford	11	1.0%				100.0%					
Boston: Unspecified	9	0.8%								100.0%	
Cambridge: East Cambridge	9	0.8%				100.0%					
Boston: Back Bay	8	0.7%				40.7%	29.7%	29.7%			
Quincy	6	0.5%		56.5%		43.5%					
Other (< 0.5 % of riders)	27	2.3%	11.4%		12.7%	66.8%					9.1%
OVERALL TOTAL	1,155	100.0%	1.6%	3.6%	2.6%	84.7%	1.3%	1.4%	0.7%	3.0%	1.2%

Commuter Rail Survey

### **Destination Locations and Activities**

**Expanded Results** 

DESTINATION LOCATION	ONS				DES	STINATIC	ON ACTIV	ITIES			
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Boston: Financial/Retail	3,211	20.0%	0.2%	0.1%	2.4%	95.0%		0.3%	1.4%	0.2%	0.3%
Boston: Govt Center	2,265	14.1%	0.3%	0.4%	1.7%	92.4%		1.5%	2.2%	0.9%	0.6%
Boston: North End	1,573	9.8%	2.8%	0.6%	0.6%	88.0%		1.8%	1.2%	1.6%	3.5%
Boston: Beacon Hill	1,189	7.4%	0.4%	1.2%		87.9%		8.1%	0.9%	0.8%	0.7%
Boston: Park Square	952	5.9%			3.5%	91.1%	0.2%	2.7%	0.3%	1.5%	0.7%
Cambridge: Kendall/MIT	755	4.7%	0.8%		1.1%	95.2%		0.4%	2.2%	0.3%	
Boston: Longwood Med Area	740	4.6%	0.4%	0.7%	9.7%	83.0%	0.5%	2.2%	1.2%	1.4%	1.1%
Boston: Unspecified	723	4.5%	17.7%	2.2%	1.7%	62.4%		6.1%	2.1%	4.1%	3.7%
Boston: Waterfront	600	3.7%	1.5%	0.9%		95.1%		0.6%	1.4%		0.5%
Boston: Prudential/Hancock	545	3.4%			0.6%	97.5%			0.5%		1.4%
Boston: Back Bay	525	3.3%			3.1%	92.1%	0.7%	0.7%	0.6%	0.7%	2.0%
Boston: So Bos Indust	494	3.1%	0.8%			98.2%				1.0%	
Boston: Fenway	396	2.5%	0.5%		10.0%	76.9%		2.3%	0.9%	8.0%	1.3%
Cambridge: Harvard Square	269	1.7%	6.0%		6.9%	84.4%		2.0%			0.8%
Boston: Charlestown	257	1.6%			9.7%	85.6%			3.2%		1.5%
Cambridge: East Cambridge	145	0.9%				98.1%	1.9%				
Boston: South End	143	0.9%	3.1%		1.5%	88.6%		3.5%		1.1%	2.1%
Boston: Dwntwn Unspecified	140	0.9%	19.0%		1.8%	67.3%				9.5%	2.6%
Boston: B U	119	0.7%			26.5%	67.9%					5.6%
Other (< 0.5 % of riders)	1,002	6.2%	2.3%	10.1%	11.5%	60.8%		3.3%	2.6%	1.2%	8.3%
OVERALL TOTAL	16,042	100.0%	1.8%	1.0%	3.2%	87.9%	0.1%	2.0%	1.4%	1.2%	1.6%

Commuter Rail Survey

### Destination Locations and Activities

Expanded Results

DESTINATION LOCATION	ONS				DE	STINATIO	ON ACTIV	/ITIES			
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Boston: Longwood Med Area	959	61.5%	0.4%	0.4%	5.4%	90.7%		1.6%	0.5%	1.1%	
Boston: Fenway	387	24.8%			10.9%	86.0%			1.8%	1.3%	
Boston: Roxbury	49	3.2%		24.7%		68.5%					6.7%
Boston: South End	46	3.0%			9.2%	69.3%				21.5%	
Boston: Govt Center	26	1.6%				100.0%					
Boston: Prudential/Hancock	25	1.6%				100.0%					
Boston: Financial/Retail	12	0.8%				100.0%					
Cambridge: Kendall/MIT	11	0.7%				100.0%					
Boston: Jamaica Plain	10	0.6%				100.0%					
Other (< 0.5 % of riders)	34	2.2%				91.3%			8.7%		
OVERALL TOTAL	1,559	100.0%	0.2%	1.0%	6.3%	88.7%		1.0%	0.9%	1.7%	0.2%

Note: Totals shown may differ from column total because of rounding.

#### All Commuter Rail Lines Exit Station: Ruggles

Commuter Rail Survey

### **Destination Locations and Activities**

**Expanded Results** 

DESTINATION LOCATI	ONS				DE	STINATIO	ON ACTIV	ITIES			
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Boston: Prudential/Hancock	2,416	27.1%	0.1%	0.4%	0.1%	98.2%			1.1%		
Boston: Back Bay	1,882	21.1%	0.7%	0.5%	2.8%	90.5%		1.2%	0.8%	1.5%	1.8%
Boston: Park Square	1,027	11.5%			1.5%	96.1%		0.3%	0.8%	1.4%	
Boston: Govt Center	624	7.0%				<b>99</b> .5%					0.5%
Boston: South End	507	5.7%	0.7%	3.7%	3.1%	86.6%		2.8%	0.8%		2.3%
Boston: Financial/Retail	400	4.5%	1.0%		2.5%	93.4%	1.5%		1.7%		
Boston: North End	367	4.1%	2.2%			95.3%		1.1%		1.4%	
Boston: Longwood Med Area	336	3.8%			6.4%	92.6%					1.0%
Boston: Fenway	299	3.4%		1.0%	3.1%	92.0%				3.9%	
Boston: Unspecified	124	1.4%	36.6%		2.9%	53.7%				6.8%	
Boston: B U	109	1.2%			27.2%	72.8%					
Boston: Charlestown	101	1.1%				94.7%			5.3%		
Cambridge: Kendall/MIT	77	0.9%				100.0%					
Boston: Beacon Hill	70	0.8%				100.0%					
Boston: Roxbury	66	0.7%			10.3%	82.0%		7.7%			
Other (< 0.5 % of riders)	509	5.7%	2.8%	7.1%		81.2%	0.6%	4.4%	2.7%	0.6%	0.6%
OVERALL TOTAL	8,915	100.0%	1.0%	0.9%	1.9%	93.0%	0.1%	0.8%	0.9%	0.8%	0.6%

Note: Totals shown may differ from column total because of rounding.

#### All Commuter Rail Lines Exit Station: Back Bay

Commuter Rail Survey

### Destination Locations and Activities

**Expanded Results** 

DESTINATION LOCATI	ONS				DES	STINATIO	ON ACTIV	ITIES			
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Boston: Financial/Retail	7,105	35.4%	0.6%	0.1%	0.2%	97.3%		0.2%	1.0%	0.5%	0.1%
Boston: Waterfront	3,084	15.4%	1.0%	0.2%	0.3%	95.4%			1.7%	0.1%	1.3%
Boston: So Bos Indust	2,139	10.7%	0.8%		0.2%	97.3%		0.6%	0.6%	0.3%	0.2%
Boston: Govt Center	1,783	8.9%	0.4%	0.2%	0.6%	95.7%		0.5%	2.2%	0.2%	0.2%
Boston: Unspecified	1,369	6.8%	9.5%	1.2%	1.3%	78.5%	0.4%	1.3%	2.2%	1.1%	4.4%
Cambridge: Kendall/MIT	982	4.9%	0.4%		1.4%	96.3%		0.9%	1.0%		
Boston: Park Square	599	3.0%	1.1%		3.4%	90.4%		4.6%		0.5%	
Boston: Beacon Hill	526	2.6%	1.3%	1.2%		78.4%		17.3%		1.8%	
Cambridge: Harvard Square	338	1.7%	1.1%	0.9%	4.3%	85.7%		2.4%	3.5%	1.2%	0.9%
Boston: Prudential/Hancock	322	1.6%				97.8%	1.0%				1.2%
Boston: North End	255	1.3%				95.1%			1.6%	1.7%	1.7%
Cambridge: Central Square	219	1.1%		1.3%	2.9%	86.8%		4.7%		4.2%	
Boston: Back Bay	143	0.7%	3.0%			82.0%		10.4%			4.6%
Boston: Fenway	111	0.6%				88.9%		3.0%		8.2%	
Boston: North Dorchester	111	0.6%			24.0%	64.4%			4.0%		7.6%
Boston: Longwood Med Area	102	0.5%			10.3%	66.6%		23.1%			
Other (< 0.5 % of riders)	884	4.4%	1.3%	4.2%	5.7%	73.6%		2.0%	3.6%	1.5%	8.2%
OVERALL TOTAL	20,072	100.0%	1.3%	0.4%	1.0%	93.0%	0.0%	1.3%	1.3%	0.6%	1.1%

Commuter Rail Survey

### **Destination Locations and Activities**

Expanded Results

**Newburyport/Rockport Line** Exit Station: All Stations North of North Station

DESTINATION LOCAT	TIONS				DES	STINATIC	ON ACTIV	<b>ITIES</b>			
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Salem	312	20.1%	2.6%	14.4%	14.7%	40.9%	1.7%	1.6%	4.3%	15.3%	4.6%
Lynn	305	19.6%	2.5%	16.3%	16.7%	55.8%		4.4%	4.4%		
Beverly	264	17.0%	2.2%	36.9%	5. <b>9</b> %	46.1%	0.9%	2.0%		3.0%	3.0%
lpswich	151	9.7%		10.5%		73.7%				10.5%	5.3%
Gloucester	85	5.5%		68.5%		12.7%		9.4%		9.4%	
Rockport	80	5.1%		60.0%						30.0%	10.0%
Swampscott	66	4.3%		92.4%							7.6%
Chelsea	64	4.1%	5.4%	20.5%	3.4%	70.8%					
Danvers	35	2.2%		46.1%	31.2%	22.7%					
Newburyport	33	2.1%				27.7%		24.1%			48.2%
Peabody	29	1.9%		54.1%		18.8%		27.1%			
Hamilton	24	1.6%		33.0%	44.7%	22.3%					
Manchester	20	1.3%			40.7%	59.3%					
Unspecified	17	1.1%	69.7%					30.3%			
Marblehead	16	1.0%		100.0%							
Essex	13	0.9%		59.6%		40.4%					
Wenham	13	0.8%			83.0%	17.0%					
Hampton, NH	8	0.5%								100.0%	
North Hampton, NH	8	0.5%		100.0%							
Rowley	8	0.5%									100.0%
Other (< 0.5 % of riders)	4	0.3%		37.5%		62.5%					
OVERALL TOTAL	1,554	100.0%	2.3%	29.7%	9.9%	41.0%	0.5%	3.4%	1.7%	7.2%	4.3%

Commuter Rail Survey

### **Destination Locations and Activities**

**Expanded Results** 

Haverhill Line Exit Station: All Stations North of North Station

DESTINATION LOCATI	ONS				DE	STINATIO	ON ACTIV	/ITIES			
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Wakefield	83	15.5%		69.2%		22.9%					7.9%
Lawrence	79	14.8%		50.2%		35.5%			5.9%		8.4%
Haverhill	65	12.1%	10.2%	40.7%	7.2%	17.4%			10.2%		14.4%
Andover	62	11.6%		21.3%		63.6%			15.1%		
Reading	47	8.8%	6.1%	84.0%		9.9%					
Melrose	31	5.8%		78.8%					21.2%		
Boston: Financial/Retail	22	4.1%				100.0%					
North Andover	22	4.1%		60.6%							39.4%
Boston: Prudential/Hancock	19	3.5%				100.0%					
Unspecified	14	2.7%			21.3%	45.9%				32.8%	
Salem	11	2.1%				41.5%		58.5%			
Boston: Park Square	10	1.9%				100.0%					
Malden	9	1.6%								100.0%	
Boston: Charlestown	8	1.5%			27.3%	72.7%					
Lynnfield	7	1.2%				100.0%					
Medford	7	1.3%				100.0%					
Newton, NH	7	1.2%		100.0%							
Plaistow, NH	7	1.2%		100.0%							
Boston: Govt Center	6	1.1%				100.0%					
Atkinson, NH	5	0.9%				100.0%					
Boston: Back Bay	5	1.0%				100.0%					
Boston: Waterfront	5	0.9%				100.0%					
Cambridge: Harvard Square	4	0.7%				100.0%					
Other (< 0.5 % of riders)	2	0.4%				100.0%					
OVERALL TOTAL	532	100.0%	1.8%	42.5%	1.9%	39.3%		1.2%	5.1%	2.5%	5.8%

Commuter Rail Survey

### Destination Locations and Activities

**Expanded Results** 

#### **Lowell Line** Exit Station: All Stations North of North Station

DESTINATION LOCAT	IONS				DE	STINATIO	ON ACTIV	/ITIES			
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Lowell	269	33.2%	5.3%	31.6%	14.1%	25.4%		18.3%	2.6%	2.6%	
Woburn	100	12.3%		7.1%		78.7%		7.1%	7.1%		
Winchester	84	10.4%		67.1%		24.5%		8.4%			
Wilmington	54	6.7%		65.6%		25.0%	9.4%				
Medford	44	5.4%		76.3%		7.6%		16.2%			
Billerica	35	4.3%		60.6%		19.3%		20.2%			
Nashua, NH	28	3.5%		75.0%				25.0%			
Andover	21	2.6%		67.7%		32.3%					
Arlington	21	2.6%		100.0%							
Unspecified	19	2.3%			35.7%					37.4%	26.9%
Chelmsford	14	1.8%		100.0%							
Lawrence	14	1.8%		100.0%							
Methuen	14	1.8%		100.0%							
Tewksbury	14	1.8%		100.0%							
Westford	14	1.8%		50.0%						50.0%	
Amherst, NH	7	0.9%		100.0%							
Cambridge: Unspecified	7	0.9%				100.0%					
Danvers	7	0.9%									100.0%
Haverhill	7	0.9%		100.0%							
Littleton	7	0.9%							100.0%		
Salem	7	0.9%				100.0%					
Stoneham	7	0.9%						100.0%			
Belmont	5	0.6%				100.0%					
Wakefield	5	0.6%				100.0%					
Other (< 0.5 % of riders)	4	0.5%				100.0%					
OVERALL TOTAL	810	100.0%	1.8%	46.1%	5.5%	27.9%	0.6%	11.3%	2.6%	2.6%	1.5%

Commuter Rail Survey

### **Destination Locations and Activities**

**Expanded Results** 

**Fitchburg Line** Exit Station: All Stations West of Porter Square

DESTINATION LOCA	TIONS		DESTINATION ACTIVITIES									
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other	
Waltham	494	49.7%	1.1%	0.8%	17.3%	75.7%		0.8%		2.4%	1.9%	
Concord	138	13.9%		3.2%	10.7%	81.1%	4.9%					
Acton	95	9.6%		70.6%		19.3%				10.1%		
Leominster	38	3.9%	25.0%	75.0%								
Ayer	29	2.9%		66.7%		33.3%						
Watertown	28	2.9%				75.2%				24.8%		
Lincoln	23	2.3%		84.4%		15.6%						
Maynard	21	2.1%				100.0%						
Fitchburg	19	1.9%				100.0%						
Belmont	17	1.8%				79.4%					20.6%	
Unspecified	15	1.5%		35.1%						64.9%		
Shirley	14	1.4%		100.0%								
Ashburnham	10	1.0%		100.0%								
Hudson	10	1.0%				100.0%						
Lancaster	10	1.0%		100.0%								
Littleton	10	1.0%				100.0%						
Weston	10	1.0%									100.0%	
Westford	5	0.5%				100.0%						
Other (< 0.5 % of riders)	8	0.8%				100.0%						
OVERALL TOTAL	993	100.0%	1.5%	18.2%	10.1%	63.0%	0.7%	0.4%		3.8%	2.3%	

Commuter Rail Survey

### Destination Locations and Activities

Expanded Results

#### **Framingham/Worcester Line** Exit Station: All Stations West of Back Bay

DESTINATION LOCATION	ONS				DE	STINATIC	N ACTIV	<b>ITIES</b>			
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Boston: Longwood Med Area	229	20.7%	1.8%			98.2%					
Natick	169	15.2%		28.9%		55.4%		9.8%	5.9%		
Boston: Fenway	167	15.0%				100.0%					
Wellesley	116	10.5%		14.2%	5.8%	68.0%	4.7%			2.5%	4.7%
Worcester	88	7.9%		42.9%	6.3%	33.1%		6.3%	5.1%		6.3%
Framingham	72	6.5%		38.6%		46.0%					15.4%
Boston: B U	32	2.9%				100.0%					
Grafton	29	2.7%		18.7%	25.0%	37.5%					18.7%
Cambridge: Kendall/MIT	28	2.5%				100.0%					
Newton	25	2.2%		22.3%		45.4%		20.6%			11.7%
Ashland	18	1.7%		54.3%		30.0%		15.7%			
Westborough	17	1.6%		16.8%		51.1%					32.1%
Waltham	16	1.5%			20.1%	79.9%					
Unspecified	11	1.0%				49.7%			50.3%		
Weston	11	1.0%		100.0%							
Marlborough	10	0.9%				100.0%					
Boston: Prudential/Hancock	9	0.8%				100.0%					
Southborough	9	0.8%				37.3%			62.7%		
Other (< 0.5 % of riders)	52	4.7%		42.3%		28.8%			7.7%		21.2%
OVERALL TOTAL	1,108	100.0%	0.4%	16.9%	2.1%	70.3%	0.5%	2.7%	2.7%	0.3%	4.2%

Commuter Rail Survey

### Destination Locations and Activities

Expanded Results

**Needham Line** Exit Station: All Stations West of Ruggles

DESTINATION LOCAT	IONS				DESTINATION ACTIVITIES						
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Needham	233	67.3%		42.3%		34.6%		11.5%	11.5%		
Boston: West Roxbury	72	20.7%		87.5%						12.5%	
Boston: Roslindale	25	7.3%	28.7%	71.3%							
Wellesley	9	2.6%				100.0%					
Boston: Jamaica Plain	4	1.0%				100.0%					
Unspecified	4	1.2%	100.0%								
Other (< 0.5 % of riders)	0	0.0%									
OVERALL TOTAL	347	100.0%	3.2%	51.7%		26.9%		7.8%	7.8%	2.6%	

Commuter Rail Survey

### Destination Locations and Activities

Expanded Results

#### Franklin Line Exit Station: All Stations South of Ruggles

DESTINATION LOCAT	FIONS				DES	STINATIO	ΟΝ ΑCTΙ	/ITIES			
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Norwood	155	32.2%		66.7%		24.1%		9.2%			
Franklin	72	14.9%	10.0%	84.8%					5.2%		
Walpole	54	11.1%		79.8%		7.0%		13.3%			
Dedham	36	7.5%		58. <b>9</b> %		41.1%					
Westwood	33	6.9%		11.2%		88.8%					
Boston: Hyde Park	21	4.4%		100.0%							
Medfield	18	3.7%		100.0%							
Foxborough	14	3.0%		100.0%							
Norfolk	14	3.0%		100.0%							
Wrentham	14	3.0%		100.0%							
Bellingham	11	2.3%	34.3%	65.7%							
Unspecified	11	2.3%		34.3%							65.7%
Blackstone	7	1.5%		100.0%							
Medway	7	1.5%		100.0%							
Plainville	7	1.5%		100.0%							
Sharon	7	1.5%		100.0%							
Other (< 0.5 % of riders)	0	0.0%									
OVERALL TOTAL	482	100.0%	2.3%	73.3%		17.7%		4.4%	0.8%		1.5%

Commuter Rail Survey

### Destination Locations and Activities

**Expanded Results** 

**Providence/Stoughton Line** Exit Station: All Stations South of Ruggles

DESTINATION LOCAT					DES	STINATIO	ON ACTIV	/ITIES			
City/Neighborhood Destinations		Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Providence, RI	403	28.9%		25.0%	11.4%	45.5%		2.3%	6.8%	4.5%	4.5%
Attleboro	181	12.9%	1.7%	57.4%		20.6%	10.1%				10.1%
Canton	140	10.0%		45.7%		47.8%					6.5%
Westwood	103	7.4%	13.2%	44.5%		42.2%					
Sharon	70	5.0%		78.7%	11.5%	9.8%					
Boston: Hyde Park	66	4.7%		41.6%		35.1%		9.4%		13.9%	
Foxborough	55	3.9%		83.3%				16.7%			
Mansfield	50	3.6%		18.3%		81.7%					
Unspecified	46	3.3%	20.0%	20.0%				20.0%			40.0%
Easton	37	2.6%		100.0%							
Stoughton	37	2.6%		100.0%							
Warwick, RI	27	2.0%		66.7%							33.3%
Norwood	23	1.6%		40.2%		59.8%					
Pawtucket, RI	21	1.5%		86.0%						14.0%	
Barrington, RI	18	1.3%		50.0%							50.0%
Fall River	18	1.3%		100.0%							
Lincoln, RI	18	1.3%		100.0%							
Norton	18	1.3%		50.0%							50.0%
Walpole	18	1.3%		50.0%							50.0%
Cranston, RI	9	0.7%		100.0%							
Dedham	9	0.7%									100.0%
Medfield	9	0.7%		100.0%							
Unspecified, RI	9	0.7%								100.0%	
Other (< 0.5 % of riders)	10	0.7%				69.6%			30.4%		
OVERALL TOTAL	1,396	100.0%	1.8%	47.4%	3.9%	30.2%	1.3%	2.4%	2.2%	2.8%	7.9%

Commuter Rail Survey

### Destination Locations and Activities

#### Expanded Results

**Fairmount Line** Exit Station: All Stations South of South Station

DESTINATION LOCATIONS				DESTINATION ACTIVITIES							
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Boston: Mattapan	12	41.0%	100.0%								
Boston: Hyde Park	10	35.0%				100.0%					
Boston: North Dorchester	4	12.0%			50.0%						50.0%
Dedham	2	6.0%		100.0%							
Westwood	2	6.0%		100.0%							
Other (< 0.5 % of riders)	0	0.0%									
OVERALL TOTAL	30	100.0%	41.0%	12.0%	6.0%	35.0%					6.0%

# **T**<u>MBTA Surveys: 2008-09</u>

Commuter Rail Survey

#### Destination Locations and Activities

Expanded Results

**Middleborough Line** Exit Station: All Stations South of South Station

DESTINATION LOCATION	ONS				DE	STINATIO	ON ACTIV	ITIES			
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Brockton	68	20.2%		31.4%		53.0%					15.7%
Bridgewater	59	17.4%	18.2%	36.3%		45.5%					
Boston: North Dorchester	42	12.6%	9.8%		28.6%	61.6%					
Boston: Longwood Med Area	39	11.6%				100.0%					
Quincy	38	11.2%			16.9%	83.1%					
Middleborough	21	6.3%		50.0%							50.0%
Braintree	13	3.9%				100.0%					
East Bridgewater	11	3.2%		100.0%							
Randolph	11	3.3%		100.0%							
Boston: So Bos Res	8	2.5%				100.0%					
Boston: South End	6	1.9%				100.0%					
Cambridge: Harvard Square	6	1.7%				100.0%					
Raynham	5	1.6%		100.0%							
Unspecified	5	1.6%				100.0%					
Boston: Beacon Hill	4	1.2%						100.0%			
Other (< 0.5 % of riders)	0	0.0%									
OVERALL TOTAL	337	100.0%	4.4%	23.9%	5.5%	58.8%		1.2%			6.3%

Note: Totals shown may differ from column total because of rounding.

# **T**<u>MBTA Surveys: 2008-09</u>

Commuter Rail Survey

#### **Destination Locations and Activities**

Expanded Results

**Kingston/Plymouth Line** Exit Station: All Stations South of South Station

DESTINATION LOCATION	ONS				DE	STINATIO	ON ACTIV	/ITIES			
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Boston: North Dorchester	52	28.4%			38.8%	61.2%					
Boston: Longwood Med Area	28	15.4%				100.0%					
Quincy	25	13.5%		9.0%		91.0%					
Braintree	14	7.6%	69.1%			30.9%					
Plymouth	11	6.1%	40.0%	20.0%				20.0%	20.0%		
Abington	7	3.7%		100.0%							
Boston: South End	7	3.6%				100.0%					
Brookline: North Brookline	7	3.6%				100.0%					
Boston: Waterfront	4	2.4%				100.0%					
Hanover	4	2.4%		100.0%							
Holbrook	4	2.4%				100.0%					
Rockland	4	2.4%		100.0%							
Unspecified	4	2.4%									100.0%
Weymouth	4	2.4%		50.0%				50.0%			
Halifax	2	1.2%	100.0%								
Pembroke	2	1.2%		100.0%							
Whitman	2	1.2%		100.0%							
Other (< 0.5 % of riders)	0	0.0%									
OVERALL TOTAL	183	100.0%	8.9%	14.7%	11.0%	59.4%		2.4%	1.2%		2.4%

Note: Totals shown may differ from column total because of rounding.

# **T**<u>MBTA Surveys: 2008-09</u>

Greenbush Line Survey

#### Destination Locations and Activities

Expanded Results

#### Greenbush Line

Exit Station: All Stations South of South Station

DESTINATION LOCATIO	ONS				DE	STINATIC	N ACTIV	<b>ITIES</b>			
City/Neighborhood Destinations	Total Riders	Pct. of Riders	No Resp.	Home	School	Work	Store	Pers. Bus.	Work- rel.	Social/ Rec.	Other
Boston: Longwood Med Area	37	26.0%				100.0%					
Scituate	27	18.8%		66.7%							33.3%
Weymouth	27	18.8%		100.0%							
Boston: North Dorchester	13	8.8%			41.5%	58.5%					
Braintree	9	6.3%		100.0%							
Hingham	9	6.3%		100.0%							
Quincy	9	6.0%				60.4%		39.6%			
Boston: South End	7	4.8%				100.0%					
Boston: Govt Center	3	2.4%				100.0%					
Boston: Waterfront	3	1.9%				100.0%					
Other (< 0.5 % of riders)	0	0.0%									
OVERALL TOTAL	144	100.0%		43.8%	3.7%	43.9%		2.4%			6.3%

Note: Totals shown may differ from column total because of rounding.

# Origin-Destination Cross-tabulation

The data in Chapter 4 of this report show, for riders who began their commuter rail trips on each line, the origin locations of their entire trips by city, town, or neighborhood. The data in Chapter 7 show the final destination locations, by city, town, or neighborhood, of these same riders.

In this chapter, the type of table presented provides, for the passengers who entered the commuter rail system on each line, a cross-tabulation between the origins of the passengers' entire trips and the final destinations of these trips, regardless of where they exited the commuter rail system. A table is presented for each commuter rail line at the end of the chapter. Chapter 2 addresses the same categories of data that are addressed in the present chapter, but at the level of the commuter rail system as a whole. It includes tables and discussion.

# 8.1 DESCRIPTION OF TABLE

The origin-destination cross-tabulation table for each line is based on the responses to survey questions 4b and 9b, which asked riders to state the location of the starting and ending points of the trips they were making when they received the survey forms. Respondents were asked to provide the following information about these locations: address, or nearest intersection or landmark; city, town, or neighborhood; state; and zip code. However, many of the responses were less detailed than this. In such cases, missing details were inferred to the extent possible from other information provided, such as the transit boarding and alighting points, the modes of access and egress, and the access and egress times.

In the systemwide passenger survey of which this commuter rail survey is a part, the responses about origin locations were aggregated by city or town, except in four municipalities: in Boston, they were broken into 26 neighborhoods, in Cambridge into 6, in Somerville into 4, and in Brookline into 3. All of these neighborhoods are shown in Figure 4-1. In the table, for trips originating from outside of Massachusetts, the city and the state are given.

The neighborhood names and boundaries used in the survey databases conform to definitions that have been used by CTPS in previous surveys, and they do not all match the names used by survey respondents. For example, locations reported as "Chinatown" in survey responses were included in "Boston: Park Square" in the databases.

The table for each entry station shows a maximum of 18 origins (in rows) and 10 destinations (in columns). For each station, the origins included are those with the largest total numbers of reported trip beginnings, regardless of reported destination. The rows of origins are arranged in descending order of size. Any origins below the top 18 are combined as "other," in a nineteenth row.

Similarly, the destinations included in each table are those with the largest total numbers of trip ends, regardless of reported origin. The columns of destinations are arranged in descending order of size. Any origins below the top 10 are combined as "other," in an eleventh column.

For each line, the destination most frequently reported by all riders combined was often, though not always, the same as the one most frequently reported by the riders who were coming from the most frequently reported origin. Therefore, the most common origin-destination pair was often, though not always, the one in the first column of the first row in the table.

The entries in the "other" row and "other" column show, both in absolute numbers and in percentages, the importance, respectively, of origins not shown for each destination listed and of destinations not shown for each origin listed. If information on specific "other" origins or destinations is desired, custom reports can be generated.

# 8.2 OVERVIEW OF RESULTS

On every line in the commuter rail system, the most common destination of trips from all origins combined was the Financial/Retail District. On all but two lines it was also the most common destination for trips from each of at least the five most common origins. For the commuter rail system overall, the next four most common destination locations were the Government Center, Boston Waterfront, Prudential/Hancock District, and South Boston Industrial Area neighborhoods of Boston. However, the relative importance of these destinations varied among lines, and no line had all four of these among the top five destinations.

Within Boston, the only neighborhood outside Boston Proper other than the South Boston Industrial Area that was among the top 10 destinations for the system overall was the Longwood Medical Area. At least one of these two neighborhoods was among the top 10 destinations on all but two lines. The Kendall/MIT neighborhood of Cambridge was the only destination outside Boston that was one of the top 10 for the commuter rail system overall. It was also one of the top 10 destinations on all but two lines.

Once again, it should be noted that the surveys were only distributed to passengers on each line between about 6:00 AM and 3:30 PM on one weekday. The travel directions during these hours was predominantly inbound. If surveys

had been distributed later in the day, non-Boston destinations would have been much more prevalent.

#### **North Side**

*Newburyport/Rockport Line* For passengers entering all stations combined on this line, the largest single origin-destination combination was from the city of Beverly to the Financial/Retail District in Boston. However, with the large number of origin-destination combinations reported, this one accounted for less than 4% of the total trips. The second- and third-largest origin-destination pairs were from Beverly to Government Center and from Salem to the Financial/Retail District, each with a little over 2% of the ridership. Each of the other individual pairs accounted for less than 2% of the total.

*Haverhill Line* For passengers entering all stations combined on this line, the largest single origin-destination combination was from the town of Reading to the Financial/Retail District in Boston. This pair accounted for just slightly over 3% of the total trips. The second- and third-largest origin-destination pairs were from the town of Wakefield to the Financial/Retail District and to Government Center, each with between 2% and 3% of the ridership. The only other individual pairs accounting for over 2% of the total were from the town of Andover to the Financial/Retail District and from Reading to Government Center.

*Lowell Line* For passengers entering all stations combined on this line, the largest single origin-destination combination was from the town of Winchester to the Financial/Retail District in Boston. This pair accounted for under 5% of the total trips. The second- and third-largest origin-destination pairs were to Government Center from Winchester and from the city of Lowell, each with between 2% and 3% of the ridership. Each of the other individual pairs accounted for less than 2% of the total.

*Fitchburg Line* For passengers entering all stations combined on this line, the largest single origin-destination combination was from the town of Acton to the Kendall/MIT neighborhood of Cambridge. This pair accounted for slightly over 2% of the total trips. The two next-largest origin-destination pairs were from Acton and from the town of Concord to the Boston Financial/Retail District, each with 1% to 2% of the ridership. Of the other origin-destination pairs with shares of over 1%, the most notable was from the Davis Square neighborhood of Somerville to the city of Waltham, as neither trip end was in either Boston or Cambridge.

#### South Side

*Framingham/Worcester Line* For passengers entering all stations combined on this line, the largest single origin-destination combination was from the town of Wellesley to the Boston Financial/Retail District. This pair accounted for slightly les than 4% of the total trips. The next-largest origin-destination pair was from the town of Natick to the Financial/Retail District, with slightly over 3% of the ridership. No other origin-destination pair accounted for as

much as 3% of the total, and the only other one with more than 2% was from the town of Framingham to the Financial/Retail District.

*Needham Line* For passengers entering all stations combined on this line, the largest single origin-destination combination was from the town of Needham to the Boston Financial/Retail District. This line has a relatively small service area, so the top origin-destination pair accounted for over 12% of the total trips. The second-largest origin-destination pair was from the West Roxbury neighborhood of Boston to the Financial/Retail District, with about 6% of the ridership. The two next-largest combinations, each with about 3%, were from Needham to the Prudential/Hancock District of Boston, and from the Roslindale neighborhood of Boston to the Financial/Retail District.

*Franklin Line* For passengers entering all stations combined on this line, the largest single origin-destination combination was from the town of Norwood to the Boston Financial/Retail District. This pair accounted for just over 4% of the total trips. The second-largest origin-destination pair was from the West Roxbury neighborhood of Boston to the Financial/Retail District, with about 6% of the ridership. The two next-largest combinations, each with 2% to 3%, were from the towns of Walpole and Franklin to the Financial/Retail District. All other origin-destination pairs had shares of less than 2%.

*Providence/Stoughton Line* For passengers entering all stations combined on this line, the largest single origin-destination combination was from the city of Attleboro to the Financial/Retail District in Boston. However, with the large number of origin-destination combinations reported, this one accounted for less than 2% of the total trips. The three next-largest combinations, each with 1% to 2% of the total trips, were to the Financial/Retail District from the towns of Mansfield, Canton, and Stoughton.

*Fairmount Line* The Fairmount Line is the shortest line in the commuter rail system. It is the only one located entirely within Boston city limits, and it has the lowest total ridership in the system. The largest single origin-destination combination was from the Hyde Park neighborhood of Boston to the Financial/Retail District, with over 10% of the total trips. The second-largest pair was from Hyde Park to the Government Center neighborhood, with about 9%. The only other origin-destination pair with a share of over 5% of the trips was from the town of Dedham to the Financial/Retail District, with about 8%.

*Middleborough/Lakeville Line* For passengers entering all stations combined on this line, the largest single origin-destination combination was from the city of Brockton to the Financial/Retail District in Boston. This pair accounted for over 8% of the total trips. The second-largest combination was from Brockton to the Boston Waterfront neighborhood, with just under 5%. Trips from the town of Bridgewater to the Financial/Retail District were third, with just over 4%. Trips from Brockton to the Government Center neighborhood of Boston accounted for slightly over 3% of the total, but all of the other pairs had shares of less than 3% each.

*Kingston/Plymouth Line* For passengers entering all stations combined on this line, the largest single origin-destination combination was from the town of Plymouth to the Financial/Retail District in Boston. This pair accounted for just over 5% of the total trips. The second-largest combination was from the town of Pembroke to the Financial/Retail District, with just over 3%. All of the other pairs had shares of less than 3% each.

*Greenbush Line* For passengers entering all stations combined on this line, the largest single origin-destination combination was from the city of Weymouth to the Financial/Retail District in Boston. This pair accounted for over 6% of the total trips. Trips to the Financial/Retail District from the towns of Scituate and Hingham were next, with 5% and 6%, respectively. All other pairs had shares of less than 5% each, and almost all of these were below 4%.



## Origin-Destination Cross-tabulation

Expanded Results

Newburyport/Rockport Line Entry Station: All Stations

Origin Town/ Neighborhood:	Boston: Financial/R etail	Boston: Govt Center	Boston: North End	Boston: Beacon Hill	Boston: Park Square	Cambridge : Kendall/MI	Salem	Lynn	Boston: Unspecifie d	Beverly	Other & % of Row	Row Total & % of Overall
Beverly	273	168	105	78	92	67	13	73	42	8	452	1437
											31.4%	
Salem	157	119	80	73	80	62	0	5	37	1	525	1187
											44.2%	
Gloucester	74	74	27	37	56	36	7	35	30	18	210 <i>34.3%</i>	613
										10		
Lynn	53	44	58	37	6	26	11	0	26	13	189 <i>39.8%</i>	474 <i>6.1%</i>
lucau dala	00	24	10	15	20	10	10	10	10	3		
Ipswich	88	24	13	15	20	18	13	12	18	3	86 <i>26.8%</i>	322 <i>4.2%</i>
Swampscott	33	36	27	21	21	30	8	3	15	8	106	307
Swampscott	33	30	21	21	21	30	0	3	15	0	34.7%	
Danvers	74	62	24	10	15	10	0	0	5	0	53	273
							-	-	-	-	19.6%	
Newburyport	42	26	21	28	5	13	11	4	6	4	74	240
											30.8%	3.1%
Marblehead	47	18	21	29	15	15	0	0	3	0	86	238
											36.0%	3.1%
Manchester	54	17	21	25	0	6	3	0	21	3	51	217
											23.4%	2.8%
Hamilton	49	19	23	9	15	6	0	0	15	0	56	217
											25.8%	2.8%
Peabody	33	32	15	15	11	14	0	0	8	0	76	208
											36.4%	2.7%
Rockport	18	11	24	12	13	7	5	0	14	7	77	208
											39.3%	
Chelsea	12	12	0	12	12	12	5	0	12	24	37	140
											26.4%	
Boston: Govt Center	0	0	0	0	0	0	16	13	0	21	64	114
											55.7%	
Rowley	21	16	16	9	12	8	0	0	0	0	21 <i>20.5%</i>	103 <i>1.3%</i>
Boston: North End	0	0	0	0	0	0	0	11	0	48	40	99
BOSION. NORTH ENG	0	0	U	0	0	0	0		0	40	40	
Unspecified	7	3	5	0	3	3	2	15	11	2	37	91
		0	Ū	Ŭ	5		-			-	40.2%	
Other &	61	56	24	47	21	25	215	126	28	101	440	1162
% of Column	5.5%	7.6%	4.7%	10.0%	5.3%		69.1%	41.3%	9.6%	38.2%	37.9%	
Column Total &	1118	742	511	465	396	359	312	305	293	264	2697	7717
% of Overall	14.5%	9.6%	6.6%	6.0%	5.1%		4.0%	4.0%	3.8%	3.4%	34.9%	



## Origin-Destination Cross-tabulation

Expanded Results

Haverhill Line Entry Station: All Stations

Origin Town/ Neighborhood:	Boston: Financial/R etail	Boston: Govt Center	Boston: Beacon Hill	Boston: North End	Cambridge : Kendall/MI		Boston: Longwood Med Area	Boston: Park Square	Boston: So Bos Indust	Boston: Waterfront	Other & % of Row	Row Total & % of Overall
Reading	115	80	51	49	33	15	30	37	28	19	74	556
											13.3%	14.8%
Haverhill	92	26	43	33	30	26	12	15	15	33	108	447
											24.1%	11.9%
Wakefield	112	93	36	45	7	29	23	26	4	0	64	444
											14.5%	11.8%
Andover	83	13	21	35	39	23	15	23	13	11	83	371
											22.3%	9.9%
Melrose	63	34	40	47	20	6	9	11	44	16	40	329
											12.2%	8.8%
North Andover	40	27	8	31	18	5	7	5	6	10	23	188
											12.0%	5.0%
Lawrence	33	14	12	13	9	9	11	15	0	3	59	186
											31.4%	5.0%
Methuen	27	30	12	15	9	12	21	11	3	0	21	169
	27						2.		Ū		12.3%	4.5%
North Reading	21	12	9	10	2	0	4	6	7	9	0	89
			-		_			-			0.0%	2.4%
Wilmington	17	20	7	0	0	0	20	7	0	0	7	82
3.4											8.0%	2.2%
Boston: Govt Center	0	0	0	0	0	0	0	0	0	0	68	68
		Ŭ	0				Ū		0		100.0%	1.8%
Unspecified	12	5	9	0	0	12	0	0	0	3	18	62
onspecified	12	5	,	0	0	12	Ū	0	0	5	29.0%	1.6%
Stoneham	12	13	6	3	0	8	10	3	0	0	3	62
		10	0				10		Ū	Ű	4.8%	1.6%
Lynnfield	11	14	0	11	4	4	0	0	0	0	11	54
Lymmend		14	0				0	0	0	0	20.0%	1.4%
Boston:	0	0	0	0	0	0	0	0	0	0	53	53
Financial/Retail	0	0	0	0	0	0	0	0	0	0	100.0%	1.4%
		0			0	0	0	0				
Boston: North End	0	0	0	0	0	0	0	0	0	0	34 <i>100.0%</i>	34 <i>0.9%</i>
Attriangen NUL	2	(	0		3	9	3	0	0	0		
Atkinson, NH	3	6	0	6	3	9	3	0	0	0	0 <i>0.0%</i>	33 <i>0.9%</i>
Boston: Back Bay	0	0	0	0	0	0	0	0	0	0	32	32
											100.0%	0.8%
Other & % of Column	38	27	51	22	6	20	6	3	4	19	262	463
	5.6%	6.5%	15.9%		3.4%		3.4%	1.9%	2.9%			12.4%
Column Total & % of Overall	681	414	320	319	180	177	176	161	126	124	959	3748
	18.2%	11.0%	8.5%	8.5%	4.8%	4.7%	4.7%	4.3%	3.4%	3.3%	25.6%	



## Origin-Destination Cross-tabulation

Expanded Results

**Lowell Line** Entry Station: All Stations

Origin Town/ Neighborhood:	Boston: Financial/R etail	Boston: Govt Center	Boston: North End	Boston: Park Square	Lowell	Boston: Beacon Hill		Unspecifie	Cambridge : Kendall/MI	Boston: Back Bay	Other & % of Row	Row Total & % of Overall
Winchester	246	151	45	41	7	66	27	51	61	37	143	906
											15.8%	17.0%
Lowell	103	130	58	42	0	13	43	47	25	29	219	734
											29.9%	13.8%
Medford	53	41	50	35	7	21	42	7	5	21	86	370
											23.4%	6.9%
Billerica	49	30	52	17	0	14	17	11	3	15	59	293
											20.3%	5.5%
Chelmsford	62	46	20	18	0	6	12	7	34	6	63	289
											22.0%	5.4%
Wilmington	72	46	28	10	7	29	6	6	6	6	54	287
											18.6%	5.4%
Woburn	58	35	14	14	10	14	26	7	12	4	57	254
											22.6%	4.8%
Tewksbury	61	41	26	19	0	12	6	16	14	0	25	236
											10.8%	4.4%
Nashua, NH	38	43	17	14	0	6	3	8	12	0	22	163
											13.5%	3.1%
Dracut	32	27	17	7	0	7	0	0	13	10	17	134
											12.6%	2.5%
Westford	33	22	6	0	0	10	18	0	6	0	13	108
											12.3%	2.0%
Andover	37	24	4	10	0	0	4	7	0	7	11	103
											10.4%	1.9%
Burlington	17	5	4	7	0	10	17	6	0	4	17	103
											18.2%	1.9%
North Andover	31	13	0	7	0	10	0	0	0	7	13	85
											15.5%	1.6%
Boston:	0	0	0	0	7	0	0	0	0	0	78	85
Financial/Retail											91.7%	1.6%
Boston: North End	0	0	0	0	28	0	0	0	0	0	49	77
											63.8%	1.4%
Boston: Beacon Hill	0	0	0	0	21	0	0	0	0	0	49	70
											70.2%	1.3%
Arlington	7	5	20	0	7	0	0	0	0	0	21	60
											35.3%	1.1%
Other &	91	83	40	33	162	44	31	47	13	26	344	935
% of Column	9.2%	11.2%	10.1%	12.0%	60.1%	16.8%	12.5%	21.3%	6.4%	15.4%	36.8%	17.5%
Column Total &	990	745	399	273	269	260	251	222	204	171	1385	5340
% of Overall	18.5%	13.9%	7.5%	5.1%	5.0%	4.9%	4.7%	4.2%	3.8%	3.2%	25.9%	



## Origin-Destination Cross-tabulation

Expanded Results

Fitchburg Line Entry Station: All Stations

Origin Town/ Neighborhood:	Boston: Financial/R etail	Waltham	Govt	Cambridge : Kendall/MI		Cambridge : Harvard Square	Boston: Beacon Hill	Concord	Boston: Park Square	Boston: Waterfront	Other & % of Row	Row Total & % of Overall
Acton	68	12	34	95	29	39	11	0	8	22	114	431
											26.4%	10.0%
Concord	72	3	57	19	38	50	21	4	13	3	101	381
											26.6%	8.8%
Waltham	59	0	39	20	35	38	29	0	0	10	144	375
											38.5%	8.7%
Fitchburg	9	26	8	17	9	0	6	4	14	9	61	167
											36.5%	3.9%
Leominster	17	12	0	33	0	17	0	0	13	0	72	165
											43.7%	3.8%
Cambridge: North	0	44	0	0	30	0	0	15	0	0	45	142
Cambridge											31.3%	3.3%
Ayer	13	4	12	4	18	14	7	7	4	11	30	123
											24.2%	2.9%
Somerville: Spring Hill	0	45	0	0	20	0	0	10	0	0	40	115
											34.6%	2.7%
Littleton	27	0	17	9	0	12	3	0	8	0	29	106
											27.0%	2.5%
Groton	21	0	6	3	0	14	4	0	3	14	40	105
											38.4%	2.4%
Sudbury	16	0	12	10	0	0	10	0	6	7	38	99
											38.1%	2.3%
Belmont	0	0	20	0	20	0	0	5	9	22	20	96
											21.0%	2.2%
Somerville: Davis	0	61	0	0	20	0	0	15	0	0	0	96
Square											0.0%	2.2%
Weston	34	0	13	10	18	0	10	0	0	0	8	92
											8.2%	2.1%
Maynard	11	0	14	6	8	15	0	0	3	3	28	86
											32.1%	2.0%
Stow	16	0	12	11	12	8	6	0	0	0	19	84
											22.8%	2.0%
Lincoln	15	0	7	3	0	10	8	0	5	10	19	77
											24.1%	1.8%
Boston: North End	0	46	0	0	0	0	0	0	0	0	24	70
											34.7%	1.6%
Other &	132	232	114	116	87	74	42	58	49	24	428	1428
% of Column	25.8%	47.1%	30.4%	32.7%	25.4%	25.3%	26.9%	41.9%	35.8%	18.0%	30.0%	33.2%
Column Total &	512	494	375	355	344	291	156	138	136	133	1279	4307
% of Overall	11.9%	11.5%	8.7%	8.2%	8.0%	6.8%	3.6%	3.2%	3.1%	3.1%	29.7%	



## Origin-Destination Cross-tabulation

Expanded Results

Framingham/Worcester Line Entry Station: All Stations

Origin Town/ Neighborhood:	Boston: Financial/R etail	Boston: Prudential/ Hancock	Boston: Waterfront	Boston: Back Bay	Boston: So Bos Indust	Boston: Govt Center	Boston: Park Square	Longwood	Cambridge : Kendall/MI	Boston: Unspecifie d	Other & % of Row	Row Total & % of Overall
Natick	214	74	45	76	49	49	22	86	54	41	155	910
											17.1%	13.9%
Framingham	162	54	67	32	67	57	53	43	53	23	124	771
											16.1%	11.8%
Wellesley	254	77	67	30	22	34	30	15	11	30	72	649
											11.1%	9.9%
Newton	102	79	44	30	54	24	31	20	11	5	92	504
											18.3%	7.7%
Worcester	85	54	16	49	30	22	26	21	10	20	118	462
											25.5%	7.0%
Ashland	67	43	40	14	11	25	10	15	15	5	59	316
											18.7%	4.8%
Shrewsbury	37	32	47	25	10	20	16	8	20	10	39	272
-											14.5%	4.1%
Grafton	38	16	27	16	17	11	22	11	27	14	41	242
											17.0%	3.7%
Westborough	29	26	29	20	9	10	5	19	5	14	18	211
-											8.6%	3.2%
Hopkinton	40	23	7	21	15	3	18	13	11	8	18	188
											9.8%	2.9%
Marlborough	45	19	31	18	4	11	8	4	0	10	25	175
											14.3%	2.7%
Southborough	34	25	15	8	4	15	8	3	8	4	31	158
_											19.3%	2.4%
Holliston	25	15	19	7	3	4	3	4	9	8	24	158
											18.5%	2.4%
Sherborn	23	11	7	4	4	11	0	4	4	4	11	82
											13.8%	1.2%
Northborough	5	9	9	9	5	5	14	5	4	0	5	76
											6.7%	1.2%
Unspecified	4	14	0	5	3	0	17	4	0	5	18	71
											26.1%	
Wayland	36	8	12	0	0	4	0	0	0	8	0	68
5											0.0%	1.0%
Milford	7	18	0	0	7	11	7	3	4	4	4	65
			-	-				_			5.6%	
Other &	158	55	87	93	57	37	17	26	21	14	552	1156
% of Column	11.5%	8.1%	15.3%	20.0%	15.3%	10.1%	5.3%	8.5%	8.0%		47.8%	17.6%
Column Total &	1374	670	569	462	371	362	311	306	265	232	1408	6558
% of Overall	21.0%	10.2%	8.7%	7.0%	5.7%	5.5%	4.7%	4.7%	4.0%		21.5%	



## Origin-Destination Cross-tabulation

Expanded Results

**Needham Line** Entry Station: All Stations

Origin Town/ Neighborhood:	Boston: Financial/R etail	Boston: Waterfront	Needham	Boston: Prudential/ Hancock	Boston: Govt Center	Boston: Back Bay	Boston: So Bos Indust	Boston: Park Square	Boston: Longwood Med Area	Boston: Fenway	Other & % of Row	Row Total & % of Overall
Needham	388	123	0	126	68	79	72	113	40	42	210	1261
											16.6%	40.6%
Boston: West Roxbury	176	91	0	46	89	59	53	40	36	25	106	722
											14.6%	23.3%
Boston: Roslindale	120	29	0	9	41	51	35	4	28	18	83	417
											19.9%	13.4%
Dover	33	15	0	11	7	3	0	4	3	0	15	92
											16.5%	3.0%
Dedham	30	0	0	0	3	0	12	4	0	3	8	61
											12.5%	2.0%
Medfield	21	8	0	11	0	8	0	0	0	0	4	51
											7.1%	1.6%
Boston: Financial/Retail	0	0	18	0	0	0	0	0	0	0	9 <i>20.0%</i>	45 <i>1.4%</i>
Boston: Govt Center	0	0	18	0	0	0	0	0	0	0	0	36
		-		-	-	-	-		-	-	0.0%	1.2%
Boston: Waterfront	0	0	18	0	0	0	0	0	0	0	9	36
						-					25.0%	1.2%
Boston:	0	0	18	0	0	0	0	0	0	0	8	35
Prudential/Hancock											22.7%	1.1%
Newton	12	12	0	0	4	4	0	0	0	0	0	32
											0.0%	1.0%
Boston: Jamaica Plain	11	6	0	0	0	0	12	0	0	0	0	29
											0.0%	0.9%
Boston: Fenway	0	0	18	0	0	0	0	0	0	0	0	29
											0.0%	0.9%
Cambridge:	0	0	18	0	0	0	0	0	0	0	0	18
Kendall/MIT											0.0%	0.6%
Boston: North End	0	0	18	0	0	0	0	0	0	0	0	18
											0.0%	0.6%
Boston: Beacon Hill	0	0	18	0	0	0	0	0	0	0	0	18
											0.0%	0.6%
Boston: Mattapan	0	0	0	0	0	6	11	0	0	0	0	18
											0.0%	0.6%
Wellesley	0	8	0	0	4	0	0	0	0	4	0	16
											0.0%	0.5%
Other &	0	16	90	16	0	0	0	0	0	7	20	158
% of Column	0.0%	5.1%	38.5%	7.4%	0.0%	0.0%	0.0%	0.0%	0.0%	7.2%	12.6%	5.1%
Column Total &	799	308	233	223	217	214	195	164	108	99	471	3103
% of Overall	25.7%	9.9%	7.5%	7.2%	7.0%	6.9%	6.3%	5.3%	3.5%	3.2%	15.2%	



## Origin-Destination Cross-tabulation

Expanded Results

**Franklin Line** Entry Station: All Stations

Origin Town/ Neighborhood:	Boston: Financial/R etail	Boston: Waterfront	Boston: Prudential/ Hancock	Boston: Longwood Med Area	Boston: Govt Center	Boston: So Bos Indust	Boston: Back Bay	Boston: Park Square	Cambridge : Kendall/MI	Boston: Unspecifie d	Other & % of Row	Row Total & % of Overall
Norwood	221	100	98	93	78	68	45	105	17	33	199	1056
											18.8%	19.3%
Franklin	119	82	106	44	32	73	49	35	82	13	99	735
											13.5%	13.4%
Walpole	137	60	37	42	60	65	34	34	10	27	109	615
											17.7%	11.2%
Dedham	113	34	95	24	64	22	35	55	31	19	97	590
											16.5%	10.8%
Norfolk	71	29	40	24	25	31	40	12	16	10	50	349
											14.3%	6.4%
Westwood	89	34	6	16	13	31	16	14	3	13	36	272
											13.3%	5.0%
Medfield	49	23	7	0	17	13	23	3	10	7	35	187
											18.7%	3.4%
Bellingham	17	4	0	28	9	12	29	17	0	16	37	169
											22.0%	3.1%
Wrentham	64	7	13	14	10	9	13	3	8	0	3	145
											2.1%	2.7%
Medway	21	23	14	13	6	7	16	0	3	6	11	126
											8.8%	2.3%
Boston: Hyde Park	17	12	0	7	16	5	21	5	0	2	12	97
											12.5%	1.8%
Unspecified	9	4	10	12	4	7	3	0	0	15	21	92
											22.5%	1.7%
Boston:	0	0	0	0	0	0	0	0	0	0	43	92
Financial/Retail											60.0%	1.7%
Milford	12	4	0	16	4	4	4	4	8	8	0	65
											0.0%	1.2%
Woonsocket, RI	13	0	4	4	0	5	4	4	0	0	18	53
											34.6%	1.0%
Mendon	12	16	0	4	4	0	0	16	0	0	0	53
											0.0%	1.0%
Boston: Govt Center	0	0	0	0	0	0	0	0	0	0	29	50
											57.1%	0.9%
Millis	7	6	0	9	0	4	4	7	0	4	6	47
											13.4%	0.9%
Other &	81	44	20	56	24	10	16	13	5	4	312	657
% of Column	7.7%	9.2%	4.5%	13.8%	6.6%	2.6%	4.6%	3.9%	2.6%	2.0%	47.5%	12.0%
Column Total &	1053	483	451	408	366	365	353	328	193	178	1139	5473
% of Overall	19.2%			7.5%	6.7%	6.7%	6.5%	6.0%	3.5%		20.8%	



## Origin-Destination Cross-tabulation

Expanded Results

Providence/Stoughton Line Entry Station: All Stations

Origin Town/ Neighborhood:	Boston: Financial/R etail	Boston: Prudential/ Hancock	Boston: Back Bay	Boston: Waterfront	Boston: Govt Center	Boston: Longwood Med Area	Boston: So Bos Indust	Boston: Unspecifie d	Boston: Park Square	Providence , RI	Other & % of Row	Row Total & % of Overall
Canton	177	114	92	52	107	106	106	70	27	0	197	1076
											18.3%	9.0%
Providence, RI	118	76	35	48	72	91	39	45	56	0	407	1073
											38.0%	8.9%
Mansfield	184	120	111	92	42	68	89	54	49	27	174	1034
											16.8%	8.6%
Sharon	158	44	81	78	59	81	63	45	57	9	171	855
											20.0%	7.1%
Attleboro	195	85	63	68	46	44	21	46	40	0	188	799
											23.5%	6.7%
Stoughton	164	76	31	58	63	31	59	47	30	0	94	696
											13.4%	5.8%
Easton	157	46	42	16	43	16	22	11	16	0	82	450
											18.2%	3.7%
Boston: Hyde Park	47	60	50	30	20	40	10	0	20	10	88	422
											20.8%	3.5%
North Attleborough	81	66	29	38	32	15	37	9	19	0	70	408
											17.2%	3.4%
Foxborough	71	21	62	17	29	24	31	15	11	0	58	366
											16.0%	3.0%
Pawtucket, RI	85	16	24	42	8	36	23	11	12	0	56	333
											16.9%	2.8%
Westwood	93	39	18	23	22	6	41	36	6	0	29	319
											9.1%	2.7%
Norton	53	25	9	29	35	13	22	4	9	0	18	319
											7.5%	2.7%
Unspecified	37	9	31	6	20	6	10	53	10	9	34	230
											14.6%	1.9%
Warwick, RI	50	7	10	26	0	24	14	7	7	0	26	188
											14.1%	1.6%
Cranston, RI	53	12	7	15	14	7	0	7	13	0	35	169
											20.9%	1.4%
Boston:	0	0	0	0	0	0	0	0	0	18	146	165
Financial/Retail											88.9%	1.4%
Taunton	33	36	4	4	9	20	0	14	11	0	24	160
											14.9%	1.3%
Other &	446	247	152	214	134	80	92	65	84	339	999	2898
% of Column	19.9%	21.9%	17.6%	24.8%	17.5%	11.2%	13.6%	11.8%	17.4%	82.1%	34.5%	24.1%
Column Total &	2239	1124	864	863	767	716	679	551	484	413	2916	12013
% of Overall	18.6%	9.4%	7.2%	7.2%	6.4%	6.0%	5.7%	4.6%	4.0%	3.4%	24.3%	



## Origin-Destination Cross-tabulation

Expanded Results

**Fairmount Line** Entry Station: All Stations

Origin Town/ Neighborhood:	Boston: Financial/R etail	Boston: Waterfront	Boston: Govt Center	Boston: So Bos Indust	Unspecifie	Cambridge : Kendall/MI	Boston: Mattapan	Boston: Hyde Park	Canton	Boston: Back Bay	Other & % of Row	Row Total & % of Overall
Boston: Hyde Park	47	15	40	3	9	5	0	0	0	0	25	148
											16.7%	32.3%
Dedham	34	14	3	7	3	7	0	0	0	0	3	72
											4.8%	15.8%
Boston: North Dorchester	18	9	0	9	0	0	0	0	9	9	0	54
											0.0%	11.9%
Boston: Mattapan	15	15	15	0	2	2	0	0	0	0	0	50
											0.0%	10.9%
Boston: South Dorchester	12	5	0	5	2	0	0	0	0	0	11	36
											31.5%	7.9%
Milton	16	5	0	3	0	0	0	0	0	0	0	25
											0.0%	5.5%
Boston: Waterfront	0	0	0	0	0	0	12	0	0	0	0 <i>0.0%</i>	12 <i>2.7%</i>
Somerville: Spring Hill	0	0	0	0	0	0	0	11	0	0	0.070	11
Some vine. Spring Hill	0	0	0	0	0	0	0		0	0	0.0%	2.3%
Boston: Unspecified	0	0	0	5	2	0	0	0	0	0	2	10
bostoni onspecifica	U U			0	2	Ū	Ű	Ű	Ũ	Ű	25.0%	2.2%
Canton	3	6	0	0	0	0	0	0	0	0	0	9
									-		0.0%	2.1%
Unspecified	3	5	0	0	0	0	0	0	0	0	0	9
											0.0%	1.9%
Westwood	0	0	3	0	0	0	0	0	0	0	0	3
											0.0%	0.8%
Norfolk	3	0	0	0	0	0	0	0	0	0	0	3
											0.0%	0.8%
Randolph	0	0	0	0	0	0	0	0	0	0	3	3
											100.0%	0.8%
Stoughton	0	0	3	0	0	0	0	0	0	0	0	3
											0.0%	0.8%
Boston:	0	0	0	0	0	0	0	0	0	0	2	2
Financial/Retail											100.0%	0.4%
Boston: So Bos Indust	0	0	0	0	0	0	0	0	0	0	0	2
											0.0%	0.4%
Boston: Govt Center	0	0	0	0	0	0	0	0	0	0	2	2
											100.0%	0.4%
Other &	0	0	0	0	0	0	0	0	0	0	0	0
% of Column	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Column Total &	154	74	65	33	20	15	12	11	9	9	49	458
% of Overall	33.7%	16.2%	14.2%	7.1%	4.3%	3.2%	2.7%	2.3%	2.0%	2.0%	10.7%	



## Origin-Destination Cross-tabulation

Expanded Results

Middleborough Line Entry Station: All Stations

Origin Town/ Neighborhood:	Boston: Financial/R etail	Boston: Waterfront	Boston: Govt Center	Boston: So Bos Indust	Unspecifie	Cambridge : Kendall/MI	Boston: Park Square	Boston: Prudential/ Hancock	Boston: Longwood Med Area	Boston: Back Bay	Other & % of Row	Row Total & % of Overall				
Brockton	304	161	106	95	152	57	52	39	40	27	185	1235				
											15.0%	36.2%				
Bridgewater	139	47	55	29	41	28	4	8	17	12	70	459				
											15.3%	13.4%				
Middleborough	62	20	8	16	12	8	0	4	4	0	34	186				
											18.2%	5.5%				
Randolph	56	32	28	22	0	6	6	6	0	6	6	177				
											3.2%	5.2%				
Taunton	44	0	8	16	4	4	9	9	4	0	24	127				
											19.2%	3.7%				
Holbrook	33	17	17	6	6	0	6	17	0	0	22	123				
											18.2%	3.6%				
West Bridgewater	37	28	9	0	0	0	0	9	0	0	9	93				
											10.0%	2.7%				
Lakeville	34	4	0	0	0	12	0	0	0	0 0	) 0	0 4	0 4	4 14	4	75
											5.2%	2.2%				
Raynham	4	8	4	0	4	13	0	0	4	0	37	74				
											49.4%	2.2%				
Unspecified	15	6	0	4	14	0	6	4	0	6	12	66				
											18.4%	1.9%				
Quincy	12	6	0	18	0	0	0	0	0	0	26	62				
											41.7%	1.8%				
New Bedford	23	8	0	0	0	4	0	0	8	0	10	61				
											17.1%	1.8%				
Wareham	22	7	12	0	0	8	4	0	0	0	4	61				
											7.0%	1.8%				
Easton	6	6	6	9	0	0	16	0	0	0	6	50				
											12.8%	1.5%				
Boston:	0	0	0	0	0	0	0	0	0	0	43	43				
Financial/Retail											100.0%	1.2%				
Mattapoisett	12	8	7	4	0	4	0	0	0	0	7	40				
											16.3%	1.2%				
Avon	17	0	11	0	6	0	0	0	0	0	0	33				
											0.0%	1.0%				
Fall River	8	4	12	0	0	0	4	0	0	4	0	31				
											0.0%	0.9%				
Other &	80	20	17	43	23	4	18	12	4	7	159	390				
% of Column	8.6%	5.2%	5.7%	16.4%	8.8%		14.6%	10.9%	4.1%	8.7%	40.9%	11.4%				
Column Total &	923	380	300	262	261	150	123	108	95	75	658	3410				
% of Overall	27.1%	11.1%	8.8%	7.7%	7.7%	4.4%	3.6%	3.2%	2.8%	2.2%	19.3%					



## Origin-Destination Cross-tabulation

Expanded Results

**Kingston/Plymouth Line** Entry Station: All Stations

Origin Town/ Neighborhood:	Boston: Financial/R etail	Boston: Waterfront	Boston: Govt Center	Boston: So Bos Indust	Boston: Park Square	Boston: Prudential/ Hancock	Unspecifie	Cambridge : Kendall/MI	Boston: Beacon Hill		Other & % of Row	Row Total & % of Overall		
Plymouth	182	26	83	48	30	17	9	22	30	22	86	568		
. ijilioulii		20		10							15.2%	16.6%		
Whitman	64	42	31	13	34	22	29	12	13	4	76	342		
											22.3%	10.0%		
Pembroke	108	61	23	26	0	16	13	4	0	10	47	309		
											15.3%	9.0%		
Abington	76	37	30	23	46	14	30	0	0	0	46	304		
5											15.2%	8.9%		
Rockland	59	44	30	23	23	30	22	0	0	0	32	272		
											11.6%	7.9%		
Halifax	71	10	26	33	20	13	0	10	16	7	42	257		
											16.5%	7.5%		
Hanson	47	24	14	14	14	39	0	24	10	0	35	229		
											15.4%	6.7%		
Duxbury	88	15	41	15	11	15	13	0	0 4	0 4	4 4	13	226	
											5.5%	6.6%		
Weymouth	72	43	36	14	14	0	14	14 7 (	7 0	7 0	7 0	0	12	215
											5.7%	6.3%		
East Bridgewater	37	13	0	9	4	4	17	9	10	4	18	125		
-											14.1%	3.7%		
Kingston	41	13	13	0	7	4	7	11	9	0	15	120		
											12.7%	3.5%		
Hanover	54	22	8	0	0	7	0	0	0	0	16	107		
											14.8%	3.1%		
Sandwich	9	0	4	0	0	0	0	4	0	4	13	107		
											30.0%	3.1%		
Carver	15	9	0	0	0	7	0	4	0	0	0	35		
											0.0%	1.0%		
Braintree	10	15	0	0	5	0	0	0	0	0	2	32		
											7.0%	0.9%		
Plympton	7	16	0	0	0	0	7	0	0	0	0	29		
											0.0%	0.9%		
Holbrook	0	19	0	0	7	0	0	0	0	0	0	27		
											0.0%	0.8%		
Barnstable	0	4	9	4	0	0	0	4	0	0	4	26		
											16.7%	0.8%		
Other &	25	9	9	12	0	0	25	0	0	4	49	133		
% of Column	2.6%	2.2%	2.4%	4.9%	0.0%	0.0%	13.4%	0.0%	0.0%	7.3%	36.7%	3.9%		
Column Total &	974	424	357	234	216	198	186	112	92	60	515	3421		
% of Overall	28.5%	12.4%	10.4%	6.8%	6.3%	5.8%	5.4%	3.3%	2.7%	1.7%	15.0%			



## Greenbush Line Survey

## Origin-Destination Cross-tabulation

Expanded Results

Greenbush Line Entry Station: All Stations

Origin Town/ Neighborhood:	Boston: Financial/R etail	Boston: Waterfront	Boston: Govt Center	Boston: So Bos Indust	Boston: Park Square	Prudential/	Cambridge : Kendall/MI	Boston: Longwood Med Area	Boston: Dwntwn Unspecifie	Boston: Beacon Hill	Other & % of Row	Row Total & % of Overall
Scituate	118	81	37	31	36	20	36	12	18	13	54	474
											11.4%	22.8%
Weymouth	134	97	13	51	13	9	5	13	14	13	50	426
											11.7%	20.5%
Hingham	109	70	46	26	35	14	9	15	0	5	92	421
											21.9%	20.3%
Marshfield	74	34	14	19	0	11	11	6	5	8	19	207
											9.2%	9.9%
Cohasset	43	22	24	12	12	7	11	0	8	0	36	180
											20.2%	8.6%
Norwell	31	13	17	5	0	3	3	0	0	5	0	77
											0.0%	3.7%
Hull	13	4	0	0	13	0	0	9	0	0	21	69
											31.0%	3.3%
Braintree	16	8	8	8	0	4	4	0	0	4	8	60
											13.3%	2.9%
Duxbury	12	3	3	3	0	3	0	0	5	0	0	28
											0.0%	1.4%
Quincy	5	3	5	0	3	3	0	0	0	0	3	21
											12.5%	1.0%
Hanover	9	0	0	0	0	5	0	5	0	0	0	20
											0.0%	0.9%
Boston:	0	0	0	0	0	0	0	0	0	0	18	18
Financial/Retail											100.0%	0.9%
Unspecified	4	0	5	0	0	0	0	0	8	0	0	18
											0.0%	0.9%
Rockland	8	4	0	0	0	0	0	0	0	0	0	12
											0.0%	0.6%
Cambridge:	0	0	0	0	0	0	0	0	0	0	9	9
Kendall/MIT											100.0%	0.4%
Cambridge: Harvard	0	0	0	0	0	0	0	0	0	0	9	9
Square				ŕ					-	-	100.0%	0.4%
Boston: Waterfront	0	0	0	0	0	0	0	0	0	0	9	9
								-	_	_	100.0%	0.4%
Boston: So Bos Indust	0	0	0	0	0	0	0	0	0	0	9	9
			5	5	0				5	5	100.0%	0.4%
Other &	0	0	4	0	0	0	0	0	0	0	0	4
% of Column	0.0%	0.0%	2.2%	0.0%	0.0%			0.0%	0.0%	0.0%	0.0%	0.2%
Column Total &	576	339	177	155	112	79	78	60	60	49	346	2078
% of Overall	27.7%	16.3%	8.5%	7.5%	5.4%			2.9%	2.9%	2.4%		20/0



This chapter presents data on the age, gender, income, and ethnicity of commuter rail riders. Tables (at the end of the chapter) present these data by line. For each line, three tables presenting, respectively, the age, gender, and income data are grouped on one page. Ethnicity data for that line's riders are shown in two tables on the following page. The data for each line are based on the survey responses from riders who started the commuter rail trips along that line. Chapter 2 addresses the same categories of data that are addressed in the present chapter, but at the level of the commuter rail system as a whole. It includes tables and discussion.

#### 9.1 AGE OF RIDERS

#### 9.1.1 DESCRIPTION OF TABLE

The first table for each line summarizes the results from survey question 16 (question 20 on the Greenbush Line survey), "What is your age?" It shows the number of riders and the percent of riders relative to the station total (excluding "no answer") in each of six age groups: 18 or under, 19 to 24, 25 to 34, 35 to 44, 45 to 64, and 65 or over. It also gives the cumulative percentages that result as one adds each age group to the ones preceding it in the table.

#### 9.1.2 OVERVIEW OF RESULTS

The age distributions of all of the commuter rail lines were very similar. In some cases one or two age categories vary between lines. Very few riders, 1% to 3%, were under 18 years old. Most people belonging to this group were headed to school or home from school. (Based on the reported addresses, this included some college freshmen.) Comparisons with fare data indicate that riders in this age group are often underrepresented in MBTA passenger surveys owing to low response rates. However, the range of percentages of commuter rail riders in this age group as reported above was more consistent with systemwide commuter rail fare data. Riders in the 19-to-24 category made up 2% to 8% of each line's riders, with an overall average of about 6%. The 19-to-24-year-old riders were generally headed to work, home, or school.

The middle three age brackets, covering the ages of 25 through 64, accounted for 84% to 95% of the survey respondents on each line. Most members of the work force are somewhere in this age range, and 95% of the riders reported work or work-related trips (see Chapter 3 for a full discussion of trip purposes).

Overall, the 45-to-64 age bracket had the highest share of riders (42% to 51%). The large share of 45-to-64-year-old respondents was partially due to the sizes of the age brackets. The 45-to-64 age bracket covers 20 years, while the 25-to-34 and 35-to-44 brackets only cover 10 years each.

The final category, riders age 65 or older, accounted for about 3% to 6% of the results on each line. Two-thirds of the respondents in this group were making home-based work trips, with the next-largest shares accounted for by home-based personal business trips (12%) and home-based social or recreational trips (7%). Age distributions on the Fairmount Line varied the most from the commuter rail averages, but this was partly because the Fairmount Line had the smallest sample size. Of all of the commuter rail lines, the Fairmount Line had the largest percentage of respondents between the ages of 35 and 65 (82%), while only 64% to 78% of other lines' riders were within this range. There was a correspondingly lower percentage of riders in the 19-to-34 age range on the Fairmount Line.

# 9.2 GENDER OF RIDERS

#### 9.2.1 DESCRIPTION OF TABLE

The gender table for each station summarizes the responses to survey question 20 (question 24 on the Greenbush Line survey), "What is your gender? (For example: Male, Female)," with space for a write-in answer. The open-ended format of the question allowed survey respondents to self-identify as transgender. The table displays, for each gender, the number of riders and the percentage of the total number of riders who answered the question.

#### 9.2.2 OVERVIEW OF RESULTS

On the commuter rail system overall, female respondents outnumbered males 53% to 47%, with much less than 1% of riders reporting themselves as transgender. Riders were most evenly divided between males and females on the Fitchburg, Needham, and Greenbush lines, with 51% to 52% of the riders on each of these lines being males. The only other line on which males outnumbered females was the Framingham/Worcester Line, with 55% males. On all other lines, 53% to 64% of respondents were females. Table 9-1 summarizes the gender splits by line.

Small numbers of Newburyport/Rockport, Lowell, Franklin, and Providence/Stoughton Line riders identified themselves as transgender, but even on these lines, these accounted for only a fraction of 1%.

Gender Split Between Lines						
Line	Female	Male				
Newburyport/Rockport	56%	44%				
Haverhill	59%	41%				
Lowell	56%	44%				
Fitchburg	49%	51%				
Framingham/Worcester	45%	55%				
Needham	48%	52%				
Franklin	53%	47%				
Providence/Stoughton	54%	46%				
Fairmount	61%	39%				
Middleborough/Lakeville	64%	36%				
Kingston/Plymouth	57%	43%				
Greenbush	49%	51%				

TABLE 9-1 Gender Split Between Lines

# 9.3 ANNUAL HOUSEHOLD INCOME

# 9.3.1 DESCRIPTION OF TABLE

Each line's table on annual household income summarizes the responses to survey question 19 (question 23 on the Greenbush survey), "What is your annual combined household income?" The survey form provided eight income-range choices: "under \$20,000," "\$20,000–\$29,999," "\$30,000–\$39,999," "\$40,000–\$49,999," "\$50,000–\$59,999," "\$60,000–\$74,999," "\$75,000–\$99,999," and "\$100,000 or more." The table shows the number and percent of riders who checked each income range, as well as giving the cumulative percentages that result as one adds each income group to the ones preceding it in the table. Riders who did not answer this question are not reflected in the percentages. Below this table is a line that reports the average household size for the line's riders.

# 9.3.2 OVERVIEW OF RESULTS

#### North Side

On the Lowell, Haverhill, and Fitchburg Lines, 50% to 53% of riders reported household incomes of \$100,000 or more, and about 3% reported incomes of under \$20,000. In contrast, on the Newburyport/Rockport Line, only 41% reported incomes of over \$100,000. Most other income ranges had slightly higher reported percentages on the Newburyport/Rockport Line than on the other North Side lines, including 4% reporting incomes of under \$20,000.

#### South Side

The incomes of the South Side lines varied widely line-to-line. The Framingham/Worcester, Franklin, Providence/Stoughton, and Kingston/Plymouth Lines all had similar income distributions; 55% to 62% of the riders' household incomes were over \$100,000 per year. The remainder of the percentage points were distributed similarly among the other categories, with 2% or less reporting incomes of under \$20,000. About 85% to 88% of the riders' household incomes on these four lines were over \$60,000 per year.

The Needham and Greenbush Lines had the highest incomes: 72% and 70%, respectively, of the respondents' household incomes were over \$100,000 per year. Incomes of over \$60,000 per year were reported by 91% to 92% of riders on these two lines.

Fairmount and Middleborough/Lakeville Line riders reported the lowest household incomes: 35% and 38%, respectively, of the respondents' household incomes were over \$100,000 per year, while 68% and 74% of their respective incomes were over \$60,000 per year, and only 68% and 74% of the riders on the Fairmount and Middleborough/Lakeville Line, respectively, lived in households that with an income of over \$60,000 per year. The Fairmount Line serves some of the least wealthy parts of Boston.

On most of the South Side lines, household incomes of under \$20,000 were reported by less than 2% of the riders, but on the Middleborough/Lakeville Line 3% were in this income range.

#### Mean Household Size

It might be expected that household income would be related to some extent to household size, which was asked for in the survey (not asked for was the number of household members who were employed). However, the results were somewhat mixed. Overall, commuter rail riders with household incomes of \$100,000 or more had an average household size of 3.1, while those with household incomes of under \$20,000 had an average household size of 2.4. The Newburyport/Rockport Line, which had the lowest average household size (2.54), had one of the lowest percentages of household incomes in the \$100,000-or-more range. The Franklin and Greenbush Lines, which had the highest average household sizes (2.93 and 3.11), had relatively high percentages of household incomes in the top ranges.

# 9.4 ETHNICITY OF RIDERS

#### 9.4.1 DESCRIPTION OF TABLES

For each line, ethnicity is reported using two tables. The first summarizes the results from survey question 21a (question 25a on the Greenbush Line survey), "How do you self-identify by race?" Six check-off choices were provided: "American Indian or Alaska native," "black or African-American," "native Hawaiian or other Pacific islander," "Asian," "white," and "other" with space for write-ins. These categories were those used in the U.S. census. Respondents were instructed to check as many as applied. The table shows the number and percent of responses for each race category. Because riders were allowed to check more than one box, percentages generally add up to more than 100%.

The second table shows the results from survey question 21b (question 25b on the Greenbush Line survey). "Are you Hispanic/Latino?", which provided the

check-off options "yes" and "no." The table shows the number and percent of "yes" and "no" responses. The data reported in this table are independent of those in the preceding table. Riders who self-identified as Hispanic or Latino in question 21b/25b could have checked any of the races listed in question 21a/25a. Of those who checked "yes" for question 21b/25b, 50% checked "other," 38% checked "white," and 6% checked "black or African-American" in question 21a/25a.

## 9.4.2 OVERVIEW OF RESULTS

#### **North Side**

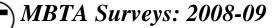
The majority of riders who entered the commuter rail system on a North Side line were white (88%). The line with the largest percentage of white riders was the Newburyport/Rockport Line (90%). The line with the lowest percentage of white riders was the Lowell Line, where 83% of the riders self-identified as white, 4% as black or African-American, 9% as Asian, and 3% as "other." Half of the riders who checked "other" also checked that they were Hispanic/Latino. As in the table, each of the percentages given for race in this discussion includes any respondents who checked not only that race but one or more of the others as well.

The line with the largest percentages of Hispanic/Latino riders was the Haverhill Line (6%). The Fitchburg Line had the lowest percentage of Hispanic/Latino riders (3%).

#### South Side

The majority of riders who entered the commuter rail system on a South Side line were white (86%). The line with the largest percentage of white riders was the Greenbush Line (96%), followed by the Kingston/Plymouth Line (94%). The line with the lowest percentage of white riders was the Fairmount Line, where 58% of the riders self-identified as white, 35% as black or African-American, 3% as Asian, and 3% as "other." Again, about half of the riders who checked "other" also checked that they were Hispanic/Latino. As in the table, each of the percentages for a race given in this discussion includes any respondents who checked not only that race but one or more of the others as well.

The line with the largest percentage of Hispanic/Latino riders was the Fairmount Line (8%). The Kingston/Plymouth and Greenbush Lines had the lowest percentages of Hispanic/Latino riders (1% each).



# Socioeconomic Characteristics

**Expanded Results** 

Newburyport/Rockport Line Entry Station: All Stations

Age of Riders:	Number of Riders	Percent of Riders	Cumulative Percentage
18 and Under	99	1.3%	1.3%
19 - 24	573	7.5%	8.8%
25 - 34	1,649	21.7%	30.5%
35 - 44	1,538	20.2%	50.7%
45 - 64	3,336	43.8%	94.5%
65 and Older	415	5.5%	100.0%
TOTAL	7,611	100.0%	100.0%
No Answer	106		
Gender of Riders:		Number of Riders	Percent of Riders

Genuer of Riders.	Riders	Riders
Male	3,267	44.3%
Female	4,093	55.5%
Transgender	13	0.2%
TOTAL	7,373	100.0%
No Answer	344	

#### Annual Household Income of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under \$20,000	276	4.1%	4.1%
\$20,000 - \$29,999	209	3.1%	7.2%
\$30,000 - \$39,999	350	5.2%	12.4%
\$40,000 - \$49,999	462	6.9%	19.3%
\$50,000 - \$59,999	460	6.8%	26.1%
\$60,000 - \$74,999	920	13.7%	39.8%
\$75,000 - \$99,999	1,321	19.6%	59.4%
\$100,000 or more	2,735	40.6%	100.0%
TOTAL	6,732	100.0%	100.0%
No Answer	985		

Mean Household Size: 2.54

# MBTA Surveys: 2008-09

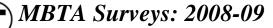
Commuter Rail Survey

Ethnicity of Riders	Newburyport/Rockport Line
Expanded Results	Entry Station: All Stations

Self-Identified Race:	Number of Responses	Percent of Responses
American Indian/Alaskan Native	67	0.9%
Black or African-American	188	2.5%
Native Hawaiian or Other Pacific Islander	14	0.2%
Asian	220	3.0%
White	6,686	90.4%
Other	226	3.0%
TOTAL	7,400	100.0%

# Note: Responders were allowed to check more than 1 box; percentages shown represent fractions of total responses.

Are You Hispanic/Latino?:	Number of Responses	Percent of Responses
Yes No	250 6,954	3.5% 96.5%
TOTAL No Answer	7,204 514	100.0%



## Socioeconomic Characteristics

Haverhill/Reading Line

Expanded Results

Entry Station: All Stations

	Number of	Percent of	Cumulative
Age of Riders:	Riders	Riders	Percentage
18 and Under	23	0.6%	0.6%
19 - 24	273	7.4%	8.0%
25 - 34	699	18.9%	27.0%
35 - 44	833	22.6%	49.6%
45 - 64	1,678	45.5%	95.0%
65 and Older	183	5.0%	100.0%
TOTAL	3,689	100.0%	100.0%
No Answer	60		
Gender of Riders:		Number of Riders	Percent of Riders
		INICE 3	Muci 3
Male		1,457	41.2%
Female		2,082	58.8%
Transgender		0	0.0%
TOTAL		3,539	100.0%
No Answer		209	

#### Annual Household Income of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under \$20,000	80	2.5%	2.5%
\$20,000 - \$29,999	65	2.1%	4.6%
\$30,000 - \$39,999	93	3.0%	7.6%
\$40,000 - \$49,999	146	4.6%	12.2%
\$50,000 - \$59,999	201	6.4%	18.6%
\$60,000 - \$74,999	353	11.2%	29.8%
\$75,000 - \$99,999	621	19.8%	49.6%
\$100,000 or more	1,585	50.4%	100.0%
TOTAL	3,142	100.0%	100.0%
No Answer	606		

Mean Household Size: 2.69

# MBTA Surveys: 2008-09

Commuter Rail Survey

Ethnicity of Riders	Haverhill/Reading Line
Expanded Results	Entry Station: All Stations

Self-Identified Race:	Number of Responses	Percent of Responses
American Indian/Alaskan Native	21	0.6%
Black or African-American	113	3.2%
Native Hawaiian or Other Pacific Islander	0	0.0%
Asian	147	4.2%
White	3,102	88.0%
Other	143	4.1%
TOTAL	3,526	100.0%

Note: Responders were allowed to check more than 1 box; percentages shown represent fractions of total responses.

Are You Hispanic/Latino?:	Number of Responses	Percent of Responses
Yes No	204 3,256	5.9% 94.1%
TOTAL No Answer	3,461 288	100.0%



# Socioeconomic Characteristics

**Expanded Results** 

Lowell Line Entry Station: All Stations

	Number of	Percent of	Cumulative
Age of Riders:	Riders	Riders	Percentage
18 and Under	50	0.9%	0.9%
19 - 24	414	7.8%	8.7%
25 - 34	1,105	20.8%	29.6%
35 - 44	1,229	23.2%	52.7%
45 - 64	2,301	43.3%	96.1%
65 and Older	209	3.9%	100.0%
TOTAL	5,308	100.0%	100.0%
No Answer	32		
Condex of Didays.		Number of	Percent of
Gender of Riders:		Riders	Riders
Male		2,266	43.6%
Female		2,926	56.3%
Transgender		8	0.2%
TOTAL		5,201	100.0%
No Answer		139	

#### Annual Household Income of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under \$20,000	165	3.5%	3.5%
\$20,000 - \$29,999	95	2.0%	5.5%
\$30,000 - \$39,999	202	4.2%	9.7%
\$40,000 - \$49,999	215	4.5%	14.3%
\$50,000 - \$59,999	286	6.0%	20.3%
\$60,000 - \$74,999	571	12.0%	32.3%
\$75,000 - \$99,999	772	16.3%	48.6%
\$100,000 or more	2,442	51.4%	100.0%
TOTAL	4,749	100.0%	100.0%
No Answer	590		

Mean Household Size: 2.83

# MBTA Surveys: 2008-09

Commuter Rail Survey

Ethnicity of	F Riders
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Expanded Results

Lowell Line Entry Station: All Stations

Self-Identified Race:	Number of Responses	Percent of Responses
American Indian/Alaskan Native	49	1.0%
Black or African-American	205	4.0%
Native Hawaiian or Other Pacific Islander	21	0.4%
Asian	446	8.6%
White	4,323	83.4%
Other	142	2.7%
TOTAL	5,186	100.0%

Note: Responders were allowed to check more than 1 box; percentages shown represent fractions of total responses.

Are You Hispanic/Latino?:	Number of Responses	Percent of Responses
Yes No	179 4,820	3.6% 96.4%
TOTAL No Answer	4,998 341	100.0%



# Socioeconomic Characteristics

**Expanded Results** 

No Answer

Fitchburg Line Entry Station: All Stations

	Number of	Percent of	Cumulative
Age of Riders:	Riders	Riders	Percentage
18 and Under	116	2.7%	2.7%
19 - 24	277	6.5%	9.2%
25 - 34	939	21.9%	31.1%
35 - 44	837	19.5%	50.6%
45 - 64	1,885	44.0%	94.6%
55 and Older	231	5.4%	100.0%
FOTAL	4,284	100.0%	100.0%
No Answer	23		
Gender of Riders:		Number of Riders	Percent of Riders
Male		2,101	50.7%
Female		2,041	49.3%
Fransgender		0	0.0%
ΓΟΤΑΙ		4,142	100.0%

166

#### Annual Household Income of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under \$20,000	130	3.4%	3.4%
\$20,000 - \$29,999	66	1.7%	5.1%
\$30,000 - \$39,999	83	2.2%	7.3%
\$40,000 - \$49,999	186	4.9%	12.2%
\$50,000 - \$59,999	239	6.3%	18.5%
\$60,000 - \$74,999	460	12.1%	30.6%
\$75,000 - \$99,999	623	16.4%	46.9%
\$100,000 or more	2,021	53.1%	100.0%
TOTAL No Answer	3,807 500	100.0%	100.0%

Mean Household Size: 2.68

# MBTA Surveys: 2008-09

Commuter Rail Survey

Ethnicity	of Riders

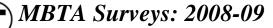
Expanded Results

**Fitchburg Line** Entry Station: All Stations

Self-Identified Race:	Number of Responses	Percent of Responses
American Indian/Alaskan Native	35	0.8%
Black or African-American	59	1.4%
Native Hawaiian or Other Pacific Islander	10	0.2%
Asian	295	7.2%
White	3,606	87.5%
Other	119	2.9%
TOTAL	4,123	100.0%

Note: Responders were allowed to check more than 1 box; percentages shown represent fractions of total responses.

Are You Hispanic/Latino?:	Number of Responses	Percent of Responses
Yes No	114 3,883	2.8% 97.2%
TOTAL No Answer	3,997 310	100.0%



## Socioeconomic Characteristics

Framingham/Worcester Line Entry Station: All Stations

No Answer

Age of Riders:	Number of Riders	Percent of Riders	Cumulative Percentage
18 and Under	32	0.5%	0.5%
19 - 24	367	5.6%	6.1%
25 - 34	1,451	22.3%	28.4%
35 - 44	1,630	25.0%	53.5%
45 - 64	2,759	42.4%	95.8%
65 and Older	271	4.2%	100.0%
TOTAL	6,511	100.0%	100.0%
No Answer	47		
Gender of Riders:		Number of Riders	Percent of Riders
Male		3,506	55.4%
Female		2,824	44.6%
Transgender		0	0.0%
TOTAL		6,330	100.0%

228

#### Annual Household Income of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under \$20,000	137	2.4%	2.4%
\$20,000 - \$29,999	115	2.0%	4.4%
\$30,000 - \$39,999	122	2.1%	6.5%
\$40,000 - \$49,999	227	3.9%	10.4%
\$50,000 - \$59,999	219	3.8%	14.2%
\$60,000 - \$74,999	479	8.3%	22.5%
\$75,000 - \$99,999	916	15.9%	38.3%
\$100,000 or more	3,563	61.7%	100.0%
TOTAL	5,778	100.0%	100.0%
No Answer	780		

Mean Household Size: 2.90

Commuter Rail Survey

Ethnicity of Riders	Framingham/Worcester Line
Expanded Results	Entry Station: All Stations

Self-Identified Race:	Number of Responses	Percent of Responses
American Indian/Alaskan Native	65	1.0%
Black or African-American	217	3.5%
Native Hawaiian or Other Pacific Islander	10	0.2%
Asian	587	9.3%
White	5,247	83.6%
Other	150	2.4%
TOTAL	6,275	100.0%

Are You Hispanic/Latino?:	Number of Responses	Percent of Responses
Yes No	197 5,966	3.2% 96.8%
TOTAL No Answer	6,164 395	100.0%



#### Commuter Rail Survey

## Socioeconomic Characteristics

**Expanded Results** 

Needham Line Entry Station: All Stations

Age of Riders:	Number of Riders	Percent of Riders	Cumulative Percentage
18 and Under	19	0.6%	0.6%
19 - 24	96	3.1%	3.7%
25 - 34	516	16.7%	20.4%
35 - 44	783	25.4%	45.8%
45 - 64	1,491	48.3%	94.1%
65 and Older	181	5.9%	100.0%
TOTAL	3,086	100.0%	100.0%
No Answer	17		
Gender of Riders:		Number of Riders	Percent of Riders

Riuei 3	Riuel 3
1,534	51.9%
1,422	48.1%
0	0.0%
2,956	100.0%
147	
	1,534 1,422 0 2,956

#### Annual Household Income of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under \$20,000	40	1.5%	1.5%
\$20,000 - \$29,999	29	1.1%	2.6%
\$30,000 - \$39,999	42	1.6%	4.1%
\$40,000 - \$49,999	79	3.0%	7.1%
\$50,000 - \$59,999	61	2.3%	9.4%
\$60,000 - \$74,999	168	6.3%	15.7%
\$75,000 - \$99,999	324	12.1%	27.8%
\$100,000 or more	1,933	72.2%	100.0%
TOTAL	2,676	100.0%	100.0%
No Answer	427		

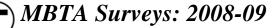
Mean Household Size: 2.87

Commuter Rail Survey

Ethnicity of Riders	Needham Line
Expanded Results	Entry Station: All Stations

Self-Identified Race:	Number of Responses	Percent of Responses
American Indian/Alaskan Native	0	0.0%
Black or African-American	74	2.5%
Native Hawaiian or Other Pacific Islander	0	0.0%
Asian	130	4.4%
White	2,737	92.0%
Other	34	1.1%
TOTAL	2,975	100.0%

Are You Hispanic/Latino?:	Number of Responses	Percent of Responses
Yes No	45 2,882	1.5% 98.5%
TOTAL No Answer	2,927 176	100.0%



#### Commuter Rail Survey

## Socioeconomic Characteristics

**Expanded Results** 

Franklin Line Entry Station: All Stations

100.0%

Age of Riders:	Number of	Percent of	Cumulative
Age of Riders.	Riders	Riders	Percentage
18 and Under	27	0.5%	0.5%
19 - 24	308	5.7%	6.2%
25 - 34	959	17.7%	23.9%
35 - 44	1,426	26.3%	50.1%
45 - 64	2,457	45.3%	95.4%
65 and Older	248	4.6%	100.0%
TOTAL	5,426	100.0%	100.0%
No Answer	47		
Gender of Riders:		Number of Riders	Percent of Riders
Male		2,481	47.3%
Female		2,766	52.7%
Transgender		4	0.1%

indio	=,	
Female	2,766	
Transgender	4	
TOTAL	5,250	
No Answer	223	

#### Annual Household Income of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under \$20,000	45	0.9%	0.9%
\$20,000 - \$29,999	46	1.0%	1.9%
\$30,000 - \$39,999	109	2.3%	4.2%
\$40,000 - \$49,999	159	3.3%	7.6%
\$50,000 - \$59,999	247	5.2%	12.7%
\$60,000 - \$74,999	398	8.4%	21.1%
\$75,000 - \$99,999	915	19.2%	40.3%
\$100,000 or more	2,841	59.7%	100.0%
TOTAL	4,760	100.0%	100.0%
No Answer	713		

Mean Household Size: 2.93

Commuter Rail Survey

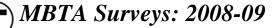
Ethnicity	of Riders

Expanded Results

**Franklin Line** Entry Station: All Stations

Self-Identified Race:	Number of Responses	Percent of Responses
American Indian/Alaskan Native	42	0.8%
Black or African-American	111	2.1%
Native Hawaiian or Other Pacific Islander	10	0.2%
Asian	369	7.0%
White	4,583	87.5%
Other	123	2.4%
TOTAL	5,238	100.0%

Are You Hispanic/Latino?:	Number of Responses	Percent of Responses
Yes No	118 4,993	2.3% 97.7%
TOTAL No Answer	5,110 363	100.0%



#### Commuter Rail Survey

## Socioeconomic Characteristics

Providence/Stoughton Line Entry Station: All Stations

Expanded F	Results
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Age of Riders:	Number of Riders	Percent of Riders	Cumulative Percentage
18 and Under	106	0.9%	0.9%
19 - 24	524	4.4%	5.3%
25 - 34	2,378	20.0%	25.3%
35 - 44	3,100	26.0%	51.3%
45 - 64	5,388	45.3%	96.6%
65 and Older	407	3.4%	100.0%
TOTAL	11,903	100.0%	100.0%
No Answer	110		
Gender of Riders:		Number of Riders	Percent of Riders
Male		5,314	46.2%
Female		6,177	53.7%
Transgender		6	0.1%
TOTAL		11,496	100.0%
No Answer		517	

#### Annual Household Income of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under \$20,000	195	1.8%	1.8%
\$20,000 - \$29,999	139	1.3%	3.2%
\$30,000 - \$39,999	308	2.9%	6.1%
\$40,000 - \$49,999	445	4.2%	10.3%
\$50,000 - \$59,999	489	4.6%	15.0%
\$60,000 - \$74,999	1,178	11.2%	26.2%
\$75,000 - \$99,999	2,028	19.3%	45.4%
\$100,000 or more	5,748	54.6%	100.0%
TOTAL	10,530	100.0%	100.0%
No Answer	1,482		

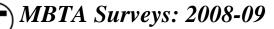
Mean Household Size: 2.80

Commuter Rail Survey

Ethnicity of Riders	Providence/Stoughton Line
Expanded Results	Entry Station: All Stations

Number of Responses	Percent of Responses
149	1.3%
683	5. <b>9%</b>
31	0.3%
545	4.7%
9,717	84.3%
404	3.5%
11,529	100.0%
	Responses 149 683 31 545 9,717 404

Are You Hispanic/Latino?:	Number of Responses	Percent of Responses
Yes No	368 10,762	3.3% 96.7%
TOTAL No Answer	11,130 883	100.0%



#### Commuter Rail Survey

## Socioeconomic Characteristics

Expanded Results

Fairmount Line Entry Station: All Stations

Age of Riders:	Number of Riders	Percent of Riders	Cumulative Percentage
18 and Under	3	0.8%	0.8%
19 - 24	8	1.7%	2.5%
25 - 34	60	13.2%	15.7%
35 - 44	138	30.4%	46.1%
45 - 64	233	51.1%	97.3%
65 and Older	12	2.7%	100.0%
TOTAL	456	100.0%	100.0%
No Answer	2		

Gender of Riders:	Number of Riders	Percent of Riders
Male	173	39.3%
Female	267	60.7%
Transgender	0	0.0%
TOTAL	440	100.0%
No Answer	18	

#### Annual Household Income of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under \$20,000	2	0.4%	0.4%
\$20,000 - \$29,999	15	3.5%	3.9%
\$30,000 - \$39,999	18	4.3%	8.2%
\$40,000 - \$49,999	48	11.5%	19.7%
\$50,000 - \$59,999	53	12.6%	32.3%
\$60,000 - \$74,999	56	13.4%	45.7%
\$75,000 - \$99,999	81	19.2%	64.9%
\$100,000 or more	148	35.1%	100.0%
TOTAL	421	100.0%	100.0%
No Answer	37		

Mean Household Size: 2.74

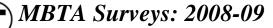
Commuter Rail Survey

Expanded Results

**Fairmount Line** Entry Station: All Stations

Self-Identified Race:	Number of Responses	Percent of Responses
American Indian/Alaskan Native	5	1.1%
Black or African-American	163	35.4%
Native Hawaiian or Other Pacific Islander	0	0.0%
Asian	15	3.2%
White	264	57.5%
Other	13	2.8%
TOTAL	460	100.0%

Are You Hispanic/Latino?:	Number of Responses	Percent of Responses
Yes No	34 390	8.0% 92.0%
TOTAL No Answer	424 34	100.0%



#### Commuter Rail Survey

## Socioeconomic Characteristics

Middleborough Line

Expanded Results

No Answer

Entry Station: All Stations

	Number of	Percent of	Cumulative
Age of Riders:	Riders	Riders	Percentage
18 and Under	6	0.2%	0.2%
19 - 24	194	5.8%	6.0%
25 - 34	623	18.6%	24.6%
35 - 44	843	25.2%	49.8%
45 - 64	1,510	45.1%	94.9%
65 and Older	171	5.1%	100.0%
TOTAL	3,346	100.0%	100.0%
No Answer	64		
Gender of Riders:		Number of Riders	Percent of Riders
		Riders	RIUEIS
Male		1,167	36.2%
Female		2,058	63.8%
Transgender		0	0.0%
TOTAL		3,225	100.0%

185

#### Annual Household Income of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under \$20,000	86	3.0%	3.0%
\$20,000 - \$29,999	73	2.5%	5.5%
\$30,000 - \$39,999	154	5.3%	10.8%
\$40,000 - \$49,999	167	5.8%	16.6%
\$50,000 - \$59,999	273	9.4%	26.0%
\$60,000 - \$74,999	377	13.0%	39.0%
\$75,000 - \$99,999	659	22.8%	61.8%
\$100,000 or more	1,105	38.2%	100.0%
TOTAL No Answer	2,892 518	100.0%	100.0%

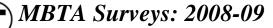
Mean Household Size: 2.83

Commuter Rail Survey

Ethnicity of Riders	Middleborough Line
Expanded Results	Entry Station: All Stations

Self-Identified Race:	Number of Responses	Percent of Responses
American Indian/Alaskan Native	48	1.5%
Black or African-American	363	11.4%
Native Hawaiian or Other Pacific Islander	8	0.2%
Asian	74	2.3%
White	2,566	80.2%
Other	140	4.4%
TOTAL	3,199	100.0%

Are You Hispanic/Latino?:	Number of Responses	Percent of Responses
Yes No	105 3,104	3.3% 96.7%
TOTAL No Answer	3,209 201	100.0%



#### Commuter Rail Survey

## Socioeconomic Characteristics

Kingston/Plymouth Line

**Expanded Results** 

No Answer

Entry Station: All Stations

Age of Riders:	Number of Riders	Percent of Riders	Cumulative
	Riders	RIDELS	Percentage
18 and Under	22	0.7%	0.7%
19 - 24	50	1.5%	2.1%
25 - 34	576	17.1%	19.2%
35 - 44	815	24.2%	43.4%
45 - 64	1,707	50.7%	94.1%
55 and Older	200	5.9%	100.0%
ΓΟΤΑL	3,370	100.0%	100.0%
No Answer	51		
Gender of Riders:		Number of Riders	Percent of Riders
Male		1,424	43.2%
Female		1,871	56.8%
Fransgender		0	0.0%
ΓΟΤΑĹ		3,295	100.0%

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#### Annual Household Income of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under \$20,000	10	0.3%	0.3%
\$20,000 - \$29,999	30	1.0%	1.3%
\$30,000 - \$39,999	38	1.3%	2.6%
\$40,000 - \$49,999	115	3.9%	6.5%
\$50,000 - \$59,999	170	5.7%	12.2%
\$60,000 - \$74,999	291	9.8%	21.9%
\$75,000 - \$99,999	596	20.0%	41.9%
\$100,000 or more	1,734	58.1%	100.0%
TOTAL	2,984	100.0%	100.0%
No Answer	437		

Mean Household Size: 2.86

Commuter Rail Survey

Ethnicity of Riders	Kingston/Plymouth Line
Expanded Results	Entry Station: All Stations

Self-Identified Race:	Number of Responses	Percent of Responses
American Indian/Alaskan Native	43	1.3%
Black or African-American	58	1.8%
Native Hawaiian or Other Pacific Islander	16	0.5%
Asian	28	0.8%
White	3,133	94.1%
Other	51	1.5%
TOTAL	3,329	100.0%

Are You Hispanic/Latino?:	Number of Responses	Percent of Responses
Yes No	34 3,203	1.1% 98.9%
TOTAL No Answer	3,237 184	100.0%



#### Greenbush Line Survey

## Socioeconomic Characteristics

**Expanded Results** 

Greenbush Line Entry Station: All Stations

Age of Riders:	Number of Riders	Percent of Riders	Cumulative Percentage
18 and Under	0	0.0%	0.0%
19 - 24	67	3.3%	3.3%
25 - 34	278	13.7%	17.0%
35 - 44	624	30.8%	47.8%
45 - 64	949	46.9%	94.7%
65 and Older	107	5.3%	100.0%
TOTAL	2,026	100.0%	100.0%
No Answer	52		
Gender of Riders:		Number of Riders	Percent of Riders
Male		1,018	51.3%
Female		966	48.7%

Female	966	48.7%
Transgender	0	0.0%
TOTAL	1,984	100.0%
No Answer	94	

#### Annual Household Income of Riders:

	Number of Riders	Percent of Riders	Cumulative Percentage
Under \$20,000	16	0.9%	0.9%
\$20,000 - \$29,999	8	0.4%	1.3%
\$30,000 - \$39,999	14	0.7%	2.0%
\$40,000 - \$49,999	48	2.6%	4.7%
\$50,000 - \$59,999	58	3.2%	7.9%
\$60,000 - \$74,999	79	4.3%	12.2%
\$75,000 - \$99,999	320	17.5%	29.7%
\$100,000 or more	1,287	70.3%	100.0%
TOTAL No Answer	1,830 248	100.0%	100.0%

Mean Household Size: 3.11

Greenbush Line Survey

Ethnicity	of v	Riders

Expanded Results

**Greenbush Line** Entry Station: All Stations

Self-Identified Race:	Number of Responses	Percent of Responses
American Indian/Alaskan Native	5	0.3%
Black or African-American	20	1.0%
Native Hawaiian or Other Pacific Islander	0	0.0%
Asian	20	1.0%
White	1,856	96.0%
Other	32	1.7%
TOTAL	1,934	100.0%

Are You Hispanic/Latino?:	Number of Responses	Percent of Responses
Yes No	14 1,844	0.8% 99.2%
TOTAL No Answer	1,858 220	100.0%



The data in this chapter show how frequently commuter rail riders used the service. They also show how riders paid their fares and how frequently the users of each fare type rode the line.

The tables (at the end of the chapter) present data by line. For each line, four tables are grouped on a single page. The first table shows the number of days per week riders used the commuter rail line; the second shows their weekend use patterns. The third table shows how many riders used each fare type and how often the users of each fare type rode the commuter rail line. The final table provides more information regarding monthly pass usage. The data for each line are based on the survey responses from riders who started the commuter rail portions of their trips on that line.

Chapter 2 addresses the same categories of data that are addressed in the present chapter, but at the level of the commuter rail system as a whole. It includes tables and discussion.

### 10.1 NUMBER OF DAYS USED PER WEEK

#### **10.1.2 DESCRIPTION OF TABLE**

The first table for each line summarizes the results of survey question 11, which asked how many days a week riders used the rail line in question. Nine check-off boxes were provided on the survey form: one for each possible number of days per week, plus "less than 1 day" and "I'm only visiting Boston." For each usage level, the table shows the number and percent of riders; it also gives the cumulative percentages that result as one adds each category of user to the ones preceding it in the table.

#### 10.1.2 OVERVIEW OF RESULTS

On every commuter rail line, the most common reported usage frequency was five days per week. For the entire system 70% of the riders reported five-day use. Some of those who checked six- or seven-day use also indicated that they used weekend service on one or both days occasionally rather than regularly, which would put their average usage closer to five days. Therefore, in the

following comparisons of reported usage by station, the category of "five or more days" is used instead of five days.

On the commuter rail system overall, 73% of the riders reported usage rates of five or more days per week. On the North Side lines, these rates ranged from 67% on the Fitchburg Line to 73% on the Haverhill Line. Reported usage rates on the South Side lines varied slightly more. The Greenbush Line had the lowest rate of five-day-or-more usage, at 68%, followed by the Needham Line, at 73%. Fairmount Line riders reported the highest rate of five-day-or-more usage, at 80%. Weekend service is not provided on the Fairmount Line, and Sunday service is not provided on the Needham Line. Riders who indicated that they use the service more days than the line is scheduled (six or seven days for the Fairmount Line, or seven days for the Needham Line) were apparently indicating how frequently they used any transit service.

Riders who reported using their line less than one day per week accounted for about 3% to 6% of the totals on the North Side lines, and for about 1% to 5% on the South Side lines. Riders who were only visiting accounted for about 2% to 3% on each North Side line, but for 0% to about 2% on each South Side line.

## 10.2 WEEKEND USAGE

### **10.2.1 DESCRIPTION OF TABLE**

The weekend usage table for each line summarizes the results of survey question 12, which asked how frequently riders used the commuter rail line on which they were surveyed on Saturdays and Sundays. For each weekend day, riders could check one of three frequency-of-use categories: "regularly," "occasionally," or "not at all."

In the table, Sunday usage categories are displayed across the top of the table, and Saturday down the left side. The table cells show cross-tabulated data for Saturdays and Sundays. For example, the cells in the first data row show the numbers and percentages of Sunday riders, by usage category, who used the line regularly on Saturday. Likewise, the cells in the first data column show the numbers and percentages of Saturday riders, by usage category, who used the line regularly on Saturday.

The far-right column shows the total numbers and percentages of Saturday riders by usage category, and the bottom row shows the same for Sunday. These totals reflect only riders who described their usage for both Saturday and Sunday.

### 10.2.2 OVERVIEW OF RESULTS

For the commuter rail system overall, the most frequently reported combinations of Saturday and Sunday usage were "no use on either weekend day" (50%), followed by "occasional use on both days" (36%) and "occasional Saturday use but no Sunday use" (10%). Only 2% reported regular use on both Saturday and Sunday. The latter figure was higher than the percent who reported seven-day-per-week usage in the first table, indicating that some regular Saturday and Sunday users used weekday service less than five days per week.

The lines with the highest reported regular usage on both Saturday and Sunday were the Newburyport/Rockport Line (5%) and the Middleborough/Lakeville Line (4%). The Newburyport/Rockport Line also had the highest reported percentage of riders who used the line occasionally on both Saturday and Sunday (49%). The Greenbush Line was second in this category (47%).

## 10.3 FARE TYPES AND PASS USAGE

#### **10.3.1 DESCRIPTION OF TABLE**

The third table for each station presents three data points for each fare type: the number of riders using the fare type, the percentage of riders using the fare type, and the average number of days per week that the riders using each fare type rode the commuter rail line in question.

The first two columns are based on the results of survey question 7 (question 13 on the Greenbush Line survey): "What type of fare did you pay for this train trip?" Eleven check-off choices were provided, including "other" (with space for write-ins). Riders using commuter rail monthly passes could also circle the zone number, or write in a number if using an Interzone pass. The data in the third column are based on the assumption that each rider used the fare-payment type reported in question 7/13 on the same number of days per week that the rider reported using the commuter rail line in question 11 (on all commuter rail surveys).

The fourth table is a further breakdown of the monthly passes that commuter rail riders indicated using. The table shows the number and percent of riders using each type of pass; it also gives the cumulative percentages that result as one adds each category of user to the ones preceding it in the table.

#### **10.3.2 DESCRIPTION OF FARES**

The fares on the commuter rail system use a zone system. The zones are delineated based on their distance from Boston. There are nine zones, ranging from Zone1A (stations nearest to downtown Boston, such as Porter, Ruggles, and Malden Center Stations) to Zone 8 (stations farthest from Boston, such as Providence, Worcester, and Fitchburg Stations). Figure 10-1 shows the fare limits in effect when the survey was conducted.

Fare-payment options include single-ride tickets, multiple-ride tickets that cost the same per ride as single-ride tickets, and monthly passes. Students from age 12 through high school, senior citizens, and passengers with disabilities are eligible for half-fare tickets. Children under the age of 12 ride free when accompanied by a fare-paying adult.

Interzone fares apply to commuter rail trips that do not have either end at North Station or South Station or any station in Zone 1A, and do not include a

transfer between two commuter rail lines at one of these stations. Interzone fares are based on the total number of fare zones traversed on the trip. For example a trip from a station in Zone 6 to a station in Zone 3 on the same line is a four-zone fare, as it has segments in Zones 6, 5, 4, and 3. Interzone fare-payment options include single-ride fares and monthly passes.

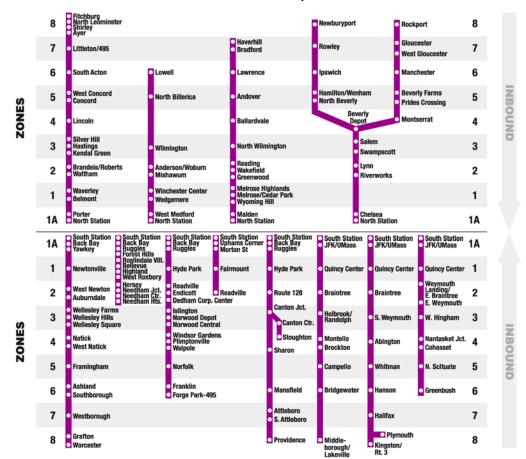


FIGURE 10-1 Commuter Rail Zone Map

### 10.3.3 OVERVIEW OF RESULTS

#### **Mix of Fare Types**

For the commuter rail system overall, the most common method of fare payment was some form of monthly pass, reported by 67% of all riders. Twelve-ride tickets were second, at 16% overall. Monthly pass use was also the most common fare type on each line. Percentages of monthly pass use were highest on the Fairmount Line, at 77%, and on the Haverhill, Lowell, and Franklin Lines, at 69% each. The lowest monthly pass usage rates were reported by the Newburyport/Rockport and Fitchburg Line riders, at 64% each. Twelve-ride tickets were used by 12% to 15% of North Side riders and by 15% to 19% of South Side riders. After monthly passes and 12-ride tickets, the next-most-common fare type overall, with 11%, was adult full fares. The percentages of riders using this type varied considerably among lines. On North Side lines, adult full fares were used by 11% to 17% of riders. On South Side lines, they were used by 8% to 11%, except on the Fairmount Line (3%) and the Greenbush Line (5%). Use of reduced-fare payment (senior citizen half-fares, student half-fares, disability half-fares, and 10-ride half-fares combined) ranged from 1% (on the Fairmount Line) to 7% (on the Newburyport/Rockport and Kingston/Plymouth Lines).

#### Usage Rates by Fare Type

As discussed above, the final column of the Fare Types and Pass Usage table shows the average number of days per week that riders reporting use of each fare type used the commuter rail system. The survey did not determine how many trips per day these riders made. However, based on trip lengths and ridership volumes, it is reasonable to assume that the typical rider makes one round-trip on each day that he or she uses a commuter rail line.

### **Monthly Pass**

For travel to or from stations in downtown Boston or Zone 1A, the price of a monthly pass ranges from 31.0 to 34.7 times the price of an adult one-way full fare for the same trip. For interzone travel, the ratio of pass price to adult one-way full fare ranges from 32.5 to 37.7. On average, there are 4.3 weeks per month, so at the ratios above, the break-even point between one-way full fares and passes ranges from 3.6 to 4.4 round-trips per week.

*North Side* On each North Side line, monthly pass users reported using commuter rail an average of 4.9 days per week. For those making round-trips, this is well above the break-even point compared to paying full fares, for every pass form. A more detailed examination of the survey record shows that at least 96% of the monthly pass users ride their rail line at least four days per week.

*South Side* On all South Side lines combined, monthly pass users reported using commuter rail an average of 4.9 days per week. This was also the average on six of the eight lines. The average was slightly lower (4.7) on the Greenbush Line and slightly higher (5.0) on the Middleborough/Lakeville Line. As on the North Side, these averages were well above the break-even point for round-trip riders. At least 97% of the monthly pass users on each of the South Side lines used commuter rail four days or more per week.

### Adult Full-Fare and 12-Ride Tickets

Break-even points between adult one-way full fares and monthly passes are discussed above. The 12-ride ticket provides no price discount relative to a one-way full fare, but it offers the convenience of requiring fewer transactions. It also avoids surcharges applied when a passenger buys a ticket after boarding a train at a location where off-train ticket purchase is available. Passengers

whose travel patterns vary from week to week or who do not want to spend the up-front price of a monthly pass may choose to use 12-ride tickets even if their one-week travel frequency exceeds the break-even point for a pass.

*North Side* On all North Side lines combined, adult full-fare riders reported using commuter rail an average of 2.8 days per week. On the individual lines, this average ranged from 2.4 to 3.3 days. These averages are all below the break-even points for all pass forms, even for riders making round-trips each day that they ride. On all North Side lines combined, 12-ride ticket users riders reported using commuter rail an average of 3.9 days per week. On the individual lines, this average was either 3.8 or 3.9 days. At these frequencies, some of these riders could theoretically have paid slightly less with monthly passes if they made round-trips each day that they used commuter rail.

*South Side* On all South Side lines combined, adult full-fare riders reported using commuter rail an average of 3.2 days per week. On five of the individual lines, this average ranged from 2.1 to 3.1 days, all well below the break-even point compared with using monthly passes. On the Middleborough/Lakeville and Kingston/Plymouth Lines, adult full-fare riders used commuter rail an average of 3.9 days per week. Most of these riders would have paid slightly less with monthly passes if they made round-trips each day that they used commuter rail and if their use did not vary much from week to week. On the Fairmount Line, the average was 4.3 days, but this figure was based on a small number of responses, from riders making trips for which the break-even point would have been 4.0.

On all South Side lines combined, 12-ride ticket users reported using commuter rail an average of 3.9 days per week. On six of the individual lines, this average ranged from 3.8 to 4.0 days. Average use of 12-ride tickets was slightly higher on the Franklin Line (4.1) and the Fairmount Line (4.3). At these frequencies, some of these riders on each line could theoretically have paid slightly less with monthly passes if they made round-trips each day that they used commuter rail.

#### Half-Fare (Senior Citizen)

*North Side* Senior citizens were some of the most infrequent users of the commuter rail system. On all North Side lines combined, their usage averaged 2.8 days per week. On the individual lines, their usage frequencies were 2.5 on the Newburyport/Rockport Line, 3.6 on the Haverhill Line, 2.7 on the Lowell Line, and 2.8 on the Fitchburg Line. There is no monthly pass option for half-fare riders on commuter rail. If half-fare monthly passes had been offered with the same break-even points as those for adult fares, they would not have been cost-effective for these riders.

*South Side* The same pattern of infrequent usage was also observed on the South Side. Overall, senior citizen half-fare riders used these lines an average of 3.0 days per week. On individual lines, the rates ranged from 2.5 on the

Framingham/Worcester Line to 3.4 on the Kingston/Plymouth Line. (There were no responses from such riders on the Fairmount Line.)

#### Half-fare (Disability, Student, and 10-Ride)

Relatively small percentages of riders on any line reported use of any of these fare-payment methods, so the results reported below may not be meaningful. The survey form did not separate 10-ride ticket users between senior citizens, students, or riders with disabilities, so it would be necessary to estimate breakdowns from other information such as age and occupations.

On North Side lines, student half-fare riders used commuter rail an average of 3.6 days per week, with a range from 2.6 on the Fitchburg Line to 4.3 on the Newburyport/Rockport Line. Disability half-fare riders used commuter rail an average of 3.1 days per week, with a range from 2.0 on the Fitchburg Line to 4.7 on the Haverhill Line. Ten-ride half-fare riders used commuter rail an average of 3.8 days per week, with a range from 3.2 on the Lowell Line to 4.4 on the Fitchburg Line.

On South Side lines, student half-fare riders used commuter rail an average of 3.9 days per week, with a range from 2.0 on the Fairmount Line to 5.7 on the Framingham/Worcester Line. Disability half-fare riders used commuter rail an average of 3.0 days per week, with a range from 0.5 on the Needham Line to 4.0 on the Providence/Stoughton Line. Ten-ride half-fare riders used commuter rail an average of 4.4 days per week, with a range from 3.9 on the Greenbush Line to 4.8 on the Franklin Line.

# Infrequently Reported Fares (Blind Access Card, Family Fare, and Children 11 or Younger)

Very few surveys were returned by commuter rail riders using a Blind Access Card or a family-fare ticket, or by a child under age 12 riding free with an adult. The numbers were too low to provide meaningful conclusions about their usage frequency.

#### **Other Fare Types**

Very few survey respondents checked "other" as the fare-payment method. For those who did, the survey form provided a space to write in the payment method meant by this. Some of the responses that appeared in that field included:

- Sighted guide for a Blind Access Card user
- Military
- No one asked for ticket
- MBTA late-trip free ticket
- MBTA employee/retiree

Commuter Rail Survey

#### Usage Rates and Fare Types

Expanded Results

#### Newburyport/Rockport Line

Entry Station: All Stations

Number of Days per Week Riders Use the Service:	Number of Riders	Percent of Riders	Cumulative Percentage	-
Less than One	397	5.2%	5.2%	
One Day	174	2.3%	7.4%	
Two Days	283	3.7%	11.1%	
Three Days	519	6.8%	17.9%	
Four Days	768	10.0%	27.9%	
Five Days	4,965	64.8%	92.7%	
Six Days	205	2.7%	95.4%	
Seven Days	129	1.7%	97.1%	
Only Visiting	223	2.9%	100.0%	
TOTAL	7,663	100.0%	100.0%	
No Answer	55			
Neekend Usage:	Sunday Us	sade*		Sa

weekend Usage.	Sunday Usage			lotal	
Saturday Usage*	Regularly	Occasionally	Not at All	No Answer	
Regularly	343 4.8%	160 2.3%	11 0.2%	77	513 7.2%
Occasionally		3,466 48.9%	501 7.1%	299	4,006 56.5%
Not at all	00 0.0%	2 0.3%	2,543 35.9%	71	2,564 36.2%
No Answer	12	43	5	128	
Sunday Total	382 5.4%	3,647 51.5%	3,054 43.1%		7,083 *

Usage Rates by				Zones Reported by		
Fare Type:	Number	Percent	Avg. No. of Days	Users of Zone Passes:	Number	Percent
Fare Payment Type	of Riders	of Riders	Line Used/Wk.	Zone	of Riders	of Riders
Adult full fare	1,292	16.8%	3.0	1A	112	1.5%
Family fare	5	0.1%	0.5	1	11	0.1%
Monthly pass	4,955	64.3%	4.9	2	386	5.0%
12-ride ticket	885	11.5%	3.9	3	1,682	21.8%
Senior citizen half fare	288	3.7%	2.5	4	1,245	16.1%
Student half fare	55	0.7%	4.3	5	346	4.5%
Blind Access Card	8	0.1%	4.8	6	377	4.9%
10-ride half fare ticket	85	1.1%	4.1	7	353	4.6%
Disability half fare	79	1.0%	2.9	8	403	5.2%
Child under age 12 free fare	9	0.1%	5.0	Interzone	40	0.5%
Other	49	0.6%	2.8			
				No Zone Selected	0	0.0%
All Payment Types	7,709	100.0%		Total Riders Using Zone Passes	4,955	64.3%

Commuter Rail Survey

#### Usage Rates and Fare Types

Expanded Results

#### Haverhill/Reading Line

Entry Station: All Stations

Number of Days per Week Riders Use the Service:	Number of Riders	Percent of Riders	Cumulative Percentage
Less than One	117	3.2%	3.2%
One Day	51	1.4%	4.6%
Two Days	118	3.2%	7.7%
Three Days	229	6.2%	13.9%
Four Days	390	10.5%	24.4%
Five Days	2,597	70.1%	94.6%
Six Days	51	1.4%	95.9%
Seven Days	66	1.8%	97.7%
Only Visiting	85	2.3%	100.0%
TOTAL	3,704	100.0%	100.0%
No Answer	45		

Weekend Usage:	Sunday Usage*				Saturday Total
Saturday Usage*	Regularly	Occasionally	Not at All	No Answer	
Regularly	80 2.4%	45 1.3%	2 0.1%	27	127 3.7%
Occasionally	12 0.4%	1,050 30.8%	258 7.6%	185	1,321 38.8%
Not at all	0 0.0%	17 0.5%	1,942 57.0%	85	1,959 57.5%
No Answer	0	17	0	27	
Sunday Total	92 2.7%	1,112 32.6%	2,202 64.6%		3,407 *

Usage Rates by				Zones Reported by		
Fare Type:	Number	Percent	Avg. No. of Days	Users of Zone Passes:	Number	Percent
Fare Payment Type	of Riders	of Riders	Line Used/Wk.	Zone	of Riders	of Riders
Adult full fare	417	11.2%	3.3	1A	7	0.2%
Family fare	0	0.0%	0.0	1	312	8.3%
Monthly pass	2,586	69.2%	4.9	2	1,026	27.4%
12-ride ticket	511	13.7%	3.8	3	131	3.5%
Senior citizen half fare	114	3.1%	3.6	4	127	3.4%
Student half fare	10	0.3%	5.0	5	249	6.7%
Blind Access Card	13	0.4%	4.5	6	314	8.4%
10-ride half fare ticket	30	0.8%	4.0	7	412	11.0%
Disability half fare	24	0.6%	4.7	8	3	0.1%
Child under age 12 free fare	3	0.1%	5.0	Interzone	5	0.1%
Other	30	0.8%	3.2			
				No Zone Selected	0	0.0%
All Payment Types	3,738	100.0%		Total Riders Using Zone Passes	2,586	69.2%

Commuter Rail Survey

## Usage Rates and Fare Types

Expanded Results

## Lowell Line

Entry Station: All Stations

Number of Days per Week Riders Use the Service:	Number of Riders	Percent of Riders	Cumulative Percentage
Less than One	217	4.1%	4.1%
One Day	133	2.5%	6.6%
Two Days	212	4.0%	10.6%
Three Days	301	5.7%	16.3%
Four Days	594	11.2%	27.6%
Five Days	3,533	66.9%	94.5%
Six Days	133	2.5%	97.0%
Seven Days	43	0.8%	97.8%
Only Visiting	116	2.2%	100.0%
TOTAL	5,283	100.0%	100.0%
No Answer	57		

Weekend Usage:		Saturday Total			
Saturday Usage*	Regularly	Occasionally	Not at All	No Answer	
Regularly	120 2.4%	64 1.3%	14 0.3%	47	197 3.9%
Occasionally	8 0.2%	1,801 35.9%	403 8.0%	155	2,212 44.0%
Not at all	7 0.1%	<u>32</u> 0.6%	2,574 51.2%	57	2,613 52.0%
No Answer	10	6	6	37	
Sunday Total	134 2.7%	1,897 37.8%	2,991 59.6%		5,022 *

Usage Rates by				Zones Reported by		
Fare Type:	Number	Percent	Avg. No. of Days	Users of Zone Passes:	Number	Percent
Fare Payment Type	of Riders	of Riders	Line Used/Wk.	Zone	of Riders	of Riders
Adult full fare	645	12.1%	2.6	1A	426	8.0%
Family fare	14	0.3%	4.0	1	786	14.7%
Monthly pass	3,700	69.3%	4.9	2	719	13.5%
12-ride ticket	647	12.1%	3.8	3	288	5.4%
Senior citizen half fare	122	2.3%	2.7	4	13	0.2%
Student half fare	15	0.3%	2.9	5	637	11.9%
Blind Access Card	7	0.1%	4.5	6	809	15.2%
10-ride half fare ticket	64	1.2%	3.2	7	7	0.1%
Disability half fare	71	1.3%	2.9	8	0	0.0%
Child under age 12 free fare	0	0.0%	0.0	Interzone	16	0.3%
Other	50	0.9%	5.1			
				No Zone Selected	0	0.0%
All Payment Types	5,336	100.0%		Total Riders Using Zone Passes	3,700	69.3%

Commuter Rail Survey

## Usage Rates and Fare Types

Expanded Results

#### Fitchburg Line

Entry Station: All Stations

Number of Days per Week Riders Use the Service:	Number of Riders	Percent of Riders	Cumulative Percentage
Less than One	273	6.4%	6.4%
One Day	74	1.7%	8.1%
Two Days	161	3.8%	11.9%
Three Days	299	7.0%	18.9%
Four Days	524	12.2%	31.1%
Five Days	2,769	64.7%	95.8%
Six Days	61	1.4%	97.2%
Seven Days	39	0.9%	98.1%
Only Visiting	81	1.9%	100.0%
TOTAL	4,281	100.0%	100.0%
No Answer	26		

Weekend Usage:		Saturday Total			
Saturday Usage*	Regularly	Occasionally	Not at All	No Answer	
Regularly	37 0.9%	35 0.9%	9 0.2%	40	81 2.0%
Occasionally	 19 0.5%	1,310 32.6%	224 5.6%	111	1,553 38.7%
Not at all	9 0.2%	58 1.4%	2,317 57.7%	46	2,383 59.3%
No Answer		11	10	61	
Sunday Total	65 1.6%	1,403 34.9%	2,549 63.5%		4,017 *

Usage Rates by				Zones Reported by		
Fare Type:	Number	Percent	Avg. No. of Days	Users of Zone Passes:	Number	Percent
Fare Payment Type	of Riders	of Riders	Line Used/Wk.	Zone	of Riders	of Riders
Adult full fare	593	13.8%	2.4	1A	124	2.9%
Family fare	24	0.6%	0.8	1	87	2.0%
Monthly pass	2,758	64.1%	4.9	2	568	13.2%
12-ride ticket	659	15.3%	3.9	3	96	2.2%
Senior citizen half fare	179	4.2%	2.8	4	122	2.8%
Student half fare	45	1.0%	2.6	5	355	8.3%
Blind Access Card	5	0.1%	5.0	6	515	12.0%
10-ride half fare ticket	22	0.5%	4.4	7	135	3.2%
Disability half fare	4	0.1%	2.0	8	699	16.3%
Child under age 12 free fare	0	0.0%	0.0	Interzone	56	1.3%
Other	10	0.2%	5.0			
				No Zone Selected	0	0.0%
All Payment Types	4,300	100.0%		Total Riders Using Zone Passes	2,758	64.1%

Commuter Rail Survey

## Usage Rates and Fare Types

Expanded Results

#### Framingham/Worcester Line

Entry Station: All Stations

Number of Days per Week Riders Use the Service:	Number of Riders	Percent of Riders	Cumulative Percentage
Less than One	215	3.3%	3.3%
One Day	74	1.1%	4.4%
Two Days	166	2.5%	7.0%
Three Days	454	7.0%	13.9%
Four Days	732	11.2%	25.2%
Five Days	4,619	70.8%	95.9%
Six Days	112	1.7%	97.7%
Seven Days	78	1.2%	98.9%
Only Visiting	75	1.1%	100.0%
TOTAL	6,526	100.0%	100.0%
No Answer	32		
National Harman			

Weekend Usage:		Saturday Total			
Saturday Usage*	Regularly	Occasionally	Not at All	No Answer	
Regularly	115 1.9%	54 0.9%	7 0.1%	51	176 2.9%
Occasionally			425 6.9%	197	2,404 39.0%
Not at all	00 0.0%	15 0.2%	3,571 57.9%	81	3,586 58.2%
No Answer	0	27	0	38	
Sunday Total	126 2.0%	2,037 33.0%	4,003 64.9%		6,166 *

Usage Rates by				Zones Reported by		
Fare Type:	Number	Percent	Avg. No. of Days	Users of Zone Passes:	Number	Percent
Fare Payment Type	of Riders	of Riders	Line Used/Wk.	Zone	of Riders	of Riders
Adult full fare	647	9.9%	3.1	1A	27	0.4%
Family fare	17	0.3%	3.2	1	158	2.4%
Monthly pass	4,448	67.9%	4.9	2	328	5.0%
12-ride ticket	1,124	17.2%	4.0	3	603	9.2%
Senior citizen half fare	169	2.6%	2.5	4	956	14.6%
Student half fare	11	0.2%	5.7	5	565	8.6%
Blind Access Card	13	0.2%	2.6	6	636	9.7%
10-ride half fare ticket	67	1.0%	4.4	7	374	5.7%
Disability half fare	41	0.6%	2.4	8	793	12.1%
Child under age 12 free fare	0	0.0%	0.0	Interzone	7	0.1%
Other	18	0.3%	4.2			
				No Zone Selected	0	0.0%
All Payment Types	6,555	100.0%		Total Riders Using Zone Passes	4,448	67.9%

Commuter Rail Survey

## Usage Rates and Fare Types

Expanded Results

#### Needham Line

Entry Station: All Stations

Number of Days per Week Riders Use the Service:	Number of Riders	Percent of Riders	Cumulative Percentage
Less than One	138	4.5%	4.5%
One Day	88	2.9%	7.3%
Two Days	84	2.7%	10.0%
Three Days	210	6.8%	16.8%
Four Days	290	9.4%	26.2%
Five Days	2,166	70.0%	96.2%
Six Days	62	2.0%	98.2%
Seven Days	17	0.6%	98.7%
Only Visiting	39	1.3%	100.0%
TOTAL	3,095	100.0%	100.0%
No Answer	8		

Weekend Usage:		Saturday Total			
Saturday Usage*	Regularly	Occasionally	Not at All	No Answer	
Regularly	37 1.4%	0 0.0%	31 1.2%	62	68 2.7%
Occasionally	0 0.0%	 190 7.4%	1,105 42.9%	356	1,296 50.2%
Not at all	0 0.0%	0.0%	1,215 47.1%	52	1,215 47.1%
No Answer	0	4	0	51	
Sunday Total	37 1.4%	190 7.4%	2,351 91.2%		2,579 *

Usage Rates by				Zones Reported by		
Fare Type:	Number	Percent	Avg. No. of Days	Users of Zone Passes:	Number	Percent
Fare Payment Type	of Riders	of Riders	Line Used/Wk.	Zone	of Riders	of Riders
Adult full fare	279	9.0%	2.1	1A	70	2.3%
Family fare	0	0.0%	0.0	1	894	28.8%
Monthly pass	2,100	67.7%	4.9	2	1,126	36.3%
12-ride ticket	544	17.5%	3.8	3	0	0.0%
Senior citizen half fare	98	3.2%	2.7	4	0	0.0%
Student half fare	8	0.3%	5.0	5	3	0.1%
Blind Access Card	9	0.3%	3.0	6	0	0.0%
10-ride half fare ticket	40	1.3%	4.2	7	0	0.0%
Disability half fare	9	0.3%	0.5	8	0	0.0%
Child under age 12 free fare	0	0.0%	0.0	Interzone	7	0.2%
Other	16	0.5%	4.0			
				No Zone Selected	0	0.0%
All Payment Types	3,103	100.0%		Total Riders Using Zone Passes	2,100	67.7%

Commuter Rail Survey

## Usage Rates and Fare Types

Expanded Results

Franklin Line

Entry Station: All Stations

Number of Days per Week Riders Use the Service:	Number of Riders	Percent of Riders	Cumulative Percentage
Less than One	163	3.0%	3.0%
One Day	114	2.1%	5.1%
Two Days	114	2.1%	7.2%
Three Days	229	4.2%	11.4%
Four Days	515	9.4%	20.8%
Five Days	4,050	74.2%	95.0%
Six Days	140	2.6%	97.5%
Seven Days	54	1.0%	98.5%
Only Visiting	80	1.5%	100.0%
TOTAL	5,460	100.0%	100.0%
No Answer	14		

Weekend Usage:		Total			
Saturday Usage*	Regularly	Occasionally	Not at All	No Answer	
Regularly	96 1.9%	77 1.5%	12 0.2%	41	184 3.6%
Occasionally	15 0.3%		446 8.7%	189	2,577 50.5%
Not at all	6 0.1%	42 0.8%	2,289 44.9%	51	2,337 45.8%
No Answer	4	19	4	66	
Sunday Total	117 2.3%	2,235 43.8%	2,747 53.9%		5,099 *

Usage Rates by				Zones Reported by		
Fare Type:	Number	Percent	Avg. No. of Days	Users of Zone Passes:	Number	Percent
Fare Payment Type	of Riders	of Riders	Line Used/Wk.	Zone	of Riders	of Riders
Adult full fare	414	7.6%	3.2	1A	0	0.0%
Family fare	4	0.1%	1.0	1	8	0.2%
Monthly pass	3,789	69.4%	4.9	2	659	12.1%
12-ride ticket	1,011	18.5%	4.1	3	861	15.8%
Senior citizen half fare	134	2.5%	2.9	4	938	17.2%
Student half fare	27	0.5%	3.8	5	425	7.8%
Blind Access Card	3	0.1%	5.0	6	868	15.9%
10-ride half fare ticket	38	0.7%	4.8	7	13	0.2%
Disability half fare	18	0.3%	3.2	8	8	0.2%
Child under age 12 free fare	7	0.1%	0.5	Interzone	5	0.1%
Other	14	0.2%	2.6			
				No Zone Selected	3	0.1%
All Payment Types	5,459	100.0%		Total Riders Using Zone Passes	3,789	69.4%

Commuter Rail Survey

#### Usage Rates and Fare Types

Expanded Results

#### Providence/Stoughton Line

Entry Station: All Stations

Number of Days per Week Riders Use the Service:		Number of Riders	Percent of Riders	Cumulative Percentage	_
Less than One		370	3.1%	3.1%	
One Day		144	1.2%	4.3%	
Two Days		400	3.3%	7.6%	
Three Days		780	6.5%	14.2%	
Four Days		1,271	10.6%	24.8%	
Five Days		8,503	71.1%	95.8%	
Six Days		237	2.0%	97.8%	
Seven Days		112	0.9%	98.8%	
Only Visiting		148	1.2%	100.0%	
TOTAL		11,965	100.0%	100.0%	
No Answer		48			
Weekend Usage:		Sunday Usage*			
Saturday Usage*	Regularly	Occasionally	Not at All	No Answer	
	265	02	26	70	383

		•			
Regularly	265 2.4%	92 0.8%	26 0.2%	70	382 3.4%
Occasionally	40 0.4%	3,980 35.7%	1,120 10.1%	518	5,140 46.2%
Not at all	0 0.0%	74 74	5,536 49.7%	121	5,610 50.4%
No Answer	14	50	14	92	
Sunday Total	305 2.7%	4,145 37.2%	6,682 60.0%		11,132 *

Usage Rates by				Zones Reported by		
Fare Type:	Number	Percent	Avg. No. of Days	Users of Zone Passes:	Number	Percent
Fare Payment Type	of Riders	of Riders	Line Used/Wk.	Zone	of Riders	of Riders
Adult full fare	1,179	9.8%	3.1	1A	0	0.0%
Family fare	9	0.1%	0.5	1	406	3.4%
Monthly pass	8,139	67.9%	4.9	2	776	6.5%
12-ride ticket	2,115	17.7%	3.9	3	1,464	12.2%
Senior citizen half fare	222	1.9%	3.3	4	1,362	11.4%
Student half fare	61	0.5%	3.7	5	17	0.1%
Blind Access Card	12	0.1%	2.0	6	1,334	11.1%
10-ride half fare ticket	115	1.0%	4.4	7	1,916	16.0%
Disability half fare	46	0.4%	4.0	8	851	7.1%
Child under age 12 free fare	0	0.0%	0.0	Interzone	13	0.1%
Other	79	0.7%	4.3			
				No Zone Selected	0	0.0%
All Payment Types	11,978	100.0%		Total Riders Using Zone Passes	8,139	67.9%

Commuter Rail Survey

## Usage Rates and Fare Types

Expanded Results

#### Fairmount Line

Entry Station: All Stations

Number of Days per Week Riders Use the Service:	Number of Riders	Percent of Riders	Cumulative Percentage
Less than One	4	0.8%	0.8%
One Day	2	0.4%	1.2%
Two Days	3	0.8%	2.0%
Three Days	19	4.2%	6.2%
Four Days	61	13.4%	19.6%
Five Days	355	77.9%	97.5%
Six Days	2	0.5%	98.0%
Seven Days	9	2.0%	100.0%
Only Visiting	0	0.0%	100.0%
TOTAL	456	100.0%	100.0%
No Answer	2		

Weekend Usage:		Saturday Total			
Saturday Usage*	Regularly	Occasionally	Not at All	No Answer	
Regularly	9 2.2%	0 0.0%	0 0.0%	0	9 2.2%
Occasionally	0 0.0%	31 7.7%	32 8.0%	3	64 15.7%
Not at all	0 0.0%	<u>3</u> 0.9%	332 81.3%	12	335 82.2%
No Answer	0	2	5	28	
Sunday Total	<b>9</b> 2.2%	35 8.6%	365 89.3%		408 *

Usage Rates by				Zones Reported by		
Fare Type:	Number	Percent	Avg. No. of Days	Users of Zone Passes:	Number	Percent
Fare Payment Type	of Riders	of Riders	Line Used/Wk.	Zone	of Riders	of Riders
Adult full fare	15	3.4%	4.3	1A	120	27.3%
Family fare	0	0.0%	0.0	1	97	21.9%
Monthly pass	342	77.3%	4.9	2	118	26.7%
12-ride ticket	74	16.7%	4.3	3	3	0.8%
Senior citizen half fare	0	0.0%	0.0	4	3	0.8%
Student half fare	3	0.8%	2.0	5	0	0.0%
Blind Access Card	0	0.0%	0.0	6	0	0.0%
10-ride half fare ticket	0	0.0%	0.0	7	0	0.0%
Disability half fare	2	0.4%	1.0	8	0	0.0%
Child under age 12 free fare	0	0.0%	0.0	Interzone	0	0.0%
Other	6	1.3%	5.0			
				No Zone Selected	0	0.0%
All Payment Types	442	100.0%		Total Riders Using Zone Passes	342	77.3%

Commuter Rail Survey

#### Usage Rates and Fare Types

Expanded Results

#### Middleborough Line

Entry Station: All Stations

Number of Days per Week Riders Use the Service:	Number of Riders	Percent of Riders	Cumulative Percentage
Less than One	80	2.4%	2.4%
One Day	47	1.4%	3.8%
Two Days	72	2.1%	5.9%
Three Days	164	4.9%	10.8%
Four Days	349	10.4%	21.1%
Five Days	2,446	72.7%	93.8%
Six Days	83	2.5%	96.3%
Seven Days	47	1.4%	97.7%
Only Visiting	78	2.3%	100.0%
TOTAL	3,364	100.0%	100.0%
No Answer	46		

Weekend Usage:		Saturday Total			
Saturday Usage*	Regularly	Occasionally	Not at All	No Answer	
Regularly	137 4.3%	77 2.4%	0 0.0%	15	214 6.8%
Occasionally	0 0.0%	1,078 34.0%	297 9.4%	178	1,374 43.4%
Not at all	0 0.0%	11 0.3%	1,568 49.5%	28	1,579 49.8%
No Answer	0	8	0	14	
Sunday Total	137 4.3%	1,165 36.8%	1,865 58.9%		3,167 *

Usage Rates by				Zones Reported by		
Fare Type:	Number	Percent	Avg. No. of Days	Users of Zone Passes:	Number	Percent
Fare Payment Type	of Riders	of Riders	Line Used/Wk.	Zone	of Riders	of Riders
Adult full fare	384	11.3%	3.9	1A	0	0.0%
Family fare	13	0.4%	0.5	1	30	0.9%
Monthly pass	2,301	67.6%	5.0	2	17	0.5%
12-ride ticket	513	15.1%	3.9	3	322	9.5%
Senior citizen half fare	49	1.5%	2.7	4	756	22.2%
Student half fare	16	0.5%	3.1	5	331	9.7%
Blind Access Card	11	0.3%	3.8	6	388	11.4%
10-ride half fare ticket	34	1.0%	4.2	7	21	0.6%
Disability half fare	34	1.0%	3.2	8	419	12.3%
Child under age 12 free fare	0	0.0%	0.0	Interzone	18	0.5%
Other	47	1.4%	4.5			
				No Zone Selected	0	0.0%
All Payment Types	3,402	100.0%		Total Riders Using Zone Passes	2,301	67.6%

Commuter Rail Survey

#### Usage Rates and Fare Types

Expanded Results

#### Kingston/Plymouth Line

Entry Station: All Stations

Number of Days per Week Riders Use the Service:	Number of Riders	Percent of Riders	Cumulative Percentage	
Less than One	58	1.7%	1.7%	
One Day	28	0.8%	2.5%	
Two Days	109	3.2%	5.7%	
Three Days	258	7.6%	13.3%	
Four Days	343	10.1%	23.4%	
Five Days	2,504	73.6%	96.9%	
Six Days	34	1.0%	98.0%	
Seven Days	14	0.4%	98.4%	
Only Visiting	56	1.6%	100.0%	
TOTAL	3,404	100.0%	100.0%	
No Answer	17			

Weekend Usage:		Saturday Total			
Saturday Usage*	Regularly	Occasionally	Not at All	No Answer	
Regularly	53 1.6%	11 0.3%	0 0.0%	20	64 2.0%
Occasionally	0 0.0%	1,256 38.7%	189 5.8%	119	1,445 44.6%
Not at all	0 0.0%	7 7 0.2%	1,728 53.3%	26	1,735 53.5%
No Answer	0	0	0	13	
Sunday Total	53 1.6%	1,273 39.3%	1,917 59.1%		3,243 *

Usage Rates by				Zones Reported by		
Fare Type:	Number	Percent	Avg. No. of Days	Users of Zone Passes:	Number	Percent
Fare Payment Type	of Riders	of Riders	Line Used/Wk.	Zone	of Riders	of Riders
Adult full fare	304	8.9%	3.9	1A	0	0.0%
Family fare	0	0.0%	0.0	1	0	0.0%
Monthly pass	2,250	66.0%	4.9	2	20	0.6%
12-ride ticket	614	18.0%	3.9	3	352	10.3%
Senior citizen half fare	144	4.2%	3.4	4	326	9.6%
Student half fare	7	0.2%	5.0	5	341	10.0%
Blind Access Card	0	0.0%	0.0	6	324	<b>9</b> .5%
10-ride half fare ticket	56	1.7%	4.2	7	300	8.8%
Disability half fare	20	0.6%	3.0	8	583	17.1%
Child under age 12 free fare	0	0.0%	0.0	Interzone	4	0.1%
Other	14	0.4%	4.0			
				No Zone Selected	0	0.0%
All Payment Types	3,409	100.0%		Total Riders Using Zone Passes	2,250	66.0%

Greenbush Line Survey

## Usage Rates and Fare Types

Expanded Results

#### Greenbush Line

Entry Station: All Stations

Number of Days per Week Riders Use the Service:	Number of Riders	Percent of Riders	Cumulative Percentage	
Less than One	77	3.8%	3.8%	
One Day	37	1.8%	5.6%	
Two Days	73	3.6%	9.1%	
Three Days	167	8.2%	17.3%	
Four Days	291	14.2%	31.5%	
Five Days	1,383	67.5%	99.0%	
Six Days	12	0.6%	99.5%	
Seven Days	5	0.3%	99.8%	
Only Visiting	4	0.2%	100.0%	
TOTAL	2,049	100.0%	100.0%	
No Answer	29			

Weekend Usage:		Saturday Total			
Saturday Usage*	Regularly	Occasionally	Not at All	No Answer	
Regularly	19 1.0%	9 0.5%	0 0.0%	3	28 1.4%
Occasionally	0 0.0%	929 47.3%	142 7.2%	69	1,071 54.5%
Not at all	0 0.0%	14 0.7%	852 43.4%	17	866 44.1%
No Answer	0	5	0	19	
Sunday Total	19 1.0%	952 48.5%	994 50.6%		1,965 *

Usage Rates by				Zones Reported by		
Fare Type:	Number	Percent	Avg. No. of Days	Users of Zone Passes:	Number	Percent
Fare Payment Type	of Riders	of Riders	Line Used/Wk.	Zone	of Riders	of Riders
Adult full fare	111	5.4%	2.8	1A	0	0.0%
Family Fare	0	0.0%	0.0	1	16	0.8%
Monthly pass	1,388	67.6%	4.7	2	515	25.1%
12-ride ticket	394	19.2%	3.8	3	146	7.1%
Senior citizen half fare	73	3.6%	2.9	4	185	9.0%
Student half fare	0	0.0%	0.0	5	149	7.3%
Blind Access Card	3	0.2%	3.0	6	298	14.5%
10-ride half-fare ticket	20	1.0%	3.9	7	3	0.2%
Disability half fare	5	0.3%	1.0	8	0	0.0%
Child under age 12 free fare	0	0.0%	0.0	Interzone	9	0.4%
Other	57	2.8%	4.4			
				No Zone Selected	66	3.2%
All Payment Types	2,052	100.0%		Total Riders Using Zone Passes	1,388	67.6%



The four types of data presented in this chapter describe the potential for commuter rail riders to have used personal vehicles (autos, trucks, or motorcycles) as alternatives to the trips they were making when surveyed. More specifically, the survey asked whether or not riders were licensed to drive, how many vehicles were owned by the riders' households, and whether these vehicles were available for use by the riders. Per capita vehicle ownership was calculated from the answers to the household vehicle ownership question and the household size question (for the latter, see Chapter 9).

The tables (at the end of the chapter) present these data by line. For each line, four tables presenting the four respective types of data are grouped on a single page. The data for each station are based on the survey responses from riders who started the commuter rail portions of their trips on that line. Chapter 2 addresses the same categories of data that are addressed in the present chapter, but at the level of the commuter rail system as a whole. It includes tables and discussion.

#### 11.1 LICENSED DRIVERS

#### 11.1.1 DESCRIPTION OF TABLE

Each line's table on licensed drivers shows both the numbers and percentages of commuter rail riders who are licensed and not licensed to drive a vehicle. Also shown is the number of survey respondents who did not answer the question; however, the percentages in the table exclude riders who did not respond.

#### 11.1.2 OVERVIEW OF RESULTS

#### **North Side**

Overall, 93% of the survey respondents on North Side lines were licensed drivers. This rate varied only slightly by line, from 92% on the Newburyport/Rockport Line to 94% on the Haverhill and Lowell lines In general, riders without licenses were those in the lower age groups. Of all of the North Side respondents who were 24 years old or younger, only 75%

possessed valid driver's licenses. Only 70% of Fitchburg Line riders under the age of 25 were licensed. Only 39% of the riders age 18 and younger, aggregated across all of the North Side lines, were licensed to drive.

#### South Side

Overall 96% of the survey respondents on South Side lines were licensed drivers. On individual lines, this rate ranged from 92% on the Fairmount Line to 99% on the Greenbush Line. Overall, only 84% of the South Side respondents under the age of 25 and only 39% of those age 18 or younger were licensed to drive.

#### 11.2 USABLE VEHICLES PER HOUSEHOLD

#### 11.2.1 DESCRIPTION OF TABLE

Each line's table showing usable vehicles per household summarizes the results of survey question 15a (Greenbush survey question 18), which asked how many usable vehicles (including autos, trucks, and motorcycles) riders' households had. Respondents could check one of four boxes that corresponded to zero, one, two, and three or more vehicles. The table shows the number and percentage of riders who checked each choice. Riders who did not answer this question are not counted in the percentages.

#### 11.2.2 OVERVIEW OF RESULTS

#### North Side

Across the North Side lines, 61% of riders had two or more vehicles per household, 30% had one vehicle, and only 9% had none. Lowell Line riders had the highest vehicle ownership, with 69% having two or more vehicles per household and only 6% having no vehicles. Newburyport/Rockport Line riders had the lowest rate of multiple-vehicle ownership, with only 53% having two or more vehicles per household. However, Fitchburg Line riders had the highest rate of no-vehicle households, at 12%.

#### South Side

Across the South Side Lines, 70% of riders had two or more vehicles per household, 26% had one vehicle, and only 4% had none. Greenbush Line riders had by far the highest vehicle ownership, with 81% having two or more vehicles per household and only 1% having none. This line had been in operation for less than two years when the survey was distributed. Some households may not yet have decided that they no longer needed as many vehicles as they did before the line opened.

Fairmount Line rider had by far the lowest vehicle ownership rates, with only 50% having two or more vehicles per household and 10% having none. These lower rates reflect a combination of lower average household incomes of

Fairmount Line riders and the greater inconvenience of keeping vehicles in inner city neighborhoods compared with outlying suburbs.

#### 11.3 RIDERS WITH A HOUSEHOLD VEHICLE AVAILABLE FOR THE TRIP

#### 11.3.1 DESCRIPTION OF TABLE

Each line's table on vehicle availability for the surveyed trip summarizes the results for question 15b (Greenbush survey question 19), which asked if the rider could have used a household vehicle instead of riding on the commuter rail system on the day of the survey. The numbers and percentages of riders who responded "yes" and "no" to the question are shown in the table. Riders who did not answer the question were not counted in the percentages.

#### 11.3.2 OVERVIEW OF RESULTS

#### **North Side**

Overall, 70% of North Side line riders reported that they had vehicles available for the trips that they were making when surveyed. Of the four North Side lines, the Lowell Line had the highest percentage of the riders with available vehicles, 75%. Only 64% of the Newburyport/Rockport Line riders, 73% of the Haverhill Line riders, and 70% of the Fitchburg Line riders had vehicles available for their trips.

#### South Side

Overall 79% of South Side riders had vehicles available for their trips. The availability rate was lowest on the Fairmount Line, at 65%. Otherwise, the rate ranged from 76% on the Framingham/Worcester and Needham Lines to 90% on the Greenbush Line.

#### 11.4 VEHICLES OWNED PER CAPITA

#### 11.4.1 DESCRIPTION OF TABLE

For each line's table on per capita vehicle ownership in the survey respondents' households, that rate was calculated by dividing the number of usable household vehicles reported in question 15a (Greenbush survey question 18) by the household size reported in question 18 (Greenbush survey question 22). The table presents six ownership ranges: no vehicles, 0.01 to 0.49 vehicles, 0.50 to 0.99 vehicles, 1.00 to 1.49 vehicles, 1.5 to 1.99 vehicles, and 2 or more vehicles. For each range, the table shows the number and percent of riders; it also gives the cumulative percentages that result as one adds each category of user to the ones preceding it in the table. Riders who did not answer both question 15a/18 and question 18/22 were not included in the calculations.

#### 11.4.2 OVERVIEW OF RESULTS

#### North Side

On the North Side overall, 41% of riders came from households with 1.0 or more vehicles per capita. The line with the highest percentage of such riders was the Haverhill Line (46%), The Fitchburg Line had the lowest percentage of riders from households with 1.0 or more vehicles per capita (38%).

#### South Side

On the South Side overall, 40% of riders came from households with 1.0 or more vehicles per capita. The line with the highest percentage of such riders was the Kingston/Plymouth Line (46%). The Needham Line had the lowest percentage of riders coming from households with 1.0 or more vehicles per capita (34%).



nded Results	Newburyport/Rockpo Entry Station: All S	
Licensed Drivers:	Number of Riders	Percent of Riders
Licensed	6,997	91.5%
Not Licensed	648	8.5%
TOTAL	7,645	100.0%
No Answer	72	
Usable Vehicles per Household:	Number of Riders	Percent of Riders
No vehicles	795	10.4%
1 vehicle	2,779	36.5%
2 vehicles	3,108	40.8%
3 or more vehicles	937	12.3%
TOTAL	7,619	100.0%
No Answer	98	
Was a Household Vehicle Available to Rider?:	Number of	Percent of

_	Riders	Riders
Yes No	4,861 2,723	64.1% 35.9%
TOTAL No Answer	7,584 133	100.0%

Vehicles Owned per Capita:	Number of Riders	Percent of Riders	Cumulative Percentage
No vehicles	778	10.4%	10.4%
0.01 to 0.49 vehicles	973	13.0%	23.4%
0.50 to 0.99 vehicles	2,767	37.0%	60.4%
1.00 to 1.49 vehicles	2,733	36.5%	96.9%
1.50 to 1.99 vehicles	185	2.5%	99.4%
2 or more vehicles	48	0.6%	100.0%
TOTAL RESPONSES	7,484		



<i>/ehicle Availability</i> xpanded Results	Haverhill/Reading L Entry Station: All Statio	
Licensed Drivers:	Number of Riders	Percent of Riders
Licensed	3,477	93.7%
Not Licensed	234	6.3%
TOTAL	3,711	100.0%
No Answer	37	
Usable Vehicles per Household:	Number of Riders	Percent of Riders
No vehicles	228	6.2%
1 vehicle	1,079	29.2%
2 vehicles	1,836	49.7%
3 or more vehicles	553	15.0%
TOTAL	3,696	100.0%
No Answer	53	
Was a Household Vehicle Available to Rider?:	Number of Riders	Percent of Riders
Yes	2,715	73.2%
No	994	26.8%

TOTAL	3,709	100.0%
No Answer	39	

Vehicles Owned per Capita:	Number of Riders	Percent of Riders	Cumulative Percentage
No vehicles	214	5.9%	5.9%
0.01 to 0.49 vehicles	459	12.7%	18.7%
0.50 to 0.99 vehicles	1,286	35.7%	54.3%
1.00 to 1.49 vehicles	1,499	41.6%	95.9%
1.50 to 1.99 vehicles	115	3.2%	99.1%
2 or more vehicles	32	0.9%	100.0%
TOTAL RESPONSES	3,605		



<i>icle Availability</i> nded Results	Entr	Lowell ry Station: All Stat
Licensed Drivers:	Number of Riders	Percent of Riders
Licensed	5,011	94.4%
Not Licensed	296	5.6%
TOTAL	5,307	100.0%
No Answer	33	
Usable Vehicles per Household:	Number of Riders	Percent of Riders
No vehicles	327	6.2%
1 vehicle	1,343	25.4%

r venicie	1,343	25.4%
2 vehicles	2,619	49.5%
3 or more vehicles	1,007	19.0%
TOTAL	5,295	100.0%
No Answer	44	

Was a Household Vehicle Available to Rider?:	Number of Riders	Percent of Riders
Yes No	3,935 1,344	74.5% 25.5%
TOTAL No Answer	5,279 61	100.0%

Vehicles Owned per Capita:	Number of Riders	Percent of Riders	Cumulative Percentage
No vehicles	306	5.9%	5.9%
0.01 to 0.49 vehicles	603	11.6%	17.5%
0.50 to 0.99 vehicles	2,151	41.3%	58.8%
1.00 to 1.49 vehicles	1,921	36.9%	95.7%
1.50 to 1.99 vehicles	147	2.8%	<b>9</b> 8.5%
2 or more vehicles	78	1.5%	100.0%
TOTAL RESPONSES	5,206		



Number of Riders 3,963 284	Percent of Riders 93.3% 6.7%
284	6.7%
	0.170
4,247	100.0%
60	
Number of	Percent of Riders
	60

No venicies	519	12.1%
1 vehicle	1,094	25.6%
2 vehicles	1,973	46.2%
3 or more vehicles	687	16.1%
TOTAL	4,273	100.0%
No Answer	35	

Was a Household Vehicle Available to Rider?:	Number of Riders	Percent of Riders
Yes No	2,910 1,252	69.9% 30.1%
TOTAL No Answer	4,162 145	100.0%

Vehicles Owned per Capita:	Number of Riders	Percent of Riders	Cumulative Percentage
No vehicles	506	12.1%	12.1%
0.01 to 0.49 vehicles	480	11.5%	23.5%
0.50 to 0.99 vehicles	1,599	38.2%	61.7%
1.00 to 1.49 vehicles	1,377	32.9%	94.6%
1.50 to 1.99 vehicles	178	4.2%	98.8%
2 or more vehicles	49	1.2%	100.0%
TOTAL RESPONSES	4,189		



<i>Yehicle Availability</i> Apanded Results	Framingham/Worcest Entry Station: All S	
Licensed Drivers:	Number of Riders	Percent of Riders
Licensed	6,267	96.0%
Not Licensed	258	4.0%
TOTAL	6,525	100.0%
No Answer	33	
Usable Vehicles per Household:	Number of Riders	Percent of Riders
	200	6.0%
No vehicles	389	0.070
No vehicles 1 vehicle	389 1,641	25.3%
1 vehicle	1,641	25.3%
1 vehicle 2 vehicles	1,641 3,464	25.3% 53.3%

	Riders	Riders
Yes	4,932	76.4%
NO	1,520 6,453	23.6% 100.0%
No Answer	105	100.0 %

Vehicles Owned per Capita:	Number of Riders	Percent of Riders	Cumulative Percentage
No vehicles	381	6.0%	6.0%
0.01 to 0.49 vehicles	802	12.6%	18.6%
0.50 to 0.99 vehicles	2,919	45.8%	64.4%
1.00 to 1.49 vehicles	2,042	32.1%	96.5%
1.50 to 1.99 vehicles	153	2.4%	98.9%
2 or more vehicles	73	1.1%	100.0%
TOTAL RESPONSES	6,370		



<b>nicle Availability</b> Inded Results	Ent	Needham Lin ry Station: All Statio
Licensed Drivers:	Number of Riders	Percent of Riders
Licensed	2,986	96.5%
Not Licensed	110	3.5%
TOTAL	3,095	100.0%
No Answer	8	
Usable Vehicles per Household:	Number of Riders	Percent of Riders
No vehicles	108	3.5%
1 vehicle	1,029	33.6%
2 vehicles	1,570	51.3%
3 or more vehicles	355	11.6%
	3,062	100.0%
TOTAL	3,002	100.070

Was a Household Vehicle Available to Rider?:	Number of Riders	Percent of Riders
Yes No	2,336 726	76.3% 23.7%
TOTAL No Answer	3,062 41	100.0%

Vehicles Owned per Capita:	Number of Riders	Percent of Riders	Cumulative Percentage
No vehicles	95	3.2%	3.2%
0.01 to 0.49 vehicles	498	16.6%	19.7%
0.50 to 0.99 vehicles	1,396	46.3%	66.1%
1.00 to 1.49 vehicles	972	32.3%	98.3%
1.50 to 1.99 vehicles	42	1.4%	99.7%
2 or more vehicles	8	0.3%	100.0%
TOTAL RESPONSES	3,012		



TOTAL

No Answer

hicle Availability Inded Results	Entr	Franklin Li ry Station: All Static
Licensed Drivers:	Number of Riders	Percent of Riders
Licensed	5,226	96.0%
Not Licensed	215	4.0%
TOTAL	5,441	100.0%
No Answer	32	
Usable Vehicles per Household:	Number of Riders	Percent of Riders
No vehicles	133	2.5%
1 vehicle	1,464	26.9%
2 vehicles	2,871	52.8%
3 or more vehicles	969	17.8%

Was a Household Vehicle Available to Rider?:	Number of Riders	Percent of Riders
Yes No	4,193 1,203	77.7% 22.3%
TOTAL No Answer	5,396 78	100.0%

5,437

36

100.0%

Vehicles Owned per Capita:	Number of Riders	Percent of Riders	Cumulative Percentage
No vehicles	120	2.3%	2.3%
0.01 to 0.49 vehicles	753	14.2%	16.4%
0.50 to 0.99 vehicles	2,371	44.6%	61.1%
1.00 to 1.49 vehicles	1,864	35.1%	96.1%
1.50 to 1.99 vehicles	161	3.0%	99.2%
2 or more vehicles	45	0.8%	100.0%
TOTAL RESPONSES	5,313		



No Answer

		ence/Stoughton L y Station: All Stati
Licensed Drivers:	Number of Riders	Percent of Riders
Licensed	11,527	96.7%
Not Licensed	398	3.3%
TOTAL	11,925	100.0%
No Answer	88	
Usable Vehicles per Household:	Number of Riders	Percent of Riders
No vehicles	553	4.6%
1 vehicle	2,956	24.8%
2 vehicles	6,325	53.1%
3 or more vehicles	2,067	17.4%
TOTAL	11,901	100.0%
No Answer	111	
Was a Household Vehicle Available to Rider?:	Number of Riders	Percent of Riders
Yes	9,300	78.6%
No	2,531	21.4%
TOTAL	11,831	100.0%

Vehicles Owned per Capita:	Number of Riders	Percent of Riders	Cumulative Percentage
No vehicles	541	4.6%	4.6%
0.01 to 0.49 vehicles	1,271	10.9%	15.5%
0.50 to 0.99 vehicles	5,088	43.5%	59.0%
1.00 to 1.49 vehicles	4,285	36.6%	95.6%
1.50 to 1.99 vehicles	366	3.1%	98.8%
2 or more vehicles	142	1.2%	100.0%
TOTAL RESPONSES	11,693		

182



<b>ricle Availability</b> nded Results	Entr	Fairmount Lin y Station: All Station
Licensed Drivers:	Number of Riders	Percent of Riders
Licensed	418	92.2%
Not Licensed	35	7.8%
TOTAL	453	100.0%
No Answer	5	
Usable Vehicles per Household:	Number of Riders	Percent of Riders
No vehicles	44	9.8%
1 vehicle	179	39.6%
2 vehicles	162	35.8%
3 or more vehicles	67	14.8%
TOTAL	452	100.0%
No Answer	6	

Was a Household Vehicle Available to Rider?:	Number of Riders	Percent of Riders
Yes No	291 156	65.2% 34.8%
TOTAL No Answer	447 11	100.0%

Vehicles Owned per Capita:	Number of Riders	Percent of Riders	Cumulative Percentage
No vehicles	42	9.5%	9.5%
0.01 to 0.49 vehicles	64	14.6%	24.2%
0.50 to 0.99 vehicles	153	35.0%	59.1%
1.00 to 1.49 vehicles	171	39.0%	98.1%
1.50 to 1.99 vehicles	6	1.3%	99.4%
2 or more vehicles	2	0.6%	100.0%
TOTAL RESPONSES	438		



hicle Availability Inded Results	Middleborough Entry Station: All Sta	
Licensed Drivers:	Number of Riders	Percent of Riders
Licensed	3,177	94.4%
Not Licensed	187	5.6%
TOTAL	3,365	100.0%
No Answer	46	
Usable Vehicles per Household:	Number of Riders	Percent of Riders
No vehicles	237	7.1%
1 vehicle	881	26.4%
2 vehicles	1,544	46.3%
3 or more vehicles	673	20.2%
TOTAL	3,336	100.0%
No Answer	74	
Was a Household Vehicle Available to Rider?:	Number of	Percent of

	Riders	Riders
Yes No	2,535 780	76.5% 23.5%
TOTAL No Answer	3,315 95	100.0%

Vehicles Owned per Capita:	Number of Riders	Percent of Riders	Cumulative Percentage
No vehicles	227	7.0%	7.0%
0.01 to 0.49 vehicles	359	11.1%	18.1%
0.50 to 0.99 vehicles	1,324	40.8%	58.9%
1.00 to 1.49 vehicles	1,181	36.4%	95.3%
1.50 to 1.99 vehicles	113	3.5%	98.8%
2 or more vehicles	39	1.2%	100.0%
TOTAL RESPONSES	3,243		



<b>nicle Availability</b> Inded Results	Kingston/Plymouth Entry Station: All Stat	
Licensed Drivers:	Number of Riders	Percent of Riders
Licensed	3,344	97.9%
Not Licensed	70	2.1%
TOTAL	3,414	100.0%
No Answer	7	
Usable Vehicles per Household:	Number of Riders	Percent of Riders
No vehicles	28	0.8%
1 vehicle	725	21.4%
2 vehicles	1,953	57.7%
3 or more vehicles	679	20.1%
TOTAL	3,385	100.0%
No Answer	36	

Was a Household Vehicle Available to Rider?:	Number of Riders	Percent of Riders
Yes No	2,978 393	88.3% 11.7%
TOTAL No Answer	3,371 50	100.0%

Vehicles Owned per Capita:	Number of Riders	Percent of Riders	Cumulative Percentage
No vehicles	28	0.8%	0.8%
0.01 to 0.49 vehicles	371	11.0%	11.8%
0.50 to 0.99 vehicles	1,430	42.4%	54.2%
1.00 to 1.49 vehicles	1,359	40.3%	94.5%
1.50 to 1.99 vehicles	145	4.3%	98.8%
2 or more vehicles	39	1.2%	100.0%
TOTAL RESPONSES	3,372		



Greenbush Line Survey

<i>hicle Availability</i> anded Results	Enti	Greenbush Line
Licensed Drivers:	Number of Riders	Percent of Riders
Licensed	2,018	99.2%
Not Licensed	16	0.8%
TOTAL	2,034	100.0%
No Answer	44	
Usable Vehicles per Household:	Number of Riders	Percent of Riders
No vehicles	20	1.0%
1 vehicle	363	17.8%
2 vehicles	1,211	59.3%
3 or more vehicles	447	21.9%
TOTAL	2,041	100.0%
No Answer	37	

Was a Household Vehicle Available to Rider?:	Number of Riders	Percent of Riders
Yes No	1,789 210	89.5% 10.5%
TOTAL No Answer	1,999 79	100.0%

Vehicles Owned per Capita:	Number of Riders	Percent of Riders	Cumulative Percentage
No vehicles	20	1.0%	1.0%
0.01 to 0.49 vehicles	296	15.4%	16.4%
0.50 to 0.99 vehicles	798	41.5%	57.9%
1.00 to 1.49 vehicles	727	37.8%	95.7%
1.50 to 1.99 vehicles	71	3.7%	99.4%
2 or more vehicles	11	0.6%	100.0%
TOTAL RESPONSES	1,922		



The data in this chapter summarize the ratings that riders who received survey forms on commuter rail trips each of the commuter rail lines gave to MBTA service quality in terms of 10 measures that were listed in question 24 (question 27 on the Greenbush survey form) on the survey form. The question asked for the riders' feelings "about MBTA commuter rail service," as opposed to the specific line on which they were riding. This question differed from the others on the form in that it dealt with subjective opinions rather than objective characteristics of riders and their trips.

There may be some bias in the results, for two reasons. Riders with strong positive or negative opinions of service may have been more inclined to complete the service quality question than those without strong opinions. In addition, the survey did not capture opinions of potential riders who do not use the commuter rail system because of strong negative perceptions of one or more service attributes.

After rating the 10 listed service attributes, respondents were asked to indicate which 3 were most important to them. Based on the weighted number of survey forms on which each attribute was marked as one of the most important, one of the following importance levels was assigned to each attribute: very low (first quartile), low (second quartile), moderate (third quartile), and high (fourth quartile). The results vary from line to line; significant variations are noted in the text. It should be noted that these are *relative* importance levels. Each rider indicated only which three attributes were most important. It does not necessarily follow that the other attributes were unimportant to that rider—they were simply not as important as the top three.

The 10 attributes and the ratings they received are discussed below in the order in which they appeared on the survey form. The importance level of each attribute is given in its section heading. Tables (at the end of the chapter) present the service quality data by line. For each line, one table presents both the ratings and importance rankings for each of the service quality measures. The data for each line are based on the survey responses from riders who received survey forms while waiting for or riding on trains on that line. Chapter 2 addresses the same categories of data that are addressed in the present chapter, but at the level of the commuter rail system as a whole. It includes tables and discussion.

#### 12.1 DESCRIPTION OF TABLE

Respondents ranked the quality of 10 attributes of MBTA commuter rail service on a scale from poor (1) to excellent (5) and also indicated which 3 of the 10 attributes were most important to them. The table for each line gives, for each attribute, the percent of respondents who received surveys on that line who checked each of the ratings (excluding those who gave no ratings), and it also gives the average rating. The final column in the table shows the number of riders who checked each attribute as one of the 3 most important.

#### 12.2 OVERVIEW OF RESULTS

#### Reliability (On-Time Performance) Relative Importance: High

On each of the commuter rail lines, "reliability (on-time performance)" was the service quality cited by the largest number of passengers as one of the three most important. On 10 of the 12 lines, this measure was rated 3 or better by 78% or more of the riders. The mean ratings for this measure on these lines ranged from 3.2 to 3.7, except on the Greenbush Line, where the mean was 4.5.

Reliability was rated much lower on the Fitchburg and Framingham Lines, where only 72% and 66% of the riders, respectively, gave the measure ratings of 3 or better, resulting in mean ratings of 3.0 and 2.9. The Fitchburg Line results were lowered at least in part by a service problem that caused most of the AM-peak-period trains to run very late on the day of the survey. Riders on the Framingham/Worcester Line had been experiencing longer-term reliability problems attributed to heavy freight traffic on the same tracks.

#### Safety and Security Relative Importance: High

"Safety and security" was rated as 3 or better on the scale of 1 to 5 by 94% to 99% of the riders on each line. Mean ratings ranged from 3.8 to 4.1, except on the Greenbush Line, where the mean was 4.4. On every line, this measure received either the highest or the second-highest mean rating given to any of the measures. On nine of the lines, "safety and security" was checked by either the third- or fourth-largest number of riders as one of the three most important measures. The exceptions were the Framingham/Worcester, Providence/ Stoughton and Greenbush Lines, where it received only the fifth-largest number of checks.

#### Cleanliness/Condition of Vehicles Relative Importance: Low

On 8 of the 12 lines, cleanliness/condition of vehicles was rated 3 or better by 74% to 79% of the riders, with mean ratings of 3.0 to 3.2. However, on the Haverhill Line, only 66% of riders rated this measure 3 or better, and the mean rating was 2.8. At the opposite end of the scale, on the Needham, Fairmount,

and Greenbush Lines, 82% to 87% of riders rated cleanliness/condition of vehicles 3 or better, with mean ratings ranging from 3.3 to 3.6.

The reasons for these differences were not apparent, as most vehicles are rotated among lines from day to day. Some riders may have based their responses on the vehicles that they happened to be on when they received their surveys. Riders on the Needham and Fairmount Lines have the shortest average trip distances and therefore spend the least amount of time on-board trains where they can take notice of vehicle cleanliness and condition.

#### Courtesy of Train Crews Relative Importance: Very Low

"Courtesy of train crews" was one of the highest-rated service quality measures on each line, but overall it was checked by the third-lowest number of riders as one of the three most important measures. On the North Side lines, 94% to 96% of riders rated this measure 3 or better, with mean ratings ranging from 3.9 to 4.1. On South Side lines, the ratings varied more, with 90% to 99% giving rating of 3 or better, and mean values ranging from 3.7 to 4.4.

#### Announcement of Stations Relative Importance: Very Low

"Announcement of stations" was among the lower-rated service quality measures, but it was also checked by the second-lowest number of rider as one of the three most important measures. On the North Side lines, 74% to 81% of riders gave this measure a rating of 3 or better, with mean ratings of 3.2 to 3.5. On most of the South Side lines, 69% to 79% of riders gave this measure ratings of 3 or better, with mean ratings of 3.0 to 3.4. Exceptions were the Franklin Line, where only 62% gave ratings of 3 or better and the mean was 2.8, and the Greenbush Line, where 86% gave ratings of 3 or better and the mean was 3.6.

#### Availability of Seating on Trains Relative Importance: Medium

Overall, riders on North Side lines rated the availability of seating on trains higher in quality but lower in importance than riders on South Side lines did. According to MBTA figures, North Side lines had fewer peak-period trains with loads in excess of seating capacity than South Side lines had when the survey was conducted, so North Side riders would have been less inclined to be concerned with seating shortages.

On the North Side lines, 85% to 91% of riders rated this measure as 3 or better, and the mean ratings ranged from 3.5 to 3.7. The overall mean of 3.6 was the third-highest for any measure on the North Side, but availability of seating was checked by only the fifth-highest number of riders as one of the three most important measures.

On five of the eight South Side lines, 74% to 83% of riders rated the availability of seating as 3 or better, with mean ratings ranging from 3.1 to 3.4. However, on the Middleborough/Lakeville, Greenbush, and Fairmount Lines, this measure was rated 3 or better by 88% to 93% of the riders, with means

ranging from 3.5 to 4.4. The Fairmount Line, on which the mean rating was highest, had the least crowded trains of any line in the system.

Overall, the availability of seating was checked by the third-highest number of South Side riders as one of the three most important measures.

#### Frequency of Service Relative Importance: High

Overall, "frequency of service" was checked by the second-highest number of riders on every line (below only "reliability") as one of the three most important service quality measures. It was also among the less favorably rated measures. Service frequencies vary not only between lines, but between stations or segments on the same line.

On the North Side lines, the frequency of service was rated most favorably on the Lowell Line, where 86% gave it a rating of 3 or better and the mean was 3.5. Frequency was rated least favorably on the Fitchburg Line, where only 59% gave it a rating of 3 or better and the mean was only 2.7. This was the second-lowest rating given to any of the measures by riders on that line. This low rating may have resulted partly from a service problem on the day of the survey, when several inbound AM-peak-period trains ran very late.

On seven of the eight South Side lines, the frequency of service was rated 3 or better by 75% to 83% of the riders, with mean values ranging from 3.1 to 3.4. However, on the Framingham/Worcester Line, only 64% rated frequency as average or better, and the mean was 2.8. This was the second-lowest rating given to any of the measures by riders on that line.

#### Travel Time/Speed Relative Importance: Medium

"Travel time/speed" was one of the more favorably rated measures overall. However, the ratings varied widely among lines. On the North Side, 93% of the riders on the Newburyport/Rockport Line and 95% of those on the Lowell Line rated travel time/speed as 3 or better, resulting in mean values of 3.7 and 3.8, respectively. However, only 82% of the riders on the Haverhill Line and only 81% of those on the Fitchburg Line rated this measure as 3 or better, so the mean ratings were only 3.4 and 3.3.

On six of the eight South Side lines, travel time/speed was rated 3 or better by 89% to 95% of the riders, with mean ratings ranging from 3.5 to 4.0. On the Framingham/Worcester Line, only 81% rated this measure 3 or better, and the mean was only 3.2. On the Franklin Line, 84% gave it ratings of 3 or better, and the mean was 3.4.

On North Side lines, travel/time speed was checked by the fourth-largest number of rider as one of the three most important service quality measures, except on the Fitchburg Line, where it was third. On South Side lines, it ranged from third to fifth in the number of checks for importance.

#### Parking Availability Relative Importance: Low

Many of the commuter rail riders who used access modes other than park-andride had no opinions about parking availability. Consequently, riders who completed the section of the survey on service quality measures skipped over the parking-availability measure in much greater numbers than any of the other measures. (Overall, about 18% of those who rated other measures did not rate parking.) Partly because of the number of riders who expressed no opinions about parking, this measure was checked by only the seventh-largest numbers of riders on both North Side and South Side lines as one of the three most important measures.

Among riders who did give ratings for parking availability, those on South Side lines generally had more favorable opinions than those on North Side lines. This reflects the much greater parking capacity on the South Side as a result of station expansion and line extensions. When the survey was conducted, 78% of the dedicated parking spaces for commuter rail riders were on South Side lines.

On North Side lines overall, 73% of riders rated parking availability as 3 or better, with a mean of 3.2. However, the ratings of 3 or better were much lower on the Fitchburg Line (62%) and much higher on the Haverhill Line (81%) and the Lowell Line (80%).

On the South Side lines overall, 86% of riders rated parking availability as 3 or better, with a mean of 3.6. Ratings were highest on the three newest lines (the Old Colony Lines), which have several stations designed primarily for parkand-ride access. On these lines, ratings of 3 or better ranged from 92% on the Kingston/Plymouth Line to 98% on the Greenbush Line, and mean ratings ranged from 3.8 to 4.5. On four of the older South Side lines, 81% to 89% rated parking availability as 3 or better, with means of 3.4 to 3.8. On the Fairmount Line, only 77% gave ratings of 3 or better, but the mean was still 3.4.

#### Station Amenities Relative Importance: Very Low

On every commuter rail line "station amenities" was the lowest-rated of the 10 service quality measures. However, it was also rated by the fewest riders on each line as one of the three most important measures.

Overall, on North Side lines only 55% of riders rated station amenities as 3 or better, and the mean rating was 2.6. The lowest ratings were given by riders on the Newburyport/Rockport and Fitchburg Lines, with only 46% of each giving ratings of 3 or better, and mean ratings of 2.4 each. Lowell Line riders gave the highest ratings on the North Side, with 72% at 3 or better and a mean of 3.1.

Station amenities were rated only slightly more favorably overall by South Side riders, with 59% giving ratings of 3 or better, and a mean of 2.7. There was relatively little difference of opinion in this measure among riders on different lines. On six of the eight lines, the percentages of ratings of 3 or better ranged from 54% to 60%, with means of 2.5 to 2.8. On the Providence/

Stoughton Line, 65% gave ratings of 3 or better, and the mean was 2.9. On the Greenbush Line, 70% gave ratings of 3 or better, but the mean was still only 2.9. The Greenbush Line is the newest line in the system, and its riders gave more favorable ratings to every measure than those on other lines did.

Commuter Rail Survey

#### Service Quality

Expanded Results

#### Newburyport/Rockport Line Entry Station: All Stations

Service Quality	Mean	1 (Poor)	2	3 (Average)	4	5 (Excellent)	Total	No Response	Impor- tance*
Reliability (on-time performance)	3.5	3.2%	10.8%	30.2%	39.9%	16.0%	7,533	184	4,406
Safety and security	4.0	0.9%	3.1%	22.3%	44.1%	29.7%	7,431	286	1,514
Cleanliness/condition of vehicles	3.1	8.5%	15.8%	40.3%	28.4%	7.1%	7,485	232	1,066
Courtesy of train crews	4.1	0.6%	3.9%	17.8%	40.4%	37.3%	7,487	230	651
Announcement of stations	3.4	6.6%	13.9%	32.1%	30.4%	17.1%	7,442	275	214
Availability of seating on trains	3.7	2.6%	6.3%	30.4%	39.0%	21.6%	7,476	241	1,176
Frequency of service	3.3	5.3%	15.4%	35.0%	31.0%	13.3%	7,478	239	2,700
Travel time/speed	3.7	1.5%	5.4%	30.5%	41.8%	20.8%	7,472	245	1,397
Parking availability	3.1	15.1%	16.8%	29.1%	23.5%	15.5%	5,796	1,921	503
Station amenities	2.4	29.2%	25.2%	28.6%	12.3%	4.7%	6,885	832	131

Commuter Rail Survey

#### Service Quality

Expanded Results

Haverhill/Reading Line Entry Station: All Stations

Service Quality	Mean	1 (Poor)	2	3 (Average)	4	5 (Excellent)	Total	No Response	Impor- tance*
Reliability (on-time performance)	3.2	7.3%	14.9%	34.8%	33.0%	10.1%	3,633	115	2,178
Safety and security	3.8	1.5%	3.8%	28.5%	40.9%	25.3%	3,553	196	745
Cleanliness/condition of vehicles	2.8	14.5%	19.3%	38.7%	23.1%	4.4%	3,615	133	493
Courtesy of train crews	4.0	1.2%	4.8%	21.2%	39.8%	33.0%	3,631	117	287
Announcement of stations	3.2	9.4%	16.5%	34.7%	27.0%	12.5%	3,596	152	151
Availability of seating on trains	3.6	2.3%	10.4%	31.2%	38.5%	17.7%	3,617	132	556
Frequency of service	3.0	11.0%	18.2%	38.7%	24.1%	8.1%	3,628	120	1,363
Travel time/speed	3.4	5.9%	12.4%	34.1%	35.6%	12.0%	3,631	118	731
Parking availability	3.4	7.8%	11.5%	31.7%	30.3%	18.6%	2,922	827	247
Station amenities	2.6	22.8%	19.8%	39.1%	14.3%	3.9%	3,332	416	56

Commuter Rail Survey

#### Service Quality

Expanded Results

**Lowell Line** Entry Station: All Stations

Service Quality	Mean	1 (Poor)	2	3 (Average)	4	5 (Excellent)	Total	No Response	Impor- tance*
Reliability (on-time performance)	3.7	2.1%	7.3%	27.7%	43.2%	19.7%	5,144	196	2,872
Safety and security	4.0	0.5%	2.6%	22.8%	44.4%	29.7%	5,129	211	1,080
Cleanliness/condition of vehicles	3.1	6.2%	16.8%	42.1%	29.0%	5.9%	5,155	185	564
Courtesy of train crews	3.9	0.6%	4.0%	25.9%	41.1%	28.3%	5,164	176	323
Announcement of stations	3.4	5.4%	13.5%	34.3%	30.9%	16.0%	5,131	209	77
Availability of seating on trains	3.5	3.6%	9.8%	33.9%	36.0%	16.7%	5,185	155	861
Frequency of service	3.5	3.4%	10.7%	35.5%	35.6%	14.8%	5,178	161	1,770
Travel time/speed	3.8	1.2%	3.8%	26.2%	47.1%	21.7%	5,149	190	969
Parking availability	3.6	6.2%	13.5%	24.7%	28.5%	27.1%	4,407	933	633
Station amenities	3.1	10.7%	17.5%	34.0%	25.7%	12.2%	4,802	537	58

Commuter Rail Survey

#### Service Quality

Expanded Results

Fitchburg Line Entry Station: All Stations

Service Quality	Mean	1 (Poor)	2	3 (Average)	4	5 (Excellent)	Total	No Response	Impor- tance*
Reliability (on-time performance)	3.0	9.0%	19.3%	36.7%	29.2%	5.8%	4,222	85	2,534
Safety and security	4.0	0.6%	2.7%	23.1%	43.6%	30.0%	4,194	113	759
Cleanliness/condition of vehicles	3.2	5.9%	14.8%	42.2%	30.4%	6.8%	4,246	61	424
Courtesy of train crews	4.0	1.6%	3.3%	20.9%	44.0%	30.1%	4,262	45	230
Announcement of stations	3.2	9.1%	15.9%	34.8%	27.8%	12.5%	4,201	106	180
Availability of seating on trains	3.5	3.0%	11.9%	31.0%	35.3%	18.8%	4,242	66	637
Frequency of service	2.7	14.8%	26.6%	33.7%	20.5%	4.4%	4,229	78	1,549
Travel time/speed	3.3	6.6%	12.5%	34.7%	34.6%	11.6%	4,255	52	852
Parking availability	2.9	19.1%	18.6%	26.6%	21.8%	13.9%	3,259	1,048	503
Station amenities	2.4	30.5%	23.2%	29.3%	12.6%	4.4%	3,786	521	51

Commuter Rail Survey

#### Service Quality

**Expanded Results** 

#### Framingham/Worcester Line Entry Station: All Stations

Service Quality	Mean	1 (Poor)	2	3 (Average)	4	5 (Excellent)	Total	No Response	Impor- tance*
Reliability (on-time performance)	2.9	11.0%	23.3%	36.3%	23.2%	6.2%	6,464	95	3,801
Safety and security	3.9	0.6%	3.2%	26.9%	46.9%	22.4%	6,403	155	1,236
Cleanliness/condition of vehicles	3.1	7.7%	14.9%	39.8%	31.3%	6.2%	6,417	141	693
Courtesy of train crews	3.8	1.3%	6.1%	24.7%	42.6%	25.4%	6,408	150	271
Announcement of stations	3.0	10.8%	19.5%	35.7%	25.1%	8.9%	6,397	161	210
Availability of seating on trains	3.3	6.1%	15.5%	35.9%	31.7%	10.8%	6,427	131	1,340
Frequency of service	2.8	12.1%	23.9%	36.9%	22.3%	4.8%	6,426	132	2,222
Travel time/speed	3.2	6.5%	12.9%	39.6%	32.3%	8.7%	6,350	208	1,319
Parking availability	3.5	8.0%	11.1%	29.0%	31.1%	20.7%	5,261	1,297	378
Station amenities	2.5	22.6%	23.9%	36.3%	13.0%	4.1%	5,832	726	68

Commuter Rail Survey

#### Service Quality

Expanded Results

**Needham Line** Entry Station: All Stations

Service Quality	Mean	1 (Poor)	2	3 (Average)	4	5 (Excellent)	Total	No Response	Impor- tance*
Reliability (on-time performance)	3.5	2.7%	9.8%	32.4%	40.4%	14.7%	3,034	69	1,808
Safety and security	4.1	0.7%	1.9%	18.0%	43.4%	36.0%	3,016	87	704
Cleanliness/condition of vehicles	3.3	4.4%	10.8%	41.0%	34.0%	9.8%	3,031	72	358
Courtesy of train crews	4.1	2.0%	1.5%	18.5%	40.2%	37.8%	3,030	73	235
Announcement of stations	3.2	8.5%	15.7%	35.4%	27.7%	12.7%	3,022	81	170
Availability of seating on trains	3.6	4.9%	11.8%	25.1%	33.5%	24.8%	3,048	55	673
Frequency of service	3.3	3.6%	15.1%	36.5%	33.8%	11.0%	3,038	64	980
Travel time/speed	3.7	2.0%	6.4%	28.5%	44.0%	19.2%	3,033	70	608
Parking availability	3.8	4.3%	6.9%	22.8%	36.5%	29.5%	2,366	737	151
Station amenities	2.7	18.3%	21.9%	35.8%	18.7%	5.4%	2,647	456	24

Commuter Rail Survey

#### Service Quality

Expanded Results

Franklin Line Entry Station: All Stations

Service Quality	Mean	1 (Poor)	2	3 (Average)	4	5 (Excellent)	Total	No Response	Impor- tance*
Reliability (on-time performance)	3.2	5.6%	15.9%	37.1%	32.9%	8.5%	5,361	112	3,063
Safety and security	3.9	0.8%	3.3%	28.2%	43.7%	24.0%	5,344	129	1,069
Cleanliness/condition of vehicles	3.1	9.1%	16.6%	39.5%	29.4%	5.4%	5,347	126	631
Courtesy of train crews	3.8	1.9%	6.9%	25.3%	41.9%	24.0%	5,365	108	284
Announcement of stations	2.8	14.7%	23.7%	35.1%	18.6%	7.9%	5,350	123	399
Availability of seating on trains	3.1	9.1%	16.8%	36.3%	28.7%	9.1%	5,381	92	1,134
Frequency of service	3.1	5.3%	18.2%	40.3%	29.2%	7.1%	5,349	124	1,582
Travel time/speed	3.4	4.8%	10.8%	37.8%	37.3%	9.3%	5,357	116	1,129
Parking availability	3.7	4.8%	7.0%	27.0%	36.3%	25.0%	4,651	823	214
Station amenities	2.7	19.3%	23.4%	34.7%	17.1%	5.5%	4,953	520	42

Commuter Rail Survey

#### Service Quality

**Expanded Results** 

#### Providence/Stoughton Line Entry Station: All Stations

Service Quality	Mean	1 (Poor)	2	3 (Average)	4	5 (Excellent)	Total	No Response	Impor- tance*
Reliability (on-time performance)	3.3	4.5%	12.6%	37.2%	36.4%	9.3%	11,769	244	6,902
Safety and security	3.8	2.0%	4.2%	26.5%	46.7%	20.6%	11,671	342	2,215
Cleanliness/condition of vehicles	3.0	8.0%	17.7%	42.4%	27.0%	5.0%	11,693	320	1,418
Courtesy of train crews	3.7	2.5%	7.7%	27.8%	40.9%	21.0%	11,695	318	618
Announcement of stations	3.0	12.2%	18.3%	35.8%	24.6%	9.1%	11,640	373	645
Availability of seating on trains	3.2	8.8%	15.3%	35.4%	28.7%	11.7%	11,764	249	2,541
Frequency of service	3.3	5.4%	12.1%	39.4%	34.7%	8.4%	11,651	362	3,896
Travel time/speed	3.5	2.2%	8.0%	35.2%	42.8%	11.9%	11,682	331	2,414
Parking availability	3.4	7.8%	10.7%	30.5%	32.2%	18.9%	10,197	1,815	964
Station amenities	2.9	17.3%	17.5%	33.8%	23.1%	8.3%	11,097	916	96

Commuter Rail Survey

#### Service Quality

Expanded Results

**Fairmount Line** Entry Station: All Stations

Service Quality	Mean	1 (Poor)	2	3 (Average)	4	5 (Excellent)	Total	No Response	Impor- tance*
Reliability (on-time performance)	3.5	5.2%	10.2%	34.3%	27.6%	22.7%	448	10	224
Safety and security	3.9	1.8%	3.4%	26.5%	40.7%	27.6%	432	26	101
Cleanliness/condition of vehicles	3.3	4.0%	14.2%	34.6%	38.3%	8.9%	431	27	49
Courtesy of train crews	3.9	4.5%	4.4%	19.7%	44.1%	27.3%	440	18	50
Announcement of stations	3.4	8.2%	16.2%	24.9%	25.7%	24.9%	437	21	22
Availability of seating on trains	4.4	1.6%	3.2%	6.0%	29.1%	60.1%	442	16	37
Frequency of service	3.4	4.0%	12.9%	38.1%	30.6%	14.4%	444	14	107
Travel time/speed	3.8	4.2%	6.3%	26.0%	36.5%	27.0%	434	24	87
Parking availability	3.4	15.5%	7.2%	22.3%	29.9%	25.0%	369	89	17
Station amenities	2.8	18.4%	23.1%	32.0%	17.5%	8.9%	409	49	0

Commuter Rail Survey

#### Service Quality

Expanded Results

Middleborough Line Entry Station: All Stations

Service Quality	Mean	1 (Poor)	2	3 (Average)	4	5 (Excellent)	Total	No Response	Impor- tance*
Reliability (on-time performance)	3.6	1.5%	6.2%	35.6%	44.4%	12.3%	3,302	108	1,979
Safety and security	3.9	1.4%	3.4%	25.5%	46.2%	23.6%	3,265	145	818
Cleanliness/condition of vehicles	3.2	7.4%	15.5%	38.3%	30.8%	8.0%	3,323	87	480
Courtesy of train crews	4.1	0.6%	2.8%	17.8%	41.6%	37.2%	3,331	79	182
Announcement of stations	3.3	7.1%	14.3%	33.3%	32.4%	12.9%	3,277	133	151
Availability of seating on trains	3.5	4.3%	8.0%	34.4%	37.3%	16.0%	3,318	92	581
Frequency of service	3.1	5.1%	19.4%	42.0%	26.5%	7.0%	3,287	123	1,040
Travel time/speed	3.7	1.2%	6.5%	30.9%	45.3%	16.3%	3,277	133	646
Parking availability	3.9	2.9%	3.3%	22.5%	38.8%	32.5%	2,999	412	189
Station amenities	2.6	22.5%	20.1%	36.3%	15.3%	5.7%	2,902	508	39

Commuter Rail Survey

#### Service Quality

**Expanded Results** 

### Kingston/Plymouth Line

Entry Station: All Stations

Service Quality	Mean	1 (Poor)	2	3 (Average)	4	5 (Excellent)	Total	No Response	Impor- tance*
Reliability (on-time performance)	3.7	1.4%	6.0%	27.9%	49.3%	15.4%	3,336	85	1,974
Safety and security	3.8	1.6%	3.7%	23.5%	50.5%	20.6%	3,284	137	770
Cleanliness/condition of vehicles	3.1	8.6%	17.7%	37.4%	31.3%	5.1%	3,297	123	432
Courtesy of train crews	3.9	1.5%	5.0%	25.0%	41.3%	27.1%	3,340	81	225
Announcement of stations	3.0	11.8%	18.9%	33.1%	24.8%	11.4%	3,294	127	144
Availability of seating on trains	3.4	4.4%	13.8%	32.8%	35.7%	13.3%	3,307	114	687
Frequency of service	3.1	5.3%	19.7%	38.2%	29.6%	7.1%	3,330	91	971
Travel time/speed	3.7	1.4%	4.0%	31.6%	47.0%	16.0%	3,329	92	631
Parking availability	3.8	4.1%	4.1%	23.3%	42.9%	25.6%	3,145	276	258
Station amenities	2.5	22.7%	25.2%	36.2%	12.3%	3.5%	3,061	360	27

Greenbush Line Survey

#### Service Quality

Expanded Results

Greenbush Line Entry Station: All Stations

Service Quality	Mean	1 (Poor)	2	3 (Average)	4	5 (Excellent)	Total	No Response	Impor- tance*
Reliability (on-time performance)	4.5	0.3%	1.0%	6.6%	36.7%	55.4%	2,052	26	856
Safety and security	4.4	0.3%	1.1%	9.0%	35. <b>9</b> %	53.8%	2,025	53	241
Cleanliness/condition of vehicles	3.6	2.4%	10.3%	30.8%	37.6%	18.9%	2,033	45	175
Courtesy of train crews	4.4	0.4%	1.0%	10.5%	35.7%	52.3%	2,026	52	55
Announcement of stations	3.6	4.0%	10.2%	31.6%	27.9%	26.4%	2,021	57	17
Availability of seating on trains	4.1	1.5%	5.2%	18.3%	35.2%	39.8%	2,015	63	335
Frequency of service	3.4	2.9%	15.9%	35.8%	30.0%	15.4%	2,036	42	582
Travel time/speed	4.0	0.9%	4.4%	21.4%	41.1%	32.1%	2,001	77	371
Parking availability	4.5	0.6%	1.0%	8.7%	29.6%	60.2%	1,897	181	97
Station amenities	2.9	12.3%	18.1%	44.3%	16.7%	8.5%	1,869	209	0

## **APPENDIX A**

# Survey Distribution, Response, Processing, and Expansion

#### A.1 SURVEY DISTRIBUTION STRATEGIES

#### A.1.1 TIME SPAN OF SURVEY DISTRIBUTION

The first step in designing the distribution strategy was determining the time span of the survey distribution. Except for the commuter rail system, the time spans used in the 2008–09 surveys were the same as those used in the most recent previous surveys on each mode. In the 1994 rail rapid transit, 1995 bus, and 2000 water transportation surveys, forms were distributed between approximately 6:00 AM and 3:00 or 3:30 PM to passengers traveling in either direction. This strategy was based on experience from a systemwide survey conducted in 1978, when forms were distributed over the entire service day. Response rates to that survey showed sharp declines after 3:30 PM. In devising the distribution plan for the 1994 survey and subsequent surveys, CTPS examined patterns in MBTA ridership counts and concluded that close to 85% of the passengers who used most services on a given day traveled in at least one direction before 3:30 PM. Consequently, with thorough coverage before 3:30, the majority of riders boarding after 3:30 would already have had an opportunity to receive survey forms earlier in the day.

The strategy for the 1993 commuter survey had been developed earlier, and consisted of distributing surveys on all inbound trains scheduled to arrive in Boston on each line between approximately 6:00 AM and midnight, but no distribution on outbound trains. For consistency, the 1998 Old Colony commuter rail surveys used the same distribution strategy as the 1993 surveys. However, in planning the 2008–09 commuter rail surveys, CTPS concluded that distribution on trains in both directions between about 6:00 AM and 3:30 PM, similar to the strategy to be used on other modes, would be more efficient and would produce satisfactory results.

The strategy used on all modes in 2008–09 did not reach riders whose entire trips were made after 3:30 PM. Some common purposes for trips beginning after that time would include travel to night-shift jobs, to evening classes, to

theaters, and to sporting events. The last two trip purposes are nonrepetitive, at least on a daily basis. Experience has shown that people that do not use the system frequently are less likely than regular riders to accept survey forms because infrequent riders often assume that the survey would not apply to them.

#### A.1.2 SURVEY DISTRIBUTION METHODS BY MODE

After determining the span of hours in which surveys were to be distributed, the next step was to determine the methods for survey distribution on each mode. Passengers entering each heavy rail rapid transit station and each Green Line Central Subway station have to pass through fare gates at limited numbers of locations. At such stations, survey distributors were positioned either just inside or just outside the faregates, and instructed to offer survey forms to as many entering passengers as possible. At most stations, only one distributor was assigned to each fare collection area at any given time, but at stations where heavy passenger volumes were anticipated, two distributors were assigned at some times.

Passengers boarding Green Line trains at all surface stops on the B, C, D, and E Branches, except Riverside on the D Branch, either pay fares or display passes when boarding. In 1994, survey forms were distributed to passengers waiting on platforms on the D Branch, but were distributed by surveyors on-board trains on the other lines. However, because of crowding on peak-period trains, it was increasingly difficult to distribute surveys to passengers boarding at stops closer to the subway portals. Therefore, at all stops on all four branches, surveys in 2008–09 were distributed to passengers waiting on the platforms. Depending on the platform configuration and expected ridership volumes, either one distributor offered surveys to both inbound and outbound riders, or separate distributors were assigned to the inbound and outbound platforms.

The Mattapan High-Speed Trolley Line also has on-board fare collection, but the expected average trip loads were low enough that the survey distribution was done, at all times of the day, by one distributor riding on-board each inbound and outbound trip from one end of the route to the other, between approximately 6:00 AM and 3:30 PM. All of the survey distribution on the bus system was done by distributors on-board buses. The distribution plan called for coverage of every route in the system except for the Silver Line routes (which had been surveyed in 2005 and 2006), and routes that operated only outside of the survey hours. For efficiency, the set of trips to be covered in each distributor's assignment was to be based on trip sequences in bus operator assignments (runs). The amount of the project budget allocated for bus surveys allowed for only about half of all operator runs during the survey hours to be covered. However, by selecting runs that included above-average numbers of trips, the percentage of trips covered was greater than the percentage of runs covered. An attempt was made to survey approximately the same percentages of operator runs at each garage, but to maximize the statistical validity of the

results, the routes with lower ridership were surveyed at higher percentages (in some cases up to 100% of the scheduled trips) than routes with higher ridership. After completing the initial round of surveys, supplemental distribution was done on some routes that had low return totals in the initial round.

For each commuter rail line, the more efficient of two potential survey distribution strategies was used. One strategy called for surveys to be distributed at all times to passengers waiting at stations. The other strategy called for surveys to be distributed on-board all trains, either over the length of the route or on the inner half. (Very few commuter rail riders make trips entirely between stations on the outer halves of routes.) Depending on route length, number of stations, service frequency, train length, and expected ridership, on some routes on-board distribution was the most efficient strategy during AM peak hours, but on other routes, on-platform distribution was more efficient. Most survey distribution for outbound and off-peak trains on all lines was done on-board.

On the rapid transit, bus, and commuter rail systems, it was not feasible to have vehicle operators or in-station MBTA personnel distribute survey forms, so distribution was done by CTPS employees or temporary help hired specifically for the project. However, on the commuter boats and the Inner Harbor Ferry, it was expected that during the relatively long times between docks, surveys could be distributed by boat crew members, as they were in the 2000 surveys. This strategy worked satisfactorily on most trips, but it was necessary to have CTPS distributors re-survey some trips.

#### A.2 SURVEY RESPONSE

For purposes of discussion here, the survey response rate for each mode is defined as the number of usable surveys returned divided by the number of surveys distributed. The sampling rate is defined as the number of usable surveys returned divided by the estimated total number of riders boarding a given line or entering a given station during the survey span. The sampling rate was always lower than the response rate, because some riders who were offered survey forms did not take them, and because it was not feasible to contact every rider to offer a survey form. The response rate figures are understated to the extent that survey forms provided to distributors were left over at the end of assignments but not returned to inventory.

As in past surveys, response rates to the 2008/2009 surveys varied both between modes, and between services within each mode. The table below summarizes the number of surveys distributed, number of usable surveys returned, response rates, estimated total ridership, and sample rates for each of the modes surveyed.

Mode	Surveys Distributed	Surveys Returned	Response Rate	Ridership	Sample Rate
Rapid Transit	122,000	22,767	18.7%	296,200	7.7%
Bus	72,000	12,313	17.1%	209,700	5.9%
Commuter Rail	42,000	12,440	29.6%	55,550	22.4%
Greenbush CRR	1,475	526	35.7%	2,075	25.3%
Commuter Boat	1,500	693	46.2%	2,035	34.1%
Inner Harbor Ferry	300	178	59.3%	525	33.9%
Total	239,275	48,917	20.4%	566,085	8.6%

 TABLE A-1

 2008-2009 Survey Distribution and Response by Mode

Results for the Greenbush commuter rail line are shown separately from those of the rest of the commuter rail system, because the Greenbush surveys included some questions pertaining only to the line, and the results are in a separate database. It should be noted that from a statistical standpoint, the absolute number of surveys returned may be more important than the percent sample rate, depending on the size of the population being surveyed.

Each survey form included a web address that respondents could use to fill out forms on-line instead of returning the paper form, but only small percentages of riders on each mode used the on-line option. On-line responses are included in the response and sampling rate calculations in the table above.

Passengers who made trips involving more than one of the modes in the table above would be included in the ridership totals for each of the modes they used, but if they received survey forms for more than one of these modes, they probably only completed one of them. To the extent that this occurred, the sample rate shown for the system as a whole understates the percentage of distinct individuals who were surveyed.

#### A.3 PROCESSING THE SURVEY FORMS

Before being entered in the databases, each survey form was checked for completeness. Forms which did not include responses to enough of the questions to be useful were either included only in the written comments databases, if applicable, or discarded completely. Likewise, forms on which most of the responses were evidently facetious were discarded. Forms that were mostly complete but were missing entries such as boarding station or stop that could be deduced from answers to other questions were corrected as needed.

The survey instructions called for passengers to describe one-way trips that they were making, but some described round trips and reported the same boarding and alighting station. If the correct alighting station could be determined from answers to other questions, it was used in place of the roundtrip alighting station. For example, many of the surveys that reported the same boarding and alighting station nevertheless gave different addresses for origin and destination. If the alighting station could not be determined, it was changed to "unspecified." If the reported origin and destination addresses were the same, the destination was changed to "unspecified." Other editing changes included correcting transposition of lines in multi-line entries, such as town name on line for street address and vice-versa.

After the records were entered in the databases, additional checks were made for errors missed in the earlier editing process, and for data-entry errors. Missing boarding or station entry times were filled in based on the times reported on surveys from the same route or stations with serial numbers similar to the ones on the forms with the missing numbers. On surveys with origin or destination addresses in Boston, Cambridge, Somerville, or Brookline, standard neighborhood designations used by CTPS were added to the city or town based on the rest of the reported address or other information on the survey.

#### A.4 EXPANSION METHODS

To prevent differences in sampling rates among stations or routes from skewing the overall results, it was necessary to apply a weight factor to each survey record. These factors were calculated using the best available ridership data for each mode and line or station. The project budget did not allow for special control counts of ridership to be conducted. However, since the surveys were, to the extent possible, distributed on "representative" weekdays, any ridership count that is also supposed to be for a "representative" weekday should be acceptable for purposes of survey expansion.

As in the case of past surveys, separate weight factors were used for different times of day if enough surveys were returned from different time periods. In the 2008/2009 surveys, the maximum breakdown of time periods used for most modes was 6:00 to 8:29 AM and 8:30 AM or later. Separate weight factors were calculated for inbound and outbound travel unless there were too few responses from one of the directions to use separately.

For the rapid transit system, station entry totals by time period were calculated from the averages of Automated Fare Collection (AFC) data from several days in the Spring of 2009. At most stations, inbound and outbound riders use the same faregates. The AFC totals were split by direction on the basis of past CTPS counts. Similarly, at stations such as Downtown Crossing where faregates are shared by riders going to more than one route, past CTPS counts were used to split AFC totals by route as well as by direction.

Boarding totals for surface Green Line stops were estimated from the most recent CTPS counts at each stop, with adjustments for elimination of outbound free fares in 2007. (Boarding counts at about half of the stops had been done in the fall of 2006.) Boarding totals for stations on the Mattapan High Speed Line were based on counts conducted by CTPS in 2005.

For each bus route, ridership totals by direction and time period were based on the trip summaries from the most recent CTPS ridecheck. In several cases, two or more bus routes overlap for substantial portions of their routes, and riders who could make their trips interchangeably on any of them often listed all or none of them as the route they were riding when surveyed. For such routes, composite weight factors were usually calculated for the combined routes and applied to all of them.

For the commuter rail system, peak loads by train were taken from the latest figures used by the MBTA's contract operator, Massachusetts Bay Commuter Railroad (MBCR) for purposes of equipment assignment. For inbound trains, boardings by station were estimated by applying factors from MBCR Train Audit reports to the peak load totals. These figures were then grouped to provide one weight factor for peak trains and one for off-peak trains for each station. During the survey hours, commuter rail ridership was much lower outbound than inbound, and no breakdowns of boardings by station were available. Therefore, weight factors were based on peak loads and survey responses, with separate factors at most for peak and off-peak trains but not for different boarding stations.

For the commuter boat and Inner Harbor Ferry services, ridership figures for each boat trip on each day in the week when surveys were distributed were obtained from the MBTA's contract operators of the boats. Ridership totals for the trip with each scheduled departure time on the three mid-week days (July 29, 30, and 31, 2008) were averaged and divided by the number of returned surveys from passengers who were surveyed on a boat departing at that time. In most cases, the ratio calculated for each trip in this manner was used as the weight factor for the records from surveys for that trip. However, when large differences in sampling in a sequence of trips would have resulted in large variations in the weights given to their records, composite factors based on the total ridership and returns for these trips were used instead.

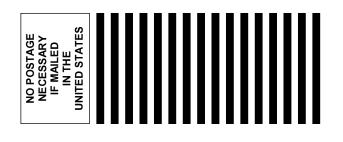
#### A.5 POTENTIAL PROBLEMS WITH EXIT STATION TABLES

Because the surveys were expanded only to boarding counts, the summaries of data for exit stations for the rapid transit and commuter rail lines and exit docks for the boat lines, may not be well calibrated to the actual number of exits at each location. To the extent that there was bias in the response rates with respect to the exit station or dock, the total passengers shown exiting at that station or dock will vary from the number one would get through a passenger count. For example, suppose that during a certain time interval, 100 passengers enter Station A, and that of these, 50 are going to Station B and 50 are going to Station C. Further suppose that for whatever reason (amount of time on the train, general propensity to fill out surveys, ease of turning in completed surveys at stations), 20% of the riders going to Station C, but only 10% of those going to Station B return surveys. Ten surveys will be received from riders going to Station C, and 5 surveys from riders going to Station B, or a total of 15. Using a weight factor based only on the entry totals at Station A, each survey will be given a weight of 100/15 = 6.67. The summary tables will therefore show 33 passengers going from Station A to Station B and 67 from Station A to Station C instead of 50 to each.

Calculation of weight factors adjusted both for entry totals at boarding stations and exit totals at alighting stations would require a complex iterative procedure using data that cannot be readily obtained at present. Even then, because of the many different boarding and alighting station combinations and large differences in the actual numbers of riders traveling between each pair, survey samples much larger than those obtained either in 2008/2009 or in past MBTA surveys would be needed in order to obtain highly reliable data on station-tostation travel. When station-to-station totals from the 2008/2009 survey are further divided into origin-destination pairs by city, town, or neighborhood or to even finer levels of detail, very few have sufficient numbers of responses needed for high confidence levels and narrow confidence intervals.



Survey Form



## ΔA BOSTON Ω 2521 ш PERMIT NO. Ľ S ഗ FIRST-CLASS MAIL Ζ S m

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# **TRANSPORTATION PLANNING STAFF** 10 PARK PLAZA STE 2150 **BOSTON MA 02116-9776** CENTRAL

MBTA Commuter Rail Passenger Survey

This survey is being conducted to help determine how commuter rail service can be improved. Please help us by answering as many questions as you can. After completing this survey, please either hand it to a survey distributor or a Customer Service Agent at a rapid transit station, or drop it in the mail (no stamp is needed). You may fill out the survey online or get more information about the survey at www.ctps.org/mbtacrr/. All answers are confidential. You will not be put on any mailing lists. THANK YOU!

What commuter rail line were you boarding/riding when you got this 1. survey form?

Newburyport/Rockport	Haverhill/Reading	Lowell
Fitchburg	Framingham/Worcester	Needham
General Franklin	Providence/Stoughton	Fairmount
Middleborough	Gingston/Plymouth	Greenbush Greenbush

At what station did you board the train on that line? 2.

About what time did you board that train? 3. :

4a.	Where were you	before starting	this entire	one-way trip?
				<u></u>

At work	At a doctor or other personal business
At school	At a work-related errand or meeting
At home	At a restaurant, or social or recreational activity
At a store	Other

4b. Where is the place in question 4a located?

(address or nearest street intersection or landmark)

(city/town/neighborhood)

	-
(state)	

(zip code)

5a. Where did you first board a public transit vehicle on this one-way trip? At the station reported in guestion 2 

At the	_rapid transit or commuter rail statior
At a bus or Silver Line stop at	·

At a bus or Silver Line stop at	
on Route (number or name) _	
Atboat dock	

5b. How did you get to the station or stop reported in question 5a? Walked directly (from work, school, home, etc.) Drove or rode in a personal vehicle and parked at or near station/stop d off by poreonal vohicle that did Drop )E Priv

oped off by personal vehicle that did r	not park 🖵 Iaxi 🖵 I HE RIL
ate shuttle van/shuttle bus 🛛 🛛 Bi	cycle 🛛 Other

- 6a. How long did it take to get from where this trip started to the first place where you boarded a public transit vehicle on this trip? minutes
- 6b. How long did you wait at the commuter rail station? \_\_\_\_\_minutes
- 7. What type of fare did you pay for this train trip? Adult full fare (one-way or round-trip ticket) Family Fare Monthly pass (circle one): Zone 1A, 1, 2, 3, 4, 5, 6, 7, 8, Interzone. 12-ride ticket □ 10-ride half-fare ticket Disability half fare Senior citizen half fare Student half fare Child under age 12 free fare
  - Other Blind Access Card

8a.	At what station will you/did you leave the train you were boarding/
	riding when you got the survey?

8b.	Where will you/did you last leave a public transit vehicle on this         one-way trip?       In the station reported in question 8a         In At the
	<ul> <li>At a bus or Silver Line stop at</li></ul>
9a.	Where will/did this one-way trip end?         At work       At a doctor or other personal business         At school       At a work-related errand or meeting         At home       At a restaurant, or social or recreational activity         At a store       Other
9b.	Where is the place in question 9a located?
	(address or nearest street intersection or landmark)
0	(city/town/neighborhood)     (state)     (zip code)
9c.	How will you/did you get there from the station/stop in question 8b? Walk directly (to work, school, home, etc.)
	Drive or ride in personal vehicle parked at or near station/stop
	<ul> <li>□ Met at station/stop by car or other personal vehicle □ Taxi</li> <li>□ THE RIDE</li> <li>□ Private shuttle van/shuttle bus</li> <li>□ Bicycle</li> <li>□ Other</li> </ul>
10.	How long will it/did it take to get to your destination (in question 9a/9b) from your last station/stop (in question 8b)? minutes
11.	How many days a week do you ride the rail line checked in question 1?Less than 1 day3 days6 days1 day4 days7 days2 days5 days1'm only visiting Boston
12.	Do you ride that rail line onSaturdays?Yes, regularlyYes, occasionallyNo, not at allSundays?Yes, regularlyYes, occasionallyNo, not at all
13.	On days when you do not ride that rail line, do you make the same trip by other means?       Yes       No If yes, check all that apply:         Drive alone       Carpool/vanpool       Other MBTA service         Non-MBTA bus       Bicycle       Other
14.	Do you have a valid driver's license?  Yes  No
15a	How many usable vehicles (autos, trucks, or motorcycles) does your household have?
15b	. Could you have used one of these vehicles instead of using commuter rail on the day you got this survey?
16.	What is your age?         18 or under       25–34         19–24       35–44
17.	What is your primary occupation?         Construction Trades/Manufacturing       Professional/Business Services         Retail/Sales       Student       Homemaker       Retired/Unemployed         Other       Other       Other       Other

**18.** How many people are in your household, <u>including yourself</u>? (the number of people living in your house or apartment) \_\_\_\_\_

19.	What is your annual combined household income?				
	🖵 Under \$20,000	🖵 \$40,000–\$49,999	🖵 \$75,000–\$99,999		
	□ \$20,000-\$29,999	🖵 \$50,000–\$59,999	🖵 \$100,000 or more		
	□ \$30,000-\$39,999	□ \$60,000-\$74,999			

20. What is your gender?	(For example: Male, Female)
--------------------------	-----------------------------

21a. How do you self-identify by race? (check all that apply	21a. How do	vou self-identify	by race?	(check all that apply
--	-------------	-------------------	----------	-----------------------

American Indian or Alaska Native	🗅 Asian
Black or African American	White
□ Native Hawaiian or other Pacific Islander	Other

#### 21b. Are you Hispanic/Latino? Yes No

22. What are your main reasons for using commuter rail? (check all that apply)

	Environmentally responsible
Speed/travel time	Less expensive than other choices
Avoid driving/traffic	Can read or do work on the train
Avoid parking at destination	Only transportation available
Other	

23a. How do you obtain information about MBTA service? (check all that apply)

By phone	🖵 Fro	m MBTA	website	🖵 From S	marTraveler
Get printed	material at	station	inforr	nation booth	on vehicle
store	library	Other_			

23b. Do you carry a cell phone when riding the MBTA? Yes No

24. Several measures of service quality are listed below. Please circle a number after each measure to indicate how you feel about MBTA commuter rail service. (Leave blank any measures that don't apply.) Then place a check mark beside the three measures most important to you.

	Poor	A	verage	Exe	celle	nt
Reliability (on-time performance)	1	2	3	4	5	
Safety and security	1	2	3	4	5	
Cleanliness/condition of vehicles	1	2	3	4	5	
Courtesy of train crews	1	2	3	4	5	
Announcement of stations	1	2	3	4	5	
Availability of seating on trains	1	2	3	4	5	
Frequency of service	1	2	3	4	5	
Travel time/speed	1	2	3	4	5	
Parking availability	1	2	3	4	5	
Station amenities	1	2	3	4	5	

#### **Comments/Suggestions:**