

A Report for the New Bedford Transit Development Plan Task Force

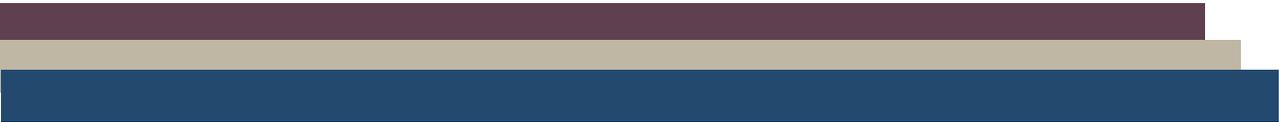
Public Transit
Needs & Perceptions
City of New Bedford
A Survey
& Assessment
January 2011

Conducted by



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URBAN INITIATIVE

Our Mission

The University of Massachusetts Dartmouth stands at the forefront of many of the major public policy issues that currently confront the regional communities we serve and the entire Commonwealth. With its thumb on the pulse of a wide range of issues including environmental and sustainability concerns, increasing regional educational achievement, and innovative approaches to energy conservation, the University has a history of uniting its educational, research, scientific, and technological resources toward positive efforts that contribute to the progress of our state.

Recognizing higher education's further potential to pursue and promote constructive statewide growth, the University's Chancellor, Dr. Jean F. MacCormack, commissioned the establishment of the Urban Initiative in November 2007, specifically to act on behalf of the many older urban communities throughout the Commonwealth that continue to struggle with the transition from manufacturing to today's knowledge-based economy. Since then, the urban revitalization movement throughout the state has garnered significant momentum and has earned the Urban Initiative a prominent role in its progression.

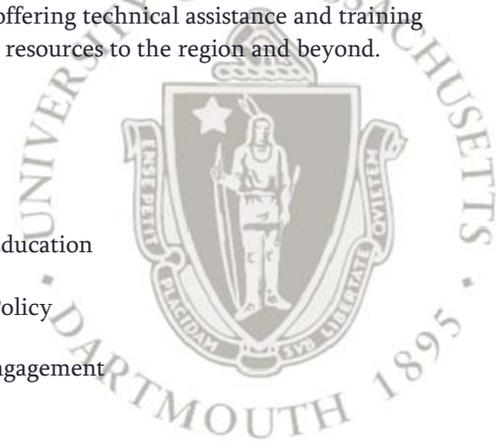
Considering that the University serves a region that contains several such cities, including Fall River, New Bedford, Brockton, and Taunton, the existence of the Urban Initiative makes not only regional, but also statewide sense. The presence of various policy challenges that have hindered progress in these urban areas represents an opportunity recognized by Chancellor MacCormack to further embed and engage the University in these and other communities in order to promote and affect the necessary policy changes that can lead to their revitalization and an improved quality of life for their residents.

The Urban Initiative's affiliation with the Center for Policy Analysis, a well-established research unit of UMass Dartmouth, is in keeping with the Center's long-held desire to bring a greater focus on urban policy to its own work.

The Urban Initiative's mission encompasses a fusion of research, project development and implementation, technical assistance, and policy analysis that supports the work of municipalities, state and local agencies, private and non-profit entities, and other organizations. Specifically, the Urban Initiative seeks to accomplish these goals by engaging our elected leaders, issuing research reports, hosting events and conferences, offering technical assistance and training to policy leaders, encouraging civic participation, and linking the University's resources to the region and beyond.

Fields of Focus

- ◇ Economic Development
- ◇ Workforce Development
- ◇ Municipal Organization and Finance
- ◇ Leadership
- ◇ Urban Education
- ◇ Urban Policy
- ◇ Civic Engagement





University of Massachusetts Dartmouth

Center For Policy Analysis

The University of Massachusetts Dartmouth Center for Policy Analysis is a multidisciplinary research unit that promotes economic, social, and political development by providing research and technical assistance to client organizations. The Center for Policy Analysis offers custom designed research and technical analysis in the areas of economic development, public management, program evaluation and polling research for government agencies, nonprofit organizations, private businesses, and educational institutions. The Center for Policy Analysis strives to erode the walls between research and teaching by training students in the techniques of applied social science and by conducting university and community based educational programs. The Center for Policy Analysis does not pursue a predetermined research agenda, but is a flexible research organization responding on a timely basis to the problems and issues identified by client agencies.

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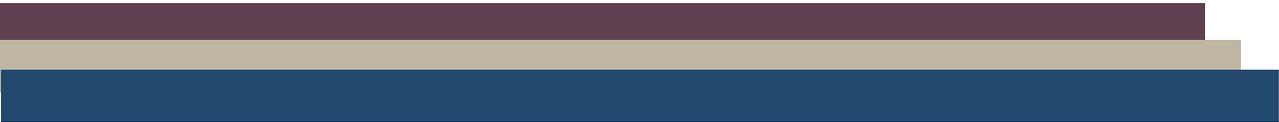
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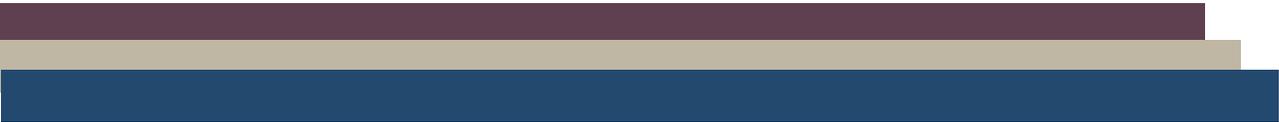


Public Transit Needs & Perceptions

City of New Bedford

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Introduction & Background

The City of New Bedford and the Commonwealth of Massachusetts are preparing to undertake some tremendous development opportunities relative to public transportation, infrastructure, and the future expansion of commuter rail service to the city. Capitalizing upon these opportunities and working to bring them to fruition would not only advance economic development and revitalization in the city, but help to advance its goals of pursuing smart growth and more sustainable and environmentally friendly development.

New Bedford, like the other ten Gateway Cities throughout Massachusetts, has struggled with the loss of its manufacturing base and the transition to the new knowledge-based economy. Yet, positive developments are on the horizon that would not only help support the city's efforts to attract new employers, but provide the city's residents with equal opportunity to access the educational and employment opportunities that exist in other parts of the state while still living and contributing to the betterment of their local community. In setting forth a vision for the future of New Bedford by focusing on expanding and maximizing sustainable and greener transportation initiatives, the New Bedford Transit Development Plan (TDP) is an innovative and collaborative effort that would accelerate the city's revitalization and foster economic opportunities.

The force behind these positive changes is the New Bedford TDP effort, which is a collaborative effort between the City of New Bedford, the Massachusetts Department of Transportation (MassDOT), the Southeastern Regional Transit Authority (SRTA), the Southeastern Regional Planning Economic Development District (SRPEDD), and Vanasse Hangen Brustlin, Inc. (VHB). Its objective is to develop a program for enhancing the effectiveness of public transit in New Bedford by not only evaluating current SRTA bus services and operations, but also formulating a plan for service improvements that will address operations, capital facilities, and finance.

A major outcome for the TDP will be the construction of the Whale's Tooth Intermodal Terminal, a new multimodal transportation center to be located off Route 18. The new facility would serve as a hub for commuter rail, local and inter-city bus service, and ferry service while accommodating the needs of pedestrians, bicyclists, and individual drivers.

In order to maximize this facility's potential to enhance the public transportation options available to the residents of New Bedford, additional data is required. The TDP Task Force, composed of representatives from the above-mentioned entities, requested the assistance of the UMass Dartmouth Urban Initiative in collecting the data necessary to support the formulation of the TDP. Through the generosity and financial support of the Garfield Foundation, the Urban Initiative and its colleagues at the UMass Dartmouth Center for Policy Analysis were able to implement two survey and data collection efforts as well as the primary data analysis contained in this report.

It is anticipated that information garnered from these efforts will serve as the foundation of subsequent evaluations of SRTA service and an assessment of potential changes to the bus transit system in order to inform the development of the TDP. Without this data, the study of transit service in New Bedford would be limited to operational information, casual observation, and anecdotal information. In addition, conducting these surveys has ensured that the voices of New Bedford residents across all socio-economic sectors are heard as the TDP progresses.

The New Bedford Transit Development Plan and the survey data collection that has been conducted are intended to not only inform proposals that would link public transportation options at the Whale's Tooth Terminal, but to support ongoing efforts to improve public transportation service and increase ridership. The planning for the SouthCoast Rail (SCR) project includes an evaluation of potential riders coming to or from the SCR system by bus, but it does not address revisions to the existing local bus system to enhance bus or commuter rail ridership. Because the automobile is typically the dominant mode of access to commuter rail systems, the TDP Task Force believes that the community and the rail system stand to benefit tremendously from targeted improvements to local bus service.

The decision to locate rail and bus termini on the same site is a positive step toward maximizing site access and transit usage. However, it is critical that the local bus system be fully optimized to this new condition so that the transit system and New Bedford can fully benefit from the regional access the SCR project will provide. The Massachusetts Department of Transportation has accepted the tremendous challenge of extending rail service to New Bedford. In order to take advantage of this commitment, it is necessary for local transportation services to make

appropriate accommodations to achieve mutual interests and realize the maximum benefits possible from this important investment.

Moreover, the survey and data collection work coordinated by the Urban Initiative sought to help the Task Force with developing an understanding of how to optimize local bus service in New Bedford so as to compliment the planning taking place relative to SouthCoast Rail and the Whale's Tooth Intermodal Terminal. While SRPEDD has collected limited rider data for SRTA on several occasions, the current data collection effort extended beyond riders and surveyed non-riders through a telephone survey conducted by the Center for Policy Analysis. In addition, the last route-rider data collection effort in New Bedford was designed simply to examine the appropriateness of routes within the city and was conducted over 10 years ago. The information gathered from onboard and telephone surveys could thus be utilized in the development of a revised bus service plan with a particular emphasis on developing service changes that make the dominant transit connections as efficient as possible for users.

Phone Survey: Methodology

A random sample telephone survey was conducted by the Center for Policy Analysis with 441 New Bedford households to measure several aspects of SRTA service, including respondents' awareness of SRTA, current and past use of the transit system, travel patterns, reasons respondents do not utilize public transit, and changes that might influence respondents to use the transit system or use it more often. Ultimately, the goal of the telephone survey is to determine the potential for additional riders to the transit system, particularly as it relates to the proposed linkage with commuter rail at the proposed Whale's Tooth Intermodal Terminal.

The telephone survey was conducted using a survey instrument developed by the Center for Policy Analysis, the Urban Initiative and members of the New Bedford Transit Development Plan Task Force. A copy of the survey can be found in Appendix A of this report. A total of 441 telephone interviews were conducted with New Bedford households, which provides a margin of error of +/-4.7 percent for the complete set of data.¹The response rate for the survey was 19.4 percent (AAPROR #4).

Interviews were conducted between 11:00 a.m. and 8:00 p.m. on weekdays and from 10:00 a.m. to 4:00 p.m. on Saturdays and Sundays. This range of hours provided the interviewers with an opportunity to contact hard-to-reach respondents; a procedure crucial to producing high quality survey data. Return calls were scheduled at the convenience of the respondents. Households were called a minimum of seven times before they were deemed to be unreachable.

Twenty test interviews were conducted prior to full implementation. The Center's senior staff continually monitored the progress of interview outcomes to prevent problem cases that could interfere with the integrity of survey procedures. The survey procedures used by the Center for Policy Analysis adhere to the highest quality academic and government research standards. Spanish-speaking interviewers were also available to interview respondents who spoke that language.

Sampling Procedures. The Center for Policy Analysis uses the Genesys Sampling System from Marketing Systems Group to generate random telephone numbers. The system uses a list of all possible telephone numbers in the United States to randomly generate a telephone sample for a designated geographic area. The survey was conducted using a random digit dialing (RDD) sample. The RDD sample ensures an equal and known probability of selection for every residential telephone number in the sample frame.

Survey Administration. The Center for Policy Analysis uses Computer Assisted Telephone Interviewing, or CATI, to conduct telephone surveys. Specifically, the Center for Policy Analysis uses WinCATI software from Sawtooth Technologies, which is one of the oldest and most widely used CATI systems in the world. Using WinCATI, telephone interviewers conducted interviews via computers, which provides highly reliable data since the computer controls the questionnaire, skip patterns are executed exactly as intended, responses are within range, and there are no missing data.

Interviewer Training and Supervision. Student research assistants and Center staff were employed as telephone interviewers. These interviewers have conducted numerous telephone polls on behalf of the Center and all have been trained intensively, including practice interviews. Senior-level staff at the Center for Policy Analysis monitored the interviewers at all times to ensure high quality data collection.

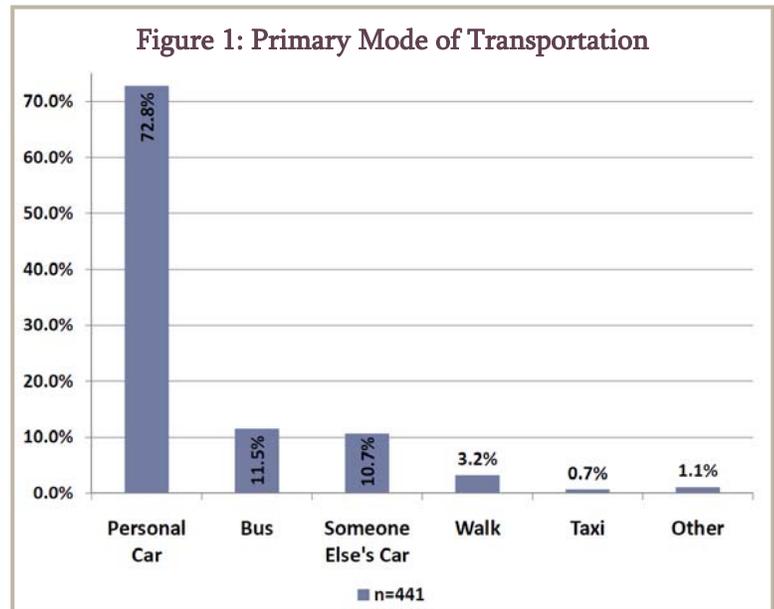
Analysis of Results. Basic frequencies were tabulated for each survey question and a multitude of cross-tabulations using a variety of variables were also conducted to test potential relationships and trends. The sample was weighted to account for sampling bias. Sampling bias is defined as the tendency of a sample to exclude some members of the sampling universe and over-represent others. In this sample, females and older respondents are over-represented. Weighting the data allocates more “weight” to groups that are under-represented (e.g. younger males), while providing less weight to groups that are over-represented (e.g. older females). In other words, weighting adjusts the sample so that it looks more like the actual population of New Bedford as defined by the U.S. Census Bureau (2008). All data in this report have been weighted to adjust for sex and age, although the difference between the weighted and unweighted samples for each question is generally between 1 to 3 percent.

Phone Survey Results & Analysis

Transportation Used & Riding Patterns

Primary Mode of Transportation. A considerable proportion of phone survey participants (72.8 percent) reported that they use their personal car as their primary mode of transportation, while another 11.5 percent indicated bus transit as their primary mode of transportation, and 10.7 percent reported that someone else’s car was their primary form of transport. Walking was reported by 3 percent of the sample while taxi and “other” each garnered 1 percent of the total sample (See Figure 1).

Use of SRTA Bus Service. Although the vast majority of survey participants use a personal car as their primary mode of transportation, a surprising 68.5 percent of respondents reported prior use of SRTA bus service (See Figure 2). Despite this, most of these respondents are infrequent users of New Bedford’s public transit system, with approximately 62 percent



indicating that the last time they utilized STRA bus service was over six months ago (See Figure 3). In addition, when asked how often they ride SRTA buses, half (50.6 percent) responded that they do so less than several times per year (See Figure 4).

Comparison of Bus Riders & Non-Riders

For the purpose of this comparative analysis, “bus riders” (or those who are dependent on public transit) are defined as those who reported “bus” as their primary mode of transportation on the phone

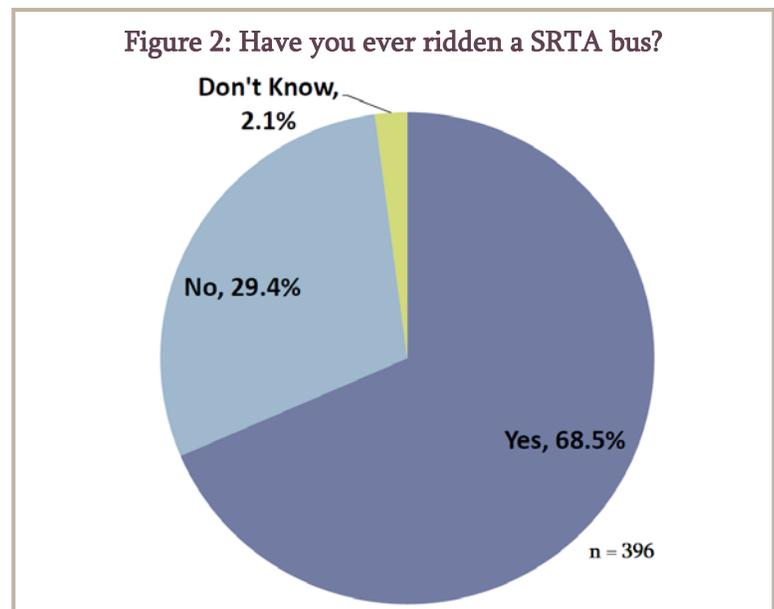


Figure 3: When was the last time you rode a SRTA bus?

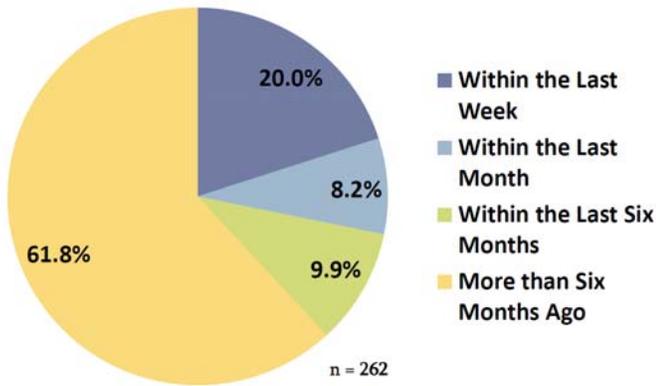


Figure 4: How often do you ride SRTA buses?

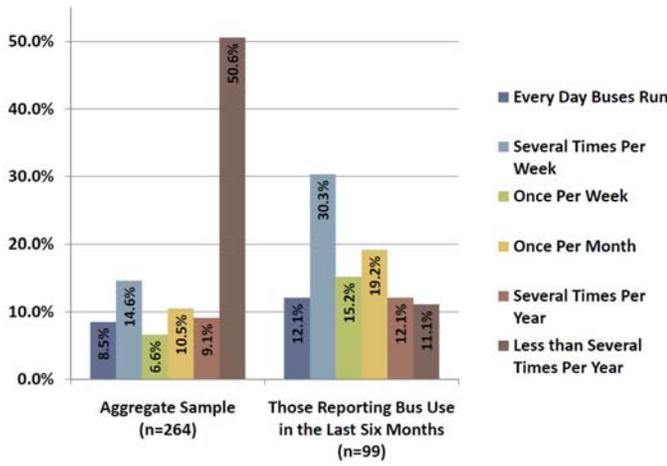
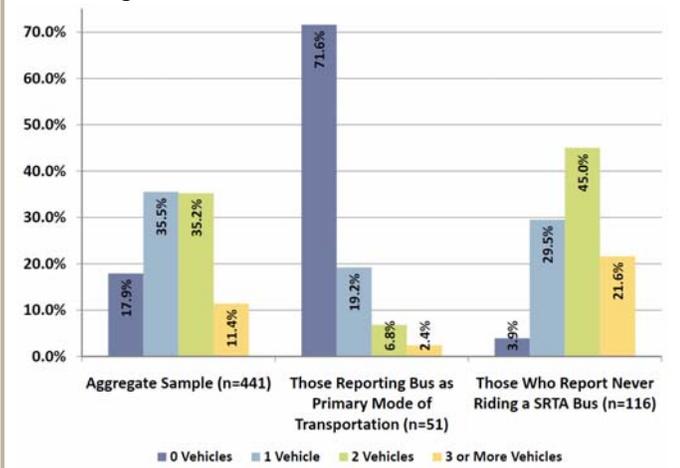


Figure 5: Number of Household Vehicles



survey. This category of respondents includes 51 individuals. (Due to the small number of respondents, however, broad conclusions should be made with caution.) Conversely, “non-riders” include those who reported that they had never ridden a SRTA bus before. This group of respondents contains 116 individuals. The figures that correspond to this section of the report also include comparative data for the aggregate sample of 441 survey participants.

Number of Household Vehicles. Overall, the vast majority (82.1 percent) of the phone survey sample report having access to at least one working vehicle in their household. Most respondents (70.7 percent) have one or two vehicles in their households. Unsurprisingly, 71.6 percent of those who reported “bus” as their primary mode of transportation also reported that they had no access to a household vehicle. Another 19.2 percent reported only one household vehicle. Among non-riders, only 3.9 percent reported no household vehicles. Among these individuals, the majority reported “someone else’s car” as their primary mode of transportation. More than two-thirds of the non-riders surveyed reported two or more vehicles in their household (See Figure 5).

Age. Given the weights applied, the aggregate phone survey sample contained an ordinary level of variability among the different age groups measured. More than two-thirds of the sample included individuals under the age of 55 and those under the age of 35 made up one-third (33.0 percent) of the total sample. Among bus riders, nearly 40 percent were under the age of 35, indicating a significant proportion of young people utilizing local bus service. Conversely, non-riders tended to be older individuals, with 44.1 percent between the ages of 35 and 55. Just under 30 percent (29.6 percent) of non-riders were under the age of 35 and 26.3 percent were over the age of 55 (See Figure 6).

Educational Background. Among those in the aggregate phone survey sample who answered the question regarding educational attainment, more than half (51.5 percent) reported that they had attained only a high school diploma. Approximately 13 percent of the sample had less than a high school diploma.

Comparing riders with non-riders, it is evident that non-riders had higher levels of educational attainment than riders. About one-fifth (19.9 percent) of riders had not yet achieved a high school diploma. Interestingly, more than half of these riders without a high school

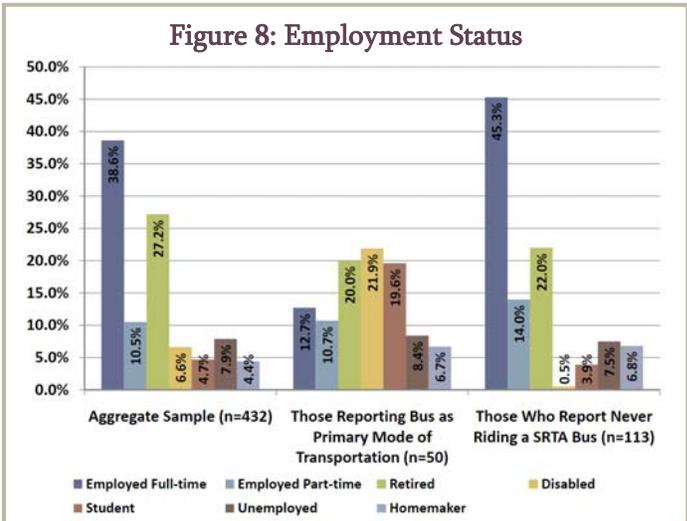
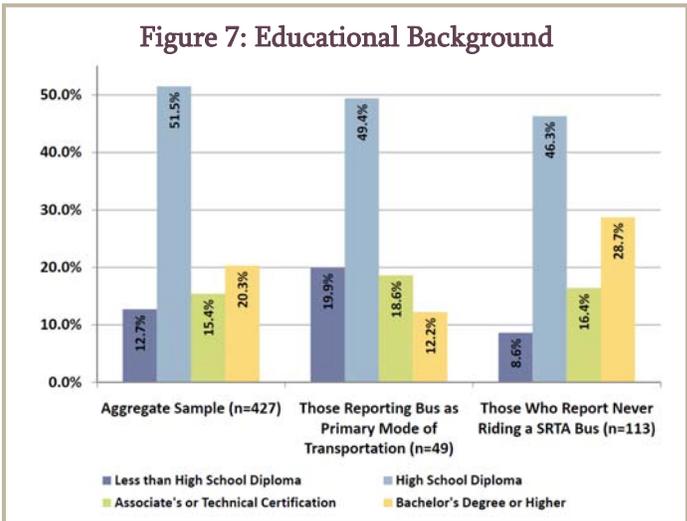
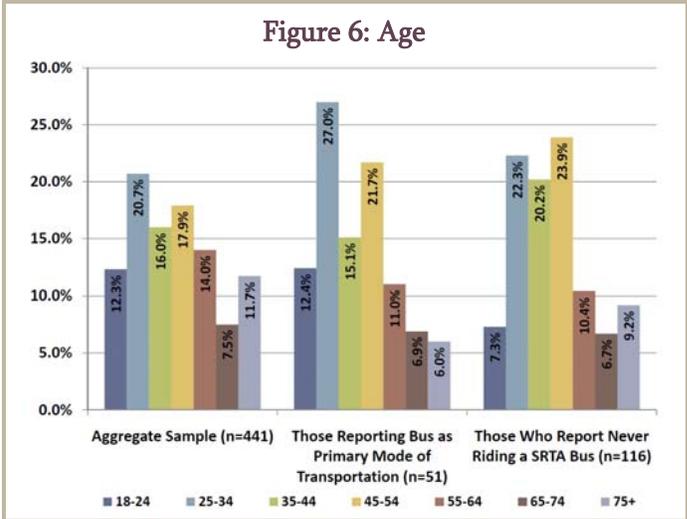
diploma were between the ages 18 and 24. In addition, while 49.4 percent of riders had achieved a high school diploma only 12.2 percent had a Bachelor's degree or higher. Non-riders, on the other hand, included a significant proportion of individuals with only high school diplomas (46.3 percent), however, nearly a third of non-riders (28.7 percent) also possessed at least a Bachelor's degree (See Figure 7).

Employment Status. Most of the survey participants (38.6 percent) were employed full time or retired (27.2 percent). Another 10.5 percent indicated part-time employment. Only 6.6 percent responded that they were disabled, 7.9 percent were unemployed and 4.7 percent were students.

Comparing riders with non-riders indicates that riders were more likely than non-riders to be disabled or students while non-riders were more likely to be employed full-time. In fact, while only 12.7 percent of riders reported that they were employed full-time, nearly half (45.3 percent) of non-riders were working full-time. In addition, a slightly higher proportion of non-riders were also working part-time (14.0 percent of non-riders versus 10.7 percent of riders). Approximately equal shares of riders (20.0 percent) and non-riders (22.0 percent) were retired. Among riders, 21.9 percent were disabled and 19.6 percent were students. The proportion of disabled individuals and students among non-riders was significantly lower: less than 1 percent responded that they were disabled while approximately 4 percent reported that they were students (See Figure 8).

Income. Aggregate-level analysis of respondents' income revealed an interesting disparity. Two-thirds of survey participants, in nearly equal proportions, either made less than \$15,000 or more than \$50,000 annually. While those earning less than \$15,000 made up 30.8 percent of the total sample, those making more than \$50,000 composed 26.9 percent of the sample. About 32 percent of the sample was almost evenly split between individuals earning between \$15,000 and \$24,999 and those earning between \$35,000 and \$49,999 annually. Another 10.9 percent reported income levels in the \$25,000 to \$34,999 range.

Comparisons between non-riders and riders also showed significant income disparities. While riders were more likely to report incomes below \$15,000 annually, non-riders were more likely to report incomes above



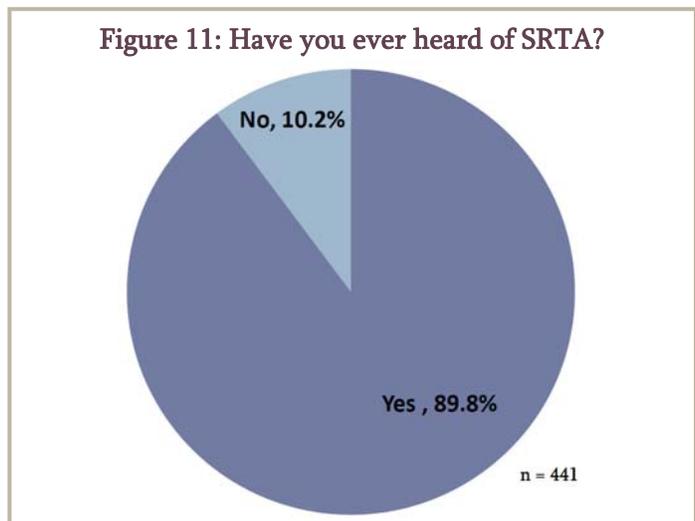
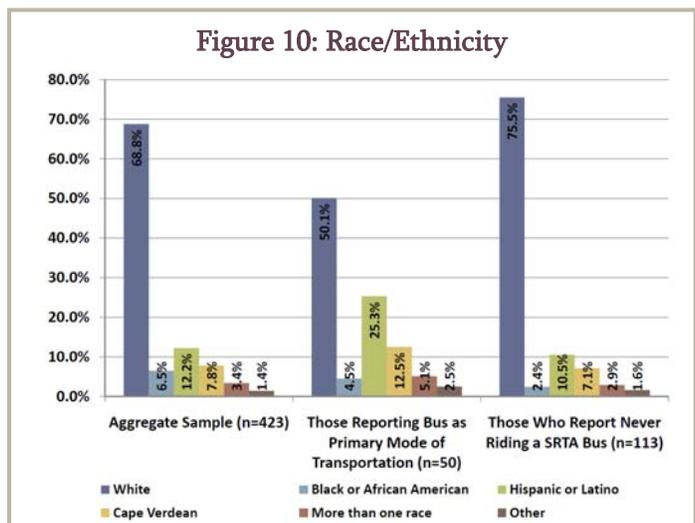
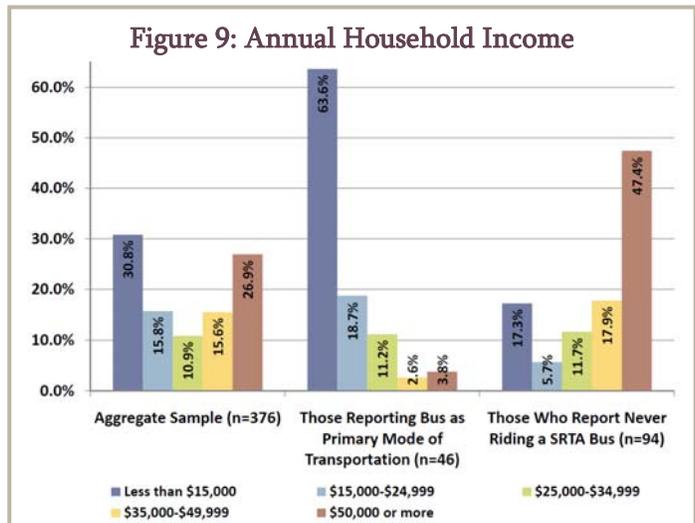
\$35,000 annually, with nearly half (47.4 percent) of all non-riders reporting annual incomes above \$50,000. Conversely, approximately two-thirds (63.6 percent) of bus riders reported incomes below \$15,000 annually. This figure compares to only 17.3 percent of non-riders who reported the same income level (See Figure 9).

Race/Ethnicity. Comparisons of race/ethnicity between riders and non-riders showed that there appeared to be a greater level of diversity among bus riders than non-riders. While half (50.1 percent) of riders reported “white” as their race/ethnicity, three-fourths of non-riders responded to this question the same way. Approximately half of all bus riders were minorities while only one-fourth of non-riders were of minority backgrounds. Those of Hispanic or Latino and Cape Verdean descent constituted the largest groups of minorities among both riders and non-riders. More than one-quarter (25.3 percent) of riders were Hispanic or Latino while 12.5 percent were Cape Verdean. African Americans/Blacks made up 6.5 percent of the aggregate sample. Among these individuals, a slightly higher proportion identified themselves as bus riders (See Figure 10).

Awareness & Familiarity with SRTA Service

Awareness of SRTA. An overwhelming majority (89.8 percent) of survey participants indicated that they had heard of the Southeastern Regional Transit Authority (SRTA). All 116 of the “non-riders” for whom demographic data was reported on in the previous section indicated that they had heard of SRTA.

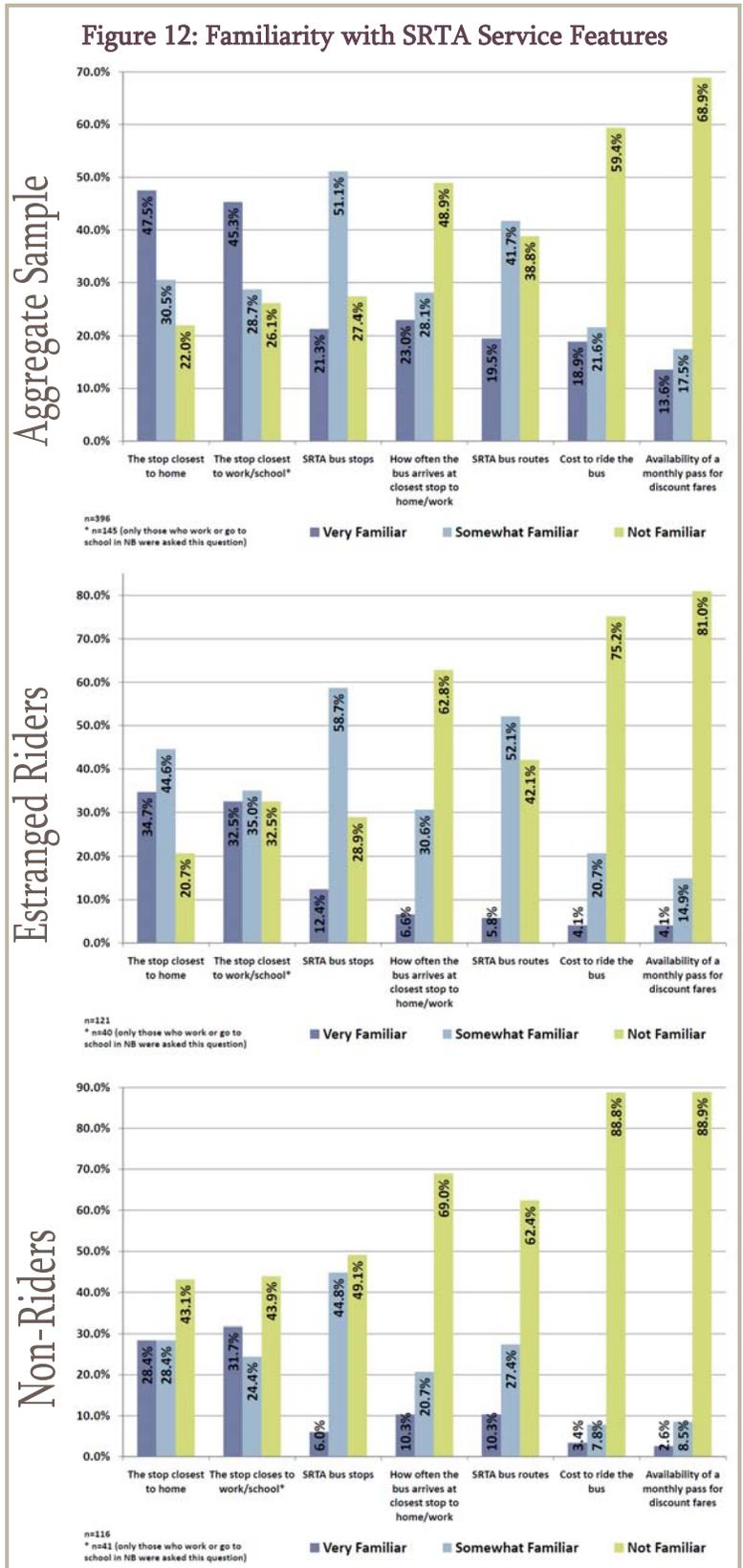
Familiarity with SRTA Service Features. Phone survey respondents were asked to indicate their level of familiarity with various aspects and components of SRTA service, such as routes, bus stops, and costs. For the purpose of this analysis the research team not only looked at aggregate-level data for the entire sample, which included 396 individuals who indicated that they had heard of SRTA, but also disaggregated data for groups of survey participants: “non-riders,” which includes those who reported that they have never ridden a SRTA bus, and those who reported that they have not utilized SRTA in the last six months *and* ride the bus “less than several times per year.” This latter group, which includes 121 survey participants, will be referred to as “estranged riders.” These estranged riders could



serve as possible targets for attracting expanded ridership since these individuals have prior experience with SRTA. Nevertheless, it is important to note that only a small fraction (approximately 12 percent) of these individuals reported having no available household vehicle, an important factor that might have significant bearing on an individual's likelihood of utilizing public transportation. Slightly more than half of these estranged riders (50.4 percent) reported access to at least two household vehicles while the remaining 36.4 percent had access to one working vehicle in their household. Figure 12 shows familiarity levels with SRTA service features for the aggregate sample, estranged riders, and non-riders.

The results of these tests show that the greatest levels of familiarity across all three groups are exhibited with regard to the location of bus stops closest to home, work, and school. At the aggregate level, nearly half of all respondents were very familiar with the bus stop nearest to their home, work, or school. Estranged riders were more likely than non-riders to report familiarity with the bus stop closest to home (34.7 percent versus 28.4 percent) and only slightly more likely to report familiarity with the bus stop closest to work or school (32.5 percent versus 31.7 percent) (See Figure 12).

When asked about SRTA service features related to cost, routes and frequency of bus arrivals at bus stops (or the bus schedule), however, respondents exhibited significantly lower levels of familiarity with these aspects of the system's operation. At the aggregate level, 48.8 percent were unfamiliar with how often the bus arrives at the closest stop to home/work. This figure compares with 62.8 percent of estranged riders and 69.0 percent of non-riders. In terms of routes, while 38.8 percent of the aggregate sample reported that they were not familiar with this service feature, 42.1 percent of estranged riders and 62.4 percent of non-riders responded in a similar fashion. The majority of survey participants was also unfamiliar with the cost to ride the bus. In fact, approximately 60 percent of the aggregate sample, 75 percent of estranged riders, and 89 percent of non-riders



indicated that they were not familiar with the cost to ride the bus. Similarly, high proportions of respondents were also unfamiliar with the availability of reduced-fare monthly discount passes. At the aggregate level, 68.9 percent of respondents were not familiar with monthly pass options while 81.0 percent of estranged riders and 88.9 percent of non-riders indicated unfamiliarity with the availability of these passes (See Figure 12).

In general, particularly for service components unrelated to the location of bus stops, estranged riders and non-riders were far more likely to report that they were somewhat familiar or not familiar with each SRTA service feature. In fact, less than 11 percent of each of these two groups reported that they were “very familiar” with the aspects of service related to cost, routes, and frequency of arrivals and departures.

To assess familiarity with SRTA service as a general concept, the research team aggregated the six sub-questions in Question 8 of the phone survey (See Appendix A) regarding familiarity with individual service components into a composite scale variable. (Note that the question regarding familiarity with the bus stop closest to work/school was not included in this familiarity index as only those whose work or school sites are physically located in the city of New Bedford were asked this question.) Each response of “very familiar” was given 1 point on the scale while responses of “somewhat familiar” were awarded 2 points and “not familiar” responses were given 3 points. Therefore, respondents who answered “very familiar” on each of the six sub-questions received a composite score of 6. Conversely, those who responded “not familiar” on all six of the sub-questions received a composite score of 18. Moreover, lower scores indicated higher levels of familiarity while higher scores indicated lower levels of familiarity. To further simplify the index, since the scores ranged from 6 through 18, the research team divided responses into three groups based upon their composite score. Those receiving scores between 6 and 10 were classified as having “strong familiarity,” those with scores between 11 and 14 were categorized as having “moderate familiarity,” and those with scores between 15 and 18 were classified as having “weak familiarity.” While more than three-fourths (76.9 percent) of respondents had either “moderate” or “weak” familiarity with SRTA service, more than half of these individuals (53.1 percent) were among those with “weak familiarity.” Overall, only 23.1 percent of

respondents exhibited strong familiarity with SRTA service while 40.8 percent exhibited weak familiarity (See Figure 13).

A cursory review of several cross-tabulations demonstrated that there were few to no significant differences as it relates to familiarity with SRTA service among difference subgroups of individuals across race/ethnicity, household income, educational background, employment status, and age. In general, lack of familiarity with specific aspects of SRTA service tended to mirror aggregate results for the entire sample in Figure 12. These results would suggest that the issue of familiarity with SRTA service has less to do with one’s demographic makeup and more to do with a universal deficiency in knowledge of certain SRTA service features.

There were, however, some noteworthy differences in familiarity with SRTA service features across the city’s four principal zip codes. To provide a frame of reference, Figure 14 features a zip code map for the city of New Bedford. While a considerable portion of the survey sample lived in the 02740 zip code (44.1 percent), a sizeable number of respondents also reported residency in the 02744, 02745, and 02746 zip codes (14.4 percent, 29.2 percent, and 12.3 percent, respectively). These percentages, however, closely mirror the proportion of city residents that lived in each zip code according to the 2000 U.S. Census. It is also important to keep in mind that the 02740 zip code encompasses the city’s downtown and surrounding neighborhoods as well as SRTA’s New Bedford terminal.

Figure 13: SRTA Service Familiarity Index

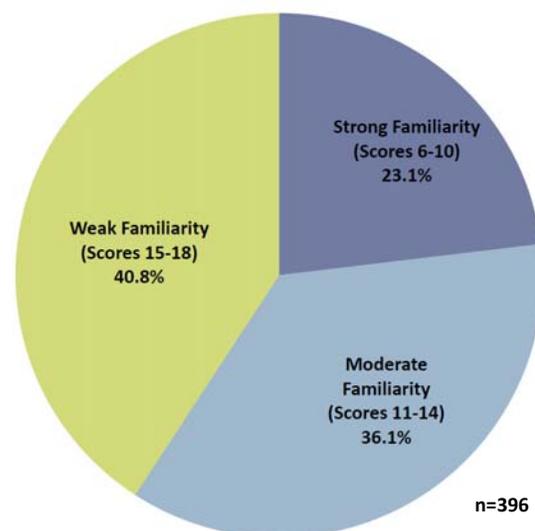
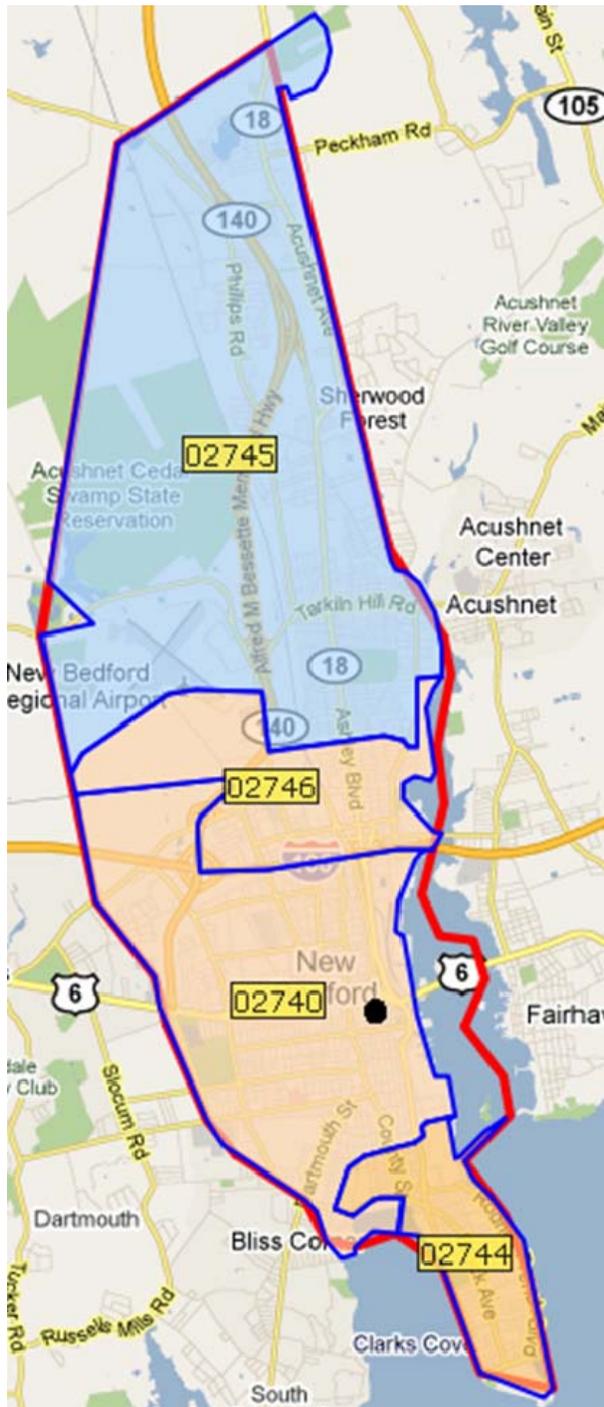


Figure 14: New Bedford Zip Code Map



● Indicates the approximate location of the SRTA bus terminal in Downtown New Bedford.

Source: <http://www.city-data.com/zipmaps/New-Bedford-Massachusetts.html>.

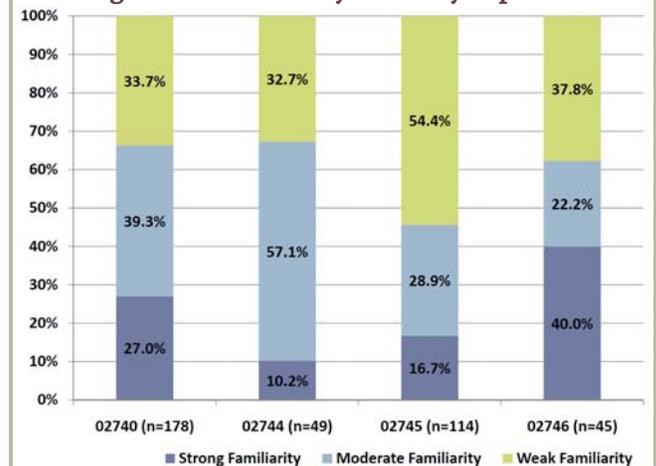
The familiarity index was used to simplify the comparison of familiarity levels among respondents in the different zip codes. Figure 15 clearly demonstrates that those who live in the 02744 and 02745 zip codes have significantly lower levels of familiarity with SRTA service aspects than those who live in the 02740 and 02746 zip codes. In fact, more than half (54.4 percent) of respondents living in the 02745 zip code scored in the “weak familiarity” range on the familiarity index.

It is important to keep in mind that the 02744 zip code encompasses the southern-most section of the city and is currently being served by SRTA’s Fort Rodman route (Route 1). The 02745 zip code encompasses approximately half of the entire city, although only about half of its area is currently populated or developed due to the existence of a state reservation and the New Bedford Regional Airport in the western half of this zip code. Three of SRTA’s routes currently provide service in this area of the city. They include the Lund’s Corner route (Route 2), the Ashley Boulevard route (Route 4), and the North End Shuttle. Appendix C shows a map of SRTA routes in the New Bedford area.

Satisfaction with Aspects of SRTA Service

Phone survey respondents with previous experience riding SRTA were asked to rate their satisfaction level with several aspects of SRTA service on a scale of “very satisfied,” “satisfied,” “unsatisfied,” or “very unsatisfied.” Overall, satisfaction levels are quite high, although additional data

Figure 15: Familiarity Index by Zip Code

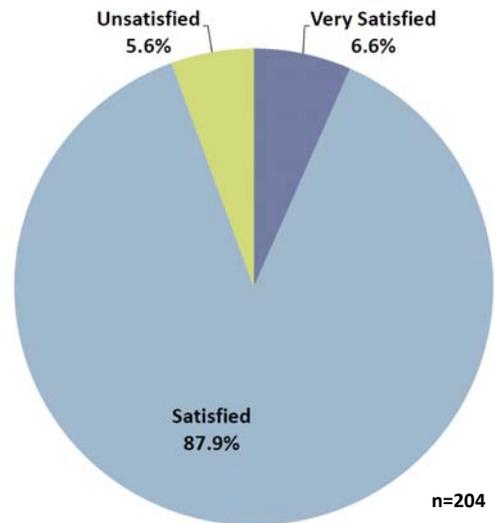


gathered on specific service features indicated areas where service might be improved. Before reporting on the individual components of SRTA service that were measured in each question, the research team once again created a composite scale variable similar to the one created for familiarity with SRTA service in the previous section. To create this scale, responses from each of the satisfaction sub-questions in Question 13 of the survey were tallied in the following way: responses of “very satisfied” received a score of 1, “satisfied” received a score of 2, “unsatisfied” received a score of 3, and “very unsatisfied” received a score of 4 (see Appendix A for a copy of the survey). Therefore, anyone who responded “very satisfied” to each of the 10 satisfaction sub-questions received a composite score of 10. Anyone who responded “satisfied” to each of the 10 satisfaction sub-questions received a composite score of 20, and so on. The creation of the scale yielded scores that ranged from 10, which indicates high levels of satisfaction, to 40, which indicates high levels of dissatisfaction. The scale was then used to create a satisfaction index that divided scores into the same four categories of “very satisfied,” “satisfied,” “unsatisfied,” and “very unsatisfied.” Individuals receiving scores between 10 and 14 were considered to be generally “very satisfied” with SRTA service while those receiving scores between 15 and 24 were considered to be generally “satisfied.” Survey participants who scored between 25 and 34 were considered to be generally “unsatisfied,” while those who scored between 35 and 40 were considered to be generally “very unsatisfied.”

The results of this analysis show that those who have prior experience using SRTA were generally satisfied with the service. In fact, while no one scored in the 35 to 40 range (very unsatisfied) only 5.6 percent of the sample scored in the “unsatisfied” range, which means that about 95 percent of individuals with experience riding SRTA in New Bedford are either satisfied or very satisfied. Figure 16 provides index score results for the aggregate sample.

While the use of an index provides a useful overview of general satisfaction levels with overall service, it does not, however, offer any information on satisfaction with individual service components and the potential need for improvements to particular service areas. Figure 17 provides a breakdown of satisfaction levels by each of the service features measured in Question 13 of the phone survey. The results show that the service areas garnering the highest levels of satisfaction included the ability to find a seat onboard, the courtesy of drivers, the amount of time spent on the bus, the arrival and

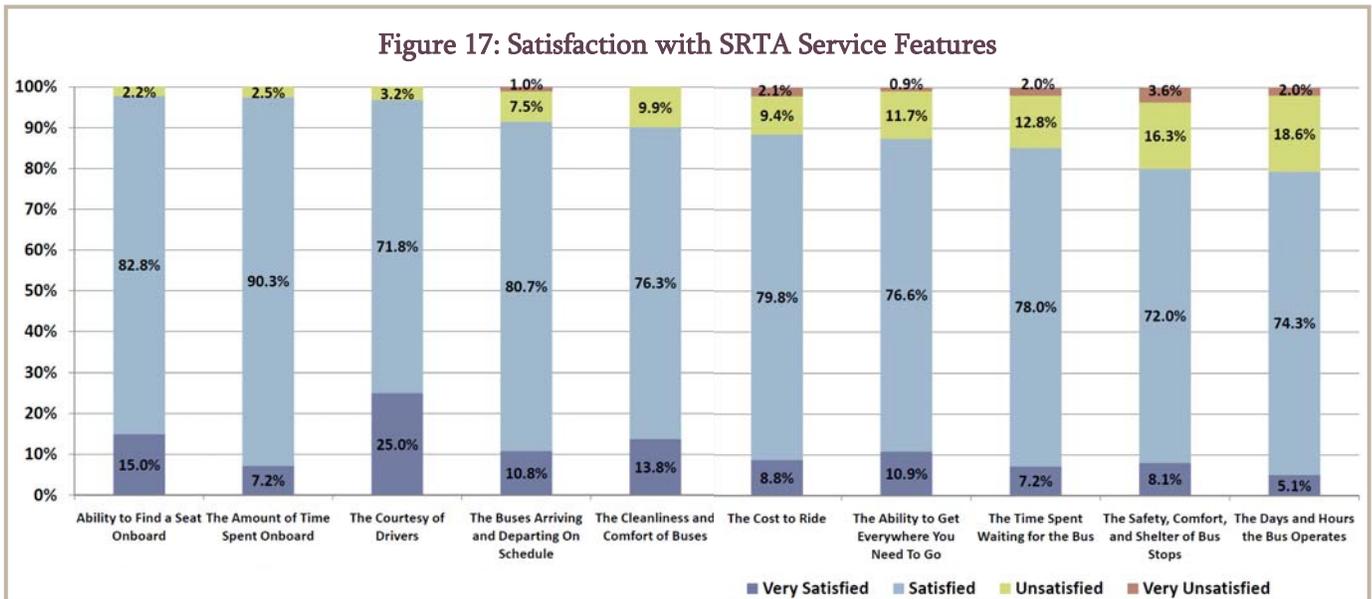
Figure 16: SRTA Service Satisfaction Index



departure of buses on schedule, and the cleanliness and comfort of the buses. Across each of these service components less than 10 percent of respondents exhibited dissatisfaction. Service areas that garnered the highest levels of dissatisfaction included the days and hours the bus operates; the safety, comfort, and shelter of bus stops; the amount of time spent waiting for the bus; the ability to get everywhere you need to go; and the cost to ride the bus. In each instance, more than 10 percent of survey participants expressed dissatisfaction. The service feature receiving the greatest level of dissatisfaction (20.6 percent of respondents) was the “days and hours the bus operates.” Following close behind with 19.9 percent of respondents was the “safety, comfort, and shelter of bus stops” (See Figure 17).

Possible Reasons for Not Utilizing or Under-Utilizing SRTA Bus Service

In attempting to understand the reasons why people might not ride SRTA buses or do not ride them more often, respondents were read several statements as a part of Question 14 on the phone survey and were asked if they agreed or disagreed with each statement (see Appendix A for a copy of the survey). All 396 individuals who reported that they had heard of SRTA participated in this portion of the survey. Figure 18 on the following page displays results for this aggregate sample. Among this sample, the



statements yielding the greatest levels of agreement included:

1. “The hours of service don’t meet your schedule.”
2. “You don’t feel safe walking to or waiting for the bus.”
3. “The bus does not run often enough.”
4. “The bus doesn’t go where you want it to go.”

In fact, nearly 40 percent of survey respondents indicated that the hours of service do not meet their schedule. In addition, approximately 36 percent of respondents expressed feelings of insecurity as it relates to walking to or waiting for the bus (See Figure 18).

The research team was also interested in understanding the potential differences in responses to these statements between those who are “riders,” “non-riders,” and “estranged riders.” Among riders, 51.1 percent agreed that the bus does not run often enough, which was followed by

41.9 percent agreeing that the hours of service do not meet their schedule. Rounding out the top three issues among riders was agreement that the cost of riding is too high (32.6 percent) (See Figure 19).

Among non-riders, perceptions of safety and comfort appeared to be significant. The greatest disparity in responses between non-riders and riders (and even estranged riders)

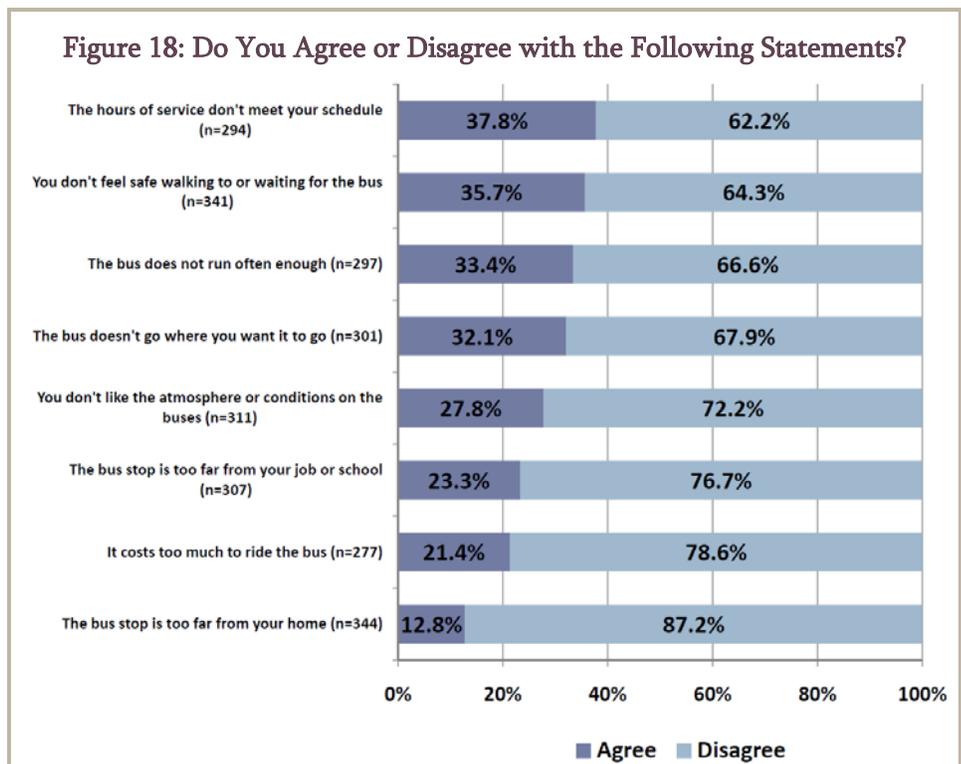
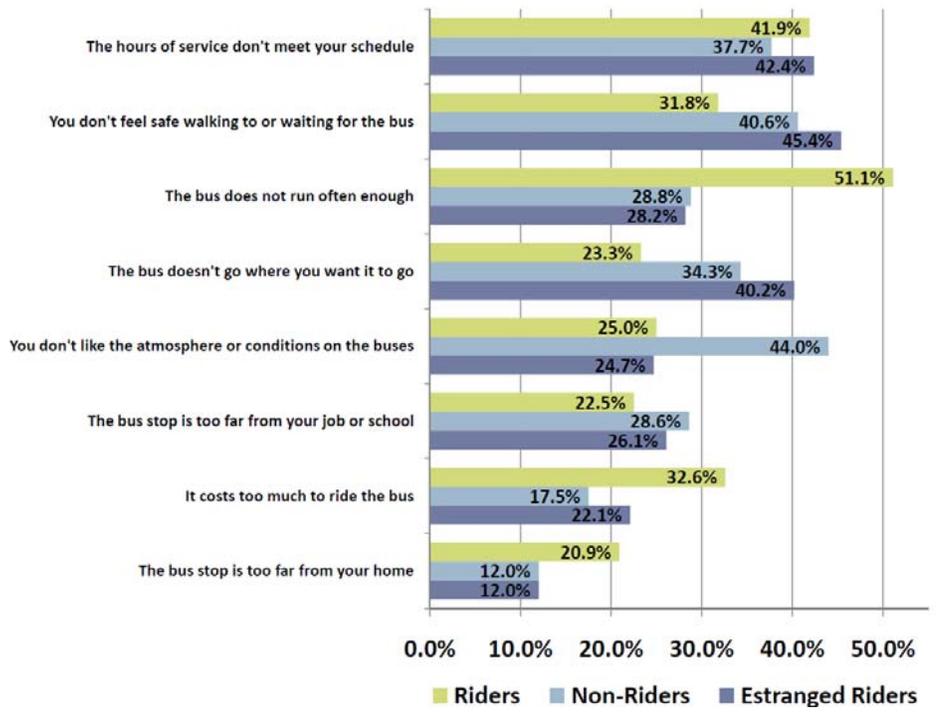


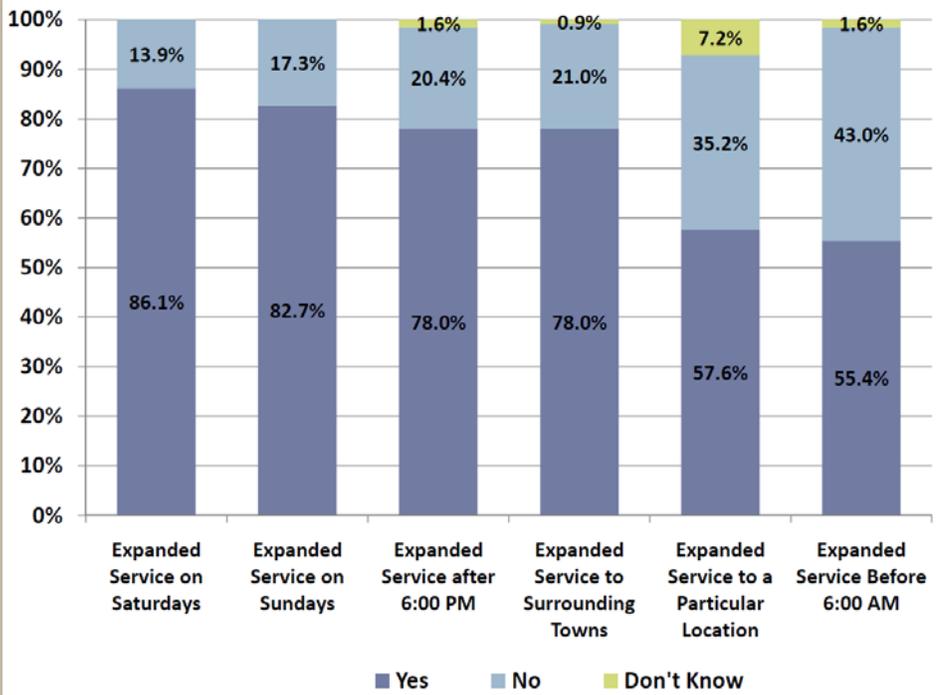
Figure 19: Comparisons of Reasons Why Riders, Non-Riders, and Estranged Riders Do Not Ride or Do Not Ride More Often



was that 44 percent of non-riders (as opposed to 25 percent of riders) agreed that they do not like the atmosphere or conditions on the bus, despite never having been on a bus before. In addition, while 40.6 percent of non-riders agreed that they did not feel safe walking to or waiting for the bus, another 37.7 percent agreed that the hours of service do not meet their schedule (See Figure 19).

Finally, among estranged riders, 45.4 percent also agreed that they do not feel safe walking to or waiting for the bus, a top concern that echoed what non-riders expressed. The issue receiving the second-greatest level of agreement among estranged riders was that hours of service do not meet their schedule. In fact, 42.4 percent of estranged riders agreed on this particular point. Unlike riders and non-riders, the number three issue receiving high levels of agreement from estranged riders was that the bus does not go where they want it to go (See Figure 19).

Figure 20: Would the following changes to SRTA's operation might better meet your schedule?



Interestingly, while there were some differences in the top three issues cited by riders, non-riders, and estranged riders, the issue of service hours not meeting individuals' schedules appeared across all three groups. In terms of the cost to ride the bus, riders were far more likely than non-riders and estranged riders to agree that it costs too much. In addition, non-riders and estranged riders were more likely than riders to report that the bus does not go where they want it to go (See Figure 19).

As a follow-up to the sub-question regarding SRTA service hours, respondents who indicated that the hours of service do not meet their schedule were provided several options and asked if each would better meet their schedule. These options included: expanded service on Saturdays and Sundays, expanded service before 6:00 a.m. and after 6:00 p.m., expanded service to surrounding towns, and expanded service to a particular location. A majority of respondents reported that each option would better meet their schedule, particularly the expansion of service on Saturdays and Sundays, expanded service after 6:00 p.m., and expanded service to surrounding towns (See Figure 20).

Suggested Service Changes & Possible Influence on Ridership

Survey participants were read a list of several possible changes to service and asked if each change might cause them to ride SRTA buses or ride them more often than they already do. Suggested changes touched upon general service areas such as the cost to ride the bus, schedule and routes, the availability of information, and access for passengers with disabilities. Across all eight of the suggested changes, more than half of respondents indicated that they would ride or ride more often if the changes were implemented. In the aggregate, the service changes receiving affirmative responses from more than 60 percent of respondents were free transfers, Sunday service, and more reduced-fare bus pass options (See Figure 21).

In addition to assessing responses to these questions from the aggregate sample, the research team was also interested in understanding where there might be possible differences between “riders,” “non-riders,” and “estranged riders.” Riders were unsurprisingly more enthusiastic about the service changes and high percentages of these individuals reported that they would use the bus more often if each of the changes were implemented. In particular, about 96 percent of riders indicated that they would ride more often if Sunday service were provided. More reduced-fare bus pass options

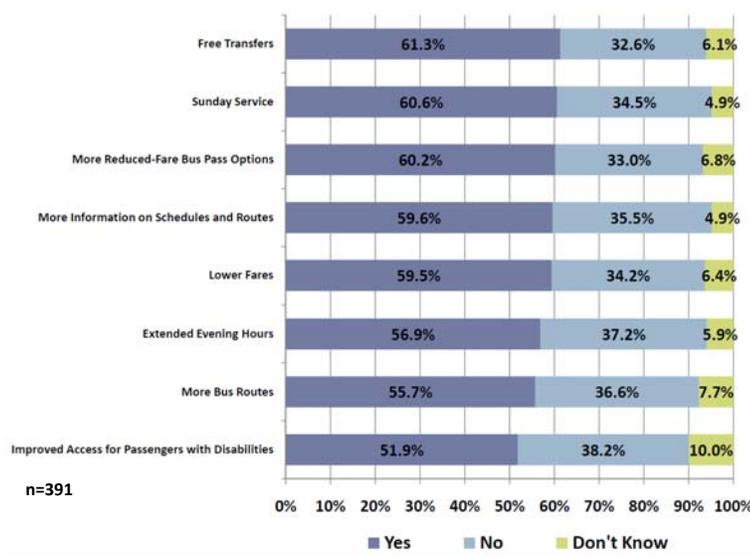
Box 1: Additional Destinations

Phone survey respondents were asked if there were destinations that are not currently serviced by the SRTA system to which they would like to travel. The following includes a complete list of destinations provided by survey participants. The list does not necessarily suggest that SRTA is not already servicing some of these locations, it merely reflects what was reported to surveyors.

- Acushnet (n=4)
- Mattapoisett (n=4)
- Fairhaven (n=3)
- Industrial Park (n=3)
- Market Basket (n=3)*
- Marion (n=2)
- Taunton Galleria Mall (n=2)
- Bellville Avenue
- Boston
- Brockton
- Buttonwood Park
- Faunce Corner Road
- Fort Tabor
- Keith Junior High School
- More routes in Dartmouth
- Dartmouth Towne Center
- New Hampshire
- South Dartmouth
- Providence
- Purchase Street
- Fort Rodman
- Wareham
- West of the airport
- Whaling Museum

* It is important to note that the survey was conducted around the time that Market Basket opened on October 6, 2010. Since then, SRTA has expanded service to this location on Coggeshall Street.

Figure 21: If the following change was made, would you ride SRTA or ride more often? (Aggregate Sample)



also garnered support from 91.7 percent of riders while free transfers and lower fares each received endorsement from 85.4 percent of these survey participants (See Figure 22).

Although estranged riders exhibited lower levels of interest than riders, they were more likely than non-riders to indicate that they would ride the bus if each of the changes were implemented. In general, each suggested service change garnered support from about half of the estranged riders, with lower fares, more information on schedules and routes, Sunday service, and free transfers receiving the greatest level of approval among these survey participants (See Figure 22).

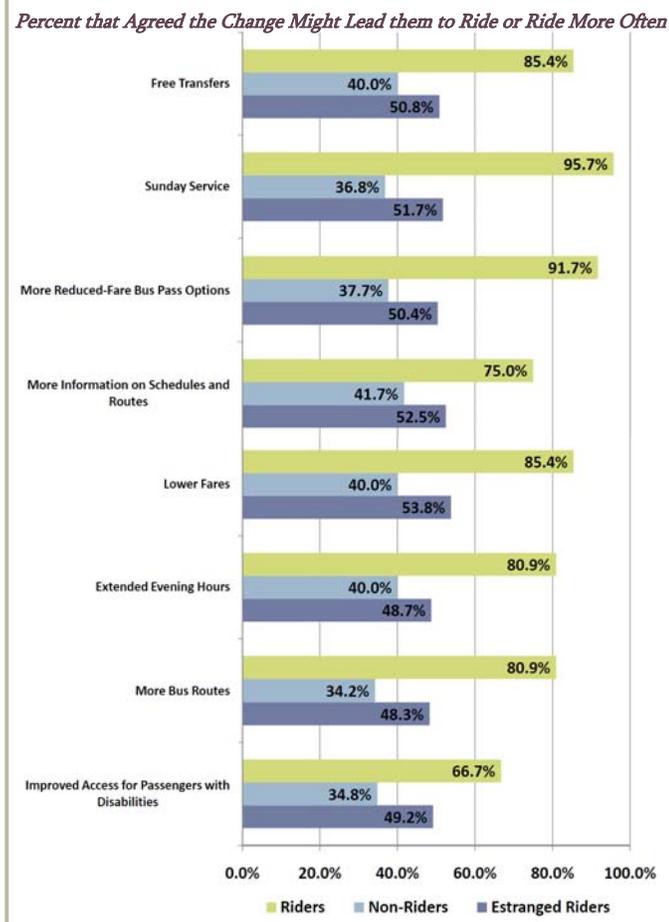
Non-riders, which includes those who have never ridden with SRTA were the least enthusiastic about the service changes suggested in the survey. Among these survey

participants, approximately half responded that each of the service changes *would not* cause them to ride the bus. Across each suggested change, between 35 and 42 percent of non-riders indicated that they might ride if the change were implemented. The four suggestions receiving the highest level of support among non-riders were more information on schedules and routes (41.7 percent), free transfers (40.0 percent), lower fares (40.0 percent), and extended evening hours (40.0 percent) (See Figure 22).

Comparing the top four service changes among non-riders and estranged riders reveals a few commonalities. Both groups agreed at higher rates that more information on schedules and routes, lower fares, and free transfers might entice them to ride with SRTA. Of course, it's important to temper these assumptions of possible increased ridership with a certain level of realism and ask whether these individuals would truly ride if some of these changes were implemented.

It is assumed that most non-riders and estranged riders who have no access to a household vehicle might be more inclined to ride while those with access to multiple vehicles would most likely continue using their current mode of transportation (all else being equal, such as the price per gallon of gasoline). The research team, therefore, isolated non-riders and estranged riders who answered "yes" to each of the service change questions to see what percentage of these individuals had access to no vehicles, one vehicle, and two or more vehicles. Figure 23 shows that among non-riders, only a tiny fraction of those who indicated they would ride if service changes were made actually had no household vehicles to rely on. In fact, the majority of these non-riders actually had two or more vehicles in their household. Estranged riders who indicated that the service changes would induce them to ride SRTA were more likely than non-riders to have no working vehicles in their household, however, the rates are only slightly higher. In fact, the vast majority of these individuals had access to at least one vehicle and slightly less than half of estranged riders reporting that each service change would induce them to ride had access to two or more working vehicles (See Figure 24).

Figure 22: Comparison on the Influence of Service Changes Among Riders, Non-Riders & Estranged Riders



Potential Impact of Commuter Rail Service

The proposed SouthCoast Rail project would restore passenger rail transportation from South Station in Boston to the cities of Fall River and New Bedford. To assess the

Figure 23: Number of Vehicles for Non-Riders Indicating that Service Changes Might Cause them to Ride

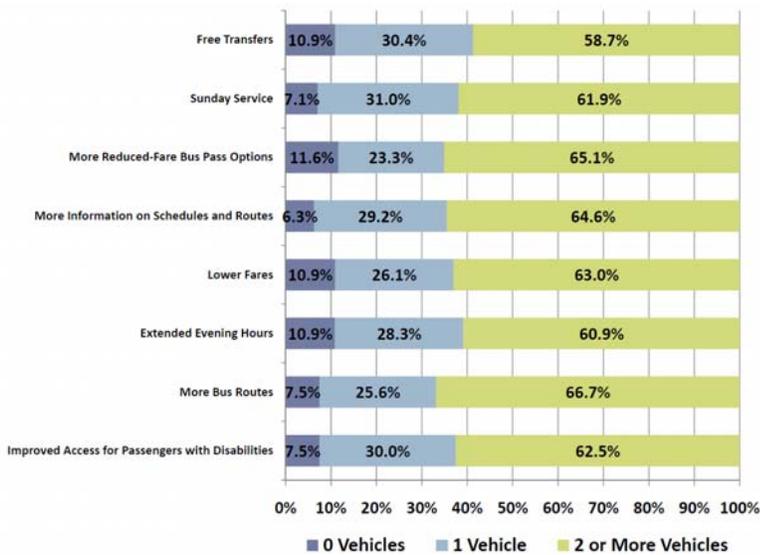
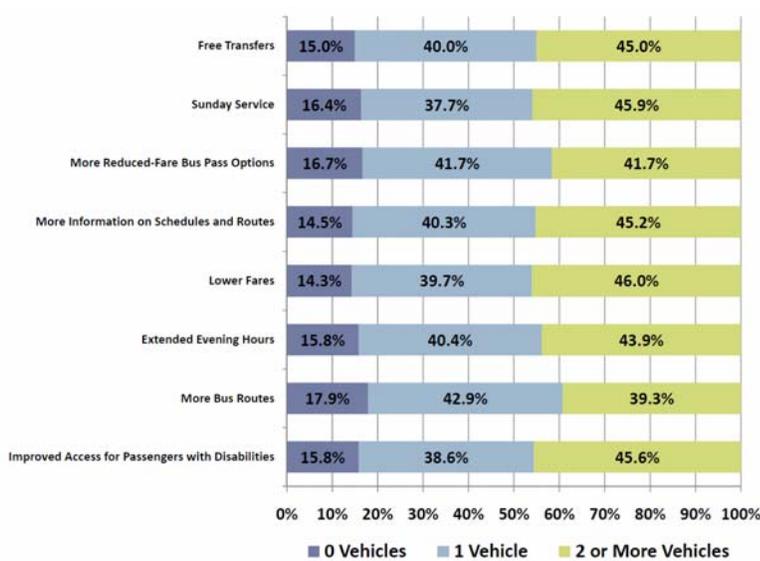


Figure 24: Number of Vehicles for Estranged Riders Indicating that Service Changes Might Cause them to Ride



potential influence of expanded commuter rail service to New Bedford, the phone survey asked participants two questions regarding potential use of commuter rail and potential use of local SRTA service to access commuter rail at the proposed Whale’s Tooth intermodal terminal on the city’s waterfront.

Among the 392 survey participants who were asked whether they would use commuter rail service if it were to be expanded to New Bedford, 83 percent reported that they would indeed use rail service. Only 13.1 percent of respondents indicated that they would not utilize commuter rail service (See Figure 25). Comparing SRTA “riders” with “non-riders” and “estranged riders” once again, we find that non-riders are slightly less inclined than riders and estranged riders to indicate future use of commuter rail. In fact, while 83.0 percent of riders and 83.9 percent of estranged riders reported that they would utilize commuter rail service, only 77.6 percent of non-riders responded in a similar fashion (See Figure 26).

The survey also asked respondents who indicated that they would use commuter rail how likely they would be to utilize local SRTA bus transportation to access commuter rail if SRTA’s terminal were to be relocated to the waterfront site of the Whale’s Tooth intermodal terminal. Altogether, 30.7 percent of these individuals reported that they would be “very likely” to use SRTA to access commuter rail. Another 44.4 suggested that they would be “somewhat likely” while 21.5 percent indicated that they would not be likely to use SRTA as a means to accessing commuter rail service (See Figure 27).

Interestingly, non-riders were more inclined than estranged riders, who have had prior experience

Figure 25: Do you think you will use commuter rail if it comes to New Bedford?

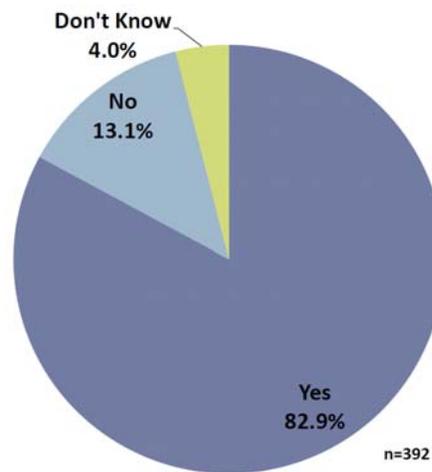


Figure 26: Do you think you will use commuter rail if it comes to New Bedford?

Comparison of Riders, Non-Riders, & Estranged Riders

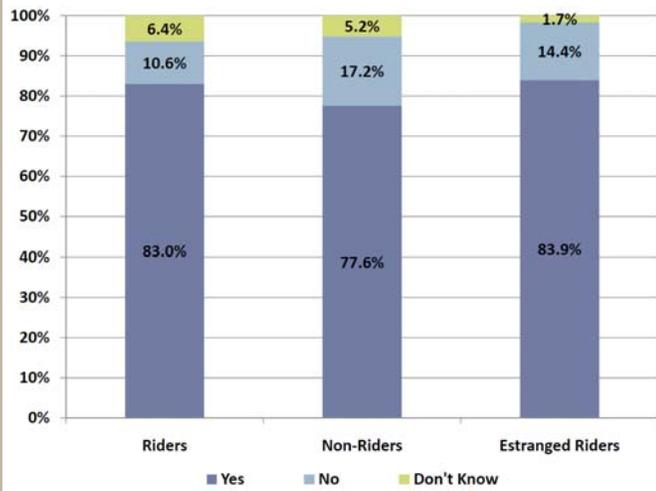


Figure 28: How likely are you to use SRTA to access rail?

Comparison of Riders, Non-Riders, & Estranged Riders

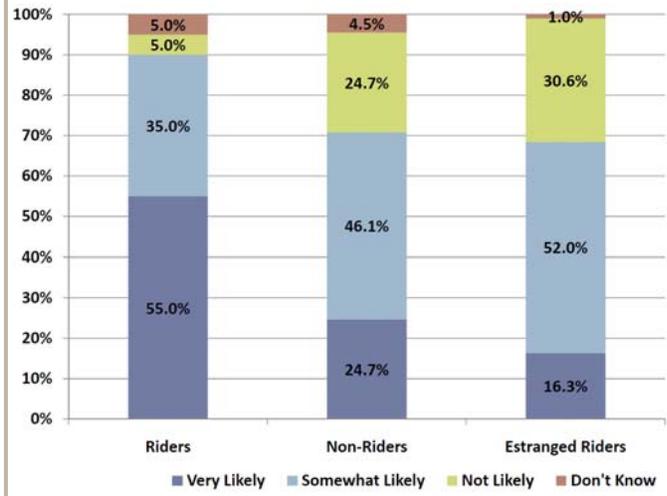
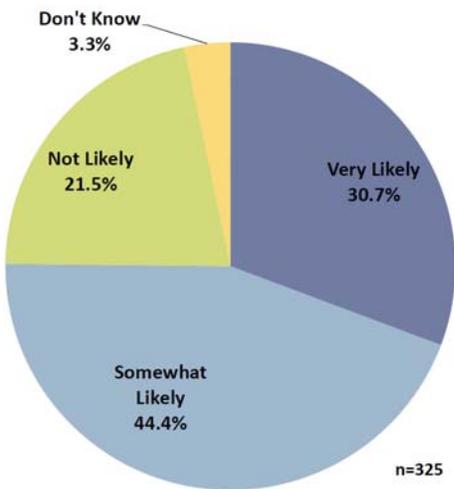


Figure 27: How likely are you to use SRTA to access rail?



versus 24.7 percent for non-riders). Riders were unsurprisingly more inclined than the other two groups to indicate that they are “very likely” to utilize SRTA to access commuter rail. Among these survey participants, more than half (55.0 percent) suggested that if commuter rail were to be combined with a SRTA bus terminal at Whale’s Tooth that they would be very likely to use SRTA to utilize rail. (See Figure 28).

riding with SRTA, to report that they would be “very likely” to utilize local SRTA service to access commuter rail. While only 16.3 percent of estranged riders indicated that they would use SRTA to get to the Whale’s Tooth terminal, nearly 25 percent of non-riders reported that they would be “very likely” to access Whale’s Tooth via SRTA bus. In addition, a slightly higher percentage of estranged riders than non-riders reported that they are “not likely” to use SRTA to get to the commuter rail terminal (30.6 percent for estranged riders

Onboard Survey: Methodology

Over the course of four weeks from mid-October through mid-November 2010, surveys were conducted onboard SRTA buses and at the terminal in downtown New Bedford in order to learn more about the trips people are making, respondents’ experience with and attitudes about SRTA, and the demographic characteristics of SRTA riders. The Urban Initiative endeavored to obtain data that would be generalizable to the entire population of SRTA riders by giving every rider an equal chance to complete a survey. In order to do this, surveyors were assigned to each route during morning, afternoon, and evening shifts. By the end of the four weeks, each route had been covered by at least one shift on every day buses run. It is anticipated that data from the 676 surveys the Urban Initiative collected will inform the Transit Development Plan Task Force about riders’ patterns of usage and the ways in which bus service can better serve the needs of its current consumers. The following sections

outline the Urban Initiative's process for developing the survey instrument, the training and supervision of surveyors, and the methods and reasoning employed for survey administration.

Survey Instrument. The Urban Initiative worked with all organizations involved in developing the TDP to draft the onboard survey instrument and ensure that the questions being asked would provide stakeholders with the information they sought. The total number of questions was limited to 21, keeping the entire survey to a single piece of paper (front and back) (See Appendix B). Because 16.9 percent of households in New Bedford report speaking English "less than very well," the Urban Initiative worked with the Community Economic Development Center of Southeastern Massachusetts to translate the survey into Spanish and Portuguese.² In cases where bus riders were visually impaired or were unable to read, surveyors were instructed to read the survey aloud and record responses so that feedback from these SRTA users could be included in the results.

Each survey distributed was accompanied by a separate, index card-sized form that contained brief instructions and gave respondents an opportunity to be included in a drawing for a \$50 gift card by sharing their name and phone number. Instructions emphasized that the survey would remain anonymous, that there were two sides to complete, and that participants should choose only one answer for each question. Instructions were also available in Spanish and Portuguese.

Surveyor Recruitment, Training, & Supervision. In order to capture riders on all bus routes, every day of the week, and at various times of day, the Urban Initiative hired seven UMass Dartmouth students (both undergraduate and graduate students) who expressed interest in the project and had flexible schedules. Several of these students use SRTA regularly to travel to and from campus. This group was joined by five students from an undergraduate research methods course who anticipated using the project to apply principles taught in class and to generate a final report employing the data they helped to collect.

The Urban Initiative conducted a one-hour training session for all surveyors. Topics included a review of the survey instrument and instructions, a suggested script for surveyors to use when interacting with passengers, how to survey passengers who do not speak English, and the process of collecting, coding, and filing surveys in order to

ensure that each could be attributed to a particular date, route, and time. The intensity of these data collection and maintenance procedures were integral to ensuring proper coding of each survey and preserving the validity of subsequent data analysis. Surveyors were also introduced to SRTA routes and schedules (and confusing concepts like interlining), as well as the scheduling system established by the Urban Initiative for the surveying process. Each surveyor left the training with a copy of the presentation shown as well as schedules and maps for every route. After the training session, Urban Initiative staff conducted periodic and unannounced checks with surveyors in the field to ensure that schedules and coding processes were being adhered to.

Surveyors were also monitored through an electronic work log (see Appendix D) that surveyors completed and emailed to the Urban Initiative within 24 hours of completing a shift. Work logs were not only used to track the number of hours worked; they also asked surveyors to record the number of completed surveys, the estimated number of refusals to participate, and the estimated number of people who did not speak English on a particular bus. This data helped inform future scheduling and allowed the Urban Initiative to redirect bilingual surveyors to the routes with the highest levels of non-English speakers (Routes 1 and 8). Surveyors were also given a space to write notes on the hard copies of their work logs (which were submitted with completed surveys). Many used this space to share qualitative feedback or observations that proved especially useful. For example, by the end of the second week, surveyors were reporting that many of the riders they approached reported that they had already taken the survey in prior weeks, demonstrating the effectiveness of the Urban Initiative's scheduling system.

Survey Administration. The Urban Initiative undertook several preparatory measures to ensure that survey administration would run smoothly. First, in order to prepare bus riders for the upcoming survey and encourage high rates of participation, the Urban Initiative provided SRTA with flyers in English, Spanish, and Portuguese that were posted in the terminal and on every bus. This proved quite successful: not only were many riders eager and prepared to provide feedback, but the flyers also helped communicate the survey's purpose to non-English speakers when student surveyors were unable to translate. Second, Urban Initiative staff spent a day riding several buses throughout the city in order to understand the logistics

involved in conducting surveys onboard. It was determined that, in order to avoid confusion and ensure that surveys were administered properly, surveyors would work in pairs for the first two weeks. The first day of surveying was considered a trial run, and extra time was built into the schedule to allow for challenges the surveyors might encounter. However, no significant issues were reported during the first week and every completed survey collected was thus considered valid and included in the final results. Each surveyor spent their three-hour shift (6:00 to 9:00 a.m., 9:00 a.m. to 12:00 p.m., 12:00 to 3:00 p.m., or 3:00 to 6:00 p.m.) on a single bus; in the case of interlining buses, surveyors were instructed to note when their bus changed route numbers and subsequently change the coding/filing of completed surveys appropriately so that responses from each interlined route could be entered and assessed appropriately. (See schedules for each week in Appendix E.) Surveyors were instructed to return completed surveys to the Urban Initiative within two business days of their shift. Surveys were then given an ID number, coded by route, day, and shift, and entered into SPSS by Urban Initiative staff.

Results were analyzed regularly to help determine how to allocate surveyors during subsequent weeks. The Urban Initiative used ridership data provided by SRTA to define minimum targets for completed surveys on each route. This information was then compared to returns to allow staff to concentrate surveyors on more popular routes and to be sure routes with lower ridership were sufficiently represented.

Analysis of Results. Using SPSS, the Urban Initiative analyzed data through basic frequencies and cross-tabulations to determine the characteristics of relationships between particular variables. For the phone surveys, results were weighted to ensure that they were demographically representative of all New Bedford residents. Because no such census data is available for SRTA riders, results of the onboard survey were not weighted and thus represent all responses equally.

Onboard Survey Results & Analysis

Respondent Characteristics

The majority of survey respondents can be classified as “transportation-disadvantaged,” which refers to the fact that they have particular constraints that make public transportation integral to their ability to travel to work, access medical and social services, pursue educational opportunities, and generally interact with their communities.³ These constraints can include having a low household

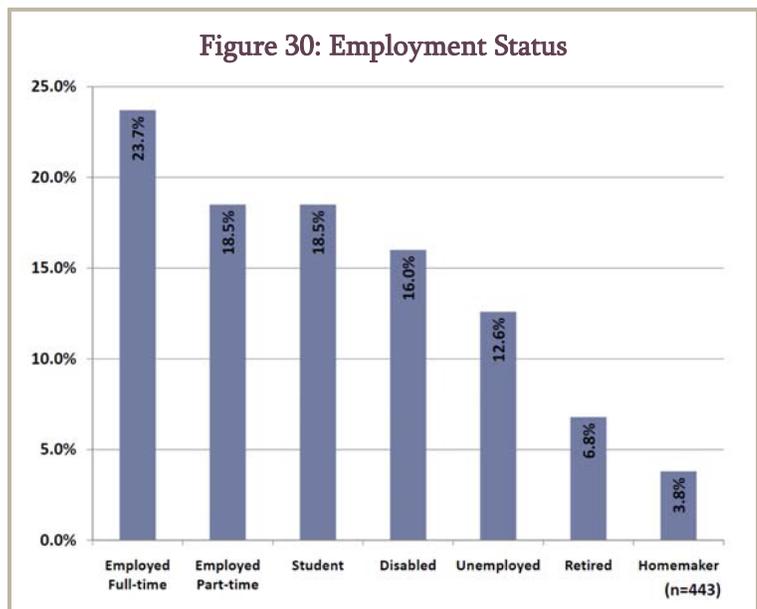
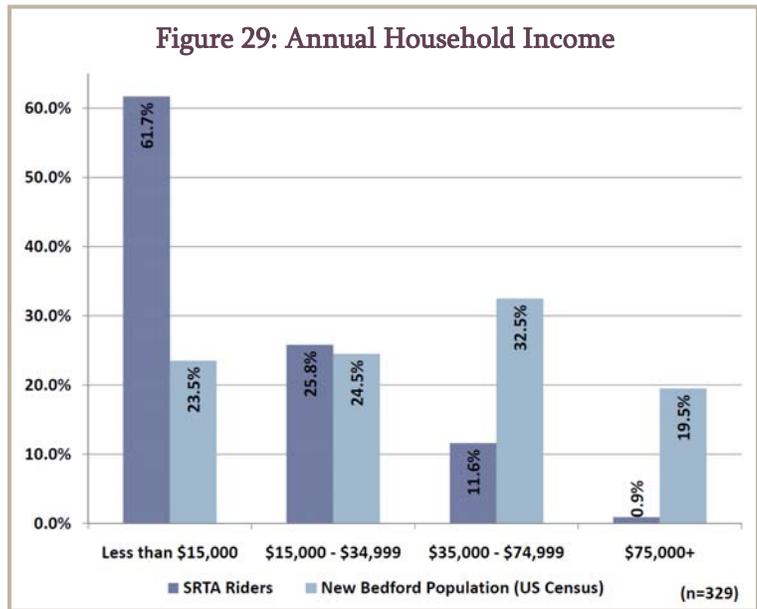


Figure 31: Age

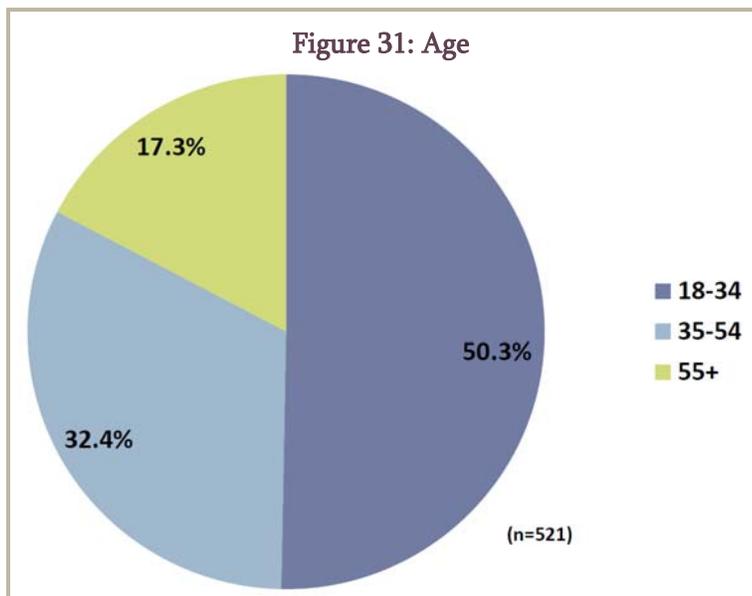
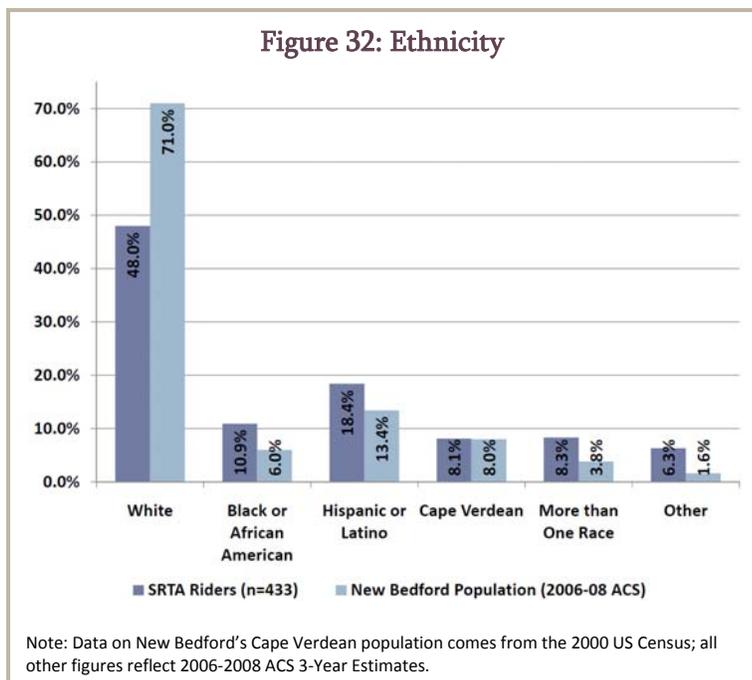


Figure 32: Ethnicity



income, having no car, disability, language barriers, living somewhere inaccessible, and having particular obligations like work, school, or frequent medical treatment.⁴

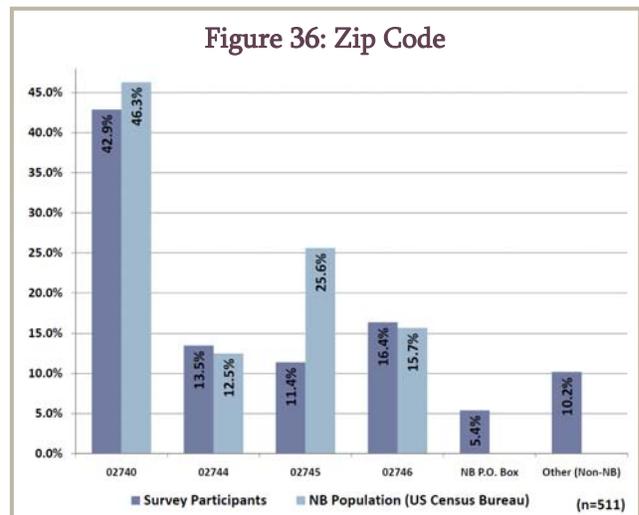
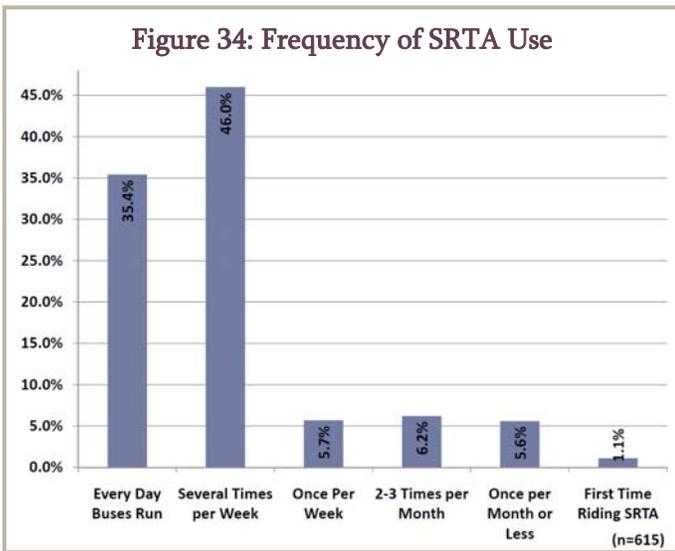
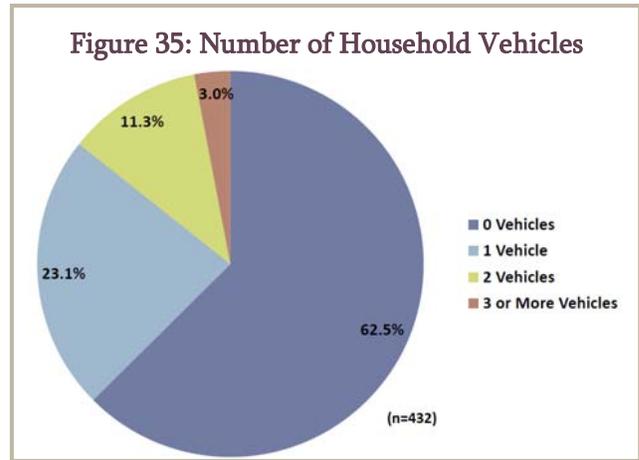
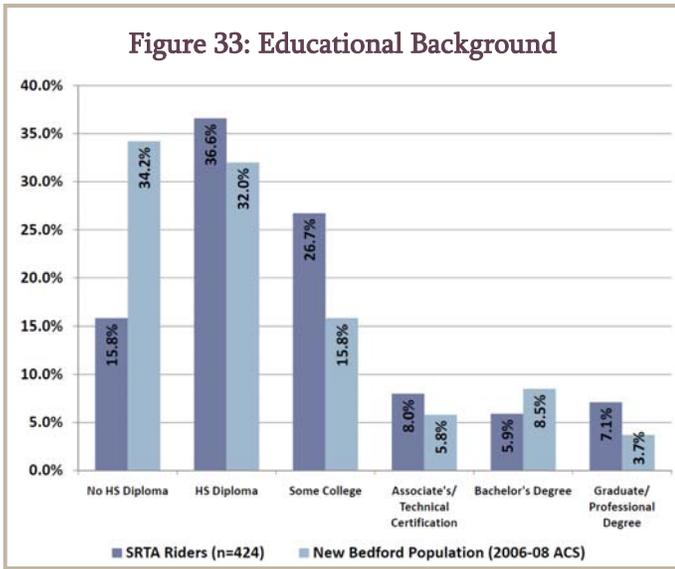
Income. Over 60 percent of riders surveyed have annual household incomes of less than \$15,000. One-fourth of riders earn between \$15,000 and \$35,000, while only 12.5 percent reported incomes that exceed \$35,000. As Figure 29 demonstrates, annual incomes of New Bedford residents⁵ are both higher and more evenly distributed than those of SRTA riders.

Employment Status. One possible explanation for this income discrepancy is that only 23.7 percent of riders report having full-time employment. The remainder includes people who identified themselves as part-time workers (18.5 percent), students (18.5 percent), disabled (16 percent), unemployed (12.6 percent), retirees (6.8 percent), or homemakers (3.8 percent) (See Figure 30).

Age. Interestingly, slightly more than half (50.3 percent) of all respondents are between 18 and 34. One-third of riders fall between the ages of 35 and 54, while 17 percent are 55 and older (See Figure 31).

Ethnicity. Survey responses indicate that SRTA riders are much more racially diverse than the population of New Bedford as a whole: 71 percent of New Bedford residents identify themselves as White and non-Hispanic, compared to just 48 percent of survey participants.⁶ Nearly one-fifth of SRTA users are Hispanic, and approximately 40 percent of that group elected to take the survey in Spanish (See Figure 32).

Educational Background. Based on responses to the question regarding educational attainment, it appears that survey participants generally have higher levels of education than New Bedford's adult population over the age of 18. For instance, while over one-third of city residents have no high school diploma, this distinction applies to only 15.8 percent of respondents. In terms of high school diplomas, while 63.3 percent of SRTA riders reported this level of education, only 47.8 percent of the adult population in New Bedford achieved the same credential (note that these figures include those who report at least a high school diploma or a some college as their highest level of educational attainment). With regards to the achievement a Bachelor's degree or higher, about the same proportion (13 percent) of SRTA riders and the city's adult population have achieved this level of educational attainment. It is interesting to note, however, that while 7.1 percent of survey respondents reportedly earned graduate or professional degrees, this figure compares to just 3.7 percent of New Bedford's adult population over the age of 18 (See Figure 33).



Public Transit Dependence. The Urban Initiative classifies the 80 percent of riders who use the bus several times per week or more as being transit-dependent. Among this group, 43 percent reported using the bus every day (Monday through Saturday) to meet their transportation needs (See Figure 34). Another indicator of a person’s transit dependence is whether or not a working vehicle is readily accessible. Sixty-two percent of riders reported having no access to a working vehicle within their household, while 23.1 percent reportedly have access to just one (See Figure 35).

Geography. The most frequently reported zip code among respondents was also New Bedford’s most populous, with 42.9 percent of survey respondents living in 02740. This zip code

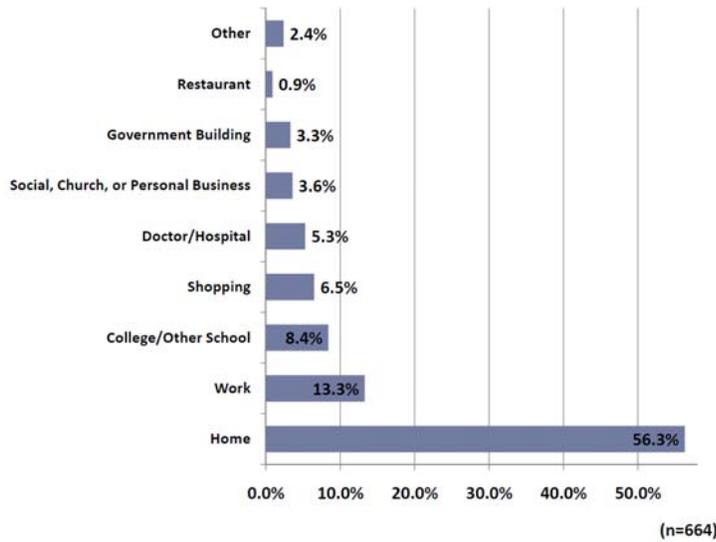
also includes the city’s downtown and the SRTA terminal. In addition, 16.4 percent live in the 02746 zip code (the lower North End), 13.5 percent in 02744 (the South End), and 11.4 percent in the upper North End (02745). Just 10.4 percent of riders surveyed live outside the city (See Figure 36).

Trip Characteristics

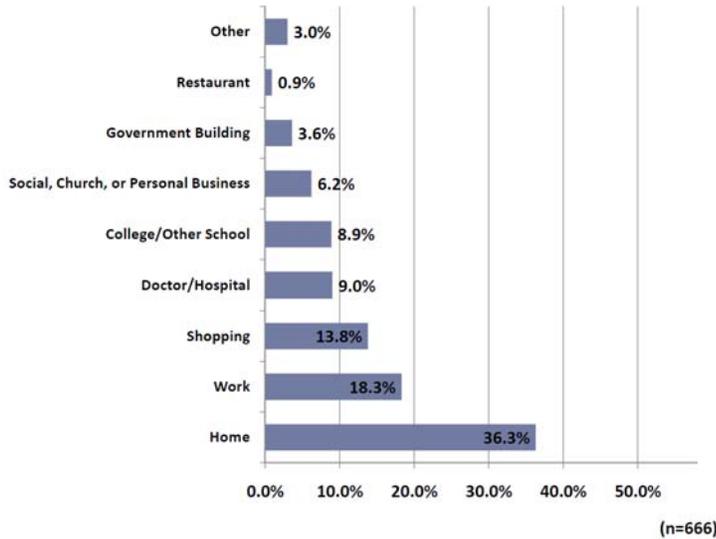
Trip Purpose. As Figure 37 shows, most riders are using the bus to travel between work and home. Among respondents who are not employed, destinations were more varied. Retirees are generally using the bus to go shopping and visit the doctor. Unsurprisingly, one-third of students reported that getting to or from school was the purpose of their trip, while 17.1 percent were using the bus to travel to work. Among those who identified themselves as unemployed, origins and destinations were

Figure 37: Trip Origin & Destination

Where did you begin your trip?



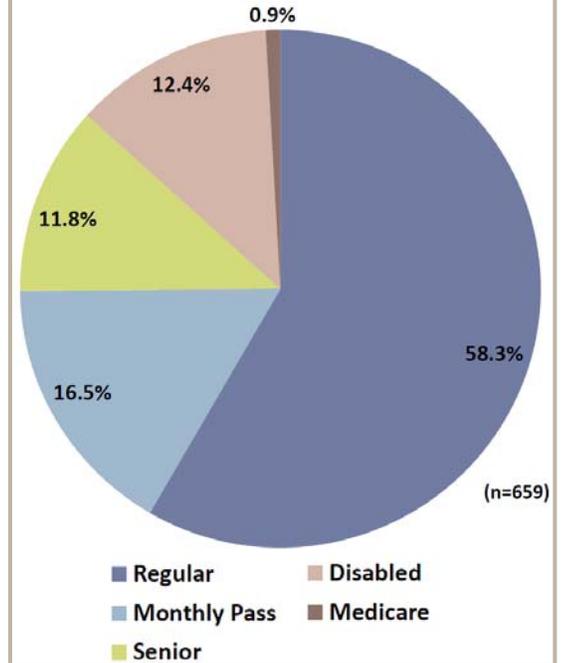
Where are you going now?



much more varied: while many of these respondents were coming from or going home, shopping was the only trip purpose with a significant number of responses (12.7 percent). Destinations for the disabled were less varied, with many respondents using the bus to go shopping (20 percent), visit a doctor or the hospital (18.6 percent), or for social purposes (10 percent).

Fare Paid. Of the 659 respondents who provided information on the type of fare they paid for the particular trip on which they were surveyed, 58.3 percent paid the regular fare of \$1.25. The fare type

Figure 38: Fare Type Paid



reported with the lowest frequency was the Medicare fare, paid by just six respondents (0.9 percent) (See Figure 38).

Travel To and From the Bus. Most survey participants traveled to the bus or terminal on foot (67.1 percent), while 22.5 percent transferred from another SRTA bus. After disembarking, even more reported walking to their final destination (76.7 percent), while fifteen percent transferred to another SRTA bus to complete their trip. For questions pertaining to mode of transportation to and from the bus or terminal, bicycle was the least popular method: just four people rode a bike to get to the bus/terminal, while only two used bikes to reach their final destinations (See Figure 39).

Frequency of Trip Purpose. Respondents were asked how often they used the bus to get to their intended destination during one week. As Figure 40 shows, results for this question were distributed evenly.

Total Trip Length. Two-thirds of respondents report that their current trip would take thirty minutes or less to complete (31.5 percent estimate reaching their destination within fifteen minutes, while 34.3 percent believe their trip length to be

Figure 39: Transportation To Bus/Terminal & Destination

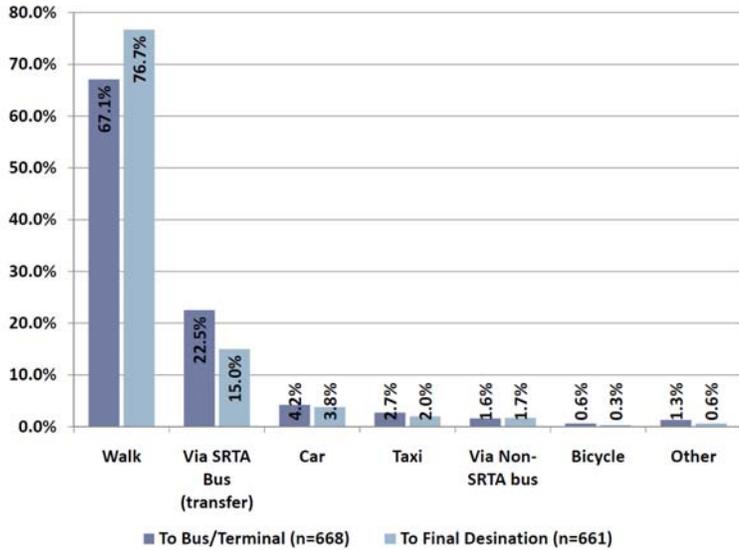


Figure 41: Total Trip Length

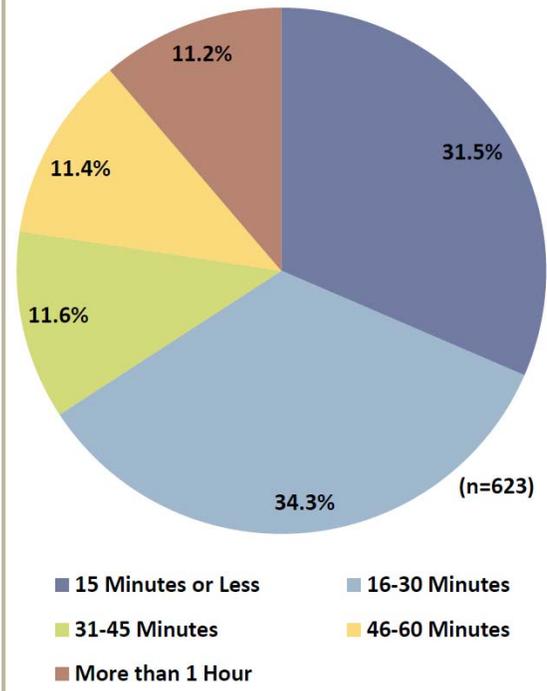


Figure 40: Trip Frequency

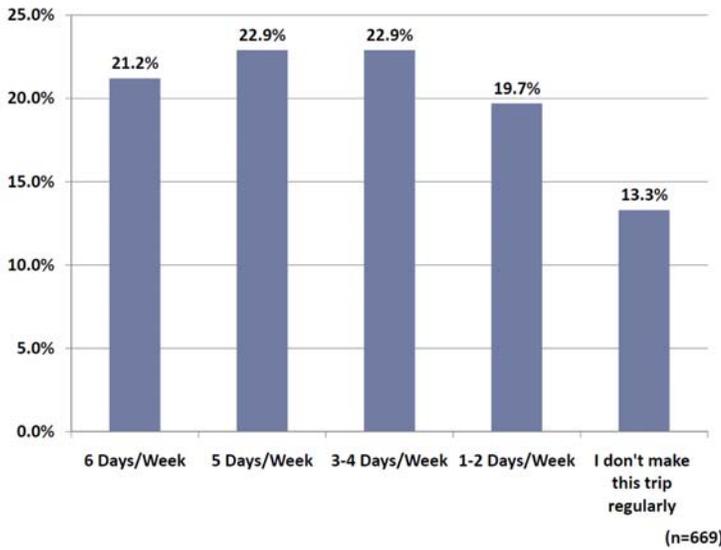
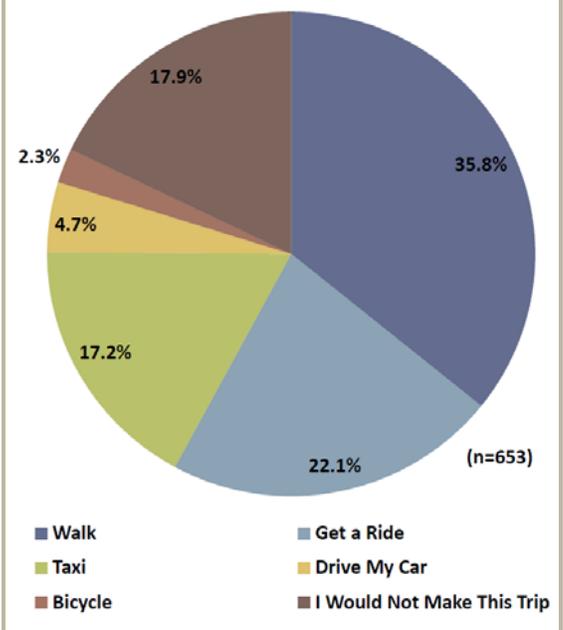


Figure 42: If bus service were not available how would you have made this trip?

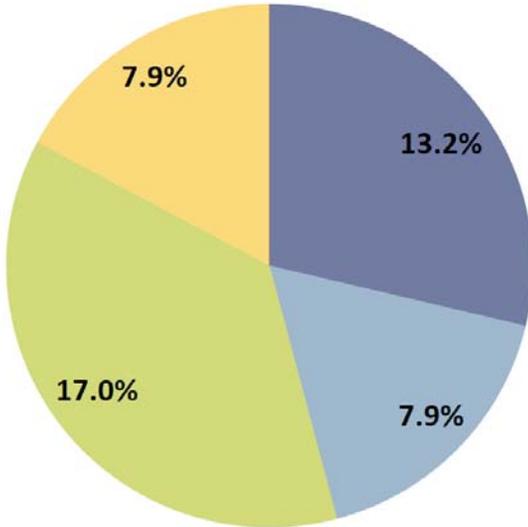


between 16-30 minutes). Twenty-three percent of riders reported trip lengths between 31 and 60 minutes, while 11.2 percent were in the midst of trips lasting over one hour when they completed the survey (See Figure 41).

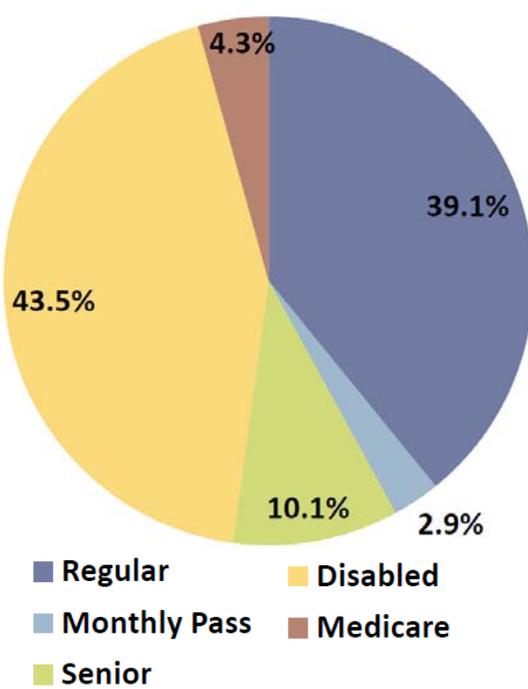
Alternative Transportation Options. Participants were asked how they would make the particular trip they were on if bus service was unavailable. While most indicated that they would walk (35.8 percent) or get a ride (22.1 percent) to reach their intended destination, 17.9 percent would be unable to make the trip in the absence of bus service.

Figure 43: Fare Type Paid for Selected Populations

Riders Ages 65 and Over



Disabled Riders



Once again, the bicycle proved to be the least popular method of alternative transportation, with just 2.3 percent of all respondents choosing this option if the bus was unavailable (See Figure 42).

Understanding of Fare Structure

In addition to the analysis of concerns related to the need for more information on bus schedules and routes, the Urban Initiative was able to make some further assumptions about riders' knowledge of the SRTA system based on fares paid by specific subgroups. For example, 13.2 percent of respondents ages 65 and over paid the regular fare (\$1.25), despite being eligible to pay the discounted senior fare of \$0.60. Among respondents who selected "disabled" as their employment status, 39 percent did not pay the discounted fare for people who are registered as disabled (See Figure 43).

While it is possible that some of these respondents are not indeed registered as such, disabled riders and seniors alike would appear to benefit from more information on the types of fares and services available to them. This is confirmed by the responses of those with these characteristics when asked about whether changes to the fare structure would influence them to ride the bus more frequently. Among people ages 65 and over, over 40 percent would ride more in response to lower fares, free transfers, and more information on SRTA service. Responses were even more significant among those who identified themselves as disabled: 69 percent would ride more if fares were lower, 70.4 percent would ride more in response to free transfers, 59.2 percent would increase their ridership if more information was available, and 71.8% would likely take advantage of more reduced-fare bus pass options.

Satisfaction with Aspects of SRTA Service

Survey respondents generally reported high levels of satisfaction with their experiences riding SRTA buses. Only one variable reflected

Figure 44: Satisfaction with SRTA Service Features

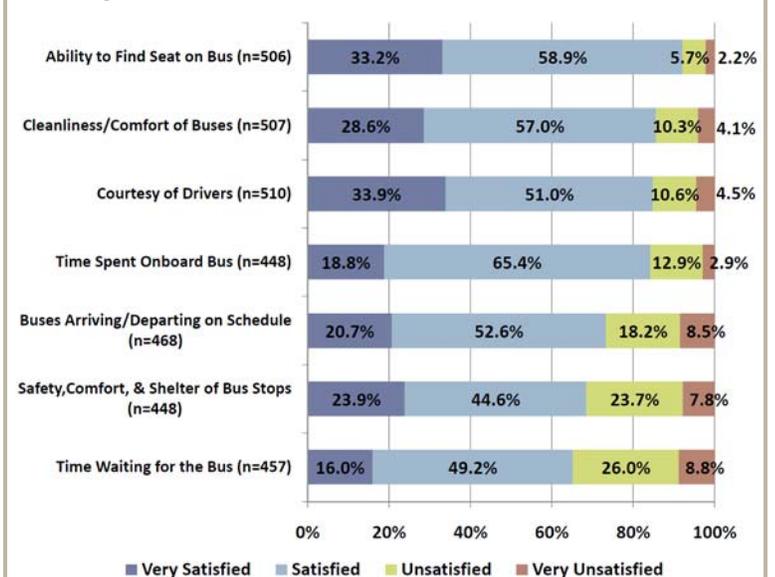
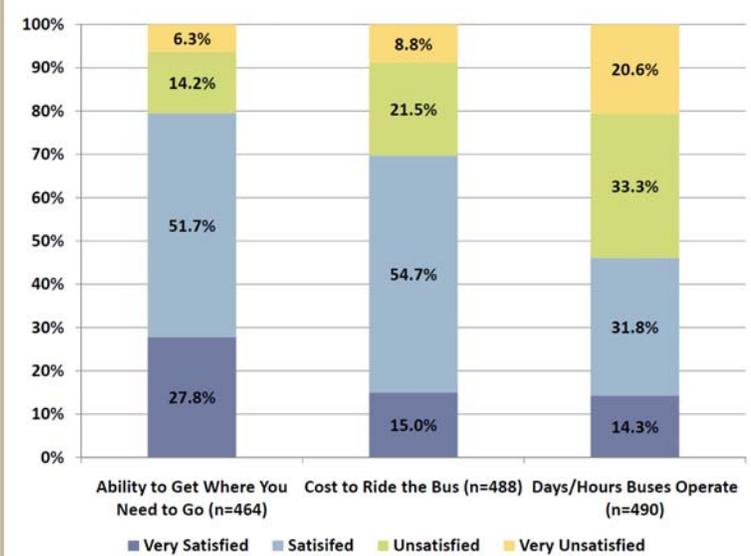


Figure 45: Satisfaction with SRTA System Features

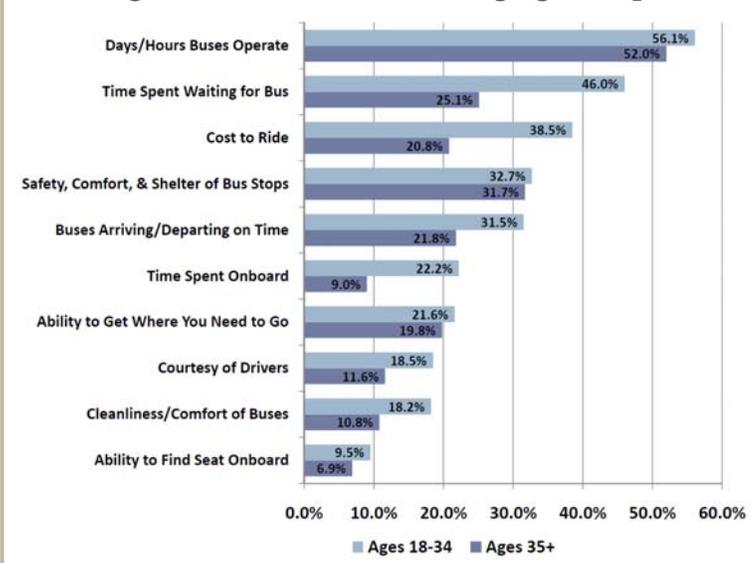


the wait for buses is concerned, with one-third of passengers reporting dissatisfaction with the time they spend waiting for buses to arrive (See Figure 44).

The SRTA System. Several questions were aimed at gauging riders’ satisfaction with certain features of the SRTA system. Most respondents (80 percent) are satisfied with SRTA’s capacity to help them travel to the places they need to go. Respondents are less satisfied, however, with the cost to ride the bus, with just two-thirds of riders reporting satisfaction with the current fare structure (See Figure 45).

As previously noted, riders were most dissatisfied with the days and hours buses operate, with just more than half of all respondents reporting that they are unsatisfied with this element of SRTA service.

Figure 46: Dissatisfaction Among Age Groups



Satisfaction Among Age Groups. When rider characteristics (including income, employment status, and frequency of bus use) were cross-tabulated with questions regarding respondents’ satisfaction with SRTA service, there were no significant differences from the aggregate results but for one group. Riders in the 18-34 age bracket, who comprise half of all survey respondents, demonstrated higher levels of dissatisfaction than those over the age of 35 for every survey question related to satisfaction. As Figure 46 shows, young riders were distinctly less satisfied with the amount of time spent waiting for and riding on the bus and with the cost to ride the bus.

a significant level of dissatisfaction among survey respondents: 54 percent of riders reported being unsatisfied or very unsatisfied with the days and hours buses operate.

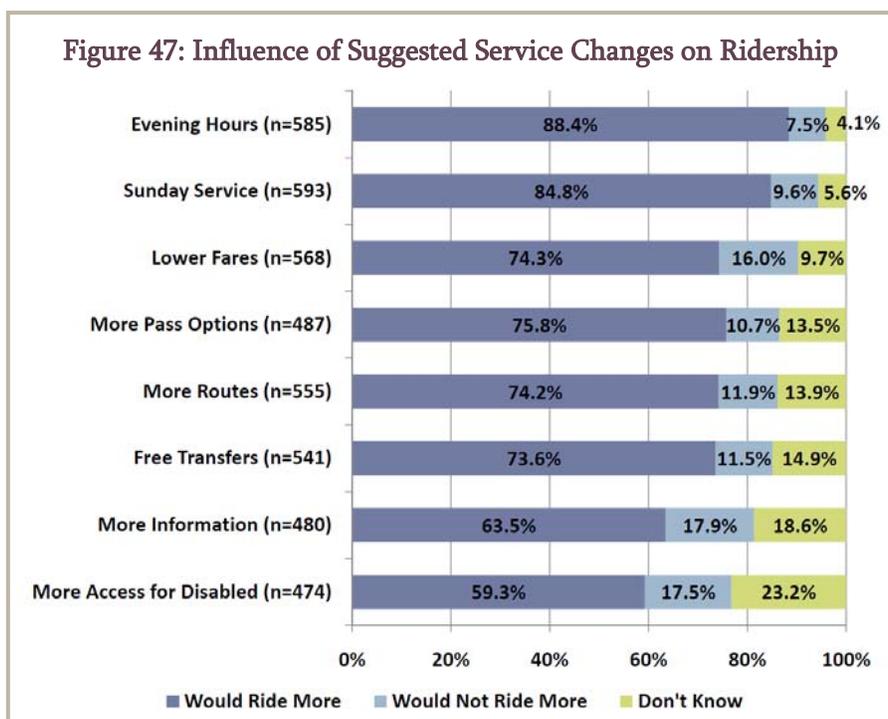
Experience Riding Buses. Most riders reported satisfaction with the quality of their experiences using buses. The onboard experience is especially favorable: over 80 percent of respondents feel that drivers are courteous and that buses are clean and comfortable, and fewer than 8 percent of riders are unsatisfied with the availability of seats. Responses indicate that there is some room for improvement where

Suggested Service Changes & Possible Influence on Ridership

In general, every change suggested by Question 10 of the survey was met with a positive response (See Appendix B for a copy of the survey). The majority of respondents indicated that each change would influence them to ride the bus more frequently (See Figure 47).

Evening and Sunday Hours. Survey results suggest that ridership would increase most if SRTA’s hours extended into the evening, with 88

Figure 47: Influence of Suggested Service Changes on Ridership



percent (517 riders) reporting that they would ride more if this change was implemented. The proportion is even higher (92 percent) among transit-dependent riders. The addition of Sunday hours ranked second in popularity, with 85 percent of riders (503) indicating that they would use the bus more frequently in response. Again, this proportion is slightly higher among transit-dependent riders, with 88 percent reporting that they would ride more if Sunday service was added.

Fare Structure Changes. Three quarters of riders reported that lower fares would increase their use of SRTA buses. Similar proportions of riders responded favorably to free transfers and the addition of reduced-fare bus passes, indicating that they would ride more if such changes were made. Transit-dependent riders' responses to these questions were not significantly different than those of the total population of respondents. The percentage of "yes" responses was slightly higher for low income respondents (those earning less than \$15,000), with 84 percent indicating that they would ride more if there were more bus pass options, and 83 percent reporting increased use in response to free transfers.

Information Needs. By providing more information on service features like bus schedules and routes, SRTA stands to increase ridership for nearly two-thirds of current customers. According to survey results, 64 percent of respondents answered in the affirmative when asked if they would ride more frequently if SRTA provided more information. Among those who completed the survey in Spanish, 82 percent would ride the bus more if this change was made, and every person who completed the survey in Portuguese responded in this manner. Because nearly 15,000 New Bedford residents are not proficient in English, providing more information in foreign languages is likely to have a positive impact on ridership.⁷

Access for Passengers with Disabilities. While improving access for passengers with disabilities was not among the top service changes for the aggregate sample (just 59 percent would ride more as a result), for passengers who identified themselves as disabled, 71 percent indicated that they would increase their usage of SRTA buses in response to improved accessibility.

Supplemental Information Provided by Survey Respondents

Eighty-one participants provided responses to the survey question asking riders to identify places in the region they would like to visit that cannot be reached by bus. While responses varied greatly, several locations appeared multiple times: Acushnet, North Fairhaven, South Dartmouth, and Hathaway Road in New Bedford all appeared frequently among the 81 responses. Several students wrote that they would like to see a direct link between the Bristol Community College campuses in Fall River and New Bedford. Meanwhile, ten people took the opportunity to once again make a case for Sunday service, citing the need to attend church, get to and from work, and access the hospital.

Using their work logs, surveyors noted some common concerns and suggestions shared with them by riders. These were largely related to the need for evening hours and service on Sundays and holidays. A number of passengers, many of whom were older or disabled, commented on the need for all buses to be lowered to curb level to make boarding safer and easier (it seems that not all drivers do so consistently).

Concluding Remarks & Recommendations

In requesting that these surveys be conducted, the New Bedford Transit Development Plan (TDP) Task Force envisioned a process that would serve to inform the myriad of planning activities currently taking place around the development and design of the TDP and its ancillary review of SRTA's role within that plan. The analysis of the survey data gathered by the Urban Initiative and Center for Policy Analysis in this report is intended to provide an initial and independent assessment of that data. It is anticipated that the TDP Task Force, specifically its partners at Vanasse Hangen Brustlin, Inc. (VHB), will utilize the raw data sets compiled by the research team in the Statistical Package for the Social Sciences (SPSS) software program to conduct any further analysis it might deem appropriate for the purpose of the TDP.

In concluding this report, the authors harken back to two of the key goals initially identified for this survey project: first, to assess the potential for improvements or changes to the status quo, and second, to determine the possibility for increased ridership. In many ways, the research team views these two goals as inherently tied to each other given the

likelihood that service changes could attract new or underserved markets. While this report provides a plethora of information heretofore never gathered regarding a variety of demographic indicators and perceptions of local bus service, more importantly, it offers a set of ideas and suggestions that, as the title of this report indicates, identifies some the public transit needs of a modern-day New Bedford. Going forward, the research team strongly recommends that SRTA and its TDP partners consider the following changes to local service:

- An extension of service on Saturdays and expansion of service to Sundays.
- An extension of service on weekdays beyond 6:00 p.m.
- An expansion of service to surrounding towns, such as Fairhaven and Acushnet.
- The provision of free transfers.
- The creation of new and more flexible reduced-fare bus pass options.
- The provision of additional information and the coordination of marketing campaign in several languages to promote SRTA's schedule and routes.

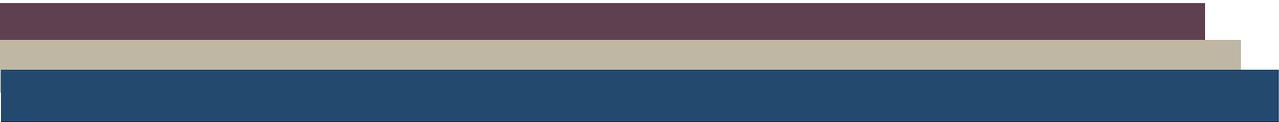
Endnotes

1. The number of respondents for some questions is lower, thus the margin of error is higher in those instances.
2. US Census Bureau, 2006-2008 American Community Survey 3-Year Estimates: New Bedford, MA.
3. GAO-03-697: Transportation Coordination. June 2003.
4. Litman, Todd. (2010). *Evaluating Transportation Equity: Guidance for Incorporating Distributional Impacts in Transportation Planning*. Victoria, Canada: Victoria Transport Policy Institute.
5. US Census Bureau, 2006-2008 American Community Survey 3-Year Estimates: New Bedford, MA.
6. US Census Bureau, 2006-2008 American Community Survey 3-Year Estimates: New Bedford, MA.
7. US Census Bureau. 2006-2008 American Community Survey; New Bedford, MA.



Appendix A

Phone Survey



Telephone Survey

[Intro] Hi, my name is _____ and I am calling from UMass Dartmouth How are you today? We are conducting a 5-minute survey of residents in New Bedford to study the local bus service provided by SRTA, also known as the Southeastern Massachusetts Transportation Authority.

[INTERVIEWER] If caller states that he/she does not use SRTA bus service respond: "That's OK, your opinions are very important even if you do not use local bus transportation."

Q1. Do you live in New Bedford?

- 1 YES [SKIP TO Q2]
- 2 NO [INTERVIEWER READ: SORRY, BUT WE ARE ONLY INTERVIEWING NEW BEDFORD RESIDENTS. THANK YOU FOR YOUR TIME]

Keep in mind that this is a random survey, we do not know your name or address and we will not disclose any individual information you provide in this survey.

Q2. Do you have a few minutes to complete the survey?

- 1 YES [SKIP TO Q4]
- 2 NO [SKIP TO Q3]

Q3. Your opinions are very important and we'd like to give you an opportunity to make your opinions heard. Are you sure you do not have time to complete the survey?

- 1 RESPONDENT WILL NOT PARTICIPATE [END INTERVIEW]
- 2 RESPONDENT WILL PARTICIPATE [SKIP TO Q4]

Q4. Thank you. First I would like to ask you if you are at least 18 years of age?

- 1 YES [SKIP TO Q6]
- 2 NO [SKIP TO Q5]

Q5. Is there someone 18 years of age or older that I can speak to?

- 1 YES [SKIP TO INTRO]
- 2 NO [INTERVIEWER READ: SORRY, BUT WE NEED TO SPEAK TO SOMEONE WHO IS AT LEAST 18 YEARS OF AGE. WE WILL CALL BACK AT ANOTHER TIME.] [END INTERVIEW]

Q6. What is your primary mode of transportation? Is it:

[Interviewer Read Choices]

- 1 PERSONAL CAR
- 2 SOMEONE ELSE'S CAR
- 3 BUS
- 4 WALKING
- 5 TAXI
- 6 OTHER (PLEASE DESCRIBE) _____
- 88 DON'T KNOW
- 99 REFUSED

Q7. Have you ever heard of SRTA, also known as the Southeastern Regional Transit Authority, that operates the local public bus service?

- 1 YES
- 2 NO [SKIP TO Q17]
- 99 REFUSED [SKIP TO Q17]

Q8. I'd now like to read several items about SRTA's bus service in New Bedford and ask if you are very familiar, somewhat familiar, or not familiar with each. We are interested in your opinions even if you do not ride the bus. How about:

	Very Familiar	Somewhat Familiar	Not Familiar	Refused
SRTA bus routes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
SRTA bus stops	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The cost to ride the bus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The availability of a monthly pass for discount fares	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The stop closest to your home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How often the bus arrives at the closest stop to your home or work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q8a. Do you work or go to school in New Bedford?

- Yes
- No [SKIP TO Q9]

Q8b. Are you very familiar, somewhat familiar or not familiar with the bus stop nearest to your work or school?

- 1 VERY FAMILIAR
- 2 SOMEWHAT FAMILIAR
- 3 NOT FAMILIAR
- 88 DON'T KNOW
- 99 REFUSED

Q9. Have you ever ridden a SRTA bus?

- 1 YES
- 2 NO [SKIP TO Q.14]
- 88 DON'T KNOW [SKIP TO Q.14]
- 99 REFUSED [SKIP TO Q.14]

Q10. When was the last time you rode a SRTA bus? Was it...

[INTERVIEWER: READ CHOICES]

- 1 WITHIN THE LAST WEEK
- 2 WITHIN THE LAST MONTH
- 3 WITHIN THE LAST SIX MONTHS
- 4 MORE THAN SIX MONTHS AGO
- 88 DON'T KNOW
- 99 REFUSED

Q11. How often do you ride SRTA busses? Do you ride...

[INTERVIEWER: READ CHOICES]

- 1 EVERY DAY THE BUSES RUN
- 2 SEVERAL TIMES PER WEEK
- 3 ONCE PER WEEK
- 4 ONCE PER MONTH
- 5 SEVERAL TIMES PER YEAR
- 6 LESS THAN SEVERAL TIMES PER YEAR
- 88 DON'T KNOW
- 99 REFUSED

Q12. Are there any places in the area you would like to travel to on the bus that you cannot go to now?

- Q13.** Now I am going to read you a list of several aspects of SRTA service. Please tell me if you are very satisfied, satisfied, unsatisfied, or very unsatisfied with the service, or that you do not know. How about:

[Randomize]

	Very Satisfied	Satisfied	Unsatisfied	Very Unsatisfied	DK	RF
Ability to get everywhere you need to go	<input type="radio"/>					
Time spent waiting for the bus	<input type="radio"/>					
Amount of time spent on the bus	<input type="radio"/>					
Safety, comfort, and shelter of bus stops	<input type="radio"/>					
Buses arriving and departing on schedule	<input type="radio"/>					
Cleanliness & comfort of buses	<input type="radio"/>					
Courtesy of drivers	<input type="radio"/>					
Ability to find a seat onboard the bus	<input type="radio"/>					
The days & hours buses operate	<input type="radio"/>					
Cost to ride the bus	<input type="radio"/>					

- Q14.** We are interested in understanding the reasons people do not ride the SRTA buses or do not ride them more often. I am going to read you several statements and ask if you agree or disagree with each statement. If you don't know, please feel free to respond that you don't know.

[RANDOMIZE]

	Agree	Disagree	Don't Know	Refused
It costs too much to ride the bus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The hours of service don't meet your schedule	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The bus does not run often enough	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The bus doesn't go where you want it to go	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is too far from your home to the bus stop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is too far from your job or school to the bus stop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
You don't feel safe walking to or waiting for the bus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
You don't like the atmosphere or conditions on the buses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q15. If participant responds "Agree" to Item 2 in Q14, interviewer will ask:

In the previous question you agreed that the hours of service don't meet your schedule. Please tell me if the following options would better meet your schedule.

	Yes	No	Don't Know	Refused
Expanded service before 6:00 AM	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expanded service after 6:00 PM	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expanded service on Saturdays	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expanded service on Sundays	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expanded service to surrounding towns	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expanded service to a particular location:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>Specify Location: <location open> _____</i>				

Q16. Now I'd like to read you a few potential changes to bus service. If the change was made, would you ride SRTA buses or ride them more often than you already do? How about:

[Randomize]

	Yes	No	Don't Know	Refused
Lower fares	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extended evening hours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sunday service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More bus routes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Free transfers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More information on schedules and routes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
More reduced-fare bus pass options	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improved access for passengers with disabilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16a There is a proposal to construct a commuter rail station near New Bedford's state pier that will link with the SRTA bus system. Do you think you will use commuter rail if it comes to New Bedford?

- 1 YES
- 2 NO [SKIP TO Q17]
- 88 DON'T KNOW [SKIP TO Q17]
- 99 REFUSED [SKIP TO Q17]

16b. If SRTA moved its downtown bus terminal to the site of the proposed commuter rail station near the state pier, how likely would you be to use local bus transportation to access the commuter rail station?

- 1 VERY LIKELY
- 2 SOMEWHAT LIKELY
- 3 NOT LIKELY
- 88 DON'T KNOW
- 99 REFUSED

OK, we are just about finished. I would just like to ask you a few questions about yourself to get more information about the residents that we are talking to.

Q17. What is your zip code?

Q18. Do you mind telling me your age?

Q19. Sex

- 1 MALE
- 2 FEMALE

Q20. I am going to read several different income categories. Without telling me your exact income, into which category did your total household income for the past year fall?

[INTERVIEWER: READ CHOICES]

- 1 LESS THAN \$10,000
- 2 \$10,000-\$15,000
- 3 \$15,000 - \$25,000
- 4 \$25,000 - \$35,000
- 5 \$35,000 - \$50,000
- 6 \$50,000 - \$75,000
- 7 \$75,000 OR MORE
- 88 DON'T KNOW
- 99 REFUSED

Q21. What is the last grade of school that you completed?

[INTERVIEWER: READ CHOICES]

- 1 LESS THAN HIGH SCHOOL
- 2 HIGH SCHOOL DIPLOMA
- 3 SOME COLLEGE BUT NO DEGREE
- 3 ASSOCIATE'S DEGREE OR TECHNICAL CERTIFICATION
- 4 BACHELOR'S DEGREE
- 5 GRADUATE DEGREE OR PROFESSIONAL DEGREE
- 88 DON'T KNOW
- 99 REFUSED

Q22. What is your employment status?

[INTERVIEWER: READ CHOICES]

- 1 EMPLOYED FULL-TIME
- 2 EMPLOYED PART-TIME
- 3 RETIRED
- 4 HOMEMAKER
- 5 UNEMPLOYED
- 6 DISABLED
- 7 STUDENT
- 88 DON'T KNOW
- 99 REFUSED

Q23. How many people live in your household, including yourself?

Q24. How many working vehicles are in your household?

Q25. What racial or ethnic group do you identify yourself with?

[INTERVIEWER: READ CHOICES]

- 1. WHITE
- 2 BLACK OR AFRICAN AMERICAN
- 3 AMERICAN INDIAN
- 4 ASIAN
- 5 HISPANIC OR LATINO
- 6 GUATEMALAN MAYAN
- 7 CAPE VERDEAN
- 8 MORE THAN ONE RACE
- 88 NOT SURE
- 99 REFUSED

That concludes the survey. Thanks for your time and cooperation. Have a good day/evening



Appendix B

Onboard Survey





ABOUT THIS TRIP

1. Where did you start your trip before you got on this bus or arrived at the terminal?

Work Home Shopping Restaurant College/University Other School
 Doctor/hospital Government building (ex: courthouse, library, City Hall, Post Office)
 Social, church, or other personal business Other: _____

2. How did you get to this bus or to this terminal?

Walked Car Bicycle Taxi Transferred from SRTA bus
 Transferred from non-SRTA bus (ex: Bonanza, Dattco) Other: _____

3. What type of fare did you pay?

Regular (\$1.25) Monthly pass Senior (\$0.60) Disabled (\$0.60) Medicare (\$0.60)

4. Where are you going now?

Work Home Shopping Restaurant College/University Other School
 Doctor/hospital Government building (ex: courthouse, library, City Hall, Post Office)
 Social, church, or other personal business Other: _____

5. How often do you use the bus to get to this destination during one week?

6 days/week 1-2 days/week
 5 days/week I don't make this trip regularly
 3-4 days/week

6. How long will this entire trip take, including the time it takes to get to and from the bus stop?

15 minutes or less 46-60 minutes
 16-30 minutes More than one hour
 31-45 minutes

7. Once you get off the bus, how will you reach your destination?

Walk Car Bicycle Taxi Transfer to another SRTA bus
 Transfer to non-SRTA bus (ex: Bonanza, Dattco) Other: _____

8. If bus service was not available, how would you make this trip?

Walk Drive my car Get a ride Taxi Bicycle I would not make this trip

YOUR EXPERIENCE RIDING SRTA

9. How often do you ride a SRTA bus?

Every day buses run 2-3 times per month This is my first time riding SRTA
 Several times per week Once per month Unsure
 Once a week Several times per year

10. Below are a few suggested changes to bus service. If the change was made, would you ride SRTA buses more than you already do?

a. Lower fares _____ Yes No Don't know
 b. Extended evening hours _____ Yes No Don't know
 c. Sunday service _____ Yes No Don't know
 d. More bus routes _____ Yes No Don't know
 e. Free transfers _____ Yes No Don't know
 f. More information on schedules, routes, etc. _____ Yes No Don't know
 g. More reduced-fare bus pass options _____ Yes No Don't know
 h. Improved access for passengers with disabilities _____ Yes No Don't know

Continued

11. How satisfied are you with the following aspects of SRTA service? (check one box for each item)					
	VERY SATISFIED	SATISFIED	UNSATISFIED	VERY UNSATISFIED	DON'T KNOW
a. Ability to get everywhere you need to go					
b. Time spent waiting for the bus					
c. Amount of time spent on the bus					
d. Safety, comfort, and shelter of bus stops					
e. Buses arriving and departing on schedule					
f. Cleanliness and comfort of buses					
g. Courtesy of drivers					
h. Ability to find a seat onboard the bus					
i. The days and hours buses operate					
j. Cost to ride the bus					

12. Please tell us what places in the area you would like to visit that cannot be reached by bus:

INFORMATION ABOUT YOU (Remember, these surveys are anonymous)

13. What is your zip code OR what is the name of your street and the closest cross-street?

02740 02744
 02741 02745
 02742 02746
 02743
 Other: _____

Your street:

Cross-street:

<p>14. How old are you?</p> <input type="checkbox"/> 18-24 <input type="checkbox"/> 55-64 <input type="checkbox"/> 25-34 <input type="checkbox"/> 65-74 <input type="checkbox"/> 35-44 <input type="checkbox"/> 75-84 <input type="checkbox"/> 45-54 <input type="checkbox"/> 85 or older	<p>15. Your gender:</p> <input type="checkbox"/> Male <input type="checkbox"/> Female	<p>16. How many people live in your household, including yourself?</p> <input type="text"/> <input type="text"/>	<p>17. How many working vehicles are in your household?</p> <input type="text"/> <input type="text"/>
--	--	--	---

<p>18. What was your total household income last year?</p> <input type="checkbox"/> Less than \$10,000 <input type="checkbox"/> \$35,000-\$49,999 <input type="checkbox"/> \$10,000-\$14,999 <input type="checkbox"/> \$50,000-\$74,999 <input type="checkbox"/> \$15,000-\$24,999 <input type="checkbox"/> \$75,000 or more <input type="checkbox"/> \$25,000-\$34,999 <input type="checkbox"/> Unsure	<p>19. What best describes your educational background?</p> <input type="checkbox"/> No high school diploma <input type="checkbox"/> Bachelor's degree <input type="checkbox"/> High school graduate <input type="checkbox"/> Graduate or professional degree <input type="checkbox"/> Some college, no degree <input type="checkbox"/> Associate's degree or technical certification <input type="checkbox"/> Unsure
--	--

<p>20. What is your employment status?</p> <input type="checkbox"/> Employed full-time <input type="checkbox"/> Student <input type="checkbox"/> Employed part-time <input type="checkbox"/> Unemployed <input type="checkbox"/> Retired <input type="checkbox"/> Disabled <input type="checkbox"/> Homemaker <input type="checkbox"/> Unsure	<p>21. What racial or ethnic group do you identify yourself with?</p> <input type="checkbox"/> White, non-Hispanic <input type="checkbox"/> Guatemalan Mayan <input type="checkbox"/> Black or African American <input type="checkbox"/> Cape Verdean <input type="checkbox"/> American Indian <input type="checkbox"/> More than one race <input type="checkbox"/> Asian <input type="checkbox"/> Unsure <input type="checkbox"/> Hispanic or Latino
--	---

Appendix C

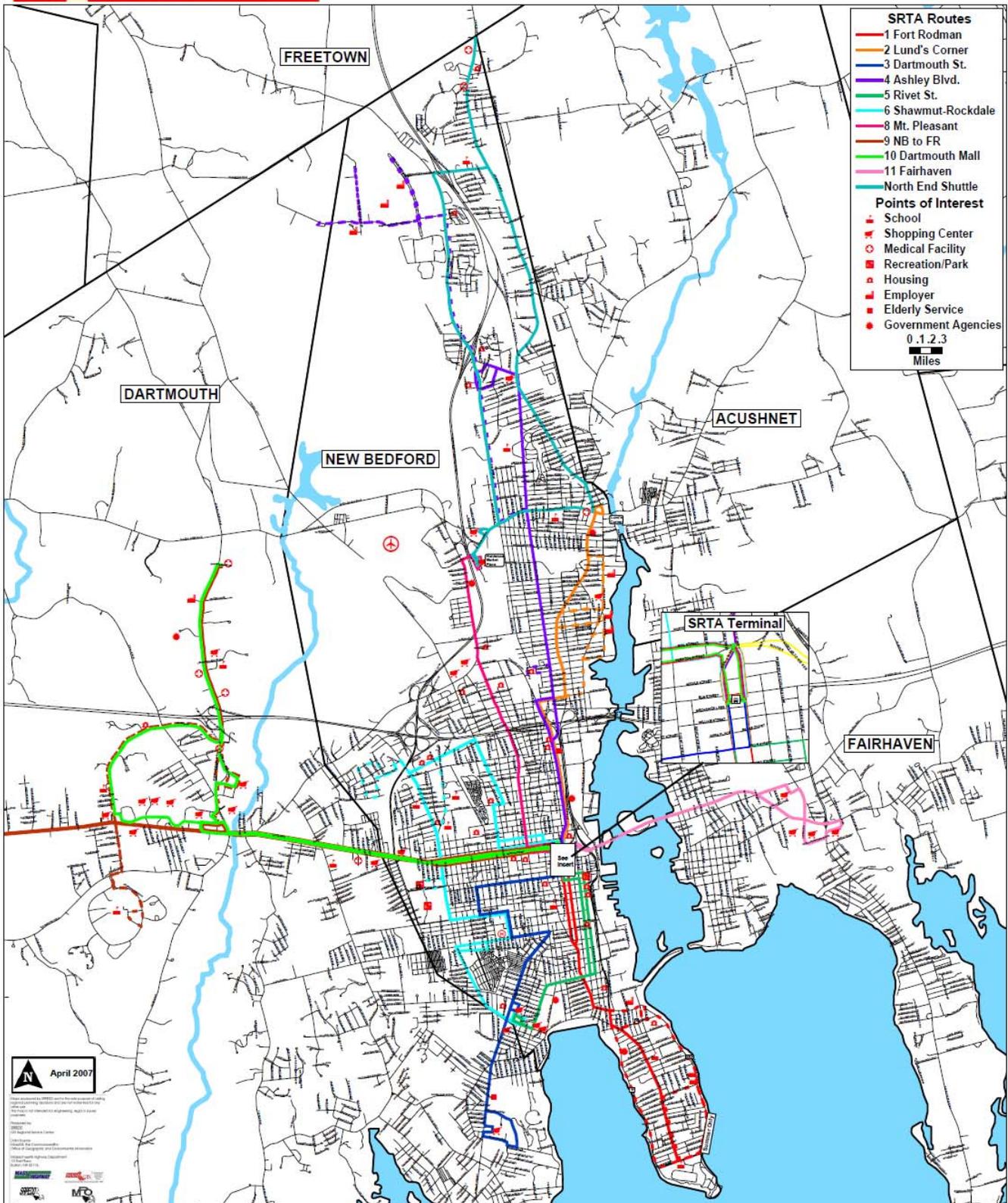
SRTA New Bedford Route Map







New Bedford Routes





Appendix D

Onboard Surveyor Work Log





Onboard Survey Work Log

DATE: _____ SHIFT (circle one): 6a-9a 9a-12p 12p-3p 3p-6p
Other: _____

ROUTE(S) ASSIGNED: _____

SURVEYOR NAME: _____

PARTNER'S NAME: _____

TIME YOU ARRIVED AT THE TERMINAL: _____

TIME OF FIRST BOARDING: _____

STARTING ROUTE NUMBER: _____

BUS NUMBER: _____

TIME YOU EXITED THE BUS: _____

ENDING ROUTE NUMBER: _____

TIME YOU LEFT THE TERMINAL: _____

TOTAL # OF COMPLETED SURVEYS: _____

TOTAL # OF REFUSALS: _____

ESTIMATED # OF NON-ENGLISH SPEAKERS: _____

NOTES: _____



Appendix E

Onboard Survey Schedule





SURVEYOR SCHEDULE: WEEK 1

ROUTE	18-Oct MONDAY			
	AM		PM	
	6-9	9-12	12-3	3-6
1 & 2	X			X
3, 4, & 11				
5 & 6				X
8				
9				
10				

ROUTE	19-Oct TUESDAY			
	AM		PM	
	6-9	9-12	12-3	3-6
1 & 2			X	X
3, 4, & 11	X		X	
5 & 6				
8				
9		X		
10				

ROUTE	20-Oct WEDNESDAY			
	AM		PM	
	6-9	9-12	12-3	3-6
1 & 2		X	X	
3, 4, & 11	X			
5 & 6	X	X		
8				X
9				
10				

ROUTE	21-Oct THURSDAY			
	AM		PM	
	6-9	9-12	12-3	3-6
1 & 2		X		
3, 4, & 11				X
5 & 6				X
8	X			
9			X	
10		X		

ROUTE	22-Oct FRIDAY			
	AM		PM	
	6-9	9-12	12-3	3-6
1 & 2				X
3, 4, & 11			X	
5 & 6				
8		X		
9				
10	X			

ROUTE	23-Oct SATURDAY	
	7-12	12-5
	1 & 2	X
3, 4, & 11		
5 & 6		
8		
9		
10		

SURVEYOR SCHEDULE: WEEK 2

ROUTE	25-Oct MONDAY			
	AM		PM	
	6-9	9-12	12-3	3-6
1 & 2				
3, 4, & 11				X
5 & 6			X	X
8				
9	X			
10				

ROUTE	26-Oct TUESDAY			
	AM		PM	
	6-9	9-12	12-3	3-6
1 & 2				
3, 4, & 11				
5 & 6		X	X	
8			X	X
9	X			
10				

ROUTE	27-Oct WEDNESDAY			
	AM		PM	
	6-9	9-12	12-3	3-6
1 & 2				
3, 4, & 11				
5 & 6				
8	X			
9		X	X	X
10		X	X	

ROUTE	28-Oct THURSDAY			
	AM		PM	
	6-9	9-12	12-3	3-6
1 & 2	X			
3, 4, & 11		X		
5 & 6				
8		X		
9				X
10			X	X

ROUTE	29-Oct FRIDAY			
	AM		PM	
	6-9	9-12	12-3	3-6
1 & 2				
3, 4, & 11		X		
5 & 6		X		
8			X	
9				
10				X

ROUTE	30-Oct SATURDAY	
	7-12	12-5
	1 & 2	
3, 4, & 11	X	X
5 & 6	X	X
8	X	
9		
10		

Note: 'X' indicates when surveying was taking place

SURVEYOR SCHEDULE: WEEK 3

1-Nov	MONDAY			
	AM		PM	
	ROUTE	6-9	9-12	12-3
1 & 2				X
3, 4, & 11			X	
5 & 6				
8			X	
9				X
10	X			

2-Nov	TUESDAY			
	AM		PM	
	ROUTE	6-9	9-12	12-3
1 & 2	X		X	
3, 4, & 11	X			X
5 & 6	X			
8		X	X	
9			X	
10			X	

3-Nov	WEDNESDAY			
	AM		PM	
	ROUTE	6-9	9-12	12-3
1 & 2		X	X	
3, 4, & 11			X	
5 & 6			X	X
8				
9		X		
10				

4-Nov	THURSDAY			
	AM		PM	
	ROUTE	6-9	9-12	12-3
1 & 2				X
3, 4, & 11		X		
5 & 6		X		
8	X			X
9				X
10		X	X	

5-Nov	FRIDAY			
	AM		PM	
	ROUTE	6-9	9-12	12-3
1 & 2				
3, 4, & 11		X		
5 & 6				
8		X	X	
9				
10				X
Mattapoisset/ Fairhaven		X	X	

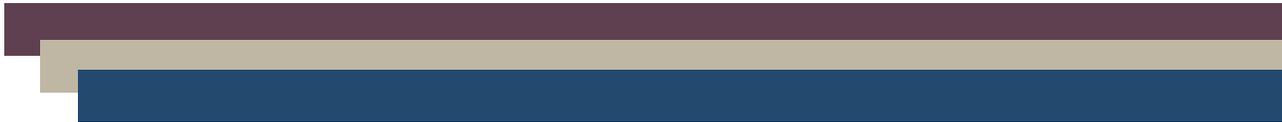
6-Nov	SATURDAY		
	ROUTE	7-12	12-5
	1 & 2		
3, 4, & 11			
5 & 6			
8		X	
9	X	X	
10	X	X	

SURVEYOR SCHEDULE: WEEK 4

10-Nov	THURSDAY			
	AM		PM	
	ROUTE	6-9	9-12	12-3
North End Shuttle		X	X	

12-Nov	FRIDAY			
	AM		PM	
	ROUTE	6-9	9-12	12-3
Acushnet/ Fairhaven		X	X	

Note: 'X' indicates when surveying was taking place





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