

PIONEER VALLEY

REGIONAL NON-TRANSIT USER STUDY

October 14, 2011

Prepared by the Pioneer Valley Planning Commission under the direction of the Pioneer Valley Metropolitan Planning Organization for the Pioneer Valley Transit Authority



Funding assistance from the Pioneer Valley Transit Authority, the Massachusetts Department of Transportation and the Federal Transit Administration

This page is intentionally blank

Table of Contents

Executive Summary	1
1.0 Introduction	4
1.1 Goals of the Non-transit User Study	4
1.2 PVTA Profile and Regional Transportation Characteristics.....	7
2.0 Study Method and Confidence Intervals.....	17
3.0 Findings and Analysis	17
3.1 Respondent Demographic Information	17
3.2 General Knowledge and Impressions About PVTA.....	27
3.3 Knowledge of PVTA Services	32
3.4 Barriers to Using PVTA.....	35
3.5 Likelihood of Using PVTA in the Future.....	38
3.6 Media Preferences	44
4.0 Recommendations and Responses.....	45
Recommendation 1: Media and Marketing	48
Recommendation 2: New Media Plan	49
Recommendation 3: Rider Education Program.....	50
Recommendation 4: Study Route Efficiencies for Travel Time Savings.....	51
Recommendation 5: Customer Safety Awareness	51
Recommendation 6: Limited English Proficiency Outreach.....	52
Recommendation 7: Additional Student Non-user Research.....	52
References.....	53

Appendices

1. List of Preparers
2. Sample Survey Forms
3. Written Comments
4. Demographic Summary of Pioneer Valley
5. Parking Garage Rates
6. Telephone and Parking Garage Survey Methods

EXECUTIVE SUMMARY

Public transit is a customer-focused service. Therefore, PVTA requested this study to better understand who their potential customers may be; where they live and work; and what types of services may better serve them. A total of 417 non-transit users in the region were surveyed: 135 by telephone and 282 at municipal parking garages. For most responses, the 95% confidence interval (margin of error) is $\pm 5\%$.

Key findings include:

- 83% of non-users know that PVTA is the local bus company.
- 69% of non-users have a “good impression” of PVTA.
- 75% of non-users say they are “not very familiar” with PVTA services.
- The top reasons that non-users say they do not take transit are:
 1. “I need my car during the work day.”
 2. “There is no bus stop near my home.”
 3. “Riding the bus takes too long.”
 4. “The bus doesn’t go where I need it.”
- Up to 30% of non-users say they would not be comfortable using PVTA at night because of personal safety concerns.
- About 60,000 daily commuters in the PVTA region (1 of 3 people surveyed), say they could use PVTA for their most frequent trip.
- The largest geographic concentrations of non-users who would be most likely to ride PVTA, based on auto ownership, income, and size of household demographic characteristics, are in Springfield, Holyoke and Chicopee.
- In Springfield, 59% of non-users said they could use PVTA for their most frequent trip, a potential market of several thousand commuters.
- Slightly more than half of all non-users say they would or might be interested in riding an express bus if it were convenient.
- About 37,000 people in the region do not speak English well, which may be a barrier to their obtaining bus schedule information.

The identification of a significant number of potential new riders is an important finding of this study. Even the addition of 1 new daily bus commuter can generate up to 500 additional rides per year, assuming typical commute and work patterns.

A draft of this report submitted to PVTA on January 20, 2011 offered a series of recommendations. Since then, PVTA has advanced several efforts that address the recommendations and make other improvements. These are summarized on the following pages.

Recommendation

Responses/Improvements

- | | |
|--|--|
| 1. Media and marketing program. | PVTA is working with First Transit to assess marketing needs and implement measures to address them. |
| 2. Make greater use of "New Media." | <ul style="list-style-type: none">▪ PVTA is continuing to increase the use of Twitter and website postings for service announcements.▪ PVTA continues to advance its automated vehicle location (AVL) system to provide improved schedule and real-time bus arrival/departure information to customers via internet and cell phones. |
| 3. Improve rider education and outreach. | PVTA applied for and received a \$250,000 JARC grant for rider education and training program, which is now being developed and implemented. |
| 4. Cultural and ethnic outreach to groups with the largest numbers of people who speak English "Less Than Very Well" – Spanish, Russian, Polish, Portuguese and Vietnamese speakers. | <ul style="list-style-type: none">▪ PVTA and PVPC are making increased efforts to produce all meeting notices in Spanish and provide Spanish translation at public meetings.▪ PVTA worked with PVPC to identify locations of Russian-speaking immigrants.▪ PVPC prepared and posted Russian language signage and rider information at five locations.▪ PVTA and PVPC conducted two Russian language outreach meetings on 10/6/11 in West Springfield and Springfield in partnership with Lutheran Social Services.▪ PVPC worked with Lutheran Social Services to identify Burmese and Nepali immigrant populations who are heavy bus users; PVTA and PVPC will hold rider information sessions with translation for these groups on 10/20/2011.▪ Rider information sessions will also be held for Spanish and Russian speaking residents on 10/20/11. |
| 5. Study route efficiencies to reduce travel time. | <ul style="list-style-type: none">▪ PVTA is evaluating the G1 Sumner Express to develop improvements.▪ PVTA increased P21 Express service from Holyoke to Springfield.▪ PVTA added two P20 Express routes from Holyoke Community College to Springfield.▪ PVTA added R29 limited stop service between UMass Amherst and downtown Holyoke.▪ PVTA held informational meetings with transit planning firms to advance development of a systemwide study that will address a wide range of route planning improvements, including potential express routes. |

6. Customer safety awareness/enhancement program.

- PVTA has advanced the “See Something – Say Something” safety campaign.
- PVTA has improved lighting at bus stops and facilities as funding has become available.
- PVTA continued implementation of its systemwide AVL project, which will include numerous onboard safety features for customer safety, including multiple onboard cameras, upgraded radios, emergency notification and communication equipment.
- PVTA continues its “Transit Ambassador” training program for bus operators, which includes various safety elements.
- PVTA is working with PVPC to update and improve its Mystery Rider spot-check service quality monitoring programs; customer facilities at Springfield and Holyoke will be included in the new spot check criteria.

7. Conduct additional research and outreach for student riders.

Outreach to student riders is being addressed as part of the marketing initiative described in response to Recommendation #1.

1.0 INTRODUCTION

Public transit is a customer-focused service. Therefore, it is essential that transit providers understand who their existing and potential customers are to better retain and attract riders.

The Pioneer Valley Transit Authority (PVTA) regularly surveys existing customers who ride its fixed route buses and on-demand paratransit vans. PVPC completed comprehensive rider surveys in 2007-08 for paratransit services; in 2008 for Hampden County bus routes; and in 2009 for Hampshire County bus routes. Also in 2009, PVTA initiated an on-going Mystery Rider program of unannounced onboard observations by PVPC of service quality on buses and paratransit vans. These onboard survey programs offer recommendations for improvements in service, marketing and public outreach, which PVTA has implemented or is in the process of addressing.

However, a comprehensive study and survey of potential customers who do not use public transit has not been completed since 1998. An understanding of non-transit users' demographic characteristics, travel preferences and media use is necessary for effective service planning, marketing and public outreach. PVTA therefore requested that PVPC perform this survey and demographic analysis of people who do not use public transit in the Pioneer Valley region.

This report presents information from three primary sources:

- U.S. Census data from the American Community Survey 2006-08 estimates for Hampden and Hampshire Counties, and the Springfield, Massachusetts Metropolitan Statistical Area (MSA).
- Telephone survey interviews of 135 randomly selected non-transit users in Hampden and Hampshire Counties.
- Paper mail-in surveys of 282 drivers parking at major municipal garages in Springfield, Northampton and Amherst.

1.1 Goals of the Non-transit User Study

The demographic analysis, telephone and parking garage surveys were developed to answer the following general questions for this study:

- Who is most likely to be a new PVTA bus rider?
- What general impressions and levels of awareness do non-riders have of PVTA?
- How knowledgeable are non-riders about PVTA services?
- What are the main reasons that potential customers do not ride PVTA?
- What service improvements could encourage non-riders to try PVTA in the future?
- How can PVTA better communicate with its potential customers?

Analysis is offered with respect to key factors of transportation planning that typically influence a traveler's mode choice:

- Travel time (shorter trips are preferred)
- Trip cost (cheaper trips are preferred)
- Income (lower income households seek travel modes that cost less)
- Auto ownership (people who have access to a car are more likely to use it)

1.1.1 Previous Non-rider Survey Findings (1998)

The 1998 Non-rider Survey for PVTA (performed by Warner Transportation Consulting of Northampton) included detailed telephone interviews with 550 randomly selected non-riders in the region and 108 paper surveys filled out by drivers at parking garages in Springfield and Northampton. The key findings of this 1998 survey were:

- 80% of non-riders were aware of PVTA.
- 29% considered themselves “somewhat familiar” or “very familiar” with PVTA.
- 31% said it was possible for them to use PVTA for their most frequent trips.

1.1.2 Changes in Communication with Transit Customers Since 1998

Since 1998, information and communication services for travel have changed and expanded dramatically—along with the expectations of auto and transit travelers for the convenience with which they are able to access transportation information. Importantly, PVTA was one of the first transit authorities in the country to join the Google Transit program.

The Massachusetts Department of Transportation is a national leader in encouraging entrepreneurial development of transit schedule and real-time transit information services for web and mobile devices. PVTA and UMass Transit staff have participated in this MassDOT initiative. PVTA schedules formatted for mobile devices is now available (<http://m.pyta.com/routes/bus> -- see next page). In the coming 12-18 months, PVTA’s intelligent transportation system (ITS) program will offer a series of state-of-the-art advances in real-time information services, including call-ahead notifications for paratransit users, “next bus” arrival information at major transit hubs, text-for-arrival cell phone service, and web-based information. The widespread emergence of smart phones, intelligent transportation systems (ITS), broadband internet and other technological developments in recent years has dramatically affected how transportation agencies communicate with travelers.

Also, the rise of “social media” is offering new opportunities for transit agencies to connect with customers and the general public. More than 50 transit agencies have now have **Facebook** pages, including PVTA. Many transportation agencies also maintain **Twitter** accounts, which allow short, instant messages to be distributed to “followers.” PVTA does not have a Twitter presence; however, UMass Transit has been providing service announcements and updates via Twitter since December 2009. **YouTube** is also a popular internet source of information, and several transit agencies are now maintaining their own “channels” with videos on rider information and translations. Social media users tend to be younger, more affluent and completed more school than the general population.

Bus routes

Note: If a route is done all its trips for the day or isn't in service today, it won't show up at all on this list. Look for it on the list tomorrow (or Monday) morning, and chances are that you'll see it. If not, please report the bug.

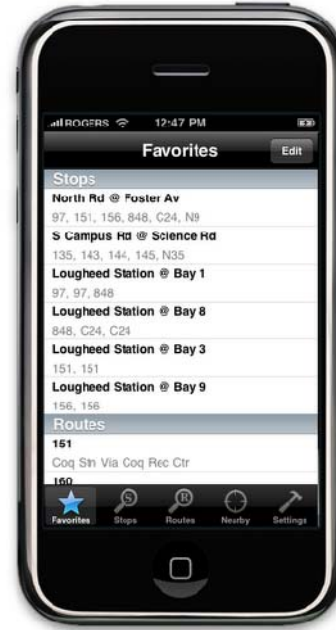
Jump to number:

[37](#) [B12](#) [B4](#) [G1](#) [G8](#) [R10](#) [R27](#)

NOTE: If you don't see your bus route above, jump to a number or letter close to it. You'll probably see the route close by.

30 – North Amherst / Old Belchertown Rd
Amherst Center 1 trip left
Belchertown Center via Old B'town Rd. 1 trip left
North Amherst 46 trips left
Old Belchertown Road 42 trips left
University of Massachusetts 6 trips left
31 – Sunderland / South Amherst
South Amherst 35 trips left

PVTA mobile device schedule format



Sample screen from Unibus, one of dozens of transit schedule "apps" now available for mobile phones and digital devices.



PVTA's Facebook page



UMass Transit Twitter feed

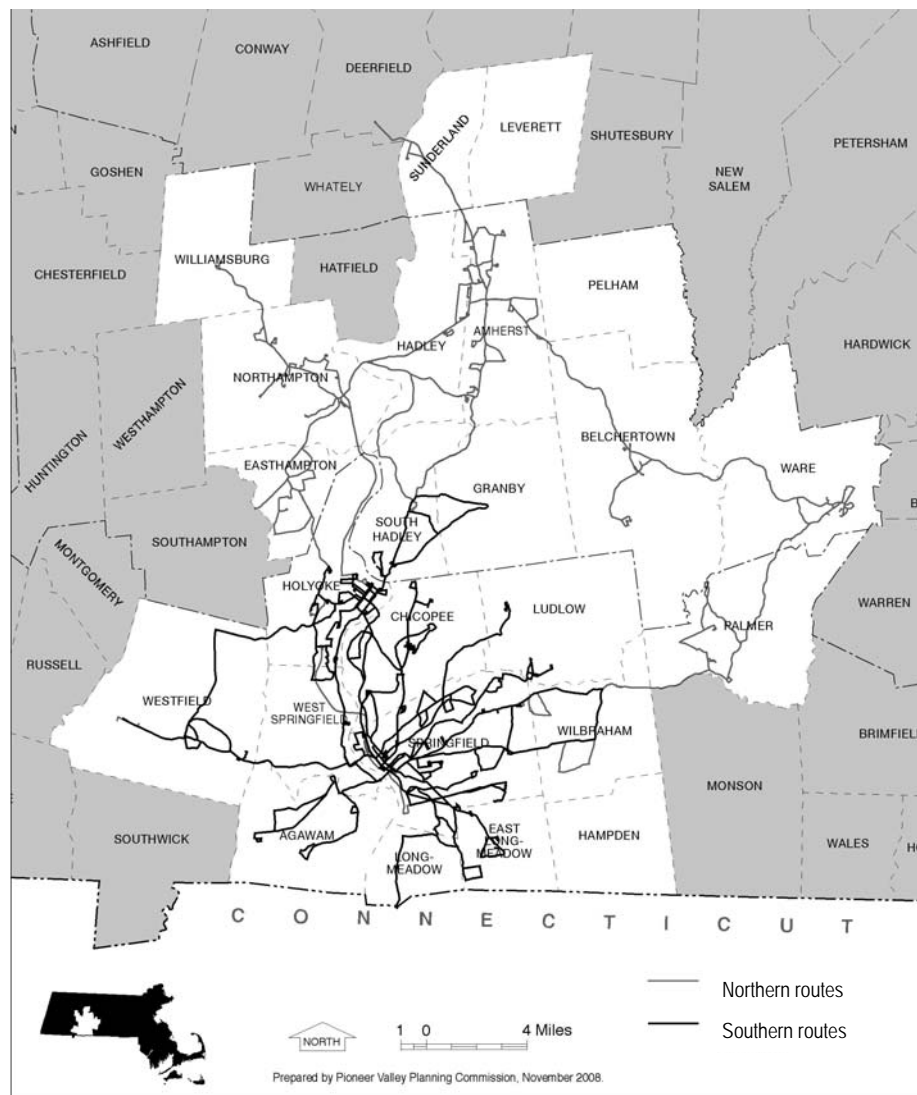
1.2 PVTA Profile

This section describes the communities and demographic characteristics of the PVTA service area, PVTA services that are available, and the transportation mode shares in the region.

1.2.1 Communities and Demographic Characteristics

PVTA is the largest regional transit authority in Massachusetts. It provides bus and van service to 24 communities with a total population of 573,699 (US Census 2010). Of these, 22 communities are in Hampden and Hampshire Counties and 2 are in Franklin County.

PVTA Service Communities and Scheduled Bus Routes



Agawam
Amherst
Belchertown
Chicopee
Easthampton
E. Longmeadow

Granby
Hadley
Hampden
Holyoke
Leverett
Longmeadow

Ludlow
Northampton
Palmer
Pelham
South Hadley
Springfield

Sunderland
Ware
West Springfield
Westfield
Wilbraham
Williamsburg

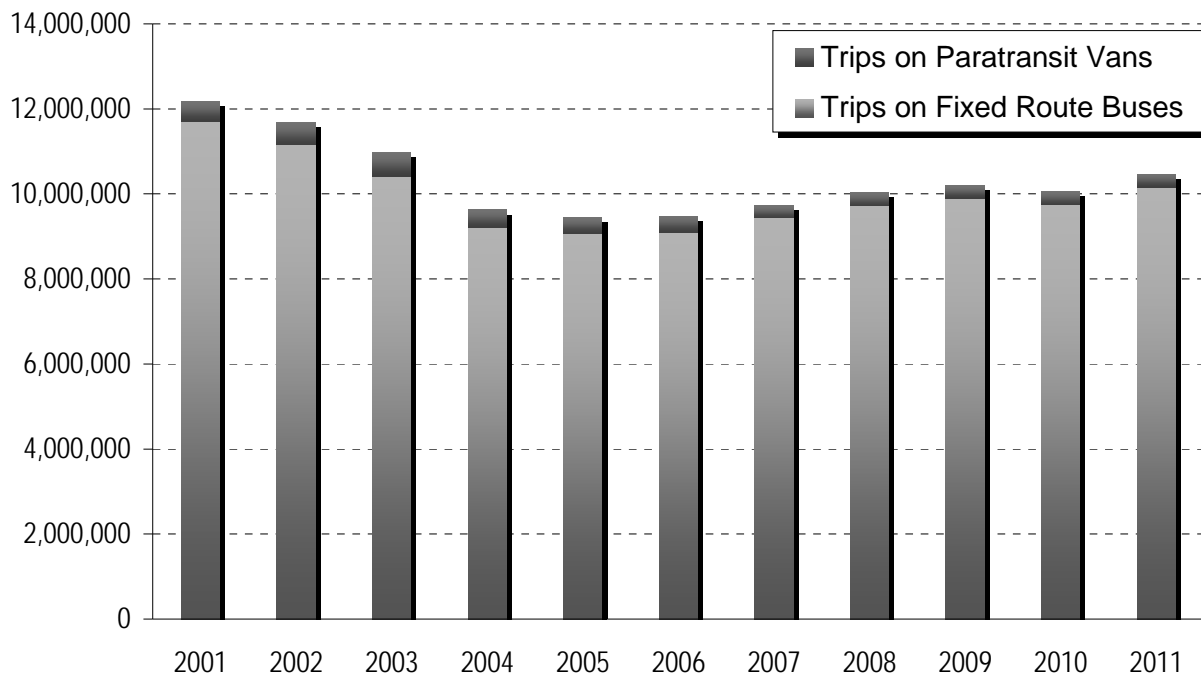
The PVTA service district is within the larger 1,179-square mile Pioneer Valley region, which has 43 municipalities and an estimated population of 623,331 residents (U.S. Census 2009 estimate). The Pioneer Valley is a diverse region that includes the urbanized areas in the Cities of Springfield, Chicopee, and Holyoke in Hampden County (the fourth largest metro area in New England); the Five Colleges area of Amherst and Northampton in Hampshire County, including 30,000 students and employees of the University of Massachusetts; and outlying suburban and rural communities. See Appendix X for more detailed demographic information.

The region has approximately 17,000 businesses employing 260,000 people.

1.2.2 PVTA Services Summary

PVTA oversees 44 scheduled fixed bus routes over approximately 500 route miles. PVTA manages three contractors (First Transit, UMass Transit and Hulmes Transportation) that operate PVTA’s fleet of 161 buses and 144 vans. PVTA’s FY2011 operating budget was \$35.6 million.

PVTA provided 10.5 million bus and van rides in FY2011. Prior to 2002, ridership was typically 12 million trips per year. However, state-imposed budget reductions beginning in FY2002 necessitated severe cuts totaling 21% of service. This resulted in a steep drop in ridership the following two years to about 9 million rides. Since then, ridership has recovered to approximately 10.5 million rides per year, even though funding has not been restored to pre-2002 levels (when annualized for inflation).

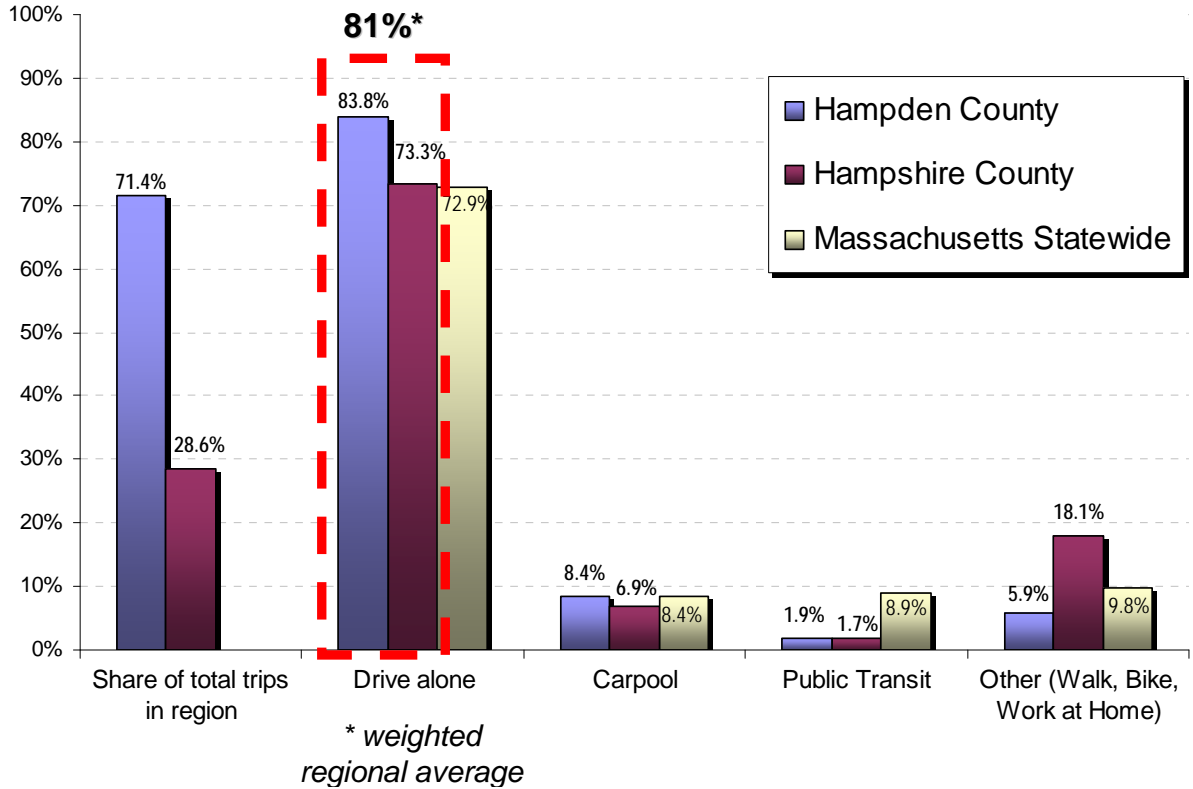


Approximately half of all PVTA fixed-route trips are commuter trips to work or school. The other top trip purposes are for shopping, attending social and recreational events, and medical appointments. PVTA riders are highly dependent on transit: nearly three-quarters of riders report

earning less than \$20,000 per year; three of every five riders do not own a car; and four of five riders say they have no other way to make their trip than using PVTA.

1.2.3 Regional Transportation Mode Choices

The proportion of people who drive alone for their trips to work in the Pioneer Valley is significantly greater than the statewide average, and differs from mode choice in the Greater Boston metro area owing to the larger proportion of suburban and rural land uses relative to transit availability. Mode share estimates are shown below.



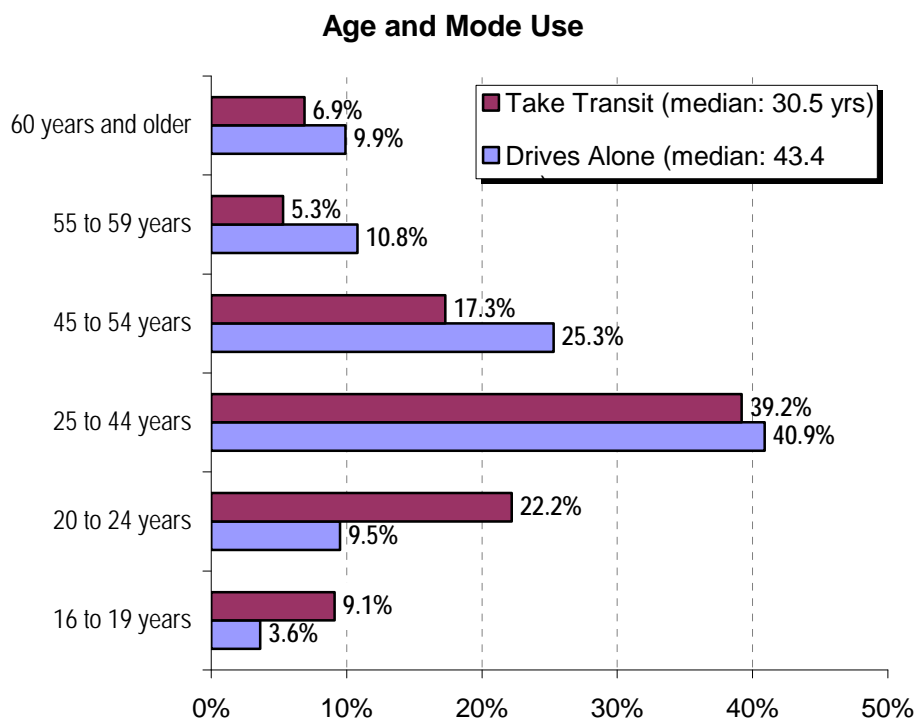
U.S. Census American Community Survey 2006-2008

Mode choices in the region have been consistent with the PVTA ridership trends presented in Section 1.2.2. From 2002 to 2006, the proportion of people taking transit to work fell 30% in Hampden County (from 2.5% in 2000 to 1.9% seen above), and it fell 10% in Hampshire County (from 1.9% in 2000 to 1.7% seen above). When weighted for population distribution in the two counties, the overall decline in transit ridership in the region from 2000 to 2006-2008, as recorded by the Census, is approximately 22%. This is consistent with PVTA ridership for the same period, which recorded a 21% drop following budget-related service cuts in 2002-2003.

This analysis suggests that a significant number of non-transit users today may have actually been transit riders when sufficient service was available to meet their work commute needs.

1.2.4 Non-rider versus Transit User Journey to Work Characteristics

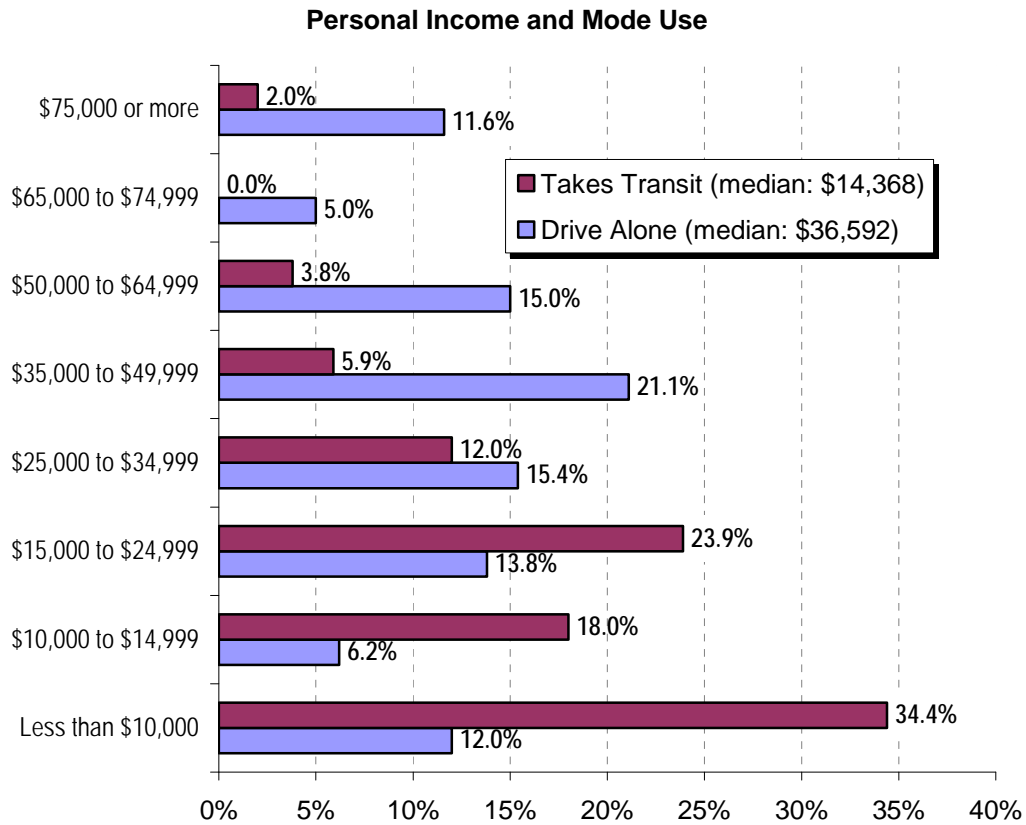
In the Pioneer Valley, the average age of a non-transit user is 43.4 years, versus 30.5 years for a transit rider. Note that the proportion of non-transit users exceeds that of transit users in every age category above 25 years, but not for people who are younger than 25.



Source: U.S. Census American Community Survey 2006-2008
3-year estimates for Hampden and Hampshire Counties

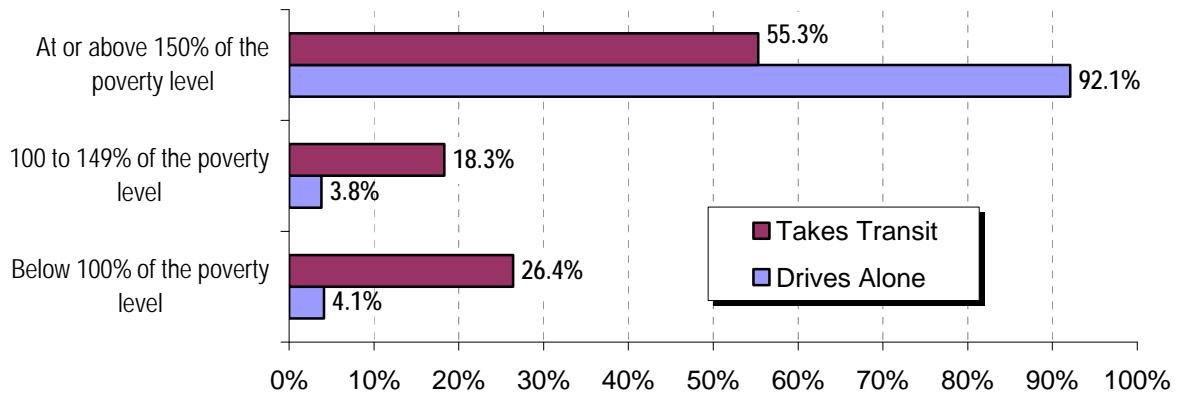
This indicates that in the region, non-transit users tend to be older, with the greatest divergence in mode use occurring in the 45-to-54 and 55-to-59 age categories. This suggests that younger travelers are the most likely age group to use transit. Also, the gap in mode choice begins to tighten in the age 60+ bracket (compared to the previous two categories), suggesting that seniors may be a fruitful secondary focus for marketing and outreach.

Analysis of average personal income shows that people who earn more than \$25,000 per year are more likely to be a non-transit user than people who earn less. The average personal income of a person who drives alone to work was \$36,592, versus \$14,368 for transit riders. This finding is consistent with PVRTA onboard rider surveys that have found approximately three-fourths of transit riders earn less than \$20,000 per year.



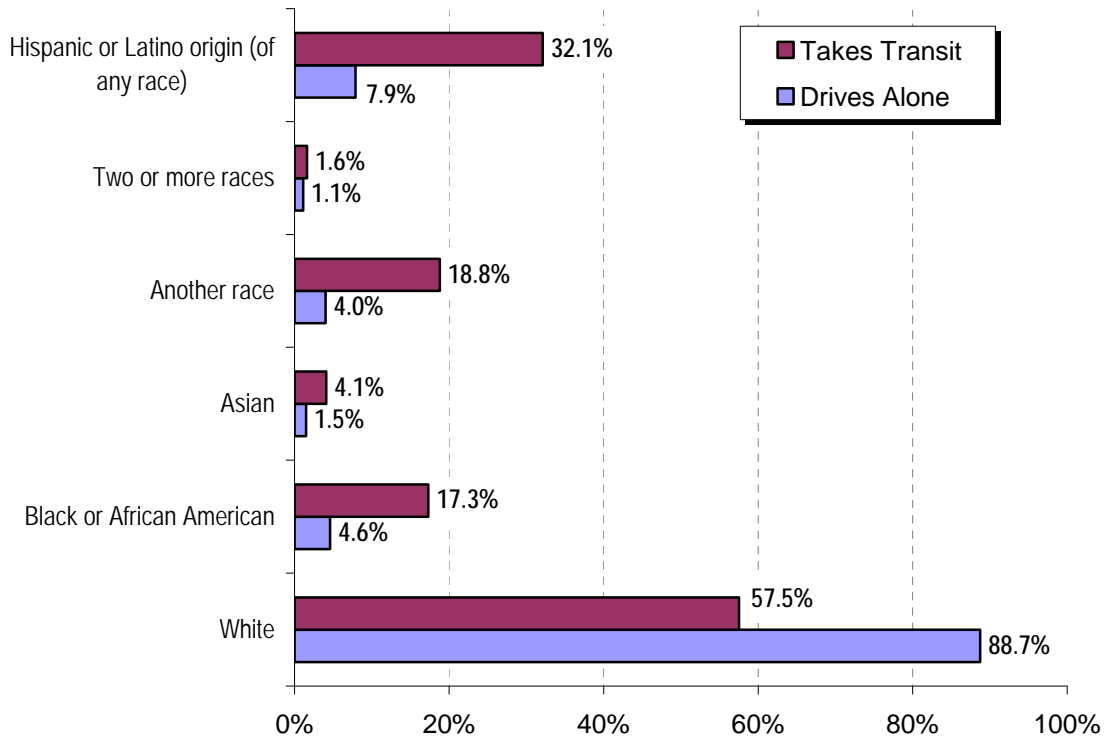
Source: U.S. Census American Community Survey 2006-2008
3-year estimates for Hampden and Hampshire Counties

Poverty and Mode Use



Source: U.S. Census American Community Survey 2006-2008
3-year estimates for Hampden and Hampshire Counties

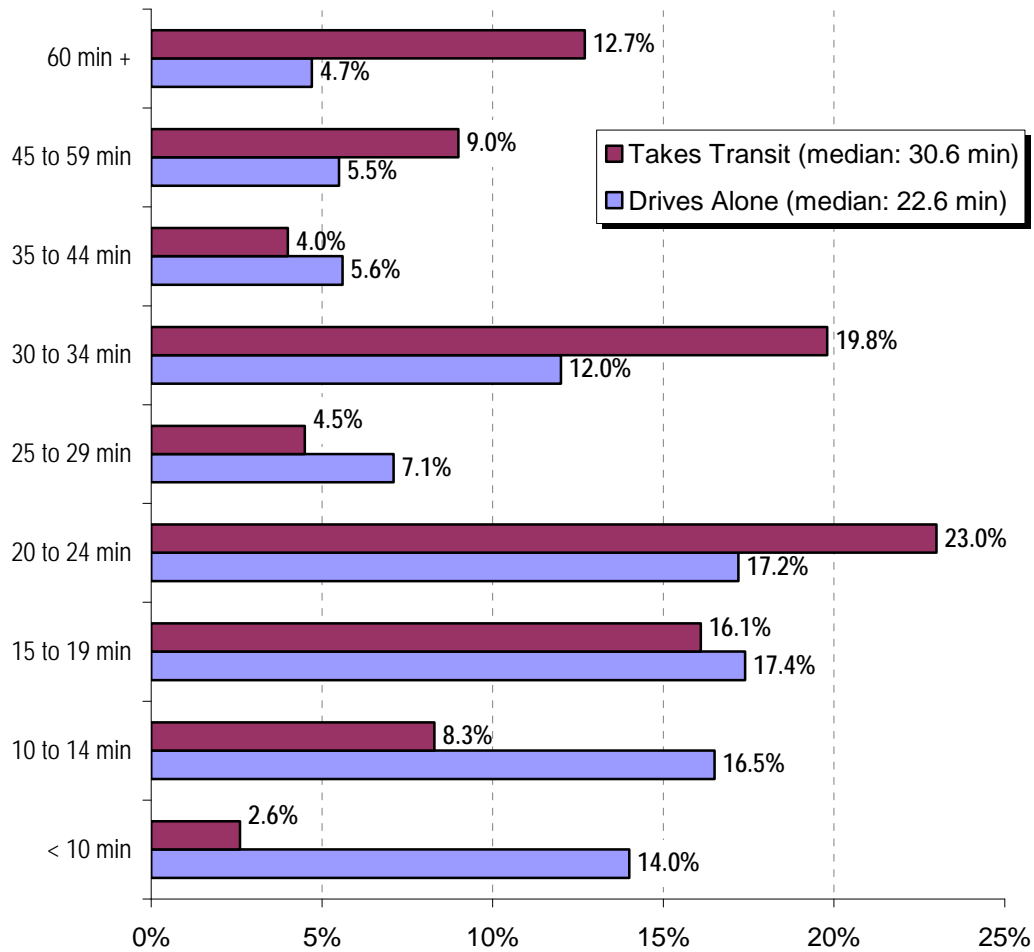
Race/Ethnic Background and Mode Use



Source: U.S. Census American Community Survey 2006-2008
3-year estimates for Hampden and Hampshire Counties

Review of commute duration and mode use shows that people with longer commutes travel by transit. The average trip duration for a person driving themselves to work was 22.6 minutes, versus 30.6 minutes for a person traveling by bus. This underscores the importance of reducing travel times to make transit competitive with private auto travel.

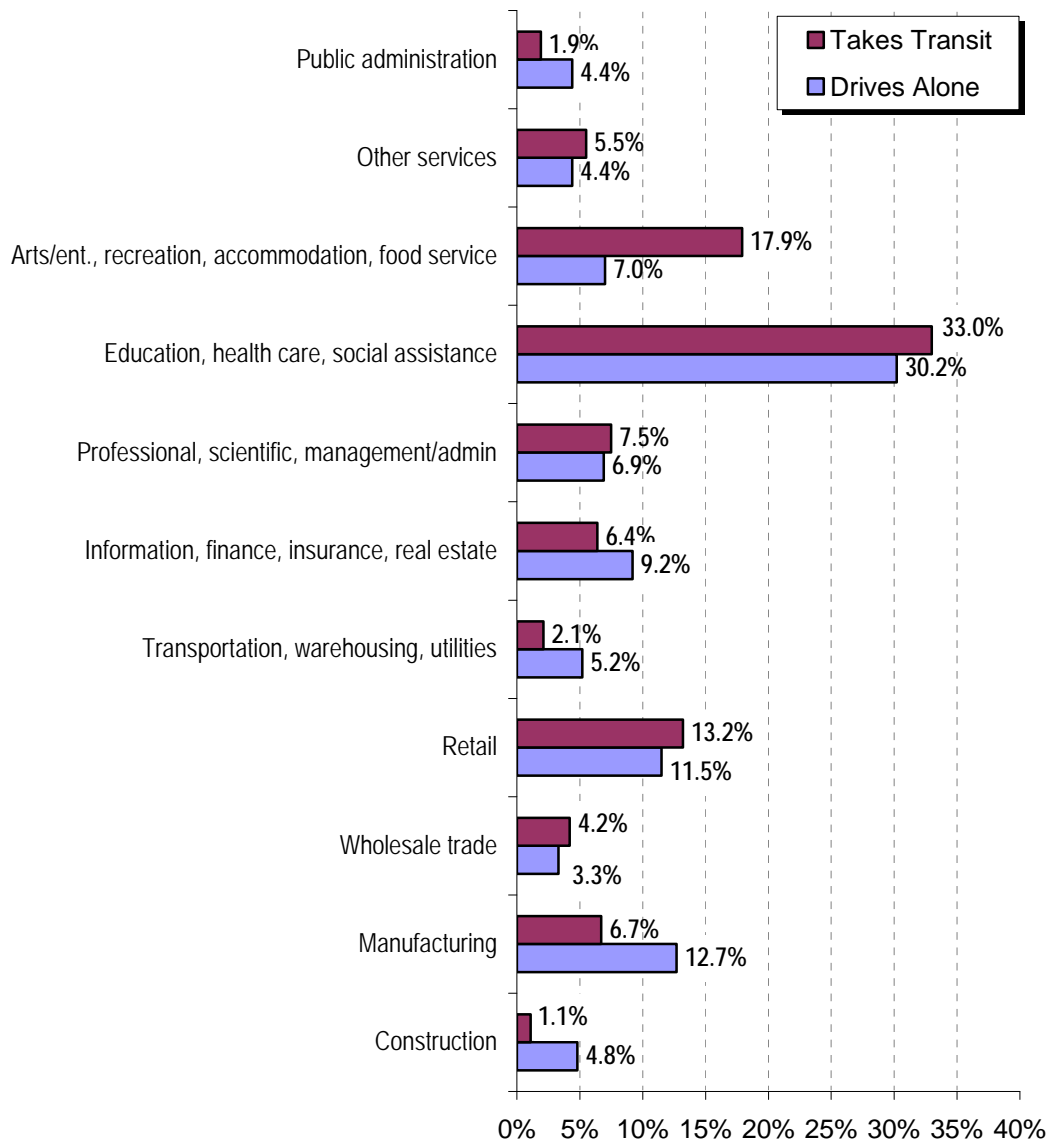
Commute Duration and Mode Use



Source: U.S. Census American Community Survey 2006-2008
3-year estimates for Hampden and Hampshire Counties

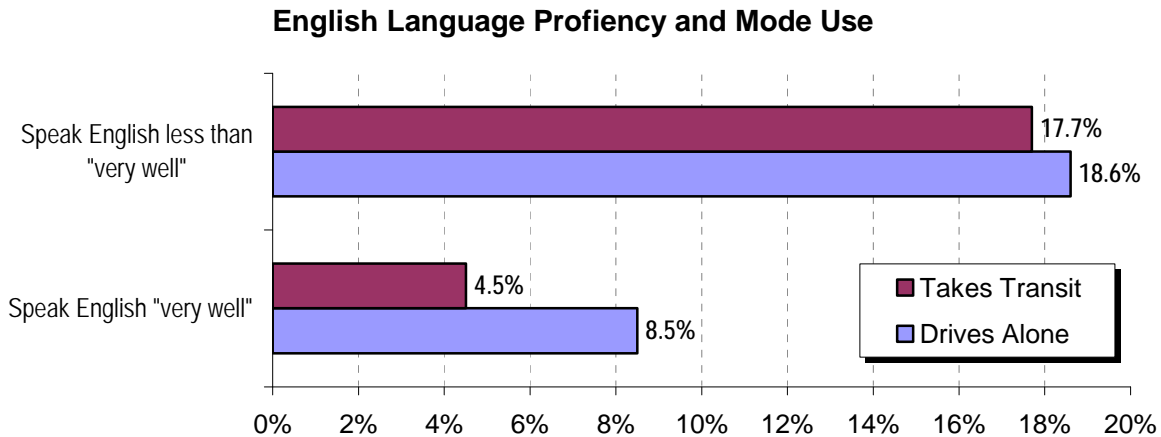
The breakdown of mode use by industry employment shows that people who work in manufacturing, construction, transportation and information/finance industries travel to work by car in the greatest proportions, while people who work in arts and entertainment, education, retail and professional/scientific fields travel by transit as often as private auto. The nature of work, shift starting times and other factors for each industry are important considerations in the analysis of this information. It may be most fruitful to focus on outreach to non-transit users in those industries in which there are already significant numbers of transit users, as the ability to travel to and from those work places at required shift start and end times is already established.

Type of Employment and Mode Use



Source: U.S. Census American Community Survey 2006-2008
3-year estimates for Hampden and Hampshire Counties

English language proficiency (LEP) is also an important consideration in understanding the non-transit user market. In the Pioneer Valley, approximately 13% of non-transit users speak a language other than English (compared to 36% of transit riders who speak another language).



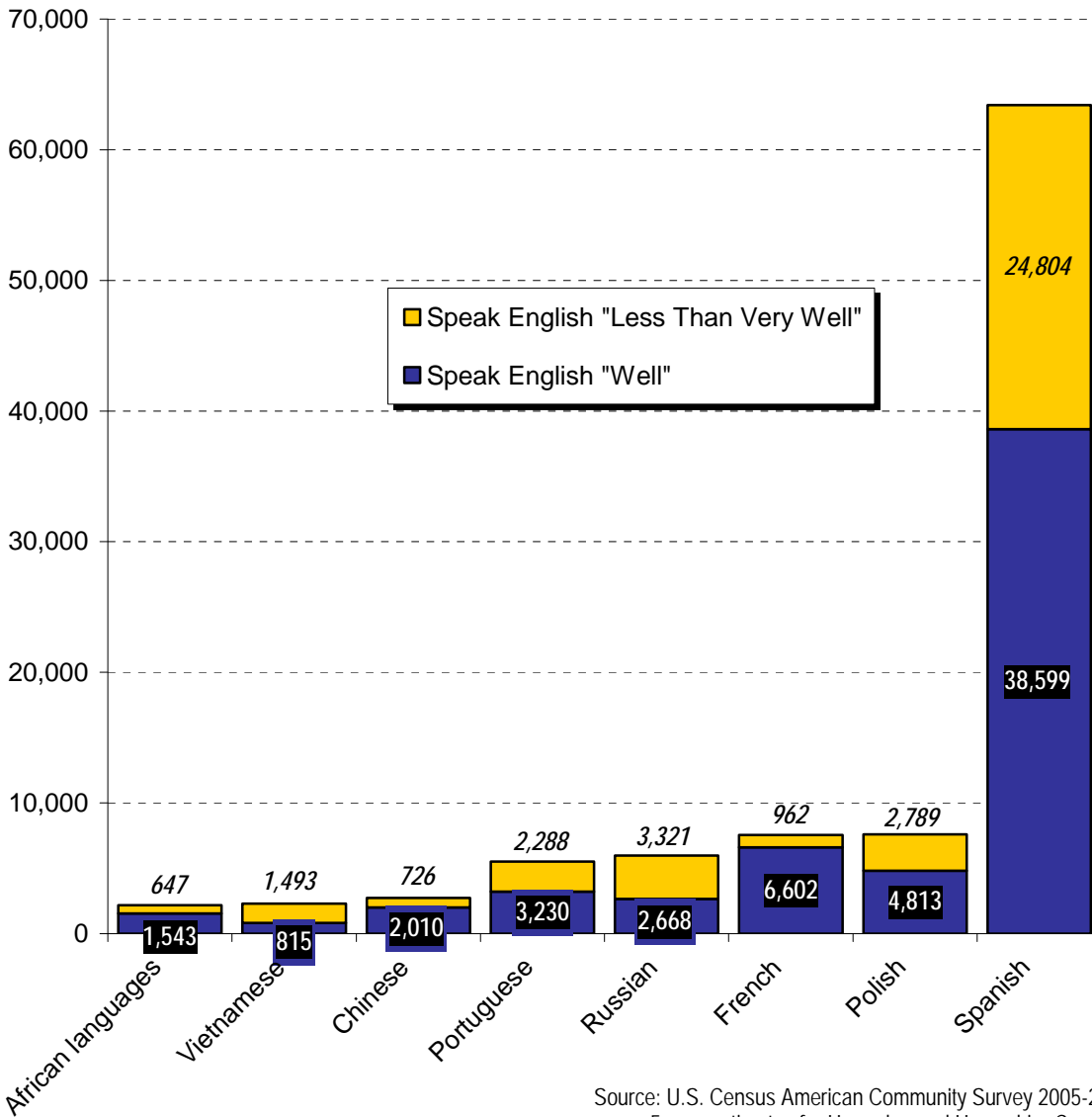
Source: U.S. Census American Community Survey 2006-2008
3-year estimates for Hampden and Hampshire Counties

Of this 13% of non-transit users who speak another language, 18.6% say they speak English “less than very well.” This suggests that language could be a barrier to many people in obtaining information about how to use the transit system. In fact, this is actually a slightly greater proportion of LEP persons than among transit users, which has just 17.7% LEP.

However, because the population of non-transit users is greater than the number of transit users (approximately 81% of the PVRTA service area’s 573,699 residents, or about 468,000 people), the number of people for who language is a potential barrier to using transit is potentially much larger: up to 18.6% of 320,000 daily “drives alone” commuters—**or approximately 60,000 people**—in the region may not speak English “very well.”

U.S. Census estimates for English proficiency among the proportions of people who speak a language other than English at home are shown on the following chart.

Lanuages Spoken at Home Other Than English and English Proficiency



Source: U.S. Census American Community Survey 2005-2009
 5-year estimates for Hampden and Hampshire Counties
 "French" includes Patois, Cajun, Creole

This analysis suggests that it is very important for PVTA and PVPC to do further research and outreach to non-transit users in the region who do not speak English well, as they may be a very large potential market of future transit riders. The focus should be on cultural and ethnic groups with the largest proportions and numbers of people who speak English "Less Than Very Well" – Spanish, Russian, Polish, Portuguese and Vietnamese speakers.

2.0 SURVEY METHODS AND CONFIDENCE INTERVALS

This study conducted two major surveys of people in the region who do not use transit.

A total of 417 responses were obtained from these two surveys:

- A telephone interview survey of 135 randomly selected residents in the PVPC region.
- A paper mail-in survey of 282 drivers at four parking garages.

Given the total population of 573,699 for the PVRTA service area, the number of responses obtained resulted in a 95% confidence interval of $\pm 5\%$ for questions asked on both surveys.

For questions asked on the telephone survey only, the 95% confidence interval level was $\pm 8.4\%$.

For questions asked only on the parking garage survey, the 95% confidence interval was $\pm 5.8\%$.

Detailed descriptions of the two survey methods are provided in Appendix 6.

3.0 FINDINGS AND ANALYSIS

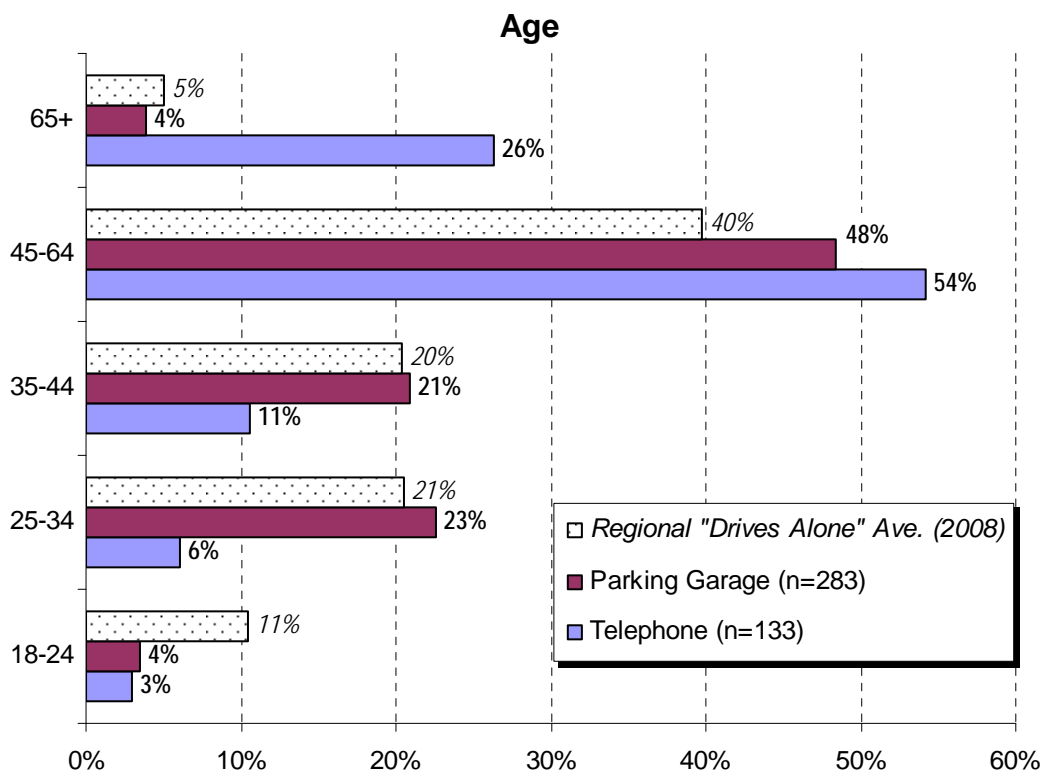
This section presents the findings and analysis of the telephone and parking garage surveys.

3.1 Respondent Demographic Information

General demographic information about survey respondents is presented below.

3.1.1 Age

Age of survey respondents is shown below. For reference, 2006-08 U.S. Census age information for people who report that they “drive alone” to work (which this study assumes to be their most frequent trip) is shown for the Springfield metropolitan statistical area (MSA).

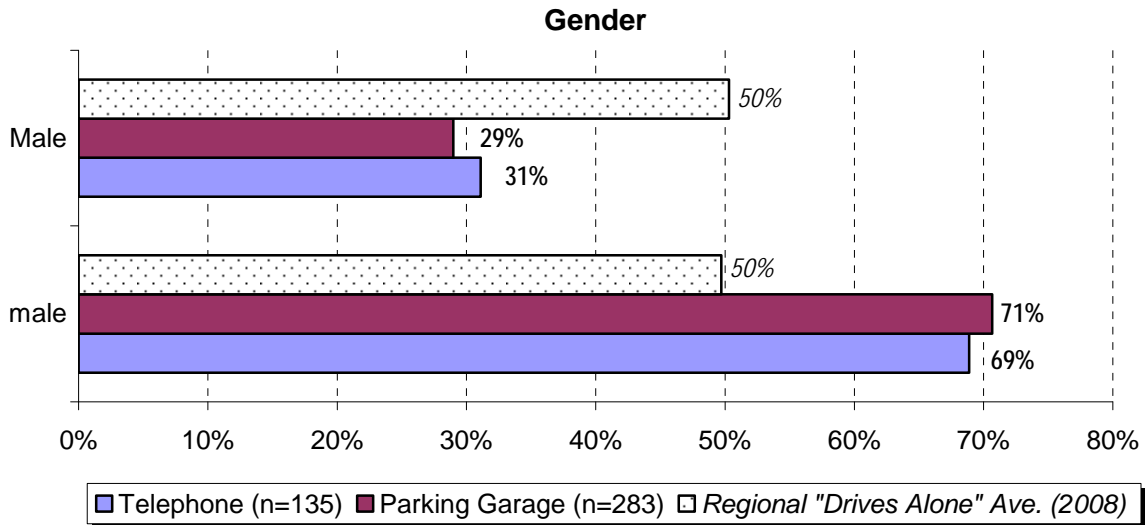


The youngest age bracket (18-24) is underrepresented in both the telephone and parking garage surveys compared to the U.S. Census “drives alone” average for the region. Similarly, the 25-34 and 35-44 brackets are underrepresented in the telephone survey, but track very closely to the regional “drives alone” average for parking garage respondents. The 45-64 age bracket is overrepresented in both surveys. In addition, the 65+ bracket is overrepresented in the telephone survey, but very close to the Census’ “drives alone” average for the parking garage survey. See Sections 2.1.2 and 2.2.2 for discussion of survey limitations that may explain these differences.

The issue of age is important to consider in view of the facts that: 1) younger people are more likely to be transit users, and 2) senior citizens are generally more dependent on transit because their ability to drive or have access to a car is more limited. Seniors and retirees make fewer work trips (because they work less, as a group).

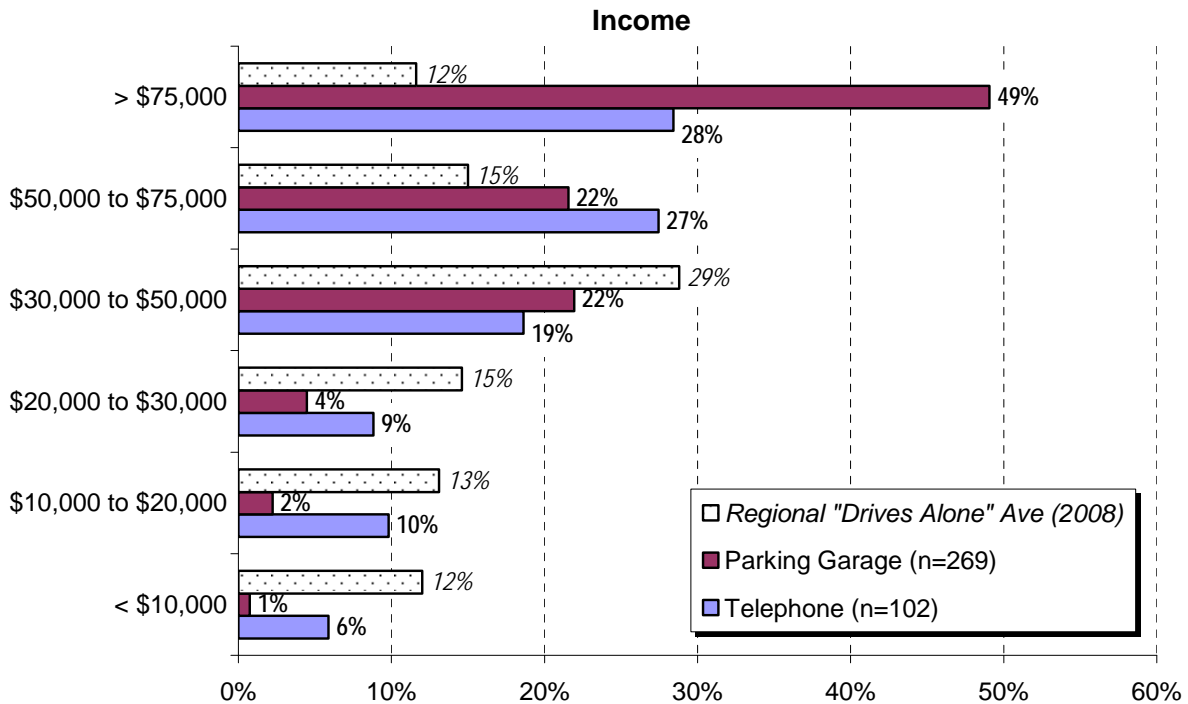
3.1.2 Gender

Gender information for survey respondents and the regional “drives alone” average are presented below. For both surveys, women are significantly over-represented (and men are under-represented). Please see Sections 2.1.2 and 2.2.2 for discussion of the limitations in the survey method that likely account for these differences. Recommendations relying on this age data should address the under- and over-representation of the age brackets noted above.



3.1.3 Income

Income data for survey respondents and the regional “drives alone” average are presented below.



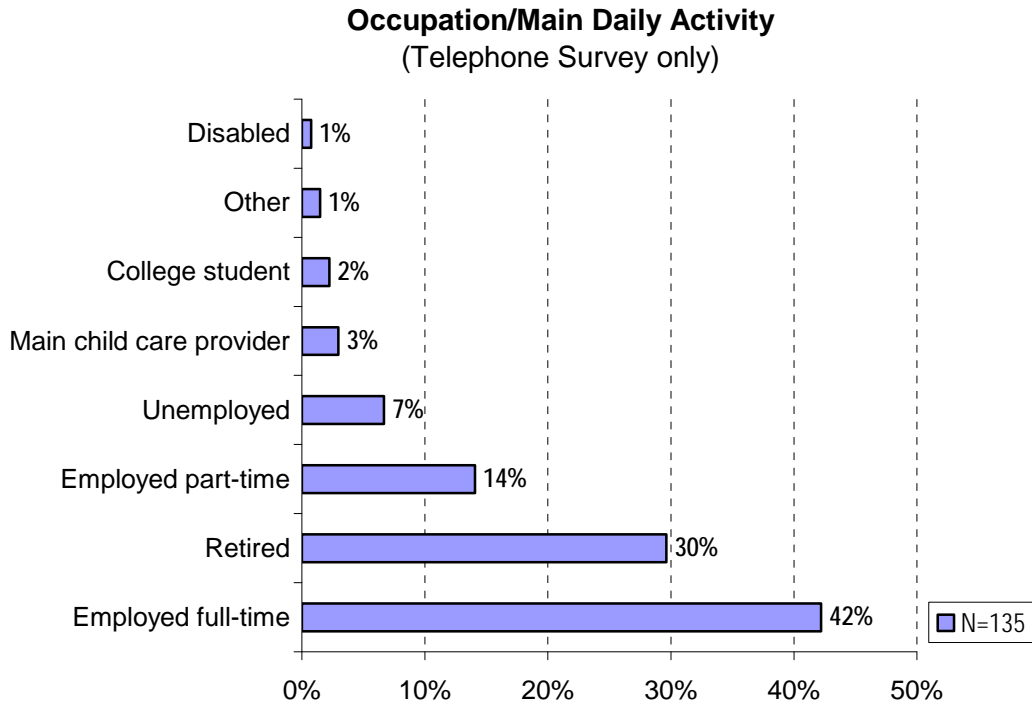
Personal income is one of the five typical factors in a traveler's mode choice. People with lower incomes are more likely to take transit.

The most striking departure from the regional average "drives alone" is the proportion of parking garage respondents who said they earn more than \$75,000/year – more than four times the regional average for people who said they drive alone to work. In addition, the telephone survey found more than double the "drives alone" commuters make more than \$75,000/year. This trend is apparent, though not as pronounced, in the \$50,000 to \$75,000 bracket. This suggests that people who drive to work alone and park in a municipal garage are much more likely to be high income earners – and may therefore be more reluctant to leave their cars at home even if there were a cost-savings advantage for doing so.

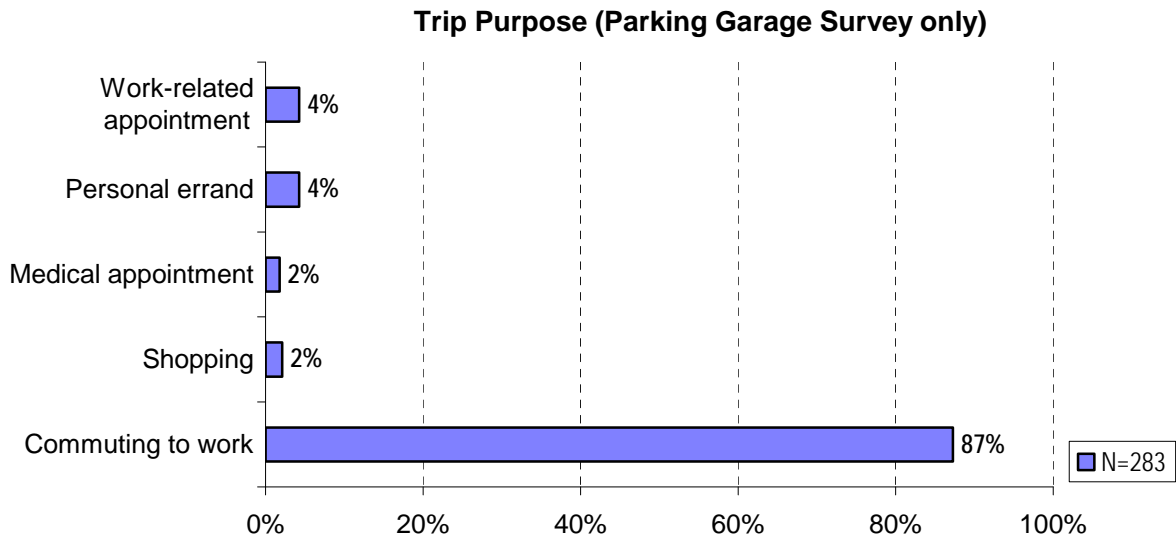
It is the middle income brackets and below (\$50,000 per year and below) where the percentage of parking garage users drops below the regional average – and quite drastically in the two lowest brackets. It is likely that lower income earners are more sensitive to cost advantages offered by other modes – because they are already looking for cheaper places to park their cars. See Appendix 6.1.2 and 6.2.2 for discussion of the limitations in the survey method that likely account for these differences.

3.1.4 Occupation/Trip Purpose

The telephone survey asked respondents to describe their "main occupation or daily activity." Results below show 58% of respondents' most frequent trips are for work or school. (This compares to 61% of PVRTA riders who say their trip purpose is for work or school.) This means that a large share of respondents—at least one-third—regularly travel to non-work destinations. Retired persons are over-represented in the telephone survey sample, likely due to reasons discussed in Appendix 6.1.2 and 6.2.2. U.S. Census estimates for 2009 are that 12% of people in the region receive Social Security income (however, this also includes people younger than age 65 receiving non-retiree benefits). The proportion of people in the region age 65 and older is estimated to be 10%, as of 2009. Therefore, the number of "retired" people living in the region is likely between 10% and 12%.



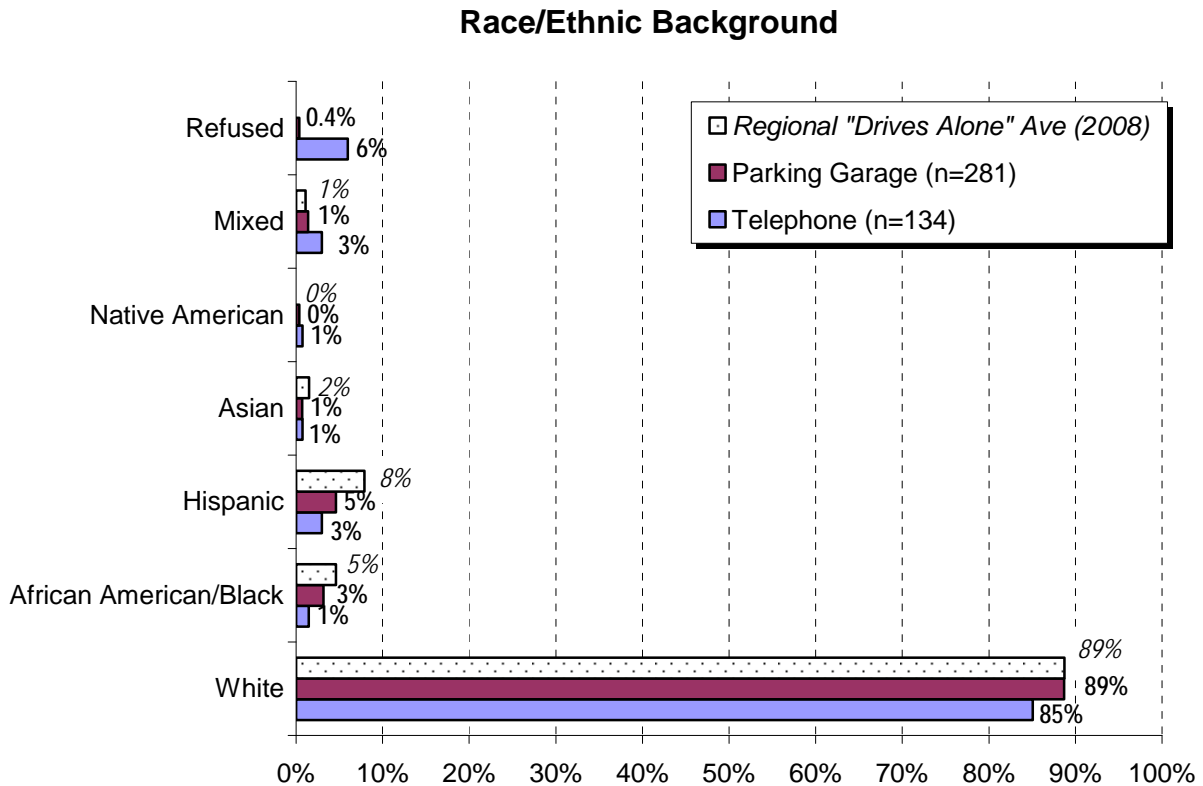
The parking garage survey (see next page) asked only about the purpose of the respondent's trip, rather than occupation. Likely because of the sampling time of day, the vast majority of respondents (91%) said their trip purpose was either commuting to their job or for a work-related appointment.



This indicates that commuting trips are the main purpose of people who park at these municipal garages during the morning hours.

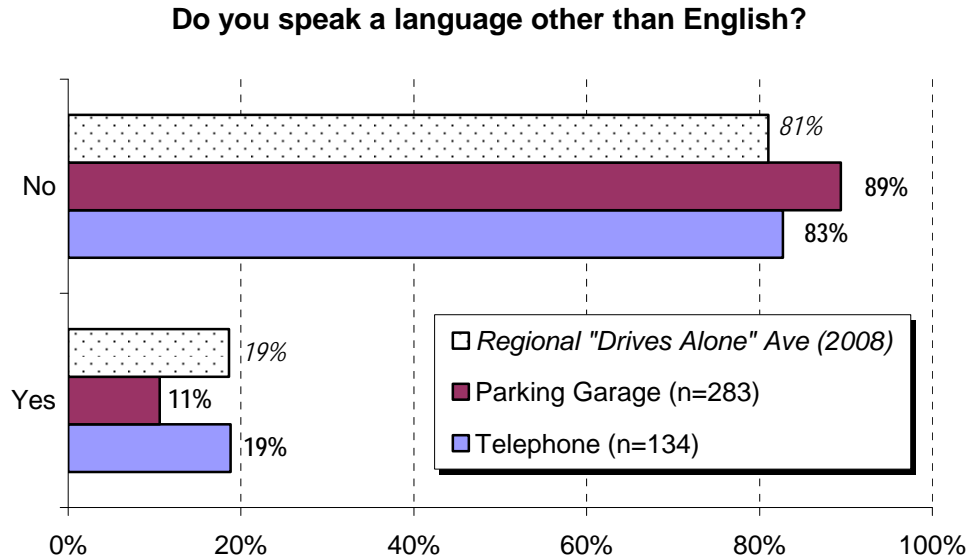
3.1.5 Ethnic/racial background

Responses for both surveys show that African Americans, Hispanics and Asians are under-represented in both surveys. This may be a result of the 6% of respondents who refused to answer this question. This suggests that race and ethnic background remains an important issue on which public agencies can benefit from continuing to build trust and credibility.



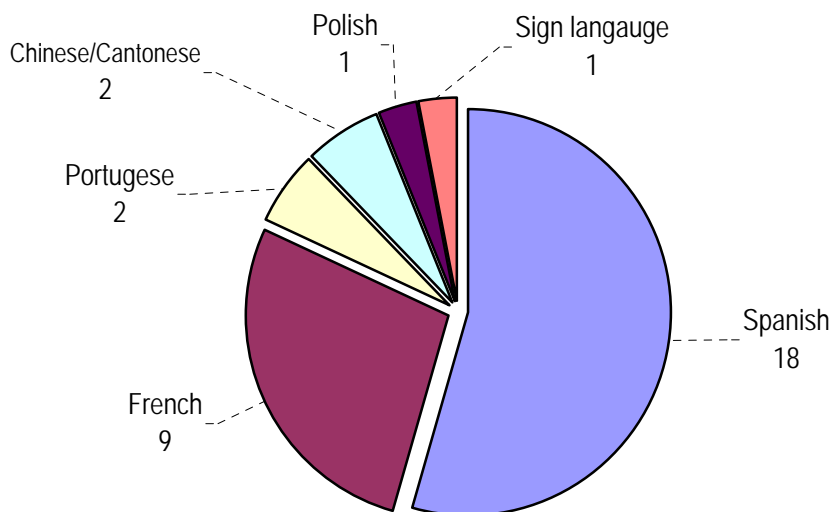
3.1.6 Language Proficiency

Telephone survey findings for language proficiency are consistent with U.S. Census estimates, while it appears that the proportion of parking garage users who are English-only speakers is larger than the regional average.



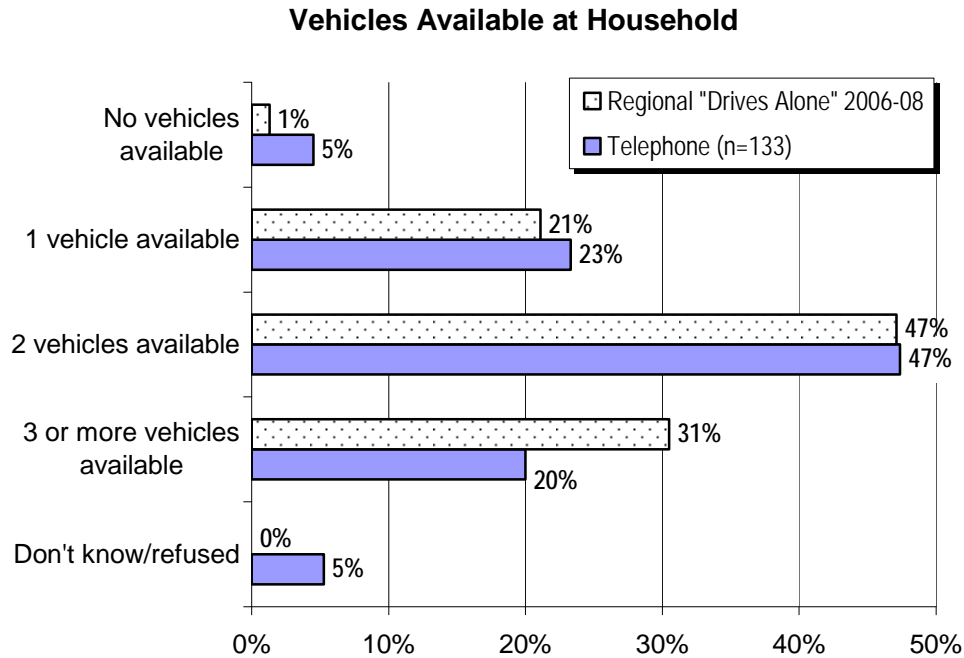
Of the languages other than English that are spoken, Spanish is the most frequent. This is generally consistent with the findings presented in Section 1.2.4 regarding English language proficiency and underscores the need for outreach to LEP populations of potential riders.

**Languages Spoken in Addition to English
(33 responses)**



3.1.7 Vehicle Availability

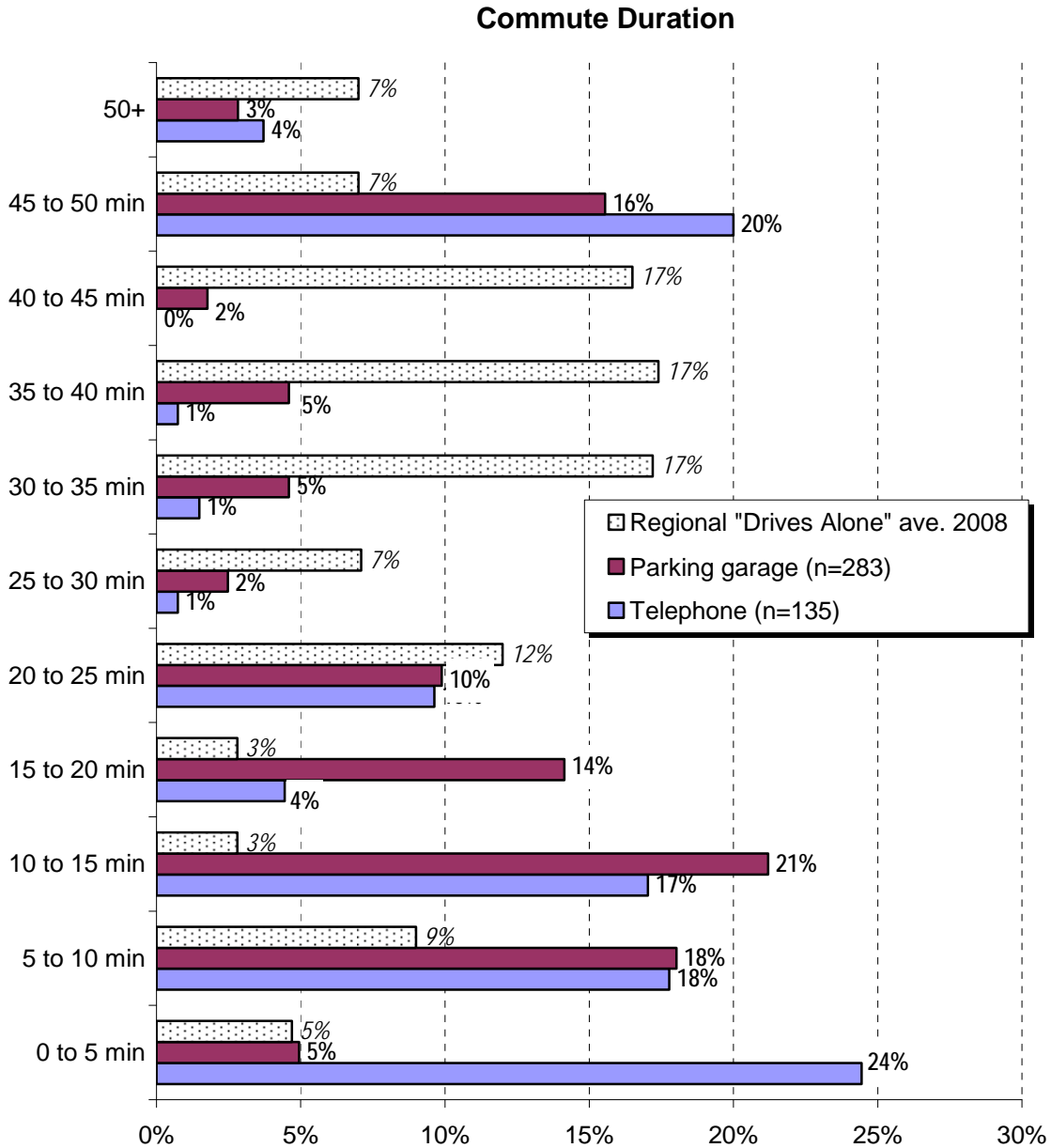
Access to a private auto is one of the most important factors in a person's decision about how to make a trip. The fewer vehicles that are available in a household, the more likely someone in that household is to be a potential transit user. Therefore, households with no car or 1 car are likely targets for outreach.



(This study assumes that parking garage respondents have at least one vehicle available for their use—the one they drove to the parking garage).

3.1.8 Commute Duration

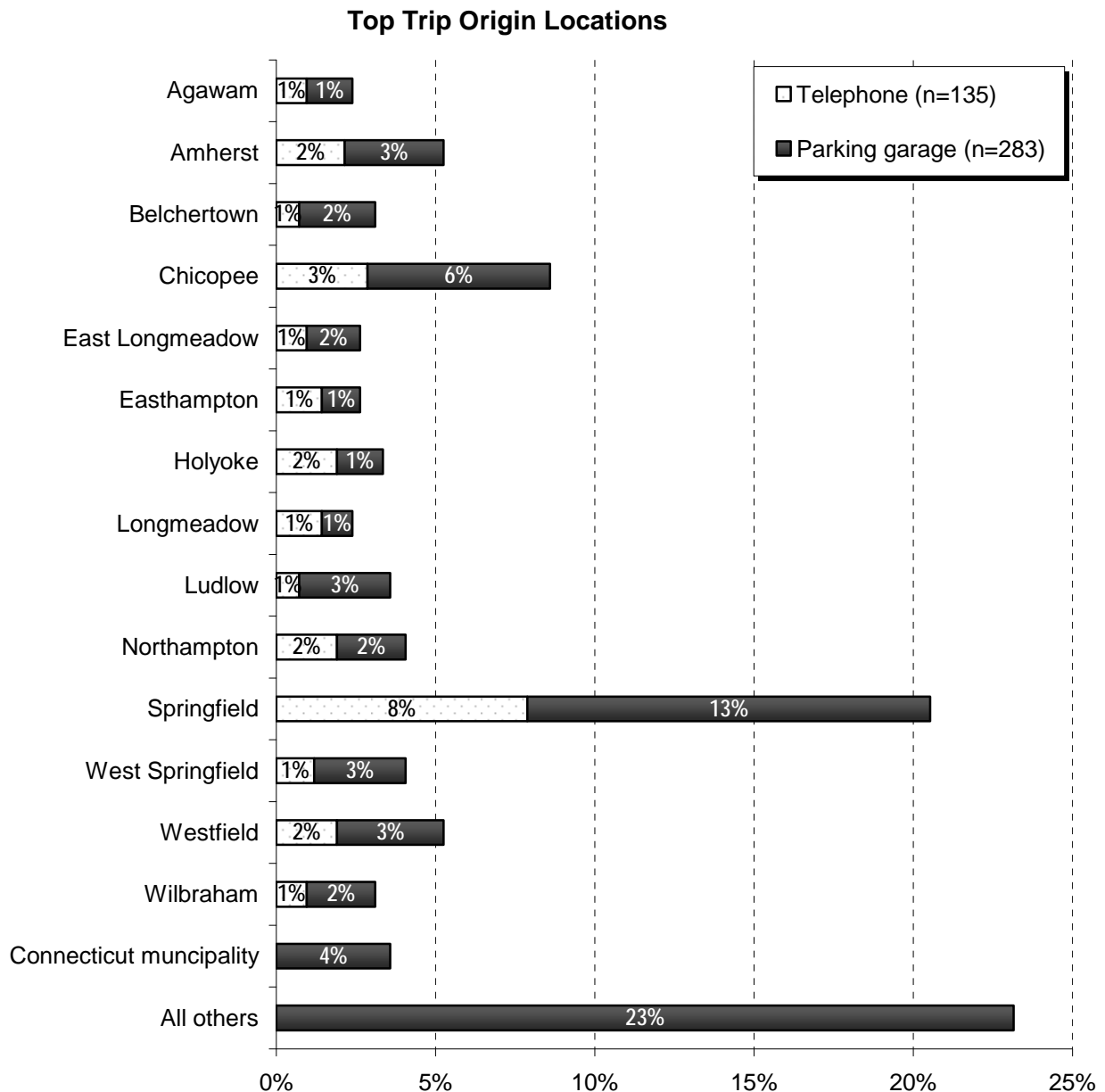
The commute durations reported by both telephone and parking garage survey respondents tend to skew toward shorter trips than the U.S. Census average for the region. Respondents reported a far larger proportion of trips lasting 25 minutes or less than the Census estimate. The one exception to this pattern is in the 45 to 50 min category, where both telephone and parking garage respondents were represented in greater proportion than the Census estimate.



3.1.9 Trip Origins

The top 15 trip origin locations for telephone and parking garage survey respondents are shown below. It is important to remember: for the telephone survey, the location was determined by the random selection of a home telephone number and address—it is not related to travel demand.

However, for the parking garage survey, the trip origin is a factor of demand, as determined by where the driver began their trip (assumed to be their home) and the location of the parking garage in which they chose to park. Therefore, the dark segments of the bars below may be better indicators of trip origins to urban centers, where the parking garages surveyed are located (and where PVRTA bus lines converge).



The following observations about parking garage users are noteworthy:

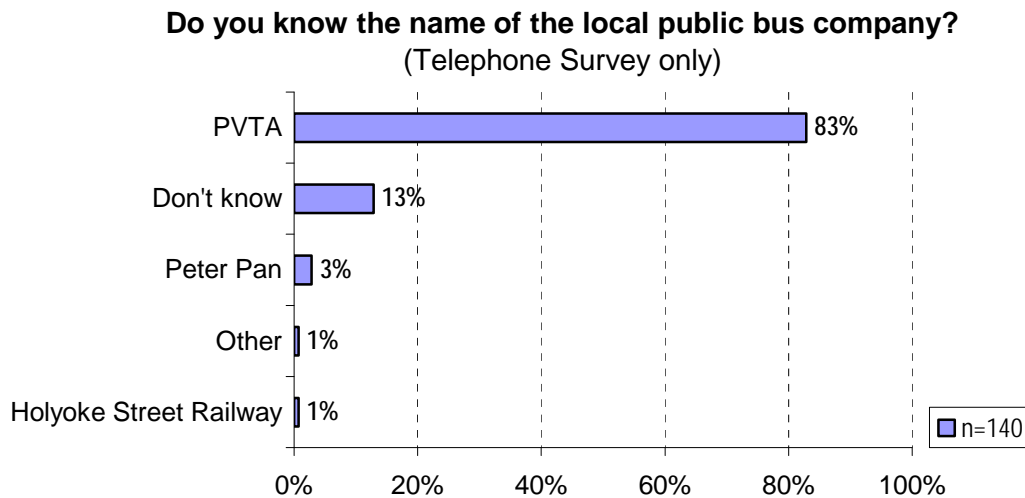
- The top trip origins for garage parkers are Springfield (13%), and Chicopee (6%). More detailed analysis of these non-riders should be pursued.
- Non-riders arriving at parking garages from various municipalities in Connecticut totaled 4%. Originating municipalities were Enfield (5), Farmington (1), Somers (1), Suffield (1), East Hartford (2), South Windsor (2), and Vernon (1).
- Amherst, Ludlow and Westfield were also significant trip origins, each with 3% of the total.
- Trip origins match or exceed the proportions of the randomly selected telephone survey addresses for all Massachusetts municipalities except Holyoke.

3.2 General Awareness and Impressions about PVTA

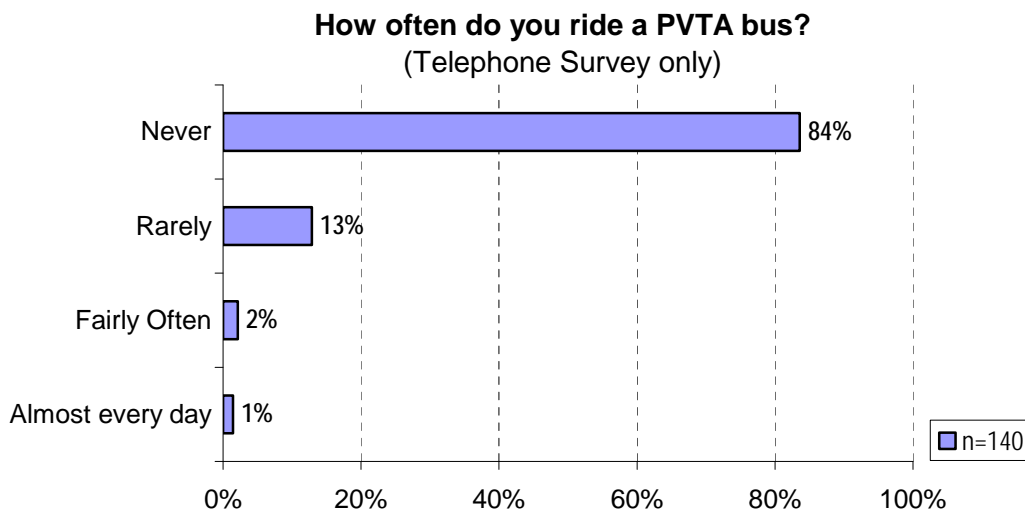
This section presents information that shows the majority of non-riders know PVTA's name but little else about the authority.

3.2.1 Brand Awareness of PVTA

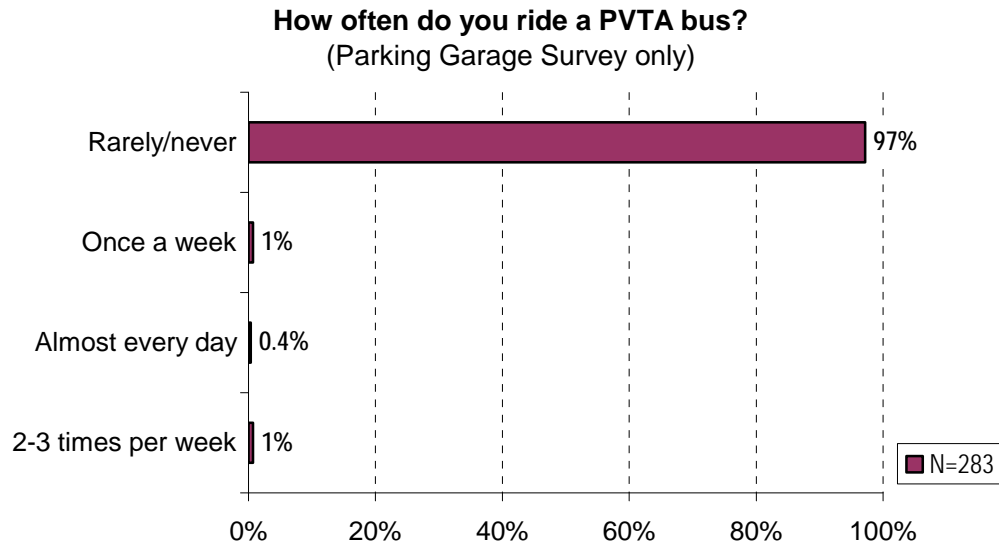
Approximately 83% of non-rider telephone survey respondents know that PVTA is the local bus company. This is comparable to 80% of non-riders in the 1999 survey who answered this question correctly. This is an important finding because it shows there is significant public awareness of PVTA and what it does for the region.



Telephone interviewees were asked how often they ride the bus to screen out transit users. This question is also useful in gaining additional understanding of general awareness of PVTA. Though the vast majority of respondents said they never ride, we see that nearly 16% said they have taken the bus "rarely," "fairly often," or "almost every day." This percentage represents about 99,000 of the roughly 620,000 residents of the region.



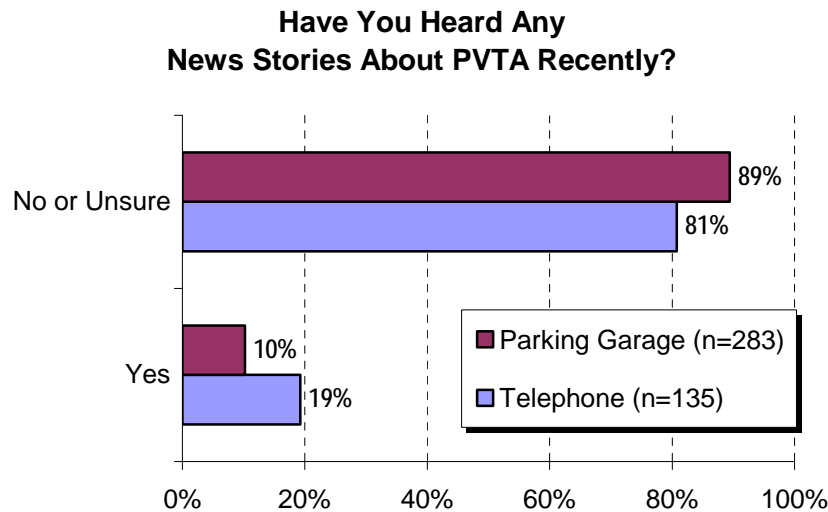
This percentage is relatively consistent with the U.S. Census mode share data for 2006-2008 (see Section 1.2.3) which show that approximately 81% of commuters in the region drive themselves to work. The same question on the parking garage survey found a much higher proportion (96%) of people who do not take transit.



Because the parking garage survey form was identified by PVPC and PVTA logos, the brand awareness question was not asked.

3.2.2 Media Awareness of PVTA

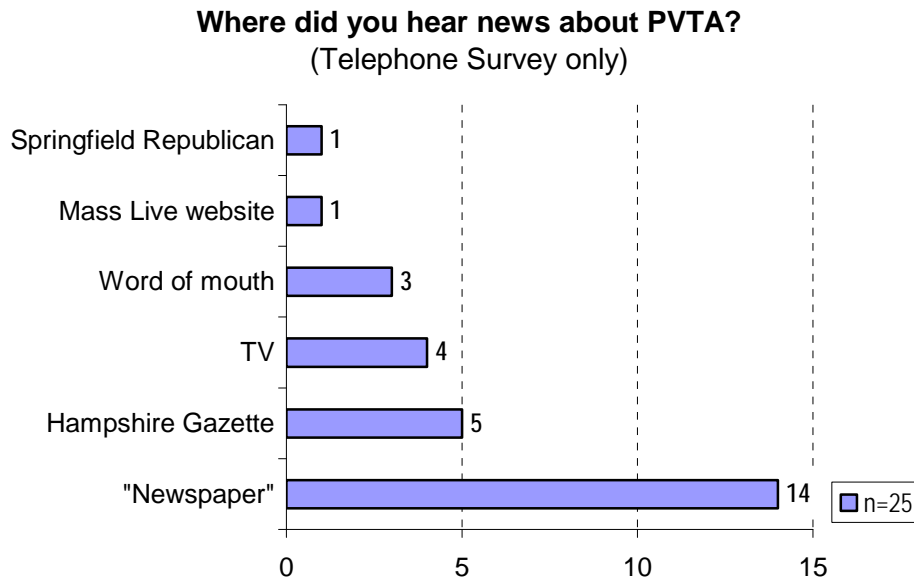
The majority of respondents were not aware of recent news about PVTA.



It is important to note that many people no longer follow local news and this may affect the results above. Also, because PVTA has not run paid advertising for several years, the surveys did not ask if recent advertisements could be recalled. This question was asked in 1999 as a measure

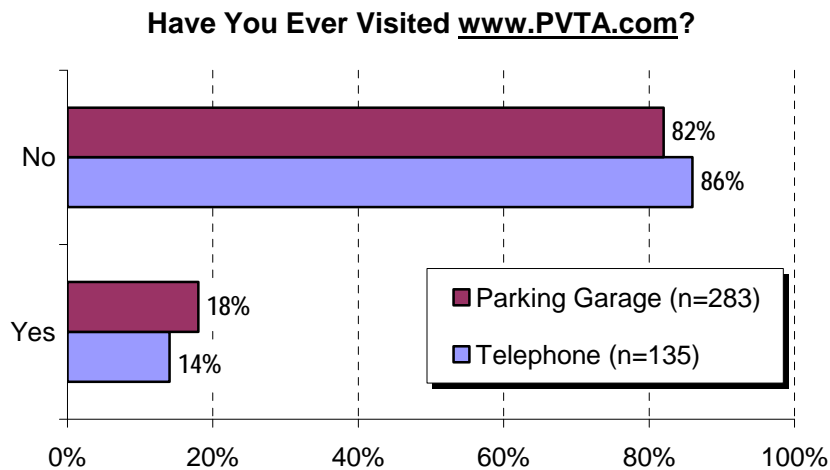
of effectiveness for the “PVTA... *Going Your Way!*” campaign. At that time, 28% of interviewees responded that they had heard the PVTA ad.)

If they answered yes, telephone respondents were asked if they could remember where they heard the news story about PVTA. There were 25 responses, shown below. The majority of responses (20) are local newspapers. The survey did not distinguish whether the “newspaper” response was for the printed edition of the paper, or for the newspapers’ online editions.



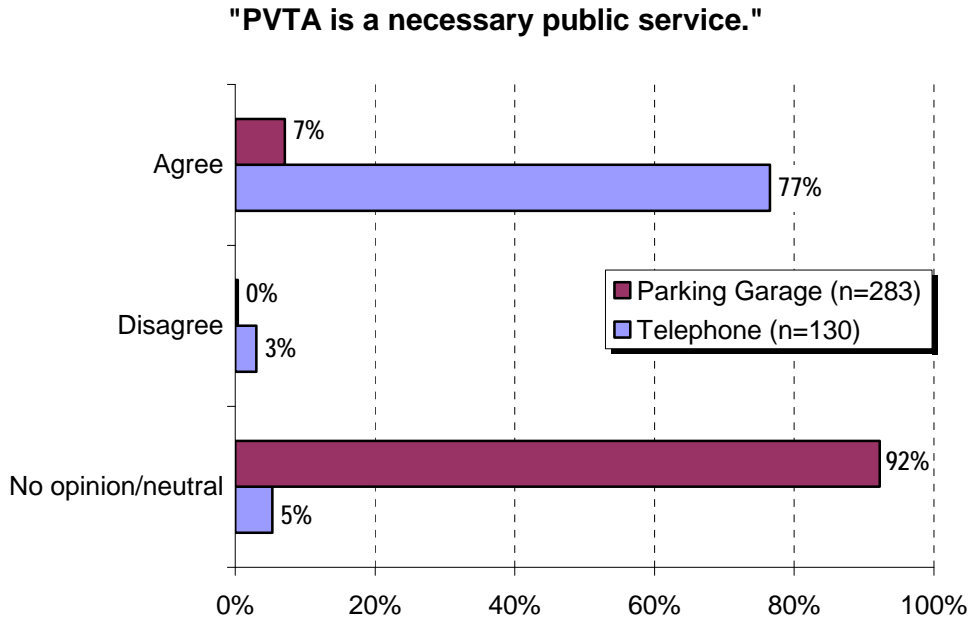
3.2.3 Website Use

The majority of survey respondents said they have not visited PVTA’s website. Many telephone interviewees offered additional information that while they were sure PVTA has a website, they never have a reason to look at it.



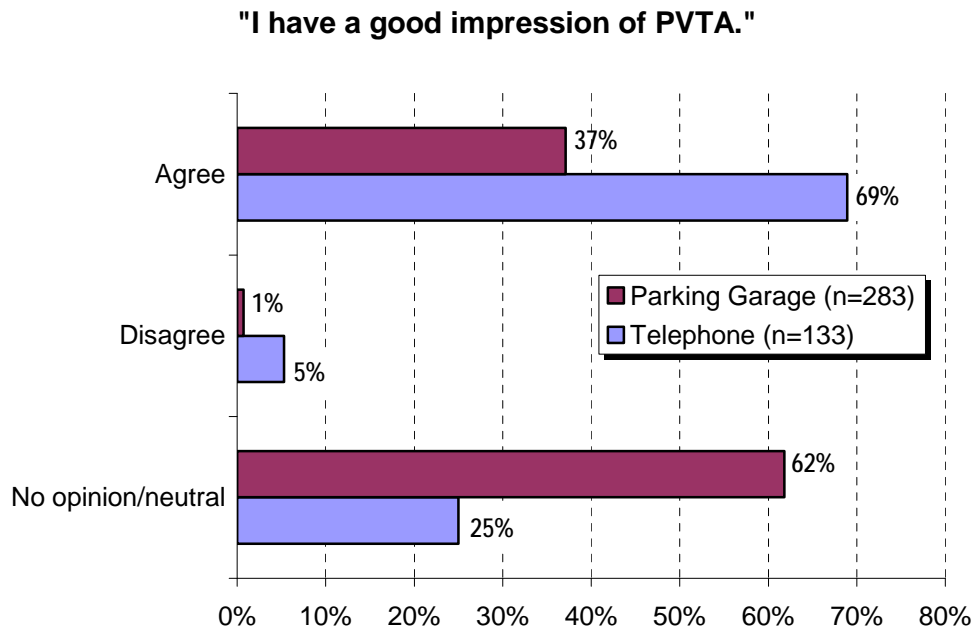
3.2.4 Public Necessity of PVTA

While a majority of telephone interviewees agreed with the statement “PVTA is a necessary public service,” a large proportion of parking garage respondents felt “neutral” about this statement.



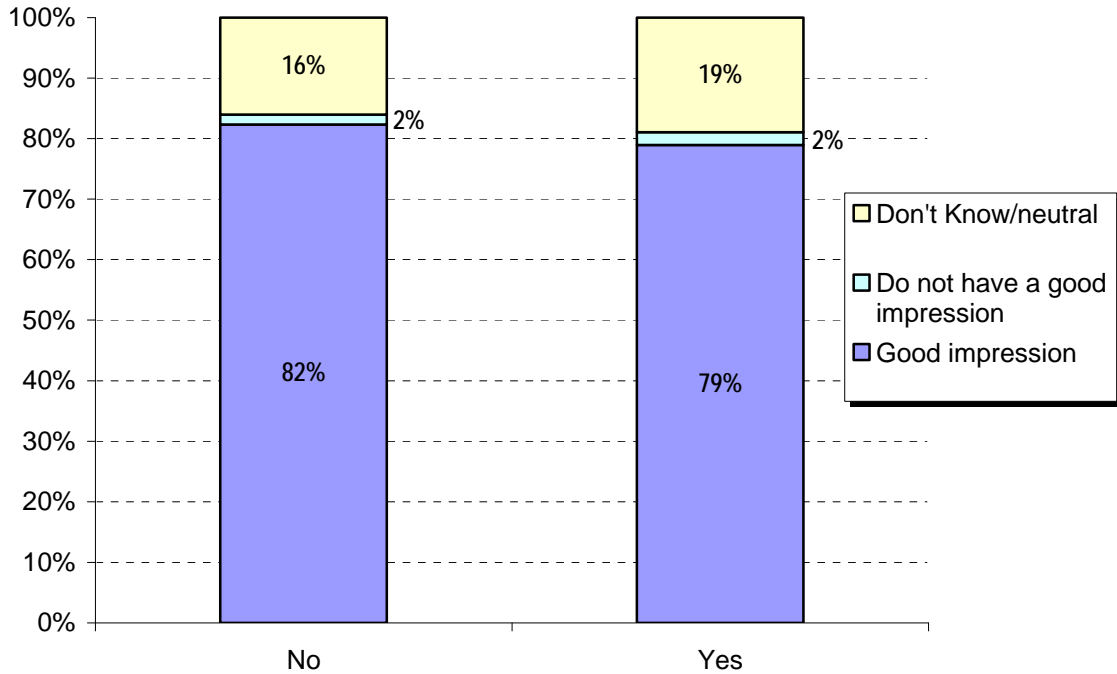
3.2.5 Overall Impression of PVTA

Findings regarding respondents' overall impression of PVTA show a trend similar to that found in Section 3.2.4 above; that is, the majority of parking garage users are “neutral” in their general impression of PVTA, while the majority of telephone interviewees said they have a good impression. Possible reasons for these diverging responses are discussed in Section 3.2.4 above.



To see whether or not having read a news story about PVTA leads to having a more positive general impression, telephone respondents who said they have a good impression of PVTA were cross tabulated with the respondents who said they had heard a news story (Section 3.2.2). This showed that people who have read a news story are 10% (79% seen below, versus 69% seen above) more likely to have a good impression of PVTA than the general sample.

**Overall Impression of PVTA by
People Who Have Heard a News Story about PVTA**



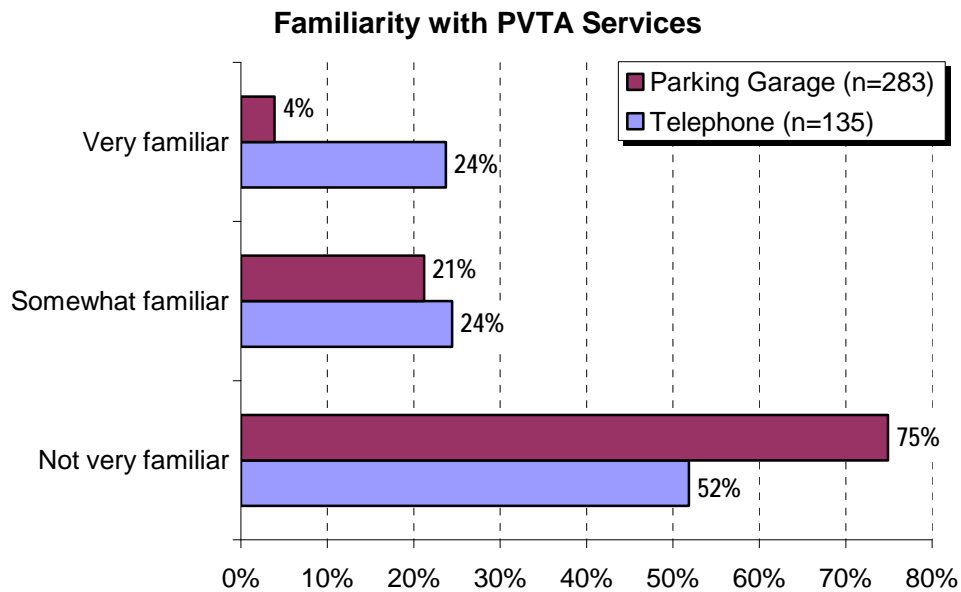
3.3 Knowledge of PVTA Services

A majority of non-riders said they are “not very familiar” with PVTA services. While 3 of 4 riders knew how far it was to their local bus stop, a large majority did not know the cost of a regular bus fare or that a monthly pass to obtain a discount was available.

3.3.1 Familiarity with PVTA System

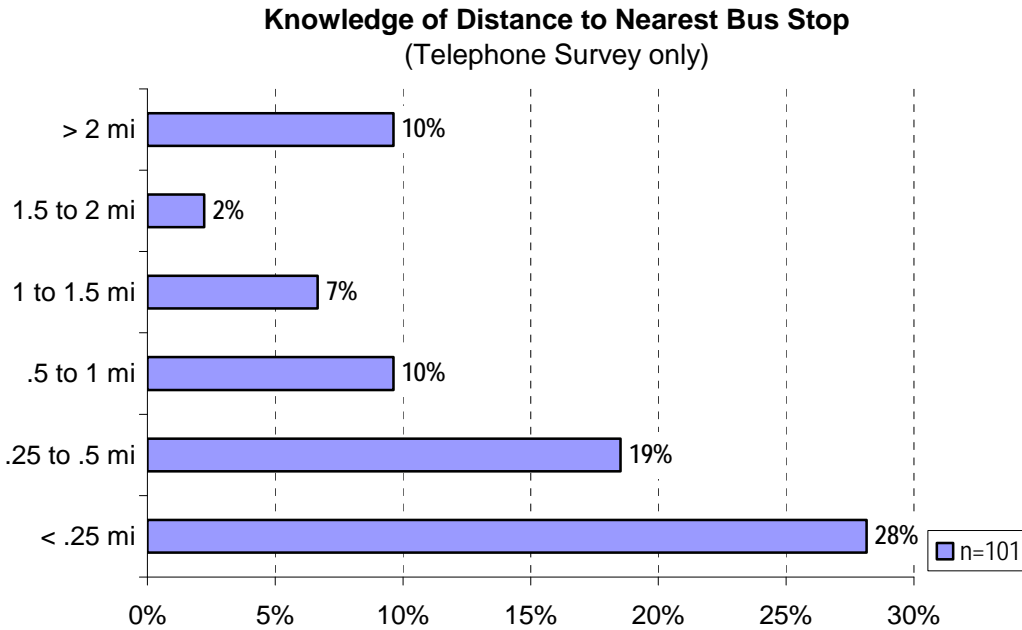
Nearly half of telephone respondents said they were “very familiar” or “somewhat familiar” with PVTA routes and stops. This is an encouraging finding, as it suggests almost half of non-riders could probably find their local bus stop if they wished to use it.

However, a much larger proportion of parking garage respondents (3 of 4) said they are “not very familiar” with PVTA.



3.3.2 Knowledge of Local Bus Stop

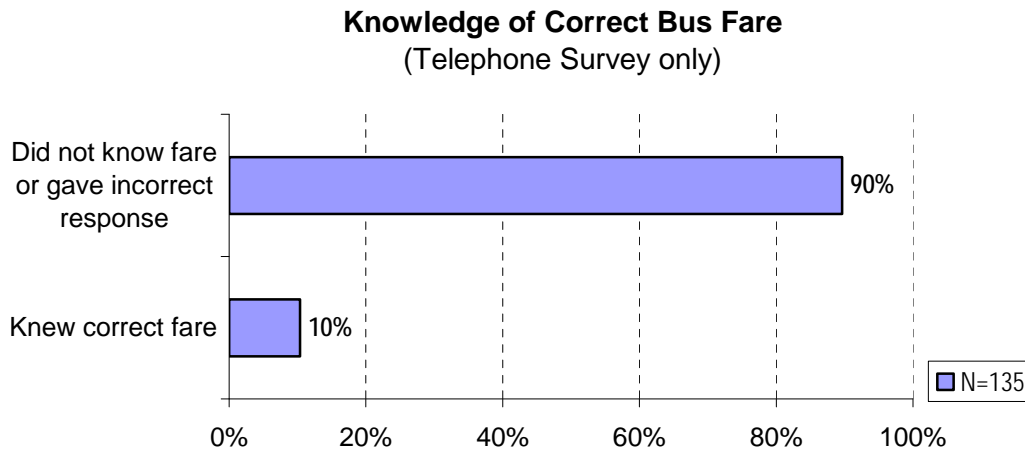
Of 101 telephone respondents who knew the distance to their local bus stop, 47% said the stop is within a half mile of their residence – the distance typically considered to be “walkable” for transit users.



If this percentage is applied to the roughly 320,000 people who commute to work in the region, it can be estimated that approximately 150,000 commuters know where their local bus stop is.

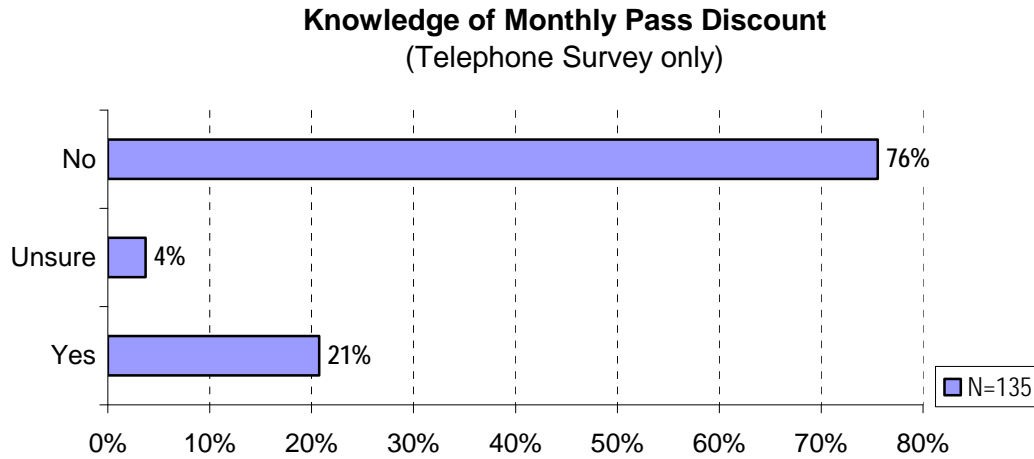
3.3.3 Knowledge of Fare

The vast majority of non-rider telephone respondents did not know the correct bus fare. Of the 17 respondent who ventured guesses, 4 guessed an amount greater than the correct fare (\$1.25) and 13 guessed an amount less that was less. This suggests there may be a public perception that public transportation costs less than it actually does.



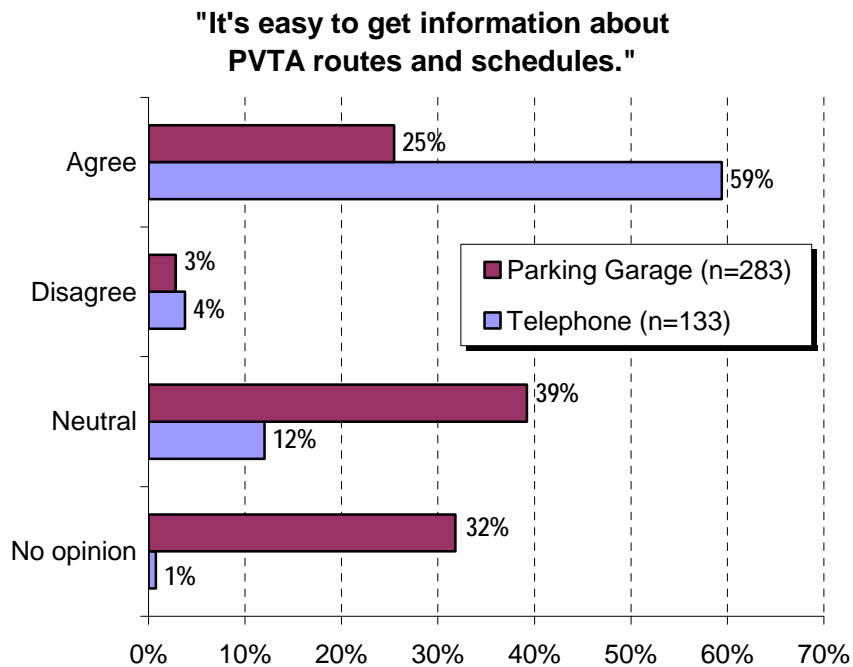
3.3.4 Knowledge of Monthly Pass Discount

About 1 in 5 telephone respondents said they were aware that PVTA offered a monthly pass that provides riders a discount on the regular fare if used often enough.



3.3.5 Ease of Getting Schedule Information

Because non-riders are not motivated to get schedule information, many felt neutral or unqualified to offer an opinion about the ease of getting schedule information. However, many riders said they expected schedule information would be readily available if they ever wanted it.



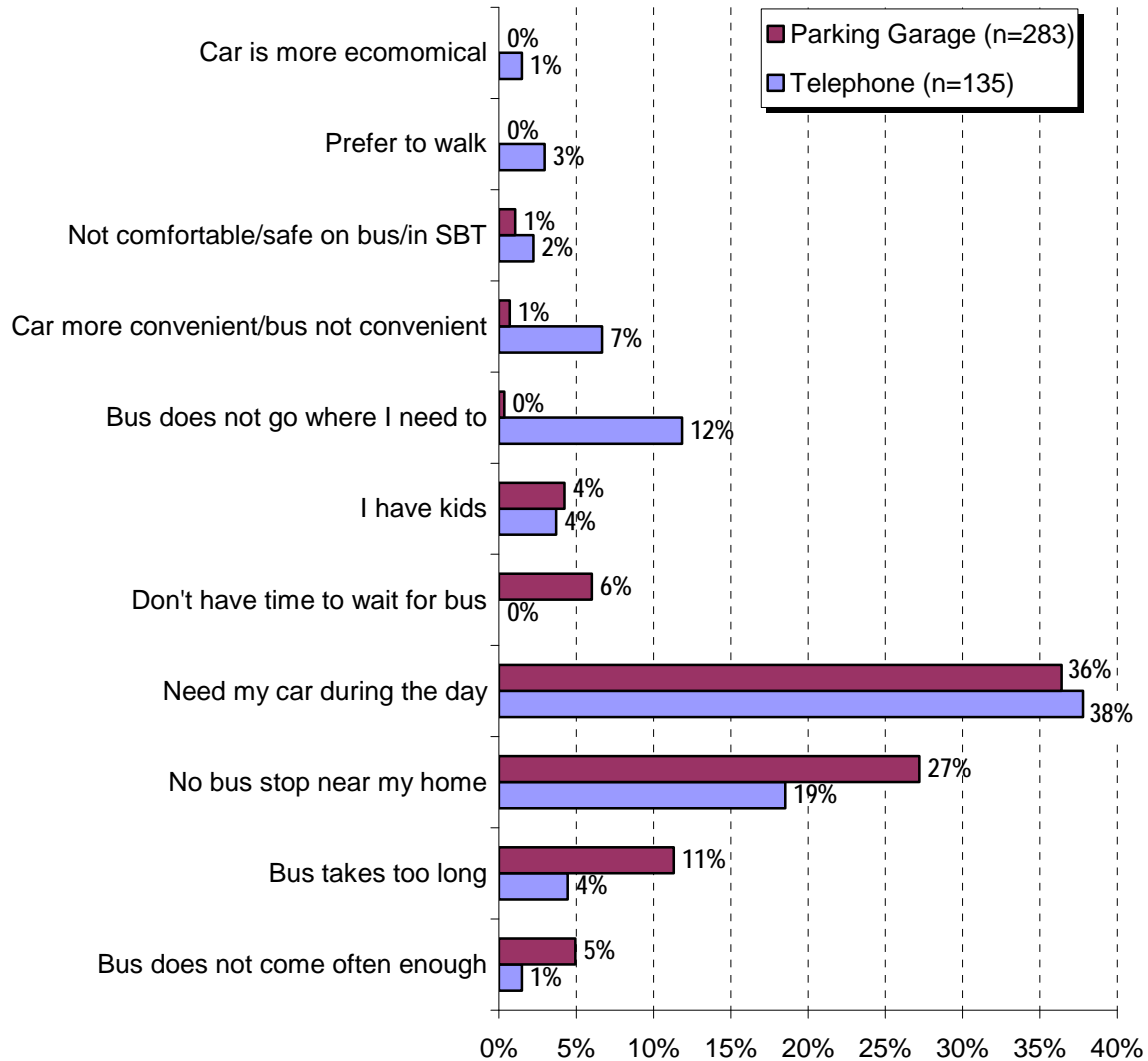
3.4 Barriers to Using PVTA

This section presents potential and likely reasons that non-riders do not use PVTA.

3.4.1 Main Reasons for Not Using PVTA

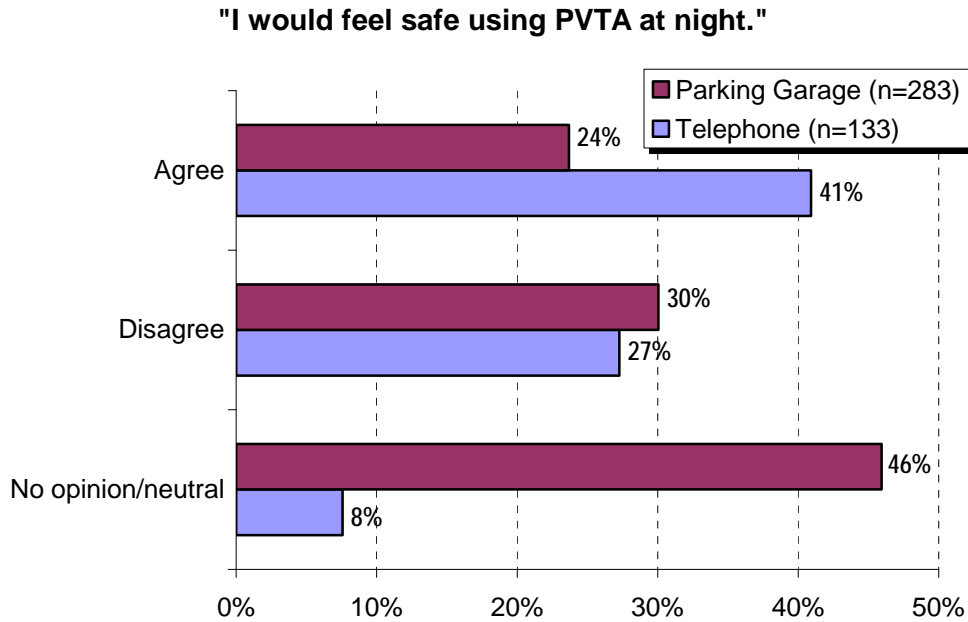
Respondents were asked the open-ended question: “What is the main reason you do not use PVTA?” The leading reason—given by more than one-third of respondents—is that they need their car during the day, presumably for errands before, during and/or after work.

Main Reasons Non-riders Do Not Use PVTA



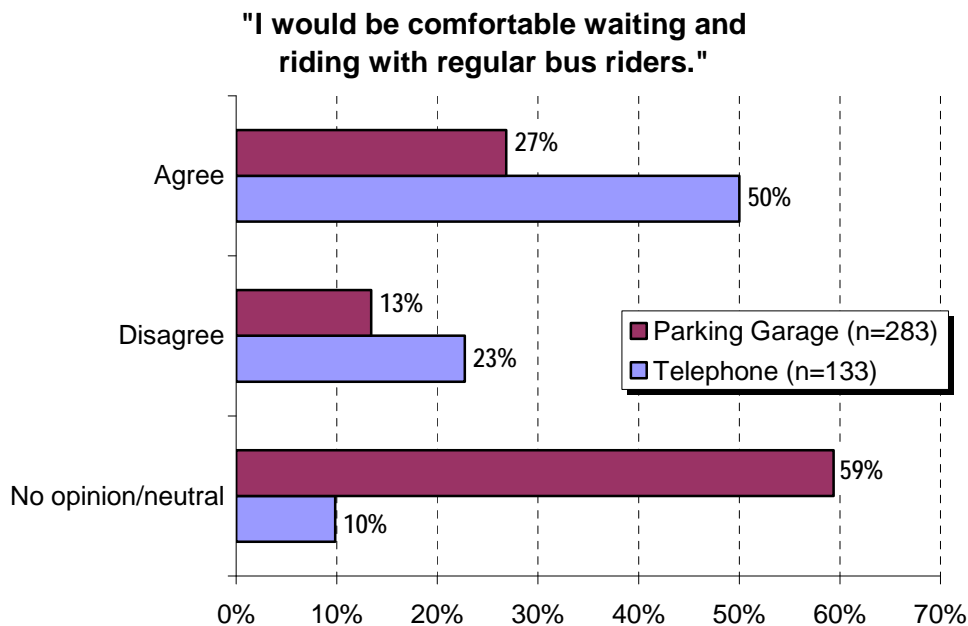
3.4.2 Perceptions About Personal Safety

While personal safety did not emerge as one of the “main reasons” that people do not ride PVTA, it is nonetheless apparently a concern for up to 30% of non-riders when asked directly. Respondents were asked directly whether they agreed, disagreed or felt neutral about feeling safe if they used PVTA at night.



3.4.3 Perceptions About PVTA Customers

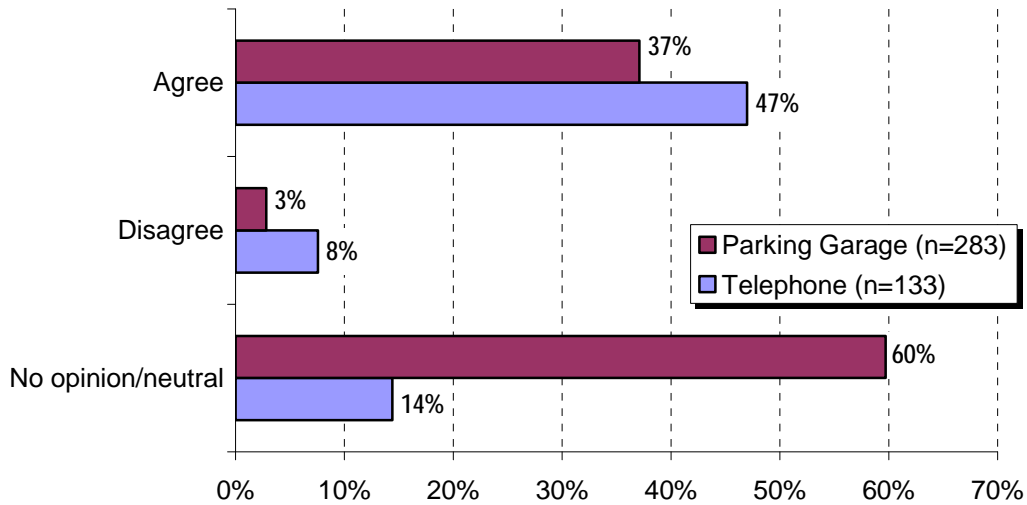
The direct question about the respondent’s comfort waiting and riding with “regular bus riders” also revealed greater proportions of non-rider hesitancy about using PVTA.



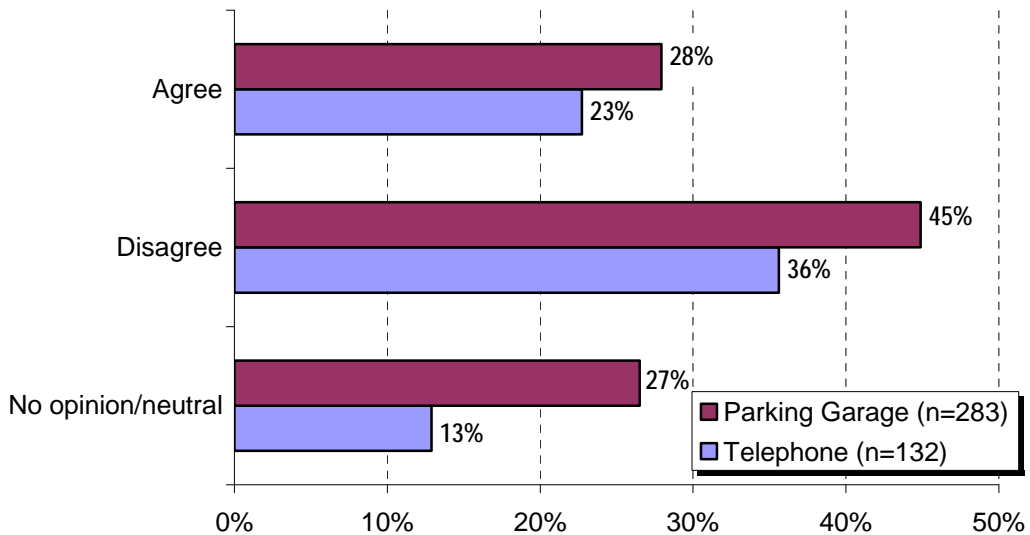
3.4.4 Confidence in Reliability and On-time Performance

Non-riders expressed generally favorable impressions about the reliability and on-time performance of PVTA buses. However, as was the case with the general impressions expressed in Sections 3.2.4 and 3.2.5, large proportions of respondents chose not to offer an opinion. Telephone interviewees often said because they have no direct experience with PVTA bus service, they were not able to offer their opinion about these topics.

"PVTA buses are reliable and on time."



"I don't take PVTA because I don't know when the next bus is going to come."



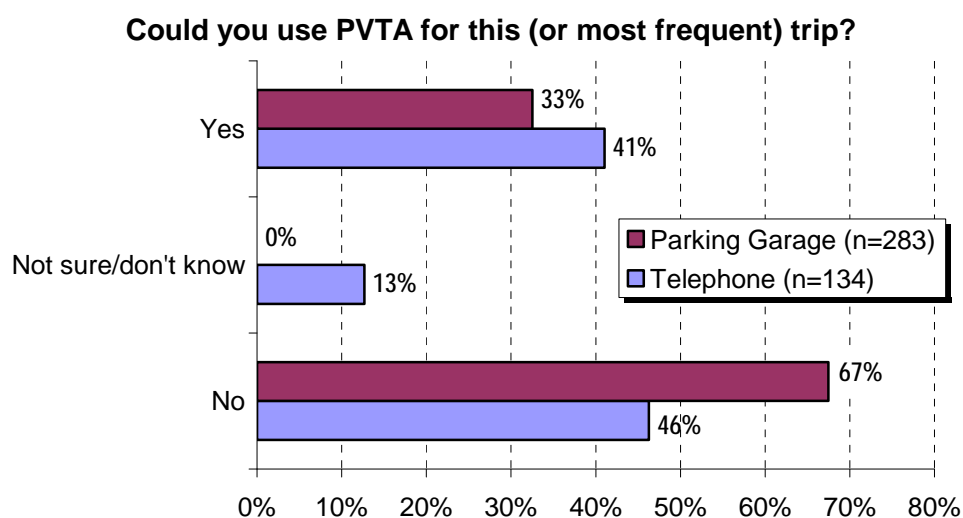
3.5 Likelihood of Using PVTA in the Future

The surveys included several questions intended to help gauge the likelihood or willingness of the respondent to use PVTA in the future. These include the ability to make the most frequent trip or commute by PVTA.

The responses to these questions have been cross tabulated with trip origins to see where people who have the ability or willingness to use PVTA are located.

3.5.1 Able to Make Trip Using PVTA?

The chart below offers one of the most significant findings of this study: a large proportion—at least one-third—of non-riders could use PVTA for their most frequent trip or commute.

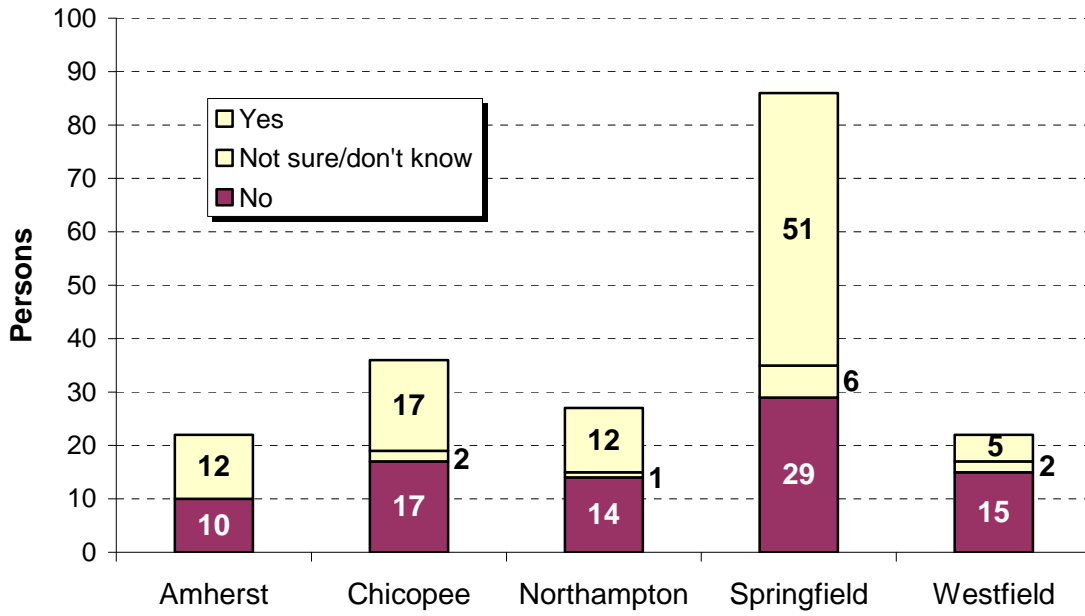


At least one-third of non-riders say they could make their most frequent trip using PVTA.

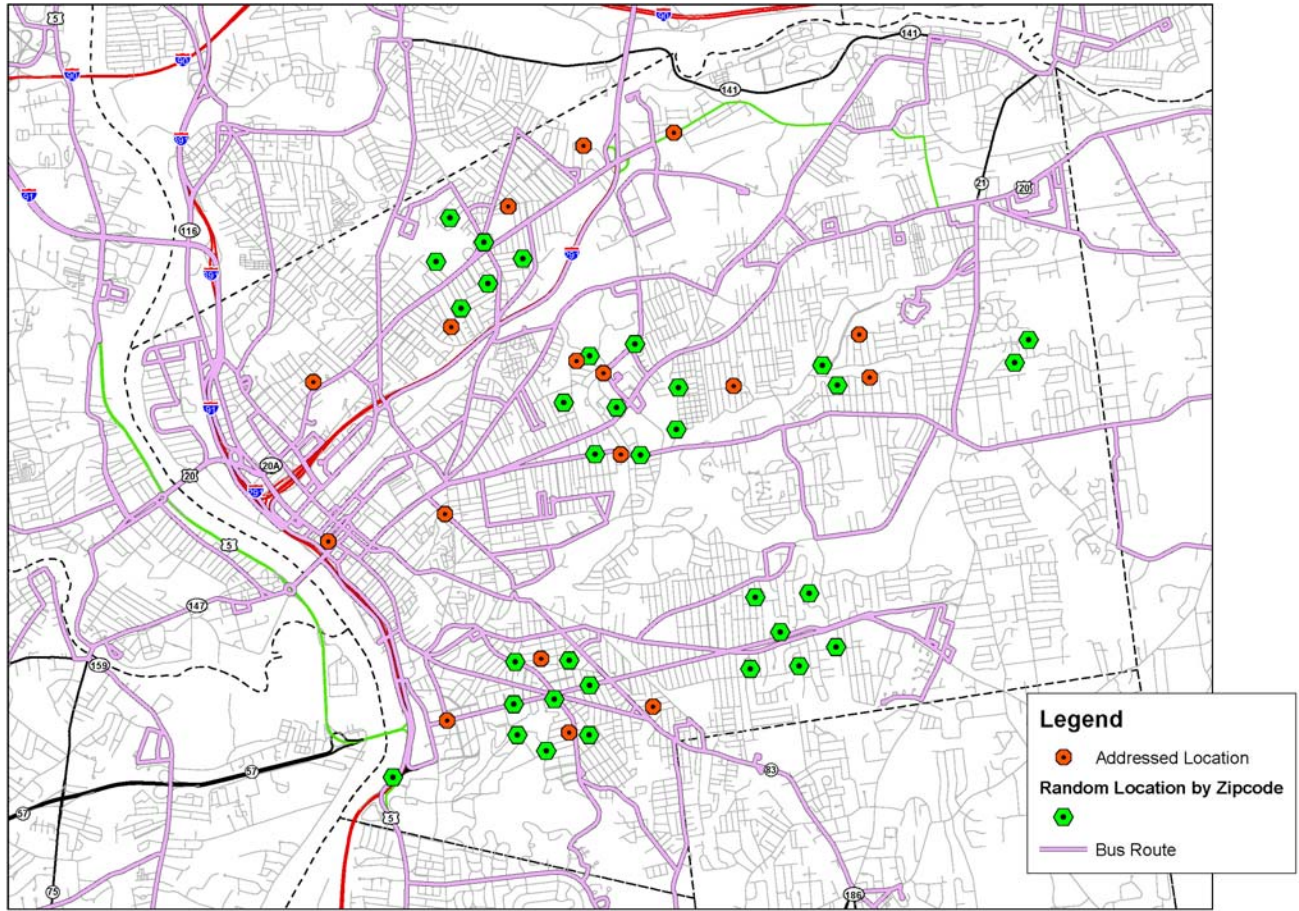
Using the U.S. Census estimate that there are 323,820 people in the region who commute to work daily, and assuming that 56% of non-rider trips in the region are work-related (full and part time work, based on the telephone survey findings in Section 3.1.4), this means there are approximately 60,000 non-riders who could use PVTA to commute to work.

Looking further into this proportion of potential bus riders, the charts on the following page presents a cross-tabulation of the responses to this question by geographic distribution in the towns with the highest number of trip origins. While these sample sizes within each municipality are too small to make statistically significant findings, the data do suggest that there are larger proportions of people in the major urban municipalities of the region say they could use PVTA for their trips. In Springfield, for example, approximately 3 of every 5 (59%), said they could make their trip using PVTA.

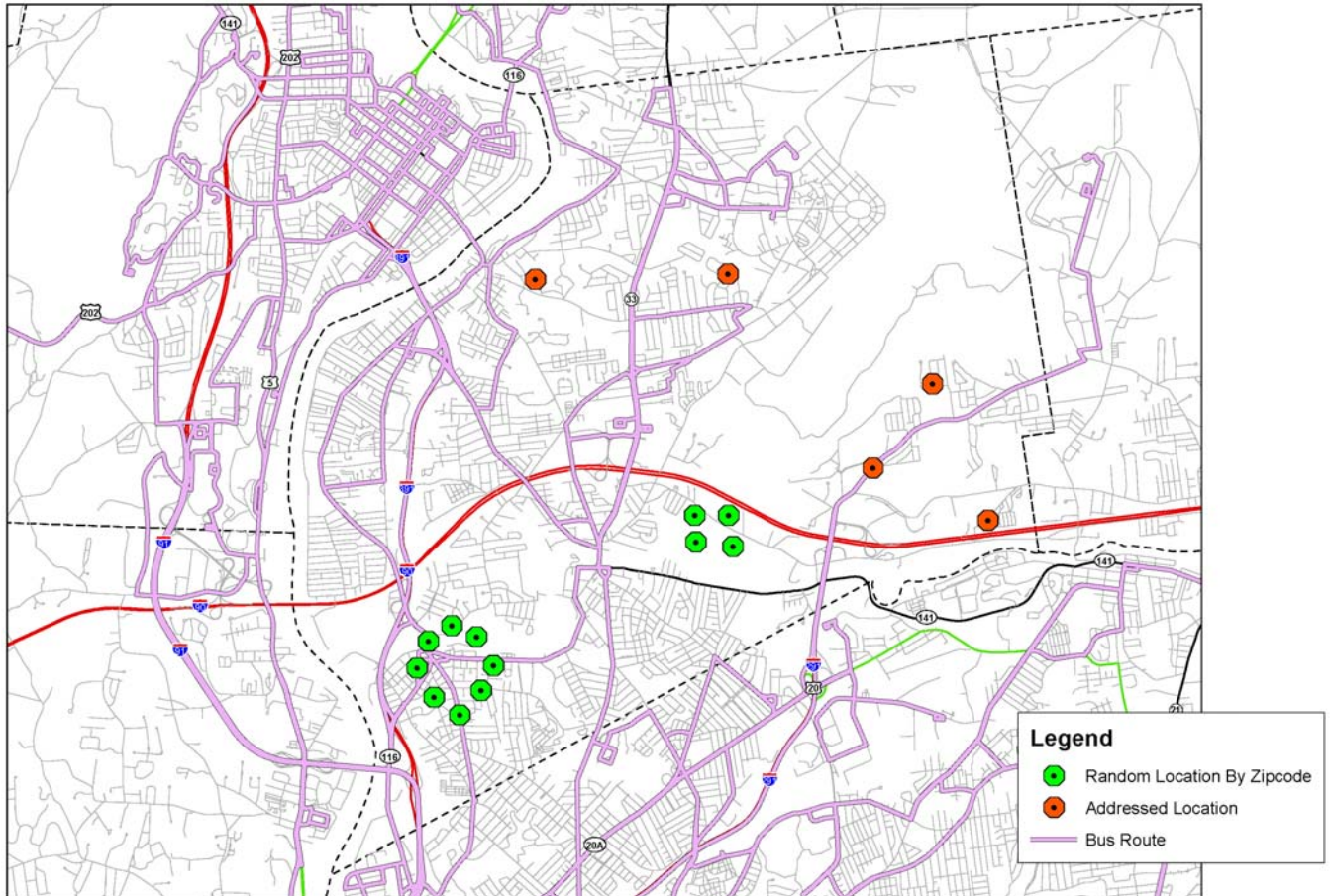
Could You Take PVTA for This Trip?



The map below shows where people who say they could take PVTA live in Springfield, along with PVTA routes in the city. Concentrations are seen along the southern leg of the G1 corridor (where Summer Express service is currently offered); along the G2 corridor following Carew Street and Page Boulevard; and the B6 and B7 corridors along State Street and fanning out to the west.

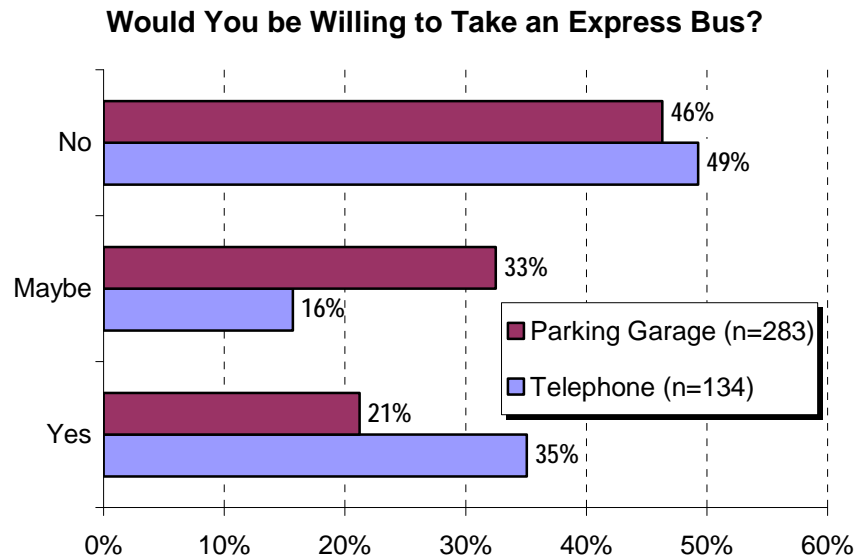


Locations of Chicopee residents who said they could use PVTA are shown below. Concentrations are along the northern leg of the G1 corridor and the P11 corridor to Holyoke, where express service is currently available.

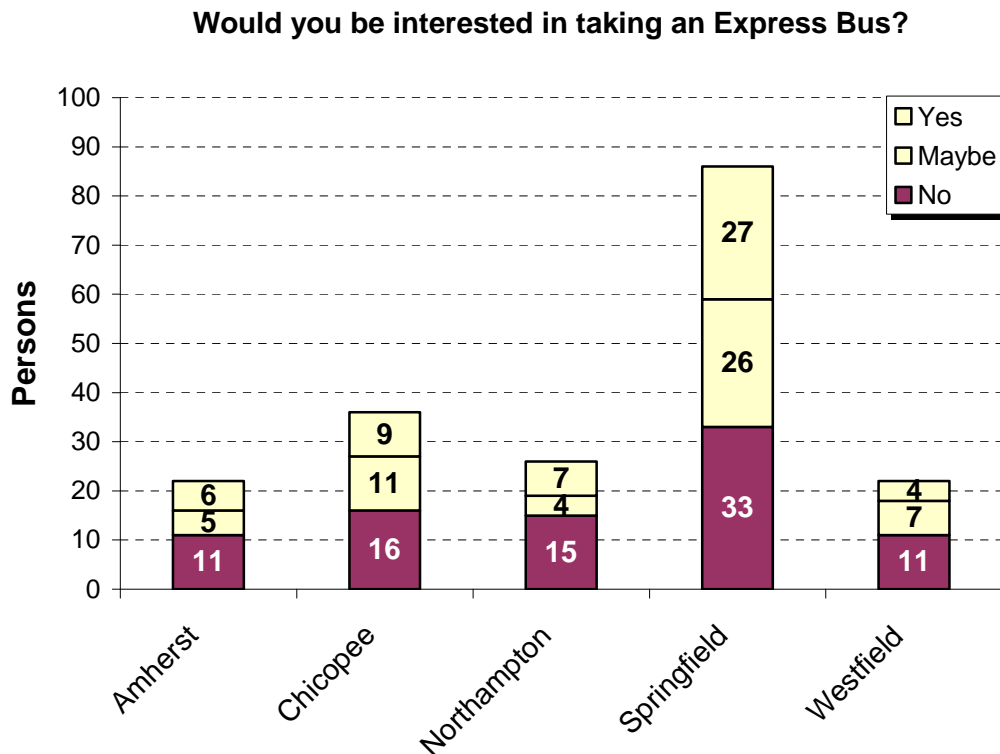


3.5.2 Would You Ride an Express Bus?

Respondents were asked if they would be interested in taking an express bus, exploring the assumption that a reduction in travel time could be appealing. More than half of all respondents said they would be, or may be, willing to ride an express bus—and all but two of these answering “yes” or “maybe” were people who already said they could use PVRTA for their most frequent trip.



Analysis of people interested in faster service by their home municipality shows significant proportions of non-riders who may be interested in reduced travel times.



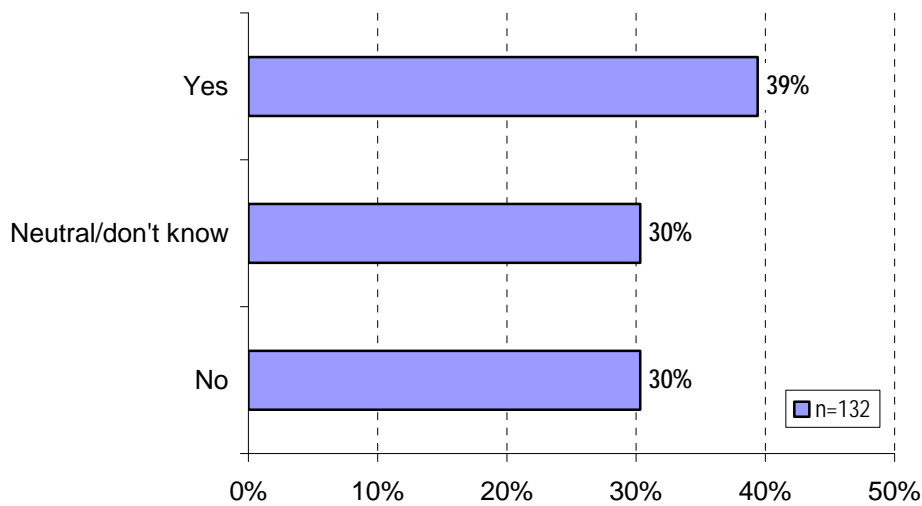
In Springfield, for example, a total of 53 people (or 62%) said they would be, or “maybe,” willing to ride an express. Census estimates for 2005-2009 show there are approximately 30,000 Springfield residents who commute to work within the city each day. Therefore, the potential market for express bus services could be 62% of 30,000, or 18,600 people.

Because there are fewer jobs in Chicopee, the number of residents who work in the city is estimated to be 5,567. The number of Chicopee residents who work outside the city is 17,715. 94% of Chicopee residents drive themselves to work, significantly higher than the 85% regional average and 86% in Springfield.

3.5.3 Impact of Gasoline Price on Willingness to Take PVTA

More than one-third of non-riders said they would be more likely to use PVTA if gas prices rose to \$4 or \$5 per gallon. During the gas price surge of early 2008 when gas prices peaked near \$4 per gallon, PVTA experienced a modest ridership increase.

Would You Be More Likely To Ride the Bus If Gas Prices went to \$4 or \$5 per Gallon?



3.6 Media Preferences

Telephone interviewees were asked for their preferred method of media outreach if PVTA wished to inform them of route or service improvements or other news that could be of interest. As shown below, the newspaper was the most popular choice, with 48 people suggesting either news stories or paid ads. Postcards were the second most popular suggestion. Television was the third most popular choice, with WWLP 22News being the most frequently cited station. Relatively few respondents (11) suggested the internet.

Newspaper (n=48)	
<i>Springfield Republican</i>	73%
<i>Hampshire Gazette</i>	13%
"Local Newspaper"	4%
<i>Register</i>	2%
<i>Reminder</i>	2%
<i>Sentinal</i>	2%
<i>Ware River News</i>	2%
<i>Westfield Evening News</i>	2%
Other (n=41)	
Post card	88%
Community Center	2%
Family	2%
Flyer	2%
Telephone	2%
Not sure	2%
Television (n=30)	
Channel 22 WWLP "22News"	52%
Channel 40 WGGB "ABCNews40"	28%
"Local TV Station"	14%
Radio (n=19)	
102.1 FM WAQY "Rock 102"	26%
97.9 FM WPKX "Kix Country"	11%
93.1 FM WHYN "Mix"	5%
96.5 FM WTIC "Best Variety" (Hartford)	5%
560 AM WHYN NewsTalk	5%
640 AM WNNZ NPR News/talk	5%
1270 AM WSPR "Power1270"	5%
"The radio"	37%
Internet (n=11)	
PVTA Website	91%
Mass Live	9%

Note: Total N=149 because respondents were allowed to give more than one answer.

4.0 RECOMMENDATIONS

This section presents recommendations intended to increase non-rider use and understanding of PVTA. These recommendations are based on general transportation planning principles, as well as contemporary literature on best practices in transit operations and marketing.

Transit marketing literature emphasizes customer-focused measures and strategies to help transit compete against the private automobile. There is often a general perception that public transit's customer service lags behind the private sector. Some of the most successful private transportation companies of the past decade (Southwest Airlines, Federal Express, Greyhound) focus intensively on being responsive to customers. The services offered by these companies are not considered "premium"; rather, they offer consistent value and reliability to the customer. Public transit, too, offers high value and reliability, depending on the travel needs of the customer. Travel costs for public transit, on average, are half of the cost of traveling by private auto (National Public Transit Association 2009). Raising non-rider awareness of public transit's value and reliability is a key first step toward getting them to ride the bus.

The following recommendations are offered to address key findings of the non-transit user study:

1. A media and marketing program to increase non-rider awareness of PVTA services and value to the community.
2. A "new media" plan to take better advantage of technologies, including the web, social media and smart phones, that can increase the convenience of obtaining service information by non-riders.
3. An improved "how to ride" education program.
4. Study of routing efficiencies to reduce travel times to attract new riders.
5. A customer safety awareness and enhancement program.
6. A customer Limited English Proficiency outreach program.
7. Additional surveys of student non-riders.

A draft of this report submitted to PVTA on January 20, 2011 offered a series of recommendations. Since then, PVTA has advanced several efforts that address the recommendations and make other improvements. These are summarized on the following two pages.

Recommendation	Responses/Improvements
1. Media and marketing program.	<p>PVTA is working with First Transit to assess marketing needs and implement measures to address them.</p>
2. Make greater use of “New Media.”	<ul style="list-style-type: none"> ▪ PVTA is continuing to increase the use of Twitter and website postings for service announcements. ▪ PVTA continues to advance its automated vehicle location (AVL) system to provide improved schedule and real-time bus arrival/departure information to customers via internet and cell phones.
3. Improve rider education and outreach.	<p>PVTA applied for and received a \$250,000 JARC grant for rider education and training program, which is now being developed and implemented.</p>
4. Cultural and ethnic outreach to groups with the largest numbers of people who speak English “Less Than Very Well” – Spanish, Russian, Polish, Portuguese and Vietnamese speakers.	<ul style="list-style-type: none"> ▪ PVTA and PVPC are making increased efforts to produce all meeting notices in Spanish and provide Spanish translation at public meetings. ▪ PVTA worked with PVPC to identify locations of Russian-speaking immigrants. ▪ PVPC prepared and posted Russian language signage and rider information at five locations. ▪ PVTA and PVPC conducted two Russian language outreach meetings on 10/6/11 in West Springfield and Springfield in partnership with Lutheran Social Services. ▪ PVPC worked with Lutheran Social Services to identify Burmese and Nepali immigrant populations who are heavy bus users; PVTA and PVPC will hold rider information sessions with translation for these groups on 10/20/2011. ▪ Info sessions will also be held for Spanish and Russian speaking residents 10/20/11.
5. Study route efficiencies to reduce travel time.	<ul style="list-style-type: none"> ▪ PVTA is evaluating the G1 Sumner Express to develop improvements. ▪ PVTA increased P21 Express service from Holyoke to Springfield. ▪ PVTA added two P20 Express routes from Holyoke Community College to Springfield. ▪ PVTA added R29 limited stop service between UMass Amherst and downtown Holyoke. ▪ PVTA held informational meetings with transit planning firms to advance development of a systemwide study that will address a wide range of route planning improvements, including potential express routes.

6. Customer safety awareness/enhancement program.

- PVTA has advanced the “See Something – Say Something” safety campaign.
- PVTA has improved lighting at bus stops and facilities as funding has become available.
- PVTA continued implementation of its systemwide AVL project, which will include numerous onboard safety features for customer safety, including multiple onboard cameras, upgraded radios, emergency notification and communication equipment.
- PVTA continues its “Transit Ambassador” training program for bus operators, which includes various safety elements.
- PVTA is working with PVPC to update and improve its Mystery Rider spot-check service quality monitoring programs; customer facilities at Springfield and Holyoke will be included in the new spot check criteria.

7. Conduct additional research and outreach for student riders.

Outreach to student riders is being addressed as part of the marketing initiative described in response to Recommendation #1.

More detailed descriptions of the original recommendations follow.

4.1 Recommendation 1: General Media and Marketing Study and Implementation Plan

Non-rider awareness of PVTA is high (83%), and a large proportion of non-riders say they could use PVTA for their regular trips. The following recommendations are offered to help get some of these potential riders “over the threshold” and onto a bus by aiding their awareness of service availability and convenience, and raising their motivation to ride. These recommendations also address perceptions about PVTA’s community value and help insure that non-riders who wish to make suggestions to improve transit for non-riders are heard.

Recommendation	Description
1A: Perform media and marketing study	<p>A media and marketing study would aid PVTA in reaching more non-riders to increase their awareness of PVTA’s services and value to the region. The study would include:</p> <ul style="list-style-type: none">▪ Evaluation of existing PVTA marketing program.▪ Review of peer transit systems for effective marketing strategies and campaigns.▪ Identification of opportunities for marketing PVTA services, including free and paid media; promotions; and events.▪ Identification of major employers and outreach strategies to reach their employees.▪ Identification of media channels and partners for outreach.
1B: Develop and execute media and marketing implementation plan	<p>Upon completion of the marketing study described above, an implementation plan would prioritize staff and budget resources to achieve non-rider outreach goals. This plan would include:</p> <ul style="list-style-type: none">▪ Prioritized media and marketing goals, objectives, tasks▪ Target audiences and media channels, especially populations identified by demographics as likely to have more transit users▪ Media products and support materials▪ Personnel assignments and responsibilities▪ Schedule▪ Budget▪ Evaluation measures and tracking
1C: Aid public involvement	<p>PVTA’s existing public involvement program focuses on feedback from transit customers and stakeholders (i.e., bus rider forums, paratransit user meetings, advisory board and subcommittees, community meetings and other public meetings). Inclusion of non-riders in the existing public involvement program could actually reduce the focus and value of these activities. Non-rider transit concerns are more typically sought through the regional transportation planning (RTP) and metropolitan planning organization (MPO) processes. It is therefore recommended that PVTA work with PVPC to establish a process for ensuring the incorporation of all non-rider feedback in the RTP and MPO processes.</p>

4.2 Recommendation 2: “New Media” Plan

Internet-based outreach can be implemented at little or no cost, yet has the potential to reach thousands of new transit users. Because these measures can be implemented quickly and at little or no cost, they are presented here as separate measures from Recommendation 1. Examples of peer agency use of these technologies are presented in the Appendix.

In addition to the benefits that these services can provide to existing customers, a strong internet presence can be effective in attracting new customers by giving them a “feel” for the transit agency before they use it, as well as making schedule and service information available almost instantly. New media channels must be updated frequently—daily or even hourly, depending on service conditions—to be perceived as useful.

Recommendation	Description
2A: Enhance PVTA website	<p>www.pvta.com should remain the central element of PVTA’s online presence. Recent enhancements to maps on the website have improved utility and convenience for site visitors. PVTA may wish to consider additional functionality found on other peer transit agency websites, including:</p> <ul style="list-style-type: none">▪ Real-time service status ticker▪ Online pass purchase▪ Links to business partners and advertisers
2B: Enhance and maintain PVTA’s Facebook site	<p>PVTA’s existing Facebook site can be enhanced. A key strength of Facebook is the ability to demonstrate concern for, and responsiveness to, customers. While real-time service info can be posted, a Facebook site lends itself more to cultural and experiential information. PVTA’s Facebook can be a place where potential customers get a “feel” for PVTA. Postings could include:</p> <ul style="list-style-type: none">▪ Pictures customers and staff▪ Videos (i.e., “How to Ride” and trip guides of popular routes)▪ Recent news and “Fun Facts”▪ Service information (maps and schedules)▪ Information about public hearings and meetings▪ Promotions
2C: Enhance and maintain a Twitter account	<p>PVTA could enhance non-rider perception of the organization through regular posts to its Twitter account. As UMass Transit is showing with its Twitter feed, Twitter messages are ideal for demonstrating PVTA’s ability to give real-time service information (i.e., detours or weather-related changes). A Twitter account would demonstrate to non-riders that PVTA is using the latest technology to deliver timely information to customers. MassDOT and many peer transit agencies now use Twitter.</p>
2D: Establish and maintain a PVTA YouTube Channel	<p>YouTube is the internet’s leading on-demand source of video information. Like peer transit agencies, PVTA could establish its own “YouTube Channel” where content is consolidated and easy to find. Videos of potential interest to non-riders would include:</p> <ul style="list-style-type: none">▪ “How to Ride” info on service areas, route, fares and policies.▪ Videos illustrating cost savings and convenience of transit.▪ PVTA employee profiles and acknowledgements.▪ PVTA “behind the scenes” tours of vehicles, facilities and technology.

2E: Develop a smart phone application	Applications for smart phones are widely available for transit trip planning. (There are at least 10 iPhone “apps” for the MBTA alone.) PVTA currently offers a webpage (developed by UMass Transit) that is optimized for smart phone screens. PVTA could produce a smart phone application to enhance this service with improved schedule information, additional marketing and system information. This application would not only serve existing riders, but would offer non-riders the ability to learn about PVTA.
2F: Promote, maintain and update social media	Social media promotion on other websites (i.e. media outlets and other agencies), as well as consistent updating, to become known and valuable to users. Appropriate staff and contractor assignments could be made to accomplish timely updates.

4.3 Recommendation 3: Rider Education Program

When a non-rider is ready to become a rider, it is important that PVTA be ready with clear, friendly and useful information on how to ride the bus.

3A: Enhance rider education program	<p>A rider education program would include:</p> <ul style="list-style-type: none"> ▪ Brief instructional videos for public access TV, YouTube, public meetings, other gatherings. ▪ An updated “Riding PVTA” brochure. ▪ “How to Ride” dedicated Web pages on PVTA and a YouTube channel with videos and other user-friendly information. ▪ Enhanced instructions and training for telephone assistance. ▪ Coordination/integration with the Transit Ambassador program. ▪ Targeted outreach to populations identified by demographics to have more transit users. ▪ Follow up evaluation to see how many riders have been assisted and how the program may be improved.
--	---

4.4 Recommendation 4: Study Route Efficiencies to Reduce Travel Times

Reducing travel times emerged from the survey as an important opportunity for attracting new riders. “The bus takes too long” was the third most frequently cited reason by non-riders for not taking the bus. PVTA currently has three express services, and analysis of non-rider survey responses suggests there may be additional routes where time-saving measures may be a benefit.

Recommendation	Description
4A: Study route efficiencies	<p>A focus on reducing travel times as part of the systemwide study is recommended. Existing faster service routes include:</p> <ul style="list-style-type: none"> ▪ G1 Sumner Express (study completed 2010) ▪ P21 Express Holyoke/Chicopee/Springfield ▪ M40 Minute Man Express Northampton/UMass <p>Possible future fast service routes, as identified by non-rider willingness to try express service (see Section 3.5.2); population demographics; and geographic proximity to existing PVTA routes. These include:</p> <ul style="list-style-type: none"> ▪ Springfield G2 corridor ▪ Springfield B6 and B7 corridors ▪ Chicopee/Springfield G1 corridor <p>A study of these and additional future routes may be most efficiently accomplished as part of the PVTA systemwide study that is planned for 2012.</p>
4B: Implement travel time savings plan	<p>Detailed, prioritized plans should be developed for the operation, marketing and funding of existing and proposed time-saving routes.</p>

4.5 Recommendation 5: Customer Safety Awareness and Enhancement Program

Concerns about personal safety and PVTA were expressed by a significant portion of non-users—up to 30%. It is important to address these concerns, whether real or perceived, within the context of available funding.

Recommendation	Description
5A: Increase security visibility	<p>PVTA may wish to evaluate and implement options for enhancing the visibility of private security and public law enforcement at transit facilities.</p>
5B: Address safety conditions at warranted bus stops	<p>PVTA’s ongoing bus shelter and stop improvement program offers an opportunity to address non-rider personal safety perceptions that may be justified. Bus stops near alleys and mid block passages, at liquor stores, and those defaced by graffiti and litter tend to be more crime prone. A program to address bus stop safety could include:</p> <ul style="list-style-type: none"> ▪ Use of the PVTA 2009 bus stop database to review bus stop conditions. ▪ Continue bus stop improvement plan to prioritize stops for lighting and enhancements.

5C: Improve public awareness of transit security measures	<p>Public awareness of public safety measures is important if they are to be fully effective. In coordination with the media and marketing implementation plan, PVTA may wish to highlight to the general public the following safety information:</p> <ul style="list-style-type: none"> ▪ All PVTA buses have onboard video and audio surveillance. ▪ Presence of security personnel and technology at terminals (and any enhancements that may be made as part of Recommendation 5A above. ▪ Safety of transit travel versus private auto (e.g., research estimate that transit is 170 times safer than auto travel).
5D: Enhance Transit Ambassador Training	<p>PVTA's implementation of CUTA's Transit Ambassador Program employee training program has helped create a more transparent and consistent method for bus drivers interactions with passengers. The program includes additional modules that may be of benefit for other PVTA employees who interact with the general public, including non-riders.</p>

4.6 Recommendation 6: Customer Limited English Proficiency Outreach Program

Sections 1.2.4 and 3.1.6 suggest there are up to 39,000 non-riders in the region with limited English language proficiency. For these non-riders, language may be a barrier to obtaining the schedule and service information they need to use PVTA.

Recommendation	Description
6A: Improve outreach to LEP residents	<p>PVTA and PVPC are in the process of developing an LEP outreach program. U.S. Census data (page 17) offers information on language and cultural groups where outreach efforts may be most effectively targeted. The focus should be on cultural and ethnic groups with the largest proportions and numbers of people who speak English "Less Than Very Well" – Spanish, Russian, Polish, Portuguese and Vietnamese speakers. The LEP program should identify cultural and community organizations that help serve these individuals and the strategies that are likely to be most effective in reaching out to them.</p>

4.7 Recommendation 7: Additional Student Non-user Customer Survey Research

The telephone and parking garage survey methods used for this study were not able to capture significant input from student non-riders in the region. The random phone number method could not include cell numbers, the most common—and increasingly only—phone line which students and young adults use. Further, the study did not survey parking garages and lots at UMass and other academic institutions where students who do not use transit could be surveyed.

Students are a significant portion of PVTA's ridership market, especially in the UMass Amherst, Northampton, Holyoke and Springfield areas. In fact, ridership in the Amherst and Northampton areas jumps from roughly 25% to 46% of the PVTA systemwide total when schools are in session. Therefore, PVTA may wish to consider additional surveys targeted to reach student and academic employee non-users using online surveys and paper or intercept interview surveys at major academic parking facilities.

REFERENCES

- Blumberg S.J., and Luke J.V. Wireless Substitution: Early release of estimates from the National Health Interview Survey, July–December 2009. National Center for Health Statistics. May 2010. <<http://www.cdc.gov/nchs/nhis.htm>.>
- Institute of Transportation Engineers. Transportation Planning Handbook. Washington DC. 1992.
- Pew Research Center. Assessing the Cell Phone Challenge. Leah Christian, Scott Keeter, Kristen Purcell and Aaron Smith. May 20, 2010. Washington DC. <<http://pewresearch.org/pubs/1601/assessing-cell-phone-challenge-in-public-opinion-surveys>>
- Survey Sampling International. RDD Landline Sample Methodology. 2009. <www.ap-gfkpoll.com/RDD%20Landline%20Methodology.pdf>
- Transportation Cooperative Research Program. Report 111: Elements Needed to Create High Ridership Transit Systems. Washington DC. 2007.
- Transportation Cooperative Research Program. Report 45: Customer-Focused Transit. Washington DC. 2002.
- Transportation Cooperative Research Program. Report 50: A Handbook of Proven Marketing Strategies for Public Transit. Washington DC. 1999.
- Transportation Cooperative Research Program. Report 122: Understanding How to Motivate Communities to Support and Ride Public Transit. Washington DC. 2008.

APPENDICES

1. List of Preparers

This report and survey were prepared by the following staff members of PVPC and PVTA:

PVPC Data Analysis and Report Preparation

David Elvin
Dave Johnson
Joshua Rickman

PVPC Telephone Survey Personnel

David Elvin
Dave Johnson
Joshua Rickman
Audrey Schubach

PVTA Telephone Survey Personnel

Robin St. Amand
Iris Lawrence

PVPC Parking Garage Survey Personnel

David Elvin
Dave Johnson
Jeff McCollough
Joshua Rickman
Audrey Schubach

2. Survey Forms

3. Written Comments/variable data

4. Demographic Summary of Pioneer Valley Region

5. Parking garage rates

6. Telephone and Parking Garage Survey Methods

PIONEER VALLEY TRANSIT AUTHORITY NON-RIDER SURVEY

TELEPHONE QUESTIONNAIRE SCRIPT

(FINAL VERSION OCTOBER 12, 2010)

Introduction:

Hello, my name is (YOUR FIRST NAME) and I'm calling for the Pioneer Valley Planning Commission. We're doing a short survey about public transportation, and your number was randomly selected. The survey takes about 5 minutes, and you have to be at least 18 years old. If you want, we will enter your number in a drawing for a \$50 gift card to a local shopping mall. All responses are anonymous – we will not record or use your name.

Respondent validity check:

Are you at least 18 and would you like to continue?

- Yes** -- Valid respondent – GO TO QUESTION 1 (next page)
- No** -- Not a valid respondent or does not wish to continue – END CALL “Thank you for helping with our research.”
- Person speaks Spanish** –
IF A SPANISH-SPEAKING INTERVIEWER IS ALSO WORKING DURING YOUR SHIFT, ASK “¿Te gustaría participar en la encuesta de autobuses en español?” (Would you like to take the bus survey in Spanish?)

IF YES (“Si”), SAY: “Nuestro entrevistador habla español le devolverá la llamada. ¿De acuerdo?” (Our Spanish-speaking interviewer will call you right back. Okay?)
IMMEDIATELY GIVE TELEPHONE NUMBER TO A SPANISH INTERVIEWER FOR CALLBACK.

IF ANSWER IS NO (“en”) OR NO SPANISH-SPEAKING INTERVIEWER IS AVAILABLE DURING YOUR SHIFT, SAY: “Muchas gracias.”

- Person asks if you work for PVTA** –
IF YOU ARE NOT A PVTA EMPLOYEE, SAY: “No, I work for the Pioneer Valley Planning Commission.”

IF YOU ARE A PVTA EMPLOYEE SAY: “I work for PVTA but all responses are being given directly to the Planning Commission.”

IF PERSON ACCEPTS, GO TO QUESTION 1 (next page).

IF PERSON DOES NOT ACCEPT, END CALL: “I’m sorry to have interrupted your day/evening. Thank you for your time.”

1. Do you know the name of the local public bus company? (DO NOT PROMPT)

- PVTA, or the Pioneer Valley Transit Authority
- Peter Pan
- MBTA, or The T
- Springfield Bus Company (or variation)
- UMass Transit (or variation)
- Other _____
- Don't know/refused

(IF RESPONSE IS "DON'T KNOW, SAY: "That's OK -- so you'll know for this survey, the local bus company is called the PVTA – the Pioneer Valley Transit Authority.")

2. How often do you ride a PVTA bus? (PROMPT)

- Almost every day – END CALL: "Thank you very much for helping with our research."
- Fairly often, but not every day – END CALL: "Thank you for helping with our research."
- Rarely, less than once a month – CONTINUE TO QUESTION 3
- Never or almost never – CONTINUE TO QUESTION 3

3. What is your main occupation or daily activity? Are you... (PROMPT)

- Employed full time?
- Employed part time?
- College or university student?
- High school student?
- The main child care provider or homemaker of your family?
- Unemployed?
- Retired?
- Other _____

4A. How do you usually travel to your most frequent destination, such as work, school, or shopping? Do you... (PROMPT)

- Drive yourself?
- Share a ride or be driven by someone else?
- Walk or ride a bike? (SKIP TO QUESTION 4E)
- Travel another way? _____ (SKIP TO QUESTION 4E)

4B. How long does it take to drive or ride to your most frequent destination?

- _____ minutes (CONVERT TO MINUTES IF HOURS ARE GIVEN)
- Don't know

4C. When you travel to your most frequent destination by car, do you have to pay for parking?

- Yes
- No (SKIP TO QUESTION 4E)

4D. How much do you pay for parking? (PROMPT)

\$ _____ per day or \$ _____ per week or \$ _____ per month

4E. What is the zip code of your most frequent destination?

- _____ (ENTER 5-DIGIT ZIP CODE)
- Don't know/refused

4F. What is the street or nearest intersection of your most frequent destination?

- _____ (ENTER STREET NAMES GIVEN)
- Don't know/refused

4G. If you had to, could you use PVTA for your most frequent regular trip?

- Yes
- No
- Not sure/don't know

4H. What is the main reason that you don't ride PVTA for your most frequent trips?

(DO NOT PROMPT – choose a response below that is the closest to the answer given.)

- No bus stop** near my house.
- Bus does not go** where I need to.
- Bus ride would take **too long**.
- Buses don't run often enough**.
- Never know** when the bus will come.
- Don't like to wait** for the bus.
- Have kids** and am not able to take them on the bus.
- Not comfortable** on PVTA/don't like to ride the bus.
- Need my car** during the day for work or to run errands on the way home.
- Can't get information** about where bus stops are or the bus schedule.
- Other _____
- Don't know

5. How familiar are you with PVTA bus routes and stops near your home? Are you...(PROMPT)

- Very familiar
- Somewhat familiar
- Not very familiar (SKIP TO QUESTION 7)
- Not at all familiar (SKIP TO QUESTION 7)
- Don't know (SKIP TO QUESTION 7)

6. To the best of your knowledge, how far is it from your home to the nearest PVTA bus stop?

- _____ miles (USE DECIMAL VALUE; CONVERT "BLOCKS" to MILES BY MULTIPLYING BY 0.1 – for example, 5 blocks = .5 miles)
- Don't know/refused

7. How much do you think the PVTA fare is for a one-way local bus trip?

(IF ASKED ABOUT TRANSFERS, SAY "NOT INCLUDING TRANSFERS")

- \$ _____
- Don't know (SAY "That's OK -- Just so you'll know, the fare is \$1.25 per ride.")

8. Did you know PVTA offers a \$45 monthly pass for unlimited rides?

- Yes
- No
- Unsure -- Heard something; don't know exact pass price or time limit

9. If PVTA offered a different kind of discount pass where you could buy 50 rides at the regular price and then get 5 rides free – with no expiration date – would you consider riding the bus – or would there still be other reasons that you would not ride?

- Yes
- No
- Maybe
- Don't know/refused

10A. Would you be interested in taking an express bus to and from your most frequent destination? (IF ASKED, "EXPRESS" MEANS VERY FEW STOPS.)

- Yes
- No (SKIP TO QUESTION 11)
- Maybe

10B. How often would you take an express bus? (PROMPT)

- Almost every day?
- 2 or 3 days a week?
- Once a week?
- Once a month?
- Not likely to take it at all
- Don't know

11. Have you recently seen or heard any news stories about PVTA?

- Yes *Where?* _____
- No/unsure

12. If PVTA wanted to let you and other people in your neighborhood know about a new route that would make it easier to take the bus, what's the best way to get you that information? I'll read a short list – you can choose more than one:

- Newspaper *Name of newspaper* _____
- Internet website *Name of website* _____
- Radio station *Name of station* _____
- Television *Name of station* _____
- Post card
- Other _____

13. Have you ever visited the PVTA website?

- Yes
- No/unsure

14. Now I'm going to read some short statements. Please tell me if you "AGREE," "DISAGREE," or are "NEUTRAL." You can also say "DON'T KNOW." The first statement is... (PROMPT)

	Statement	3 Agree	2 Disagree	1 Neutral	0 Don't Know
A	It's easy to get information about PVTA bus routes and schedules.	3	2	1	0
B	I don't take PVTA because it takes too long.	3	2	1	0
C	I don't take PVTA because I would have to transfer buses.	3	2	1	0
D	I don't take PVTA because I don't know when the next bus will come.	3	2	1	0
E	PVTA buses are reliable and on time.	3	2	1	0
F	PVTA drivers are courteous.	3	2	1	0
G	I would feel safe using PVTA at night.	3	2	1	0
H	I would be comfortable waiting at a bus stop or terminal and riding with other PVTA riders.	3	2	1	0
I	I would ride PVTA more often if gas prices went up to \$4 or \$5 per gallon.	3	2	1	0
J	I would ride PVTA more often if it would help me avoid traffic congestion.	3	2	1	0
K	PVTA is a necessary public service.	3	2	1	0
L	I have a good impression of PVTA.	3	2	1	0

Thanks – we're almost done.

15. How many motor vehicles are available at your household?

- _____ vehicles
- Don't know/refused

16. Including yourself, how many people age 17 and older live in your household?

- _____ people
- Don't know/refused

17. What is your age? Are you... (PROMPT)

- 18 to 24
- 25 to 34
- 35 to 44
- 45 to 64
- Older than 65

18. What bracket did your total household income fall into last year? Was it... (PROMPT)

- Less than \$10,000?
- Between \$10,000 and \$20,000?
- Between \$20,000 and \$30,000?
- Between \$30,000 and \$50,000?
- Between \$50,000 and \$75,000
- More than \$75,000?
- Refused – GO TO QUESTION 19

19. What is your racial or ethnic background? (DO NOT PROMPT)

- African American
- Asian
- Hispanic
- Native American
- White
- Mixed race
- Other _____
- Refused

20. Do you speak a language other than English?

- Yes *What language?* _____
- No

21. Finally, if you could change one thing about PVTA that would make it easier for you to ride the bus, what would it be?

- _____ (RECORD KEY PHRASES OR WORDS ON SURVEY FORM)
- Nothing
- Don't know

OK--We're done! Would you like to be included in the drawing for a \$50 gift certificate to a local shopping mall? We will not use you're your name – we will just call back on this phone number if you are the winner. Is this OK?

22. Include in prize drawing?

- Yes
- No

END CALL – “Thank you very much. Good bye.”

AFTER CALL – RECORD ADDITIONAL INFO

23. Sex

- Female
- Male
- Don't know

24. Telephone Number (FROM RANDOM NUMBER CALL SHEET)

- 413-____ - _____

25. Address (FROM RANDOM NUMBER CALL SHEET)

- Street and house number
- Zip code

END SURVEY

Pioneer Valley Transportation Survey

Downtown Parking Garage and Public Transportation Use

Your opinion is important!

The Pioneer Valley Planning Commission and Pioneer Valley Transit Authority, in cooperation with this parking facility, are conducting a survey of parking garage users in the region. This survey takes about 5 minutes to complete, and a return envelope with pre-paid postage is attached. To express our thanks, a chance to win a \$50 gift card to a local shopping mall is included. Just enter your phone number—it **will not** be used for marketing or any other purpose. The deadline to mail your response is Tuesday November 23rd. Questions? Contact PVPC. ***Thank you!***



60 Congress Street, Floor 1
Springfield, MA 01104-3419
(413) 781-6045 www.pvpc.org



Pioneer Valley Transportation Survey

Please fill in the appropriate bubble completely using a number 2 pencil or black pen.

1. Please indicate the parking garage where you received this survey:

- Springfield I-91 North Garage (1870 East Columbus Ave)
- Springfield Civic Center/MassMutual Garage (150 Bridge St)
- Northampton Municipal Garage (85 Hampton St. behind Thornes Mkt)
- Amherst Boltwood Walk Public Garage

2. What is the purpose of your trip?

- Commuting to work
- Business/work-related appointment
- Shopping/dining
- Personal errand/appointment
- Medical appointment
- Other _____

3. Where did you begin your trip? City or town _____ Zip Code _____

4. How long did it take you to make your trip from your starting point? Minutes: _____

5. How often do you park at this garage?

- Almost every day
- 2-3 times a week
- Once a week or less

6. How often do you ride a PVTA bus?

- Almost every day
- 2-3 times a week
- Once a week or less
- Rarely/never

7. Have you heard any news stories about PVTA Recently? Yes No

8. Have you ever visited PVTA's website, www.PVTA.com? Yes No

9. How familiar are you with PVTA bus routes and stops in this area?

- Very familiar
- Somewhat familiar
- Not very familiar

10. Could you have used PVTA for this trip?

- Yes
- No

11. Please tell us the MAIN reason you decided to drive for this trip:

- The bus ride would take too long
- There is no bus stop near my house
- PVTA buses don't come often enough
- I don't have time to wait for the bus
- I need my car for errands/appointments during the day
- I have kids and it's not easy to take them on the bus
- I'm not comfortable and/or don't feel safe on the bus
- I can't get information about how to use the bus
- Other _____

12. Would you ever be interested in taking an express bus for this trip?

- Yes
- No
- Maybe

13. Please tell us if you AGREE, DISAGREE, or feel NEUTRAL about the following statements.

	Agree	Disagree	Neutral	No Opinion
It's easy to get info about PVTA routes and schedules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I drove because I don't know when the next bus will come	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
PVTA buses are reliable and on time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would feel safe using PVTA at night	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would feel comfortable waiting/riding with regular bus riders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
PVTA is a necessary public service	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a good impression of PVTA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. What is your age?

- 18-24
- 25-34
- 35-44
- 45-64
- Older than 65

15. What is your gender?

- Female
- Male
- Other

16. What is your annual household income bracket?

- less than \$10,000
- \$10,000 to \$20,000
- \$20,000 to \$30,000
- \$30,000 to \$50,000
- \$50,000 to \$75,000
- More than \$75,000

17. What is your ethnic/racial background?

- African American
- Asian
- Hispanic
- Native American
- White
- Mixed Race
- Other _____

18. Do you speak a language other than English?

- Yes What language _____
- No

19. Would you like to be entered in a drawing to win a \$50 gift card?

- Yes
- No

Phone Number to call if you are a winner _____

Springfield Parking Authority Rates (2010)

LOCATION	CLEARANCE	HOURLY RATE	MARKET RATE	RESERVE RATE	GOV'T RATE	EVENT RATE	# SPACES	
I-91 NORTH	MAX	8' 6"	.75 FIRST 1/2 HR	\$80.00	\$100.00	\$70.00 (full)	GEN. \$8 / \$12 VIP	1098
	MIN	7' 0"	\$1.50 EA ADD'L HR					
I-91 SOUTH	MAX	6' 10"	.75 FIRST 1/2 HR	\$90.00	\$130.00	\$70.00 (full)	GEN. \$8.00 / \$12 VIP	670
	MIN	6' 3"	\$1.50 EA ADD'L HR					
CIVIC CENTER	MAX	6' 2"	.75 FIRST 1/2 HR	\$90.00	\$130.00 LEVEL 1	\$70.00	GEN. \$7 / \$12 VIP	1232
			\$1.50 EA ADD'L HR		Maximum Daily Rate - \$15.75			
COLUMBUS CENTER	MAX	6' 9"	.75 FIRST 1/2 HR	\$80.00	\$115.00	NA	CITY STAGE - \$3 Prepay THURS. FRI. SAT GEN. \$8 / \$12 VIP	493
			\$1.50 EA ADD'L HR					
TAYLOR STREET	MAX	6' 4"	.75 FIRST 1/2 HR	\$80.00	\$130.00	\$70.00	THURS. FRI. SAT GEN. \$8 / \$12 VIP	380
			\$1.50 EA ADD'L HR					
DWIGHT STREET	NA		\$8.00 ALL DAY	\$75.00	NA	NA	THURS. FRI. SAT - \$8	135
TROLLEY PARK	NA		permit parking only	\$35.00	NA	\$30.00		700+
APREMONT LOT	NA		permit only parking	\$35.00	NA	\$30.00		35
WINTER ST LOT	NA		permit only parking	\$35.00	NA	\$30.00		115

Source: <http://www.parkspa.com/rates.shtml>

City of Northampton Parking Fees (2010)

Parking garage

Hourly	1st hr free, then 0.50/hr
Monthly	\$75/mo (wait list)

Lots

Long term	0.15/hr
Short term	0.50/hr

Source: http://www.northamptonma.gov/parking/Parking_Administration/Monthly_Parking_Passes/

Town of Amherst Parking Fees

Effective August 1, 2005

Permits	Permit for side streets, downtown employees	35.00
	Permit for side streets, 2nd car	10.00
	Replacement permit; (lost or traded vehicle)	10.00
	Permit for side streets, Amherst resident	20.00
	Reserved Boltwood Garage Spaces (25)	\$75/mo or \$650/yr
Meter Rates	Hourly Meter Rate	0.40/hr
	Garage	0.50/hr

Source: <http://www.amherstma.gov/index.aspx?NID=740>

Appendix 6: Survey Methods

6.1 Telephone Survey Method

This section describes the random telephone interview surveys of non-transit users.

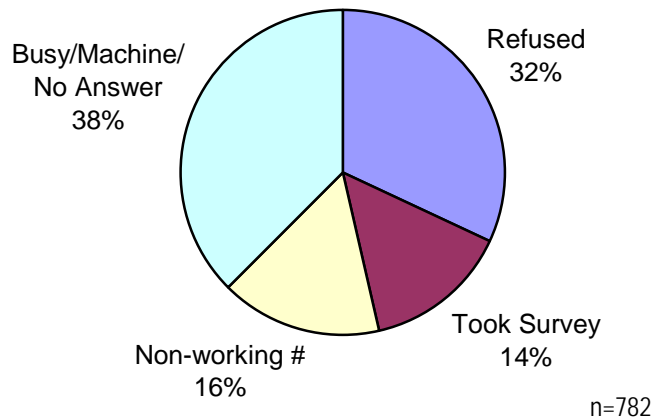
6.1.1 Method and Implementation

Telephone survey interviews were performed between October 7 and November 4, 2010. Phone numbers were randomly selected from the Verizon May 2010-2011 phone books for Springfield/Chicopee/Holyoke and surrounding communities; Northampton/Amherst and surrounding communities; Belchertown; and Palmer. Only telephone numbers with addresses in the PVTA service area were included. Random phone numbers were generated using a three-step process: 1) the Microsoft Excel random number function (RAND) was used to generate a random page number within the range of residential listings pages in each phone book; 2) the RAND function was then used to select one of the four columns on the page; and 3) the RAND function was then used to generate the row number (counting down from the top of the page) from which the phone number and address of each candidate respondent was taken.

PVPC and PVTA staff placed calls from the PVPC offices using the commission's 413-781-6045 outgoing line (this number appeared on the call recipient's caller ID screen, if available). Calls were placed on Tuesdays, Wednesdays and Thursdays between 5:00 and 8:00 p.m. and Saturdays from 10:00 a.m. to 12:30 p.m. When reaching a person on the phone who agreed to take the survey, interviewers followed a prepared script (see Appendix). A Spanish-speaking interviewer was available during most calling shifts. An incentive reward was offered in the form of a chance to be "entered in a drawing to win a \$50 gift card to a local shopping mall." Responses were recorded on computer scanning forms and compiled in Excel format.

A total of 782 random calls were placed and 135 usable non-rider responses were received (3 respondents identified themselves as regular bus riders and were therefore not interviewed). Responses were obtained in proportion to the population concentrations in Hampden and Hampshire Counties: 66% of responses were from Hampden County residents, and 24% of responses were from Hampshire County residents. (Sunderland, even though it is in Franklin County, is a PVTA community and was therefore included in the Hampshire County sample.) Response rates are shown below.

Telephone Survey Call Response Rates



6.1.2 Biases and Limitations

Literature on telephone surveys notes the following potential bias and limitations of the telephone survey:

- Whereas nationally 96% of homes had a telephone land line in 2000, that percentage fell to 95% in 2007 – and reached 75% as of 2010 as more people choose to use cell phones or internet-based telephone services for their home line. Households with no land line(s) tend to be lower income and minority residents.
- Cell phone numbers could not be included in the survey, as it is unlawful to make unsolicited calls to phones where the owner may be charged for taking a call. Approximately one-third of residential telephone numbers are now cell phones, which are not printed in phone books. Therefore, a large proportion of telephone users in the region could not be contacted.
- Men are more likely to be “cell phone only” users, as compared to women.
- Reliance on printed phone books as a source for random telephone numbers excludes unlisted numbers, which can be 20-30% of all land lines, depending on the region. Unlisted numbers tend to be for higher income households.
- Generating random phone numbers for the known exchanges in area code 413 was attempted. However, during test calling less than 1 in 10 of the random numbers generated was actually a working line. This is consistent with marketing research literature. Sufficient time and resources were not available to generate enough numbers to achieve a proportional sample using this method.
- Calls were made between 4:30 and 8:00 p.m. on weekdays. Therefore, people who work longer days (and were only home for a portion of the calling period) and second shifts were excluded.
- Caller ID technology allows call recipients to ignore incoming calls from unfamiliar numbers, whereas phone customers who do not pay for (or cannot afford) this option are not able to screen unwanted calls.

- Cultural background and social practices may tend to bias the likelihood of a group of recipients to answer certain questions or to take/refuse the survey.
- Some groups of people, such as senior citizens or retirees, who tend to leave their homes less often than people who work or go to school, are more willing to talk to a survey interviewer than the average resident.
- The phenomena of “satisficing” (to satisfy and suffice) may occur, in which a respondent rushes to finish the survey and/or unconsciously seeks to satisfy the interviewer by offering easy, pleasing answers, rather than reflecting the respondent’s actual opinion.
- Telephone interviews began with an introduction in English, so people with primary proficiency in other languages likely hung up. (Spanish translation was available, but no respondents chose to take the survey in Spanish.)

6.2 Parking Garage Survey Method

A shorter printed version of the telephone survey was produced for distribution at area parking garages (see Appendix). This section describes the survey method and implementation.

6.2.1 Method and Implementation

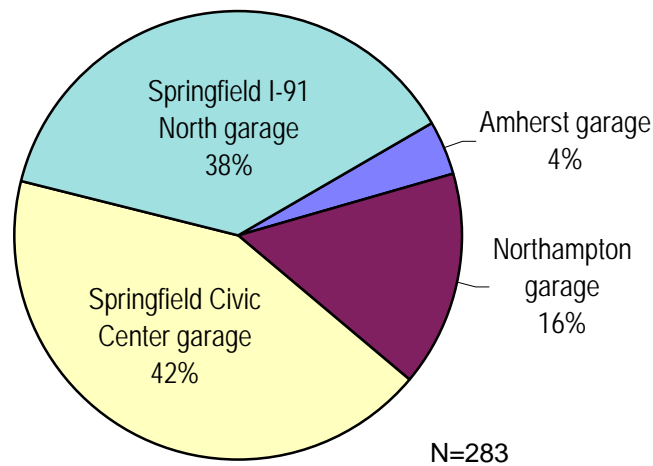
The parking garage surveys were distributed at four parking garages on the dates shown:

Garage	Address	Parking Spaces	# Surveys Distributed	Date	# Surveys Returned	Response Rate
Springfield Civic Center Garage	150 Bridge Street	1,200	~600	11/09/10	121	20%
Springfield I-91 North Garage	1870 E. Columbus Ave	1,000	~700	11/09/10	107	15%
Northampton John Gare Parking Garage	85 Hampden Ave	430	~250	11/10/10	44	18%
Amherst Boltwood Walk Parking Garage	Boltwood Ave (Kellogg & Main Streets)	100	~80	11/16/10	11	14%

PVPC staff members were stationed at the garage entrances between 7:00 and 9:00 a.m. on the dates shown (except Amherst, where surveys were distributed to vehicle windshields during the midday when garage capacity was at peak). Each motorist entering the garage was given a copy of the survey, cover sheet and return mailer envelope shown in the Appendix.

Approximately 1,680 surveys were distributed at the four garages. A total of 282 usable surveys were returned, for an overall response rate of approximately 17%. This is comparable to the 14% response rate achieved in the random telephone call survey. The proportion of the 283 returned surveys from each garage is shown below.

Parking Garage Survey Returns Distribution



6.2.2 Biases and Limitations

The following potential biases and limitations should be considered when reviewing the parking garage responses:

- Surveys were distributed during morning commute times in an attempt to reach the largest number of auto drivers; this excludes drivers who are using the garage for non-work purposes, which are a significant portion of transit trips.
- In Springfield, surveys were distributed at garages that were immediately adjacent to large office buildings. People choosing to park at these facilities may be less willing or able to walk longer distances from more remote parking garages or lots.
- PVPC field personnel informally observed that approximately two-thirds to three-fourths of people accepting the downtown parking garage surveys were female. This may be due to the nature of employment near the garage (office workers in Springfield; retail in Northampton and Amherst) which tend to employ more women than men.
- Drivers who cannot afford the monthly parking fees at the facilities surveyed (and instead park on the street or in outlying lots) were excluded. Most drivers entering the garages during the morning hours used electronic cards for monthly passes, suggesting that they (or their employers) were paying \$70 to \$100/mo at the Springfield garages; \$70/mo at the Northampton garage; and \$75/mo at the Amherst garage.
- Drivers arriving for later work shifts (such as late morning retail or second shift restaurant workers) did not receive surveys.
- Drivers may have given the survey to someone else to fill out and mail back.
- Survey forms were in English, due to the logistical difficulties and costs associated with distributing a sufficient number of non-English surveys.