



*PVTA Bus No. 1310, the fleet's first diesel-electric hybrid*

# **PVTA Onboard Customer Survey**

## **Southern Service Region**

December 10, 2008

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

*Funding assistance from the Pioneer Valley Transit Authority, the Massachusetts Executive Office of Transportation and the Federal Transit Administration*

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## Executive Summary

To better serve its customers in its southern region service area, the Pioneer Valley Transit Authority (PVTA) surveyed riders on its 22 bus routes that principally serve Hampden County. In 2007, these routes carried approximately half a million riders per month, or about three-fourths of all PVTA bus riders in the Pioneer Valley. The survey was conducted by the Pioneer Valley Planning Commission (PVPC), which provides planning services to PVTA. A total of 3,520 bus riders completed surveys during July and August 2008. Riders rated PVTA service in 13 categories. Findings are summarized below.

**Figure ES-1: PVTA Southern Region Bus Rider Customer Satisfaction 2008**

Excellent	Good	Needs Improvement	Priority for Improvement
<ul style="list-style-type: none"> <li>• Bus driving safety</li> <li>• Driver courtesy</li> <li>• Ease of reading schedules</li> <li>• Driver enforces rules</li> </ul>	<ul style="list-style-type: none"> <li>• Personal safety at bus stops</li> <li>• Schedules easily obtainable</li> <li>• Service goes where desired</li> </ul>	<ul style="list-style-type: none"> <li>• Cleanliness of buses</li> <li>• Frequency of service</li> <li>• Total travel time</li> </ul>	<ul style="list-style-type: none"> <li>• Condition of bus shelters</li> <li>• Cost of service</li> <li>• On-time performance</li> </ul>

These results suggest that PVTA is doing well in categories related to personnel performance, schedules and safety. Riders gave top satisfaction ratings to “Bus driving safety” and “Driver courtesy,” which are aspects of service under the direct control of the bus operator.

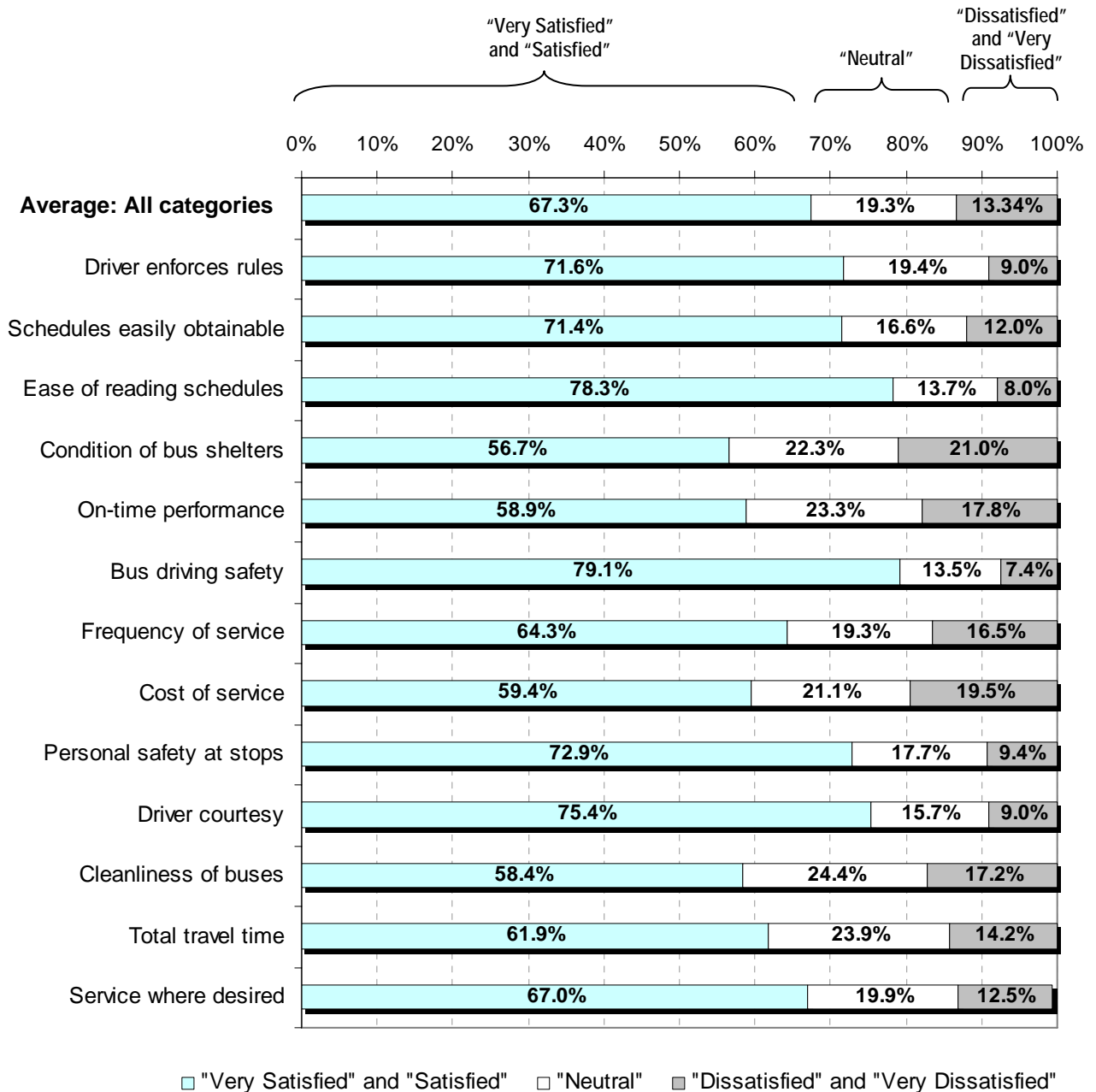
The results also indicate that riders would like PVTA to improve the areas that are related to the frequency and operation of bus service, as well as facilities. In fact, the condition of bus shelters was the most frequently cited area for improvement. (“Cost of service” received the second highest level of dissatisfaction, which may be due in part to the fact that bus fares were raised from \$1 to \$1.25 per ride one month before this survey was carried out.) Significantly, improvements to service frequency and shelters will require additional funds—whereas PVTA is already doing well in aspects of service that are relatively low in cost.

The survey also found that more than ever, riders depend on PVTA for their mobility: 3 of every 5 riders say they do not own a car; 1 in 4 do not hold a drivers license; and 12% have a disability that prevents them from driving. In total, 4 of every 5 five riders surveyed say they have no way—other than the PVTA—to make their trips. Only 1 in 5 riders say they take the bus because it is convenient.

In addition, the percentage of riders reporting an annual income of less than \$10,000 was 55.4%, up from 46.7% in 2000—an increase of more than 18%. Nearly half of all riders (48%) use PVTA to commute to work; the other two top destinations were shopping (14%) and medical appointments (12%).

Customer satisfaction ratings are summarized in Figure ES-2 on the next page.

**Figure ES-2: PVTA Southern Region 2008 Customer Satisfaction Results**



These findings suggest that PVTA can improve customer satisfaction by focusing on increasing the number of bus shelters in the system (just 8% of PVTA bus stops have shelters); considering a study to evaluate fare media and associated costs; and continuing with the implementation of automated vehicle location (AVL) technology to improve on-time performance.

## **I. Introduction**

Understanding the mobility needs and preferences of bus riders is essential to providing efficient public transit. The agency responsible for public transit service in the Pioneer Valley region is the Pioneer Valley Transit Authority. The PVTA oversees the operation of 195 buses on a system that includes 40 fixed bus routes and four community shuttles. Transit customers made more than 9.4 million trips on PVTA buses in FY2007. PVTA also oversees an extensive paratransit, or “on-demand,” van service, which provided nearly 300,000 trips for people with disabilities and senior citizens in FY2007. The mobility that PVTA provides is critical for the large number of people in our region who do not or cannot drive, giving them essential daily access to places of work, education and shopping.

PVTA’s service area is diverse in terms of land uses and demographic composition. It includes major urban centers, suburban communities and rural areas. The three general regions of PVTA’s service area are shown on the figure on the next page.

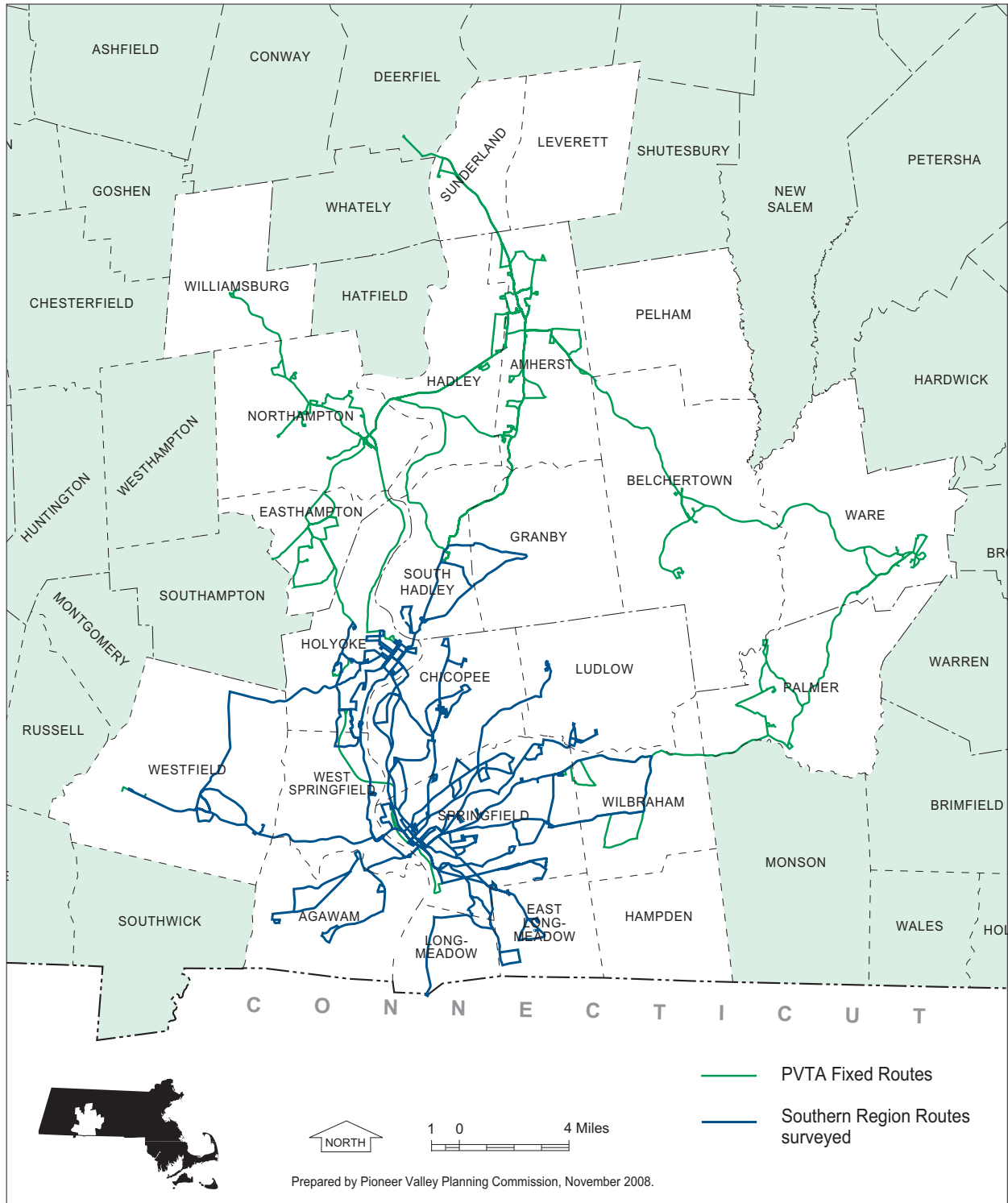
The northern region is predominantly suburban and is composed of the communities of Amherst, Easthampton, Hadley, Leverett, Northampton, Pelham, Sunderland, and Williamsburg. The southern region includes the urban cities of Springfield, Chicopee and Holyoke and the suburban communities of Agawam, East Longmeadow, Granby, Hampden, Longmeadow, Ludlow, South Hadley, West Springfield, Westfield, and Wilbraham. The eastern region includes the towns of Ware, Palmer, and Belchertown. (Hampden and Leverett are in the Pioneer Valley transit district but do not receive PVTA fixed-route bus service.)

PVTA strives for 100% rider satisfaction. Surveys such as this are essential to the task of identifying major concerns and opportunities for improvement to make progress toward that goal. This survey focuses on PVTA’s southern region. The area includes 22 bus routes that primarily serve Hampden County and encompasses the major urban centers of Springfield, Chicopee and Holyoke and adjacent communities. In FY2007, these routes carried a total of 6.9 million riders—approximately three-fourths of all PVTA fixed-route trips.

This survey comes at an important point in PVTA’s history. The authority was created in 1974. In its first decade, PVTA implemented numerous capital and service improvements, which resulted in major ridership increases to a peak of nearly 13 million passengers in 1985. From 1990 to 2001, ridership continued to increase at a more modest rate of 3.2%. However, starting in 2002 PVTA, experienced budgetary shortfalls that required service cuts. As a result, overall ridership declined approximately 23% from 2002 to 2007.

In 2008, the PVTA Advisory Board approved a fare increase to prevent further service reductions. Preliminary data for FY2009 show a modest increase in fixed route ridership. The information presented in this survey, which is the most comprehensive rider survey of the southern region undertaken by the authority since 2000, is essential to identifying measures that will help PVTA continue this upward trend and serve even more riders with greater efficiency in the years to come.

# Pioneer Valley Transit Authority Transit Service



*The 22 routes surveyed in the southern region are shown in dark blue. (Four routes in this region were not surveyed due to time and resource constraints: P11, R27, Sumner Express and OWL Shuttle.)*



## II. Survey Method

This bus rider survey was conducted during July and August 2008 on the 22 fixed bus routes in the southern region of the PVRTA service area. A total of 3,520 completed surveys were collected. The target number of survey responses collected for each route was calculated on a proportional basis relative to the FY2007 average monthly ridership of each route. In other words, more surveys were targeted for collection on the routes with more riders. This proportional calculation, as well as the actual proportion of surveys that were able to be collected, is shown below.

Route No.	Description	FY07 Monthly Ave	% of Survey Area Total	% Returned Surveys
B04	NB Plainfield SB Walnut Street - Springfield College	13,959	2.8%	1.2%
B06	Ludlow via Bay	35,762	7.1%	2.9%
B07	State-Boston Road - Eastfield Mall	88,907	17.6%	23.5%
B12	Stonybrook Express	1,879	0.4%	0.3%
B13	Maple Street/East Longmeadow	10,557	2.1%	1.9%
B15/17	Eastfield Mall via Worthington-Wilbraham Rd-Parker St	16,692	3.3%	2.5%
B23	Holyoke/Westfield via Holyoke Community College	9,654	1.9%	3.9%
G01	NB Chicopee Center/Fairfield Mall - SB Sumner/Allen	71,431	14.2%	15.7%
G02	NB Carew-East Springfield SB Belmont-Dwight Rd	72,549	14.4%	15.0%
G03	NB Springfield Plaza SB King-Westford	32,837	6.5%	3.2%
G05	Dickinson-Tiffany - Jewish Home	7,989	1.6%	1.0%
G08	Orange-Plumtree/Springfield Bus Terminal	8,569	1.7%	1.6%
G19	Springfield Plaza/Fairview via Fairfield Mall & Westover	2,839	0.6%	0.6%
P20	Holyoke Springfield via Holyoke Mall-Riverdale	60,735	12.1%	13.7%
P21	Holyoke/Springfield via Chicopee	27,981	5.6%	6.6%
R10	Westfield State College/West Springfield	18,477	3.7%	3.4%
R14	Feeding Hills/Springfield	7,410	1.5%	0.7%
R22	Holyoke/Fairfield Mall via Aldenville	4,582	0.9%	1.1%
R24	Essex/Appleton/Sargnt/Holyoke Hos.-Holyoke Mall	9,262	1.8%	0.8%
R25	Holyoke Mall via Main Street/South Hadley/Granby	1,398	0.3%	0.6%
R27	Wilbraham/Eastfield Mall/16 Acres	531	0.1%	0.0%
	<b>Total</b>	<b>504,001</b>	<b>100.0%</b>	<b>100.0%</b>

On some routes, traditionally lower summer ridership meant that the target number of surveys could not be collected. This is apparent on the Blue 06 and Green 03 Routes. However, on all routes the survey teams canvassed for at least one full day to ensure that a minimum of 10 onboard surveys were collected from all routes.

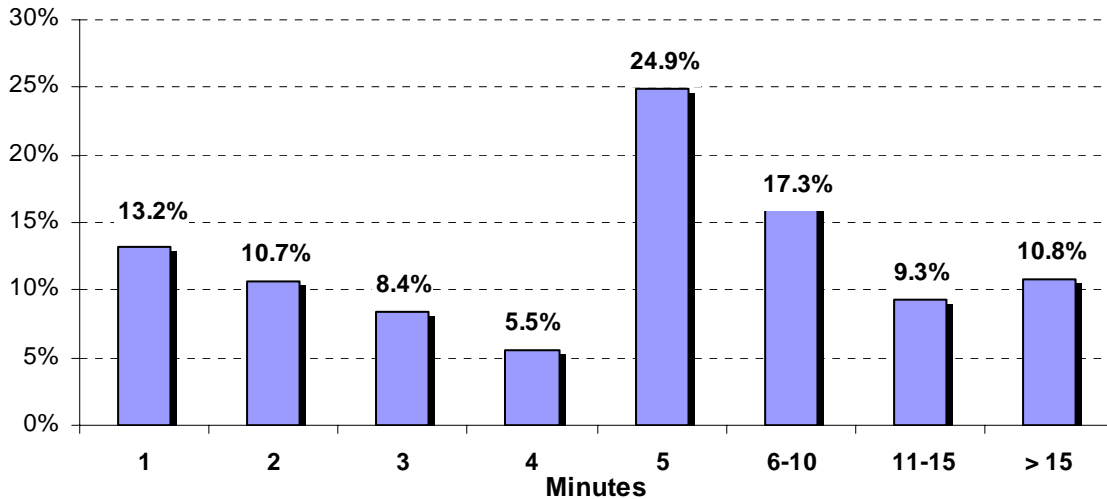
The survey instrument was a one-page patron-intercept form (see Appendix 2), which was filled out by riders on board the buses traveling these routes. The survey form was printed on heavy stock so that respondents could write on it without a clipboard. One side was printed in Spanish and the other in English (respondents were asked to fill out one side only). Survey personnel worked in teams of two to distribute and collect the surveys to passengers aboard the vehicles. All persons boarding the bus were verbally offered a survey form. Those who chose to respond completed the form and returned it to a surveyor before exiting the bus. Surveys were administered throughout all weekday and weekend mornings, afternoons and evenings to achieve a representative sample of riders and trip purposes.

### III. Findings

This section reports findings in four general categories: trip characteristics, customer characteristics, system use characteristics, and customer satisfaction ratings. Note: The number of each question is shown as it appeared on the original survey. However, the results are organized by similar types of information (rather than the original sequencing) to improve the organization of the following report sections.

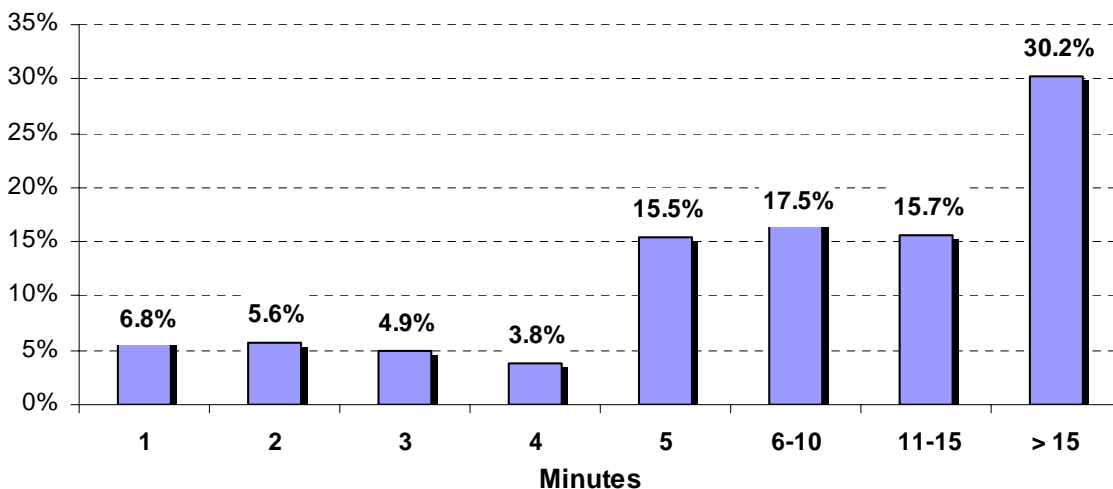
#### A. Trip Characteristics

##### Question 1: How long did it take you to get to the bus stop?



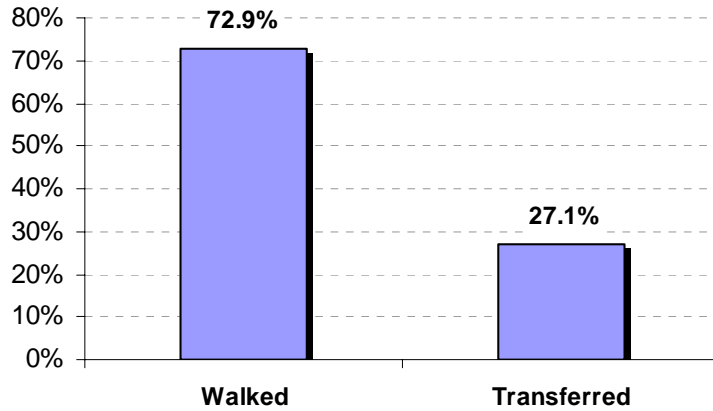
The above responses indicate that nearly 4 of every 5 riders (79.2%) were able to reach the bus stop in 10 minutes or less.

##### Question 2: How long will it take you to get to your destination once you leave the bus?



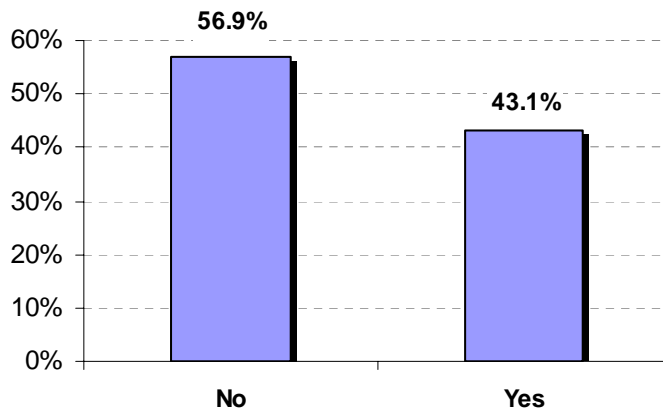
However, the responses above indicate that nearly half (45.4%) of riders will travel another 10 minutes or longer to reach their destination after leaving the bus.

**Question 3: How did you get to the bus?**



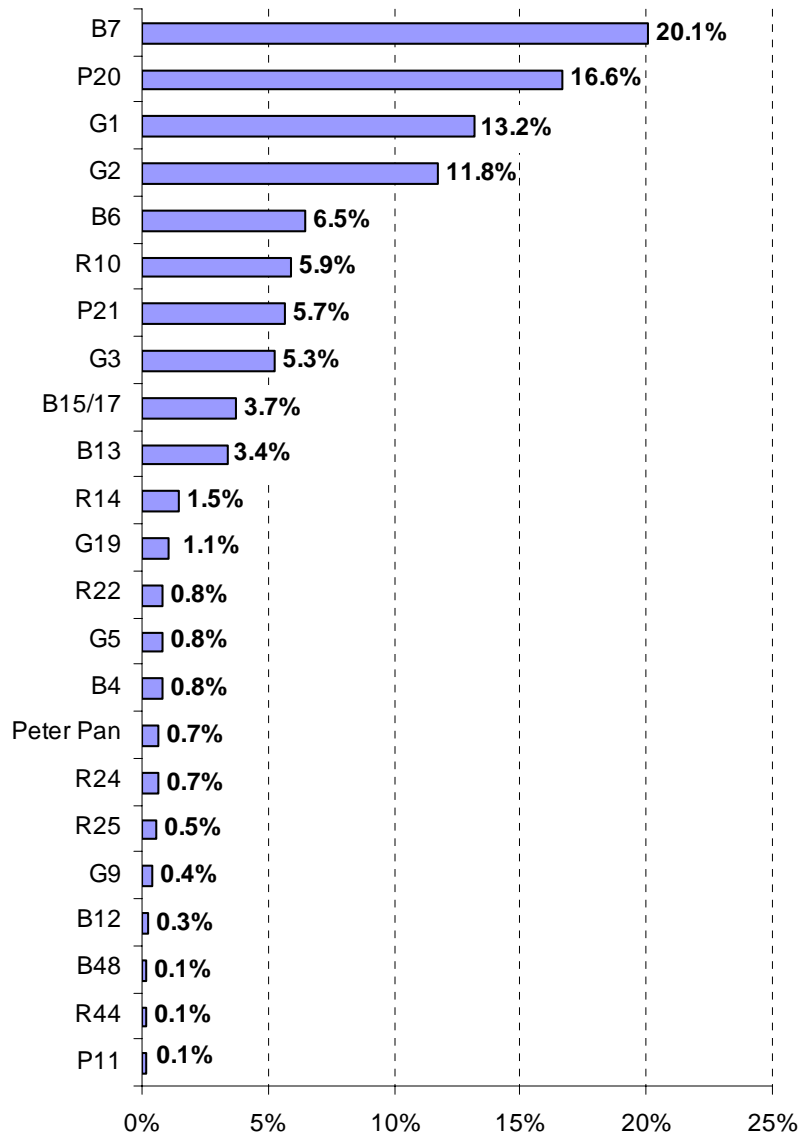
Walking was the most common mode for reaching the bus stop, though more than 1 in 4 respondents said they had transferred from another bus route.

**Question 4: Will you transfer to another bus before reaching your final destination?**



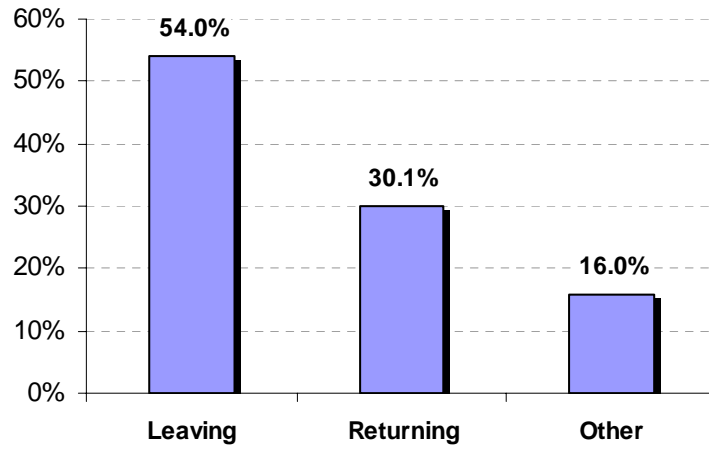
Of the 42.5% of respondents who said they would be transferring to another bus service, the following breakdown of PVTA and regional services (Peter Pan) were reported:

**Question 4a: If transferring to another bus, which route or service?**

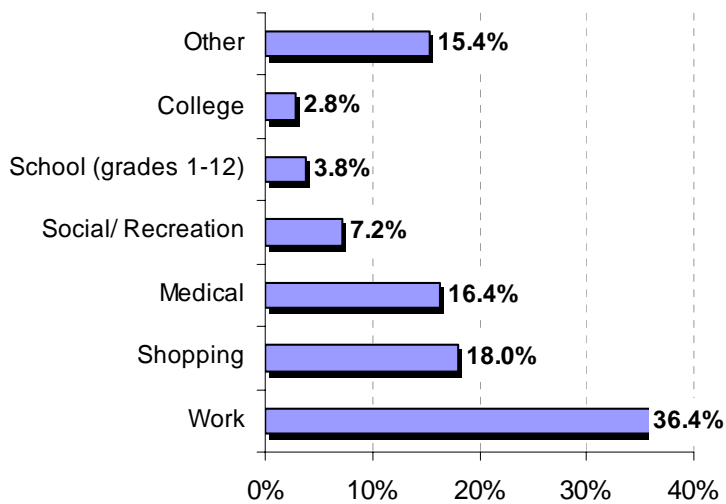


Note that the four routes receiving the greatest percentage of transfers (B7, P20, G1 and G2) are also the PVTA's four most heavily traveled routes (see p. 3, PVTA Ridership by Route FY2007).

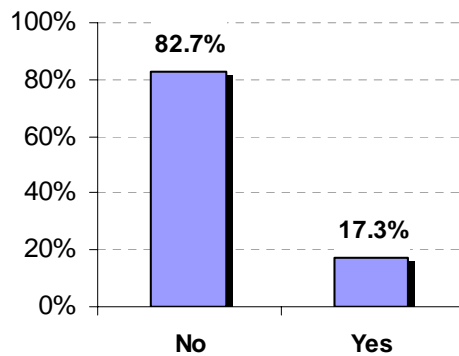
**Question 5: Are you leaving home or returning home?**



**Question 6: What is the main purpose of your trip?**



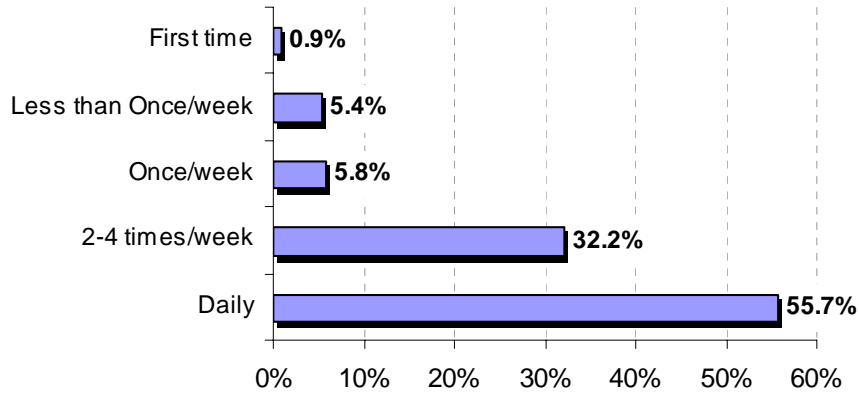
**Question 7: Did you fill out one of these forms before?**



## B. Customer Characteristics

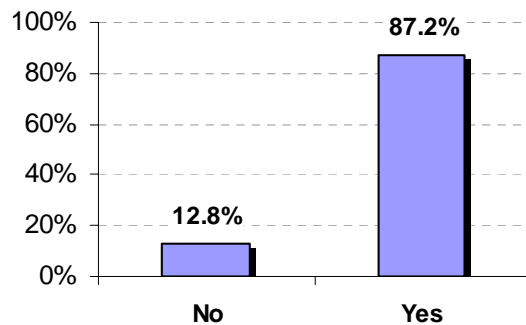
This section reports demographic and travel characteristics of PVTA customers surveyed.

### Question 8: How often do you ride the bus?

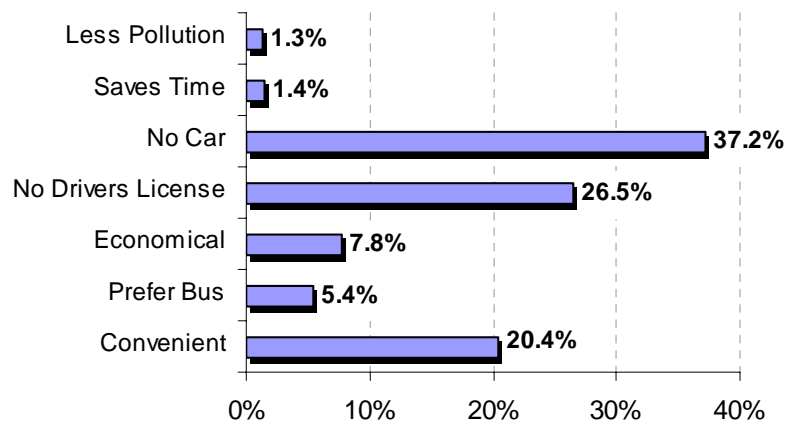


This response indicates that nearly 9 of every 10 riders (87%) use PVTA bus service more than twice a week, and nearly 93% ride at least once a week.

### Question 9: Have you been riding PVTA buses for at least a year?

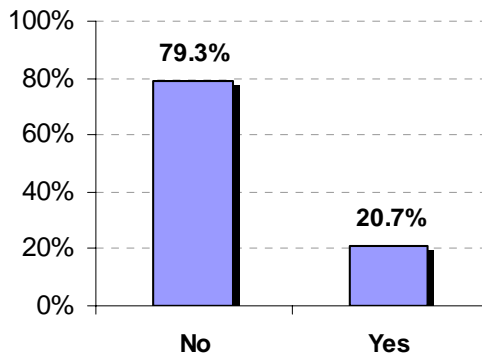


### Question 10: What is the main reason you ride the bus?



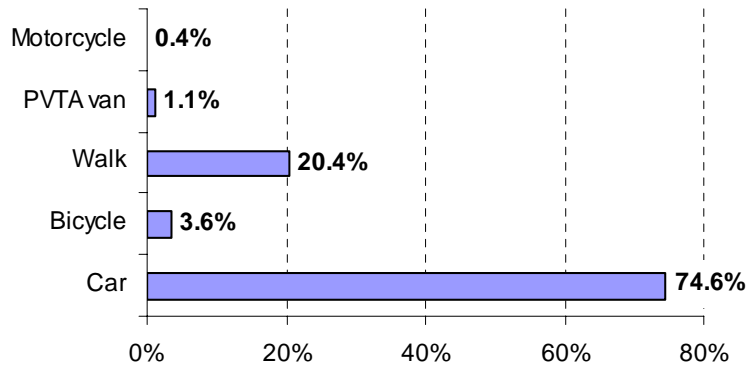
More than 3 of 5 respondents (62.7%) ride the bus because they do not have a car or driver's license. This finding is consistent with other recent surveys of PVRTA riders in other service regions. It is a strong indication that PVRTA riders dependent on this service to a very high degree for their regular mobility—and a majority of current users would not be able to get around without it.

**Question 11: Did you have another way to make this trip?**



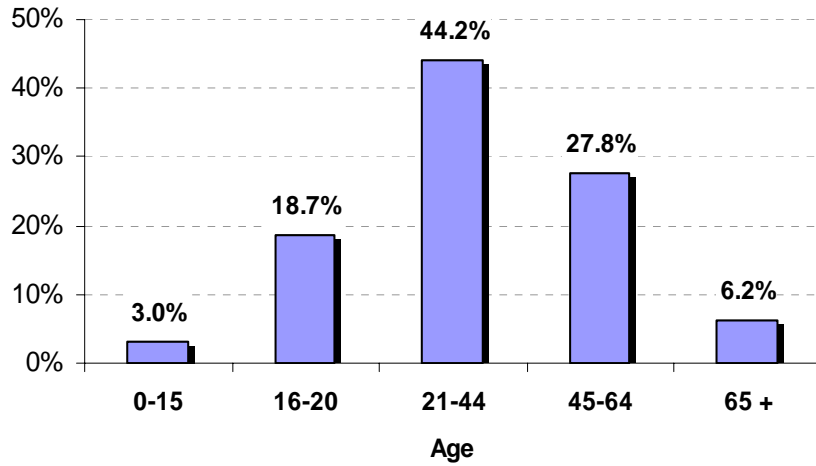
Significantly, nearly four of five riders (79.3%) had no other way to make their trip. Of the remaining 1 in 5 riders (20.7%) who said they did have another mode option for their trip:

**Question 11a: If yes, what (other way did you have to make this trip)?**

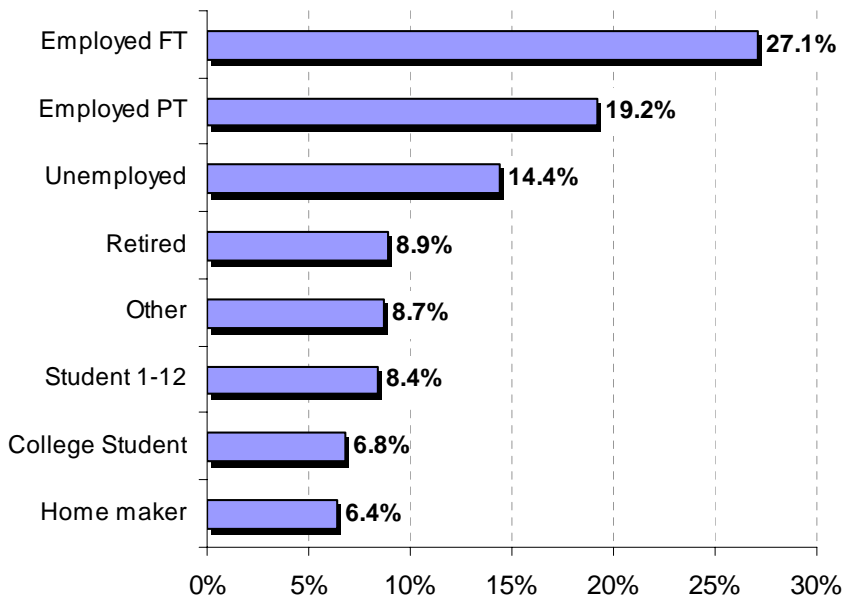


These results show that for the one-fifth of PVRTA riders in the region who do have an alternative to the bus, 3 of every 4 (74.6%) would travel by car (it is unclear if they would drive themselves or get a ride from someone else). Nearly all others (20.4%) said they would walk.

**Question 12: How old are you?**



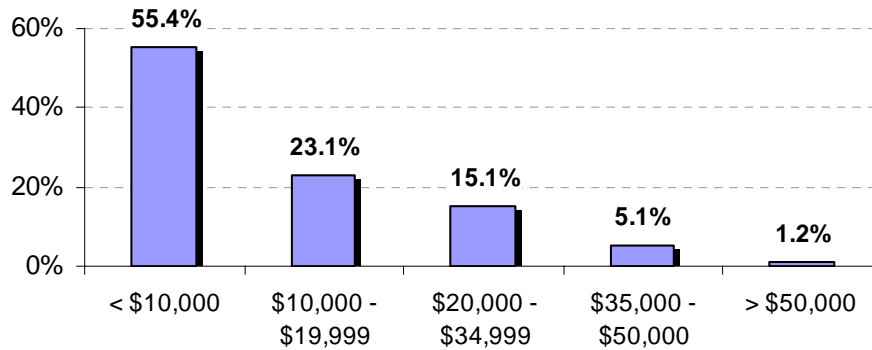
**Question 19: Which of the following describes your situation best?**



Riders who were either employed full-time or part-time represented 44% of the responses. (It is likely that the categories of “College Student” and “Student grades 1-12” are under represented due to the fact that the survey was conducted during the summer months when most schools are not in session.)

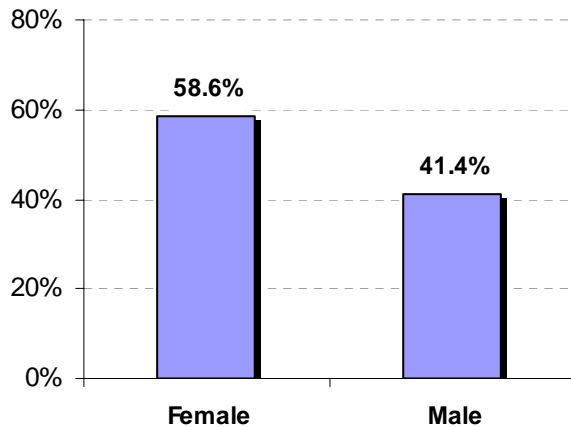


**Question 20: Please describe your income level**

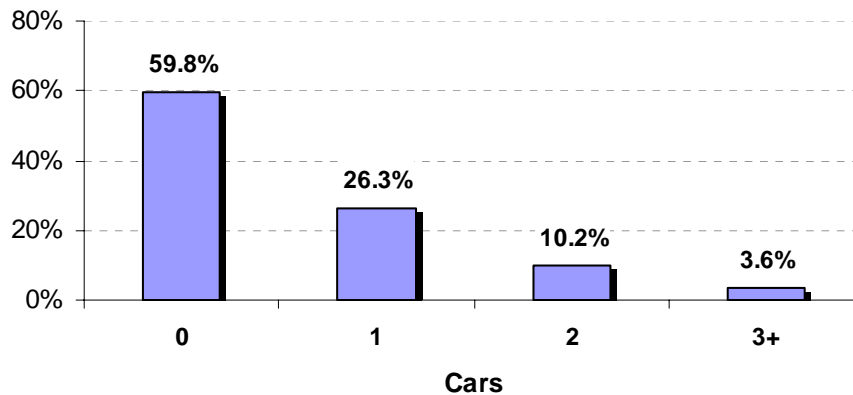


These results show a high dependence on transit among low-income residents of the region. Significantly, the poverty level for a family of four is \$19,307 (2004 U.S. Census), and the poverty level for a single person is \$9,645. Therefore, whether PVTA riders in this region live with their families or along, a solid majority are living at or below the poverty level.

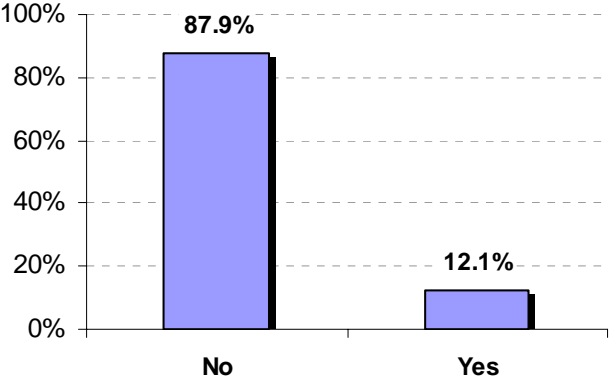
**Question 21: Are you male or female?**



**Question 13: How many cars are available for your use in your household?**



**Question 14: Do you have a physical disability that prevents you from driving a car?**

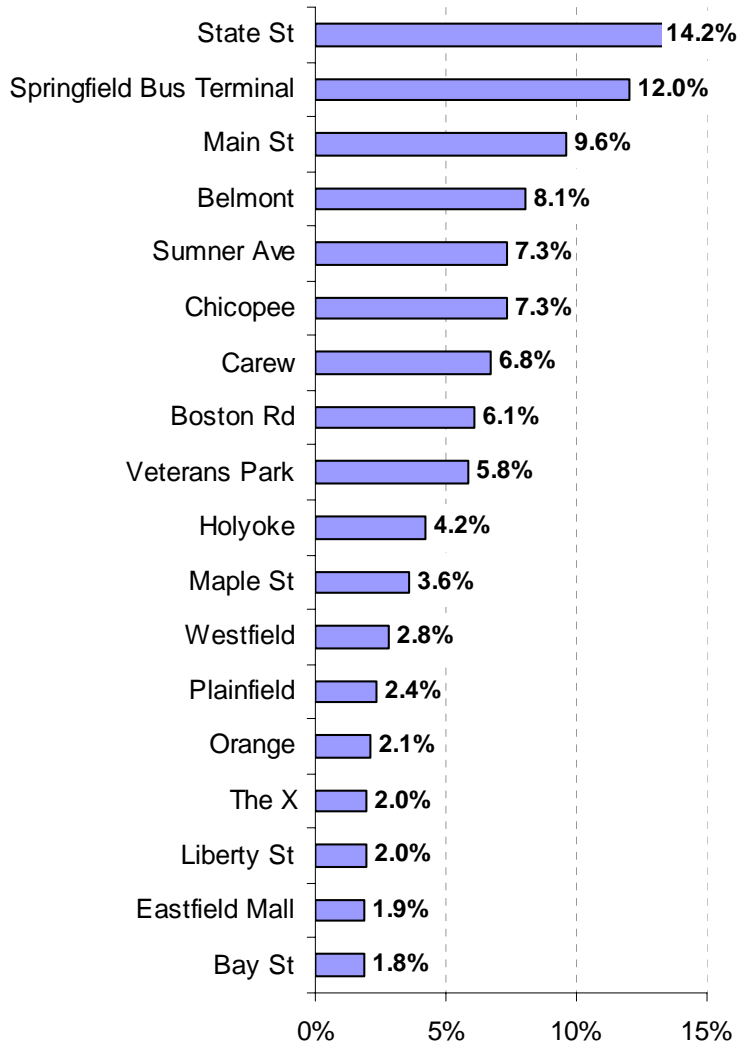


The findings presented in this section suggest that PVRTA riders in the southern region depend highly on transit for their mobility.

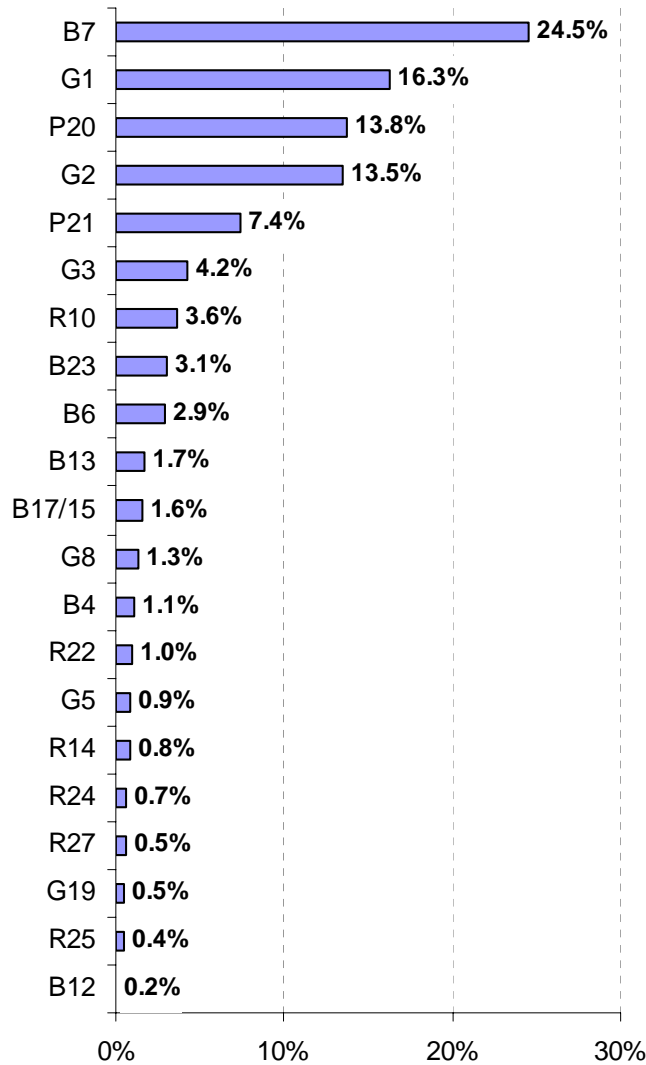
### C. System Use Characteristics

This section reports the responses regarding patterns of overall PVTA system use in the southern region.

#### Question 15: (What is the) Location where you usually board?

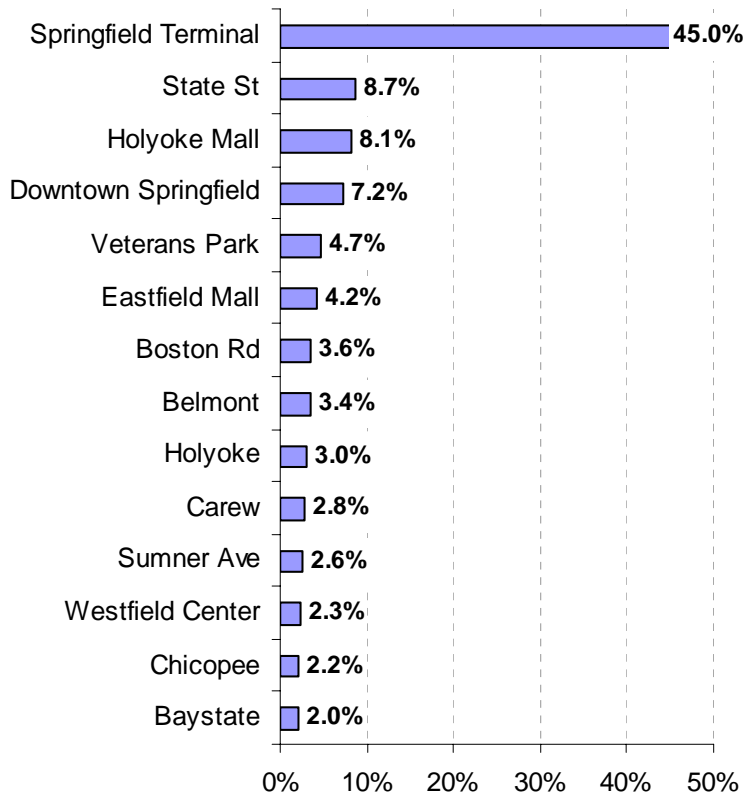


**Question 16: What route are you on now?**



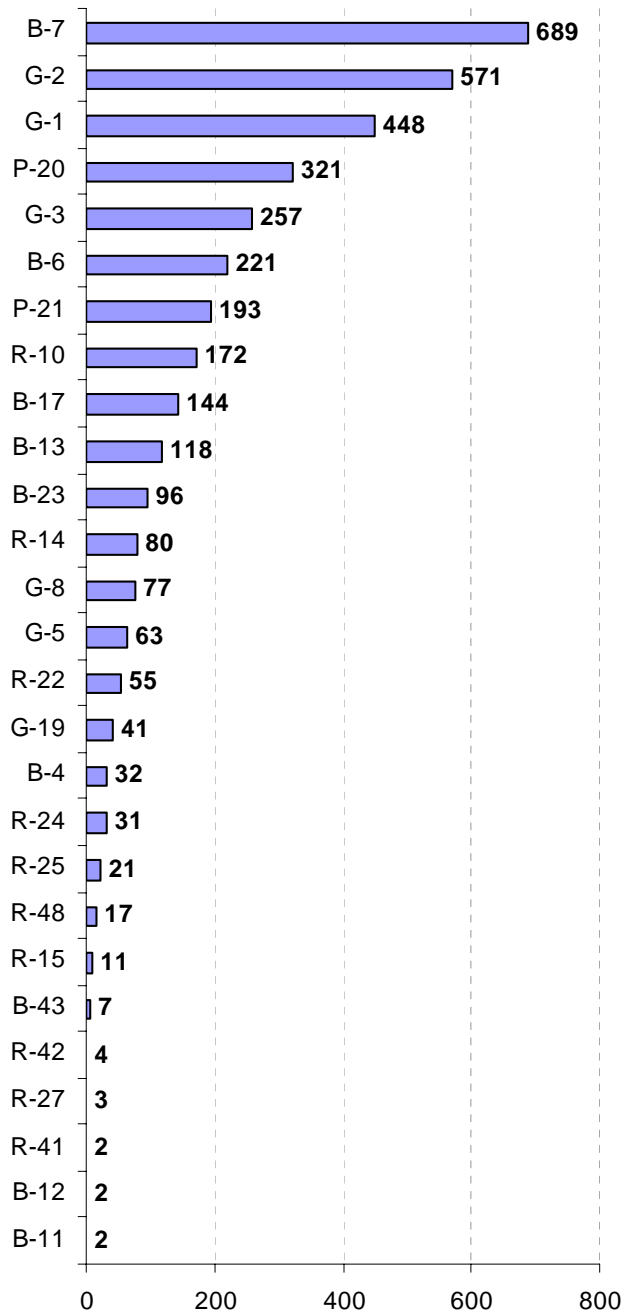
This question was included to assist in verifying that the number of surveys were collected on each of the 22 routes in the study area was proportional to the FY2007 ridership. Note that responses to this question vary slightly from the actual survey returns reported in Section II due to the fact that riders may not have correctly reported the bus route they were actually on.

**Question 17: Where will you get off the bus?**



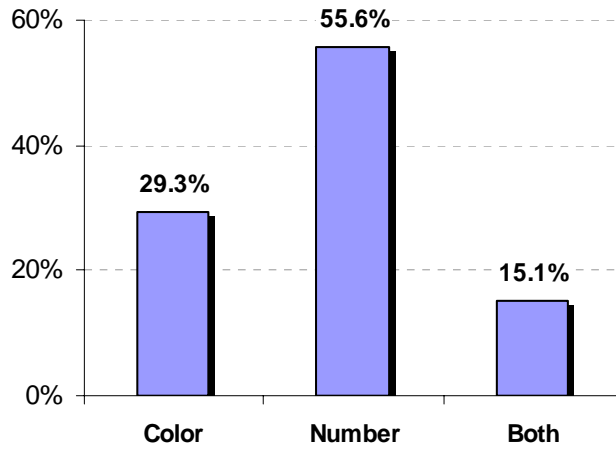
This was an open-ended question that received many different responses. Therefore, a threshold of at least 1% (at least 31 responses out of the total 3,071 received) was established for a location to be recorded. The Springfield Bus Terminal was the top destination (45%); this is likely given the fact that 17 of the 22 routes surveyed either terminate or pass through the terminal.

**Question 18: What routes do you normally use?**



Multiple responses were allowed to this question to account for transfers among one or more routes. (A total of 3,678 responses were given by the 3,520 respondents).

**Question 22: When referring to our bus routes do you use the color code system or the just the route numbers? (i.e., Purple 20, Green 1)**



Though slightly more than half of respondents (52.7%) said they use the route numbers to refer to PVRTA bus lines, slightly less than half (42%) said they use the color and number. The phrasing of this question may have been confusing to respondents, as it is not possible to refer to a route only by its color, as there are multiple routes under the same color “umbrella” (i.e., G1, G2, G3). While a number is always necessary to refer to a route, a color is not.

## **D. Customer Satisfaction Ratings**

Riders were asked to rate their level of satisfaction (Question 23) in the following 13 categories of PVRTA bus service:

23a Driver enforces rules	23h Cost of service
23b Schedules easily obtainable	23i Personal safety at stops
23c Ease of reading schedules	23j Driver courtesy
23d Condition of bus shelters	23k Cleanliness of buses
23e On-time performance	23l Total travel time
23f Bus driving safety	23m Service where desired
23g Frequency of service	

Riders were asked to respond using the following five-point scale:

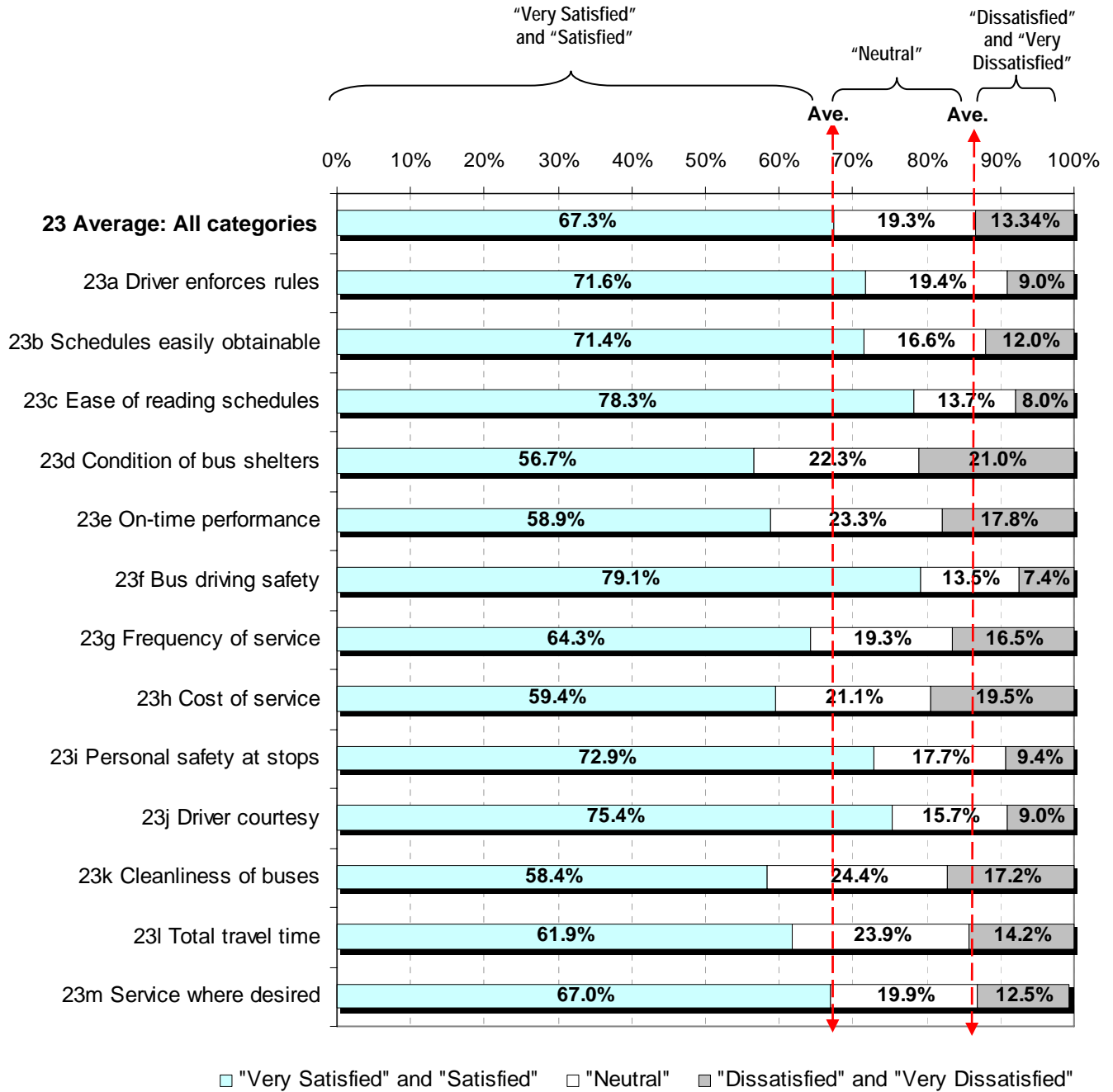
- 1) Very Satisfied
- 2) Satisfied
- 3) Neutral
- 4) Dissatisfied
- 5) Very Dissatisfied

A response of “Not Applicable” was also available as a sixth choice; however these responses, along with blanks, were not used in calculations.

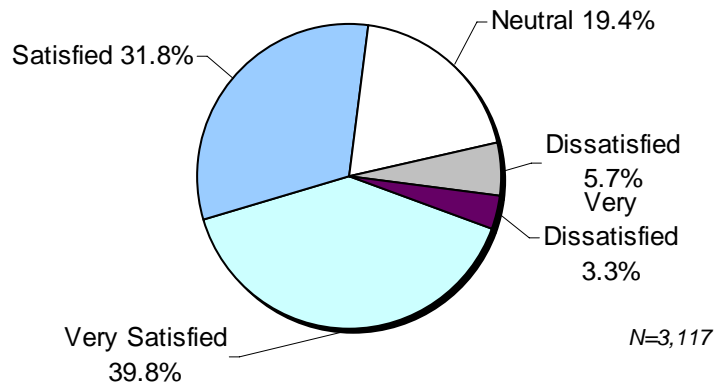
Question 23 (next page) summarizes the responses for all 13 customer satisfaction categories. More detailed information about the responses in each category follow (Figures 23a through 23m).



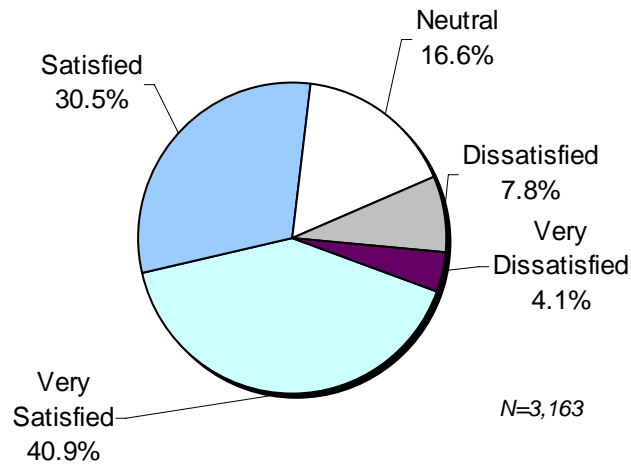
### Question 23: Customer Satisfaction Summary



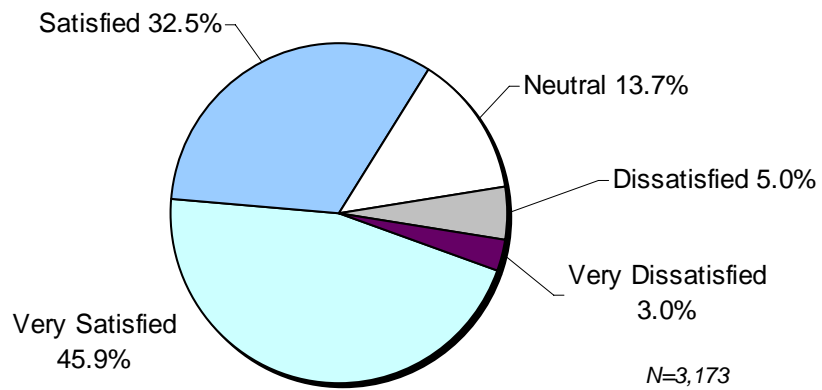
**Fig. 23a: Driver enforces rules**



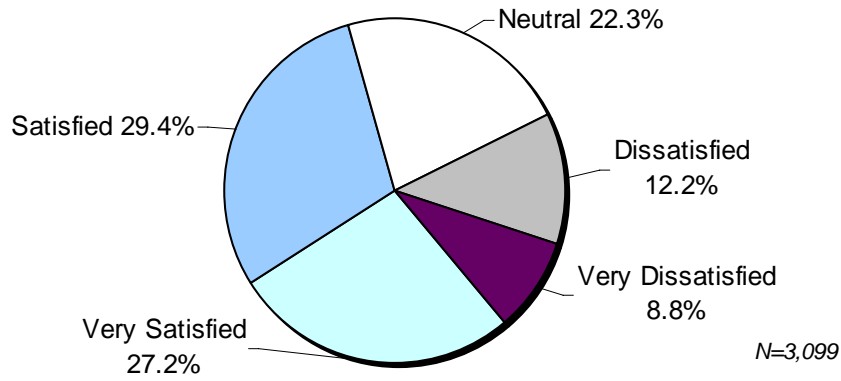
**Fig. 23b: Schedules easily obtainable**



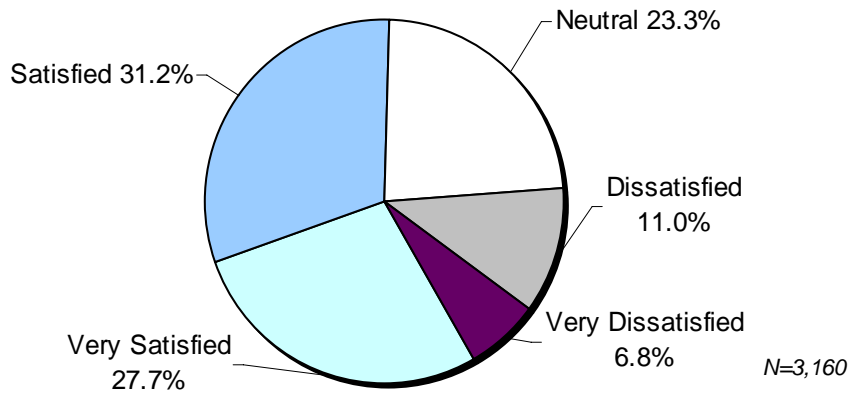
**Fig. 23c: Ease of reading schedules**



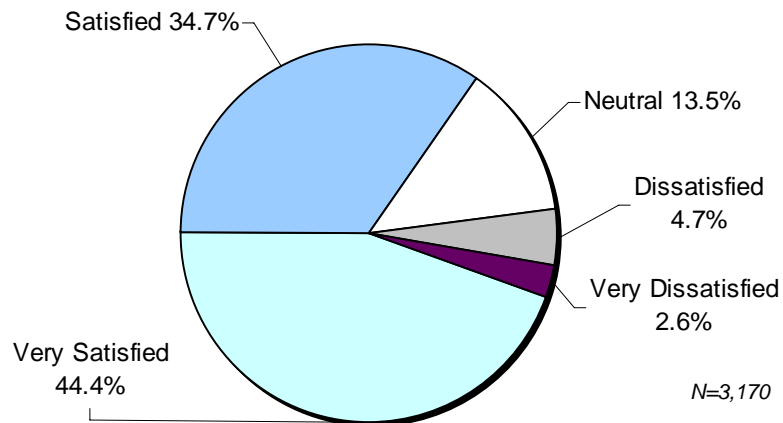
**Fig. 23d: Condition of bus shelters**



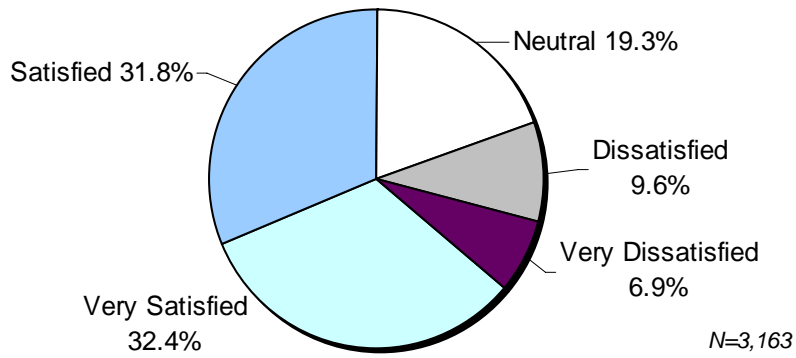
**Fig. 23e: On-time performance of service**



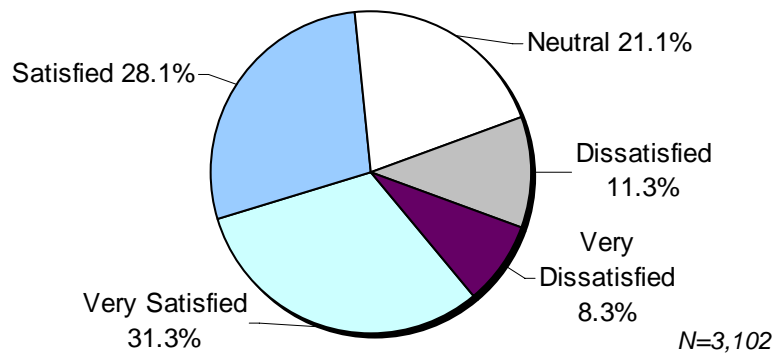
**Fig. 23f: Bus driving safety**



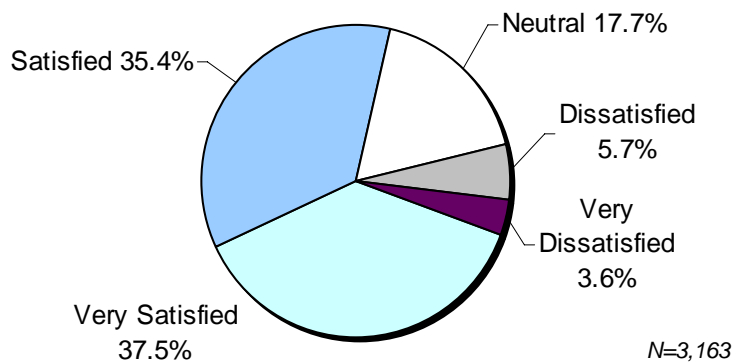
**Fig. 23g: Frequency of service**



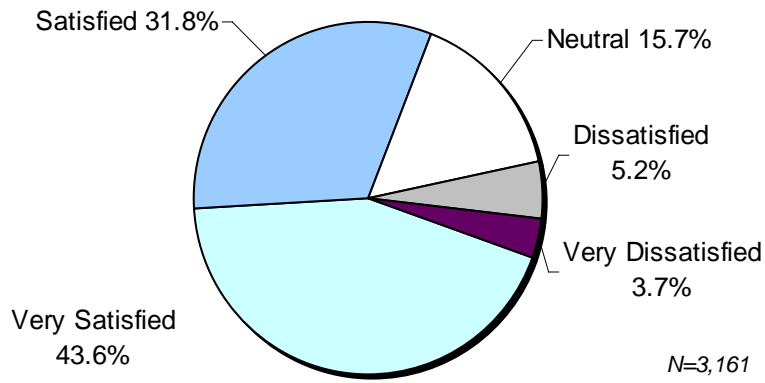
**Fig. 23h: Cost of service**



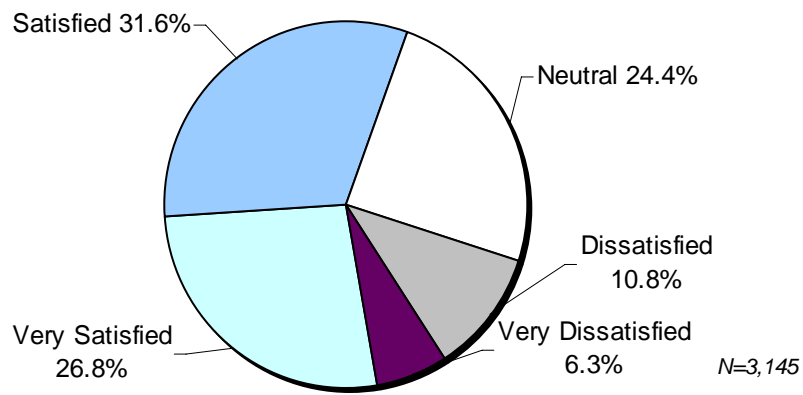
**Fig. 23i: Personal safety at stops**



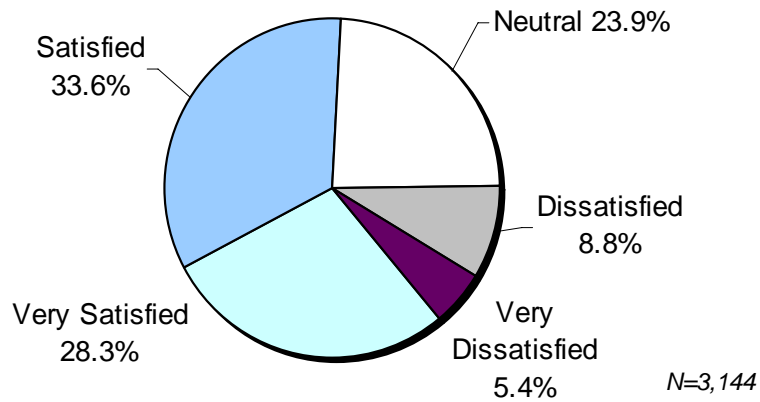
**Fig. 23j: Driver courtesy**



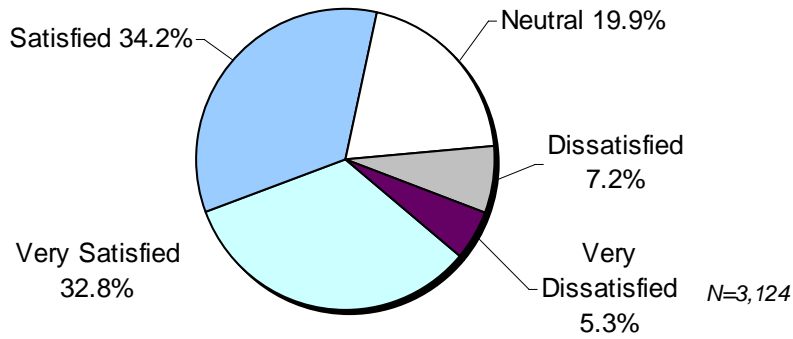
**Fig. 23k: Cleanliness of buses**



**Fig. 23l: Total travel time**

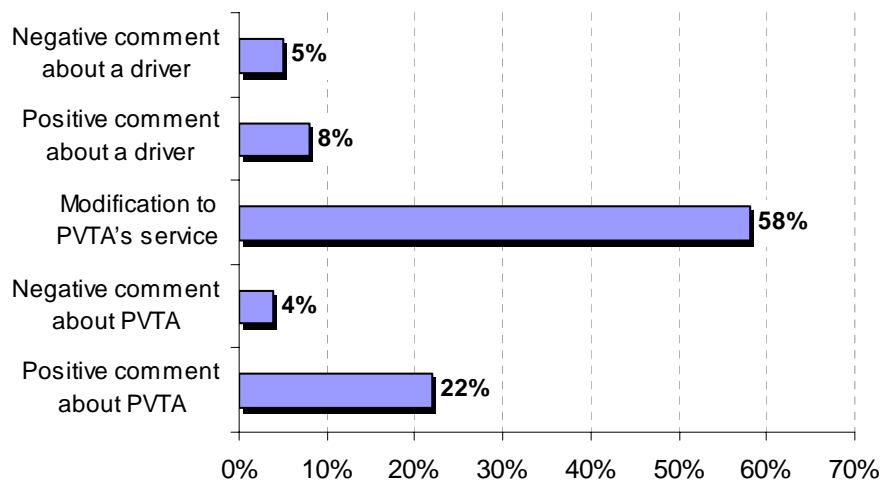


**Fig. 23m: Service where desired**



**Written Comments Summary**

Respondents were also invited to give written comments at the end of the survey. A total of 995 written comments were received. These comments were grouped into five broad categories, which are shown below, along with the proportion of comments received in each:



All written comments are reproduced in Appendix 3.

## IV. Analysis

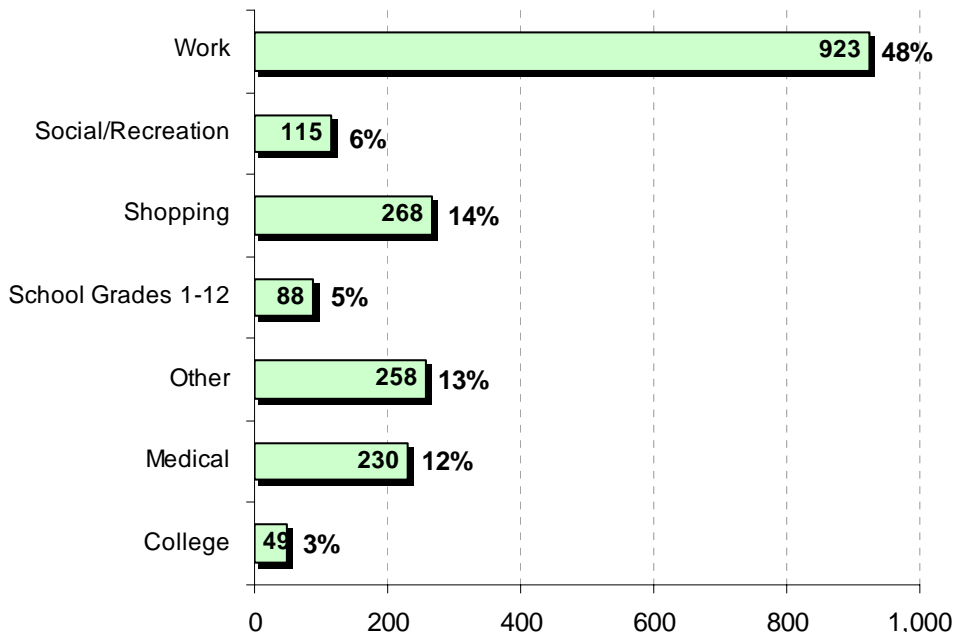
This section offers analysis of the results reported in Section III. In general, the survey demonstrates that the PVTA is providing a vital service for people of the region, most of who would have no other way to get to work and conduct the daily business of their lives.

Following are key points from the survey:

- Riders are most satisfied with the performance of bus drivers, including their courtesy, safe driving and enforcement of rules aboard vehicles.
- Riders are least satisfied with the condition and lack of bus shelters, on-time performance, and the cost of fares.
- Approximately half of all riders (48%) in the region use PVTA to travel to work, with shopping and medical appointments as the next most frequent trip reasons.
- A majority of riders (55%) earn less than \$10,000 a year.
- Approximately 3 of every 5 riders is female.
- For all types of riders (except students), not owning a car was the top reason for taking the bus, and nearly 3 of every 5 riders said they have no car at all.
- In total, 4 of every 5 five riders surveyed say they have no way—other than the PVTA—to make their trips.
- Only 1 in 5 riders say they take the bus because it is convenient.

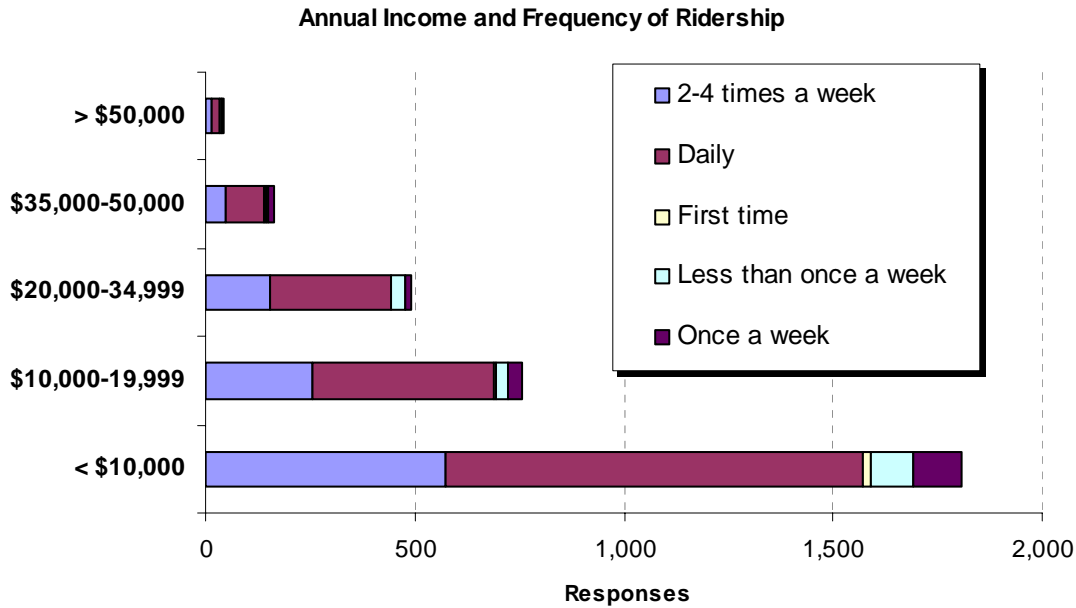
### A. Trip Characteristics

The most common trip purpose for daily PVTA riders in the southern region is going to work: some 48% of riders reported commuting to their jobs, up from 42% in the FY2000 study. The reported trip purposes of daily riders is shown below.

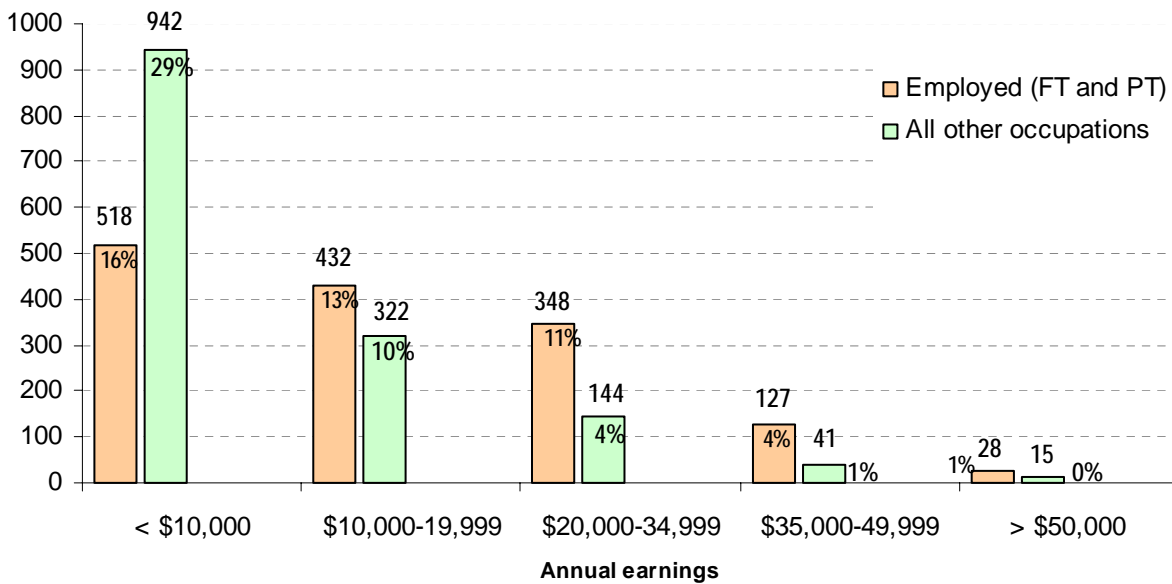


## B. Customer Characteristics

PVTA customers in the southern region have limited resources and few other alternatives to get where they are going. The summary table below shows that the lower a person's income, the more likely they are to ride the bus. In fact, there are more than 40 times as many people riding the bus in this region who have incomes of less than \$10,000 a year as there are people who make \$50,000 or more.



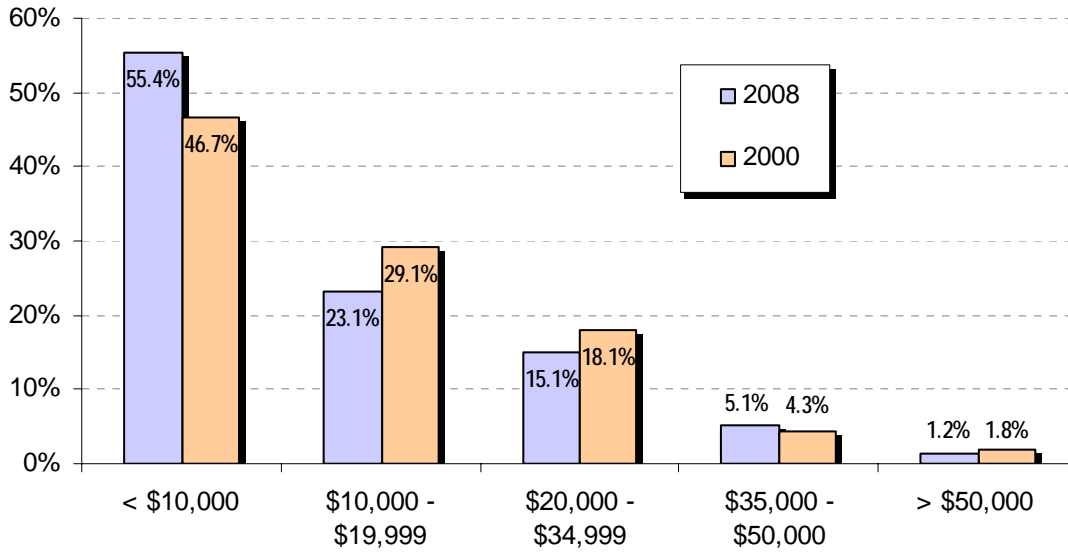
A comparison of people who said they work full or part time with those who described themselves as students, homemakers, unemployed or "other" shows that workers who earn less depend more highly on PVTA service. This reliance on transit appears to be even stronger for people with other occupations: fully 29% of all riders responding to this question said they earned less than \$10,000 per year.



Percentages of all responses shown; N=3,285



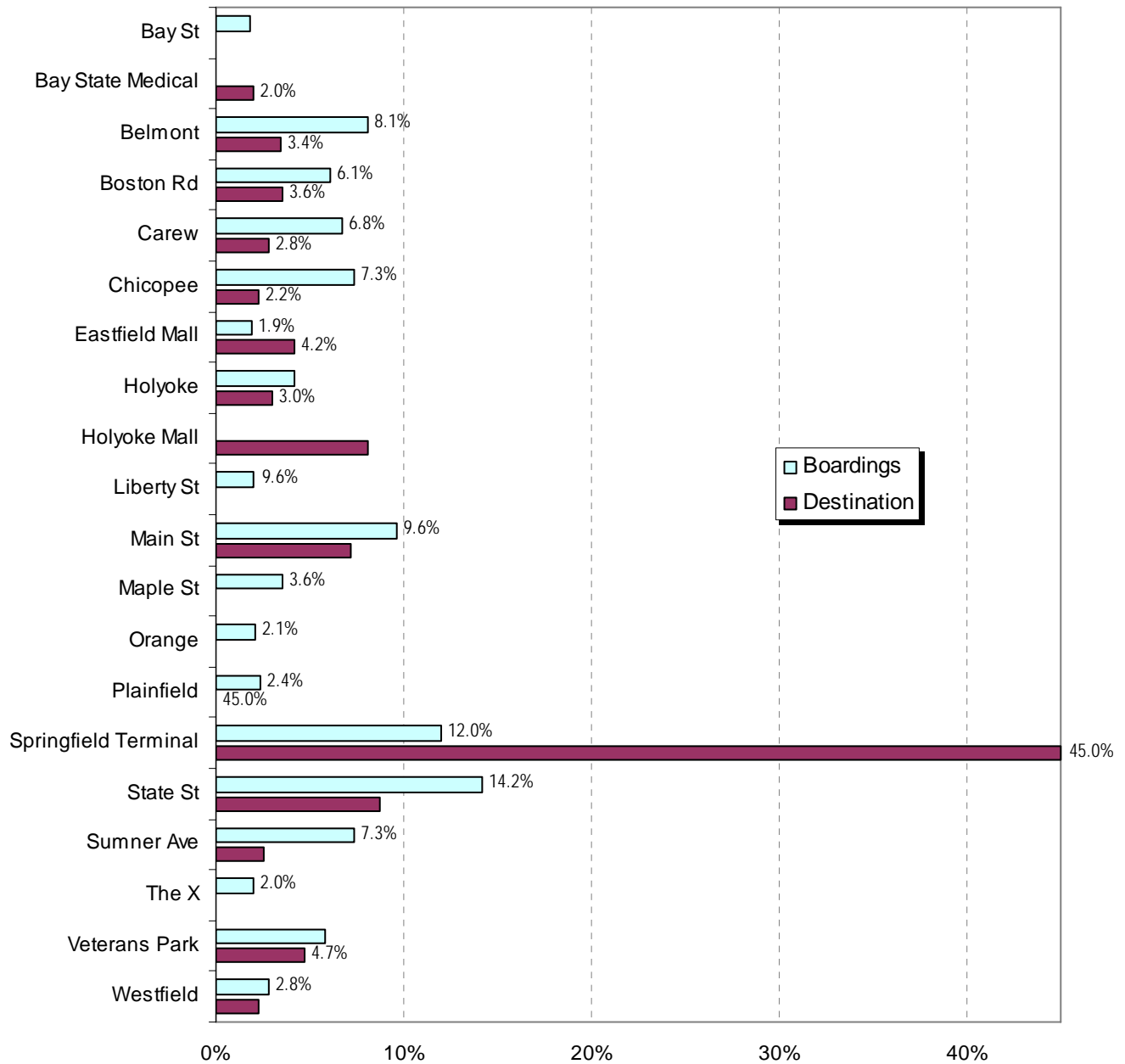
Notably, the percentage of riders earning less than \$10,000 per year is up significantly from the FY2000 survey, while ridership in the next two higher income categories is down.



Also, more than 12% of riders reported a physical disability that does not allow them to drive. Further, approximately 3 of 5 respondents said they had no car available for their trip. In all, the information reported in this section suggests that most current riders lack the resources to travel by any other mode than transit.

### C. System Use Characteristics

A comparison of boardings and destination responses (Questions 15 and 17) is shown below. This analysis is helpful in confirming the relationship between boarding and destination locations. The variations observed are likely due to variations in day part sampling, as well as the fact that the Springfield Bus Terminal was given as a “destination,” even though it is in all likelihood a transfer point for the vast majority of riders.



\* Responses totaling less than 1% not shown

#### D. Customer Satisfaction Ratings

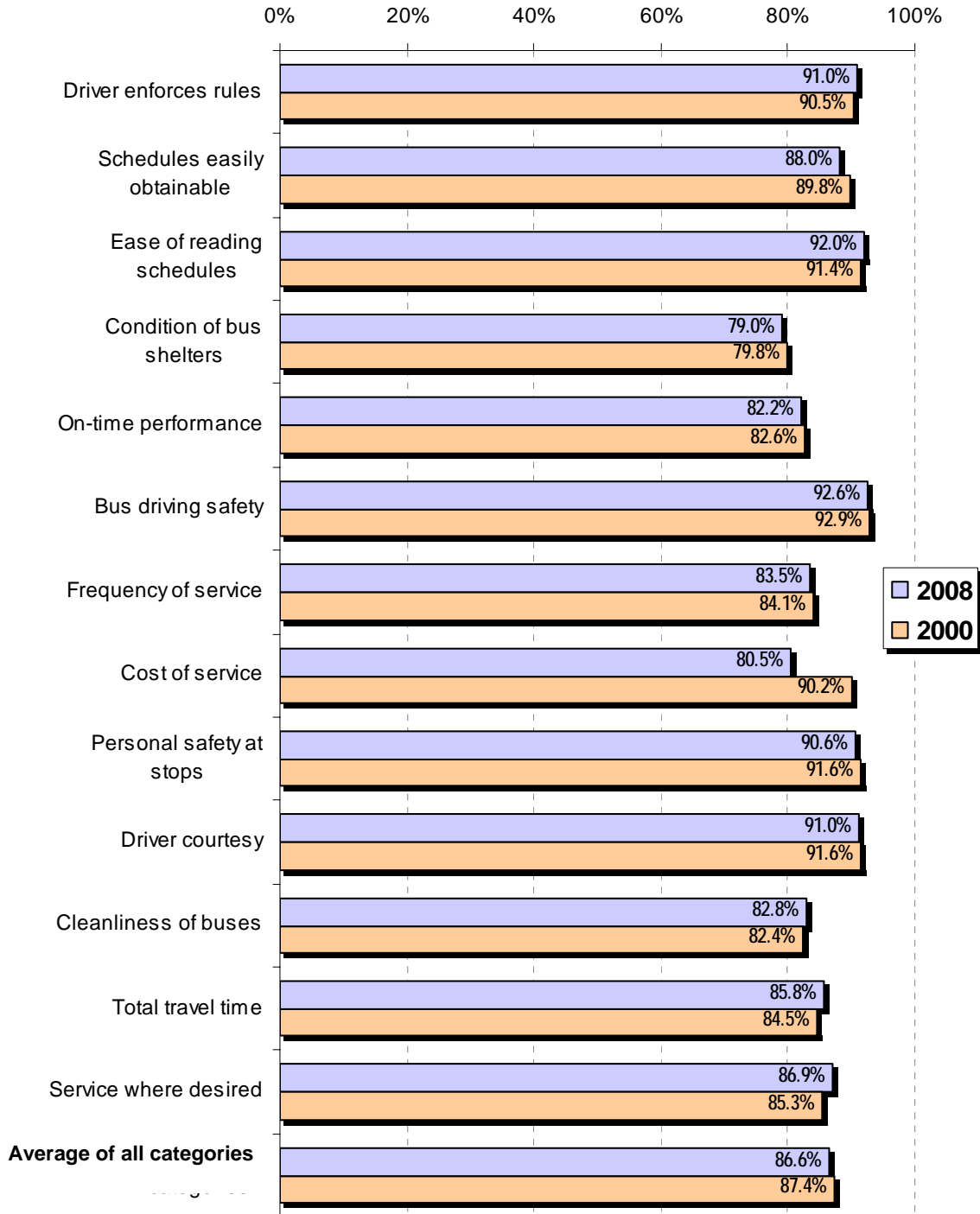
Analysis of the customer satisfaction ratings results was performed using an adaptation of the method described in Transit Cooperative Research Program Report No. 47 “A Handbook for Measuring Customer Satisfaction and Service Quality.” For this survey, the median and range were calculated for the combined “Very Satisfied,” “Satisfied,” and “Neutral” responses for each of the 13 categories. Scores exceeding 5% above the median for all categories (86.62%) were rated as “Excellent”; scores between 0% and 5% above the median were rated as “Good”; scores between 0% and 5% below the median were viewed as “Needs Improvement”; and scores 5% and below the median were ranked as “Priority for Improvement.”

Question	Category	Combined Satisfaction and Neutral Ratings	Grade
23a	Driver enforces rules	90.98%	Excellent
23b	Schedules easily obtainable	88.05%	Good
23c	Ease of reading schedules	91.99%	Excellent
23d	Condition of bus shelters	78.99%	Priority for Improvement
23e	On-time performance	82.18%	Priority for Improvement
23f	Bus driving safety	92.62%	Excellent
23g	Frequency of service	83.51%	Needs Improvement
23h	Cost of service	80.50%	Priority for Improvement
23i	Personal safety at stops	90.64%	Good
23j	Driver courtesy	91.05%	Excellent
23k	Cleanliness of buses	82.83%	Needs Improvement
23l	Total travel time	85.78%	Needs Improvement
23m	Service where desired	86.92%	Good
<b>23</b>	<b>Average of all categories</b>	<b>86.62%</b>	

While the above analysis identifies areas for improvement, it is also important to note the relatively small range (13%) of the responses, as well as the fact that the average for all categories is in the high-80% range. This suggests that PVTA is performing well across a spectrum of service measures.

Further, surveys of this type are by definition a snapshot of customer satisfaction levels. To offer additional context and identify trends, a comparison of customer satisfaction was made to results from the FY2000 rider survey conducted in the southern region. This analysis is presented on the next page. With the exception of the “Cost of service” category, the response totals for the “Very Satisfied,” “Satisfied,” and “Neutral” categories do not vary more than 2% from 2000 to 2008. (The 10% drop in satisfaction in the “Cost of service” category is likely related to the fact that the PVTA Advisory Board implemented a fare increase, from \$1 to \$1.25 per ride, in July 2008, where there was no such fare increase prior to the 2000 survey.)

**Comparison of PVTA Southern Region Customer Satisfaction Survey Results 2000 and 2008**  
 (Results shown are the sum of “Very Satisfied”, “Satisfied”, and “Neutral” responses)



This comparison suggests that PVTA’s service quality has been relatively consistent in the southern region. In fact, if the “Cost of service” rating (which was probably adversely affected by the July 2008 fare increase) is removed from the ratings calculation, then the average rating for all remaining categories is identical, at 87.4%, for both 2000 and 2008. It also suggests that opportunities for improvement have remained consistent, as well.

## V. Recommendations

The analysis presented in Section IV suggests several aspects of PTVA service in the southern region are well-regarded by riders, and several aspects can be improved. It is the general recommendation of this report that the most highly-ranked categories be viewed as benchmarks for progress toward improvement in the categories that were not ranked as highly.

Following are four general recommendations and accompanying sub-recommendations designed to aid in addressing both the immediate concerns identified by this survey, as well as the longer term goal of improving the monitoring of customer satisfaction.

### A. Recommendation 1: Address “Priority for Improvement” concerns

The categories of customer satisfaction receiving the lowest ratings were identified as “priorities for improvement.” Following are recommendations and suggested actions that require little or no additional cost, or are already programmed in PVTA’s budget.

Recommendation	Basis	Actions	Priority
<b>1A: Improve bus shelter conditions</b>	Bus shelter condition was the top customer concern identified by this survey. (This may also include concern about the relative shortage of bus shelters, though the survey did not ask directly). There are 128 shelters in the PVTA system, representing just 8% of all bus stops. Numerous studies have shown that providing bus stop amenities, especially shelters, are important measures for raising customer satisfaction and ridership.	<ul style="list-style-type: none"> <li>• Inventory existing shelter locations and conditions</li> <li>• Revise and improve maintenance program</li> <li>• Identify candidate locations for additional shelters</li> <li>• Work with property owners to install additional shelters</li> </ul>	High (1 yr)
<b>1B: Improve fare information and convenience</b>	This category received the second highest dissatisfaction rating; also, 7% of written comments expressed displeasure with bus fares. This concern is understandable, especially given the reduced income of PVTA riders (see p.25).	<ul style="list-style-type: none"> <li>• Consider study to evaluate fare media and associated costs.</li> <li>• Increase outreach to employers to participate in monthly pass discount program</li> </ul>	High (1 yr)
<b>1C: Review on-time performance</b>	This item received the third lowest ranking of the 13 categories of customer satisfaction. Reliable service is critical to maintaining and increasing ridership, as well as improving customer satisfaction. However, PVTA lacks much of the recent technology used by other transit systems to track and improve on-time performance.	<ul style="list-style-type: none"> <li>• Review and revise on-time performance measures and tracking</li> <li>• Educate public and operators about what “on-time” means</li> <li>• Review existing schedule/trip making technologies (i.e., GoogleTransit) to identify immediate opportunities to improve customer experience</li> </ul>	High (1 yr) High (1 yr) High (1 yr)

		<ul style="list-style-type: none"> <li>Continue implementation of Automated Vehicle Location (AVL) system</li> <li>Coordinate with MPO's Congestion Management Process (CMP)</li> </ul>	<p>Med. (1-3 yrs)</p> <p>High (1 yr)</p>
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**B. Recommendation 2: Address “Needs Improvement” items**

One customer satisfaction category received rating of “needs improvement” that would require little or no additional funds to implement. The recommendation for this category is shown below.

Recommendation	Basis	Actions	Priority
<b>2A: Improve bus cleanliness</b>	PVTA vehicles are cleaned every night. However, due to routing and service requirements, vehicles generally cannot be removed from service for cleaning during the day.	<ul style="list-style-type: none"> <li>On-board announcements and signage encouraging patrons to take their belongings</li> <li>Review bus washing frequency</li> </ul>	High (1 yr)

**C. Recommendation 3: Review concerns requiring additional funding**

Three categories of customer satisfaction received ratings of either “Needs improvement” or “Good” but which may require additional funds to fully implement. Recommendations and actions for these items are offered below.

Recommendation	Basis	Actions	Priority
<b>3A: Increase frequency of service</b>	Service frequency is directly related to customer satisfaction and convenience, as well as operating costs. PVTA operating units have recently implemented vehicle routing optimization (i.e., P21 express on I-391) to increase service frequency at minimal additional cost.	<ul style="list-style-type: none"> <li>Ensure service frequency concerns are integrated in annual service and schedule planning</li> <li>Identify opportunities for increased and optimized service</li> <li>Identify funding sources for increased service frequency/operations</li> </ul>	Med. (1-2 yrs)
<b>3B: Reduce total travel time</b>	Many PVTA routes cover large geographic areas and a diversity of trip destinations. Minimizing travel time and serving as many customers as possible in this environment are sometimes competing priorities.	<ul style="list-style-type: none"> <li>Ensure travel time reduction is a priority in the annual service and schedule planning</li> <li>Identify further opportunities for optimized service</li> </ul>	Med. (1-2 yrs)

		<ul style="list-style-type: none"> <li>• Continue implementation of Automated Vehicle Location (AVL) system</li> <li>• Continue coordination with MPO's Congestion Management Process (CMP)</li> </ul>	
<b>3C: Improve service in areas where desired</b>	As the population and employment distribution patterns of the region evolve, so does demand for public transit. Though this category received a "Good" rating, on-going review and planning will help better reach areas where transit service is desired.	<ul style="list-style-type: none"> <li>• Better integrate customer comments, demographic information and economic development data in annual service planning</li> <li>• Perform systemwide review to better understand where riders live, work and travel to</li> <li>• Perform nonrider survey to identify new potential riders, trip generators</li> </ul>	Med. (1-2 yrs)

**D. Recommendation 4: Implement continuous quality monitoring and management measures**

The survey results and analysis suggest there may be value in pursuing on-going customer quality measures for the entire PVTA system. Several recommendations are offered below.

<b>Recommendation</b>	<b>Basis</b>	<b>Actions</b>	<b>Priority</b>
<b>4A: Acknowledge customer quality achievements</b>	PVTA earned high customer satisfaction ratings in several categories. It is important for personnel involved to be aware of this success, as well as the areas targeted for improvement.	<ul style="list-style-type: none"> <li>• Distribute 1-2 page Executive Summary to PVTA and operator staff</li> <li>• Recognize personnel responsible for service items rated highly</li> </ul>	High (3 mos.)
<b>4B: Set customer satisfaction benchmarks</b>	PVTA received high customer satisfaction in marks in several categories (i.e., driver safety, courtesy, and enforcement of on-board rules).	<ul style="list-style-type: none"> <li>• Review survey results to identify benchmark goals for southern region</li> </ul>	Med. (1-2 yrs)
<b>4C: Review survey method and frequency</b>	Regular surveys of transit customer quality are necessary to identify successes and areas in need of improvement. On-board rider surveys provide important information; however, the cost and time to produce a survey of a large transit service area, such as PVTA's southern region, are significant.	<ul style="list-style-type: none"> <li>• Review existing survey methods, frequency and resources</li> <li>• Develop other lower-cost survey methods, such as telephone and internet, to supplement on-board rider surveys</li> </ul>	High to Med. (3 mo - 2 yrs)

# Appendices

## 1. List of Preparers

This report was prepared by the following staff members of PVRTA and PVPC:

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## 2. Survey Form

Sample attached

## 3. Written Comments

Distributed in electronic PDF format to reduce printing cost. Print copies available upon request.