Paratransit Service Analysis Study

FINAL REPORT

Pioneer Valley Transit Authority (PVTA)

December 2014

NELSON
NYGAARD

Page left intentionally blank

Table of Contents

Table of Figures

ACKNOWLEDGMENTS

The Nelson\Nygaard study team would like to extend our gratitude to Mary MacInnes, Josh Rickman, Robin St. Amand, and Carolyn Hart-Lucien at PVTA; Paul Anziano, Sean Piendel, and Joanna Payero at Hulmes Transportation; and additional members of the Advisory Committee, John Bennett from United for Transit Equity and Jan Denney from Elder Affairs / Council on Aging. We would like to thank each of you for providing guidance throughout development of this study.

Additionally, we would like to thank staff from local human service agencies for participating in the Stakeholder Interviews and to the larger rider community for taking the time to complete the rider survey.

This page intentionally left blank

EXECUTIVE SUMMARY

STUDY BACKGROUND AND GOALS

The Pioneer Valley Transit Authority retained a consulting team composed of Nelson\Nygaard Consulting Associates and ASG Planning, to evaluate the way in which its paratransit service is contracted and delivered, to assess service and cost performance, and to develop strategies to improve service efficiency and other shortcomings identified in the study.

Much of the study involved a rigorous collection of quantitative and qualitative data. This included the collection and analysis of system reports and raw data. Service and cost performance data was compared with peer data, and evaluated for trends and against industry standards. PVTA staff was interviewed. A day was spent meeting with and observing staff of PVTA's paratransit service contractor, Hulmes Transportation. A customer survey was conducted. Stakeholder interviews and two sets of public outreach meetings were also held in June and November 2014. In addition, special analyses were conducted to assess (a) the productiveness of the current run structures; (b) what services are provided to ADA paratransit customers over and above what is minimally required; and (c) how demand for the service might change in the future.

OVERVIEW OF PVTA PARATRANSIT SERVICES

PVTA's paratransit service is provided to residents of PVTA's 24 member communities who, because of their disability, are certified by PVTA as ADA paratransit eligible, and to persons who are seniors (60 years of age and over). Service to ADA paratransit customers and senior customers is combined (that is, is not delivered separately), noting that (1) ADA paratransit service is provided beyond the minimally-required ¾ mile fixed-route corridors within the 24-member communities, but is limited temporally to the days and hours when fixed-route service is provided; and (2) senior (Dial-A-Ride) service is provided only during weekdays from 8:00 to 4:30. Also, additional ADA paratransit service extends to some other non-member communities that fall within the ¾ mile corridors. Fares range from $2.50 to $3.50 for all paratransit customers and are twice the regular bus fare, as allowed by the ADA. Fares can be paid for in cash or with tickets from books of tickets sold by PVTA and at various senior centers.

By Massachusetts law, PVTA must retain a contractor or contractors to deliver service, i.e., PVTA cannot operate service with in-house employees, but PVTA can – and does – provide policy development and oversight and most of the support services and equipment. To deliver service, PVTA has retained Hulmes Transportation, which operates service out of its two facilities in Chicopee and Belchertown and out of PVTA's facility in Northampton. PVTA also retains two First Transit-owned subsidiaries, the Springfield Area Transit Company (SATCO), based in Springfield, and the Valley Area Transit Company (VATCO), based in Northampton, to provide maintenance for the PVTA-owned vehicles and in-vehicle equipment. A summary of the division of responsibilities among PVTA and its contractors is presented in Figure 0-1.

Figure 0-1 Division of Responsibilities for PVTA Paratransit

Pioneer Valley Transit Authority	
□ Policy Development and Planning	□ North Operations Facility
□ Contractor Procurement and Invoice Processing	□ Fuel
□ Contract Compliance, Service and Cost Monitoring	□ Driver Uniforms
□ Vehicle Procurement and Insurance	□ ADA Paratransit Eligibility Determination
□ Risk Management	□ Fare Media Distribution
□ Software Licensing / Support Contract	□ Reporting
□ Computer Server, Hardware, Network and Support	□ Commendation / Complaint Management
□ Telephone System and Support	□ Public Outreach and Surveys
□ Radio System; In-Vehicle MDCs / AVL equipment	□ Travel Training
Contractors	
Hulmes Transportation	**SATCO / VATCO**
□ Reservations	□ Vehicle Maintenance
□ Scheduling	
□ Dispatching and Same Day Functions	
□ Service Delivery	
□ Road Supervision	

RIDERSHIP

PVTA paratransit customer ridership for the past three fiscal years is presented below in Figure 0-2.

Figure 0-2 PVTA Paratransit Customer Ridership

Year	ADA Customer Trips	ADA Trip %	Annual ADA Change	DAR Customer Trips	DAR Trip %	Annual DAR Change	Total Customer Trips	Annual Total Change
FY 2012	192,434	71%	--	77,283	29%	--	**269,717**	**--**
FY 2013	199,068	74%	+3.4%	70,155	26%	-9.2%	**269,223**	**-0.2%**
FY 2014	206,696	76%	+3.8%	65,533	24%	-6.6%	**272,228**	**+1.1%**

Key observations include the following:

- All together, there was a modest increase in over-all customer trips from FY 2013 to FY 2014.
- While ADA paratransit ridership has increased steadily over the last three years, senior ridership has been declining, which makes sense given the fairly level capacity of the system. One explanation for the growth in ADA ridership is as follows. As many seniors grow older, they also become ADA paratransit-eligible, and there is a built-in incentive for these seniors to apply for ADA paratransit service: PVTA is obligated to serve ADA paratransit customers without a pattern of denials, whereas non-ADA seniors requesting service can be denied if there is no capacity to accommodate the trips.
- The FY 2014 ratio of ADA trips to senior DAR trips was about 3 to 1.

Additional "non-customer" passengers carried on these trips, and not reflected in the table above, include Personal Care Assistants (PCAs) and companions. These passengers add another 11% to the customer trip customer totals.

SERVICE QUALITY METRICS

Average Telephone Hold Time

Average hold time for customers calling to make trip reservations or inquiries for the last three years has been fairly stable, decreasing only slightly from 1:59 in FY 2012 to 1:56 in FY 2013 to 1:55 in FY 2013. The industry target – and PVTA's contractual target – is to achieve no more than a 2:00 minute average hold time.

Denials

The denial rate for ADA paratransit trips was 0.01% in FY 2013 and 0.04% in FY 2014, or approximately 1 denial every 3 weekdays on average, and also noting that these trips were not denied outright but involved negotiated pick-up times beyond the one hour time frame allowed by the ADA. Upon close examination, while this cannot be considered to be a pattern of denials. PVTA is committed to returning the denial rate to lower (pre-FY 2014) levels by increasing capacity at key times in the peak hours.

And even the senior denial rate at 1.81% is not significant considering that capacity has remained relatively level over the last two years, and that rate was been reduced by 63% from FY 2013 to FY 2014.

On-Time Performance

The on-time performance (OTP) of PVTA paratransit is exceptional. From a detailed analysis of a week's worth of raw data (from the week of April 27, 2014), it was determined that the on-time performance ranged from a low of 94.2% to a high of 97.6%, and averaged 96.4%, which is on the high end of PVTA's contractual OTP "sweet spot" of 95% to 96.5%. Note that the industry standard for a system with 20-minute pick-up windows (which PVTA has) is 90% to 92%. The one caveat to that is that PVTA includes all "early" trips in with the OTP statistics; this is allowable as long as there is no driver coercion for a customer to leave before the start of the scheduled pick-up window (which has not been voiced by customers).

Ride Time

PVTA's contractual target is to ensure than a minimum of 96% of the trips have a ride time that is under 60 minutes in duration. Over the last three fiscal years, the percentage of trips with ride times under 60 minutes has averaged over 97%. From a random sample of days over the past three years, the average ride time for each day ranged from 17.72 minutes per trip to 21.19 minutes per trip.

Complaint Ratio

PVTA's complaint ratio has ranged from 3.5 to 4.6 complaints per 10,000 trips over the last three years, but still well below the industry target of no more than 10 complaints per 10,000 trips.

SAFETY METRIC – ACCIDENT FREQUENCY RATIO

Accident Frequency Ratio

The industry standard for preventable accidents is 1.0 preventable accident per 100,000 (total) vehicle miles. PVTA's preventable accident frequency ratio has ranged from 0.89 to 1.11 over the last three years, and averaged 0.99, which is within the target goal. PVTA's contractual target is 10 preventable accidents per calendar year, which considering the number of total miles operated equates to 0.29 based on the FY 2014 total miles.

OTHER SERVICE PERFORMANCE METRICS

No-Show and Missed Trip Rates

The FY 2014 percentage of no-shows (at 2.6%) and missed trips (at 0.05%) are within acceptable ranges. The industry standards for these metrics are no more than 5% for no-shows and no more than 0.05 % for missed trips.

Cancellations

The FY 2013 breakdown of cancellations is shown in Figure 0-3.

Figure 0-3 Cancellations

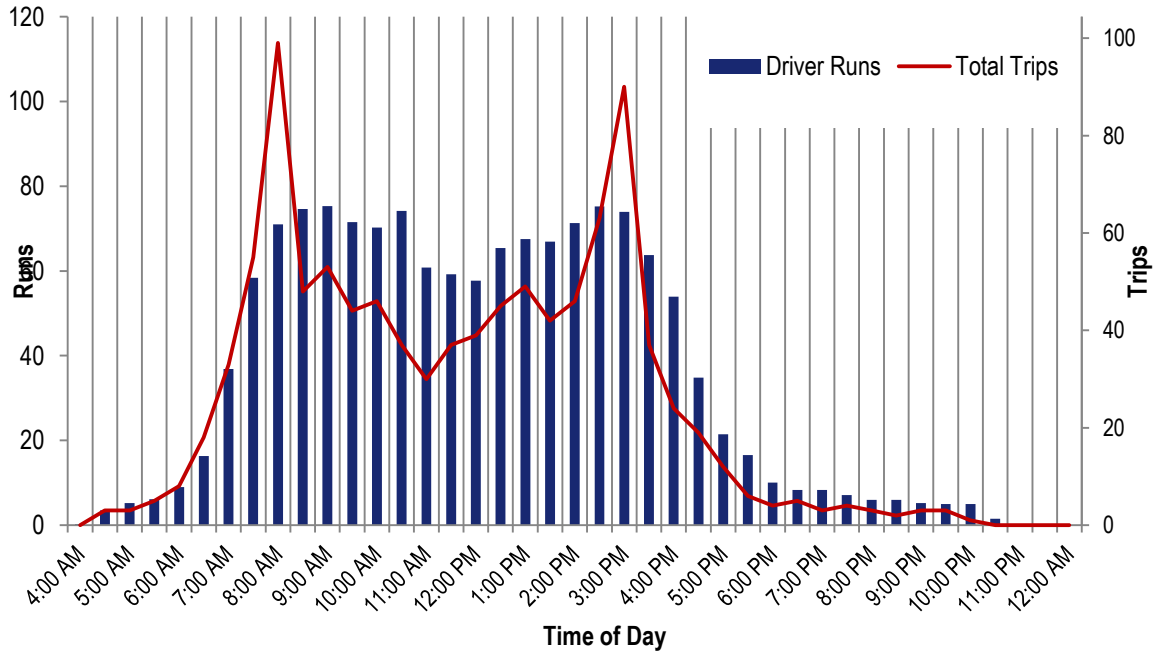
	Number of Cancellation	Percent of Cancellation	Percent of 269,223 Customer Trips
Advance Cancellation	46,085	56%	17.1%
Same-Day Cancellations	31,235	38%	11.6%
Late Cancellations	5,058	6%	1.9%
Total	82,378	100%	30.6%

The percentage of total cancellations is generally considered to be high if over 15%. With total cancellations at twice that rate, it is suspected that customers are still making "placeholder reservations" and then cancelling. While the advance cancellations do not affect the scheduling process, the same-day cancellations do. As some of the scheduling processes and practices are improved, it is hoped that PVTA will see a reduction of this rate.

Service Productivity

As the number of customer trips increased from FY 2013 to FY 2014 by 1%, the number of revenue vehicle hours decreased by 2%, indicating more efficient scheduling. Indeed, over the same period the productivity increased by over 3%. At the same time, the service productivity of 1.57 passenger trips per RVH is much lower than PVTA's target figure of 1.95. An analysis, shown in Figure 0-4, unveiled the reason for this: an over-supply of service during the mid-day period. However, the impact of this on the unit cost of operating service is negligible because of PVTA's contractual payment structure. Moreover, the over-supply of service during the mid-day undoubtedly contributes to the high on-time performance.

Figure 0-4 Run Structure vs. Demand Profile for Monday, April 28, 2014



Maintenance Performance / Vehicle Reliability

In the 10-month period between September 2013 and June 2014, PVTA's maintenance subcontractors achieved an average miles per road call of 78,364, which is very good for the industry where most miles-per-road-call targets range between 25,000 and 50,000. One reason for the high mileage figure is the86% adherence to preventive maintenance (PM) schedules, with the balance being completed within 1,000 miles of the PM interval. This all translates into fewer service disruptions for customers as well as fewer uncovered runs due to unavailable vehicles.

COST PERFORMANCE

In FY 2013, the unit operating cost of service, including payments to the service and maintenance contractors, insurance, etc. were $24.64 per trip and $38.66 per revenue vehicle hour (RHV). Both of these unit costs are very reasonable for a service of this kind. Both unit costs also saw a reduction from FY 2013 to FY 2014. The cost of Hulmes Transportation was by far the greatest share of the cost structure, reflecting 74%. Fuel represented 16% of the cost, and maintenance 5% of the cost.

SUMMARY OF PERFORMANCE INDICATORS

A summary of the main performance indicators for PVTA paratransit is shown in Figure 0-5.

Figure 0-5 Performance Indicators

Type of Metric	Metric	Rating
Compliance	ADA	
Service Quality	Average Hold Time	
	Denials	
	On-Time Performance	
	Ride Time	
	Complaint Ratio	
Safety	Accident Frequency Ratio	
Service Performance	No-Show Rate	
	Missed Trip Rate	
	Cancellation Rate	
	Productivity	
Vehicle Maintenance & Reliability	Miles per Road Call / PM Adherence	
Cost	Cost per Trip	

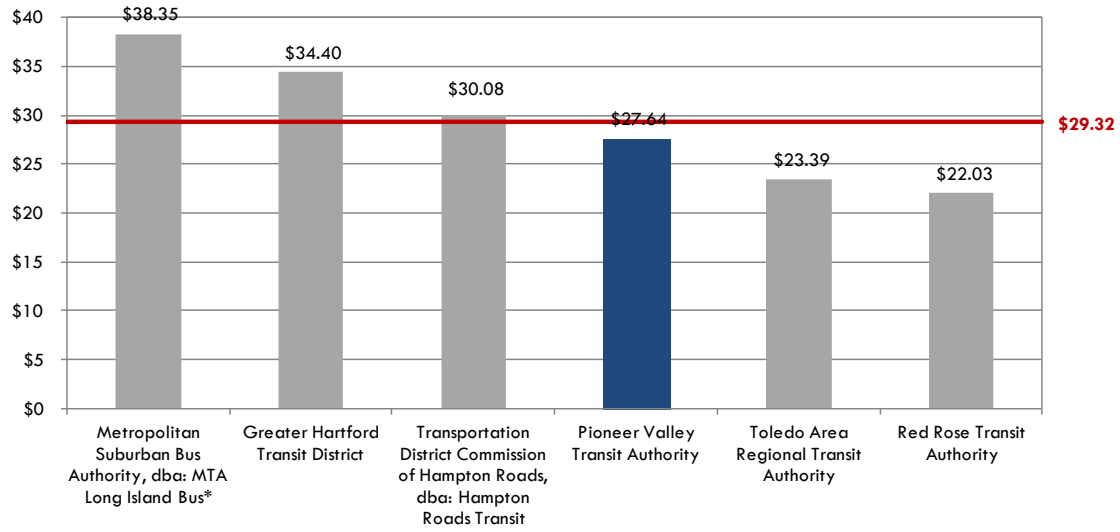
PEER REVIEW

To put PVTA service and cost performance in context, the service was compared with five peer paratransit services similar in size and scope. The peer agencies were selected based on various attributes including geographic area, service population, and size, based on data gathered for each system from the FY 2012 National Transit Database and agency websites. The five peer agencies chosen were:

- Transportation District Commission of Hampton Roads (Hampton, VA)
- Toledo Area Regional Transit Authority (Toledo, OH)
- Greater Hartford Transit District (Hartford, CT)
- Red Rose Transit Authority (Lancaster, PA)
- Metropolitan Suburban Bus Authority (Garden City, NY)

In addition to ridership (which served as the surrogate metric for size), other service characteristics framing the comparison included revenue vehicle hours (RVHs), average trip length, operating cost per trip and per RVH, and service productivity, measured as passengers per RVH. Despite having the shortest average trip length among the peers, which typically translates into a higher productivity, PVTA's paratransit system was least productive. But, while low productivity typically translates into high unit costs, PVTA's unit cost was lower than the peer average – largely as a result of its relatively unique contractor payment structure for peak service, as shown in Figure 0-6.

Figure 0-6 Operating Cost per Trip



Source: FY2012 National Transit Database (*FY2011 National Transit Database used for MTA Long Island Bus)

CUSTOMER SURVEY

During the months of June and July 2014, paratransit customers were surveyed to evaluate customer satisfaction with PVTA's paratransit van service and identify potential areas for improvement. Survey forms were distributed to PVTA van riders in June by drivers, as well as by PVTA staff at senior centers and at two Van Rider Forums. The same survey was also available online. The survey was first distributed on June 12 and results were collected up to July 3rd, when the survey was closed. A total of 478 surveys were completed. The majority of surveys (92%) were completed on paper.

The overall perception of the PVTA paratransit system was largely positive, as reflected in the chart below, which equates "good" or "excellent" responses with satisfaction, and traces how the FY 2014 survey responses match up with similar responses from FY 2011.

As shown in Figure 0-7, while there were slight increases and decreases compared to the responses in 2011, the most significant improvement was ADA customers' satisfaction with the ADA eligibility process, which increased from 64% to 86%. Meanwhile, the lowest satisfaction rating in 2014 at 83% (and noting a drop from the 89% satisfaction level in 2011) was customers' satisfaction with the paratransit van arriving within the 20 minute window, which is interesting given the high on time performance.

Figure 0-7 Customer Survey Comparison 2011 vs. 2014

Category	2011	2014
Customer satisfaction with overall quality and value of service decreased	95%	89%
Satisfaction with the safety of service increased	94%	97%
Satisfaction with ADA eligibility process increased	64%	86%
Satisfaction with driver courtesy increased	94%	95%
Satisfaction with van cleanliness increased	91%	92%
Satisfaction with van arriving within 20 minute window decreased	89%	83%
Satisfaction with helpfulness of reservation staff decreased	91%	87%

THEMES AND ISSUES

Several themes arose from interviewing stakeholders and Hulmes Transportation staff and drivers, as well as from analysis of service data and observations of Hulmes staff. These issues are presented below and sorted by functional area. It is important first to put these themes and issues in the proper context. **The summary of performance indicators are all either very good or exceptional**, with two exceptions – the cancellation rate and productivity – which in PVTA's case do not significantly impact the unit cost. Of all of these performance indicators, the three that are generally regarded as most important are ADA compliance, service quality (especially OTP), and service efficiency (especially unit cost per trip). **PVTA paratransit gets high marks for all three indicators**. Thus, in this context, while there are several themes and issues discussed below which PVTA and Hulmes do need to address, they are relatively minor

given the very good performance indicator ratings. The first set of themes and issues discussed pertain to PVTA, the second set to Hulmes Transportation.

Themes and Issues Pertaining to PVTA

Customer Notices / Information and Feedback Follow-Up

Despite PVTA's dissemination of general information and new policies via letters to customers, public meetings, seat drops, and its website, some stakeholders remain confused about certain policies. Some riders also felt that additional PVTA follow-up, beyond the "template" letter that acknowledges receipt of the feedback, is warranted.

Automated Confirmation Calls

Several customers have expressed concerns about the confirmation calls received the evening before the trip. Common complaints were that they were received too late or not at all, and that they were too long for their telephone answering machine. From conversations with customers and stakeholders, it is also suspected that some customers may not fully understand that the pick-up window changes per different types of requests. PVTA has addressed the call length issue by providing a shorter script; however, if a customer is taking several trips in one day, information is transmitted for each call, and the call will be long.

Limitations on Service Area, Days, and Hours

Senior transportation is provided by PVTA paratransit but only during weekdays from 8:00 am to 4:30 pm and only where there is availability. It is speculated that the more limited span of DAR service has resulted in more seniors applying for ADA paratransit eligibility so that they can travel on weekday evenings and weekends, and be less affected by general capacity constraints, and that this may explain the increase in ADA paratransit ridership.

Contractor Payment Structure and Service Model Design

PVTA asked the consulting team to responds to the following three questions related to the contractor payment structure and general service model design:

- Is the current payment structure for peak service vs. off-peak service cost effective and is there any reason to switch to a new payment structure in the next procurement cycle? Our analysis of the invoices and payment to Hulmes shows evidence that the PVTA paid Hulmes the equivalent of $21.65 per trip for peak hour service and $28.00 per trip for off-peak service in FY 2014, while PVTA's total cost per trip for paratransit service in FY 2013 was $24.65. These unit costs are quite reasonable for a service that co-mingles ADA and senior trips but is predominantly ADA by a ratio of over three to one. Also, PVTA's operational unit cost of $27.64 for FY 2012, as reported to the NTD, compares quite well with its peers' in terms of cost per trip.
- Is the potential reduction in cost sufficient reason to scale down ADA paratransit service to the ADA minimum requirements? Our analysis of the ADA origins and destinations, combined with the payment structure, yields minimal opportunities for cost reduction under the current contract.
- Is the volume of work large enough to suggest the possibility of a multi-carrier service model, and if so, how would the work be split between/among the contractors. PVTA has had multiple (2-3) contractors providing paratransit service in the past, but has since

consolidated services into one contract as a cost-reduction / efficiency strategy, and based on the evidence, it can be said that it has worked. The volume of work at over 1000 trips per weekday and a peak pullout of over 70 peak runs is potentially splittable, however it will likely be costly because of the need of having more than one call center. PVTA could centralize the call center functions with another contractor as well if it migrates to a multi-carrier environment; however, this could also drive up costs.

Themes and Issues Pertaining to Hulmes

Reservations

Some customers indicated mis-bookings of "A to B to C" multi-leg trips. Hulmes' Reservations Supervisor has been aware of this issue and has stepped up the training to ensure that the "next trip" box is checked instead of the "round trip box" when the trips is booked.

During the recent upgrade of ADEPT, the "lift-required" designation in the system's customer profile was inadvertently unchecked, resulting in the software scheduling customers onto vehicles that are not accessible. To correct this problem, customer profiles are being revised accordingly on a customer-by-customer basis as the error is encountered.

Several survey respondents said that they would prefer to confirm or make reservations when the call center is not open. This capability is coming in the Spring of 2015.

Scheduling

Scheduling issues included the following:

- Hulmes schedulers have suggested that the zones to which runs are assigned in ADEPT are so large that it defeats the purpose of these "waypoints"[1] and zones should be reduced in size to increase their effectiveness.
- The "last in – first out" realties of passengers who use wheelchairs on certain vehicles necessitates alternative routings vs. how the scheduling system envisions the route to be run; this not only negatively impacts productivity, but also can increase the travel time for the customers using wheelchairs who board the vehicle first.
- The speed setting in ADEPT, used by its scheduling engine, may be too high given real-world conditions such as bridge bottlenecks, traffic congestion, road construction, school bus delays, etc.
- Schedulers were under the impression that they were not to manually re-schedule trips nor anchor subscription trips (standing orders), which may have contributed to suboptimal routing. PVTA staff has since addressed this practice.

[1] Waypoints (for paratransit scheduling systems) serve to keep runs in the same vicinity as much as possible in order to maximize service productivity.

Dispatching

With improved scheduling resulting from PVTA "intervention" and with other recommendations related to scheduling followed, the dispatchers should start their day in a better position. That said, as long as runs are uncovered, schedules will be tight, and that makes a dispatchers job tougher, as they have to re-assign trips to keep runs on-time. Other issues related to dispatching are as follows:

- Dispatchers are finding it difficult to be pro-active when also responding to drivers and to customers with same day issues.
- Dispatchers are often processing no-shows and "where's my ride?" requests without really knowing the exact location of the vehicle in question because each dispatcher only has one monitor and pulling up a map of real-time locations takes a very long time.
- Dispatchers end up manually re-assigning trips vs. using ADEPT's scheduling capabilities because the speed setting yields impractical solutions; this cuts down on the dispatchers' productivity.
- At the end of each day, ADEPT automatically records unscheduled trips as "denials" even though they were served. This is partly the fault of the dispatchers who create new trips to handle same-day return requests (e.g., for medical holds or for early returns) but fail to mark the original return trips as cancelled. As a result, PVTA staff has to do this to get an accurate count of denials.
- There are some limitations to the radio system, with dispatchers having difficulty reaching drivers in Agawam, Ware, and Westfield. It is the topography of the valley that creates this communication challenge. PVTA is in the process of addressing this limitation.

Driver Shortage and Communication

With uncovered runs, the resulting undersupply of service, especially at peak times, translates into over-full schedules that are challenging to operate on time. Also, several drivers stated that they are often "forced" to serve trips that extend well into their scheduled breaks. Several drivers indicated that there have been no formal opportunities to meet with reservations, scheduling and dispatching staff in the last two years, and that such meetings would enhance communication of and response to service issues.

RECOMMENDATIONS

Recommendations are grouped based first on the division of responsibilities (PVTA vs. Hulmes), and then based on immediacy – sorted by:

- Immediate -- current fiscal and contract year
- Mid-term – beginning next fiscal/contract year up until the next procurement cycle
- Long-term -- reflected in the next service provider RFP).

Recommendations for PVTA fall into these three categories. All of the recommendations for Hulmes fall into the "Immediate" category.

Recommendations for PVTA

Immediate

- Customer Notices –PVTA should adopt a written plan that details (a) what general information about the program should be made available and via what media; (b) examples of policy changes that would trigger public meetings, customer letters, seat drops, website changes, announcements when customers are on hold, and other *accessible* communication mechanisms; (c) the dates on which a specific policy change becomes effective; and (d) time periods by which the above actions must be accomplished. PVTA should also provide some information in large print as well as in a format that can be used by speech recognition software. In the preparation of this plan, PVTA should seek suggestions from customers via customer focus groups, e.g., persons with visual impairments including those who are computer-literate and use screen-readers as well as those who are not computer-literate. PVTA should also consider announcing refresher messages or policy changes on the telephone system (when customers are on hold) as well as the use of social media.
- Customer Feedback Follow-Up – When a customer provides feedback that results in a disciplinary action, re-training, training curricula addition or adjustment, etc., PVTA should send the customer an explanation of the issue and the response by PVTA.
- Scheduling – Speed Settings -- PVTA/Hulmes should experiment with decreased speed settings within a test database, comparing the results with actual travel times that are identified by dispatchers and drivers as realistic. Once a speed setting appears to mirror actual travel times, drivers and dispatchers should "sign-off" on the change.
- Scheduling – Zone Reduction -- PVTA/Hulmes should also experiment with changing the size of the zones, per those suggested by Hulmes' schedulers, with a test database to first see whether that change has a positive impact.
- Scheduling – Wheelchair Passenger LIFO Analysis -- PVTA/Hulmes should perform an analysis on circuitous routing that results from Last-In/First Out (LIFO) limitations, and if a pattern emerges, to explore whether the assignment of a different vehicle type would alleviate these limitations.
- Automated Confirmation Calls – PVTA should reduce the length of confirmation calls by eliminating redundant information. **PVTA has already completed this task.**
- Arrival Calls – PVTA has been testing the use of arrival calls with a subset of customers to test their effectiveness. Arrival calls are activated by the driver when the van is approximately five minutes from the house. The use of arrival calls should be made

available to the entire customer base. PVTA's IVR system and ADEPT's customer profile can accommodate a secondary contact, if a customer wishes to use two different telephone numbers for confirmation calls and arrival calls, respectively. Prior to activating arrivals calls for all customers, an information blast should go out to all customers informing of this new offering and suggesting that a cell phone number be used for the arrival calls (if the customer does have a cell phone) as at least 50% of the arrival calls will be away from the house. (Related driver training on arrival calls should also be performed by Hulmes.)

-
- Expand Dispatching Staff - PVTA and Hulmes need to collectively determine whether a different approach to dispatching is affordable under the current contract, or perhaps warrants an amendment. The dispatchers need to be "freed" from some of the more mundane parts of their current job, thereby enabling them to spend more time proactively identifying and addressing problems in the future. To do this, they each need one or more dispatching assistants who can take over the jobs of communicating with the drivers by voice (for example, in response to a no-show call) and communicating with customers (e.g., Where's my ride? calls).
- Travel Time Analysis – PVTA should periodically undertake an analysis to ensure that actual travel times for ADA paratransit trips comply with the FTA definition for excessive travel times.

Mid-Term

-
- Arrival Calls – Currently, arrival calls are activated manually by drivers. PVTA should explore opportunities to automate this function based on the real-time location of the vehicles.
- Same-Day and Late Cancellations – A number of other recommendations documented here in (including reducing the length of confirmation calls and improvements to the scheduling process) should also have a direct or indirect effect on reducing cancellations. PVTA should continue to monitor cancellations by type to determine whether these actions had that desired effect.
- Service Monitoring and Eligibility Determination Staff – Currently, one administrative person is dedicated to each of these functions. Both managers would benefit from a shared analyst to assist with their respective responsibilities, and for department coverage when these managers are in the field. The Paratransit Manager would also greatly benefit from a second computer monitor. Among other things, this could be used to display the location of vehicles – in real time, or at times associated with certain events being reviewed – as well as to display reports in ADEPT while the manager enters data from these reports into spreadsheets for trend analyses on the other monitor.
- Travel Training Staff – Currently, PVTA's two travel trainers focus on providing intensive one-on-training, and are providing such training to 5 to 7 customers at any given time. It is recommended that PVTA expand its travel training program, with the hiring of new staff, to expand the types of travel training offered. In particular, it is recommended that PVTA expand its travel training program to include more group training, targeting seniors and veterans, for example, as well as the possibility of training agency liaisons so that they are more familiar with PVTA's fixed-route services and travel training program.

It is also possible that agency partners could possibly share the cost of this staff expansion.

Long-Term

- Contractual Target for Preventable Accidents. In its next RFP, PVTA should consider revising its contractual standard of 10 preventable accidents per year to an accident frequency ratio of 1 preventable accident per 100,000 (total) miles, an industry standard, as the number of accidents is more a function of miles travelled.
- ADA Minimum Service Area - In the next procurement cycle, PVTA may wish to consider scaling back to the ADA minimum service area if the follow-up analysis involving a more statistically relevant data set unveils that significant savings would result.
- Service Model - The specific recommendation is to design the next RFP to include North and South zones, and to allow proposers to bid on the North zone only, the South zone only, or both the North and the South Zone as one (for example, with one call center and multiple operational facilities, much like Hulmes does at present). In this way, PVTA will be able to determine from the technical and cost proposals whether or not there are any inherent advantages in moving to a two carrier, zoned system. If PVTA elects to pursue the multi-carrier design, it can subsequently explore whether there are any inherent advantages to centralizing reservations, scheduling, and dispatching in the following procurement cycle.

Recommendations for Hulmes Transportation

Immediate

- Driver Re-training -- Hulmes should formalize its re-training program, and indicate the actions or events which trigger re-training, including a pattern of complaints about a specific driver or a specific shortcoming among many drivers. There may also be a need, from similar "triggers" to revise the initial and on-going driver training. One area of training or re-training that may be needed, based on rider comments, is providing assistance to customers with visual impairments, noting that PVTA has produced a training video that addresses the appropriate way for drivers to relate to passengers with visual impairments.
- Run Structure Adjustments -- By using more part-time and split shifts, Hulmes can create a run structure that better mirrors the demand profile, and in particular, reduced the oversupply of service during the mid-day.
- Scheduling Practices - Effective immediately, schedulers should (1) manually schedule together – and anchor -- standing order trips that have the same O-D and are at the same time; and (2) re-schedule the obvious cases where schedulers identify "tweaks" to the schedule that after the last batch has been completed. From there, it would make sense to strategically schedule and anchor group (many-to-one) trips, dialysis trips, and perhaps employment trips leaving other standing orders trips to the batch scheduling process, and noting that employment trips need be anchored only at the workplace drop-off location (and return trip pick-up location.) This recommendation was given to PVTA as a mid-study finding, and **PVTA has since implemented it** via meetings with Hulmes management.

- Dedicated Dispatch "AVL" Monitors - One of Hulmes' dispatchers demonstrated how long it takes to pull up a map with real-time information on vehicle locations, clearly demonstrating why these maps are not used in practice. Separate monitors for each dispatch pod need to be provided and dedicated to this map, so that the dispatch assistants can check on the real-time location in response to the driver no-show requests and same-day customer "where's my ride?" requests.
- Driver Feedback - Hulmes should institute regular opportunities for driver feedback to reservations and scheduling.
- Driver Retention - One area where management appears to fall short is driver retention efforts. More can be done in the way of driver appreciation, especially given that most drivers appear to be revered by customers. Driver appreciation starts with improving communication – praising in public, disciplining in private, and more formal and frequent communications with drivers. And it continues with not reneging on promises. If breaks are scheduled, they should be honored (driver should not routinely lose their break (or have their break greatly reduced) because they are also doing trips meant for another (uncovered) run.) Paratransit driving is a challenging profession, and those who have found this vocation usually have done so because they feel they are making a difference.
- Driver Shortage - The dearth of drivers and the inability to cover runs – in the off-season – is of major concern. A significant "finder's fee" should be offered to drivers and other staff who find applicants that are hired and remain employees in good standing for a certain period. Hulmes may also need to re-visit its wages and fringe benefit package for drivers if it is unable to fully cover its runs.
- Utility Cleaners - Hulmes should hire "utility cleaners" to clean the inside and outside of the vehicles.

FUTURE DEMAND

The size of the eligible populations within the service area has the most significant effect on demand. Today, 13.8% of individuals living in the PVTA service area are eligible for paratransit service due to being 60 years of age, and 15.4% are eligible due to a disability. Since only about 5% of the population is reported to be both 60 years of age and have a disability, it can be assumed that between 20-25% of the PVTA area population is eligible for paratransit.

Future growth of the senior population for 2010 to 2030, as provided by the Pioneer Valley Planning Commission is projected to be about 2% annually. Since PVPC did not perform a similar projection of persons with disabilities, the estimated senior growth rate may be used as surrogate. In other words, it is conservatively assumed that the demand for overall paratransit service will grow at 2% annually, which in turn suggests a need to increase the service budget at least by this amount, plus a factor for inflation.

Such an increase should enable PVTA to accommodate any increases in the ADA ridership (noting the 3.4% and 3.8% annual increases in ADA paratransit ridership over the last three years) while expanding the service to accommodate some of the senior trips that might otherwise be displaced if the amount of service remained level, and while also noting we suspect that some of the increase in ADA ridership reflects former senior ridership.

1 INTRODUCTION, METHODOLOGY AND REPORT ORGANIZATION

INTRODUCTION

The Pioneer Valley Transit Authority (PVTA), based in Springfield, Massachusetts, is the largest Regional Transportation Authority (RTA) in Massachusetts serving 24 participating member communities. PVTA's services include fixed route transit that serves both urban and rural areas based on community demand and resources, as well as two demand response programs that are operated jointly: ADA complementary paratransit and dial-a-ride (DAR) services for seniors.

For many seniors and people with disabilities in these communities, transportation provided by PVTA is a lifeline to accessing jobs and essential services. PVTA's ADA complementary paratransit is not limited by the standard 3/4 mile of fixed-route service, but is available throughout the member communities, with a few exceptions. ADA service is provided seven days a week in most communities with varying hours. Door-to-door accessible van dial-a-ride service is also available five days a week in all of PVTA's communities for seniors 60 years of age and over who are not eligible for ADA paratransit services.

By state law, RTAs must contract out the operation of both fixed-route and paratransit services. PVTA contracts with Hulmes Transportation Services, Ltd., to provide turnkey paratransit services including reservations, scheduling, dispatching, service delivery, and vehicle maintenance.

Although PVTA has seen its annual fixed-route service ridership nearly triple over the last decade to its current ridership of nearly 12 million passengers, ridership on the paratransit services has remained relatively level.

The Nelson\Nygaard Consulting Team, composed of Nelson\Nygaard Consulting Associates and ASG Planning, was hired to identify unmet needs and ways in which efficiency of the system can be improved. Within this study is a comprehensive evaluation of the way in which paratransit service is contracted and delivered, a detailed list of reported issues and problems identified through data collected and customer and stakeholder feedback, and a variety of recommended strategies to address the mobility needs of current and prospective paratransit customers in the region while improving the operating efficiency of the paratransit service.

METHODOLOGY

In developing this study, the Nelson\Nygaard team used both a quantitative and qualitative approach to gathering information from PVTA, Hulmes Transportation, the Pioneer Valley Planning Commission (PVPC), local stakeholders, and current riders.

The project commenced on May 15, 2014 with the Kick-Off meeting which brought together Nelson\Nygaard Consulting Associates, ASG Planning, PVTA staff, and PVPC staff to finalize the goals, objectives, and desired outcomes of the study. Additionally, during this meeting, background data and studies were collected and key stakeholders were identified.

Data Collection and Analysis

In order to identify existing conditions, the study team gathered information from PVTA and Hulmes Transportation for five main analyses:

- **Paratransit technical data**, which included system policies and service performance data. The data collected was used to assess various aspects of performance and compliance. Each data source referenced throughout the document is included in the appendices.
- **Business process and operational procedures**, which included information associated with the physical equipment and operational practices of the paratransit service. To gather this information, the study team observed Hulmes' reservations, scheduling, dispatching and management functions in order to understand at a practical level how staff interacts with passengers and drivers and how Hulmes staff uses StrataGen's ADEPT software, the paratransit software provided to Hulmes by PVTA. The study team also held two focus groups with drivers.
- **Service and cost information**, which included key cost and unit cost indicators, such as total operating costs, unit operating costs, subsidy per trip, and state and municipal funding.
- **Peer system analysis**, with data collected through the National Transit Database, to understand how PVTA paratransit services compare with national peers.
- **Services required by ADA vs. services above and beyond ADA**, which included the identification of existing ADA paratransit services that exceed ADA minimums and their cost.

Customer Survey

The customer survey was launched at the end of June and remained open for three weeks. The survey was administered with the help of the drivers who handed out surveys on-board, collected surveys on the vehicle, and brought them to a Hulmes dispatching office to be picked up by the study team. Survey respondents also had the option of mailing in the survey or completing the survey online. A total of 478 surveys were completed.

Stakeholder and Public Involvement

The stakeholder and public outreach portion of the study included the following events, facilitated by the consulting team, as list in Figure 1-1.

Figure 1-1 June and November 2014 Stakeholder Meetings and Attendees

Stakeholder Group	Meeting Date and Time	Attendees (*omitting PVTA and consultant attendees*)
Dialysis Centers	June 17, 11-noon	Teresa Parton-Lopes, East Springfield Dialysis Nancy Doby, Palmer Dialysis / Hampshire County Dialysis Damaris Gozalez, ARA Dialysis Center of Western MA
United Transit Equity	June 17, 2:30-3:15	Thomas O'Brien, United Transit Equity John W. Bennett, United Transit Equity Linda Stone, Mass Senior Action Maria Rosie Sanchez, NEIC Michael Lindberg, Arise
South Van Riders	June 17, 3:30-5:00	25 paratransit riders, both ADA paratransit customers and senior customers
Adult Day Care Centers	June 18, 8:30-9:30	Audrey Monroe, Hawthorn Elder Care Lee-Ann Conner, Mercy Adult Day Health
Senior Centers & Councils on Aging	June 18: 10:30-11:30	Lisa Napiorkowski, South Hadley Senior Center Separate follow-up interviews were held with Laurie Cassidy, West Springfield COA and Carolyn Brennan, E. Longmeadow COA
North Van Riders	June 18, 3:30-5:00	22 paratransit riders, both ADA paratransit customers and senior customers
South Van Riders	Nov. 18, 12:00-2:00	15 paratransit riders, both ADA paratransit customers and senior customers
North Van Riders	Nov. 18, 4:00-6:00	10 paratransit riders, both ADA paratransit customers and senior customers

The purpose of the meetings in June was to solicit comments from local advocacy agencies and van riders, hearing perceptions about current PVTA paratransit services, identifying priorities for improvement, and collecting opinions about current and future needs. The results of the customer survey, findings regarding themes and issues, and recommendations were discussed at the second set of rider forums in November. Attendees from the meetings and rider forums are shown in Figure 1-1.

REPORT ORGANIZATION

The report is organized into the following chapters:

- **Chapter 2: Description of PVTA Paratransit Service** provides an overview of the division of responsibilities between PVTA and its contractors, how service is provided, including pertinent policies and practices, and PVTA's administrative and support efforts.
- **Chapter 3: Service and Cost Performance / Peer Review** provides analysis on key service performance measures, such as ridership, trip dispositions, and supply of service, as well as a cost performance analysis and a comparison with national peers.

- **Chapter 4: Customer Survey** provides detailed results of customer perceptions of the paratransit service.
- **Chapter 5: Themes and Issues** summarizes potential areas for improvement based on stakeholder and customer feedback, interviews with stakeholders and Hulmes Transportation staff and drivers, analysis of service data, and observations of Hulmes staff. These issues are presented below and sorted by functional area.
- **Chapter 6: Recommendations** provides a list of issues collected throughout the study effort. The recommendations provide strategies to address/remedy each of the presented issues.
- **Chapter 7: Future Demand Estimation** includes the projected growth in senior and disabled population and other factors and the effect on the demand for PVTA paratransit.

Also, a special analysis was conducted as part of the review to better understand what cost reductions might result from scaling back ADA paratransit service to that which is minimally required. This analysis is presented in Appendix P.

.

2 DESCRIPTION OF PVTA'S PARATRANSIT SERVICE

SERVICE MODEL AND DIVISION OF RESPONSIBILITIES

PVTA's door-to-door paratransit service includes both ADA paratransit service and a Senior Dial-a-Ride service. While these two services are provided together (with ADA trips and senior trips able to be co-mingled on the same vehicles), and through the same contract with Hulmes Transportation Service, the Senior Dial-A-Ride service is only available on weekdays and has more limited hours of service.

Generally, the division of responsibilities for PVTA's paratransit service is presented in Figure 2-1.

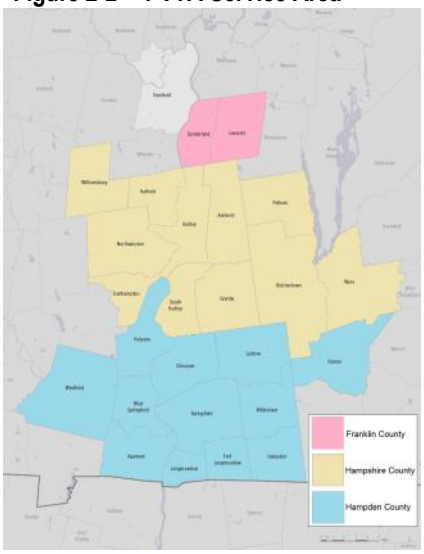
Figure 2-1 Division of Responsibilities for PVTA Paratransit

Pioneer Valley Transit Authority	
□ Policy Development and Planning	□ North Operations Facility
□ Contractor Procurement and Invoice Processing	□ Fuel
□ Contract Compliance, Service and Cost Monitoring	□ Driver Uniforms
□ Vehicle Procurement and Insurance	□ ADA Paratransit Eligibility Determination
□ Risk Management	□ Fare Media Distribution
□ Software Licensing / Support Contract	□ Reporting
□ Computer Server, Hardware, Network and Support	□ Commendation / Complaint Management
□ Telephone System and Support	□ Public Outreach and Surveys
□ Radio System; In-Vehicle MDCs / AVL equipment	□ Travel Training
Contractors	
Hulmes Transportation	**SATCO / VATCO**
□ Reservations	□ Vehicle Maintenance
□ Scheduling	
□ Dispatching and Same Day Functions	
□ Service Delivery	
□ Road Supervision	

SERVICE AREA, DAYS, AND HOURS

Service is operated in PVTA's 24 member communities throughout Hampden, Hampshire and Franklin Counties, and parts of two non-member communities, as shown in Figure 2-2. Except as noted, service is not limited to ¾-mile fixed route transit corridors.

Figure 2-2 PVTA Service Area



The 24 member communities include:

Hampden County (in blue): Agawam, Chicopee, East Longmeadow, Hampden, Holyoke, Longmeadow, Ludlow, Springfield, Westfield, West Springfield, and Wilbraham (Non-members Enfield and Monson within ¾-mile route corridors for both ADA and senior trips are also served.)

Hampshire County (in yellow): Amherst, Belchertown, Easthampton, Granby, Hadley, Leverett, Northampton, Palmer, Pelham, South Hadley, Sunderland, Ware and, Williamsburg. (Non-member South Deerfield within ¾-mile route corridors for both ADA and senior trips is also served.)

Franklin County (in red): Leverett and Sunderland. (Non-members Shutesbury, South Deerfield and Southwick within ¾-mile route corridors for both ADA and senior trips are also served.)

ADA Paratransit service is provided seven days a week in most communities with varying hours. ADA Paratransit trips are only provided during applicable fixed route transit operating hours. ADA service does not operate on Sundays in the following communities: Easthampton, Enfield, Granby, Hampden, Pelham, South Hadley, Ware, and Wilbraham.

Senior Dial-A-Ride service operates Monday through Friday, 8 AM – 4:30 PM.

FARE AND FARE MEDIA

Fare depends upon the origin community and destination community of a trip, and can be $2.50, $3.00, or $3.50, depending upon the exact trip origin and destination. Each of these fares is double the fixed-route fare for the same trip, as permitted by the ADA. The fare schedule can be found in Appendix A.

Fare can be paid in cash (exact change) or with tickets. Books of tickets can be purchased from PVTA on the web, by mail, and in person at various senior centers and at the PVTA Information Office at 1341 Main Street in Springfield. The tickets themselves come in books of twenty $2.50 tickets, and books of ten $0.50 tickets. These $50.00 and $5.00 ticket books can be purchased for

$47.50 and $4.50, respectively, on line via Pay Pal, or by check. A 50 cent mailing fee is added to cover the cost of mailing tickets.[2]

CLIENT ELIGIBILITY AND REGISTRATION

All ADA-eligible persons who reside in the 24 communities are eligible for ADA paratransit service. Since July 2011, PVTA has employed an ADA paratransit eligibility determination process that consists of:

- PVTA's ADA coordinator schedules in-person appointments for each applicant.
- Free transportation on PVTA paratransit to/from PVTA's offices is offered to ADA paratransit applicants, if needed.
- PVTA's ADA Coordinator, who supervises the ADA paratransit eligibility determination process, also makes "field trips" to Amherst, Holyoke, Northampton and Wilbraham.
- Each applicant is instructed to complete "part 1" of the application during the interview. The coordinator then sends the "part 2" to the applicant's health care provider.
- Based on the interview and the completed application, the ADA Coordinator determines an applicant to be ADA eligible (for all trips) or conditionally eligible (see below).

Once being deemed eligible, PVTA staff sends the new customer a welcome packet and enters the new customer into the customer profile of ADEPT, the paratransit scheduling and management software used to support these services. Once in the system, a customer may request ADA paratransit service.

It is important to note that PVTA's ADA eligibility determination process does result in some customers receiving conditional eligibility – that is, that they are eligible for only certain trips (for which they cannot access a bus stop because of their disability) or for service under specific circumstances (good/bad days, weather-related, etc.). Currently, there are 2,048 ADA customers with full eligibility and 1,054 ADA customers with conditional eligibility. Of these, approximately 1,648 customers have been active in the last 6 months.

All seniors (age 60 and over) who reside in member communities are eligible for Dial-A-Ride. When seniors new to the service call Hulmes into request their first trip, call takers complete the customer profile in ADEPT, which includes asking the caller for their age and a birth date, but there is no formal follow-up to verify the date.

TRIP RESERVATIONS

PVTA Paratransit reservations hours are daily between 8:00 and 4:30. Hulmes has a full-time Reservations Supervisor, who works weekdays 8:00 to 4:30, as well as four full-time reservations agents with same work schedule. Hulmes also has 1 part-time agent who works from 10:30 to 3:30 on Monday, Wednesday and Friday, and a part-time agent who works from 8:00 to 4:30 on Monday, Saturday, and Sunday. (Hence, there is one agent covering the two weekend days).

ADEPT is used to support the reservations process. Customers call Hulmes reservation agents to place an advance reservation for a trip between one and seven days in advance. Reservations

[2] Note: PVTA administration has expressed some interest in shifting from tickets to a centralized fare account structure similar to the fare program associated with MBTA's THE RIDE.

agents call up customers and book trip requests, often based on frequently made trips that are stored by the system for each customer. In the booking process, reservation agents also are provided with eligibility limitations that are associated with conditional eligibility. The advance 7-day policy has been in place since the spring of 2013. Previous to that, it had been 14 days. In between, PVTA tested a 5-day reservation period on a pilot basis before changing to the current 7-day advance reservation policy. By the Spring of 2015, PVTA paratransit customers will be able to book trips online via its IVR system.

By policy, PVTA also allows subscription trips to be booked for customers who take the same trip(s) at the same time at least once per week.

While same-day reservations are allowed, these comprise less than 1% of trips and are primarily associated with re-emerging no-shows resulting from medical holds, according to Hulmes staff.

For the first leg of a trip, customers request a pick-up time or an appointment time. If a customer provides an appointment time, their drop-off time will typically be set five minutes prior to the appointment time and the scheduled pick-up time will calculated within established parameters for maximum ride time and the 20-minute pick-up window (see the detailed explanation of the 20-minute window in the Scheduling section).

For trips with a requested pick-up, the default "ground-rule" is that customers will be picked up no earlier than the requested pick-up time. Customer may alternatively specify that they wish to be picked "no later than" a specific time. Reservation agents have all been trained to specify each type of request.

Pick-up times for return trips are almost always specified. The exceptions, leading to their being booked for the 2300 hour (the equivalent of an unscheduled return or "will-call") include return trips from jury duty and same-day surgery, for which the exact pick-up time is left open.

From observations of the reservations staff, it can be said that they appear to be proficient with ADEPT, efficiently calling up customers and using previous ADEPT trip records to populate the new booking. In their conversations with customers, they were also courteous, comprehensive and clear in confirming information back to the customer at the end of the telephone call, and in handling multiple bookings on one phone call.

According to Hulmes' schedulers, once a trip is booked, ADEPT automatically attempts to schedule the trip onto a run. Other trips are left in an unscheduled trip bucket within ADEPT for batch scheduling. The formal batch scheduling process begins the morning of the day before the trip date and is completed around 4:30 pm on the day before the trip. This is described further below in the Scheduling section.

Thus, no pick-up window is provided to the customer at the time a trip is booked. Rather, the 20-minute pick-up window is provided to the customer via a confirmation call placed (via the IVR system) the evening before the trip. See the Confirmation and Arrival Calls to the Customer section below.

TELEPHONE STATISTICS

Telephone statistics are collected for each hour the call center is open, from 8:30 am to 4:30 pm. Six different types of data are collected: a count of the number of calls offered, answered, and abandoned, and the time in hours, minutes, and seconds of the call length, wait time, and the longest wait time.

Figure 2-3 depicts the averages for each statistic for the last three fiscal years. The full datasets can be found in Appendix B.

Figure 2-3 Call Statistics

	FY 2012	FY 2013	FY 2014
Average Calls Offered	14,868	14,897	14,987
Average Calls Answered	14,428	14,532	14,564
Average Calls Abandoned	425	346	395
Average Wait Time	00:00:26	00:00:22	00:00:22
Average Call Length	00:01:59	00:01:56	00:01:55

Source: PVTA and Hulmes Transportation

As shown in Figure 2-3, the number of calls has steadily risen over the last three fiscal years. For all three fiscal years, the call length has remained consistent at just under two minutes and the average wait time has also remained about the same, between 22 and 26 seconds. For call length, the industry standard is to keep the average call length under two minutes, which is being accomplished.

Figure 2-4 shows the hourly volume of telephone calls and their disposition from July 1, 2013 through June 30, 2014.

Figure 2-4 Hourly Volume of Telephone Calls and Their Disposition (July 1, 2013 – June 30, 2014)

	8:00	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00
Calls	16,892	16,598	15,860	14,067	12,941	14,360	16,495	18,346	9,326
Answered	16,281	16,201	15,432	13,714	12,618	13,973	16,113	17,847	8,901
% Answered	96%	98%	97%	97%	98%	97%	98%	97%	95%
Abandoned	581	369	392	323	297	360	343	473	416
Avg. Wait Time	00:00:30	00:00:19	00:00:17	00:00:16	00:00:15	00:00:19	00:00:18	00:00:23	00:00:42
Avg. Length	00:01:54	00:01:57	00:01:57	00:01:55	00:01:53	00:01:57	00:01:57	00:01:54	00:01:48

Source: PVTA and Hulmes Transportation

As shown in Figure 2-4, the average wait is very reasonable across the day, never exceeding 42 seconds. The longest average wait times (30 seconds and 42 seconds) appear to be at the beginning and end of the reservations period. According to Hulmes' Reservations Supervisor, the heaviest days and longest wait times for incoming calls are Monday morning (8-10 am) and Friday afternoon (3:30-4:30 pm). Part-time employees are scheduled to cover these key times.

The Reservations Supervisor also reports that the call volume on weekdays in the summer time ranges between 400 and 500 calls per day, or much lighter than other months. As shown in Figure 2-5, from September through May, the call volume increases to between 500-700 calls per day. This pattern is consistent on weekend days, with average volumes of about 90 calls during the summer months and 120 calls during the school year. Thus, on a heavy day (700 calls), and with at least 4 reservation agents, this works out to 22 calls per agent per hour, or a reservations agent fielding a call every three minutes. Conversely on a light day (400 calls), this works out to only 12.5 calls per agent per hour, or a call every five minutes.

Figure 2-5 Reported Daily Call Volumes

	September through May	June through August
Weekday Call Volume	500-700	400-500
Weekend Call Volume	120	90

Source: Hulmes Transportation

TRIP CANCELLATIONS

There are three categories of cancellations, as follows:

- Advance cancellations are defined as any cancellation received by the end of the reservations period on the day before the trip.
- Same-day cancellations are defined as any cancellation received after the end of the reservations period on the day before the trip up until one hour before the beginning of the confirmed pick-up time.
- Late cancellations are defined as any cancellation that is received within an hour of the confirmed pick-up window.

SCHEDULING

Staffing

Hulmes scheduling staff has used the automated scheduling capabilities of ADEPT since February 2014.

Hulmes has three schedulers, two with 3-4 years experience scheduling, and a third with less than one year experience. Work is divided among the three geographically: one schedules the runs assigned to the area around the City of Springfield; a second schedules the runs assigned to the North Area, and the third person schedules the runs assigned to the area in between. This works out roughly to a 40%/20%/40% split of runs, with the least experienced scheduler being given the lighter load in the North area.

Prior to February 2014, the Reservations Supervisor was responsible for scheduling subscription standing orders, striving to schedule subscription trips that are taken more than once a week (e.g., a dialysis trip) onto the same vehicle at the same time on all days that the trip is taken. After going to fully-automated scheduling, it was decided not to pre-schedule and anchor these trips but to "throw" them into the batch process along with all other trips on a daily basis.

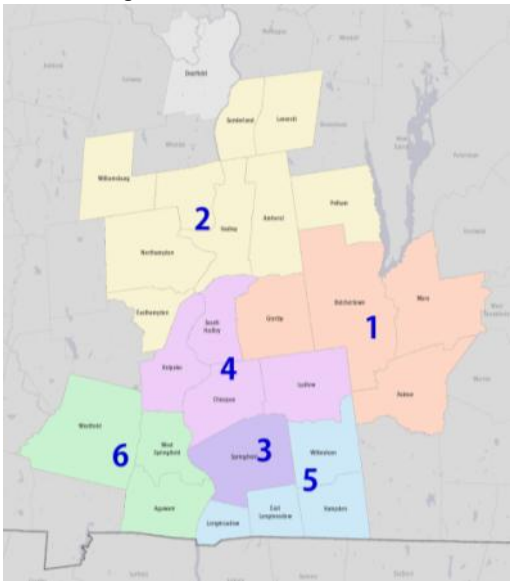
[Note: Mid-study, PVTA management instructed Hulmes staff to begin the process of anchoring certain subscription trips and will be tracking its effect on productivity, on-time performance, and no-shows.]

Scheduling Parameters

Before discussing the scheduling process, it is important to first discuss the scheduling parameters that are loaded into ADEPT.

- The start and end time of each run as well as the zone(s) that are assigned to each are manually determined and entered into ADEPT.
- The collective number of runs available in each hour of the day is referred to as "the run structure." The closer the run structure is to mirroring the demand profile (i.e., the number of trips requested in each hour of the service day), the more productive the system is likely to be. An analysis of the Run Structure is presented below.
- Also contributing to productivity is the ability to limit the extent to which vehicles crisscross the service area. This is done in ADEPT, as noted above, by assigning one or more zones to each run. There are currently six service zones (see Figure 2-6). If a zone is not assigned to a run, ADEPT will not schedule a trip with an origin or destination in that zone to that run. Again, the underlying concept behind this is to improve service productivity: by limiting how far a vehicle can go, and not allowing all vehicles to travel throughout the entire service area, service productivity can be enhanced. It is important to note that ADEPT is set-up so that schedulers can add or remove a zone from a run at any point in the scheduling process.

Figure 2-6 Service Zones



Source: PVTA and Hulmes Transportation

The other main user-specified scheduling parameters in ADEPT include:

- Capacity (number of seats and wheelchair position combinations) appropriate to the vehicle type assigned to a particular run
- Speed, which determines how long it will take to go between two points.
- Boarding and alighting times for ambulatory and non-ambulatory customers zones, as described above.
- Maximum on-board travel time (this is the maximum travel time for a customer on a vehicle) is set in ADEPT based on the table in Figure 2-7. The first two columns set the

Figure 2-7 Maximum On-Board Travel Time

From Time	To Time	Adder
0	5	20
6	10	22
11	15	24
16	20	26
21	30	28
31	40	30
41	60	32
61	90	30
91	300	25

Source: PVTA 2014

range of the travel time, as calculated by ADEPT, assuming the trip is served directly from the origin to the destination. The "Adder" in the third column is the time added to the direct travel time to set the maximum on-board travel time for that trip.

  - *Example 1: a 9 minute direct travel time yields a 31-minute (9+22) maximum travel time.*
  - *Example 2: a 19 minute direct travel time yields a 45 minute (19+26) maximum travel time.*

- The specific 20-minute pick window changes with the type of request:
  - If the trip request is based on an appointment time, the drop-off is usually entered as 5 minutes beforehand, and the pick-up time is determined largely based on the allowable maximum ride time; once the scheduled pick-up time is determined by ADEPT's scheduling engine, a pick-up window is established and bookended by 10 minutes before and 10 minutes after the scheduled pick-up time. So, if the appointment time requested is 8:45 am and ADEPT calculates a scheduled pick-up time of 8:15 am, the pick-up window communicated to the customer would be 8:05 to 8:25 am.
  - If the trip request is based on a requested pick-up time, the "default" pick-up window is 0 to 20 minutes after the requested pick-up window, regardless of whether there is a pick-up for a one-way or going trip or for the pick-up of a return trip. So, for a 5:00 pm requested pick-up, the pick-up window communicated to the customer would be 5:00 to 5:20 pm. So, in effect, "no earlier than" 5:00 pm.
  - A customer may also specify an alternative request for a trip based on a pick-up that reflects a "no later than" request. So, for example, if a building is closing at 6:00 pm, the customer could specify a no later than 6:00 pm pick-up, in which case the pick-up window communicated to the customer would be 5:40 to 6:00 pm.

In addition, there are three metrics, one focusing on efficiency and two focusing on service quality, that contractually can trigger incentives and penalties, and accordingly directly influence schedulers (and dispatchers) in their duties. These include:

- Productivity – Incentive payment for achieving 2.2 passengers per RVH, and penalties for falling below 1.75 and 1.6 trips per RVH.
- On-Time Performance -- Incentive payment for achieving a 96.5% and a 97% OTP, and penalties for falling below 95%, 90% and 85% OTP.
- Customer (Maximum) Ride Time -- Incentive payment for when more than 96% of the trips have a travel time of under 60 minutes, and penalties for falling below the 96% level.

These are further detailed in the "Service Standards, Incentives and Penalties" section.

Run Structure

The collective number of "runs," or vehicles available in each hour of the day, is referred to as "the run structure." A paratransit service's run structure forms the backbone of the supply of service. The closer the run structure is to mirroring the demand profile (i.e., the number of trips requested in each hour of the service day), the more productive the system is likely to be. An analysis of the run structure is presented below.

The run structure is defined as the collective availability of all runs. A run structure thus is built based on the start and end time of all runs as manually established by Hulmes' schedulers and

entered into ADEPT. Together, the set of runs and their respective availability to serve trips establishes the run structure, which varies daily because the set of runs vary daily.

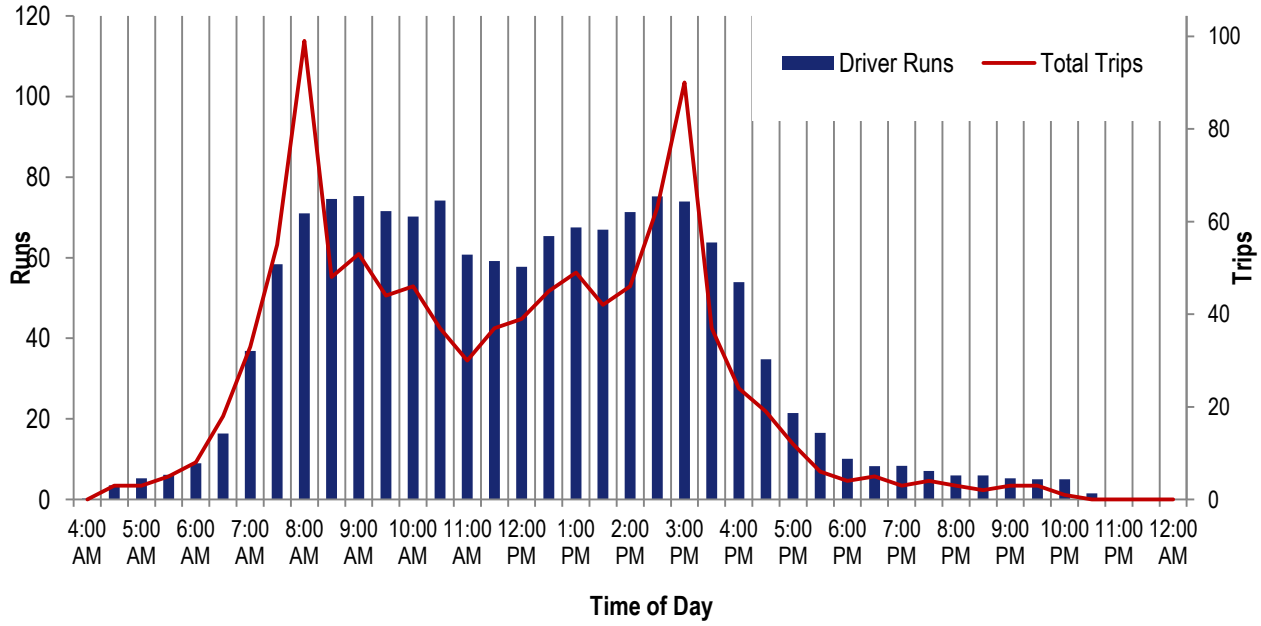
A run structure analysis for the week of Sunday, April 27, 2014, was undertaken as part of this review to determine how close the run structures for each day of the week mirror the demand profile for those days. The closer the run structure is to the demand profile, the more efficient the service as measured by productivity. Raw trip data from this week was used for this analysis.

The methodology for this run structure analysis employed the following steps:

- The start and end time of each run, as well as the start and end time of a scheduled break, was input into a spreadsheet for each day of the week
- The revenue and non-revenue (break) time was organized into half-hour segments of the day between 4AM and 12 AM.
- If the run was operating in revenue service for only a fraction of any half-hour period, the exact portion of revenue service within that half-hour period was calculated; for example, if the run was operating only 10 minutes in a half hour segment, 0.33 of a run was assigned to that half-hour segment. The same methodology also was applied to breaks.
- The number of runs (including fractions thereof) per half hour segment was then plotted as a bar chart on the spreadsheet, thus creating the run structure for each day of the week.
- This was compare to the number of *customer* (and not total) trips in each half-hour segment of each day. Trips were assigned to each segment based on the actual pick-up time.
- The scale of the number of runs vs. the number of customer trips was based on the target productivity of 1.95 *total passenge*r trips per hour, which converts to 1.74 *customer* trips per hour given that 89% of the total passengers in FY 2014 were customers. And, because we are using half hour segments, that scale was then based on a productivity of 0.87 customer trips per *30 minutes*.

The run structure analysis for each day of that week is found in Appendix C. The run structure analysis for Monday, April 28, 2014 is presented below in Figure 2-8. As shown, the demand from 8:00-8:30 am and from 3:00 to 3:30 pm is significantly outstripping the supply of service, but those are the only two half hour segments where that is the case. Otherwise, there appears to be more service than perhaps is necessary between 9:00 am to 2:00 pm, and from 3:30 pm to 6:00 pm. In comparison, there appears to be a good match between supply and demand in early morning hours and in the evening hours.

Figure 2-8 Run Structure for Monday, April 28, 2014



Source: PVTA 2014

There are slight variations on this theme for some of the other weekdays in that week. For example, on Tuesday and Wednesday, the peak periods where demand is outstripping supply consist of one hour periods in the morning and afternoon. On Thursday afternoon, the supply of service was better matched with the demand. And, on Saturday and Sunday of that week, there appeared to be more service than was perhaps needed throughout much of the afternoon.

Daily Scheduling Process

The daily scheduling process (on the day before the trip date) is described as follows:

- When a trip is booked, ADEPT automatically places it into a run if it can, given the various scheduling parameters entered into the system (see below). If it cannot schedule a trip onto a particular run, it is left unscheduled in an hourly bucket.
- Each morning, schedulers review "their" runs for the following day and also determine whether one or more new runs need to be opened up, based on the volume of unscheduled trips and when those trips are. If a new run is opened up, a start and end time is created; capacity is determined by assigning a certain vehicle type to the run, and one or more zones are assigned to the run.
- Once this has been accomplished by all three schedulers, a batch process is executed. This typically takes about 5 to 6 minutes. The batch process uses the built-in scheduling algorithm to schedule all trips as efficiently as possible, while considering all user-specified factors. Trips that cannot be scheduled as such are left unscheduled in the hourly buckets.
- The schedulers look at the results of this process, make subsequent changes to the zone assignments (additions and subtractions) in their respective areas, and then re-run the batch process. This process is usually executed at least three times during the scheduling

day, and can be executed as many as 6 times, depending on circumstances, until all – or almost all – of the trips are scheduled. It is not unusual for some trips to be left unscheduled. These then become the responsibility of the dispatchers to resolve on the day of the trip, noting that cancellations – and resulting holes – occur between the time when the scheduling process is completed (the last batch is typically completed before 4:30 pm) and the first vehicle heads out in the morning.

- It is important to repeat that subscription trips/standing orders are not anchored to the master schedule, and may be moved around as a result of the batch scheduling processing.
- It is also important to note that ADEPT in any batch process will re-schedule trips that had been previously been assigned to any "placeholder" runs, which are "uncovered" runs. That is, these are runs that are without a driver assignment (because of a vacation, a lack of extra-board drivers to cover that run, or a dearth of drivers).

CONFIRMATION AND ARRIVAL CALLS TO THE CUSTOMER

Once the daily schedule has been completed, automated confirmation call-backs are made to the customers for tomorrow's trips via the IVR system (developed by United Dispatch Inc.) and linked to ADEPT). A 20-minute pick-up window for each trip based on request type (see above) is communicated to the customer in the confirmation call. This means that customers need to be ready at the beginning of the assigned pick-up window; the vehicle may arrive earlier, but customers are under no obligation to get into a vehicle prior to the pick-up window.

PVTA and Hulmes have also experimented with the use of "arrival" calls with a subset of customers to test their effectiveness. Arrival calls are activated manually by the driver when the vehicle is approximately five minutes away from the pick-up location. The IVR then places a call to the designated telephone number in the customer profile. The purpose of the arrivals calls is to give the customer advance notice that the vehicle is almost there; improved customer readiness tends to improve service productivity and decreases no-shows. Note that the IVR system and ADEPT's customer profile can accommodate two contact numbers; the customer could thus use a different telephone number for arrival calls, which makes sense as at least 50% of the pick-ups are not performed at home.

RUN MANIFESTS

Run manifests (or the list of daily trips) for each run are generated from ADEPT. Information printed on the cover sheet includes the date, route (run) number, shift (run) start and end time, the driver name and whether or not an accessible vehicle is needed. An example of a run manifest can be found in Appendix D.

On the cover sheet, there are spaces (to be filled out by the driver) for:

- The driver shift start time
- The garage out time (the time the vehicle leaves the garage) and odometer reading
- The first pick-up time and odometer reading
- The last drop-off time and odometer reading
- The garage in time (the time the vehicle returns to the garage) and odometer reading

- The driver shift end time
- The total number of rides (completed)
- The total number of rides cancelled
- The number of (fare) tickets collected
- The amount of cash collected.

On the manifest itself, each pick-up and drop-off is listed separately, ordered based on the scheduled vehicle arrival time (ETA). Customer names and the pick-up or drop off address is listed, as is the number of passengers (and how many are ambulatory vs. wheelchair trips) and whether an accessible vehicle is needed. In most cases, additional directions/instructions are provided as well. The scheduled ETA for each stop is provided, as is the (promised) pick-up window, the appointment time if any, and what type of request it is (based on pick-up or appointment). The required fare for each customer trip is also noted. Blank spaces are provided for the driver to document the arrival or departure time (although there are not two spaces for this), the odometer reading and number of tickets or cash collected. Typically a driver will circle whether the fare was paid in cash or whether a ticket was collected.

In reviewing some random manifests, we determined that all scheduled ETAs for each pick-up were within the promised pick-up window. Absent were any specific spaces for the trip disposition of trips not completed, noting that we did see an indication of "No-Show" hand-written over the trip details. Related, there is no space for "no-shows" or "missed trips" on the summary page. However, completion of the driver manifest really serves as a back-up for the electronic capture of data via the MDCs; that is, information from the driver manifests is used to fill in "holes" in the electronic data collection.

DISPATCHING

Radio dispatching is handled by Hulmes using ADEPT in combination with in-vehicle mobile data computers (MDCs) and automated vehicle location (AVL) equipment.

Hulmes' three dispatchers divvy up the work much like the schedulers: one dispatches to vehicles assigned to the City of Springfield "sub-region" runs, one does the vehicles assigned to North Area runs, and the third dispatcher dispatches to the runs assigned to the area in between. This results in an approximate 40%/20%/40% split of work.

When the first dispatcher arrives in the morning (typically between 3:30 and 4:30 am), one of the first things he or she does is to schedule the unscheduled trips from the 2300 bucket. During the course of the day, the 2300 bucket is also used to place re-emerging no-shows.

There is also a fourth dispatcher who fills in dispatching and provides window dispatching functions (see below). There is also an evening dispatcher and a weekend dispatcher.

Observations of the dispatch crew found them to be very knowledgeable about the area, and they displayed an effective and admirable working cohesiveness, often covering for each other.

The peak dispatch times are weekdays from 6:00 to 9:00 am and from 2:00 to 5:00 pm.

Window dispatching functions are performed by one of the dispatching staff. A board of keys is in the dispatch area. A white board indicating unavailable vehicles is also present. Prior to each run, each driver is assigned to a vehicle and is handed a hard copy of the run manifest.

VEHICLES AND FACILITIES

Paratransit is operated using vehicles provided by PVTA. The fleet breakdown and deployment by base, as of May 2014, is shown in Figure 2-9. The full dataset for May 2014 can be found in Appendix E. Since only 20% of PVTA riders need wheelchair lifts, PVTA purchased eight Ford Transit Connect vehicles which are less expensive and more fuel efficient. These are listed in Figure 2-9 as having "0" W/C capacity.

Figure 2-9 PVTA Paratransit Fleet (May 2014)[3]

Base	Model	Model Yr	Number	Amb Seats	W/C	LTD Miles	Avg Miles
Chicopee	El Dorado	2007	4	10	3	165K-175K	168K
	El Dorado	2008	2	8	3	106K-135K	121K
	Ford	2009	24	8	3	106K-195K	144K
	Ford	2010	4	3	0	66K-88K	72K
	Ford	2010	6	8	3	73K-95K	84K
	Ford	2011	23	8	3	35K-102K	71K
	Ford	2012	4	3	0	25K-28K	27K
	Ford	2013	8	8	3	22K-38K	30K
	Ford	2013	24	8	2	6K-11K	9K
	Subtotal		**99**				**74K**
Northampton	Cutaway	2009	4	8	3	94K-135K	116K
	Tracon	2010	1	8	3	65K	65K
	Ford	2010	3	8	3	63K-78K	71K
	Ford	2011	4	8	3	56K-71K	64K
	Ford	2012	2	8	3	53K-60K	57K
	Ford	2013	4	8	3	19K-28K	24K
	Ford	2013	2	8	2	8K-11K	9K
	Subtotal		**20**				**61K**
Belchertown	Ecovan	2002	1	5	3	42K	42K
	Cutaway	2009	2	8	3	115K-125K	120K
	Ford	2011	5	8	3	61K-89K	78K
	Ford	2012	2	8	3	65K-67K	66K
	Ford	2013	2	8	3	25K-27K	26K
	Ford	2013	1	8	2	3K	3K
	Subtotal		**13**				**66K**
Total			**132**				**72K**

Source: PVTA 2014

[3] Excludes road supervisor vehicles.

As shown, all but a few of the 132 paratransit vehicles are accessible. Of these, most have a capacity of eight ambulatory seats and three wheelchair tie-down positions. This capacity does not mean that eight ambulatory customers and three non-ambulatory customers can be served at the same time in the same vehicle. Figure 2-10 illustrates the maximum seating capacity of these vehicles under different scenarios. Basically, with each wheelchair, two ambulatory seats are removed.

Figure 2-10 Maximum Seating Capacity

Number of Ambulatory Passengers	Number of Wheelchairs
8	0
6	1
4	2
2	3

Source: PVTA 2014

Figure 2-11 shows the locations of the operational and maintenance facilities, with PVTA's paratransit vehicles housed in the three facilities as follows:

- 75% of the vehicles are stored at the South area facility, which is provided by Hulmes Transportation and also includes the call center. This is located at 80 1st Avenue in Chicopee.
- 20% of vehicles are stored at PVTA's North Area facility, located at 54 Industrial Drive in Northampton
- Hulmes also stores about 5% of the vehicles at its Belchertown headquarters at 15 Bridge Street.

Figure 2-11 Hulmes Operational Facilities and PVTA Maintenance Facility

Source: PVTA 2014

VEHICLE MAINTENANCE

The Springfield Area Transit Company (SATCO) is responsible for providing vehicle maintenance for the Chicopee-based paratransit fleet at the SATCO maintenance facility located at 2840 Main Street in Springfield. The Northampton-and Belchertown-based fleets are maintained at the (VATCO) Valley Area Transit Company maintenance facility located at 54 Industrial Drive in Northampton. SATCO and VATCO are wholly-owned subsidiaries of First Transit, which under contract to PVTA operates its fixed-route and community shuttle services.

A description of SATCO/VATCO's vehicle maintenance program is included in Appendix F. All maintenance on the paratransit vehicles is performed in-house, except for radio repairs and service and repairs requiring special equipment (e.g., frame straightening).

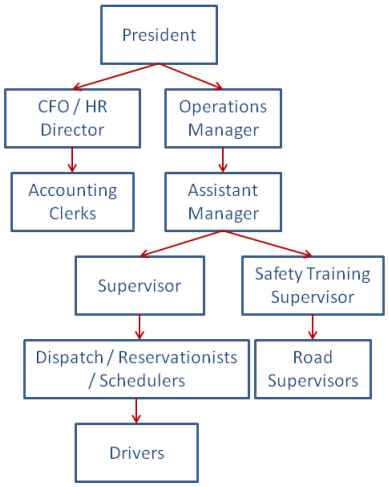
SATCO and VATCO use a vehicle maintenance management information system (VMMIS), in which is input each vehicle, mileage, fuel and consumables. The system is used to generate Preventive Maintenance (PM) reports which show upcoming PMs (by level), and to generate work orders and maintain a parts inventory. Reports that are often used by the maintenance manager to determine performance include reports that show fuel and oil consumption, fuel economy, PM adherence, and distances between breakdowns/component failures, and maintenance cost per mile.

The most frequent PMs are scheduled at 5,000 mile intervals, and include an oil and filter change, and a 46 –item inspection checklist. Other filters are changed every 15,000 miles; special quarterly, semi-annual and annual inspections are also scheduled. The PM Schedule report is based on these intervals and the mileage information for each vehicle as entered into the VMMIS. Data collected and analyzed indicate that Actual PM adherence (at 5,500 which includes a 500 mile in "grace" mileage) is 86% and of the 14% that are late, all but a few are done before another 1,000 miles.

CONTRACTOR STAFFING

Hulmes Transportation's staffing organization chart is presented in Figure 2-12.

Figure 2-12 Hulmes Transportation Staffing Organization Chart



Reporting responsibilities are as follows:

- Hulmes' President oversees the CFO/Human Resource Director and the Operations Manager.
- The Operations Manager oversees the Assistant Manager.
- The Safety Training Supervisor conducts driver training and also oversees the Road Supervisors.
- There are two full-time Road Supervisors who stagger their work schedules Monday through Friday and are assigned to either the North or the South regions, alternating regions on a weekly basis. There is also one part-time Road Supervisor who is assigned to Saturdays. There is an on-call schedule published monthly for evenings and Sundays.
- There are six Reservations Agents, three Schedulers, and seven Dispatchers.
- Hulmes' 138 drivers are allocated to the three bases of operations in the following manner: Chicopee has 111 drivers; Northampton has 16 drivers; and Belchertown has 11 drivers.
- The Reservations Supervisor oversees the Accounting Clerks who handle trip documentation and reconciliation of trips.
- The four Accounting Clerks collect the paper manifests and fare envelopes from the drivers and enter trip information into the ADEPT system. An example of the paper manifests and fare envelopes can be found in Appendix G.

DRIVER REQUIREMENTS AND TRAINING

Hulmes Transportation requires that their paratransit drivers complete a rigorous training program that provides information about working conditions, key policies, procedures, and benefits of providing transportation to PVTA clients. Before starting the driver training program, prospective drivers are required to submit the following documents:

- Registry of Motor Vehicles report
- Criminal Record Check (CORI)
- Department of Transportation medical exam
- Drug and alcohol testing results

Driver training is provided by the Safety Training Supervisor at Hulmes Transportation, assisted by Lead Drivers; all of whom are experienced in providing this type of training. Each driver receives approximately 80 hours of training, both in a classroom setting as well as behind-the-wheel of a paratransit vehicle. The course is taught over a nine-day period, with four days spent in the classroom and five days spent on-the-road, although the hours of training may vary based on the time each individual needs to cover the required materials. The topics covered in the classroom training include:

- The role of the paratransit operator, which includes safety and responsibilities
- Operations and equipment training
- Maintaining professionalism, which includes the cell phone policy, sexual harassment policy
- Defensive driving
- Disability etiquette and the universal declaration of human rights

- Medical procedures and emergencies

Drivers also are required to view a passenger awareness/disability sensitivity video as part of this training. This video was developed by PVTA and includes PVTA paratransit customers in the video.

There are written quizzes on each portion of the training and a final evaluation which includes a ride-along with the Safety Training Supervisor prior to being cleared to transport clients on their own.

HULMES CONTRACT TERM AND PAYMENT STRUCTURE

PVTA has a "three-plus-two" contract with Hulmes Transportation, effective April 2013 through June 2016 as the base three-year term with two option years through June 2018. As shown in Figure 2-13, service costs are billed to PVTA per service hour during peak hours, and per trip during off-peak hours.

Figure 2-13 Service Costs for Peak and Off-Peak Service Hours, FY2013-FY2018

Payment Period	Peak Service Hours Monday-Saturday 7:00 am to 7:00 pm	Off-Peak Service Monday- Saturday 7:00pm to 7:00am All day Sunday
FY 2013-2014	$1,486 per service hour	$28.00 per trip
FY 2014-2015	$1,535 per service hour	$28.00 per trip
FY 2015-2016	$1,585 per service hour	$28.00 per trip
FY 2016-2017	$1,637 per service hour	$28.00 per trip
FY 2017-2018	$1,691 per service hour	$28.00 per trip

Source: PVTA 2014

The peak hour service structure is rather unique in the paratransit industry. Basically, this provides for a lump payment per hour x 12 hours for each operating day that falls on a weekday or Saturday, regardless of the amount of vehicle service provided or the number of trips completed. This structure thus provides for the equivalent of a flat fee for all service provided during the peak hour for the year; the only factor that changes is the number of weekdays and Saturdays in the calendar year. For this reason, it is quite easy to administer.

Such a structure also makes sense if the overall level of supply and demand is relatively stable. And this is the case with PVTA, with number of overall customer trips remaining relatively level from FY 2012 to FY 2013, and showing only a modest increase in FY 2014. Furthermore, the match between supply and demand is somewhat controllable because as ADA demand grows, more senior trips can be denied if the supply of service remains level. And if ADA ridership were to decrease significantly, the extra capacity would be filled up with senior trips. The result of the modest increase in overall ridership then has been a reduction in unit per trip costs for peak hour service. (See Chapter 3.)

However, if PVTA or Hulmes were to implement any changes that might produce a higher productivity, this result would have absolutely no impact at all on PVTA costs, at least during the current contract. Under more typical payment structures found at other transit agencies, such changes might lead to a cost reduction. Thus, at best, such changes might lead to a reduction in

Hulmes cost, which in turn could have a positive impact on the rate proposed during the next procurement, if the current payment structure is continued.

A per trip rate for dedicated service in the off-peak period, as a complement to the flat peak hour price, isn't that uncommon, and does protect Hulmes against volatility. If more trips are requested during the off-peak, Hulmes gets more revenue to cover the cost of additional service (if any) to serve the increased demand. If Hulmes can efficiently serve these trips with the current supply of service, its profit margin increases. And while an increase in the number of off-peak trips doesn't affect PVTA's unit cost for these trips (a flat $28/trip), a significant increase would increase contractor payments and hence raise the total cost.

Boston's MBTA currently employs a flat per trip rate based on each service provider's proposed variable costs, but to control the balance between efficiency and service quality, and specifically to keep service providers from jamming their run schedules (to maximize revenue while minimizing cost), the MBTA also employs a significant penalty for each late trip – equivalent to the per trip rate, and an even more significant penalty for missed trips – at twice the per trip rate.

SERVICE STANDARDS, INCENTIVES AND PENALTIES

Service Performance Standards and Associated Incentives and Penalties

Figure 2-14 provides a table of PVTA performance standards and associated incentives and penalties that are included in the Hulmes Transportation contract.

Maximum In-Vehicle Travel Time

From Hulmes' perspective, there are incentives and penalties that focus on the percentage of trips under and over the performance standard of 60 minutes, noting that the travel time allowances that equate to maximum travel time in ADEPT are defined differently and are based on the direct travel time plus a specific number of minutes (see Figure 2-7). Over and above these two different definitions, the FTA policy suggests that an analysis be periodically undertaken to ensure that no trips have a travel time longer than the shortest fixed-route transit trip time plus 20 minutes. The RFP that was used to procure Hulmes indicated that this responsibility (to perform such an analysis) would be the responsibility of the contractor; however, PVTA is planning to conduct such an analysis with in-house staff.

Late and Missed Trips

A *late* trip is a completed trip where the vehicle arrives after the 20-minute pick-up window (see the previous discussion under trip reservations about how this window differs based on the type of request). ADEPT software appears not to track late drop-offs.

A *missed* trip is a trip that was not completed in cases where the vehicle (1) never arrives, or (2) arrives after the pick-up window and the customer cancels-at-door or cannot be located.

Early pick-ups are acceptable as long as there is no coercion. Note though that the "tolerance" for early pickups is up to 15% of the total customer trips; beyond 15% of that total, early pick-ups are considered not on-time. So, for example, if the number of early customer trips represented 14.6% of the total customer trips for a given day, all of those trips are considered to be on-time.

Figure 2-14 Incentives for Service Standards and Performance

Metric	Goal	Incentives	Penalties
On-Time Performance	Between 95% and 96.5%	$5,000 if between 96.5% and 97% for 3 consecutive months $7,500 if above 97% for 3 consecutive months	$2,000 if less than 95% for any month $5,000 if less than 90% for any month Grounds for termination: If below 85% for 3 consecutive months
Productivity	2.2 passenger trips per revenue hour	$500 per month if 2.2 pax/rev hour or higher $2,000 per month if 2.5 pax/rev hour or higher	$250 per month if lower than 1.75 pax/rev hour $500 per month if lower than 1.6 pax/rev hour
Denied or Missed Trips (ADA trips only)	0	$500 per month if no ADA denied or missed trips	$50 per every ADA denied or missed trip
Customer Ride Time	96% of trips under 60 minutes	$500 per month if higher than 96%	$100 per every excessively long trip after the first 4%
Average Hold Time	2 minutes or less	$500 per month if 2 minute average or lower on each day	$500 per day for every day where there is a pattern that exceeds 2 minute average. Pattern = similar hours for at least 3 days or same day for more than 3 consecutive weeks
Driver and Training Qualifications			$100 per driver per day for use of unqualified driver up to $5,000
Reports/Invoices			$25 per report per day for late reports/invoices
Preventable Accidents	May not exceed 10 per calendar year quarter	$2,500 per month for no “at fault” accidents	$250 per day per incident for “at fault” vehicle and/or passenger accident
Unreported Vehicle Damage			$500 for failure to report damage within 24 hours

Source: PVTA 2014

PVTA ADMINISTRATION AND SUPPORT FUNCTIONS

Policy Development and Planning

PVTA is responsible for developing all policies governing its paratransit service. This includes such policies as:

- Non-ADA customer eligibility
- ADA Eligibility determination process
- Service area, days and hours
- Fare and fare media
- Reservation policies (e.g., advance reservation period, subscription trips, cancellations)
- Scheduling system specifications and scheduling parameters
- Contractor procurement, including the establishment of driver qualifications and tolerance for driver-specific safety records
- Vehicle and in-vehicle equipment specifications
- IVR specifications (for confirmation and arrival calls, and as of the Spring of 2015, to allow customers to confirm, cancel and make trip bookings)
- Operational policies (e.g., driver wait times, view-of-vehicle)
- Drug and alcohol abuse policies
- Excessive customer no-show/late cancellation policies
- Types of and mechanisms for customer notifications, outreach, and feedback follow-up
- Mystery riders and service quality checks

PVTA is also responsible for on-going service planning as evidenced by – but is certainly not limited to -- this study. Indeed, PVTA staff closely monitors trends in service performance and cost and how actual service compares with its contractual standards, and based on such ongoing monitoring analyses, may opt to (1) revise its standards, (2) revise policies that would help the contractor achieve those standards, and/or (3) modify elements of its service design. Examples include:

- When PVTA reduced the number of service providers from 3 to 2 to 1.
- When PVTA piloted a reduction of its advance request period from 14 to 5 days in advance, reached out to customers and stakeholders to get their feedback, and based on that feedback, change the number of days to seven days in advance, the current policy.
- When PVTA implemented shuttles in Chicopee, Springfield and East Longmeadow that now provide a lower fare option for paratransit customers planning to make a medical or shopping trip.

Paratransit Service Contract and Monitoring

PVTA is responsible for procuring a contractor, which is currently Hulmes Transportation. The contract is a “three-plus-two” contract, meaning it has a base term of three years and an option for two more that PVTA may elect to exercise. The base term started in April 2013 and extends through June 2016. If the option is exercised, Hulmes would be serving as the PVTA paratransit contractor through June 2018.

To create a level playing field for other providers that may wish to compete for the next service contract, PVTA needs to allow 12 months for:

- Revisions to the current RFP
- Incorporating new design components and/or policies into the draft RFP
- RFP review and approval(s)
- Prospective proposers to review the RFP (and send in requests for clarification) before a pre-bid conference
- Proposers to prepare a credible proposal
- Proposal review, evaluation, requests for clarification, interviews, a request for Best and Final Offers (BAFOs), selection and Board approval

And, with a 3 to 6 month mobilization needed in case a non-incumbent is selected, the procurement/mobilization process could take up to 18 months. Thus, if PVTA exercises the two-year option, the procurement process should begin in early 2017. If outside assistance is needed with the RFP development, or desired, additional time will be needed for that contracting process.

PVTA's Paratransit Manager spends much of her time:

- extensively monitoring reports and actual service statistics against service performance and service quality standards, especially focusing on on-time performance, the disposition of other trips (cancellations by type, no-shows, missed trips), productivity, and unit cost, and telephone statistics on call length, and average and longest hold times per day per hour
- performing trend analyses on key performance indicators to ensure contract compliance
- inspecting HR records at the contractor to check on required training
- going into the field to check on driver performance, especially for new drivers or in cases where there have been a pattern of complaints focusing on a particular driver; this might include observing drivers as they conduct their pre-trip tasks (e.g., circle checks)
- reviewing daily dispatch reports to check on late pull-outs or uncovered runs
- at Hulmes' Chicopee facility, monitoring the performance of reservation agents and dispatchers, including listening in on customer phone calls
- entering and following up on customer feedback (see below), including the review of in-vehicle videos
- communicating to Hulmes the need for re-fresher training, as warranted
- managing PVTA's drug and alcohol testing (for fixed-route and community shuttle drivers too)
- vehicle inspections, performed at least once a year at the three operational sites, noting that the goal is to perform these twice a year; these include, among other things, an inspection of the inside of the vehicle to ensure an inventory of all required equipment (e.g., chock blocks, fire extinguisher, seat belt cutters) is in compliance, and tire tread-depth inspections.

Maintenance Contract and Monitoring

As part of its service model, PVTA has opted to contract separately for vehicle maintenance, which is certainly its prerogative given that PVTA owns the vehicles. PVTA included the maintenance of its paratransit vehicles in with other vehicle maintenance responsibilities when it retained the

Springfield Area Transit Company (SATCO) and the Valley Area Transit Company (VATCO), each a subsidiary of First Transit, to operate and maintain vehicles for its fixed-route and community shuttle services. The Chicopee-based paratransit fleet is maintained at the SATCO maintenance facility in Springfield, while the paratransit fleets based in Northampton and Belchertown are maintained at the VATCO maintenance facility in Northampton. The base term for the First Transit contract term was from September 2011 through August 2014, with two additional three-year option periods that can be exercised at PVTA's sole discretion. The first of these option periods was exercised.

Two key maintenance reports are sent to PVTA with the invoice. The first is miles between road calls. The second is adherence to preventive maintenance intervals. Both reports are driven by mileage, and because SATCO/VATCO does not see vehicles every day, nor every month, Hulmes electronically sends daily odometer readings to SATCO/VATCO for manual entry into its fleet maintenance system.

Fuel Contract and Monitoring

PVTA has long entered into a contract – historically with Wright Express (WEX) but as of May 2014, Gulf Oil -- for the use of fuel cards for its paratransit operations. With such a system, a fuel card is assigned to each vehicle. A driver may then fuel his/her vehicle in any station that participates in this network. When dispensing gasoline, the driver first swipes the fuel card, and then enters a driver PIN code and odometer reading. Gulf will then send a monthly manifest to the PVTA Finance Department which then gives the manifest to PVTA's Paratransit Manager for review.

The monthly review -- which sometimes takes as much as 2 to 3 hours per week -- focuses on instances of (1) fraud, in cases where a fueling takes place after hours or at times when ADEPT records show that the vehicle was not in that fueling location at the time of the fueling; and (2) fueling with any other grade but regular unleaded gasoline. It should be noted that Hulmes management also performs audits of paper fuel receipts turned in by the drivers at the end of their shift.

PVTA staff also monitors fuel consumption per vehicle type, as input to future vehicle purchases and the optimum vehicle mix.

One of the ongoing challenges has been driver error in entering odometer readings. Also, when a vehicle is downed for any reason for an extended period, the fuel card that has been assigned to it is de-activated.

Invoice Processing

PVTA's Finance Department receives monthly invoices from its contractors. In the case of the Hulmes Transportation invoices, these are provided to PVTA's Paratransit Manager who reconciles the invoices to ensure that (1) the number of operating days is correct (for peak hour service) and that the number of off-peak trips is correct; and (2) the cash fare collected is deducted from the invoice. Invoicing errors are rare, according to the PVTA. The next step is to add or subtract performance-driven bonuses or penalties. These are hand-written on the invoices themselves and are submitted back to the Finance Department for payment to Hulmes Transportation.

Vehicle Purchasing

PVTA is responsible for establishing vehicle specifications and the appropriate fleet mix (of different types of vehicles) and for the purchase and allocation of all vehicles that are used for paratransit services. As mentioned above, PVTA staff actively monitors how these vehicles are maintained and cared for, and monitors fuel consumption. PVTA in conjunction with Hulmes also has put together a staggered vehicle retirement plan to ensure vehicle reliability and to smooth out the need for capital funding.

Vehicle Insurance and Risk Management

As the owners of the paratransit vehicles, PVTA is responsible for insurance coverage that complies with all state minimum requirements.

As part of PVTA's risk management program, PVTA reviews and approves Hulmes' safety program.

Accidents and incidents are defined by PVTA as follows, noting that the occurrence of an accident or incident does not mean that PVTA is at-fault.:

- Accidents are events that happen unexpectedly, unintentionally and without apparent or deliberate cause, but sometimes result in damage or injury to an individual or property.
- Incidents include other distinct occurrences or events that may potentially generate a claim activity at some point in the future.

After an accident or incident occurs, Hulmes is responsible for e-mailing a report of the event to the PVTA claims office for review, filing, and as needed, adjusting in situations where there is a pursuit of a claim.

If a driver has three preventable accidents within an 18 month period, the driver is barred from operating any PVTA owned vehicle.

Software Licensing Contract and Software Support/Maintenance Contract

PVTA is responsible for providing the software product that supports the operation of PVTA paratransit. Currently that software is StrataGen's ADEPT software, which was selected as a result of a competitive procurement. PVTA does not own this software; as with most software vendors of this ilk, PVTA "rents" the software by acquiring a license that has an expiration date, and configures the software so that Hulmes has access to it, and that all appropriate PVTA staff has access to it.

PVTA's Information Technology (IT) Department serves as the first line of support for the software (and for Hulmes' use of the software) and turns to StrataGen only when needed. While PVTA also has purchased a support/maintenance contract in conjunction with the software license, there have been some recent issues where PVTA has identified problems with the software that StrataGen is willing to "fix" but only via an upgrade to PVTA's version of ADEPT.

Computer Server, Hardware, and Network and Support/Maintenance Contract

PVTA's IT staff also provides all hardware, networking and system integration that supports ADEPT, and provides on-site support to Hulmes Transportation as needed.

Telephone System and Support/Maintenance Contract

PVTA also provides a telephone system for its contractor with full automated call distribution (ACD) functionality and reporting, enabling PVTA staff to monitor telephone statistics on call length, and average and longest hold times per day per hour.

Radio System and In-Vehicle Equipment and Support/Maintenance Contract

PVTA also provides the radio infrastructure and the digital dispatch system along with in-vehicle mobile data computer (MDC) and automated vehicle location (AVL) equipment that enables dispatchers to communicate with drivers digitally, but also by radio when needed. This equipment enables not only the viewing of the real-time and time-specified location of vehicles but also the time stamping and location stamping of every event (such as the arrival and departure from every stop as long as the driver hits the perform button on the MDC). This capability is critical for (1) dispatching; (2) performance reporting; and (3) for feedback follow-up.

There have been some limitations in the radio system's reach in certain communities, attributable to the topography of the area. PVTA is solving this problem by adding to the system a radio tower located on Mt. Lincoln in Pelham.

North Operating Facility

PVTA owns the operating facility in Northampton, which serves as a base of operations for a portion of the paratransit fleet as well as one of two maintenance sites.

Driver Uniforms

PVTA provides driver uniforms to Hulmes Transportation.

ADA Paratransit Eligibility Determination

As discussed previously, PVTA has an ADA Coordinator who is responsible for determining the eligibility of ADA paratransit applicants. The current process consists of the following:

- Applicants are directed to call to set-up an in-person appointment. According to the ADA Coordinator, approximately 75 appointments are scheduled each month (although not all applicants show up for the appointment). These appointments are scheduled on the computer using an appointment application.
- If needed, free transportation on PVTA paratransit is provided to/from PVTA's offices. The ADA Coordinator arranges such trips with Hulmes.
- The ADA Coordinator also makes "field trips" to:

  - Amherst (1 day per month – typically 9 scheduled interviews)
  - Holyoke (2 days per month – 10-13 scheduled interviews per day)
  - Northampton (1 day per month – 12 to 13 scheduled interviews)
  - Wilbraham (1 day per month – 7 to 10 scheduled interviews).
- At the interview, each applicant is instructed to complete a self-assessment, which is reviewed by the ADA Coordinator with the applicant present so that pertinent questions can be asked.
- The coordinator then sends the "Professional Verification Form" (the second part of the application) to a health care provider or providers identified by the applicant.
- Based on the interview and the completed application, the ADA Coordinator determines an applicant to be ADA eligible (for all trips), conditionally eligible (see below), or not eligible.

Once being deemed eligible, PVTA staff sends the new customer a welcome packet and enters the new customer into the customer profile of ADEPT. Once in the system, a customer may request ADA paratransit service.

It is important to note that PVTA's ADA eligibility determination process does result in some customers receiving conditional eligibility – that is, that they are eligible for only certain trips (for which they cannot access a bus stop because of their disability) or for service under specific circumstances (good/bad days, weather-related, etc.). Approximately a third of the eligible customers are determined to be conditionally eligible. And while this information is presented to reservation agents who by and large do a good job recognizing these constraints, they don't always catch it when booking a trip. It is for this reason that PVTA's ADA Coordinator periodically runs a report that enables her to compare the trips made by conditionally eligible customers with their conditions. When inconsistencies are found, they are communicated to Hulmes' Reservations Supervisor.

Fare Media Distribution

As discussed previously, fare can be paid with tickets, sold in books. The books of tickets can be purchased from PVTA on the web, by mail, and in person at various senior centers and at the PVTA Information Office in Springfield.

PVTA is responsible for the printing of these ticket books, the selling and mailing of these ticket booms (and distribution to the senior centers), and fraud control.

Reporting

PVTA is responsible for reporting paratransit usage and service and cost performance on a monthly basis to its Board, to MassDOT, and to its member communities. PVTA is also responsible for reporting to the National Transit Database (NTD), a requirement that comes with FTA funding. This is done for a random sample of days each year.

Public Notices and Outreach

PVTA disseminates general information and new policies as they occur via its website, letters to customers, public meetings, and/or seat drops, making the decision as to which communication

mechanism(s) will be used as the need arises. Indeed, one of the reasons for including multiple communication channels is that, hopefully, at least one of them will be accessible to all customers.

On top of these efforts, PVTA also schedules special outreach meetings with customers and other stakeholders (e.g., Councils on Aging) and periodically will conduct a customer satisfaction survey, again if a specific need arise or in conjunction with a study such as this.

PVTA is constantly looking for ways to improve the system and believes that reaching out to customers and stakeholders provides an effective way to identify and then address any themes and issues.

Mystery Riders and Service Quality Checks

PVTA employs a "mystery rider" program of volunteer customers who request service as usual but also rate the reservations process and the driver, the condition of the vehicle, the timeliness of the van arrival, etc. PVTA runs a mystery rider effort at least once a year.

PVTA's Paratransit Manager also periodically makes calls at random to paratransit customers to inquire about the level of service quality on a recent trip.

Both of these efforts provide a service quality "reality check" to the statistics generated by ADEPTB and the telephone system.

Feedback Processing

PVTA developed a customer feedback system which has dramatically improved the ability to track compliments, complaints, suggestions, etc. PVTA receives feedback from passengers, the general public, and service providers through the PVTA customer service phone line.

When a customer submits a complaint via email or regular mail, the PVTA Customer Service Manager reviews the complaint and sends the customer a form letter either by email or regular mail within 24 hours of receiving the complaint. The form letter (see Appendix L) is the same for each complaint; it thanks the customer for bringing the matter to PVTA's attention and says that PVTA will be investigating the situation. Although every complaint is investigated, PVTA only notifies some customers "occasionally" on the outcome of the investigation and any action that was taken; there is not a set type of instance that triggers follow-up correspondence.

Travel Training

Through travel training programs, paratransit customers and prospective paratransit customers are able to lead more independent lives by learning to access and use the fixed route system for one or more trips, thereby shedding the dependence on an advance-reservation paratransit system for those trips. There are several different "flavors" of travel training, that include one-on-training (often provided to person with cognitive or physical disabilities); group general navigation/orientation training (often provided to groups of seniors), specific "orientation" training for persons with visual impairment; and one-on-one bus buddies. PVTA's travel training program, which is delivered by two PVTA travel trainers, focuses on intensive one-on-one travel training.

Between the two trainers, there are 5 to 7 trainees who are receiving one-on-one training at any given time. The training itself might include no more than 10 sessions during which round trips are made for one trip at a time; the span of training is typically up to 6 months for that one trip,

with a "check-up" 6 months later. Referrals come in from agencies, housing authorities, senior centers, and families, as well as from PVTA's ADA Coordinator who occasionally will spot a candidate as they are applying for ADA paratransit eligibility.

Small group training is periodically provided to families and to schools, especially for special education students 18 years of age and over, who are about to graduate from home-to-school transportation as provided by the school. One of the concepts here is to preemptively train such individuals before they become dependent on paratransit, so that they can live more independently.

If the travel training program were to expand via the hiring of another travel trainer, it might make sense to offer more group training, targeting seniors and veterans, for example.

While such transit agencies and other organizations do offer train-the-trainer programs (for travel ambassadors) and bus buddy training or programs, the current travel training staff is cautious about any indirect travel training that could increase PVTA's liability.

Page left intentionally blank.

3 SERVICE AND COST PERFORMANCE AND PEER REVIEW

RIDERSHIP

Figure 3-1 presents the number of PVTA customer trips served by type (ADA vs. DAR) from FY 2012 through FY 2014. Highlights include the following:

- Total Customer Trips - The number of customer trips, while relatively level from FY 2012 to FY 2013 increased by about 3,000 trips (a 1.1% increase) from FY 2013 to FY 20i4. With service capacity remaining relatively level, this means that the paratransit system has had to increase its efficiency to accommodate these additional 3,000 trips.
- ADA Customer Trips - ADA customer trips have increased steadily over the three years: an increase of 6600 ADA trips (a 3.4% increase) from FY 2012 to FY 2013 and an increase of 7600 (a 3.8% increase) from FY2013 to FY 2104.
- Senior DAR Customer Trips – Again, with service capacity remaining relatively level over this 3-year period, the increase in ADA trips meant that less capacity was available for senior DAR trips. This bears out in Figure 3-1, as we see a decline in senior ridership of 7100 DAR trips from FY 2012 to FY 2013 and 4,600 DAR trips from FY 2013 to FY 2014.
- ADA vs. DAR Ratio - In FY 2014, the ratio of ADA customer trips to DAR customer trips was approximately 3 to 1.

Figure 3-1 Annual PVTA Paratransit Ridership

Year	ADA Customer Trips	ADA Trip %	Annual ADA Change	DAR Customer Trips	DAR Trip %	Annual DAR Change	Total Customer Trips	Annual Total Change
FY 2012	192,434	71%	--	77,283	29%	--	**269,717**	**--**
FY 2013	199,068	74%	+3.4%	70,155	26%	-9.2%	**269,223**	**-0.2%**
FY 2014	206,696	76%	+3.8%	65,533	24%	-6.6%	**272,228**	**+1.1%**

Source: PVTA - ADEPT's Trip Breakdown Report

Figure 3-2 presents the total number paratransit *passengers* by type (ADA vs. DAR plus companions and PCAs) from FY 2012 through FY 2014.

Figure 3-2 Annual PVTA Passengers

Year	ADA Customers	DAR Customers	Total Customers	%	Comp's	PCAs	Non-Customers	%	Total Passengers
FY 2012	192,434	77,283	**269,717**	85%	5,037	41,456	**46,493**	**15%**	**316,210**
FY 2013	199,068	70,155	**269,223**	86%	4,572	38,220	**42,792**	**14%**	**312,015**
FY 2014	206,696	65,533	**272,228**	89%	4,356	28,412	**32,768**	**11%**	**304,996**

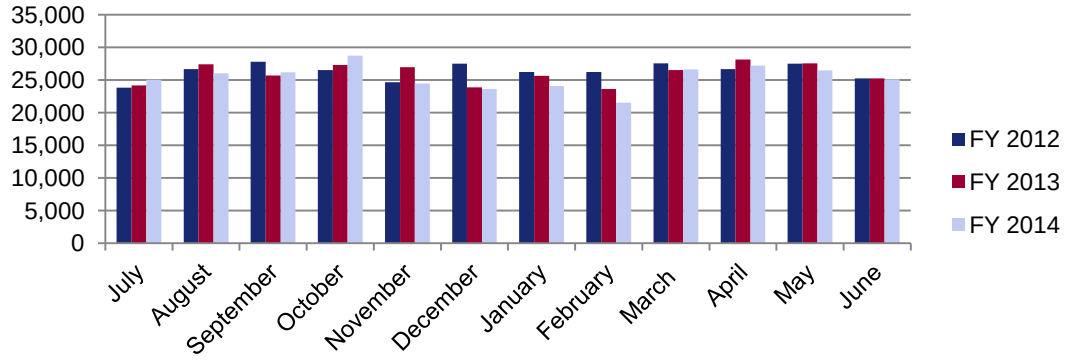
Source: PVTA - ADEPT's Trip Summary Report and Trip Breakdown Report

Highlights from Figure 3-2 include:

- Total Passenger Trips – During this three year period, the total number of *passenger* trips (Figure 3-2) declined, but upon inspection, this resulted from a reduction in non-customer passengers (companions and personal care attendants). PVTA staff has indicated that some of this reduction can be attributed to a "clean-up" of template trips that formerly included non-customers but no longer do.
- Non-Customer Passengers - The percentage of non-customer passengers was 11% in FY 2014, down considerably from the 15% in FY 2012. Over the three year period, this ridership averaged 13%, which is fairly substantial but not unusual. For example, the same percentage for THE RIDE in Boston has historically ranged from 13% to 14%.

Figure 3-3 shows ridership broken out by month for the three most recent fiscal years. For the most part, ridership numbers by year and month are similar, with higher ridership typically occurring in the fall and spring months. There are three months – September, December, and February – when the FY 2012 ridership numbers are at least 1,000 higher than the other fiscal years. There is only one month – October – when the FY 2014 ridership is higher than the previous two years, with ridership of 28,705 representing the peak month over the 3-year period.

Figure 3-3 PVTA Paratransit Month-by-Month Ridership Comparison (FY 2012 through FY 2014)



Source: PVTA Paratransit Ridership, Monthly, Annual

Trip Origins and Destinations

Figure 3-4 shows travel flows between the six scheduling zones in the PVTA service area during the week of April 27, 2014.

Over half the trips taken during this time period were intrazone trips, 1170 of which took place in Zone 3, which contains Springfield; these Springfield trips represent 20% of all trips during the observed week. Zones 2 and 4 also display a large number of intrazone trips, with over 600 and over 700 intrazone trips taken, respectively. There were few interzone trips taken in Zones 1 and 5

There were a relatively high number of interzone trips taken in the southwestern part of the PVTA service area, between Zones 3, 4, and 6, or the urbanized area surrounding Springfield. Over 330 interzone trips occurred between Zones 3 and 4, while over 200 interzone trips occurred between Zones 3 and 6 and Zones 4 and 6. Overall, Zone 3 represents about 33% of all trip origins and destinations; Zone 1 had the smallest amount of interzone trip activity (4%), followed by Zone 2 (13%).

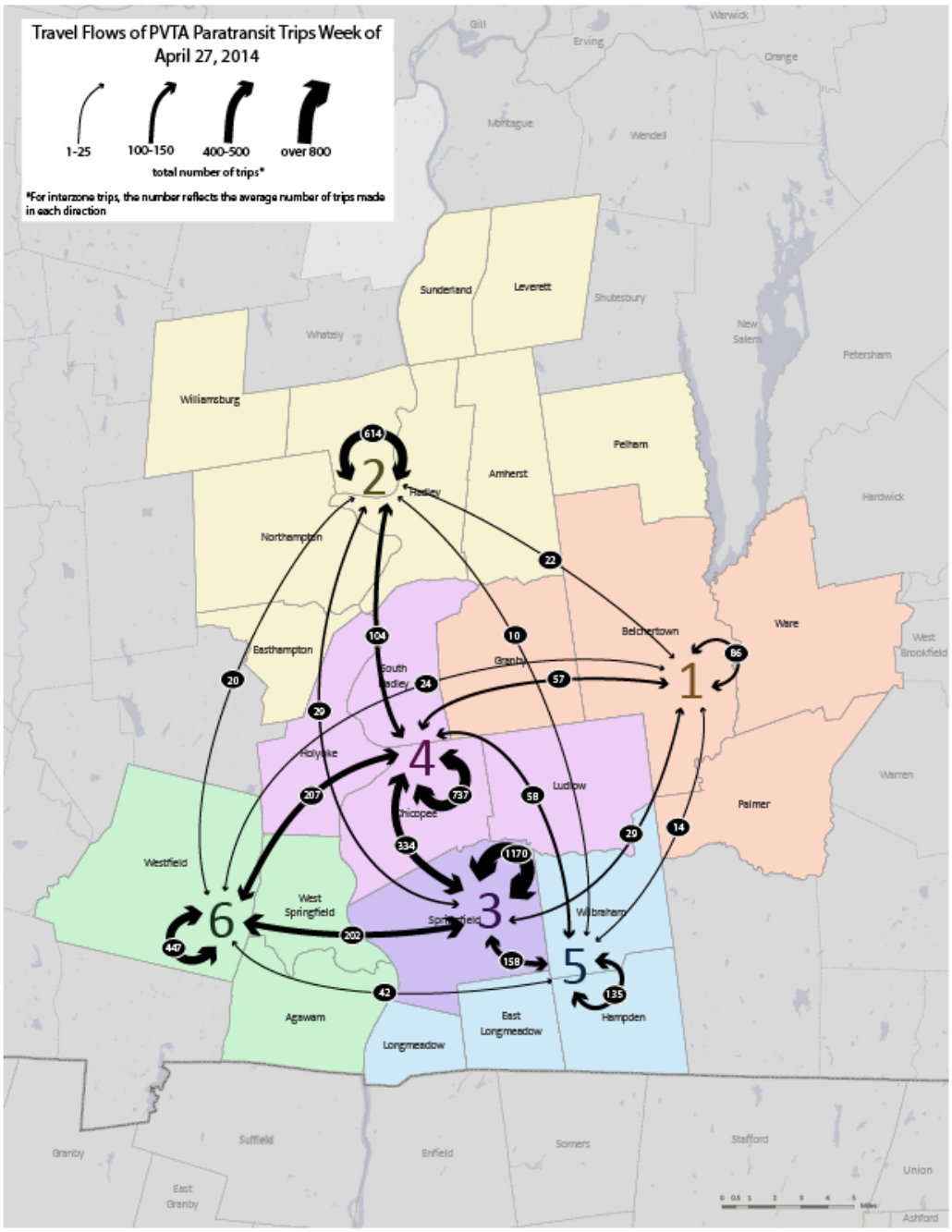
Figure 3-4 Origin and Destination Matrix of Paratransit Trips during the Week of April 27, 2014

	Zones						
Origins	**1**	**2**	**3**	**4**	**5**	**6**	**Total**
1	86	23	32	60	12	22	235
2	21	614	28	100	10	20	793
3	26	29	1170	334	155	207	1921
4	53	107	333	737	59	207	1496
5	15	10	161	57	135	46	424
6	25	19	197	206	37	447	931
Total	**226**	**802**	**1921**	**1494**	**408**	**949**	**5800**

Source: PVTA 2014

The trip origin and destination data in Figure 3-4 is shown spatially in Figure 3-5. The thickness of the arrows showing where a trip originated and ended indicates the number of trips during the week.

Figure 3-5 Trip Origin and Destination Map for Trips during the Week of April 27, 2014



Source: PVTA 2014

TRIP DISPOSITIONS: DENIALS, CANCELLATIONS, NO-SHOWS, AND MISSED TRIPS

Figure 3-6 through Figure 3-9 present additional information on denials, cancellations, no-shows, and missed trips for ADA passenger trips, senior DAR passenger trips, and total passengers, respectively. Note that the total passenger trip statistics in Figure 3-1 above agree with the same statistics in Figure 3-8 (as they should).

The full dataset can be found in Appendix H.

Figure 3-6 PVTA Paratransit Passenger Statistics – ADA Passengers

Year	Total ADA Passengers*	Denied	% Denied	Cancel	% Cancel	No-Show	% No-Show	Missed	% Missed
FY 2012	230,397	8	0.00%	79,929	35%	7,226	3.1%	50	0.02%
FY 2013	234,107	25	0.01%	70,999	30%	6,037	2.6%	85	0.04%
FY 2014	233,196	86	0.04%	74,992	32%	5,443	2.3%	124	0.05%

* Includes Companions and PCAs

Source: PVTA - ADEPT's Passenger Statistics Report

Figure 3-7 PVTA Paratransit Passenger Statistics – Senior DAR Passengers

Year	Total DAR Passengers*	Denied	% Denied	Cancel	% Cancel	No-Show	% No-Show	Missed	% Missed
FY 2012	85,814	444	0.52%	32,884	38%	3,823	4.5%	15	0.02%
FY 2013	77,908	3,826	4.91%	26,828	34%	2,964	3.8%	15	0.02%
FY 2014	71,801	1,408	1.81%	24,831	35%	2,401	3.3%	32	0.04%

* Includes Companions and PCAs

Source: PVTA - ADEPT's Passenger Statistics Report

Figure 3-8 PVTA Paratransit Passenger Statistics – Total Passengers

Year	Total Passengers*	Denied	% Denied	Cancel	% Cancel	No-Show	% No-Show	Missed	% Missed
FY 2012	316,211	452	0.14%	112,813	36%	11,049	3.5%	65	0.02%
FY 2013	312,015	3,851	1.23%	97,827	31%	9,001	2.9%	100	0.03%
FY 2014	304,997	1,480	0.48%	99,832	33%	7,844	2.6%	156	0.05%

* Includes Companions and PCAs

Source: PVTA - ADEPT's Passenger Statistics Report

Figure 3-9 Breakdown of Cancellations (Registered Customers Only) – FY 2012 and FY 2013

Year	Advance Cancels	% of Trips	Same-Day Cancels	% of Trips	Late Cancels	% of Trips	Total Cancels	% of Trips	Customer Trips
FY 2012	50,031	18.5%	33,579	12.4%	8,736	3.2%	92,346	34.2%	269,717
FY 2013	46,085	17.1%	31,235	11.6%	5,058	1.9%	82,378	30.6%	269,223

Source: PVTA – No Show and Cancel Report

Observations based on these statistics include the following:

- ADA Denials – Under the ADA, a pattern of trip denials can indicate a capacity constraint which can lead to non-compliance issues. In FY 2014, there were 86 denials for ADA passenger trip requests. While this was over three times the number of ADA denials the previous year, this still is a reasonable number. To put this in perspective, if one assumes that these all occurred on weekdays, and there are 261 operating days that fall on weekdays per year, this means there was an average of 0.23 denials per weekday, or only one denial every three weekdays. Based on this, there would not appear to a pattern, although PVTA and Hulmes should strive to get the number down to the levels achieved in the preceding years.
- Senior DAR Denials -- Senior trip denials are to be expected with a relatively level funding-constrained service capacity and with an increasing number of ADA paratransit trips. The denial rate for senior trips was 1.8% for FY 2014, which was significantly better than the 4.9% denial rate the previous year. Using the assumption as above, the number of senior denials per weekday was 5.4 denials in FY 2014.
- Cancellations – The number of each type of and total cancellations are trending downwards, but are still fairly high: the percentage of total cancellations is generally considered to be high if over 15%. With total cancellations at twice that rate, it is suspected that customers may still be making "placeholder reservations" and then cancelling. While the advance cancellations do not affect the scheduling process, the same-day cancellations do. As some of the scheduling processes and practices are improved, it is hoped that PVTA will see a reduction of the same-day cancellation rate.
- No-Shows – PVTA's no-show rate show rate has steadily declined over the last three years and is reasonable; typically, a no show/late cancellation rate under 5% is acceptable. The full data collected for no shows and cancellations can be found in Appendix I.
- Missed Trips – PVTA's rate of missed trips is within acceptable range; the industry standard is to not exceed a rate 0.05%.

ON-TIME PERFORMANCE

On-time performance (OTP), as presented in Figure 3-10 on the following page, was analyzed from an ADEPT report, generated by Hulmes staff for the week of April 27, 2014.

While the on-time rate in Figure 3-10 is well below PVTA's target, Hulmes by contract may "claim" early trips as on-time up to 15% of the total, noting that this 15% threshold was only exceeded once during this week – on Saturday – when the number of early trips represented 16.3% of the total. Thus, in this case, 38 of the 41 early trips on that Saturday were considered to be on-time. With this adjustment, the on-time vs. not-on time figures is presented in Figure 3-11.

Based on the adjusted figures from Figure 3-11, PVTA's on-time performance for the week is at the higher end of the 95% to 96.5% target range. That is, achieving an OTP above 96.5% for a three-month period generates a bonus for Hulmes, while achieving an OTP below 95% for a 3-month period triggers a penalty. **Clearly, this OTP achievement is something to tout**. It is also important to note that approximately 82% (roughly 4 out of 5) of the late trips are no more than 15 minutes late.

Figure 3-10 PVTA Paratransit On-Time Performance – Week of April 27, 2014

Number of All Trips	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Total	%
Early	14	139	139	137	160	134	41	764	13.2%
On-Time	109	841	896	906	921	934	203	4,810	83.2%
Late	3	42	32	28	27	66	8	206	3.6%
- 1-15 min late	3	36	28	22	23	49	7	168	2.9%
- 16-30 min late	0	6	4	4	4	14	1	33	0.6%
- 31-45 min late	0	0	0	1	0	3	0	4	0.1%
- 46+ min late	0	0	0	1	0	0	0	1	0.0%
Total Completed	126	1022	1067	1071	1108	1134	252	5,780	
Percentage of Trips	Sun	Mon	Tues	Wed	Thu	Fri	Sat	Total	
Early	11.1%	13.6%	13.0%	12.8%	14.4%	11.8%	16.3%	13.2%	
On-Time	86.5%	82.3%	84.0%	84.6%	83.1%	82.4%	80.6%	83.2%	
Late	2.4%	4.1%	3.0%	2.6%	2.4%	5.8%	3.2%	3.6%	

Source: Daily summary for report period report

Figure 3-11 PVTA Paratransit On-Time Performance – Week of April 27, 2014 – Adjusted per the 15% Policy

Number of All Trips	Sun	Mon	Tues	Wed	Thu	Fri	Sat	Total
On-Time	123	980	1035	1043	1081	1068	241	5,571
Not-On-Time	3	42	32	28	27	66	11	209
Total Completed	126	1022	1067	1071	1108	1134	252	5,780
Percentage of Trips	Sun	Mon	Tues	Wed	Thu	Fri	Sat	Total
On-Time	97.6%	95.9%	97.0%	97.4%	97.6%	94.2%	95.6%	96.4%
Not-on-Time	2.4%	4.1%	3.0%	2.6%	2.4%	5.8%	4.4%	3.6%

Source: Nelson\Nygaard Consulting Associates

More detailed on time performance data for the week of April 27, 2014 can be found in Appendix J.

As a reality check, the range of daily OTP figures from Figure 3-10 (80.6%-86.5% on weekdays and 84.6%-82.3% on weekends) is not that dissimilar from the mystery rider results from the first quarter of CY 2014 (See Appendix K). Based on the mystery rider reports, 80% of the trips were on-time, 11% were late, and 9% were early.

Lastly, the over-supply of service in the mid-day (see below) undoubtedly contributes to the high on-time performance. However, as discussed below, the lower productivity does not hamper PVTA's unit cost.

SUPPLY OF SERVICE AND PRODUCTIVITY

Figure 3-12 shows revenue vehicle hour (RVH) and mile (RVM) data, total hour and mile data, and productivity (both customer trips per RVH and total passengers per RVH) for the three most recent fiscal years.

As shown, while customer ridership from FY 2012 to FY 2013 remained fairly level (decreased by 0.18%), so did the service supply in terms of both RVHs (increased by 0.44%) and RVMs (decreased by 1.87%).

While there was slight increase in customer ridership from FY 2013 to FY 2014 of 0.93%, there was a slight 2.02% decrease in RVHs but a concurrent 4.66% increase in RVMs, indicating either longer trips (which does not seem to be the case – see Figure 3-13) or more circuitous routing.

Productivity, measure in terms of *customer* trips per RVH, increased 3.2% from FY 2012 to FY 2013 and another 2.56% from FY 2013 to FY 2014 – a positive sign; however, even if one looks at productivity in terms of total passenger trips per RVH, the 1.57-1.60 range in productivity is well below PVTA's target of 1.95 passengers per RVH.

The run structure analyses conducted as part of this review (see Figure 2-8 and Appendix C) unveiled the major contributor to this lower productivity: an over-supply of service during the mid-day period. However, the impact of this over-supply of service on the unit cost is negligible because of PVTA's contractual payment structure, where PVTA in essence pays a flat fee for all peak hour (Monday-Saturday 7:00 AM through 7:00 PM) service.

Figure 3-12 PVTA Paratransit - Supply of Service and Productivity

Supply of Service / Productivity Indicator	FY 2012	FY 2013	FY 2014	Percent Change FY 2012 - FY 2013	Percent Change FY 2013- FY 2014
Revenue Vehicle Hours (RVH)	197,978	198,850	194,841	0.44%	-2.02%
Total Vehicle Hours	245,772	244,088	228,221	-0.69%	-6.50%
Revenue Vehicle Miles (RVM)	2,768,036	2,716,346	2,842,796	-1.87%	4.66%
Total Vehicle Miles	3,396,777	3,364,694	3,431,531	-.0.94%	1.99%
% RVH of Total Hours	80.6%	81.5%	85.4%	4.80%	5.98%
% RVM of Total Miles	81.5%	80.7%	82.8%	2.62%	1.66%
Total Passenger Trips	316,210	312,015	304,996	-1.33%	-2.25%
Total Customer Trips	269,717	269,223	272,228	-0.18%	0.93%
Passenger Trips / RVH	1.60	1.57	1.57	-0.24%	-1.99%
Customer Trips / RVH	1.36	1.35	1.40	3.20%	2.56%

Source: PVTA Monthly Passengers Annual Hours and Miles Report

TRIP LENGTH

As shown in Figure 3-13, a sampling of dates in December of 2011, 2012 and 2013 shows that the average trip length has decreased between 2011 and 2013, both in the number of minutes a client is onboard a PVTA vehicle and the average miles a client travels on PVTA vehicles. The average number of minutes decreased from 21.19 in 2011 to 17.79 in 2013, a decrease of 16%. The average number of miles decreased from 5.6 in 2011 to 5.3 in 2013, which is a reduction of 5%.

Figure 3-13 PVTA Paratransit - Average Trip Length in Minutes and Miles

Date	Clients	Average Minutes on Board per Client	Average Miles on Board per Client
12/11/2011	128	21.19	5.6
12/18/2011	127	19.79	5.2
12/23/2012	165	19.58	5.9
12/30/2012	108	17.72	5.2
12/29/2013	151	17.79	5.3

Source: PVTA 2014

FEEDBACK

As discussed previously, PVTA developed a customer feedback system which has dramatically improved the ability to track compliments, complaints, suggestions, etc. PVTA receives feedback from passengers, the general public, and service providers through the PVTA customer service phone line.

In FY 2012 and FY 2013, there were eight and nine complaints reported per month. In FY 2014, the monthly number of complaints increased slightly to 10. The industry standard for complaint ratio is a maximum of 10 complaints per 10,000 customer trips. As shown in Figure 3-14, PVTA's complaint ratio at 3.9, 3.5, and 4.6 complaints per 10,000 customer trips for FY 2012, FY 2013, and FY 2014, respectively.

Figure 3-14 Complaints per Year and Complaint Ratio

Total Complaints	Complaints per Fiscal Year	Total Customer Trips	Complaint Ratio (per 10,000 trips)
FY 2012	107	269,717	3.9
FY 2013	94	269,223	3.5
FY 2014	125	272,228	4.6

Source: PVTA, August 2014.

Note that PVTA also tracks 25 *types* of complaints on a monthly basis and follows up with Hulmes Transportation when there are significantly high numbers of complaints or glaring issues. There are five categories of complaints that have been frequently reported over the last 2.5 years, as shown in Figure 3-15.

Figure 3-15 Number of complaints for the five highest complaint categories

Period	Delay/Late	Non Service Related	Rude Employee	Scheduling Issues	Unsafe Operation	Total (Top 5 Types)
FY 2012	2	13	12	17	40	84
FY2013	1	6	6	14	53	80
FY2014	13	5	21	14	57	110
Total	**16**	**24**	**39**	**45**	**150**	

Source: PVTA, August 2014.

Observations from Figure 3-15 are discussed below:

- The highest number of complaints is related to unsafe operation of the PVTA paratransit vehicles, which includes when a driver speeds or violates traffic laws and when the driver does not tie a wheelchair down properly or secure passengers into their seats properly. About four of these types of complaints are reported to PVTA each month and have increased from 2012 to 2014. Complaints about unsafe operation have risen from FY 2012 to FY 2014 with a large jump from 40 to 53 between FY 2012 and FY 2013. Follow-up research on this feedback unveiled that most all of these complaints were received from the general public and not customers.
- Scheduling issues is the second highest complaint category noting that it includes any errors that may have occurred during the booking process. Complaints about scheduling issues have remained relatively constant over the three fiscal years.
- Complaints that Hulmes employees have been rude to a passenger are the third most frequent type of complaint. The number of these complaints increased significantly in FY 2014.
- Non-service related complaints include those complaints that are usually out of PVTA's control. The most frequent complaint filed in this category is when a pick-up/drop-off location is not convenient or accessible for a passenger. Usually the pick-up/drop-off location is determined by the destination, such as a medical facility, and while PVTA employees can note these complaints and report them to that facility, it is ultimately not PVTA's decision to change the location. There were half as many of these complaints in FY 2013 and FY 2014 as there were in FY 2012.
- Complaints that the Hulmes service is delayed or late were very low for FY 2012 and FY 2013, but increased significantly in FY 2014.

SAFETY RECORD

As shown in Figure 3-16, for the FY 2012 and FY 2013, the number of accidents and incidents has remained consistent: approximately 62 accidents and 80 incidents per period; however, in FY 2014, the number of accidents *increased* by 14%, while the number of incidents *decreased* by 45%. This change can largely be attributed to a concurrent change in FTA's definition of an accident to now include events involving lifts and wheelchair securing. Prior to FY 2014, such events were recorded as incidents.

The industry standard for preventable accidents is 1.0 preventable accident per 100,000 (total) miles. PVTA's preventable accident frequency ratio has ranged from 0.89 to 1.11 over the last three years, and averaged 0.99 over the three years, which is within the target goal. PVTA's contractual target is 10 preventable accidents per calendar year, which considering the number of total miles operated equates to 0.29 based on the FY 2014 total miles.

Figure 3-16 Number of Accidents, Preventable Accidents, and Incidents

Time Period	Accidents	Preventable Accidents	Incidents	Total Vehicle Miles	Accident Ratio (per 10,000 trips)	Preventable Accident Ratio (per 10,000 trips)
FY 2012	61	33	81	3,396,777	1.8	.96
FY 2013	63	30	80	3,364,694	1.9	.89
FY 2014	72	38	44	3,431,531	2.1	1.1

Source: PVTA, July 2014

COST PERFORMANCE

Operational Costs

Cost performance data is only available for FY 2012 and 2013 due to the timing of this report and the annual audit. As shown in Figure 3-17, the costs associated with providing services decreased between FY 2012 and FY 2013. The overall audited cost of service decreased by 2.65%, the cost per trip has decreased by 1.32%, the cost per RVH decreased by 3%, and the cost per RVM decreased by 0.70%.

Hulmes Contract Costs

Figure 3-18 shows the current contractual payment structure. Again, the total payment to Hulmes for peak hours serviced is based on the payment amount multiplied by the number of peak hours in a day (12) multiplied by the number of operating days in the year that fall on a weekday and on Saturday. In contrast, the payment to Hulmes for off-peak service is directly related to the number of trips provided.

Figure 3-17 Annual Cost of Operating PVTA Paratransit Service

Paratransit Costs	FY 2012	FY 2013	Percent Change
Paratransit Vendor Payments	$5,729,008.00	$5,858,153.52	2%
Paratransit Fuel	$1,319,851.45	$1,295,269.48	-2%
Allocated Maintenance	$359,542.88	$374,329.47	4%
Insurance Premiums	$319,163.41	$71,569.86	-77%
Insurance Claim Payments	$147,097.56	$61,039.32	-58%
Paratransit Misc	$11,170.34	$17,123.84	53%
E&H Williamsburg[4]	$6,842.22	$6,162.32	-10%
Paratransit IT Services	$4,352.14	$3,820.19	-12%
Total for Paratransit Services – Audited Cost of Service	$7,897,028.00	$7,687,468.00	-2.65%
Cost per Trip	$24.97	$24.64	-1.32%
Cost per RVH	$39.89	$38.66	-3.08%
Cost per RVM	$2.85	$2.83	-0.70%

Source: PVTA Monthly Passengers Annual Hours and Miles Report and PVTA's Chief Financial Officer September 9, 2014

Figure 3-18 Service Costs for Peak and Off-Peak Service Hours, FY2013-FY2018

Payment Period	Peak Service Hours Monday-Saturday 7:00 am to 7:00 pm	Off-Peak Service Monday- Saturday 7:00pm to 7:00am All day Sunday
FY 2013-2014	$1,486 per service hour	$28.00 per trip
FY 2014-2015	$1,535 per service hour	$28.00 per trip
FY 2015-2016	$1,585 per service hour	$28.00 per trip
FY 2016-2017	$1,637 per service hour	$28.00 per trip
FY 2017-2018	$1,691 per service hour	$28.00 per trip

Source: PVTA 2014

A summary of invoices for FY 2013 and FY 2014 documents the cost of the Hulmes contract for providing ADA Paratransit and senior dial-a-ride services. As shown in Figure 3-19, the number of peak service hours supplied by Hulmes increased only slightly from FY 2013 to FY 2014 because of the two additional operating days that fell on a Monday-Saturday. The number of off-peak trips increased by more than 8% during this period. The total cost of these trips (less the fares and penalties, as described below) increased by almost 3%.

[4] E&H Williamsburg is a service that is separate from Hulmes. PVTA pays $7 per trip.

As shown in Figure 3-19, between FY 2013 and FY 2014, the number of peak service hours increased slightly (0.33%) while the number of off-peak trips increased by a larger amount (8.4%). Both of these increases resulted in an overall increase in total payment of almost 3% during this period.

Figure 3-19 Summary of FY 2013 and FY2014 Invoices

	FY 2013	FY 2014	Percent Change
Peak Service Hours	3,648	3,660	0.33%
Off-Peak Trips	19,337	20,962	8.40%
Total Cost	$5,533,345	$5,693,535	2.89%

Source: Hulmes Transportation Services, Ltd Invoices July 2012 – June 2014

As shown in Figure 3-20 and Figure 3-21, Hulmes charges $1,486 for each hour of service during peak service hours and $28 for each trip during off-peak service hours. Fares are then subtracted from the total amount that PVTA owes to Hulmes for providing service. Various penalties for not reaching performance standards in on-time performance, denied/missed trips, and ride time over 60 minutes, among others, are subtracted from the amount owed, as well. Performance incentives are added and fuel charge adjustments are also made before drawing up the total amount owed to Hulmes.

Figure 3-20 Hulmes Transportation's Invoice Summary for FY 2013

Month	Peak Service Hours	Peak Service Cost @ $1486	Off-Peak Trips	Off-Peak Cost @ $28	Less Fares	Penalties Incentives & Adjustments	Total
12-Jul	300	$431,400	1,400	$39,200	($26,474)	$0	$444,126
12-Aug	324	$465,912	1,432	$40,096	($29,585)	($165)	$476,258
12-Sep	288	$414,144	1,695	$47,460	($26,203)	$0	$435,401
12-Oct	312	$448,656	1,850	$51,800	($27,169)	($94)	$473,193
12-Nov	300	$431,400	1,649	$46,172	($27,075)	$0	$450,498
12-Dec	300	$431,400	1,580	$44,240	($24,413)	($153)	$451,074
13-Jan	300	$440,100	1,627	$45,556	($26,441)	$12,900	$472,115
13-Feb	288	$422,496	1,445	$40,460	($24,593)	($5,462)	$432,902
13-Mar	312	$457,704	1,732	$48,496	($27,707)	$0	$478,493
13-Apr	312	$463,632	1,730	$48,440	($28,984)	($5,350)	$473,738
13-May	312	$463,632	1,662	$46,536	($27,918)	($1,234)	$481,016
13-Jun	300	$445,800	1,535	$42,980	($28,249)	$0	$460,532
Total	**3,648**	**$5,316,276**	**19,337**	**$541,436**	**($324,809)**	**$442**	**$5,533,345**

Source: Hulmes Transportation Services, Ltd Invoices July 2012 – June 2014

Figure 3-21 Hulmes Invoice Summary for FY 2014

Month	Peak Service Hours	Peak Service Cost @ $1486	Off-Peak Trips	Off-Peak Cost @ $28	Less Fares	Penalties Incentives & Adjustments	Total
13-Jul	312	$463,632	1,394	$39,032	($26,916)	($350)	$475,398
13-Aug	324	$481,464	1,510	$42,280	($27,747)	$0	$495,998
13-Sep	288	$427,968	1,809	$50,652	($27,630)	$3,550	$454,540
13-Oct	312	$463,632	2,005	$56,140	($29,827)	($1,267)	$488,678
13-Nov	300	$445,800	1,757	$49,196	($26,622)	$0	$468,375
13-Dec	300	$445,800	1,720	$48,160	($25,908)	$0	$468,052
14-Jan	300	$445,800	1,861	$52,108	($27,545)	$0	$470,363
14-Feb	288	$427,968	1,562	$43,736	($24,142)	($1,300)	$446,262
14-Mar	312	$463,632	1,844	$51,632	($29,326)	($1,406)	$484,632
14-Apr	312	$463,632	1904	$53,312	($29,767)	$4,550	$491,727
14-May	312	$463,632	1898	$53,144	($29,637)	($450)	$486,689
14-June	300	$445,800	1698	$47,544	($27,822)	($2,844)	$462,822
Total	**3,660**	**$5,438,760**	**20,962**	**$586,936**	**($332,888)**	**$727**	**$5,693,291**

Source: Hulmes Transportation Services, Ltd Invoices July 2012 – June 2014

Hulmes' detailed invoices for services from the period July 2012 to June 2014 can be found in Appendix M.

Unit Costs

As shown in Figure 3-22, the per trip cost for peak trips is lower than for off-peak service, attributable to the flat fee paid for peak service vs. the $28 per trip fee paid for off-peak service.

Figure 3-22 Unit Costs for Types of Trips, RVH, and RVM

	FY 2013			FY 2014		
Type	**Customer Trips**	**Total Cost**	**Unit Cost**	**Customer Trips**	**Total Cost**	**Unit Cost**
Peak Trips	249,886	$5,316,276	$21.27	251,266	$5,438,760	$21.65
Off-Peak Trips	19,337	$541,436	$28.00	20,962	$586,936	$28.00
Total	269,223	$5,857,712	$21.75	272,228	$6,025,696	$22.13
Type	**Number**	**Total Cost**	**Unit Cost**	**Number**	**Total Cost**	**Unit Cost**
RVH	198,850	$5,533,345	$27.83	194,841	$5,693,535	$29.22
RVM	2,716,346	$5,533,345	$2.04	2,842,796	$5,693,535	$2.00

Source: PVTA 2014

REVENUE SOURCES

The sources of funding for PVTA's operating costs are shown in Figure 3-23. Overall there was a 1% increase in revenue between FY 2012 and FY 2013. PVTA allocated less federal funding to

operations in FY 2013 largely as a result of the $2.8 million increase in state contract assistance. In addition, the miscellaneous revenue category appears to be much lower in FY 2013, but this was due to there being a one-time $800,000 grant from UMass for fuel in FY 2012.

Figure 3-23 PVTA Operating Revenue

Revenues	FY 2012	FY 2013	Change
Farebox Revenues[5]	$670,666	$668,227	-0.4%
Fixed Route Farebox Revenue	$6,684,087	$6,706,255	0.3%
State Contract Assistance	$16,216,342	$19,090,849	18%
Federal Operating Assistance[6]	$6,289,989	$4,765,980	-24%
Local Assessments	$6,725,238	$6,893,369	3%
Miscellaneous Revenue	$1,316,967[7]	$264,919	-80%
Total Revenue	$37,903,289	$38,389,599	1%

Source: PVTA 2014.

PEER COMPARISON

To put PVTA service and cost performance in context, the PVTA paratransit service was compared with five peer paratransit services comparable in size and scope. The peer agencies were selected based on various attributes including geographic area, service population, and ridership characteristics and data was gathered for each system from the National Transit Database and agency websites. The five peer agencies chosen were:

- Transportation District Commission of Hampton Roads (Hampton, VA)
- Toledo Area Regional Transit Authority (Toledo, OH)
- Greater Hartford Transit District (Hartford, CT)
- Red Rose Transit Authority (Lancaster, PA)
- Metropolitan Suburban Bus Authority (Garden City, NY)

Productivity measures of PVTA and the five peer agencies collected in the review process are shown below. For each metric, a table is provided that highlights PVTA in blue, while the red bar shown on each table represents the average of all six systems (including PVTA).

Ridership

As shown in Figure 3-24, annual ridership of demand response service in five peer agencies ranges between 293,000 and 340,000 for FY 2012. Of all the systems represented, PVTA ranks

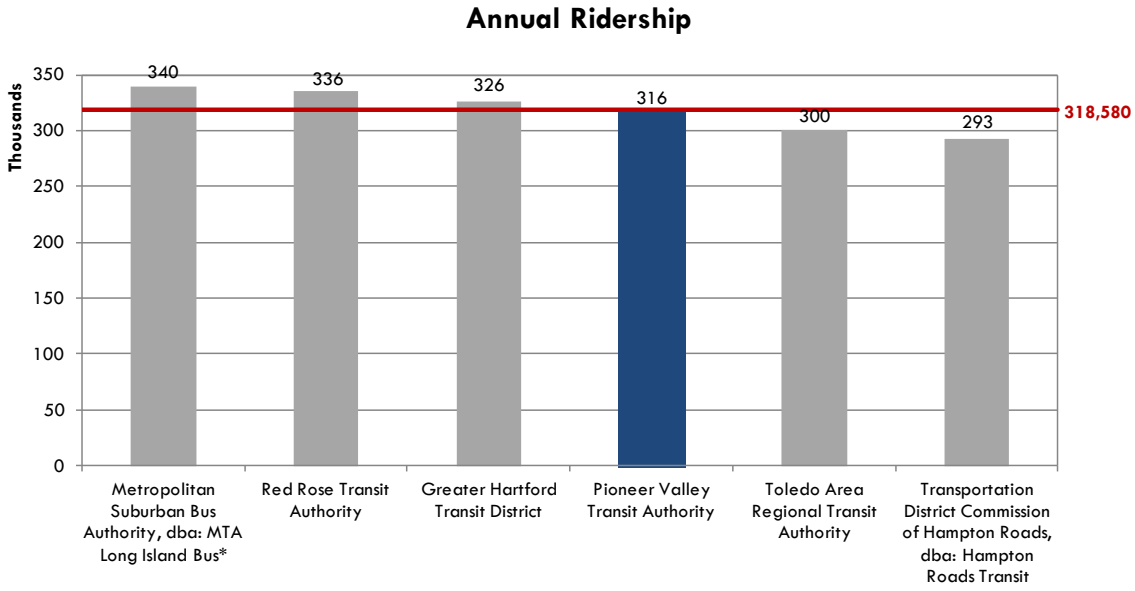
[5] The reason that the farebox revenue numbers here a different from those on the Hulmes invoices is because Hulmes Transportation's drivers collect about half the farebox revenue in cash and the rest is collected in fare tickets. These collected fare tickets are recorded as fares.

[6] Federal operating assistance is provided for preventative maintenance, ADA Paratransit assistance, and Section 5311 Rural Transportation funding.

[7] In FY 2012 PVTA received and $800,000 from UMass to subsidize services; this subsidy is included in the "Miscellaneous Revenue."

fourth, with a paratransit service ridership of 316,000. Services in Garden City, NY, Lancaster, PA, and Hartford, CT, have above average ridership compared to the other systems.

Figure 3-24 Demand Response Annual Ridership

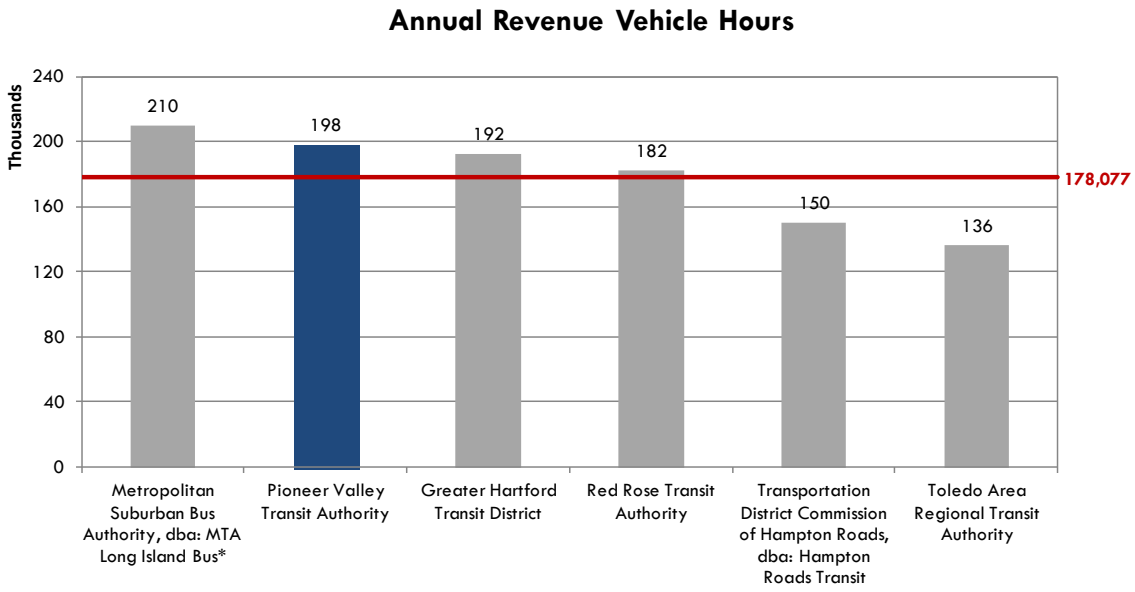


Source: FY2012 National Transit Database (*FY2011 National Transit Database used for MTA Long Island Bus)

Revenue Vehicle Hours

The average annual revenue vehicle hours for all the peer systems is approximately 180,000 (see Figure 3-25). MTA Long Island Bus, which has the highest annual ridership, also has the longest revenue vehicle hours. PVTA is second on the list with about 198,000 revenue vehicle hours. Similar to the ridership figures, demand response service in Hartford and Lancaster have revenue vehicle hours higher than the average.

Figure 3-25 Demand Response Annual Revenue Vehicle Hours

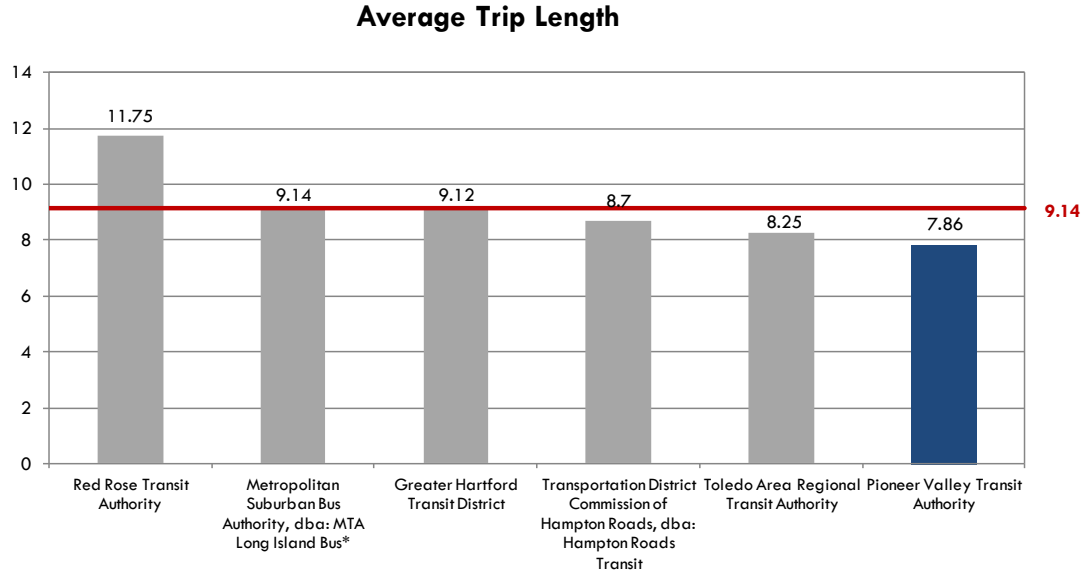


Source: FY2012 National Transit Database (*FY2011 National Transit Database used for MTA Long Island Bus)

Average Trip Length

Of the six systems represented, PVTA has the shortest average trip length of 7.86 miles, which is about 1.3 miles less than the average of all the systems (see Figure 3-26). Only the demand response trips at Red Rose Transit Authority have longer than average trip length.

Figure 3-26 Demand Response Average Trip Length

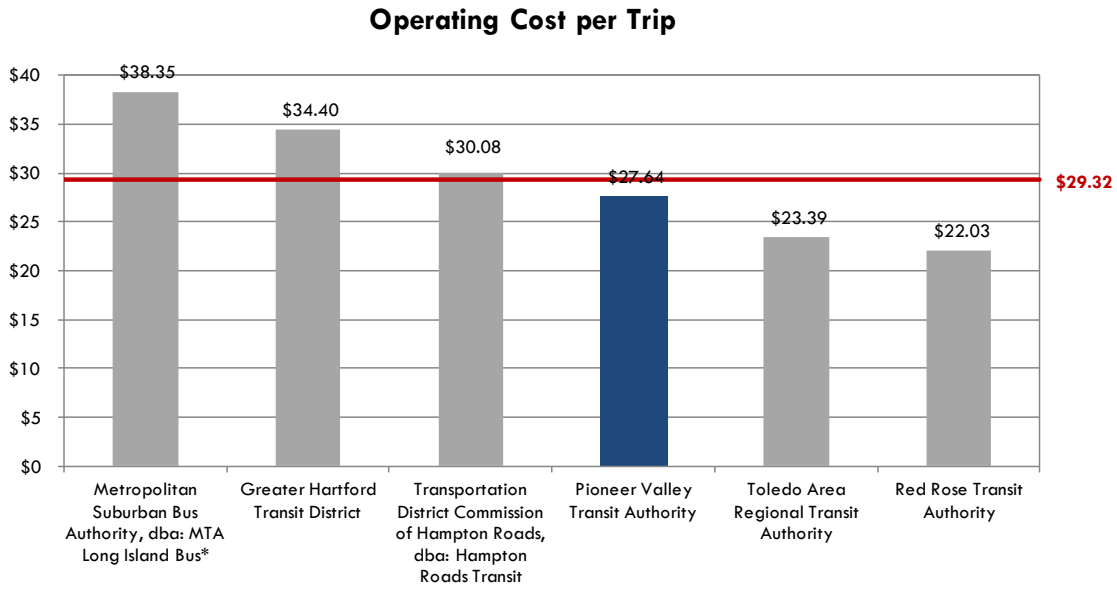


Source: FY2012 National Transit Database (*FY2011 National Transit Database used for MTA Long Island Bus)

Operating Cost Per Trip and Per Revenue Vehicle Hour

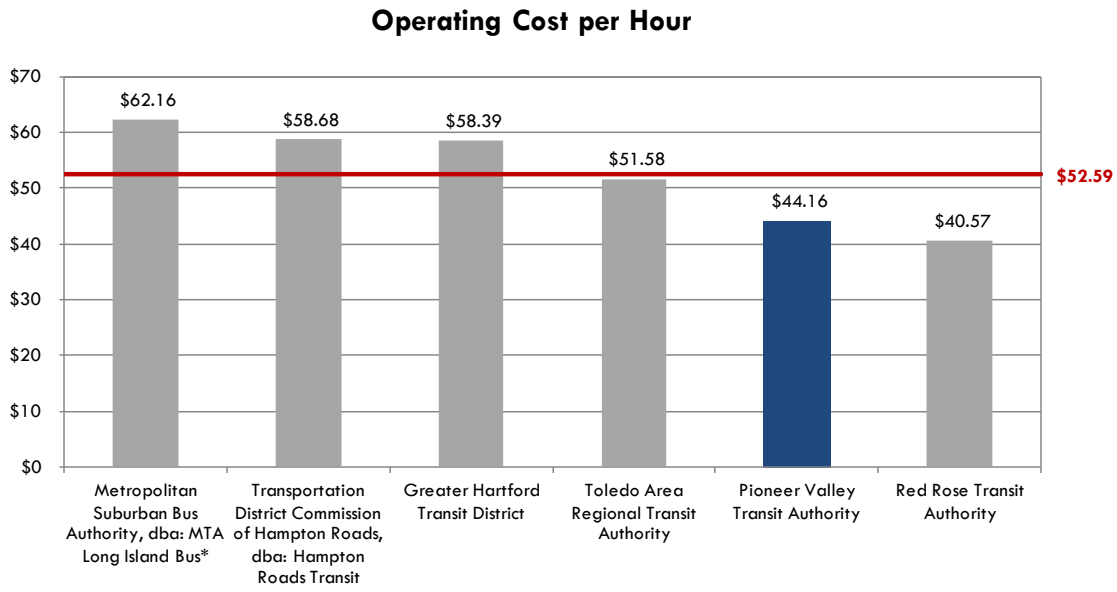
Operating cost per trip ranges between $22 and $38, and cost per hour ranges between $40 and $62. As shown in Figure 3-27 and Figure 3-28, the costs to operate demand response service at PVTA are $27.64 per trip or $44.16 per hour, which are both less than the average costs of the group. Cost per trip and cost per hour at MTA Long Island Bus, Greater Hartford Transit District, and Hampton Roads Transit are higher than the average. Red Rose Transit Authority has the lowest cost per trip and cost per hour.

Figure 3-27 Demand Response - Operating Cost per Trip



Source: FY2012 National Transit Database (*FY2011 National Transit Database used for MTA Long Island Bus)

Figure 3-28 Demand Response – Operating Cost per Hour

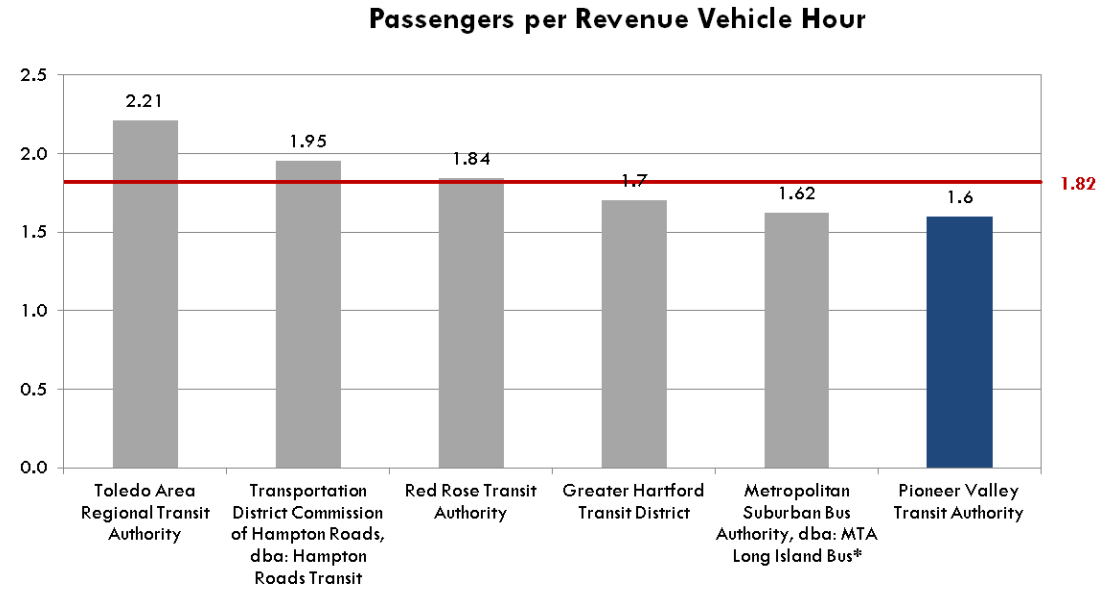


Source: FY2012 National Transit Database (*FY2011 National Transit Database used for MTA Long Island Bus)

Service Productivity

As shown in Figure 3-29, PVTA is the least productive with 1.6 passengers per revenue vehicle hour. Toledo Area Transit is most productive with 2.21 trips per hour, followed by Hampton Roads Transit with 1.95 passengers per hour.

Figure 3-29 Demand Response – Passengers per Revenue Vehicle Hour



Source: FY2012 National Transit Database (*FY2011 National Transit Database used for MTA Long Island Bus)

Summary Conclusions

Despite having the shortest average trip length among the peers, which typically translates into a higher productivity, PVTA's paratransit system was least productive. But, while low productivity typically translates into high unit costs, PVTA's unit cost was lower than the peer average – largely as a result of its relatively unique contractor payment structure for peak service.

4 CUSTOMER SURVEY

Methodology

During the months of June and July 2014, the consulting team worked with PVTA, Hulmes Transportation and the Pioneer Valley Planning Commission (PVPC) to survey PVTA's paratransit van riders. The goal of this survey was to evaluate customer satisfaction with PVTA's paratransit van service and identify potential areas for improvement.

The survey instrument itself was designed in part based on a similar customer survey that was undertaken by PVPC in 2011 and based on the feedback heard from stakeholder meetings and interviews. The draft of the survey instrument was reviewed by PVTA and PVPC staff with suggested revisions incorporated into the final product.

In June, survey forms were distributed by drivers to PVTA van riders, and by PVTA staff at senior centers and at two Van Rider Forums. The same survey was also made available online.

The survey was first distributed on June 12 and results were collected up to July 3rd, when the survey was closed. A total of **478 surveys** were completed. The majority of surveys (92%) were completed on paper. A copy of the blank survey form can be found in Appendix N.

Key Findings

As shown below in the key findings, the overall perception of PVTA paratransit system was largely positive.

- Customer satisfaction with PVTA van drivers and ride quality exceeded 85% combined "Excellent" and "Good" for all categories, and exceeded 90% in three categories.
- Satisfaction with PVTA van reliability and service characteristics exceeded 70% combined "Excellent" and "Good" for all categories, and exceeded 80% for all but two categories.
- 97% of respondents rated their overall satisfaction with the Safety of service as "Excellent" or "Good."
- 89% of respondents rated their overall satisfaction with the quality and value of the van service as "Excellent" or "Good".
- Among ADA-eligible users, the top trip purposes are non-dialysis medical appointments (48%) and work trips (44%). Shopping (32%) and social visits/recreation (11%) are also common trip purposes.
- Non-dialysis medical appointments (62%) are the primary trips taken by users over 60 years of age. Shopping (39%), social visits/recreation (22%), and senior center visits (20%) are also popular trip purposes.
- Although 71% rated satisfaction with "Helpfulness of automated arrival calls" as "Excellent" or "Good," this category received highest negative ratings (12%), noting that

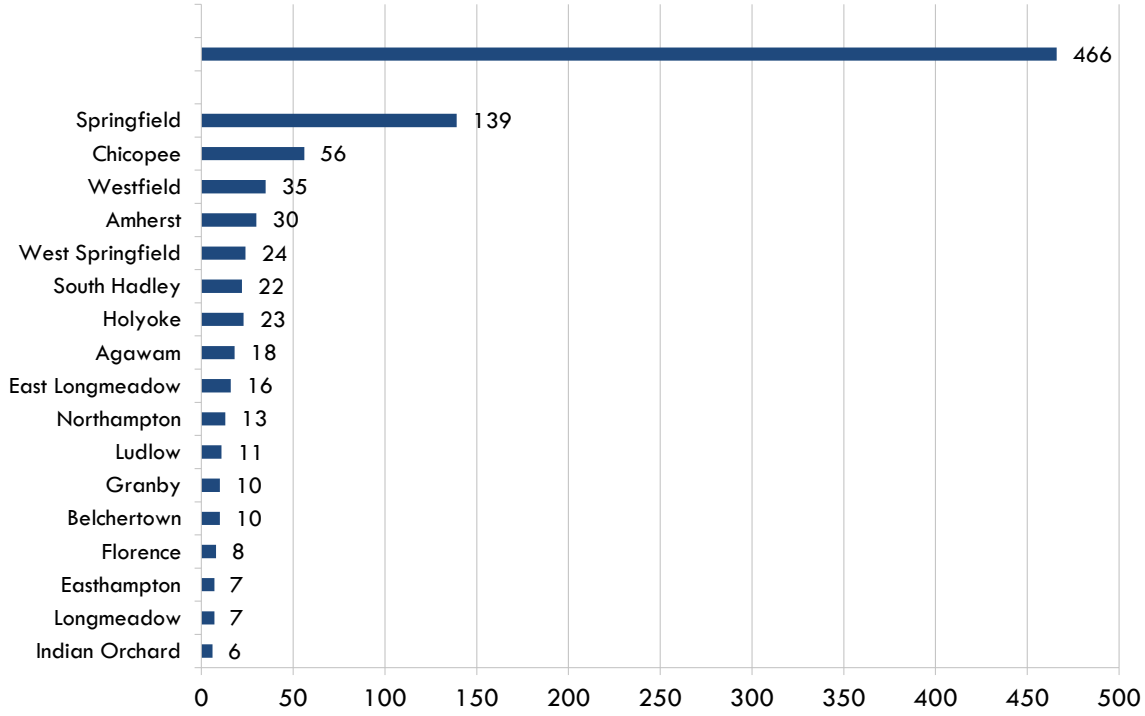
arrival calls are currently only provided to a subset of customers. "Ease of Reservations" had the second highest negative rating at 4%, despite more than 85% rating this as "Excellent" or "Good."

- 12% of respondents commented that the trip times they receive are often too early, too late, or otherwise inconvenient for their travel needs.
- 12% of respondents commented on the automated confirmation phone calls, indicating that they are difficult to understand and asking that messages be shorter and include trip reservation times more promptly.
- 10% of respondents would be interested in training on how to use the PVTA fixed-route buses. 82% of these respondents are ADA eligible, while 32% are age 60 and over.

Respondents by Community

The survey asked respondents to identify the city or town where they live. As shown in Figure 4-1, nearly one-third of respondents (139, or 30%) indicated that they live in Springfield. 56 respondents (12%) live in Chicopee, and 35 respondents (8%) live in Westfield.

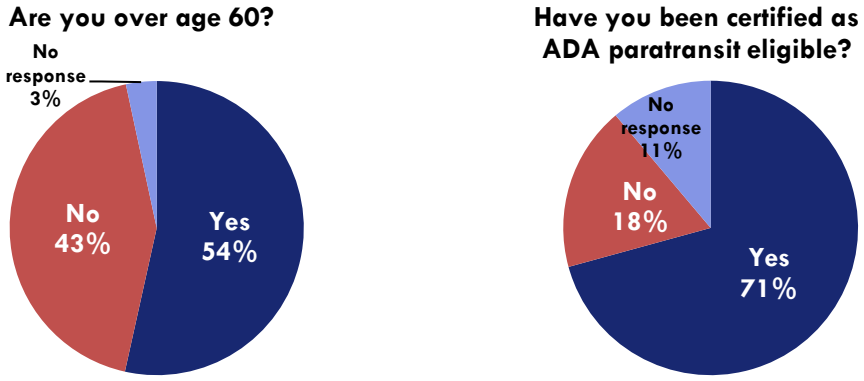
Figure 4-1 Number of Respondents by Community



Age and ADA Certification

As shown in Figure 4-2, 54% of respondents identified as over the age of 60, indicating that they are eligible to use PVTA van service as a senior citizen without requiring ADA eligibility. 71% of respondents answered that they had been certified as ADA paratransit eligible, while 18% responded that they were not ADA certified and 11% did not indicate whether they were certified. 30% of all respondents indicated that they were both over the age of 60 and ADA eligible.

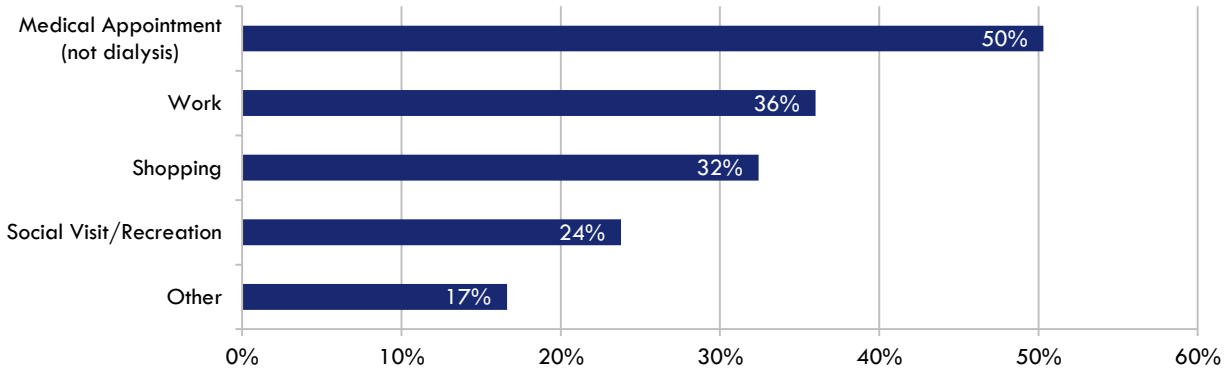
Figure 4-2 Respondents over age 60 and ADA-eligible respondents



Trip Purpose

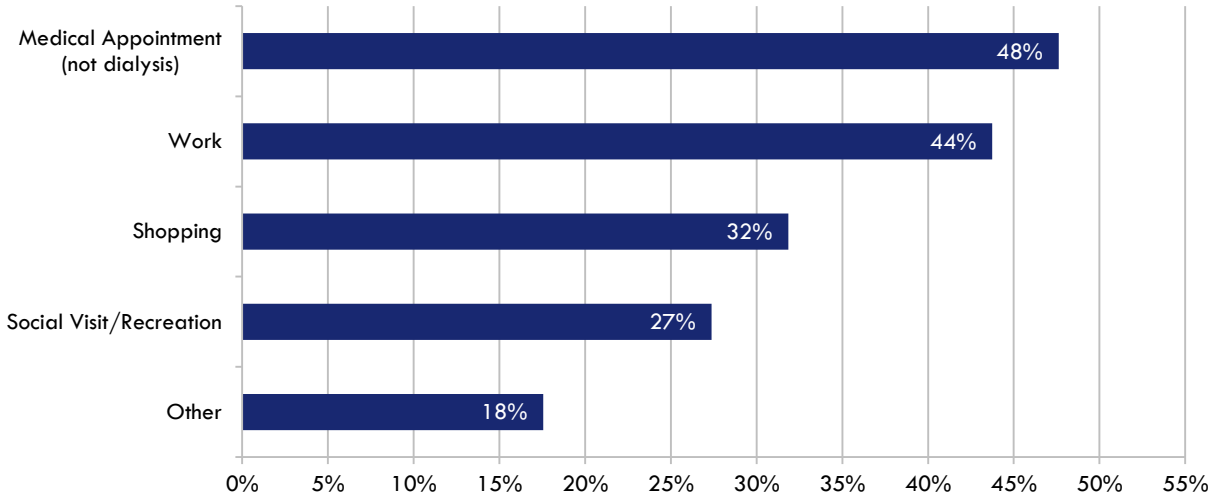
Respondents identified the top purposes for the trips they make using PVTA van service. As shown in Figure 4-3, among all respondents, the top reason for using PVTA vans is to reach medical appointments that are not dialysis (50%), work (36%), and shopping (32%).

Figure 4-3 Top Reasons Why Respondents Ride PVTA Paratransit (All Respondents)



As shown in Figure 4-4, among respondents who identified as ADA eligible (which includes respondents who identified as over 60 and those that did not), the primary reasons for traveling on PVTA vans are to reach medical appointments that are not dialysis (48%), work (44%), and shopping (32%).

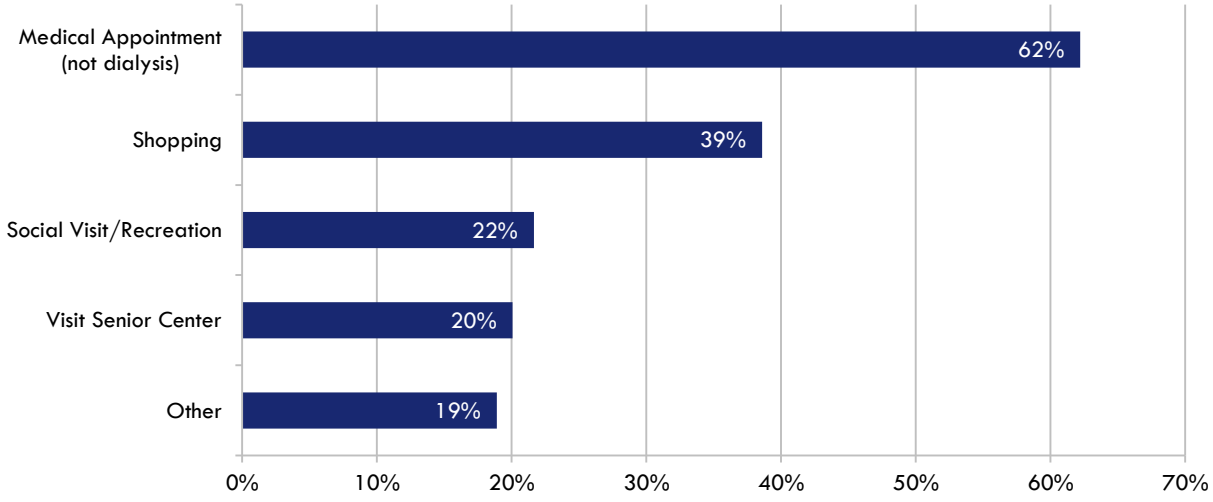
Figure 4-4 Top Reasons Why Respondents Ride PVTA Paratransit (ADA eligible)



Respondents who identified as over the age of 60 (includes those that are ADA-eligible and those that are not) had slightly different set of trip purposes. As shown in

Figure 4-5, the primary reason for traveling on PVTA vans by far is medical appointments that are not dialysis (62%). Additional reasons that respondents use PVTA vans are shopping trips (39%), social/recreational visits (22%), and visits to a senior center (20%).

Figure 4-5 Top Reasons Why Respondents Ride PVTA Paratransit (Over age 60)



Among all respondents, "Other" trip purposes included:

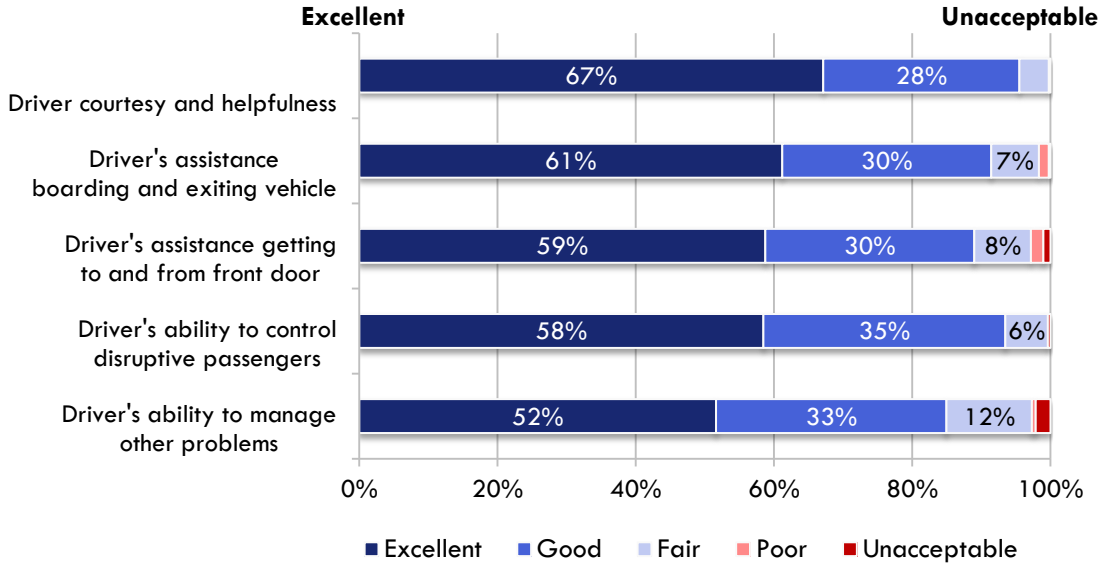
- Adult day program
- Rehab/physical therapy
- Volunteering
- Church
- Therapy/Support group

Customer Satisfaction

Customer satisfaction with PVTA van drivers and ride quality exceeded 85% combined "Excellent" and "Good" for all categories, and exceeded 90% in three categories: Driver courtesy and helpfulness (95%), driver's ability to control disruptive passengers (93%), and driver's assistance boarding and exiting vehicle (91%), as shown in Figure 4-6. In addition, every category received over 50% "Excellent" ratings from respondents. These outcomes indicate a high level of customer satisfaction when it comes to driver courtesy and performance, and the overall quality of van rides.

The categories that received the highest negative ratings (combined "Poor" and "Unacceptable") were driver's assistance getting to and from the front door (2.8%) and driver's ability to manage other problems (2.7%). However, it is important to note that out of all the driver satisfaction indicators, these two received the fewest total responses. Out of 475 respondents, 55% (260) provided a rating for the driver's assistance getting to and from the door, while 45% either selected "No Opinion" or provided no response. Similarly, only 39% of all survey respondents provided a rating for driver's ability to manage other problems, while 61% of selected "No Opinion" or provided no response to the question.

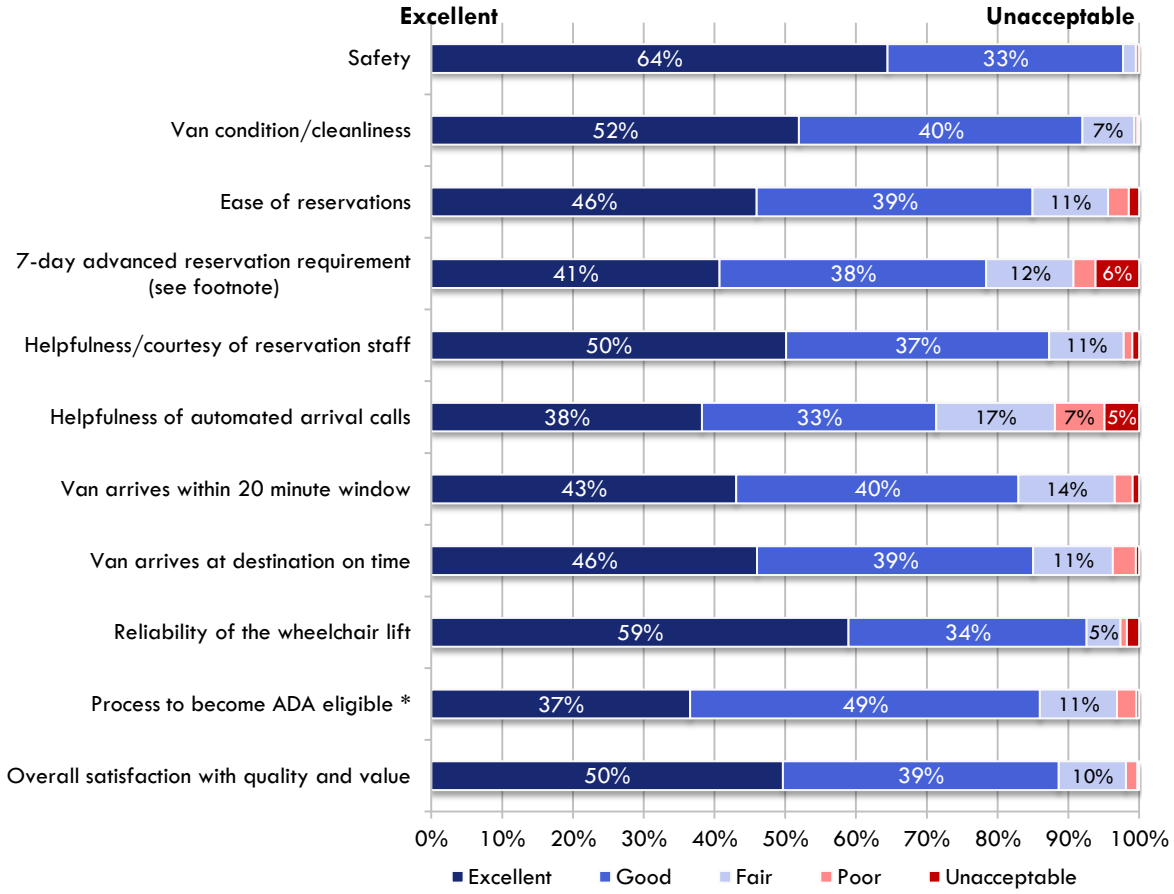
Figure 4-6 Customer Satisfaction with Drivers and Ride Quality



Satisfaction with PVTA van reliability and service characteristics exceeded 80% combined "Excellent" and "Good" for all but two categories, and exceeded 70% for categories, as shown in Figure 4-7. Safety received the highest rating, with 64% of respondents rating it "Excellent" and 97% rating it either "Excellent" or "Good". With regard to overall satisfaction with the quality and value of van service, 89% of respondents rated "Excellent" or "Good".

The categories with the highest negative ratings (combined "Poor" and "Unacceptable") were the helpfulness of automated arrival calls (12%) and 7-day advanced reservation requirement (9%)[8], both of which implemented by PVTA to improve service efficiency.

Figure 4-7 Customer Satisfaction with Service and Reliability

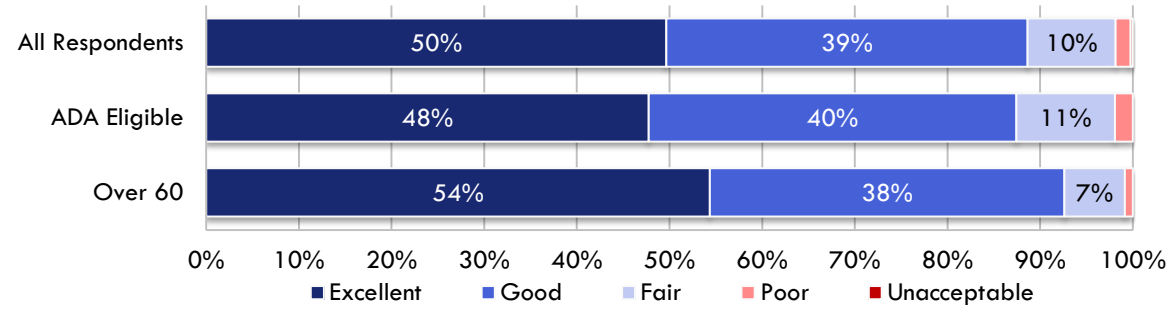


* Note: Results presented for "Process to become ADA eligible" include only respondents who identified as ADA eligible.

[8] Responses related to the 7-day advanced reservation requirement may not be valid due to confusing wording. PVTA does NOT currently have a 7-day advanced reservation requirement, but DOES allow reservations to be made up to 7 days in advance. Many respondents put a question mark next to this line on the survey form, and it is possible others may have rated it poorly because they are not in favor of such a requirement or they might desire the ability to be able to make reservations more than 7 days in advance. Despite these concerns, the results are included in this summary.

Respondents provided high ratings for their overall satisfaction with the quality and value of PVTA's van service, with 89% of respondents rating the service "Excellent" or "Good." There is slight variation between the ratings provided by ADA eligible respondents and respondents who are over 60 years of age, as shown in Figure 4-8, but overall both user groups rated the service highly. ADA eligible respondents were less likely to rate the service "Excellent" (48%) than respondents who are over 60 (54%), and were more likely to rate the service "Fair" (11%, versus 7% among respondents over 60).

Figure 4-8 Customer Satisfaction, "Overall satisfaction with quality and value" only



Use of Regular PVTA Buses

The majority of PVTA paratransit users indicated that they do not use PVTA's fixed-route transit buses, as shown in Figure 4-10. However, 21% of the respondents who are ADA paratransit-customers – and are likely conditionally-eligible -- and 22% of the respondents who are seniors indicated that they do use these buses sometimes[9]. When asked why, the top reasons mentioned by the respondents were as shown in Figure 4-9.

Figure 4-9 Reasons for using the fixed route service

	ADA Customers	Senior DAR Customers
No reservation needed	55%	54%
Easy access to/from bus stops	51%	43%
Lower bus fare	49%	43%
Low-floor buses easy to use	45%	59%
When paratransit is not available	32%	39%

[9] It is likely that this number is higher than the actual number of people who use the fixed route PVTA bus because many paratransit customers are accustomed to calling the PVTA paratransit vans "the bus". A few of the customers who responded that they use the regular PVTA bus may have been referring to the PVTA paratransit van.

Figure 4-10 ADA Paratransit Customer Use of PVTA's Fixed-Route Buses

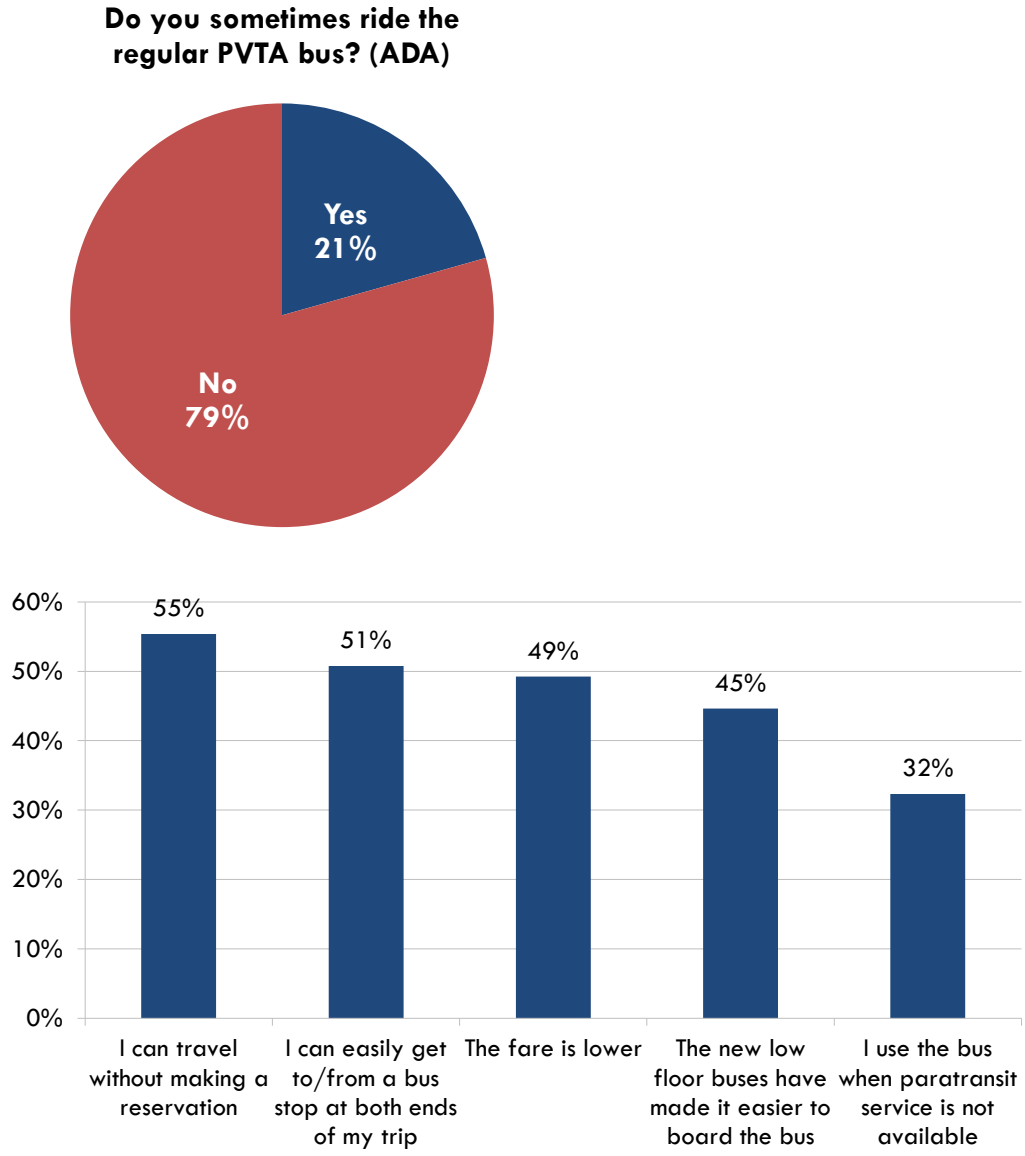
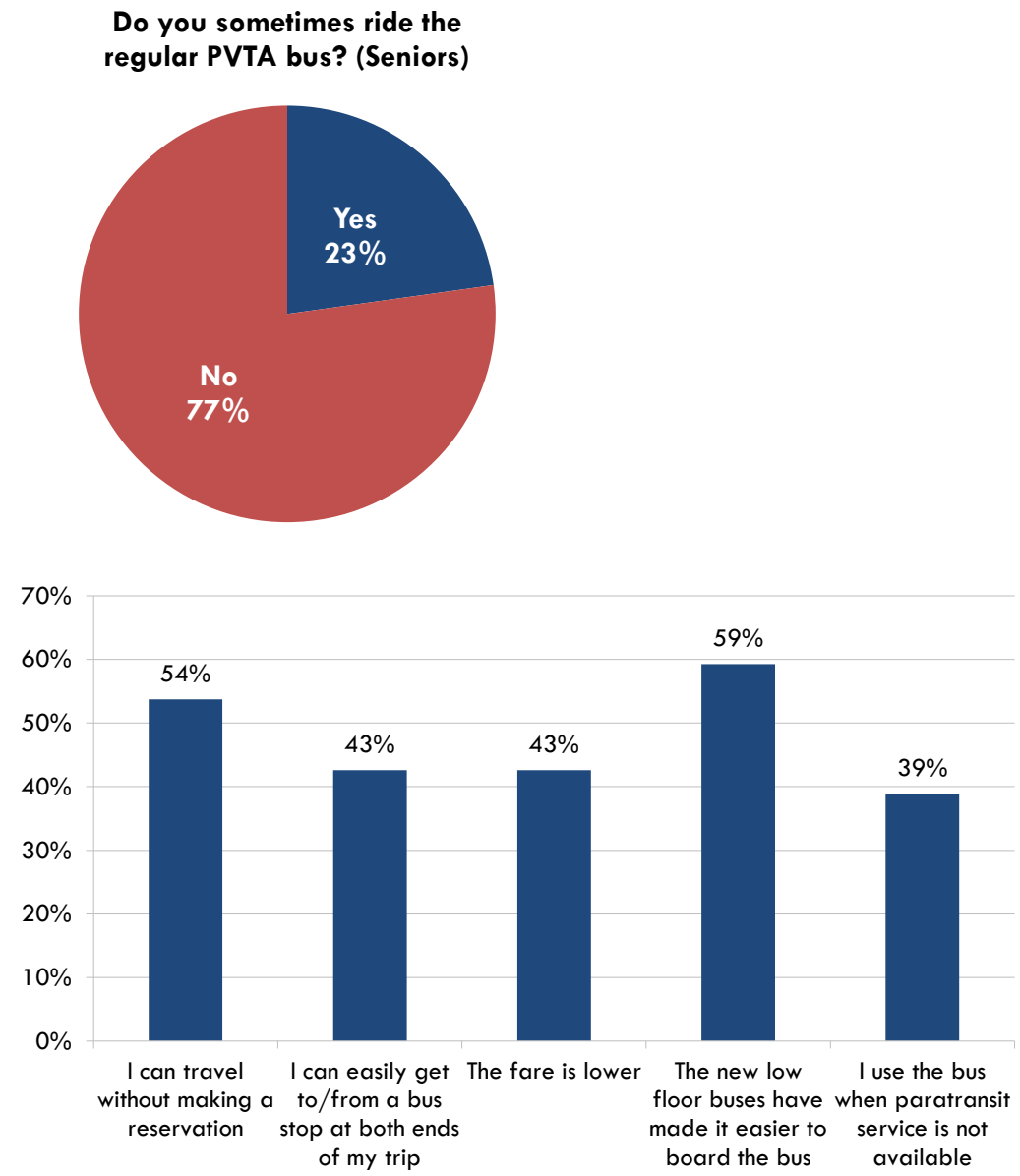
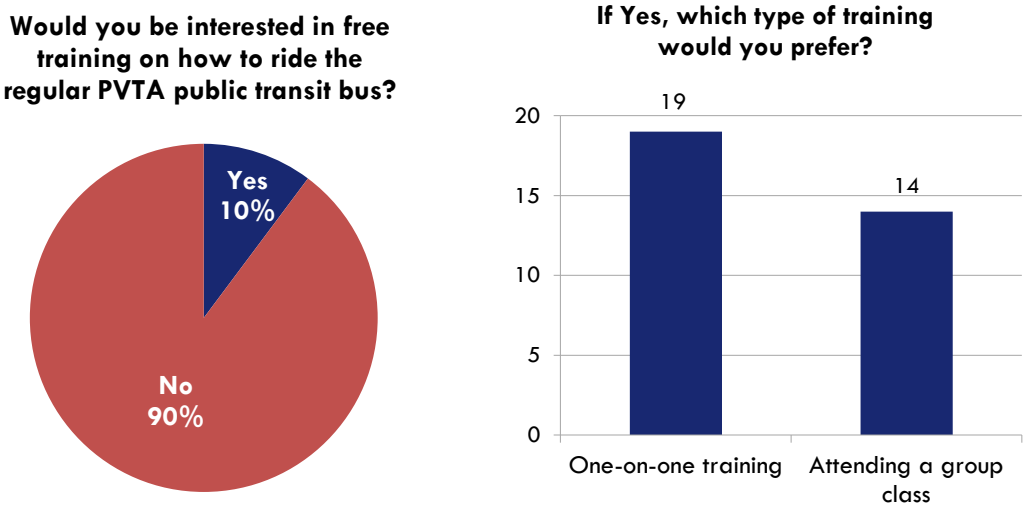


Figure 4-10 Senior DAR Paratransit Customer Use of PVTA's Fixed-Route Buses



As shown in Figure 4-11, 10% of respondents indicated that they would be interested in free training on how to ride PVTA fixed-route transit buses. The majority of these respondents (82%) are ADA eligible, while only 32% identified as age 60 and over. Nineteen respondents indicated that they would be interested in one-on-one training, while 14 indicated that they would be interested in a group class setting for training. A total of 23 people provided contact information to arrange such training.

Figure 4-11 Interest in training to use PVTA fixed-route transit buses (All Respondents)



Written Comments

Respondents were asked for any additional feedback they had about PVTA van service, and 197 provided written comments. All comments collected through the survey are available in Appendix O, where they have been sorted by functional area.

COMPARISON TO PVTA 2011 VAN RIDER SURVEY RESULTS

Many questions asked in the 2014 PVTA Van Rider Survey were similar to those asked in a 2011 survey. Overall, satisfaction with the service continues to be high in almost every category. The 2014 survey reflects a slightly higher rate of dissatisfaction with reservations and scheduling, which can be attributed to the transition to a new scheduling system which occurred several months prior to the survey. A brief comparison of results is provided in Figure 4-12.

Figure 4-12 Customer Satisfaction 2011 results vs. 2014 results

Category	2011	2014
Customer satisfaction with overall quality and value of service decreased	95%	89%
Satisfaction with the safety of service increased	94%	97%
Satisfaction with ADA eligibility process increased	64%	86%
Satisfaction with driver courtesy increased	94%	95%
Satisfaction with van cleanliness increased	91%	92%
Satisfaction with van arriving within 20 minute window decreased	89%	83%
Satisfaction with helpfulness of reservation staff decreased	91%	87%

Trip Purpose

In 2011, the top trip purpose for all van trips was medical appointments (44%), followed by shopping (21%) and social/recreational (16%). In 2014, the top trip purpose was medical appointments (50%), followed by work (36%), shopping (32%), and social/recreational trips (24%). It should be noted that there was a significant increase in riders using the PVTA vans to get to work between 2011 and 2014. Only 8% of 2011 respondents indicated they used the van to get to work, but in 2014 that number grew to 36%.

PVTA Fixed Route Ridership

The number of respondents who also ride PVTA fixed route buses increased from 19% in 2011 to 22% in 2014. In 2011, 14.3% of those who did not ride the bus indicated it was hard to climb the stairs. In 2014, 45% of those who also use fixed route service indicated it was because the new low-floor buses have made it easier to board the bus.

The number of respondents expressing an interest in travel training increased from 6% to 10%, with the preference continuing to be slightly in favor of one-on-one training over group training

Page left blank intentionally.

5 THEMES AND ISSUES

Several themes arose from the rider forums and stakeholder interviews, the interviews with Hulmes Transportation staff, the driver focus groups, and from the analysis of service data and observations of Hulmes staff. These issues are presented below and sorted by functional area.

It is important first to put these themes and issues in the proper context. **The summary of performance indicators are all either very good or exceptional**, with two exceptions – the cancellation rate and productivity – which in PVTA's case do not significantly impact the unit cost. Of all of these performance indicators, the three that are generally regarded as most important are ADA compliance, service quality (especially OTP), and service efficiency (especially unit cost per trip). **PVTA paratransit gets high marks for all three indicators**.

Thus, in this context, while there are several themes and issues discussed below which PVTA and Hulmes Transportation need to address, they are relatively minor given the very good performance indicator ratings.

The first set of themes and issues discussed below fall under PVTA's responsibilities. The second set pertains to Hulmes Transportation.

Themes and Issues Pertaining to PVTA

Customer Notices / Information and Feedback Follow-Up

PVTA's dissemination of general information and new policies via letters to customers, public meetings, seat drops, and its website is comprehensive. Indeed, one of the reasons for including multiple communication channels is that, hopefully, at least one of them will be accessible to all customers.

Still, some stakeholders remain confused about certain policies and have complained that they were not informed, while others have complained that the new information is not updated in a timely fashion.

Specific points of confusion that were voiced included:

- Changes to service days and hours in certain areas;
- Changes to standing order policies or practices;
- 7-day reservation policy for advance reservation trips , i.e., believing customers must book trips 7 days out vs. "up to" 7 days;
- Pick-up windows - it is not enough to just refer to the 20 minute window; PVTA needs to spell out how the 20 minute window changes based on the type of request;
- The shopping bag policy (PVTA has recently changed the website to clarify this)
- "Special order" requests for door-to-door service and assistance carrying bags between the vehicle and the door threshold; and

- Who to call (PVTA or Hulmes) under certain circumstances; and
- Who to call to place a commendation or a complaint.

While PVTA does send a letter to customers acknowledging any feedback received, some riders felt that additional subsequent correspondence was warranted, especially in cases where there was a definitive action that was prompted by the feedback.

Automated Confirmation Calls

Inherently, trip confirmation calls are an imperfect system that becomes necessary if the scheduling process is based on batch as opposed to real-time scheduling. Feedback from a variety of sources regarding confirmation calls includes the following:

- The confirmation calls are received too late or not at all.
- The confirmation calls can be very long because they include details about all the trips the customers are taking on the following day and redundant information; some customers noted that the length of these calls can be problematic because they are too long to fit on their answering machines. PVTA has addressed the call length issue by providing a shorter script; however, if a customer is taking several trips in one day, information is transmitted for each call, and the call will be long.
- It is suspected that some customers may not fully understand the pick-up window "ground rules;" during the meetings with customers, there seemed to be some uncertainty about the pick-up window specific to the type of requests.

According to PVTA, customers will be able to use the IVR system to check on trip information 24/7; this capability is scheduled to become operational in the Spring of 2015. Thus, if some of the shortcomings as identified above continue for a particular customer, he/she will be able to confirm the pick-up windows for the next-day or same-day trips.

Automated Arrival Calls

Some customers noted that the automatic arrival calls that are placed to riders five minutes prior to the paratransit van arriving at their door are only helpful for trips originating at their homes, especially if they do not have a cell phone. Thus, if the home (land-line) phone number is used for the automated arrival (and confirmation) calls, the arrival calls will only be effective for trips with home origins.

Limitations on Service Area, Days, and Hours

Senior transportation is provided by PVTA paratransit but only during weekdays from 8:00 am to 4:30 pm and only where there is availability. It is speculated that the more limited span of DAR service has resulted in more seniors applying for ADA paratransit eligibility so that they can travel on weekday evenings and weekends, and be less affected by general capacity constraints, and that this may explain the increase in ADA paratransit ridership.

Contractor Payment Structure and Service Model Design

PVTA asked the consulting team to responds to the following three questions related to the contractor payment structure and general several model design:

- Is the current payment structure for peak service vs. off-peak service cost effective and is there any reason to switch to a new payment structure in the next procurement cycle? Our analysis of the invoices and payment to Hulmes shows evidence that the PVTA paid

Hulmes the equivalent of $21.65 per trip for peak hour service and $28.00 per trip for off-peak service in FY 2014, while PVTA's total cost per trip for paratransit service in FY 2013 was $24.65. These unit costs are quite reasonable for a service that co-mingles ADA and senior trips but is predominantly ADA by a ratio of over three to one. Also, PVTA's operational unit cost of $27.64 for FY 2012, as reported to the NTD, compares quite well with its peers' in terms of cost per trip.

- Is the potential reduction in cost sufficient reason to scale down ADA paratransit service to the ADA minimum requirements? Our analysis of the ADA origins and destinations (see Appendix P), combined with the payment structure, yields minimal opportunities for cost reduction under the current contract.
- Is the volume of work large enough to suggest the possibility of a multi-carrier service model, and if so, how would the work be split between/among the contractors. PVTA has had multiple (2-3) contractors providing paratransit service in the past, but has since consolidated services into one contract as a cost-reduction / efficiency strategy, and based on the evidence, it can be said that it has worked. The volume of work at over 1,000 trips per weekday and a peak pullout of over 70 peak runs is potentially splittable; however, it will likely be costly because of the need of having more than one call center. PVTA could centralize the call center functions with another contractor as well if it migrates to a multi-carrier environment; however, this could also drive up costs.

The downside with a single contractor is that PVTA's reputation in the community is fairly dependent on how well -- or how poorly –service is provided. With the exceptions identified in this report, it can be said that Hulmes Transportation has been a good partner, and that customers by and large think highly of the service and especially their drivers. PVTA management will also remember past contractors that did not provide such a good service under a single-contractor model. So, the lesson learned is: if you stick with a single-contractor model, make sure you get a good contractor for a partner.

A multiple contractor model, if supportable, has the inherent advantage of service "insurance," that is, if one contractor goes out of business or provides substandard service or there is a work stoppage, another contractor (or contractors) would be in place to fill the gap. This concept is aided by the fact that PVTA supplies the vehicles, and could transfer vehicles from one contractor to another as needed.

Another aspect of this service "insurance" is a redundancy of call taking functions. If an emergency condition, arising from a natural disaster for example, forced a closure of one call center, there would always be the possibility of shifting calls to the other call center until the other is up and running.

Under a multiple contractor model and with those contractors also performing the call center functions (reservations, scheduling, dispatching and same-day functions), assigning each contractor to a zone would make the most sense from a customer perspective, similar to the current way THE RIDE is organized, so that if one lives in a certain zone, one would call the contractor assigned to that zone for all his/her trips. For PVTA, there is a natural North and South Area split that is conducive to this design.

Centralizing the call center functions (with a another non-operating contractor managing the call center) enables a zone-less system where PVTA could initially establish run packages (% of the work) and shift runs among the contractors over time and based on performance. This is how the service was organized in the Merrimack Valley years ago (except with a broker), with 50%, 30%

and 20% run packages initially awarded. The MBTA is currently *considering* migrating to a centralized call center for THE RIDE. And Palm Beach County is currently migrating from a one operator system to a three operator system with recent award of three run packages of 40%, 40%, and 20% under a centralized call center model.

While a centralized model would give PVTA more flexibility in service delivery, including the ability to introduce non-dedicated service, we do not see any reasons at the moment to move to this kind of design, as it would be a radical change for the area. This could however be a longer-term goal, if a need (such as spiraling costs) presents itself.

Themes and Issues Pertaining to Hulmes Transportation

Reservations

Some customers indicated cases of mis-bookings of multi-leg trips. This results from a reservationist mistakenly checking the "round trip" box instead of the "next-trip" box when booking the trip. As a result of this mistake, two round trips are booked between A and B and between B and C, respectively, instead of the requested multi-leg "A to B to C" trip. Hulmes' Reservations Supervisor has been aware of this issue and has stepped up the training to correct this.

During the recent upgrade of ADEPT, the "lift-required" designation was inadvertently unchecked in customer profiles, resulting in the software scheduling customers onto vehicles that are not accessible. To correct this problem, customer profiles are being revised accordingly on a customer-by-customer basis as the error is encountered.

Several survey respondents said that they would prefer to confirm or make reservations when the call center is not open. This capability is coming in the Spring of 2015.

Scheduling

Scheduling issues included the following:

- Hulmes schedulers have suggested that the zones to which runs are assigned in ADEPT are so large that it defeats the purpose of these "waypoints"[10] and should be reduced in size to increase their effectiveness.
- The "last in – first out" realities of passengers who use wheelchairs on certain vehicles necessitates alternative routings vs. how the scheduling system envisions the route to be run; this not only negatively impacts productivity, but also can increase the travel time for the customers using wheelchairs who board the vehicle first.
- Hulmes' schedulers, dispatchers and drivers agreed that ADEPT accurately factors into the time it takes to get from Point A to Point B – *in a perfect setting*. However, the speed setting in ADEPT would appear to be set too high given real-world conditions that have the effect of lowering average speed, such as bridge bottlenecks, traffic congestion, road construction, school bus delays, etc. Hulmes management has recognized this and has been interested in reducing this speed for this reason; however, Hulmes management

[10] Waypoints (for paratransit scheduling systems) serve to keep runs in the same vicinity as much as possible in order to maximize service productivity.

also reported that when the speed was reduced in a test database, it had little impact on scheduled travel times.

- Upon moving to batch scheduling, schedulers were under the understanding that they were not to manually re-schedule trips, even if they could identify a better solution; we speculate that this impression may have contributed to suboptimal routing. PVTA in response to hearing about this misperception during the course of the project made it clear to Hulmes management that this is not the case. PVTA staff has since addressed this practice.
- Schedulers were also directed by Hulmes management to not anchor subscription trips, and instead to let the batch scheduling capabilities assign these trips on a day to day basis. Before ADEPT's automated scheduling capabilities were utilized, all standing orders were pre-scheduled manually one by one. The schedulers, dispatchers, and drivers along with stakeholders, rider groups, and survey respondents all commented that they preferred the way standing orders were formerly scheduled. PVTA staff has since directed Hulmes to allow for the manually scheduling of certain subscription trips.

Dispatching

With improved scheduling resulting from PVTA "intervention" and with other recommendations related to scheduling followed, the dispatchers should start their day in a better position. That said, as long as runs are uncovered (and there were several uncovered runs during our site visit), schedules will be tight, and that makes a dispatchers job tougher, as they have to re-assign trips to keep runs on-time. Other issues related to dispatching are as follows:

- Dispatchers are finding it difficult to be pro-active when also responding to drivers and to customers with same day issues.
- Dispatchers are often processing no-shows and "where's my ride?" requests without really knowing the exact location of the vehicle in question because each dispatcher only has one monitor and pulling up a map of real-time locations takes a very long time.
- Dispatchers end up manually re-assigning trips vs. using ADEPT's scheduling capabilities because the speed setting yields impractical solutions; this cuts down on the dispatchers' productivity.
- At the end of each day, ADEPT automatically records unscheduled trips as "denials" even though they were served. This is partly the fault of the dispatchers who create new trips to handle same-day return requests (e.g., for medical holds or for early returns) but fail to mark the original return trips as cancelled. As a result, PVTA staff has to do this to get an accurate count of denials.
- There are some limitations to the radio system, with dispatchers having difficulty reaching drivers in Agawam, Ware, and Westfield. It is the topography of the valley that creates this communication challenge. PVTA is in the process of addressing this limitation.

Driver Shortage and Staff Communication

At the time of our site visit, Hulmes management, schedulers, dispatchers and drivers all acknowledged that there are currently not enough drivers to cover all the runs. With uncovered runs, the resulting undersupply of service, especially at peak times, translates into over-full schedules that are challenging to operate on time. Also, several drivers stated that they are often "forced" to serve trips that extend well into their scheduled breaks.

Several drivers indicated that there have been no formal opportunities to meet with reservations, scheduling and dispatching staff in the last two years, and that such meetings would enhance communication of and addressing policy misperceptions and service issues. For example, such meetings might provide a forum for communicating characteristics of subscription trips such as the inclusion of a PCA or companion who no longer makes this trip, an instance which sometimes does not make it back to the Reservations department. Several drivers stated they did not fully understand the door-to-door policy, a few indicating that they were reprimanded for assisting a customer from the door when it is not indicated on the manifest. One of the drivers mentioned a recurring problem where he had to keep a customer on board for an extended period of time because the salon (the destination) was not yet open. Many of the drivers mentioned cases of circuitous routing because of wheelchair-related LIFO realities on certain vehicles, which they also stated appeared to be aggravating for customers. In general, drivers are longing for a way to communicate problems encountered and believe that such a regular meeting will go a long way toward helping address service issues. Drivers further point out that without such meetings and formal communications, service problems fester.

In addition, some of the reservation agents, schedulers, dispatchers and drivers all mentioned that policy changes are not always communicated to them (by Hulmes management) in a timely fashion.

6 RECOMMENDATIONS

RECOMMENDATIONS

Recommendations to address issued raised in Chapter 5 are grouped based first on the division of responsibilities (PVTA and then Hulmes Transportation), and then based on immediacy – sorted by:

- Immediate -- current fiscal and contract year
- Mid-term – beginning next fiscal/contract year up until the next procurement cycle
- Long-term -- reflected in the next service provider RFP).

Recommendations for PVTA fall into these three categories. All of the recommendations for Hulmes fall into the "Immediate" category.

Recommendations for PVTA

Immediate

- Customer Notices –PVTA should adopt a written plan that details (a) what general information about the program should be made available and via what media; (b) examples of policy changes that would trigger public meetings, customer letters, seat drops, website changes, announcements when customers are on hold, and other *accessible* communication mechanisms; (c) the dates on which a specific policy change becomes effective; (d) time periods by which the above actions must be accomplished. PVTA should also provide some information in large print as well as in a format that can be used by speech recognition software. In the preparation of this plan, PVTA should seek suggestions from customers via customer focus groups, e.g., persons with visual impairments including those who are computer-literate and use screen-readers as well as those who are not computer-literate. PVTA should also consider announcing refresher messages or policy changes on the telephone system (when customers are on hold) as well as the use of social media.
- Customer Feedback Follow-Up – When a customer provides feedback that results in a disciplinary action, re-training, training curricula addition or adjustment, etc., PVTA should send the customer an explanation of the issue and the response by PVTA.
- Scheduling – Speed Settings -- PVTA/Hulmes should experiment with decreased speed settings within a test database, comparing the results with actual travel times that are identified by dispatchers and drivers as realistic. Once a speed setting appears to mirror actual travel times, drivers and dispatchers should "sign-off" on the change.
- Scheduling – Zone Reduction -- PVTA/Hulmes should also experiment with changing the size of the zones, per those suggested by Hulmes' schedulers, with a test database to first see whether that change has a positive impact.

- Scheduling – Wheelchair Passenger LIFO Analysis -- PVTA/Hulmes should perform an analysis on circuitous routing that results from Last-In/First Out (LIFO) limitations, and if a pattern emerges, to explore whether the assignment of a different vehicle type would alleviate these limitations.
- Automated Confirmation Calls – PVTA should reduce the length of confirmation calls by eliminating redundant information. **PVTA has already completed this task.**
- Arrival Calls – PVTA has been testing the use of arrival calls with a subset of customers to test their effectiveness. Arrival calls are activated by the driver when the van is approximately five minutes from the house. The use of arrival calls should be made available to the entire customer base. PVTA's IVR system and ADEPT's customer profile can accommodate a secondary contact, if a customer wishes to use two different telephone numbers for confirmation calls and arrival calls, respectively. Prior to activating arrivals calls for all customers, a information blast should go out to all customers informing of this new offering and suggesting that a cell phone number be used for the arrival calls (if the customer does have a cell phone) as at least 50% of the arrival calls will be away from the house. (Related driver training on activating arrival calls should also be performed by Hulmes.)
- Expand Dispatching Staff - PVTA and Hulmes need to collectively determine whether a different approach to dispatching is affordable under the current contract, or perhaps warrants an amendment. The dispatchers need to be "freed" from some of the more mundane parts of their current job, thereby enabling them to spend more time proactively identifying and addressing problems in the future. To do this, they each need one or more dispatching assistants who can take over the jobs of communicating with the drivers by voice (for example, in response to a no-show call) and communicating with customers (e.g., Where's my ride? calls).
- Travel Time Analysis – PVTA should periodically undertake an analysis to ensure that actual travel times for ADA paratransit trips comply with the FTA definition for excessive travel times.

Mid-Term

- Arrival Calls – Currently, arrival calls are activated manually by drivers. PVTA should explore opportunities to automate this function based on the real-time location of the vehicles.
- Reducing Same-Day and Late Cancellations – A number of other recommendations documented here in (including reducing the length of confirmation calls and improvements to the scheduling process) should also have a direct or indirect effect on reducing cancellations. PVTA should continue to monitor cancellations by type to determine whether these actions had that desired effect.
- Expand Service Monitoring and Eligibility Determination Staff – Currently, one administrative person is dedicated to each of these functions. Both managers would benefit from a shared analyst to assist with their respective responsibilities, and for department coverage when these managers are in the field. The Paratransit Manager would also greatly benefit from a second computer monitor. Among other things, this could be used to display the location of vehicles – in real time, or at times associated with certain events being reviewed – as well as to display reports in ADEPT while the manager enters data from these reports into spreadsheets for trend analyses on the other monitor.

- Expand Travel Training Staff – Currently, PVTA's two travel trainers focus on providing intensive one-on-training, and are providing such training to 5 to 7 customers at any given time. It is recommended that PVTA expand its travel training program, with the hiring of new staff, to expand the types of travel training offered. In particular, it is recommended that PVTA expand its travel training program to include more group training, targeting seniors and veterans, for example, as well as the possibility of training agency liaisons so that they are more familiar with PVTA's fixed-route services and travel training program. It is also possible that agency partners could possibly share the cost of this staff expansion.

Long-Term

- Contractual Target for Preventable Accidents. In its next RFP, PVTA should consider revising its contractual standard of 10 preventable accidents per year to an accident frequency ratio of 1 preventable accident per 100,000 (total) miles, an industry standard, as the number of accidents is more a function of miles travelled.
- ADA Minimum Service Area - In the next procurement cycle, PVTA may wish to consider scaling back to the ADA minimum service area.
- Service Model - The specific recommendation is to design the next RFP to include North and South zones, and to allow proposers to bid on the North zone only, the South zone only, or both the North and the South Zone as one (for example, with one call center and multiple operational facilities, much like Hulmes does at present). In this way, PVTA will be able to determine from the technical and cost proposals whether or not there are any inherent advantages in moving to a two carrier, zoned system. If PVTA elects to pursue the multi-carrier design, it can subsequently explore whether there are any inherent advantages to centralizing reservations, scheduling, and dispatching in the following procurement cycle.

Recommendations for Hulmes Transportation

Immediate

- Driver Re-training -- Hulmes should formalize its re-training program, and indicate the actions or events which trigger re-training, including a pattern of complaints about a specific driver or a specific shortcoming among many drivers. There may also be a need, from similar "triggers," to revise the initial and on-going driver training. One area of training or re-training that may be needed, based on rider comments, is providing assistance to customers with visual impairments, noting that PVTA has produced a training video that addresses the appropriate way for drivers to relate to passengers with visual impairments.
- Run Structure Adjustments -- By using more part-time and split shifts, Hulmes can create a run structure that better mirrors the demand profile, and in particular, reduces the oversupply of service during the mid-day.
- Scheduling Practices - Effectively immediately, schedulers should (1) manually schedule together – and anchor -- standing order trips that have the same O-D and are at the same time; and (2) re-schedule the obvious cases where schedulers identify "tweaks" to the schedule after the last batch has been completed. From there, it would make sense to strategically schedule and anchor group (many-to-one) trips, dialysis trips, and perhaps

employment trips leaving other standing order trips to the batch scheduling process, and noting that employment trips need be anchored only at the workplace drop-off location (and return trip pick-up location.) This recommendation was given to PVTA as a mid-study finding, and **PVTA has since implemented it** via meetings with Hulmes management.

- Dedicated Dispatch "AVL" Monitors - One of Hulmes' dispatchers demonstrated how long it takes to pull up a map with real-time information on vehicle locations, clearly demonstrating why these maps are not used in practice. Separate monitors for each dispatch pod need to be provided and dedicated to this map, so that the dispatch assistants can check on the real-time location in response to the driver no-show requests and same-day customer "where's my ride?" requests.
- Driver Feedback - Hulmes should institute regular opportunities for driver feedback to reservations and scheduling staffs.
- Driver Retention - One area where management appears to fall short is driver retention efforts. More can be done in the way of driver appreciation, especially given that most drivers appear to be revered by customers. Driver appreciation starts with improving communication – praising in public, disciplining in private, and more formal and frequent communications with drivers. And it continues with not reneging on promises. If breaks are scheduled, they should be honored (driver should not routinely lose their break or have their break greatly reduced) because they are also doing trips meant for another (uncovered) run.) Paratransit driving is a challenging profession, and those who have found this vocation usually have done so because they feel they are making a difference.
- Driver Shortage - The dearth of drivers and the inability to cover runs – in the off-season – is of major concern. A significant "finder's fee" should be offered to drivers and other staff who find applicants that are hired and remain employees in good standing for a certain period. Hulmes may also need to re-visit its wages and fringe for drivers if it is unable to fully cover its runs.
- Utility Cleaners - Hulmes should hire "utility cleaners" to clean the inside and outside of the vehicles.

7 FUTURE DEMAND ESTIMATION

EXISTING POPULATION

The PVTA service area includes communities from three different Massachusetts counties, Hampden, Hampshire and Franklin, and has an estimated population of 575,575. About 25% of this population falls within the City of Springfield, the region's largest city; about 75% of the population falls within Hamden County which covers the southern half of the service area, including Springfield.

As shown in Figure 7-1, over 79,000 individuals living within the PVTA area are age 65 years or older, qualifying for Dial-a-Ride services. These older adults make up 13.8% of the service area population, which is consistent with the statewide population. However, certain towns such as Agawam, East Longmeadow, Hadley, Hampden, Leverett, Longmeadow, and Wilbraham have more than 18% of their local population as over the age of 65.

Over 88,500 individuals within the PVTA area are reported to have one or more disabilities. These include difficulties with hearing, vision, cognitive and ambulatory abilities, as well as self-care and independent living. It is important to note that these individuals may or may not qualify for ADA paratransit services as provided by PVTA. However, the number of individuals with disabilities represents 15.4% of the PVTA service area population, a fairly large segment of the population that could potentially be eligible for such services, as shown in Figure 7-2. This is somewhat higher than the overall statewide demographic, showing 11.1% of Massachusetts residents with a disability. Four communities, Easthampton, Holyoke, Palmer and Springfield, show more than 18% of the population as having at least one disability.

Figure 7-1 Persons over the age of 65 in the PVTA service area

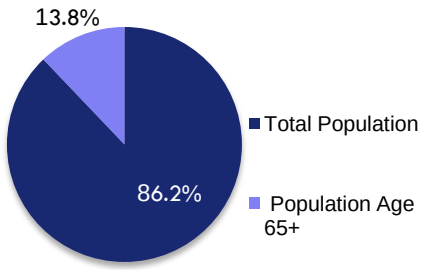
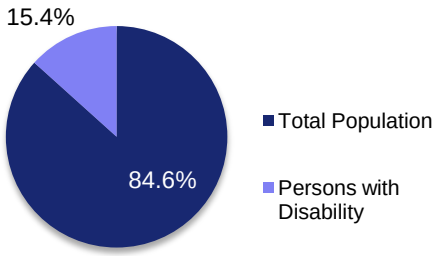


Figure 7-2 Person with a disability in the PVTA service area



Source: 2010 U.S. Census

Approximately 5.3% of the PVTA service area population is both over the age of 65 and has at least one disability. Figure 7-3 shows the figures for age and disability for each of the PVTA communities.

Figure 7-3 Age and Disability Characteristics of PVTA Communities

Community	TOTAL Population	Persons age 65+	% Age 65+	Persons with Disability	% With Disability	Age 65+ and with Disability
Agawam	28,438	5,151	18.1%	3,650	12.8%	1,555
Amherst	37,819	2,795	7.4%	858	2.3%	257
Belchertown	14,649	1,501	10.2%	1,586	10.8%	602
Chicopee	55,298	8,838	16.0%	9,350	16.9%	3,416
East Longmeadow	15,720	3,164	20.1%	1,629	10.4%	939
Easthampton	16,053	2,312	14.4%	3,354	20.9%	1,031
Granby	6,240	841	13.5%	568	9.1%	292
Hadley	5,250	1,041	19.8%	491	9.4%	235
Hampden	5,139	947	18.4%	551	10.7%	232
Holyoke	39,880	5,660	14.2%	7,957	20.0%	1,880
Leverett	1876	337	18.0%	225	12.0%	62
Longmeadow	15,784	2,991	18.9%	1,351	8.6%	858
Ludlow	21,103	3,495	16.6%	2,851	13.5%	1,546
Northampton	28,549	3,863	13.5%	3,039	10.6%	1,104
Palmer	12,140	1,748	14.4%	2,268	18.7%	843
Pelham	1,321	219	16.6%	134	10.1%	44
South Hadley	17,514	3,021	17.2%	1,781	10.2%	933
Springfield	153,060	16,760	10.9%	28,784	18.8%	7,273
Sunderland	3684	353	9.6%	245	6.7%	121
Ware	9,872	1,458	14.8%	996	10.1%	401
West Springfield	28,391	4,284	15.1%	4,713	16.6%	1,422
Westfield	41,094	5,609	13.6%	4,915	12.0%	1,997
Wilbraham	14,219	2,677	18.8%	1,599	11.2%	919
Williamsburg	2,482	372	15.0%	415	16.7%	150
PVTA Area	575,575	79,437	13.8%	88,541	15.4%	30,439
Massachusetts	6,547,629	902,724	13.8%	729,266	11.1%	299,338

2010 Population from US Census 2010.

Disability Characteristics from American Community Survey, 3 Year Estimates 2010-2012 or 5-Year Estimates 2008-2012.

Leverett, Sunderland and W. Springfield disability characteristics not available, but have been estimated by interpolation.

DEMOGRAPHIC TRENDS

The Pioneer Valley Planning Commission (PVPC) prepared population projections by age cohort for communities within the PVTA service area. As noted above, an estimated 13.8% of the PVTA service area population is over the age of 65 years today. By 2030, PVPC projects that 21.8% of the PVTA service area population will be over the age of 65 years. This represents a growth rate of nearly 50% for this segment of the population.

Figure 7-4 shows the projected growth by community for persons age 65 years or older. It shows Springfield, and the surrounding urban communities of Chicopee, Holyoke and Westfield as having the greatest concentrations of senior residents.

Figure 7-4 Projected Growth in Population, Age 65 Years or Older by PVTA Community, 2010-2013

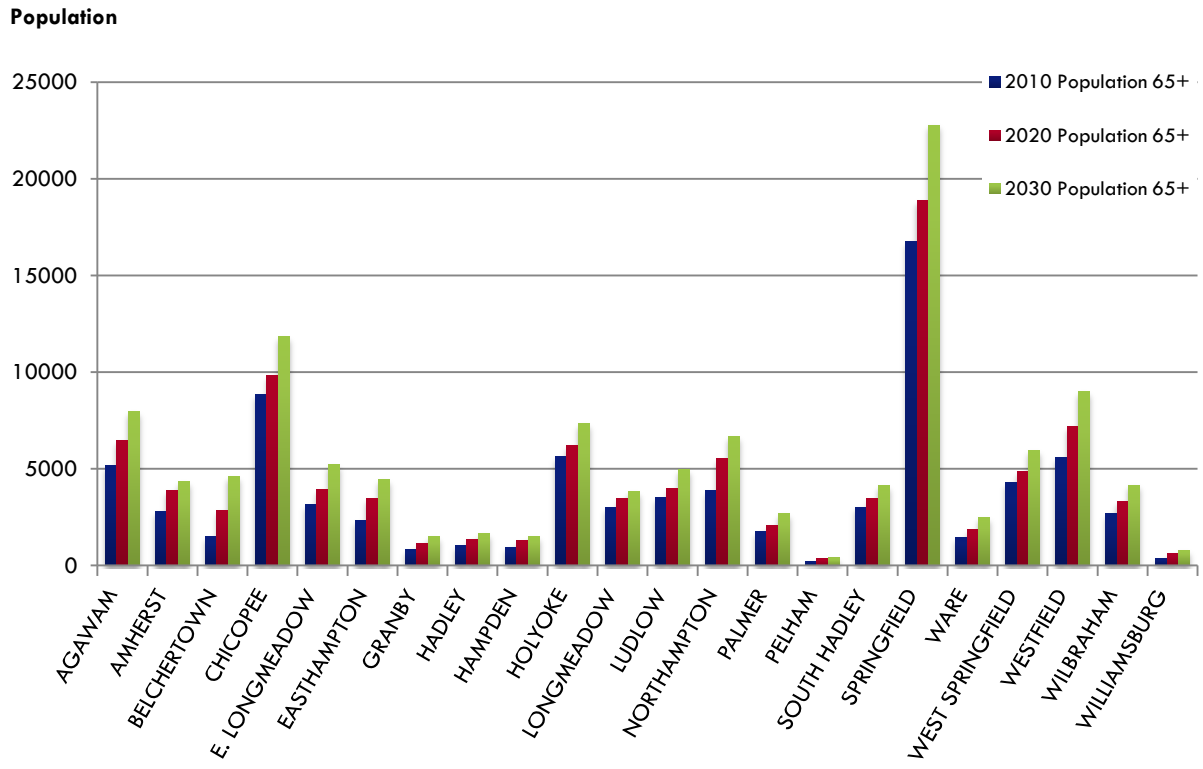


Figure 7-5 shows the projected increase in the older population by PVTA community. Sixteen communities will have more than one-quarter (25%) of their population made up of individuals age 65 years or older by 2030, including Hampden and Williamsburg where more than one-third the population is expected to be in this older age cohort. Belchertown is anticipated to see the faster rate of growth for this cohort, with the number of residents age 65 or older anticipated to more than double by 2030.

Figure 7-5 Projected Growth in Population, Age 65 Years or Older by PVTA Community (2010-2013)

Community	2010 Population			2030 PROJECTED POPULATION			Growth Rate 2010-2030
	Total	Age 65+	% Age 65+	Total	Age 65+	% Age 65+	
Agawam	28,438	5,151	18.1%	26,156	7,965	30.5%	54.6%
Amherst	37,819	2,795	7.4%	41,741	4,354	10.4%	55.8%
Belchertown	14,649	1,501	10.2%	16,358	4,600	28.1%	206.5%
Chicopee	55,298	8,838	16.0%	53,768	11,838	22.0%	33.9%
East Longmeadow	15,720	3,164	20.1%	17,523	5,205	29.7%	64.5%
Easthampton	16,053	2,312	14.4%	15,005	4,432	29.5%	91.7%
Granby	6,240	841	13.5%	5,650	1,504	26.6%	78.8%
Hadley	5,250	1,041	19.8%	5,613	1,657	29.5%	59.2%
Hampden	5,139	947	18.4%	4,103	1,522	37.1%	60.7%
Holyoke	39,880	5,660	14.2%	36,819	7,361	20.0%	30.1%
Leverett	1,876	337	18.0%	*n/a*	*n/a*	*n/a*	*n/a*
Longmeadow	15,784	2,991	18.9%	13,742	3,820	27.8%	27.7%
Ludlow	21,103	3,495	16.6%	18,313	4,960	27.1%	41.9%
Northampton	28,549	3,863	13.5%	25,468	6,684	26.2%	73.0%
Palmer	12,140	1,748	14.4%	10,624	2,709	25.5%	55.0%
Pelham	1,321	219	16.6%	1,065	389	36.5%	77.6%
South Hadley	17,514	3,021	17.2%	16,058	4,128	25.7%	36.6%
Springfield	153,060	16,760	10.9%	145,745	22,784	15.6%	35.9%
Sunderland	3,684	353	9.6%	*n/a*	*n/a*	*n/a*	*n/a*
Ware	9,872	1,458	14.8%	8,880	2,465	27.8%	69.1%
West Springfield	28,391	4,284	15.1%	27,218	5,942	21.8%	38.7%
Westfield	41,094	5,609	13.6%	37,511	8,984	24.0%	60.2%
Wilbraham	14,219	2,677	18.8%	13,978	4,160	29.8%	55.4%
Williamsburg	2,482	372	15.0%	2,163	777	35.9%	108.9%
PVTA Area	575,575	79,437	13.8%	543,501	118,240	21.8%	49.7%

Population projections by Pioneer Valley Planning Commission.

Projections for Franklin County communities (Leverett and Sunderland) not available.

EFFECT ON PARATRANSIT RIDERSHIP DEMAND

While the demand for paratransit ridership is a product of a myriad factors, including the service quality, the service convenience (in terms of accommodating when and where the customer wants to travel), fare pricing, etc., the size of the eligible populations within the service area has the most significant effect.

Today, 13.8% of individuals living in the PVTA service area are eligible for paratransit service due to being 65 years of age, and 15.4% are eligible due to a disability. Since only about 5% of the population is reported to be both 65 years of age and have a disability, it can be assumed that between 20-25% of the PVTA area population is eligible for paratransit.

Future growth of the senior (65+) population for 2010 to 2030, as provided by the Pioneer Valley Planning Commission and discussed above, is projected to be about 2% annually. Since PVPC did not perform a similar projection of seniors 60 year of age and over (as allowed by PVTA paratransit) nor persons with disabilities, the estimated senior growth rate may be used as surrogate for ridership growth. In other words, it is conservatively assumed that the demand for overall paratransit service will grow at 2% annually.

In order for PVTA to accommodate a 2% annual increase in demand for service, its budget for paratransit service should also increase by a minimum of 2% annually, not including an additional rate for inflation. These budget increases could be directed toward increasing the supply of service capacity in order to keep up with demand and accommodate the anticipated 2% increase in ridership.

Such an increase in capacity should enable PVTA to accommodate any increases in the ADA ridership (noting the 3.4% and 3.8% annual increases in ADA paratransit ridership over the last three years) while expanding the service to accommodate some of the senior trips that might otherwise be displaced by the increase in ADA trips if the amount of service remained level, and while also noting we suspect that some of the increase in ADA ridership reflects former senior ridership.

This estimate is a placeholder of sorts only and must further be refined based on the results of the other recommendations. For example, PVTA may need to invest additional funding now to implement some of the recommendations that are associated with new additional reservations and dispatch staff and the possibility of new part-time drivers. Additional runs and drivers may also be needed depending on the system speed analysis. At the same time, recommendations focusing on efficiency may result in cost reductions.

Thus, PVTA should first decide what recommendations it wishes to implement and then, once they have been implemented, conduct a before-and-after analysis for each to identify the actual costs and benefits. After these analyses have been conducted, PVTA will better understand the effect of these implemented recommendations on its budget. At that time, PVTA can then re-visit and fine-tune the need for additional funding increases to keep up with future growth.

In the future, if budget increases only keep up with inflation and the supply of service continues at a level pace, increases in ADA customer demand will take up more and more of the capacity, leaving less capacity for “un-mandated” senior DAR trips. Conversely, if capacity can grow by an additional 2% each year, we believe that this will accommodate the increases in ADA demand without severely impacting the system’s capacity to also accommodate senior trips.

THE CASINO FACTOR

Issues

The MGM casino, planned for Springfield, and awaiting a go-ahead from the Commonwealth probably has the best chance of any being considered for the western part of Massachusetts; indeed, MGM has submitted to the Commonwealth an EIR that includes impacts on PVTA's paratransit system with estimated new demand broken out by ADA paratransit customers and senior DAR customers

PVTA is concerned – with good reason – that such a destination that has proven to be quite popular among seniors in other states would put a strain on its paratransit service that is currently available to all seniors in all 24 member communities. MGM's estimates are that the casion would generate between

Of course, PVTA would probably be in favor of a scenario where MGM would fully subsidize the expansion of service that is suggested by the eventual increase in demand. While that would be a great outcome, we are dubious about its likelihood. Thus, other strategies or limitations would need to be put in place to pre-empt an outcome where the increase in demand for paratransit services outstrips PVTA's financial resources

Recommendations

One strategy for PVTA to consider is to adopt a cashless fare policy for DAR, with the selling of ticket books continuing. But tickets would be the only fare media. Each senior would be allocated three types of color-coded tickets: red, blue and green.

- Red tickets would be used for general purpose trips, and could be limited to a certain number of books per month for every senior, as budget permits.
- Blue tickets would be used for temporary or on-going specified medical conditions such as chemo treatments or dialysis treatments, and would be provided based on a two-part application process much like that which is currently undertaken for ADA paratransit applicants. Based on the health provider's assessment, a certain number of blue ticket books would be provided to the customer per month.
- Books of green tickets, partially or fully covered by MGM, would be made available to each senior but only in limited supply, and with the caveat that no trip will be served to the casino entrance without a green ticket.

Under this system, could a senior use a red ticket to go to a medical appointment or a destination within walking distance of the casino, and then walk to the casino? Yes, but because the red tickets are limited, each customer would need to be judicial in how (for what trips) they are used.

The three primary advantages of this model are:

- PVTA could limit senior travel to its budget
- Senior medical trips would be based on need
- It is possible that PVTA could get some financial relief from MGM for the increase in demand that results from the casino, but limit the green tickets per person based on MGM's willingness to contribute – and the amount provided. It is suggested to PVTA that it pursue a fully-allocated cost per ticket, but limit the green ticket books per person based on what MGM can afford.

Yet an entirely different strategy would be to divert senior casino trips away from the DAR service and for PVTA to contract with Hulmes (or another carrier) to operate group trip field trips from various COAs to the casino on specific days. Here too, PVTA could seek financial assistance from MGM to fund these group trips.

Page left intentionally blank

Appendix A Fare Schedule

Community	Service	Agawam	Amherst	Belchertown	Chicopee	East Longmeadow	Easthampton	*Enfield	Granby	Hadley	Hampden	Holyoke	Leverett	Longmeadow	Ludlow	Northampton	Palmer	Pelham	**South Deerfield	South Hadley	Springfield	Sunderland	Ware	West Springfield	Westfield	Wilbraham	Williamsburg
Agawam	ADA/DAR	2.50	3.50	3.50	3.00	3.00	3.50	2.50	3.50	3.50	3.00	3.00	3.50	3.00	3.00	3.50	3.00	3.50	3.50	3.50	2.50	3.50	3.50	2.50	2.50	3.00	3.50
Amherst	ADA/DAR	3.50	2.50	2.50	3.50	3.50	3.00	3.50	3.00	2.50	3.50	3.50	2.50	3.50	3.50	2.50	3.50	2.50	3.00	3.00	3.50	2.50	3.00	3.50	3.50	3.50	3.00
Belchertown	ADA/DAR	3.50	2.50	2.50	3.50	3.50	3.00	3.50	2.50	3.00	3.50	3.50	3.00	3.50	2.50	3.00	3.50	2.50	3.00	3.00	3.50	3.00	2.50	3.50	3.50	3.50	3.00
Chicopee	ADA/DAR	3.00	3.50	3.50	2.50	3.00	3.50	3.00	2.50	3.50	3.00	2.50	3.50	3.00	2.50	3.50	3.00	3.50	3.50	2.50	2.50	3.50	3.50	3.00	3.00	3.00	3.50
East Longmeadow	ADA/DAR	3.00	3.50	3.50	3.00	2.50	3.50	2.50	3.50	3.50	2.50	3.00	3.50	2.50	3.00	3.50	3.00	3.50	3.50	3.50	3.00	3.50	3.50	3.00	3.00	2.50	3.50
Easthampton	ADA/DAR	3.50	3.00	3.00	3.50	3.50	2.50	3.50	3.00	3.00	3.50	2.50	3.00	3.50	3.50	2.50	3.50	3.50	3.00	3.00	3.50	3.00	3.00	3.50	3.50	3.50	3.00
***Enfield**	ADA/DAR	2.50	3.50	3.50	3.00	2.50	3.50	2.50	3.50	3.50	3.00	3.00	3.50	2.50	3.00	3.50	3.50	3.50	3.50	3.50	2.50	3.50	3.50	3.00	3.00	3.00	3.50
Granby	ADA/DAR	3.50	3.00	3.00	2.50	3.00	3.00	3.50	2.50	3.00	3.50	2.50	3.00	3.50	2.50	3.00	3.00	3.50	3.00	2.50	3.50	3.00	3.00	3.50	3.50	3.50	3.00
Hadley	ADA/DAR	3.50	2.50	3.00	3.50	3.50	3.00	3.50	3.00	2.50	3.50	3.50	3.00	3.50	3.50	2.50	3.50	3.00	3.00	2.50	3.50	3.00	3.00	3.50	3.50	3.50	3.00
Hampden	**DAR Only**	3.00	3.50	3.50	3.00	2.50	3.50	3.00	3.50	3.50	2.50	3.00	3.50	2.50	3.00	3.50	3.50	3.50	3.50	3.50	3.00	3.50	3.50	3.00	3.00	2.50	3.50
Holyoke	ADA/DAR	3.00	3.50	3.50	2.50	3.00	2.50	3.00	2.50	3.50	3.00	2.50	3.50	3.00	3.00	2.50	3.00	3.50	3.50	2.50	2.50	3.50	3.50	2.50	2.50	3.00	3.50
Leverett	**DAR Only**	3.50	2.50	3.00	3.50	3.50	3.00	3.50	3.00	3.00	3.50	3.50	2.50	3.50	3.50	3.00	3.50	3.00	2.50	3.00	3.50	2.50	3.00	3.50	3.50	3.50	3.00
Longmeadow	ADA/DAR	2.50	3.50	3.50	3.00	2.50	3.50	2.50	3.50	3.50	2.50	3.00	3.50	2.50	3.00	3.50	3.00	3.50	3.50	3.50	2.50	3.50	3.50	3.00	3.00	3.00	3.50
Ludlow	ADA/DAR	3.00	3.50	2.50	2.50	3.00	3.50	3.00	2.50	3.50	3.00	3.00	3.50	3.00	2.50	3.50	2.50	3.50	3.50	3.50	2.50	3.50	3.50	3.00	3.00	2.50	3.50
Northampton	ADA/DAR	3.50	2.50	3.00	3.00	3.00	2.50	3.50	3.00	2.50	3.50	2.50	3.00	3.50	3.50	2.50	3.50	3.00	3.00	3.00	3.50	3.00	3.00	3.50	3.50	3.50	2.50
Palmer	ADA/DAR	3.00	3.50	2.50	3.00	3.00	3.50	3.50	3.50	3.50	3.50	3.00	3.50	3.00	3.00	3.50	2.50	3.50	3.50	3.50	3.00	3.50	2.50	3.00	3.00	2.50	3.50
Pelham	**DAR Only**	3.50	2.50	2.50	3.50	3.50	3.00	3.50	3.00	3.00	3.50	3.50	3.00	3.50	3.50	3.00	3.50	2.50	3.00	3.00	3.50	3.00	3.00	3.50	3.50	3.50	3.00
****South Deerfield**	ADA/DAR	3.50	3.00	3.00	3.50	3.50	3.00	3.50	3.00	3.00	3.50	3.50	2.50	3.50	3.50	3.00	3.50	3.00	2.50	3.00	3.50	2.50	3.00	3.50	3.50	3.50	3.00
South Hadley	ADA/DAR	3.50	3.00	3.00	3.50	3.50	3.00	3.50	3.00	2.50	3.50	2.50	3.00	3.50	3.50	3.00	3.50	3.00	3.00	2.50	3.50	3.00	3.00	3.50	3.50	3.50	3.00
Springfield	ADA/DAR	3.00	3.50	3.50	2.50	3.00	3.50	2.50	3.50	3.50	3.00	2.50	3.50	2.50	2.50	3.50	3.00	3.50	3.50	3.50	2.50	3.50	3.50	2.50	3.00	2.50	3.50
Sunderland	ADA/DAR	3.50	2.50	3.00	3.50	3.50	3.00	3.50	3.00	3.00	3.50	3.50	2.50	3.50	3.50	3.00	3.50	3.00	2.50	3.00	3.50	2.50	3.00	3.50	3.50	3.50	3.00
Ware	ADA/DAR	3.50	3.00	2.50	3.50	3.50	3.00	3.50	3.00	3.00	3.50	3.50	3.00	3.50	3.50	3.00	2.50	3.00	3.00	3.50	3.50	3.00	2.50	3.50	3.50	3.50	3.00
West Springfield	ADA/DAR	2.50	3.50	3.50	3.00	3.00	3.50	3.00	3.50	3.50	3.00	2.50	3.50	3.00	3.00	3.50	3.00	3.50	3.50	3.50	2.50	3.50	3.50	2.50	2.50	3.00	3.50
Westfield	ADA/DAR	2.50	3.50	3.50	3.00	3.00	3.50	3.00	3.50	3.50	3.00	3.00	3.50	3.00	3.00	3.50	3.00	3.50	3.50	3.50	3.00	3.50	3.50	2.50	2.50	3.00	3.50
Wilbraham	ADA/DAR	3.00	3.50	3.50	3.00	2.50	3.50	3.00	3.50	3.50	3.00	3.00	3.50	3.00	2.50	3.50	2.50	3.50	3.50	3.50	2.50	3.50	3.50	3.00	3.00	2.50	3.50
Williamsburg	ADA/DAR	3.50	3.00	3.00	3.50	3.50	3.00	3.50	3.00	3.00	3.50	3.50	3.00	3.50	3.50	2.50	3.50	3.00	3.00	3.00	3.50	3.00	3.00	3.50	3.50	3.50	2.50

* Enfield: PVTA only provides service to the Mass Mutual Center (closed door service from MA /Enfield state line to Mass Mutual Ctr)

** South Deerfield: PVTA only provides service in South Deerfield within 3/4 of a mile of the fixed route bus service. Service is not provided outside the 3/4 mile corridor.

Appendix B Telephone Statistics

Call Summary By Queue (Hourly)
7/1/2013 - 5/7/2014
8:00 AM - 4:00 PM

	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM
Calls Offered	14281	14230	13723	12125	11143	12311	14103	15692	7900
Calls Answered	13718	13860	13344	11796	10848	11957	13762	15236	7567
Calls Abandoned	533	342	343	299	269	327	302	430	317
Avg Call Length	01:56	02:00	01:59	01:57	01:55	02:00	02:00	01:57	01:51
Avg Wait Time	00:34	00:21	00:18	00:17	00:16	00:20	00:20	00:25	00:43
Longest Wait	01:11:48	17:20	20:10	15:23	16:26	11:54	12:27	14:08	01:48:13

Call Summary By Queue (Hourly)
7/1/2011 - 6/30/2012
8:00 AM - 4:00 PM

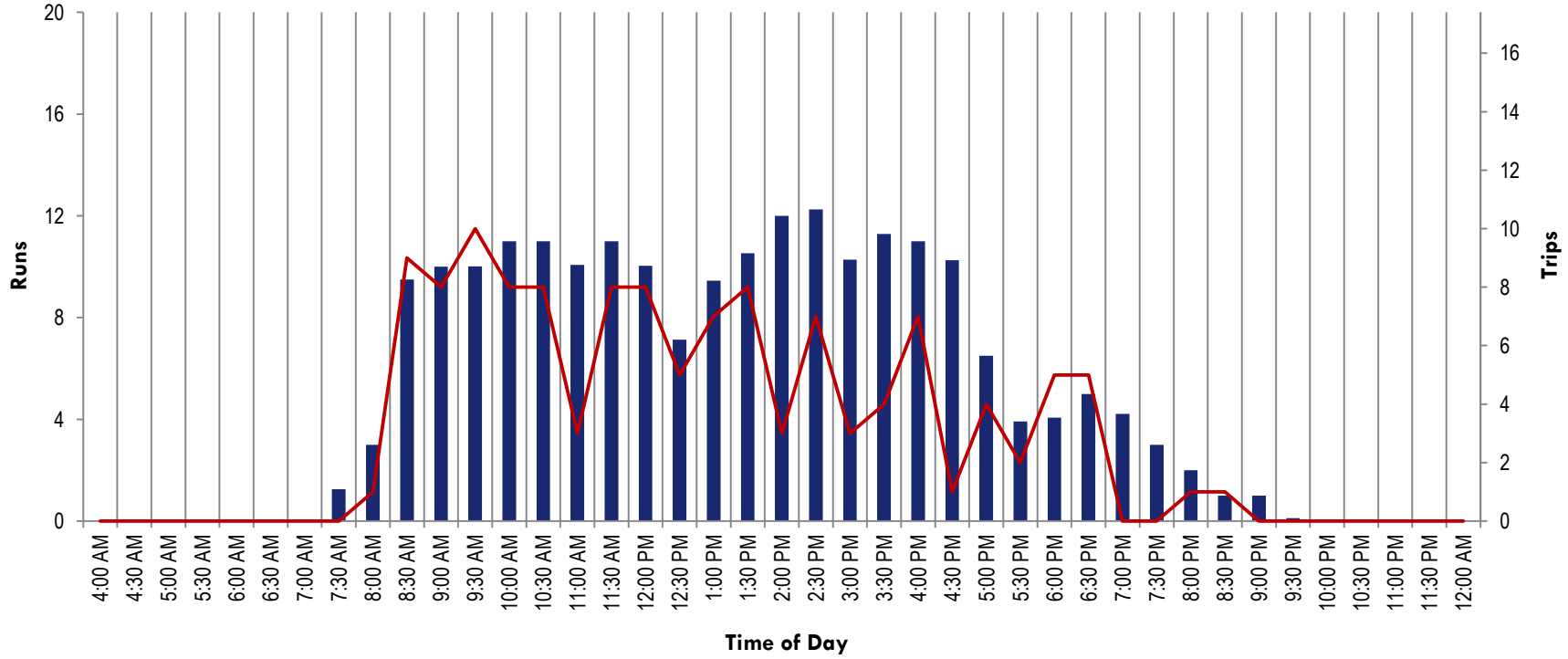
	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM
Calls Offered	15422	17604	16850	14899	12685	14260	16372	17593	8130
Calls Answered	14807	17101	16420	14598	12402	13914	15825	16987	7796
Calls Abandoned	604	478	402	289	274	338	526	589	328
Avg Call Length	01:53	02:00	02:02	02:01	01:59	02:03	01:58	01:58	02:00
Avg Wait Time	00:41	00:25	00:22	00:17	00:17	00:22	00:27	00:32	00:39
Longest Wait	13:25	10:27	16:24	12:34	14:03	13:52	18:45	15:44	47:59

Call Summary By Queue (Hourly)
7/1/2012 - 6/30/2013
8:00 AM - 4:00 PM

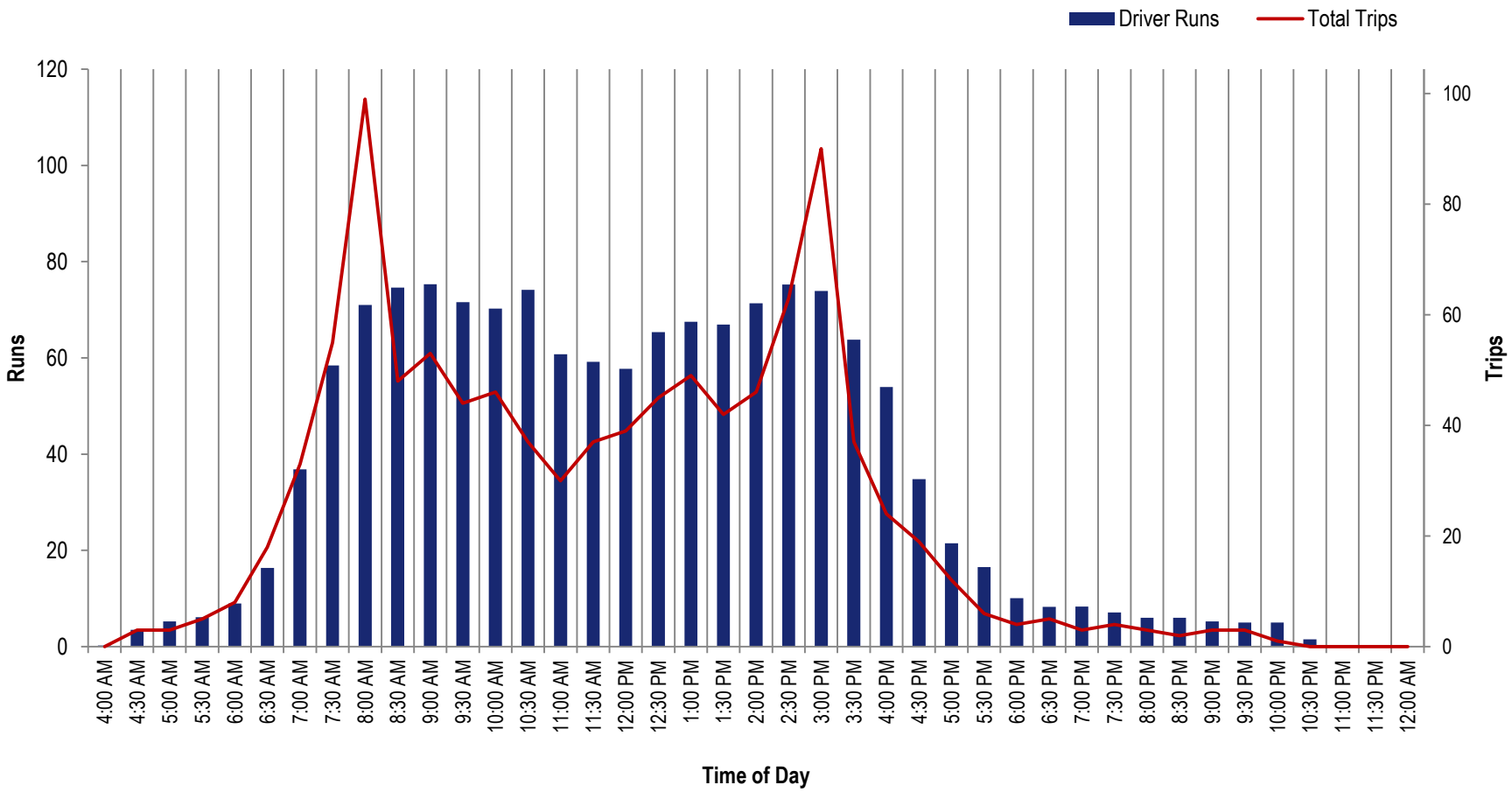
	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM
Calls Offered	17129	17854	15833	14395	13009	14160	15950	17253	8486
Calls Answered	16416	17384	15509	14155	12786	13883	15656	16874	8124
Calls Abandoned	694	439	308	225	213	261	262	359	354
Avg Call Length	01:50	01:57	02:00	01:57	01:54	01:59	01:56	01:56	01:56
Avg Wait Time	00:48	00:24	00:15	00:13	00:13	00:15	00:17	00:20	00:39
Longest Wait	35:23	10:47	12:37	11:04	13:55	23:05	10:27	12:51	01:48:13

Appendix C Run Structure Analysis

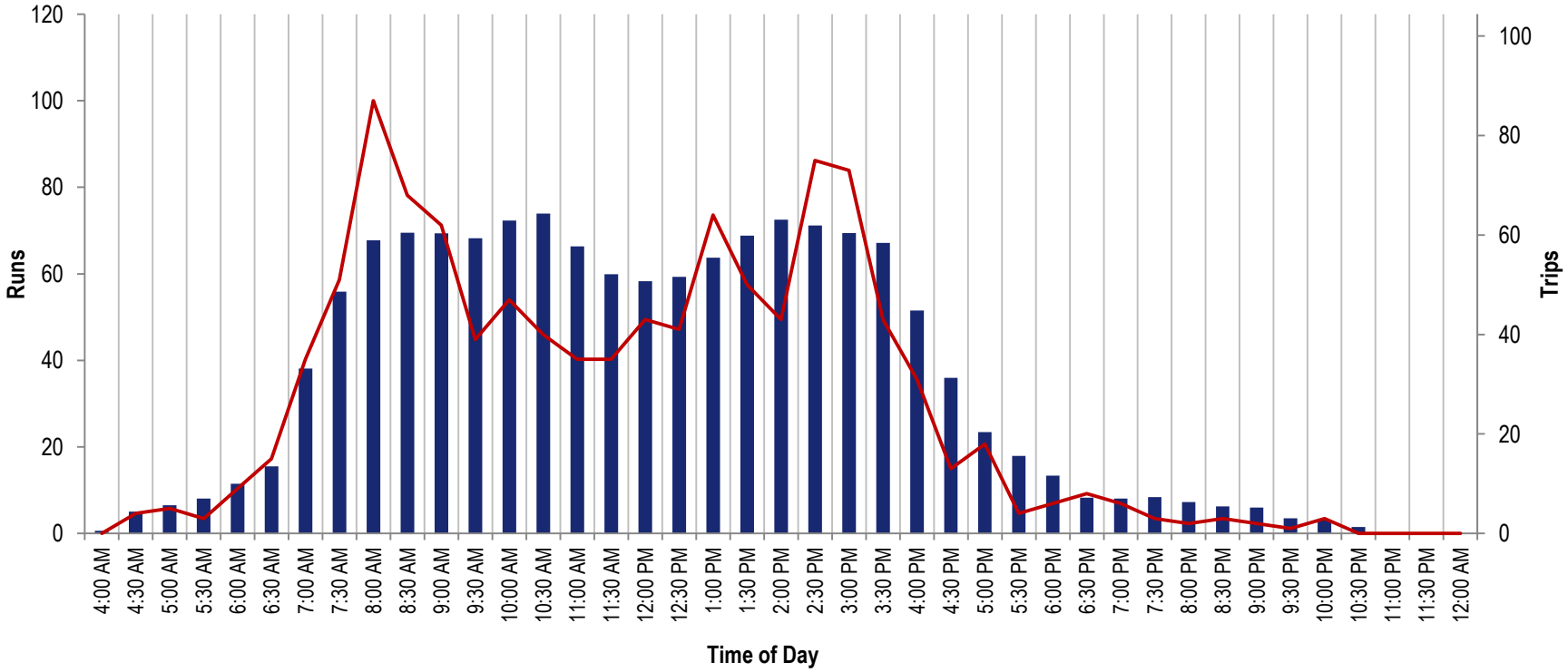
Sunday, April 27 2014



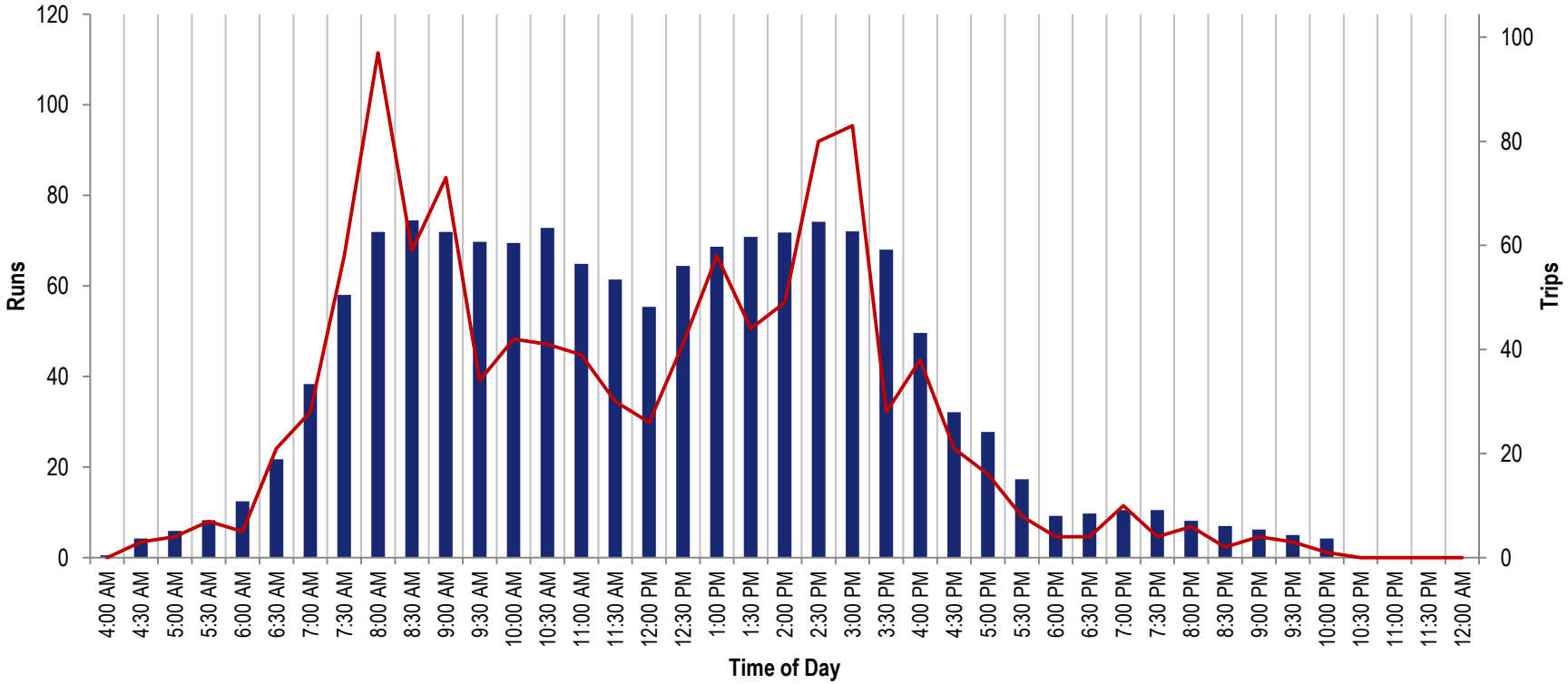
Monday, April 28 2014



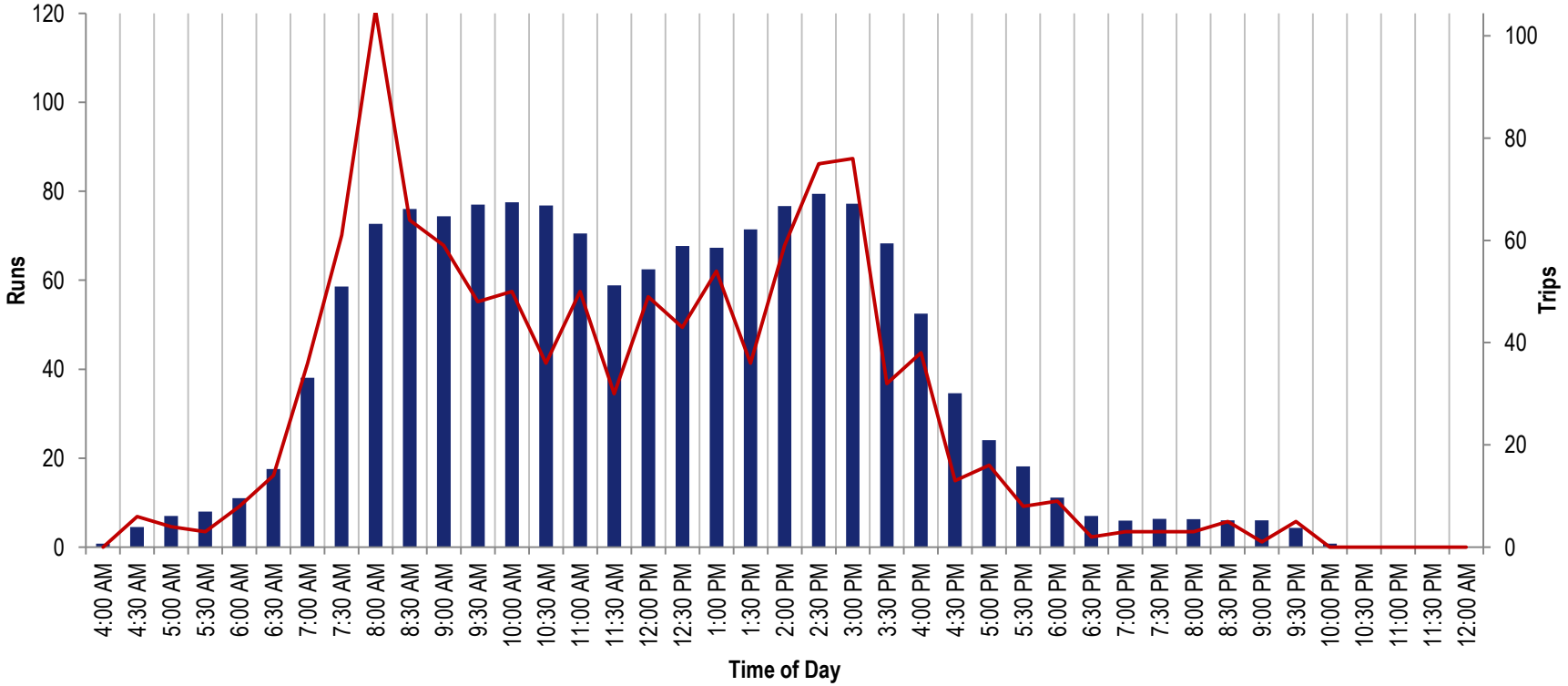
Tuesday, April 29 2014



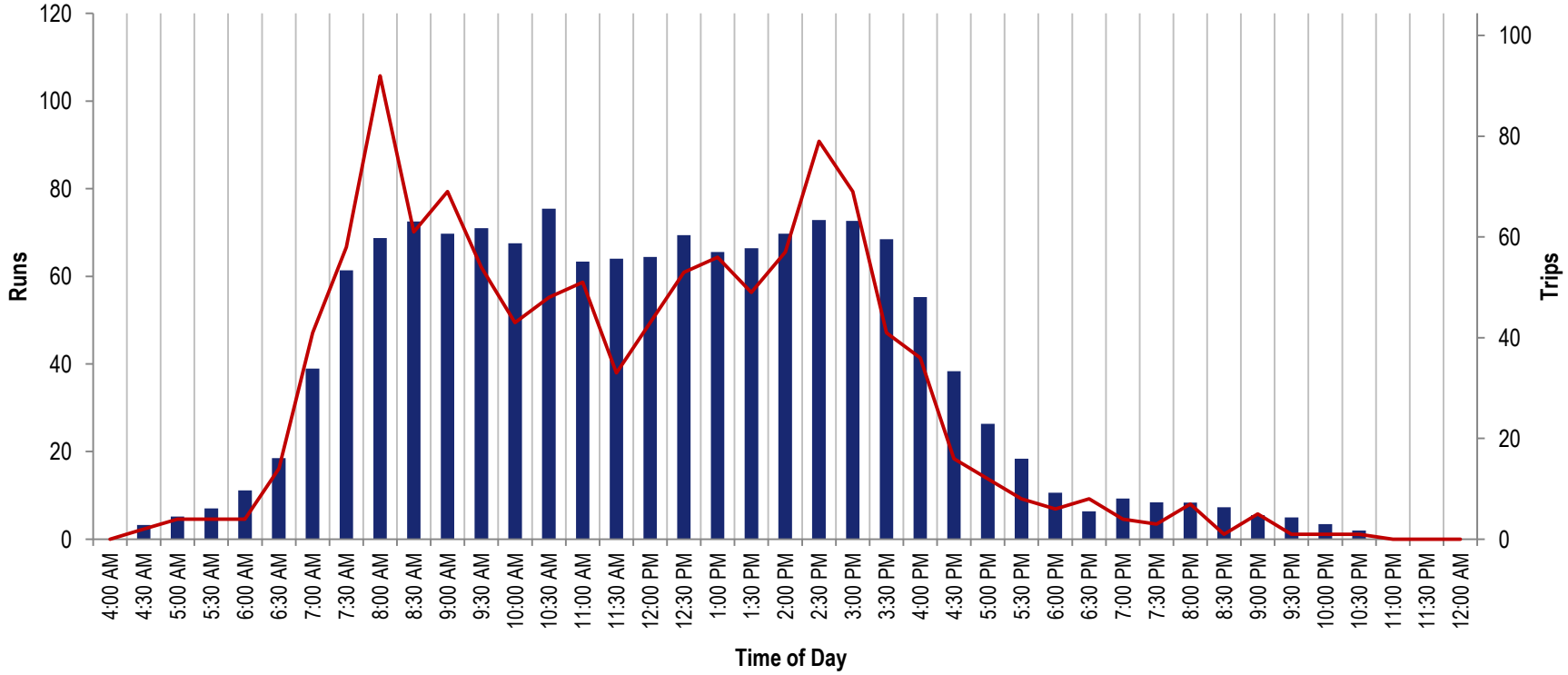
Wednesday, April 30 2014



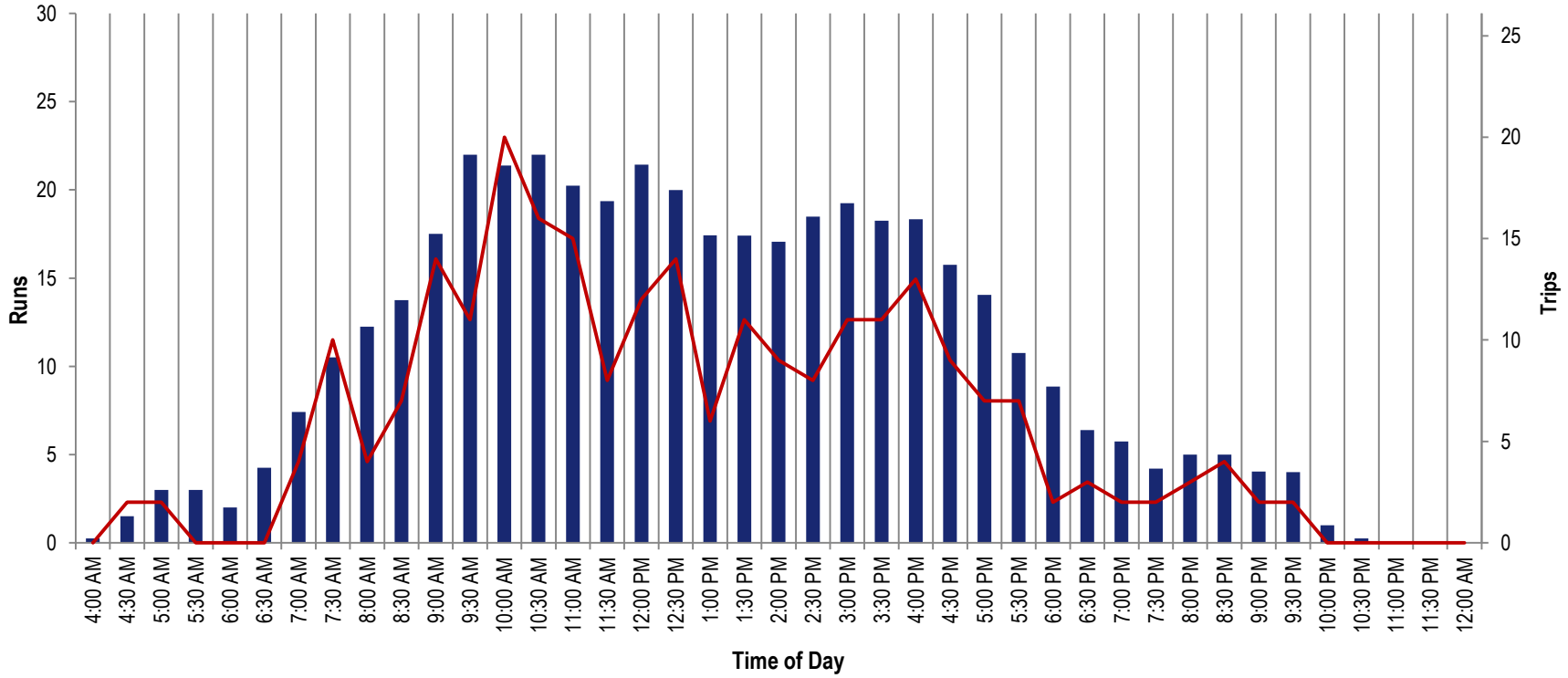
Thursday, May 1 2014



Friday, May 2 2014



Saturday, May 3 2014



Appendix D Run Manifests

Manifest By Stop * Printed: 7/7/2014 4:54:38PM

PVTA
Run Manifest

Page 1 of 5

Tuesday, July 8, 2014
Route # 4007 Vehicle: 5605
Shift: 04:30 To 13:30
Driver: WILLIAMS, PATRICK
Wheelchair Lift Needed

Driver Start Time: 0400
Leave Garage Time: 0420
1st P/U Time: 0501
Last Drop Time: _____
Return Garage Time: _____
Driver End Time: _____

Begin Odometer: 46109
1st P/U Odometer: 46114
Last Drop Odometer: _____
End Odometer: _____

# of Rides: _____
Cancelled: _____
Tickets: _____
Cash Collected: _____

Manifest By Stop Printed: 7/7/2014 4:54:38PM

PVTA
Run Manifest

Tuesday, July 8, 2014
Route # 4007 Vehicle: 5605
Shift: 04:30 To 13:30
Driver: WILLIAMS, PATRICK
Wheelchair Lift Needed

Trip #	Name	Address	ETA P/U Window	Req / Type	Fare
5139373 **PU**	**GAJ, JUDY** Tot. Pass: 1 Amb: 1, WC: 0 Equip: **LIFT REQUIRED, SHOPP**	**400 BRITTON ST** **APT 315** **CHICOPEE, 01020**	**04:47** **04:47 - 05:07**	**05:50 Appoint.** Arr/Dep Time: 0506 Odometer: 46114 Tickets: Cash: 250	$2.50
Directions:	FAIR HAVEN APTS PICK UP IN THE BACK LEFT 4 MESSAGES ALREADY TODAY-09/04/2013-HER PHONE GOES TO VOICEMAIL 09/04/2013-TRIED HER AGAIN BUT NOW HER MAILBOX IS FULL, AND IT DOES NOT RING				
5139373 **DO**	**GAJ, JUDY** Tot. Pass: 1 Amb: 1, WC: 0 Equip: **LIFT REQUIRED, SHOPP**	**317 MEADOW ST** **DIALYSIS/** **CHICOPEE, 01013**	**05:25**	**05:50 Appoint.** Arr/Dep Time: 0528 Odometer: 46120	
Directions:	NEEDS LIFT/BOOKED TRIP				
*** Later ride today with pick up between 11:37 and 11:57 at 317 MEADOW ST on Route # 9001					
5140935 **PU**	**HOSKEY, DOROTHY** Tot. Pass: 1 Amb: 1, WC: 0	**41 CHESTNUT ST** **APT 411** **HOLYOKE, 01040**	**05:33** **05:20 - 05:40**	**06:00 Appoint.** Arr/Dep Time: 0520 Odometer: 46117 Tickets: Cash: 200	$2.50
	PAY 2 WAYS				
5140935 **DO**	**HOSKEY, DOROTHY** Tot. Pass: 1 Amb: 1, WC: 0	**317 MEADOW ST** **CHICOPEE, 01013**	**05:43**	**06:00 Appoint.** Arr/Dep Time: 0528 Odometer: 46120	
Description:	BMA/CHICOPEE DIALYSIS				
Directions:	MEDICAL				
*** Later ride today with pick up between 11:00 and 11:20 at 317 MEADOW ST (BMA/CHICOPEE DIALYSIS) on Route # 3010					
5123734 **PU**	**CZERWIECKI, ROSA** Tot. Pass: 1 Amb: 1, WC: 0	**117 Grape St** **2ND FLR LEFT** **CHICOPEE, 01013**	**05:51** **05:43 - 06:03**	**06:45 Appoint.** Arr/Dep Time: 0548 Odometer: 46123 1 Tickets: Cash: 250	$2.50
5123734 **DO**	**CZERWIECKI, ROSA** Tot. Pass: 1 Amb: 1, WC: 0	**141 BOULAY CIR** **DAUGHTER'S HOUSE** **CHICOPEE, 01020**	**06:20**	**06:45 Appoint.** Arr/Dep Time: 0603 Odometer: 46129	
*** Later ride today with pick up between 17:30 and 17:50 at 141 BOULAY CIR on Route # 3012					
5139508 **PU**	**LANDRY, SUSAN** Tot. Pass: 1 Amb: 1, WC: 0 Equip: **SHOPPING BAG ASSIST**	**40 ELMWOOD AVE** **HOLYOKE, 01040**	**06:34** **06:30 - 06:50**	**07:30 Appoint.** Arr/Dep Time: 0634 Odometer: 46134 Tickets: Cash: 250	$2.50
Notes:	NO CHARGE FOR THE MAY 10TH TRIP				
Directions:	2 FAMILY/ FIRST FLOOR---WHITE/GREEN				

Manifest By Stop Printed: 7/7/2014 4:54:38PM

PVTA
Run Manifest

Tuesday, July 8, 2014
Route # 4007 Vehicle: 5605
Shift: 04:30 To 13:30
Driver: WILLIAMS, PATRICK
Wheelchair Lift Needed

Trip #	Name	Address	ETA P/U Window	Req / Type	Fare
5139508 **DO**	**LANDRY, SUSAN** Tot. Pass: 1 Amb: 1, WC: 0 Equip: **SHOPPING BAG ASSIST**	**575 BEECH ST** **HOLYOKE HOSPITAL/MAIN ENTRANCE** **HOLYOKE, 01040**	**07:09**	**07:30 Appoint.** Arr/Dep Time: 0637 Odometer: 46135	
Notes: NO CHARGE FOR THE MAY 10TH TRIP Directions: ULTRASOUND DEPT/NO PHONE NUMBER *** Later ride today with pick up between 09:30 and 09:50 at 575 BEECH ST on Route # 2008					
5140690 **PU**	**MONETTE, JOSEPH** Tot. Pass: 1 Amb: 1, WC: 0 Equip: **DOOR TO DOOR**	**44 HOLY CROSS CIR** **EAST LONGMEADOW, 01028**	**08:01** **08:01 - 08:21**	**09:00 Appoint.** $3.00 Arr/Dep Time: 0801 Odometer: 46149 Tickets: (2) Cash:	
Directions: PLEASE SPEAK TO MOTHER OR FATHER WHEN CALLING FOR JOSEPH NO SHOW					
5140627 **PU**	**BOUCHARD, ADAM** Tot. Pass: 1 Amb: 1, WC: 0 Equip: **DOOR TO DOOR**	**15 BELMONT PL** **SPRINGFIELD, 01108**	**08:12** **08:12 - 08:32**	**09:00 Appoint.** $3.00 Arr/Dep Time: 0815 Odometer: 46152 Tickets: 2 Cash: 300	
Notes: YELLOW HOUSE					
5141059 **PU**	**COUTURE, RACHEL** Tot. Pass: 1 Amb: 1, WC: 0 Equip: **DOOR TO DOOR**	**1549 WESTOVER RD** **CHICOPEE, 01020**	**08:32** **08:17 - 08:37**	**09:00 Appoint.** $2.50 Arr/Dep Time: 0838 Odometer: 46163 Tickets: 1 Cash: 250	
Directions: UP WESTOVER RD/RIGHT ON DONAHUE RD-FOLLOW ALL THE WAY AROUND					
5141059 **DO**	**COUTURE, RACHEL** Tot. Pass: 1 Amb: 1, WC: 0 Equip: **DOOR TO DOOR**	**63 JACKSON ST** **SEASONAL DECOR-BACK ENTRANCE** **HOLYOKE, 01040**	**08:43**	**09:00 Appoint.** Arr/Dep Time: 0848 Odometer: 46167	
Directions: TAKE DRIVEWAY AFTER BLDG TO BACK ENTRANCE W/RAMP *** Later ride today with pick up between 13:30 and 13:50 at 63 JACKSON ST on Route # 2006					
5140690 **DO**	**MONETTE, JOSEPH** Tot. Pass: 1 Amb: 1, WC: 0 Equip: **DOOR TO DOOR**	**63 JACKSON ST** **SEASONAL DECOR-BACK ENTRANCE** **HOLYOKE, 01040**	**08:45**	**09:00 Appoint.** Arr/Dep Time: / Odometer:	
Directions: TAKE DRIVEWAY AFTER BLDG TO BACK ENTRANCE W/RAMP *** Later ride today with pick up between 13:30 and 13:50 at 63 JACKSON ST on Route # 2006					

Manifest By Stop Printed: 7/7/2014 4:54:38PM

PVTA
Run Manifest

Tuesday, July 8, 2014
Route # 4007 Vehicle: 5605
Shift: 04:30 To 13:30
Driver: WILLIAMS, PATRICK
Wheelchair Lift Needed

Trip #	Name	Address	ETA P/U Window	Req / Type	Fare
5140627 **DO**	**BOUCHARD, ADAM** Tot. Pass: 1 Amb: 1, WC: 0 Equip: **DOOR TO DOOR**	**63 Jackson St** **SEASONAL DECOR** **HOLYOKE, 01040**	**08:46**	**09:00 Appoint.** Arr/Dep Time: 0848 Odometer: 46167	
Notes: YELLOW HOUSE *** Later ride today with pick up between 13:30 and 13:50 at 63 Jackson St on Route # 2006					
5139396 **PU**	**GRIFFITH, CAROL** Tot. Pass: 1 Amb: 0, WC: 1 Equip: **DOOR TO DOOR, CANE,**	**469 OLD FIELD RD** **CHICOPEE, 01013**	**08:53** **08:35 - 08:55**	**09:15 Appoint.** Arr/Dep Time: 0856 Odometer: 46171 Tickets: Cash: 250	$2.50
Directions: LEFT OFF "CHICOPEE ST", 2ND HOUSE ON THE LEFT//GRAY HOUSE STONE-BOTTOM // CELL: 413-455-7699					
5139396 **DO**	**GRIFFITH, CAROL** Tot. Pass: 1 Amb: 0, WC: 1 Equip: **DOOR TO DOOR, CANE,**	**591 MEMORIAL DR** **WAL MART CHICOPEE/3 BAG LIMIT** **CHICOPEE, 01020**	**09:08**	**09:15 Appoint.** Arr/Dep Time: 0911 Odometer: 46175	
Directions: PICK UP AND DROP OFF AT FOOD CENTER DOOR 1ST DOOR *** Later ride today with pick up between 10:15 and 10:35 at 591 MEMORIAL DR on Route # 9001					
5140825 **PU**	**CHAMBERLAIN, BRIAN** Tot. Pass: 1 Amb: 1, WC: 0 Equip: **DOOR TO DOOR, LEG BR**	501 Memorial Dr CHICK-A-FILET RESTRAUNT CHICOPEE, 01020	**09:09** **09:00 - 09:20**	**09:00 Pick-up** Arr/Dep Time: 0913 Odometer: 46178 Tickets: 1 Cash: 250	$2.50
Directions: NO #//WORKS HERE					
5138231 **PU**	**FITZGERALD, JAMES** Tot. Pass: 1 Amb: 1, WC: 0	**470 Memorial Dr** **APT 305, 2ND FLOOR** **CHICOPEE, 01020**	**09:12** **09:00 - 09:20**	**09:30 Appoint.** Arr/Dep Time: 0919 Odometer: 46175 Tickets: Cash: 250	$2.50
Directions: BEHIND "DAYS INN", "WINDSOR COURT APTS"					
5138231 **DO**	**FITZGERALD, JAMES** Tot. Pass: 1 Amb: 1, WC: 0	**591 MEMORIAL DR** **WAL MART CHICOPEE** **CHICOPEE, 01020**	**09:16**	**09:30 Appoint.** Arr/Dep Time: 0924 Odometer: 46176	
Directions: PICK UP AND DROP OFF AT FOOD CENTER DOOR 2ND DOOR *** Later ride today with pick up between 10:30 and 10:50 at 591 MEMORIAL DR on Route # 3010					

Appendix E Fleet Details

PVTA VEHICLE

Vehicle

BELCHERTOWN

Number	Driver	Year	Model	Plate	Notes	VIN	Received	Capacity	Odometer
5435	Pat 4x4	2002	ECOVAN	PVT509	no camera	1FTNE24L63HA42797	2002	5 amb / 3 wc	42392
5509	Gualter Pereira	2009	CUTAWAY	PVT539	CAMERA	1FDEE35L19DA76114	2009	8 amb / 3 wc	125200
5537		2009	CUTAWAY	PVT663	no camera	1FDWE35L39DA73459	12/1/2009	8 amb / 3 wc	115187
5563	Justin Bellinger	2011	FORD	PVT432	CAMERA	1FDEE3FL6BDA83449	7/22/2011	8 amb / 3 wc	89060
5568	Lewis Smith / Robert Rose	2011	FORD	PVT462	CAMERA	1FDEE3FL6BDB05692		8 amb / 3 wc	87705
5569	Jennifer Payne	2011	FORD	PVT79	CAMERA	1FDEE3FL8BDB05693		8 amb / 3 wc	71153
5570	Stanley Jarosz	2011	FORD	PVT464	CAMERA	1FDEE3FL2BDB05690		8 amb / 3 wc	61498
5571	down in chicopee	2011	FORD	PVT31	CAMERA	1FDEE3FL2BDB05687	1/24/2012	8 amb / 3 wc	79087
5579	Darlene Bellinger	2012	FORD	PVT88	CAMERA	1FDEE3FL4CDA29049	4/26/2012	8 amb / 3 wc	67239
5587	Tim Shay	2012	FORD	PVT549	CAMERA	1FDEE3FL6BDB14635	4/11/2012	8 amb / 3 wc	65037
5597	Carol Rasmussen	2013	FORD	PVT486	CAMERA	1FDEE3FL9DDA69936	6/7/2013	8 amb / 3 wc	25108
5598	Sue Mazzaferro	2013	FORD	PVT521	CAMERA	1FDEE3FL0DDA69937	6/7/2013	8 amb / 3 wc	27407
5612	Luis Diaz	2013	FORD	PVT850	CAMERA	1FDEE3FL5DDA93005	12/10/2013	8 amb / 2 wc	2985
	NORTHAMPTON								
5390	road supervisor 4x4	2002	ECOVAN	PVT633	no camera	1FTNE24L32HA30587	2002	5 amb / 3 wc	85398
5389	road supervisor 4x4	2002	ECOVAN	PVT634	no camera	1FTNE24L72HA30589	MAR 2002	5 amb / 3 wc	garage
5510	Ann Sloan	2009	CUTAWAY	PVT566	CAMERA	1FDEE35L39DA76115	12/1/2009	8 amb / 3 wc	102725
5517		2009	CUTAWAY	PVT426	CAMERA	1FDEE35L69DA72284	12/1/2009	8 amb / 3 wc	93934
5543	Geralyn Smith	2010	TRACON	PVT605	no camera	NM0KS9BNXAT021340	7/1/2010	8 amb / 3 wc	64878
5536	Bill Burnham	2009	CUTAWAY	PVT679	no camera	1FDWE35L19DA73458	12/1/2009	8 amb / 3 wc	134394
5538	Dan Hamel	2009	CUTAWAY	PVT664	no camera	1FDWE35LX9DA73460	2009	8 amb / 3 wc	134578
5551		2010	FORD	PVT84	CAMERA	1FDEE3FL8ADA72368	6/9/2011	8 amb / 3 wc	71082
5552	Dick Suchocki	2010	FORD	PVT91	CAMERA	1FDEE3FLXADA72369	6/9/2011	8 amb / 3 wc	78008
5553		2010	FORD	PVT558	CAMERA	1FDEE3FLXADA72370	6/9/2011	8 amb / 3 wc	62956
5560	being used in belchertown sp	2011	FORD	PVT482	CAMERA	1FDEE3FL2BDA83447	7/22/2011	8 amb / 3 wc	60584
5561	George Toliver	2011	FORD	PVT653	CAMERA	1FDEE3FL9BDA83445	7/22/2011	8 amb / 3 wc	68746
5562		2011	FORD	PVT670	CAMERA	1FDEE3FL1BDA80488	7/22/2011	8 amb / 3 wc	70980
5580	being used in chicopee spare	2012	FORD	PVT94	CAMERA	1FDEE3FL2CDA29048	4/11/2012	8 amb / 3 wc	59924
5581	Juan Matos	2012	FORD	PVT160	CAMERA	1FDEE3FL0CDA29050	6/1/2012	8 amb / 3 wc	53323

5583	Lizandro Abreu	2011	FORD	PVT533	CAMERA	1FDEE3FL7BDB36479	4/26/2012	8 amb / 3 wc	55724
5599	Valerie Jenkins	2013	FORD	PVT518	CAMERA	IFDEE3FL2DDA69938	6/7/2013	8 amb / 3 wc	26564
5600	Herbie Randall	2013	FORD	PVT498	CAMERA	1FDEE3FL4DDA69939	6/7/2013	8 amb / 3 wc	18562
5601	Torran Harris	2013	FORD	PVT506	CAMERA	1FDEE3FL6DDA72623	6/7/2013	8 amb / 3 wc	27674
5602	Jeanie Rattelle	2013	FORD	PVT650	CAMERA	1FDEE3FL8DDA72634	6/10/2013	8 amb / 3 wc	23934
5613	Alex Grinshteyn	2013	FORD	PVT674	CAMERA	1FDEE3FL7DDA93006	12/19/2013	8 amb / 2 wc	7707
5614	Hector Fernandez	2013	FORD	PVT675	CAMERA	1FDEE3FL1DDA92997	12/19/2013	8 amb / 2 wc	10518
	CHICOPEE								
	Ford Explorer	1998	FORD	PVT477		1FMZU34E8WUB84412			154608
	Ford Explorer		FORD	PVT642					148340
5388	Brenda Soto Road Sup 4x4	2002	ECOVAN	PVT631	no camera	1FTNE24L32HA30590	APR 2002	5 amb / 3 wc	82849
5493	Tracie Colbath	2007	CUTAWAY	PVT380	not operating	1FDWE35LX7DA20349	05/07/2007	8 amb / 3 wc	247508
5500		2007	EL DORADO	PVT192	camera missing	1FDWE35L57DA78739	2/18/2008	10 amb / 3 wc	167354
5501		2007	EL DORADO	PVT203	Camera	1FDWE35L37DA78738	2/18/2008	10 amb / 3 wc	175030
5503	Jose Ortiz	2007	EL DORADO	PVT385	Camera	1FDWE35LX7DA78736	2/18/2008	10 amb / 3 wc	164929
5504	Dana Butler	2007	EL DORADO	PVT82	Camera	1FDWE35L37DA78741	2/18/2008	10 amb / 3 wc	164808
5506	spare	2008	EL DORADO	PVT114	1 W/C ONLY	1FD3E35S08DA15852	6/10/2008	8 amb / 3 wc	105860
5507	spare	2008	EL DORADO	PVT461	1 W/C ONLY	1FD3E35LX8DA15883	6/10/2008	8 amb / 3 wc	135364
5511		2009	FORD	PVT487	Camera	1FDEE35L59DA76116	12/15/2009	8 amb / 3 wc	126337
5512	Sabrina Corales	2009	FORD	PVT535	no camera	1FDEE35L99DA76085	12/15/2009	8 amb / 3 wc	180120
5513	Patricia Francisco	2009	FORD	PVT234	Camera	1FDEE35L09DA76086	12/15/2009	8 amb / 3 wc	157538
5514	Jesus Pagan	2009	FORD	PVT529	no camera	1FDEE35L09DA72281	12/15/2009	8 amb / 3 wc	143147
5515		2009	FORD	PVT681	no camera	1FDEE35L29DA72282	12/15/2009	8 amb / 3 wc	150400
5516	Arthur Lind	2009	FORD	PVT682	not operating	1FDEE35L49DA72283	12/15/2009	8 amb / 3 wc	151976
5518	John Stafford	2009	FORD	PVT101	no camera	1FDEE35L89DA72285	12/15/2009	8 amb / 3 wc	131830
5519	Migdalia Sanchez	2009	FORD	PVT540	no camera	1FDWE35L69DA73441	12/15/2009	8 amb / 3 wc	165235
5520	Michelle Lipka	2009	FORD	PVT585	no camera	1FDWE35L89DA73442	12/15/2009	8 amb / 3 wc	131856
5521	Heather Willard	2009	FORD	PVT602	no camera	1FDWE35LX9DA73443	12/15/2009	8 amb / 3 wc	151772
5522		2009	FORD	PVT626	no camera	1FDWE35L19DA73444	12/15/2009	8 amb / 3 wc	150751
5523	Luis Arroyo	2009	FORD	PVT606	no camera	1FDWE35L39DA73445	12/15/2009	8 amb / 3 wc	139518
5524	Juan Montalvo	2009	FORD	PVT699	no camera	1FDWE35L59DA73446	12/15/2009	8 amb / 3 wc	195339
5525		2009	FORD	PVT673	no camera	1FDWE35L79DA73447	12/15/2009	8 amb / 3 wc	156438
5526	Theodore Hamel	2009	FORD	PVT661	no camera	1FDWE35L99DA73448	12/15/2009	8 amb / 3 wc	154958
5527	Christopher Roberson	2009	FORD	PVT700	no camera	1FDWE35L09DA73449	12/15/2009	8 amb / 3 wc	140092

excl.

5528	Melissa Hunter	2009	FORD	PVT698	no camera	1FDWE35L79DA73450	12/15/2009	8 amb / 3 wc	131943
5529	Ashley Bernal	2009	FORD	PVT697	no camera	1FDWE35L99DA73451	12/15/2009	8 amb / 3 wc	154165
5530	Lonzo Gamble	2009	FORD	PVT696	no camera	1FDWE35L09DA73452	12/15/2009	8 amb / 3 wc	130305
5531	Johnny Wilson	2009	FORD	PVT672	Camera	1FDWE35L29DA73453	12/15/2009	8 amb / 3 wc	128793
5532		2009	FORD	PVT671	Camera	1FDWE35L49DA73454	12/15/2009	8 amb / 3 wc	135276
5533		2009	FORD	PVT678	Camera	1FDWE35L69DA73455	12/15/2009	8 amb / 3 wc	128787
5534		2009	FORD	PVT5	Camera	1FDWE35L89DA73456	12/15/2009	8 amb / 3 wc	123870
5535	Edward Leblanc	2009	FORD	PVT677	Camera	IFDWE35LX9DA73457	12/15/2009	8 amb / 3 wc	105875
5539		2010	FORD	PVT623	TRACON	NM0KS9BN2AT031649	7/1/2010	3 amb	66087
5540		2010	FORD	PVT628	TRACON	NM0KS9BN3AT021342	7/1/2010	3 amb	68247
5541	Paul Kim	2010	FORD	PVT610	TRACON	NM0KS9BN5AT021312	7/1/2010	3 amb	67129
5542	Steve Jessup	2010	FORD	PVT530	TRACON	NM0KS9BN5AT013887	7/1/2010	3 amb	88351
5544		2010	FORD	PVT89	Camera	1FDEE3FLOADA72364	5/19/2011	8 amb / 3 wc	94084
5545	Lareece Berthiaume	2010	FORD	PVT21	Camera	1FDEE3FL3ADA68681	5/19/2011	8 amb / 3 wc	95180
5546	Alejandro Morales	2010	FORD	PVT28	Camera	1FDEE3FL5ADA68682	5/19/2011	8 amb / 3 wc	86223
5547		2010	FORD	PVT109	Camera	1FDEE3FL2ADA72365	5/19/2011	8 amb / 3 wc	78796
5548		2010	FORD	PVT141	Camera	1FDEE3FL4ADA72366	5/19/2011	8 amb / 3 wc	74166
5549		2010	FORD	PVT32	Camera	1FDEE3FL7ADA75956	5/19/2011	8 amb / 3 wc	73484
5550	William Lowe	2011	FORD	PVT69	Camera	1FDEE3FL6ADA72367	5/19/2011	8 amb / 3 wc	78516
5554		2011	FORD	PVT615	Camera	1FDEE3FL3BDA83442	7/12/2011	8 amb / 3 wc	77790
5555	Jose Lopez	2011	FORD	PVT621	Camera	1FDEE3FL7BDA83444	7/13/2011	8 amb / 3 wc	84261
5556		2011	FORD	PVT534	Camera	1FDEE3FL5BDA83443	7/13/2011	8 amb / 3 wc	79680
5557	Craig Pikul	2011	FORD	PVT669	Camera	1FDEE3FLXBDA80487	7/22/2011	8 amb / 3 wc	101873
5558		2011	FORD	PVT617	Camera	1FDEE3FLOBDA3446	7/22/2011	8 amb / 3 wc	68923
5559	Arturo Vega	2011	FORD	PVT514	Camera	1FDEE3FL4BDA83448	7/22/2011	8 amb / 3 wc	86608
5564	LaTonya Jerry	2011	FORD	PVT73	Camera	1FDEE3FL6BD05689	1/24/2012	8 amb / 3 wc	58465
5565	Jesus Pagan	2011	FORD	PVT56	Camera	1FDEE3FL0DB05686	1/24/2012	8 amb / 3 wc	66203
5566	Samuel Canini Jr	2011	FORD	PVT446	Camera	1FDEE3FL4BDB05691	2/3/2012	8 amb / 3 wc	68505
5567	Jerome Spruell	2011	FORD	PVT249	Camera	1FDEE3FL4BDB05688	1/31/2012	8 amb / 3 wc	69089
5576	Elaine Cowan	2011	FORD	PVT504	Camera	1FDEE3FL3BDB36477	4/4/2012	8 amb / 3 wc	75792
5577	Al Register	2011	FORD	PVT247	Camera	1FDEE3FL3BDB36480	4/23/2012	8 amb / 3 wc	85412
5578		2011	FORD	PVT297	Camera	1FDEE3FL4BDB36486	4/27/2012	8 amb / 3 wc	54385
5582	Shayna Reid	2011	FORD	PVT451	Camera	1FDEE3FLBDB36478	5/23/2012	8 amb / 3 wc	79382
5584	Evander Parrish	2011	FORD	PVT542	Camera	1FDEE3FL5BDB36481	5/8/2012	8 amb / 3 wc	65039
5585	Reinaldo Rivera	2011	FORD	PVT543	Camera	1FDEE3FL7BDB36482	5/25/2012	8 amb / 3 wc	74357

5586	Teresa Bernal	2011	FORD	PVT275	Camera	1FDEE3FL2BDB36485	5/10/2012	8 amb / 3 wc	72209

2 more below

5588	Joy Winters-Snowden	2011	FORD	PVT270	Camera	1FDEE3FL0BDB36484	5/16/2012	8 amb / 3 wc	72975
5589	Luis Pabon	2011	FORD	PVT575	Camera	1FDEE3FL9BDB36483	5/17/2012	8 amb / 3 wc	73859
5590		2011	FORD	PVT667	Camera	1FDEE3FL1BDB36476	4/25/2012	8 amb / 3 wc	65960
5591	Carol Liquori	2012	FORD	PVT130	TRACON	NM0KS9BN5CT114351	1/9/2013	3 amb	25435
5592	Benito Rivera	2012	FORD	PVT548	TRACON	NM0KS9BN6CT114228	1/9/2013	3 amb	26406
5593	Norma Cordova	2012	FORD	PVT625	TRACON	NM0KS9BN6CT114388	1/9/2013	3 amb	28152
5594	Joan Muse	2012	FORD	PVT143	TRACON	NM0KS9BN6CT114455	1/8/2013	3 amb	27404
5595	Pedro Mercado	2011	FORD	PVT545	no camera	1FDEE3FL3BDB12177	4/30/2013	8 amb / 3 wc	39355
5596	Anellyse Gonzalez	2011	FORD	PVT638	no camera	1FDEE3FL1BDB09603	4/26/2013	8 amb / 3 wc	35439
5603	Miguel RIvera	2013	FORD	PVT659	Camera	1FDEE3FL1DDA72636	6/11/2013	8 amb / 3 wc	34499
5604	Wayne Luckey	2013	FORD	PVT243	Camera	1FDEE3FL3DDA72640	6/12/2013	8 amb / 3 wc	25236
5605	Patrick Williams	2013	FORD	PVT512	Camera	1FDEE3FL5DDA72638	6/11/2013	8 amb / 3 wc	38205
5606	William King	2013	FORD	PVT532	Camera	1FDEE3FL3DDA72637	6/11/2013	8 amb / 3 wc	30314
5607	Fred Mitchell	2013	FORD	PVT 29	Camera	1FDEE3FL7DDA72639	6/12/2013	8 amb / 3 wc	35529
5608	Michael Johnston	2013	FORD	PVT463	Camera	1FDEE3FLXDDA72635	7/5/2013	8 amb / 3 wc	27607
5610		2013	FORD	PVT803	Camera	IFDEE3FL0DDA89069	8/14/2013	8 amb / 3 wc	26951
5611	Marino Henriquez	2013	FORD	PVT804	Camera	IFDEE3FL9DDA89068	8/29/2013	8 amb / 3 wc	21901
5615	Keith Chambers	2013	FORD	PVT848	Camera	1FDEE3FL3DDA93004	12/31/2013	8 amb / 2 wc	9967
5616	Norma Santos	2013	FORD	PVT849	Camera	1FDEE3FLXDDA93002	12/11/2013	8 amb / 2 wc	10879
5617	Davante Kinlaw	2013	FORD	PVT829	Camera	1FDEE3FLXDDB03284	12/11/2013	8 amb / 2 wc	9669
5618	Tuan Dao	2013	FORD	PVT830	Camera	1FDEE3FL1DDB03285	12/11/2013	8 amb / 2 wc	9302
5619	James Patnode	2013	FORD	PVT828	Camera	1FDEE3FL3DDB03286	12/11/2013	8 amb / 2 wc	10965
5620	Jeremy Galas	2013	FORD	PVT838	Camera	1FDEE3FL6DDB03282	12/11/2013	8 amb / 2 wc	9651
5621	Erika Diaz	2013	FORD	PVT652	Camera	1FDEE3FL1DDA93003	12/11/2013	8 amb / 2 wc	10048
5622	Adrian Robinson	2013	FORD	PVT847	Camera	1FDEE3FL6DDA93000	12/11/2013	8 amb / 2 wc	9903
5623	Francisco Rosa	2013	FORD	PVT835	Camera	1FDEE3FL9DDA93007	12/11/2013	8 amb / 2 wc	8462
5624	Marisol Del Valle	2013	FORD	PVT834	Camera	IFDEE3FL0DDA93008	12/11/2013	8 amb / 2 wc	7264
5625	J R Feliciano	2013	FORD	PVT832	Camera	1FDEE3FL2DDA93009	12/11/2013	8 amb / 2 wc	8719
5626	Elbert Scott	2013	FORD	PVT827	Camera	1FDEE3FL8DDB03283	12/11/2013	8 amb / 2 wc	10797
5627	Ricky Santiago	2013	FORD	PVT839	Camera	1FDEE3FLXDDB19291	12/11/2013	8 amb / 2 wc	7933
5628	Mack Rankins	2013	FORD	PVT812	Camera	1FDEE3FL5DDB19294	12/11/2013	8 amb / 2 wc	8521
5629	Luz Quintana	2013	FORD	PVT845	Camera	1FDEE3FL9DDB16060	12/16/2013	8 amb / 2 wc	9017
5630	Charles Griffin	2013	FORD	PVT844	Camera	1FDEE3FL1DDB19292	12/11/2013	8 amb / 2 wc	7939
5631	Angel G Morales	2013	FORD	PVT843	Camera	1FDEE3FL3DDB19293	12/16/2013	8 amb / 2 wc	6523
5632	Israel Colon	2013	FORD	PVT846	Camera	1FDEE3FL8DDB19290	12/16/2013	8 amb / 2 wc	7638

5633	Edward Price	2013	FORD	PVT831	Camera	1FDEE3FL7DDB19295	12/132013	8 amb / 2 wc	8572
5634	Pat Thomas	2013	FORD	PVT800	Camera	1FDEE3FL2DDB16059	12/18/2013	8 amb / 2 wc	6835
5635	Sue Abbondanza	2013	FORD	PVT837	Camera	IFDEE3FL9DDB19296	12/18/2013	8 amb / 2 wc	8581
5636	Bob Blakeslee	2013	FORD	PVT801	Camera	1FDEE3FL4DDB19299	12/18/2013	8 amb / 2 wc	9947
5637	Hayden Fyfe	2013	FORD	PVT802	Camera	1FDEE3FL2DDB19298	12/18/2013	8 amb / 2 wc	10209
5638	Linda Grasso	2013	FORD	PVT836	Camera	1FDEE3FL0DDB19297	12/18/2013	8 amb / 2 wc	6185

Appendix F Maintenance Plan

MAINTENANCE PLAN

Springfield Area Transit Company
Valley Area Transit Company

October 17, 2011
Updated: July 2012

APPROVED

Thomas R. Nangeroni — 7-31-12

General Manager — Date
Springfield Area Transit Company, Inc.
Valley Area Transit Company, Inc.

Maintenance Plan

Fleet, Equipment and Facility Maintenance Policy

The highest degree of success in the maintenance function and improvements in vehicle, equipment and facilities performance and reliability are a direct result of the development of highly trained and motivated personnel, and comprehensive and continually improving preventive maintenance programs.

The SATCo/VATCo Maintenance Policy is as follows:

> SATCo/VATCo, Inc. will provide safe and mechanically sound vehicles, equipment and facilities to support the transit requirements of the Pioneer Valley Transit Authority (PVTA.) SATCo/VATCo will plan, schedule and control all maintenance to vehicles, equipment and facilities assigned by the PVTA. This includes close coordination and a partnership between the PVTA and SATCo/VATCo including maintenance policy and planning. SATCo/VATCo is responsible for controlling the individual expenditures of labor and materials within the maintenance function, under the annual approved operating and capital budgets, and specific directives from the PVTA. Maintenance performance reviews will be conducted as required to ensure peak overall performance of the Maintenance operation and as otherwise required.

It is the objective of SATCo/VATCo to meet, and, if beneficial and practical, to exceed all requirements of this maintenance policy and procedures plan, manufacturers' preventive maintenance schedules, and all specifications and warranty conditions.

Shop and Yard Safety Policy

The SATCo/VATCo Maintenance Safety Program is ongoing, comprehensive and rigorous throughout the department, and consists of daily, persistent assessment and attention to safety issues, and regular safety inspections and reviews to ensure that all protective measures are in use and that work safety procedures are being carefully and consistently followed, as well as complying with Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA) and Massachusetts Department of Environmental Protection (DEP) rules and work practices.

Maintenance Training Policy

Beyond attendance of maintenance employees at various relevant workshops and seminars, SATCo/VATCo is immensely proud of its in-house Maintenance Development Program, as well as its Maintenance Department Pay for Knowledge Program. With the implementation of these systems, organizational gains include: improved communications and consistency of procedures; cost-effectively trained, more highly skilled mechanics; and increased motivation and productivity in the maintenance department.

SATCo has developed a training partnership with the Amalgamated Transit Union. Working closely with Union representatives locally and at the national level, the goal of this partnership is to identify unmet training needs and secure funding and training resources to meet current and future training needs.

With this in mind a maintenance training needs survey was conducted in 2011. All Mechanics and Technicians completed a detailed survey to determine the priority for technical training.

The Union and the Company are also jointly reviewing the Pay for Knowledge Program in an effort to both standardize and formalize testing requirements and ensure that it meets the needs of changing skill levels required to maintain newer transit bus designs.

Vehicle Maintenance Program Details

Following are performance highlights of the current SATCo/VATCo Fleet Maintenance Plan:

1. Vehicle Performance - The performance of the bus fleet maintained by SATCo/VATCo is regularly monitored through a number of monthly reports including fuel economy, fuel use and the mean distance between failures (MDBF). Fuel economy is of special importance given the increasing cost of diesel fuel and the interest in tracking hybrid diesel electric bus performance.

   SATCo-VATCo has worked with PVTA to simplify vehicle tracking by assigning road numbers that designate buses by location, size and age groups beginning with buses purchased in 2006.

2. Preventative Maintenance Program - All PVTA vehicles are subject to a comprehensive scheduled preventive maintenance (PM) program and safety inspection at regular mileage intervals. In addition, SATCo/VATCo uses a series of internal PM programs for specific systems.

   Special attention is paid to vehicle features and equipment required by the Federal Transit Administration for compliance with the Americans with Disabilities Act (ADA). This includes wheelchair lifts and ramps; exterior lighting; securement belts, retractors and other equipment; kneeling features; dual STOP REQUEST driver notification; folding passenger seating; public address system; safety interlocks and related equipment.

   Federal Transit Administration Triennial Review - Once every three (3) years, officials from the Federal Transit Administration review this Maintenance Plan, vehicle records, PM programs, maintenance practices and the vehicles themselves as part of their triennial review. A monthly report using the same criteria as the Federal Transit Administration Triennial Review for preventative maintenance

inspections of all vehicles is generated and reviewed by the Director of Maintenance and the General Manager each month before being submitted to the PVTA.

3. In-House Maintenance Capability - Evidence of SATCo/VATCo technical capabilities is also reflected by the fact that virtually100% of all fleet maintenance requirements are performed in-house, including all major overhauls. The only exceptions are certain types of repairs that are not cost beneficial to perform in-house due to the technical nature (e.g., certain two-way radio repairs and service), or because of the cost of providing specialized equipment (e.g., frame straightening.)

4. Troubleshooting Resource – Vehicle and component manufacturers who supply buses and vans to the PVTA and other transit systems have relied on the technical expertise available at SATCo/VATCo repeatedly for help in improving their products and troubleshooting problems encountered in other parts of the country.

Fleet maintenance activities are accomplished by organizing the shop and service facilities and employees into functional areas as described below:

Scheduled Preventive Maintenance Inspections

The goal of the Preventive Maintenance Program is to reduce failures and preserve and extend the efficient vehicle life of the PVTA's fleet to the practical maximum. Persistent problems are researched and analyzed using the maintenance computer system, technical library, internet sources, manufactures representatives and peer group networking to prevent breakdowns and solve maintenance and operational problems of specific buses, subfleets, and the fleet as a whole. This process helps reduce the frequency of road calls, cost of replacement parts and labor needed to provide fleet maintenance and repair services.

Scheduled preventative maintenance is implemented in two separate categories:

a) **PVTA Paratransit Vehicles and Non-Revenue Vehicles** – These vehicles are inspected and serviced at 5,000 mile intervals. The 5,000 mile inspection and service includes forty-six (46) different procedures for paratransit vans, and thirty-six different procedures for non-revenue vehicles. Engine oil and filter are changed each time, fuel filter is changed every 15,000 miles, water filter is changed every 15,000 miles, and air filter is changed every 15,000 miles. Additional items are inspected and serviced quarterly, semi-annually, and annually as appropriate.

   Mileage readings are taken daily as each vehicle is fueled. A computer system selects vehicles that are due for inspection based on the accumulated mileage and the 5,000 mile preventative maintenance inspection threshold.

The specific procedure is as follows:

1. Vehicle drives into the work stall. The inspector checks brakes, hydraulic lines and fittings, horn, defroster and heat or air conditioning and all ADA related features and equipment.

2. The inspector checks all safety equipment and features including fire extinguisher condition and door and window exits.

3. The inspector cleans and tests the batteries. If the batteries or the rack are extremely dirty, a baking soda solution is used to clean them and then they are rinsed with water. The inspector checks all the interior and exterior lights; and oil, water and other trouble light indicators.

4. The inspector checks the tire pressure, tread wear (replace at 3/32 of tread) and lug nuts; and checks the interior seating and lighting. Heater screens are removed and cleaned on vans, so equipped. The inspector then checks the exterior of the vehicle for damage or defects. The engine compartment is checked with special attention paid to fluid leaks or unusual noises; and the transmission fluid and other fluid levels are checked.

5. The vehicle is then raised on a hoist. The undercarriage is inspected and greased. Engine oil and filter are changed. All four (4) wheels are pulled and the condition of the brakes (front and rear) is checked.

6. Each item on the inspection cards is initialed as it is completed and any defects are noted. All minor defects uncovered are repaired by the inspection crew, at this time. Any major problems found are repaired by the mechanics on duty or held for a later shift.

7. When the inspection is completed, the brake system is tested. If the test is found OK, the vehicle is parked and ready for service.

b) **PVTA Heavy Duty Fixed Route Buses** – These vehicles have a preventative maintenance schedule interval of 6,000 miles which includes, but is not limited to, 119 items, including fluids and filters. Engine oil and filter are changed each time, fuel filters are changed every 12,000 miles, water filters are changed every 12,000 miles, air filters are changed every 12,000 miles, air dryer is changed every 24,000 miles, power steering filter is changed every 24,000 miles. Additional items are inspected and serviced quarterly, semi-annually, and annually as appropriate.

Mileage readings are collected electronically by the maintenance computer system as each vehicle is fueled. The computer system selects the buses that are due for inspection based on the accumulated mileage and the preventative maintenance inspection mileage threshold.

Inspectors inspect approximately 3-5 buses per day.

The specific procedure is as follows:

1. Bus drives on the pit. Inspector checks the air system pressure, brakes, air lines and fittings, horn, defroster, heat or air conditioning and overhead signs and all ADA related features and equipment..

2. Inspector cleans and tests the batteries located on the left side of the bus. If the batteries or the tray are extremely dirty, a baking soda solution is used to clean them and then they are rinsed with water. The bus is then driven to the hoist. One inspector checks all exterior lights. Another inspector checks all interior lights and the oil, water, air pressure and other trouble lights and gauges.

3. Inspector checks the tire pressure and lug nuts and checks the aisle, seating and other interior features. HVAC screens are removed and cleaned in buses, so equipped. The inspector then checks the exterior of the bus for damage or defects. The engine compartment is checked and then, with the engine running, special attention is paid to fluid leaks or unusual noises.

4. The bus is then raised on a hoist. The undercarriage is inspected and greased, air tanks are drained and the air dryer is checked. Engine oil and filter is changed. Other filters are changed according to the mileage..

5. Each item on the inspection card is initialed as it is completed and any defects are noted. All minor defects uncovered are repaired by the inspection crew at this time. Any major problems found are recorded for repair by the mechanics on duty or held for a later shift.

6. When the inspection is complete, the bus braking system is road-tested. If the test is found OK, the bus is parked and ready for service.

SATCo/VATCo has also developed a unique and innovative air conditioning and heating system pre-season "Quick Check" program, which is performed on every vehicle prior to the start of the season.

As part of this plan, SATCo/VATCo is currently reviewing preventative maintenance inspection forms used by UMass Transit, with the intention of incorporating improvements made by UMass into the SATCo/VATCo inspection process. The goals of this effort include improving the readability of the current forms, aligning the inspection forms to the computerized process for selecting buses for inspection, and the creation of separate specialized forms for New Flyer diesel and diesel electric hybrid buses.

Defects

Bus and van defect cards are issued to bus and van operators each day and stay with the vehicle until it returns to the appropriate garage for the night. If, during the course of the day, the operator finds any operational problems, he/she makes a note on the defect card. This card is then collected at the end of the shift or turned in to a Maintenance Foreman if a bus change is required. For buses, the service/fuel lane ("wash rack") employees determine the type of problem and, after fueling and cleaning the bus, park it in one of several locations, depending on the problem.

Buses with mechanical problems of a major nature are parked in an area limited to buses needing immediate attention or placed on a hoist to correct the problem. Buses with minor problems, such as a broken mirror, etc. are parked in the lot in a designated location for later repair. Buses with no problems noted and buses with defects that have been repaired are parked in the vehicle storage area, ready for pullout the following day.

For other types of vehicles, defects are reported directly to the maintenance department and repairs are scheduled taking into account the normal use of the vehicle.

Service/Fuel Lane

Procedures performed daily in the service and wash area prepare each vehicle for the following day's operation by:

1. Checking to see that all windows are closed; emptying trash bags and trash containers; removing debris and sweeping the bus floor.
2. Cleaning seats, step wells and wheel wells, and other dirt and debris catching areas.
3. Refueling the vehicle.
4. Checking and topping off all fluid levels, including engine oil, transmission fluid, coolant, windshield washer, and power steering fluid.
5. Removing farebox revenue and data.
6. Driving the bus through the bus wash.
7. Reporting vehicle defects.
8. Parking the bus.

Cleaning

In an effort to ensure a clean vehicle for passengers and the public on a daily basis, the interior of each bus is swept nightly (except Sunday), and each bus that is serviced, weather permitting, is driven through the bus wash.

A more thorough interior and exterior detail cleaning is completed with a target average of no more than once every four (4) weeks. A computer program is used to determine the schedule for detail cleaning.

Body and Paint Shop

The Body Shop handles accident repairs and estimates the repair cost. This department also does body work; whole bus, partial bus and spot painting; glass replacement; upholstery; cosmetic repairs; custom signs; and decal application.

All maintenance performed in the Body/Paint Shop is based on a specific work order prepared by the Foreman or Director of Maintenance.

- Accident repairs are immediately estimated. Copies of accident estimates and actual repair costs are submitted to the Director of Maintenance and the Operations Department.
- All parts required to initiate accident repairs are ordered upon completion of the repair estimate.
- Body, glass replacement, upholstery, paint/cosmetics tasks are completed by the body shop personnel who are assigned the work order.

Component Rebuilding and Change Outs

Shop rebuild capability includes: complete and partial engine rebuilding, including all subassemblies; transmission rebuilding and repairs, including all subassemblies; steering gear assemblies; differential carrier; drive lines; brake components; electrical components, including starters, generators, motors, alternators, lights, relays, horns and regulators; pneumatic/hydraulic system, including lines and fittings; heaters; radiators; compressors; pumps; valves; blowers; defrosters; switches; etc.

All component changes and rebuilds are per manufacturer recommendation, unless experience provides otherwise. In cases of campaigns and to reduce vehicle down time, components are built up ahead of time and stored until needed.

Electronics Shop

Employees in this department service technical and electronic systems and components on vehicles including two-way radios; fareboxes; destination signs; and the ITS system that includes GPS tracking, automatic stop announcement, passenger counters, Operator control heads, audio/video cameras and recorders, and other components. Technicians perform a wide range of work tasks from correcting routine defects to firmware upgrades, troubleshooting, component and subcomponent repair, maintenance and replacement and special projects.

Bus performance is constantly monitored in an effort to provide peak efficiency of operation. Miles per quart and miles per gallon of diesel fuel are tracked and reported monthly.

Similarly, van and non-revenue vehicle miles per quart of motor oil used and miles per gallon of fuel usage are tracked to spot any unusual patterns and potentially serious problems that could develop.

Excessive oil or fuel use in any vehicle is brought to the attention of the Foreman or Director of Maintenance immediately and appropriate corrective action is taken.

Similarly, testing is performed on samples of fluids for special situations requiring such testing. This includes sampling where appropriate of early detection of potentially serious mechanical or fluids quality problems.

Life Expectancy PM Program

Where possible, SATCo/VATCo use a "Replace before Fail" process for the fleet. The program is designed to anticipate and replace components (based on known failure and life expectancy rates) before they fail in a cost effective manner, thus avoiding an in-service failure and unnecessary road service. This program is indicative of a proactive approach to fleet maintenance.

Emergency Road Calls

The goal of any service call is to repair the vehicle safely and to return it to service as quickly as possible.

If a vehicle breaks down in service or deadheading, the driver of the disabled vehicle calls the Dispatcher. Once contact is made, the Dispatcher will instruct the Operator by radio of possible methods of getting the vehicle operational without the need for maintenance road service. In some instances a Transit Supervisor may be dispatched to attempt a relatively simple fix for a bus such as cycling the electrical system of a component or the entire bus electrical system.

If this procedure is not successful, the Dispatcher will, depending on the severity of the problem, change the vehicle with a similar vehicle or call maintenance immediately and notify the Foreman on duty of the problem. If a vehicle change is not practical, the Foreman will then send a mechanic to the disabled vehicle to allow the mechanic to determine the extent of the problem and make repairs, if possible. The mechanic will bring adequate tools for the job and any parts and supplies the mechanic believes are likely to be necessary. After assessing the problem, if the repair is relatively simple, and can be made safely in the field, the repair will be made. If the mechanic feels the repair cannot be safely or practically made, the mechanic will call the Foreman to request that the vehicle be towed. All bus towing is done by a contracted towing company to tow the

bus back to the property. Vans are towed using PVTA equipment and trained SATCo employees.

Working with the maintenance department and any Transit Supervisors sent to the scene, the Dispatcher will determine how best to provide the least interruption of service to the customers.

Spill Control Procedures

In accordance with the PVTA Spill Prevention Control and Countermeasures Plan (SPCCP), the following procedures are in effect:

- All service trucks and Transit Supervisors' vehicles are equipped with spill control kits. Kits include socks and pads. Spill kits are also provided for the yards, shops and storage buildings. Maintenance and operations employees responding to vehicle service calls, building and yard spills are trained to properly use these kits.

- In the event of a spill (i.e. fuel oil or motor oil), the employee is to call the Dispatcher or Foreman, as appropriate, and report the incident in detail. This will allow a Foreman to identify the proper method of cleaning up the spill and whether or not the spill is to be reported to the Director of Maintenance, General Manager or Assistant General Manager.

- For each reported spill, the Director of Maintenance, General Manager or Assistant General Manager will determine the response and action based on the information reported, a field check if necessary, and the PVTA SPCCP guidelines and applicable government regulations.

Facility Maintenance Program Details

Similar to the vehicle program, facilities managed by SATCo/VATCo, including the PVTA headquarters building are subjected to a rigorous PM inspection and servicing schedule generally on a monthly basis. Certain types of specialized equipment and components are serviced by contractor and service company technicians when it is not cost effective to have maintenance department employees perform the servicing or repair or trade licenses are required.

Facility and equipment checklists are used as the primary tool in the facility maintenance program.

The maintenance computer system is a comprehensive fleet management software program that is used to track and report vehicle mileage, fuel and fluids use, processing of work orders, vehicle histories, fleet and vehicle information, parts use and inventory.

The system currently produces maintenance related reports for management and employee use, with the capability for expansion. The computer-generated reports are used as management, scheduling and inventory control tools within and outside the maintenance department. The following are examples of available reports:

1. Inventory stock status report
    a. By part number
    b. By bin / location
2. Receiving edit report
3. Receiving report
4. Mileage reports
    a. By vehicle
        1. Current odometer mileage
        2. Actual vehicle mileage
    b. By fleet
        1. Total fleet mileage
        2. Average vehicle mileage
5. Report generator for fuel and oil usage
6. Vehicle history report.
7. Preventative maintenance scheduling
8. Work order tracking.

PREVENTATIVE MAINTENANCE INSPECTION WORKSHEET

PARATRANSIT VAN

UNIT INSPECTION SERVICE-ORDER DATE COMPLETED_____

SPECIAL INSTRUCTIONS:

4000 MILE INSPECTION

CURRENT MILEAGE_____	VAN #	DATE:_____
WORK ORDER NO:		PREVIOUS MILES:

INSPECTIONS:	BADGE#
GROUP 1 - FRONT AXLE	
Check wheel nuts	
Check tires & tire pressure	
Check steering parts	
Complete chassis lube	
Check shock absorbers	
Check idler arm drag link	
GROUP 2 - REAR AXLE	
Check wheel nuts	
Check tires & tire pressure	
Check suspension parts	
GROUP 3 - DRIVE LINE	
Check & lube U-joints	
Check emergency brake	
Check differential oil	
GROUP 4 - ENGINE	
Check water pump play	
Check all fluids	
ATF	
Power steering fluid & belt	
Water	
Test antifreeze level °F	
Battery	
Check air filter condition	
Brake fluid	
Road test van	
GROUP 5 - ELECTRICAL	
Check all lights (interior & exterior)	
Check electric accessories	
Battery clean terminals	

	BADGE#
GROUP 6 - COOLING/HEATING	
Check all hoses & fittings	
Check A/C function	
Check defroster & heaters	
Inspect exhaust system	
Check cable for chaffing above catalytic-converter	
Check Coolant Inhibitor	
GROUP 7 - WHEELCHAIR	
Check lift & lube all life wear points	
Check functions of tiedowns	
Check seat condition	
Check speed of lift	
Check lift hinges	
Inspect stress points for wear	
GROUP 8 - SAFETY EQUIPMENT	
Verify installation & condition of	
Seat belts	
Fire extinguisher	
First Aid kit	
Chock blocks	
Reflectors	
Change engine oil & oil filter	
Check front & rear brake linings	
CHECK INSPECTION STICKER	
SEMI-ANNUAL ADDITONS:	
Check A/C pressure with gauges	
Tune engine - adjust carburetor	
ANNUAL ADDITIONS	
CHECK ALL OF ABOVE, PLUS	
Drain cooling system	
Drain transmission & replace filter	
Lubricate door hinges	
Lubricate hood release	

ADDITIONAL WORK PERFORMED

FUTURE WORK REQUIRED

Equip No	*Loc.*	*Interval*	*One Time?*	*Date Opened*	*Part Issues*	*Delay (days)*
7801	NTF	2	Yes	8/8/2014		
IN SERVICE						
9220	STF	5376	Yes	8/25/2014		
9213	STF	5056	Yes	8/18/2014		
MINI BUS						
5572	STF	10378	No	8/4/2014		
5573	NTF	5970	No	8/5/2014		
5575	STF	5476	Yes	8/13/2014		
VAN						
5548	STF	5579	No	8/5/2014		
5623	STF	5541	No	8/11/2014		
5606	STF	5451	Yes	8/14/2014		
5625	STF	5432	Yes	8/18/2014		
5635	STF	5403	Yes	8/13/2014		
5556	STF	5400	Yes	8/6/2014		
5532	STF	5335	Yes	8/5/2014		
5557	STF	5324	Yes	8/1/2014		
5632	STF	5314	Yes	8/8/2014		
5581	NTF	5300	Yes	8/12/2014		
5591	STF	5297	Yes	8/7/2014		
5516	STF	5261	Yes	8/21/2014		
5543	NTF	5239	Yes	8/26/2014		
5577	STF	5227	Yes	8/2/2014		
5590	STF	5223	Yes	8/7/2014		
5630	STF	5189	Yes	8/21/2014		
5546	STF	5185	Yes	8/12/2014		
5550	STF	5156	Yes	8/18/2014		
5595	STF	5127	Yes	8/18/2014		
5611	STF	5122	Yes	8/22/2014		
5628	STF	5108	Yes	8/19/2014		
5648	STF	5104	Yes	8/26/2014		
5637	STF	5093	Yes	8/21/2014		
5605	STF	5073	Yes	8/27/2014		
5650	STF	5071	Yes	8/13/2014		
5614	NTF	5036	Yes	8/12/2014		
5569	NTF	5023	Yes	8/1/2014		
5563	NTF	5005	Yes	8/26/2014		
5565	STF	5004	Yes	8/28/2014		
5552	NTF	5000	Yes	8/19/2014		
5634	STF	4986	Yes	8/25/2014		
5541	STF	4961	Yes	8/14/2014		
5568	NTF	4958	Yes	8/14/2014		
5579	NTF	4954	Yes	8/1/2014		

Equip No	*Loc.*	*Interval*	*One Time?*	*Date Opened*	*Part Issues*	*Delay (days)*
5542	STF	4939	Yes	8/22/2014		
5638	STF	4922	Yes	8/28/2014		
5598	NTF	4919	Yes	8/18/2014		
5631	STF	4917	Yes	8/26/2014		
5567	STF	4886	Yes	8/22/2014		
5599	NTF	4869	Yes	8/21/2014		
5549	STF	4856	Yes	8/6/2014		
5527	STF	4853	Yes	8/20/2014		
5616	STF	4816	Yes	8/15/2014		
5547	STF	4787	Yes	8/18/2014		
5603	STF	4680	Yes	8/14/2014		
5511	STF	4648	Yes	8/13/2014		
5545	STF	4600	Yes	8/7/2014		
5584	STF	4541	Yes	8/27/2014		
Total number of Inspections:			94			
On Time Percentage:			78.72%			

Appendix G Example Paper Manifest and Fare Envelope

Manifest By Stop Printed: 9/7/2014 4:50:13PM

PVTA
Run Manifest

Page 1 of 5

Monday, September 8, 2014
Route # 3020 Vehicle: 100
Shift: 14:15 To 23:15
Driver: FALU, JOSE
Wheelchair Lift Needed

Driver Start Time: _____
Leave Garage Time: _____
1st P/U Time: _____
Last Drop Time: _____
Return Garage Time: _____
Driver End Time: _____

Begin Odometer: _____
1st P/U Odometer: _____
Last Drop Odometer: _____
End Odometer: _____

# of Rides: _____
Cancelled: _____
Tickets: _____
Cash Collected: _____

Manifest By Stop Printed: 9/7/2014 4:50:13PM

PVTA
Run Manifest

Monday, September 8, 2014
Route # 3020 Vehicle: 100
Shift: 14:15 To 23:15
Driver: FALU, JOSE
Wheelchair Lift Needed

Trip #	Name	Address	ETA P/U Window	Req / Type	Fare
5339012 **PU**	**COGLIZER, KATHRYN** Tot. Pass: 1 Amb: 1, WC: 0 Equip: **CANE**	**67 Cooper St** **HERITAGE HALL DIALYSIS** **AGAWAM, 01001**	**14:30** **14:30 - 14:50**	**14:30 Pick-up** Arr/Dep Time: ____/____ Odometer: _____ Tickets: _____ Cash: _____	$2.50
5339012 **DO**	**COGLIZER, KATHRYN** Tot. Pass: 1 Amb: 1, WC: 0 Equip: **CANE**	**29F CASTLE HILL RD** **AGAWAM, 01001**	**14:41**	**14:30** Arr/Dep Time: ____/____ Odometer: _____	
5338232 **PU**	**KULIK, DAVID** Tot. Pass: 1 Amb: 1, WC: 0 Equip: **DOOR TO DOOR, SHOPPI**	**154 KIMBERLY AVE** **SPRINGFIELD, 01108**	**14:55** **14:50 - 15:10**	**16:00 Appoint.** Arr/Dep Time: ____/____ Odometer: _____ Tickets: _____ Cash: _____	$2.50
Directions:	NO STANDING ORDERS ALLOWED EFFECTIVE 5/8/13 PER ROBIN @ PVTA.				
5339414 **PU**	**KAWA, RICHARD** Tot. Pass: 1 Amb: 1, WC: 0 Equip: **DOOR TO DOOR**	**93 MAIN ST** **HAWTHORN SERVICES** **CHICOPEE, 01020**	**15:12** **15:00 - 15:20**	**15:00 Pick-up** Arr/Dep Time: ____/____ Odometer: _____ Tickets: _____ Cash: _____	$3.00
Directions:	DAYCARE WILL PAY ON ARRIVAL				
5339253 **PU**	**LAURIN, BRENDA** Tot. Pass: 1 Amb: 1, WC: 0 Equip: **DOOR TO DOOR, CRUTCH**	**93 MAIN ST** **HAWTHORN** **CHICOPEE, 01020**	**15:15** **15:00 - 15:20**	**15:00 Pick-up** Arr/Dep Time: ____/____ Odometer: _____ Tickets: _____ Cash: _____	$2.50
Notes:	BE ADVISED OF CONVERSATIONS WITH CLIENT				
Directions:	DO NOT PICK UP BEFORE 1500				
5339253 **DO**	**LAURIN, BRENDA** Tot. Pass: 1 Amb: 1, WC: 0 Equip: **DOOR TO DOOR, CRUTCH**	**188 MONROVIA ST** **SPRINGFIELD, 01104**	**15:31**	**15:00** Arr/Dep Time: ____/____ Odometer: _____	
Notes:	BE ADVISED OF CONVERSATIONS WITH CLIENT				
5338232 **DO**	**KULIK, DAVID** Tot. Pass: 1 Amb: 1, WC: 0 Equip: **DOOR TO DOOR, SHOPPI**	**291 BURNETT RD** **BOWLING ALLEY** **CHICOPEE, 01020**	**15:39**	**16:00 Appoint.** Arr/Dep Time: ____/____ Odometer: _____	

*** Later ride today with pick up between 18:29 and 18:49 at 291 BURNETT RD on Route # 4002

Manifest By Stop Printed: 9/7/2014 4:50:13PM

PVTA
Run Manifest

Monday, September 8, 2014
Route # 3020 Vehicle: 100
Shift: 14:15 To 23:15
Driver: FALU, JOSE
Wheelchair Lift Needed

Trip #	Name	Address	ETA P/U Window	Req / Type	Fare
5328271	**CHEVRETTE, FRANCIS**	**291 BURNETT RD**	**18:15**	**17:30 Pick-up**	$3.00
PU	Tot. Pass: 1	**AMF BOWLING**	**18:00 - 18:20**	Arr/Dep Time: ___/___	
	Amb: 1, WC: 0	**CHICOPEE, 01020**		Odometer:	
				Tickets:	
				Cash:	
Directions:	BOWLING ALLEY				
5328271	**CHEVRETTE, FRANCIS**	**16 WASHINGTON ST**	**18:37**	**17:30**	
DO	Tot. Pass: 1	**APT 201**		Arr/Dep Time: ___/___	
	Amb: 1, WC: 0	**WESTFIELD, 01085**		Odometer:	
Directions:	PLEASE GO TO FRONT DOOR CELL: 413-454-1524				
5338929	**GUAGLIARDO, JUSTIN**	**108 Cabot St**	**19:07**	**18:30 Pick-up**	$2.50
PU	Tot. Pass: 1	**PAPER CITY BREWERY, REAR**	**19:07 - 19:27**	Arr/Dep Time: ___/___	
	Amb: 1, WC: 0	**HOLYOKE, 01040**		Odometer:	
	Equip: **BLIND-WHITE CANE**			Tickets:	
				Cash:	
Directions:	PULL INTO REAR / WORKS HERE/				
5338241	**SMITH, SCOTT**	**1094 RIVERDALE ST**	**19:21**	**19:00 Pick-up**	$2.50
PU	Tot. Pass: 1	**FRIENDLY'S RESTAURANT**	**19:18 - 19:38**	Arr/Dep Time: ___/___	
	Amb: 0, WC: 1	**WEST SPRINGFIELD, 01089**		Odometer:	
	Equip: **DOOR TO DOOR, LIFT R**			Tickets:	
				Cash:	
Directions:	FRIENDLY'S RESTAURANT				
5338241	**SMITH, SCOTT**	**102 DRUIDS LN**	**19:34**	**19:00**	
DO	Tot. Pass: 1			Arr/Dep Time: ___/___	
	Amb: 0, WC: 1	**WEST SPRINGFIELD, 01089**		Odometer:	
	Equip: **DOOR TO DOOR, LIFT R**				
Directions:	DO NOT PARK IN HANDICAP SPOT AT FRIENDLY/DON'T CALL HIM				
5338929	**GUAGLIARDO, JUSTIN**	**89 VERDUGO ST**	**19:40**	**18:30**	
DO	Tot. Pass: 1			Arr/Dep Time: ___/___	
	Amb: 1, WC: 0	**WEST SPRINGFIELD, 01089**		Odometer:	
	Equip: **BLIND-WHITE CANE**				
Directions:	NO STANDING ORDERS ALLOWED PER RS @PVTA 6/13/14.				
5319724	**BREAK, DRIVER**	**FLOATING BREAK**	**19:40**	**19:30 Pick-up**	
PU		**FLOAT,**	**19:30 - 20:00**	Arr/Dep Time: ___/___	
				Odometer:	

Manifest By Stop Printed: 9/7/2014 4:50:13PM

PVTA
Run Manifest

Monday, September 8, 2014
Route # 3020 Vehicle: 100
Shift: 14:15 To 23:15
Driver: FALU, JOSE
Wheelchair Lift Needed

Trip #	Name	Address	ETA P/U Window	Req / Type	Fare
5319724	**BREAK, DRIVER**	**FLOATING BREAK**	**20:25**	**19:30**	
DO		**FLOAT,**		Arr/Dep Time: ____/____ Odometer: _____	
5339405	**HANSEN, JEAN**	**208 ASHLEY AVE**	**21:00**	**21:00 Pick-up**	$2.50
PU	Tot. Pass: 1 Amb: 0, WC: 1 Equip: **DOOR TO DOOR, MANUAL**	**WEST SPRINGFIELD, 01089**	**21:00 - 21:20**	Arr/Dep Time: ____/____ Odometer: _____ Tickets: _____ Cash: _____	
Description:	W.NEW ENG/WSPFLD				
Directions:	DIALYSIS				
5338249	**YOUNG, NICOLE**	**577 WESTERN AVE PARENZO BUILDING**	**21:36**	**21:00 Pick-up**	$3.00
PU	Tot. Pass: 1 Amb: 1, WC: 0 Equip: **DOOR TO DOOR, SHOPPI**	**WESTFIELD, 01085**	**21:36 - 21:56**	Arr/Dep Time: ____/____ Odometer: _____ Tickets: _____ Cash: _____	
5339405	**HANSEN, JEAN**	**55 OVERLOOK DR**	**21:42**	**21:00**	
DO	Tot. Pass: 1 Amb: 0, WC: 1 Equip: **DOOR TO DOOR, MANUAL**	**WESTFIELD, 01085**		Arr/Dep Time: ____/____ Odometer: _____	
Directions:	CAN ENTER DRIVEWAY PER DAUGHTER-KAREN				
5338249	**YOUNG, NICOLE**	**229 MEADOW ST**	**22:11**	**21:00**	
DO	Tot. Pass: 1 Amb: 1, WC: 0 Equip: **DOOR TO DOOR, SHOPPI**	**CHICOPEE, 01013**		Arr/Dep Time: ____/____ Odometer: _____	
Directions:	2ND FL				

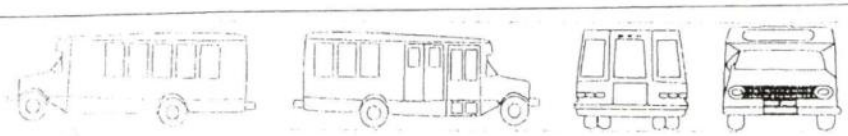
Vehicle Inspection Report

DATE _____

Van #	Name	Start Time	Start Miles

EXISTING DAMAGE

Please put an "X" on the appropriate part of the van and give as much written description as possible



Please check appropriate box	Satisfactory	Unsatisfactory
Vehicle Interior:		
Clean		
2 Way Radio Operational		
Windshield wipers and fluid		
Horn		
Registration		
Wheel chair Lift:		
Working Properly		
Belts		
Engine and Brakes:		
Oil		
Trans Oil		
Coolant		
Emergency Brakes		
Gas/Brake Pedals		
Steering		
Vehicle Exterior:		
Tires		
Windows		
Head lights		
Signals/Flashers		
Backup lights and Alarm		
Gas Cap		
Mirrors		
Inspection sticker		
# Lap Belts:	**# Tie Downs:**	
Location Of van (circle one)		
Belchertown - Chicopee - Northampton		

Safety Equipment				
Fire Extinguisher	Yes		No	
First Aid	Yes		No	
Chock Block	Yes		No	
Blanket	Yes		No	
Flashlight	Yes		No	
Seat Belt Cutter	Yes		No	
BBP Kit	Yes		No	
Safety Triangles	Yes		No	
Buddy Belts	Yes		No	
Mobile Data Terminal	Yes		No	
Intact				
Operational				
Garmin (GPS)	Yes		No	
Intact				
Operational				
Camera	Yes		No	
Intact				
All Emergency Exits to be checked				
Rear door	Yes		No	
Windows	Yes		No	
Top Hatch	Yes		No	
# Loops:				

Driver's Signature: _____ Supervisor's Signature:

Driver_____ RTE#_____

Date: _____ Total Fares $_____

Less Van Tickets $_____

Less Receipts $_____

$ CASH Amount $_____

Driver Initials _____

Garage:_____

Appendix H Trip Dispositions

Provider (Supplier): ALL
Zone (Tier): ALL
City (Town): ALL
Age of Elderly Riders: 60

PIONEER VALLEY TRANSIT AUTHORITY

Passenger Statistics

Fiscal Year: 2013 - 2014

Print Date: 07/24/14 11:31:36AM

ADA Service Statistics

Month	ADA In Town		ADA Out of Town		ADA Out of County		Total ADA	Undup	Denied	Cancelled	No-Show	Missed	Late
	Elderly	Non-Elderly	Elderly	Non-Elderly	Elderly	Non-Elderly							
July	2,715	3,567	3,393	6,763	476	1,677	18,591	1,104	6	5,339	519	6	8,522
August	3,013	3,547	3,742	7,065	548	1,655	19,570	1,163	4	5,528	514	9	9,205
September	2,803	4,123	3,586	7,097	546	2,075	20,230	1,220	3	5,551	486	27	10,016
October	3,266	4,403	4,013	7,703	641	2,300	22,326	1,248	31	6,613	542	5	10,756
November	2,844	3,752	3,393	6,331	550	1,997	18,867	1,214	22	6,432	438	10	9,529
December	2,912	3,565	3,226	5,933	598	1,763	17,997	1,184	14	6,894	447	16	9,841
January	2,950	3,844	3,292	6,183	563	1,737	18,569	1,183	15	7,864	432	17	9,650
February	2,675	3,427	2,725	5,725	582	1,675	16,809	1,156	24	8,250	419	11	9,394
March	3,158	4,328	3,399	7,009	613	1,921	20,428	1,214	39	6,002	390	11	10,973
April	3,183	4,108	3,564	7,260	633	2,150	20,898	1,206	20	5,580	431	3	10,941
May	3,183	3,993	3,660	6,813	504	1,936	20,089	1,236	44	5,937	401	6	10,380
June	2,973	3,706	3,562	6,150	592	1,839	18,822	1,194	26	5,002	424	3	9,625
Totals	35,675	46,363	41,555	80,032	6,846	22,725	233,196	14,322	248	74,992	5,443	124	118,832

DAR Service Statistics

Month	DAR In Town		DAR Out of Town		DAR Out of County		Total DAR	Undup	Denied	Cancelled	No-Show	Missed	Late
	Elderly	Non-Elderly	Elderly	Non-Elderly	Elderly	Non-Elderly							
July	3,045	0	2,913	0	499	0	6,457	734	113	1,716	214	3	3,108
August	3,160	0	2,801	2	486	0	6,449	729	181	1,805	207	0	3,077
September	2,914	0	2,573	0	429	0	5,916	712	393	1,454	159	6	2,924
October	3,056	0	2,877	0	446	0	6,379	724	483	1,930	175	3	3,123
November	2,568	0	2,608	0	405	0	5,581	741	199	1,956	187	1	2,967
December	2,516	0	2,720	2	403	0	5,641	757	5	2,369	210	5	3,241
January	2,591	2	2,475	0	433	0	5,501	741	5	2,856	192	6	3,075
February	2,183	0	2,199	0	321	6	4,709	700	9	2,904	205	1	2,765
March	2,661	0	3,067	0	473	0	6,201	818	5	2,225	230	2	3,467
April	2,780	0	3,065	0	464	0	6,309	819	2	1,926	214	1	3,485
May	2,790	0	3,077	0	527	0	6,394	813	7	1,913	194	2	3,454
June	2,673	0	3,091	0	500	0	6,264	817	6	1,777	214	2	3,373
Totals	32,937	2	33,466	4	5,386	6	71,801	9,105	1,408	24,831	2,401	32	38,059

Provider (Supplier): ALL
Zone (Tier): ALL
Ciy (Town): ALL
Age of Elderly Riders: 60

PIONEER VALLEY TRANSIT AUTHORITY

Passenger Statistics

Fiscal Year: 2013 - 2014

ADA Service Statistics

Month	ADA In Town		ADA Out of Town		ADA Out of County									
	Elderly	Non-Elderly	Elderly	Non-Elderly	Elderly	Non-Elderly	Total ADA	Undup	Denied	Cancelled	No-Show	Missed	Late	
All Trips	July	August	September	October	November	December	January	February	March	April	May	June	Y E A R	
(scheduled)	25,048	26,019	26,146	28,705	24,448	23,638	24,070	21,518	26,629	27,207	26,483	25,086	304,997	

Provider (Supplier): ALL
Zone (Tier): ALL
City (Town): ALL
Age of Elderly Riders: 60

PIONEER VALLEY TRANSIT AUTHORITY

Passenger Statistics

Fiscal Year: 2011 - 2012

Print Date: 05/08/14 12:49:20PM

ADA Service Statistics

5,950

Month	ADA In Town		ADA Out of Town		ADA Out of County		Total ADA	Undup	Denied	Cancelled	No-Show	Missed	Late
	Elderly	Non-Elderly	Elderly	Non-Elderly	Elderly	Non-Elderly							
July	2,761	3,108	3,639	5,406	410	1,403	16,727	1,098	0	6,322	649	2	5,588
August	2,943	3,475	3,565	5,919	463	1,594	17,959	1,105	0	5,975	616	1	4,961
September	3,067	3,988	3,610	6,470	496	2,117	19,748	1,181	0	6,023	616	19	5,931
October	3,193	3,912	3,496	6,432	372	2,043	19,448	1,135	0	7,264	603	5	5,355
November	2,885	3,594	3,322	5,987	348	1,738	17,874	1,131	0	7,900	652	2	4,840
December	3,368	3,942	3,640	6,345	499	1,901	19,695	1,160	3	7,268	630	2	5,092
January	3,215	3,845	3,555	6,213	428	1,900	19,156	1,160	0	6,912	678	1	5,193
February	3,147	3,882	3,635	6,561	318	2,097	19,640	1,159	0	6,905	627	2	9,444
March	3,445	4,269	3,797	6,713	431	2,086	20,741	1,176	3	7,430	623	7	9,700
April	3,316	4,087	3,512	6,536	428	2,175	20,054	1,155	0	6,426	572	4	9,275
May	3,420	4,130	3,692	6,832	467	2,096	20,637	1,165	2	6,078	503	2	9,633
June	3,218	3,695	3,532	6,206	400	1,667	18,718	1,135	0	5,426	457	3	8,290
Totals	37,978	45,927	42,995	75,620	5,060	22,817	230,397	13,760	8	79,929	7,226	50	83,302

DAR Service Statistics

12,674 2,538

Month	DAR In Town		DAR Out of Town		DAR Out of County		Total DAR	Undup	Denied	Cancelled	No-Show	Missed	Late
	Elderly	Non-Elderly	Elderly	Non-Elderly	Elderly	Non-Elderly							
July	3,088	0	3,375	0	625	0	7,088	1,025	0	2,545	317	1	2,519
August	3,803	0	3,940	0	951	0	8,694	1,120	2	2,883	390	1	2,533
September	3,463	0	3,667	0	919	0	8,049	1,071	0	2,745	363	1	2,446
October	2,991	4	3,246	4	813	0	7,058	945	0	3,167	303	2	2,175
November	2,940	0	3,118	0	701	0	6,759	992	0	3,713	441	0	2,068
December	3,308	0	3,749	0	753	0	7,810	1,001	0	3,091	390	0	2,212
January	3,050	0	3,219	0	770	0	7,039	886	0	2,903	309	1	1,999
February	2,955	0	3,041	0	579	0	6,575	803	0	2,801	310	1	3,342
March	3,014	3	3,251	0	530	0	6,798	799	1	2,419	284	2	3,440
April	2,942	4	3,092	2	540	0	6,580	805	1	2,282	227	3	3,163
May	3,037	0	3,255	0	550	0	6,842	774	211	2,220	238	2	3,397
June	2,853	0	3,100	0	569	0	6,522	789	229	2,115	251	1	3,035
Totals	37,444	11	40,053	6	8,300	0	85,814	11,010	444	32,884	3,823	15	32,329

Provider (Supplier): ALL
Zone (Tier): ALL
Ciy (Town): ALL
Age of Elderly Riders: 60

PIONEER VALLEY TRANSIT AUTHORITY

Passenger Statistics

Fiscal Year: 2011 - 2012

ADA Service Statistics

Print Date: 05/08/14 12:49:20PM

Month	ADA In Town		ADA Out of Town		ADA Out of County		Total ADA	Undup	Denied	Cancelled	No-Show	Missed	Late
	Elderly	Non-Elderly	Elderly	Non-Elderly	Elderly	Non-Elderly							
All Trips	**July**	**August**	**September**	**October**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**Y E A R**
(scheduled)	23,815	26,653	27,797	26,506	24,633	27,505	26,195	26,215	27,539	26,634	27,479	25,240	316,211

Provider (Supplier): ALL
Zone (Tier): ALL
Ciy (Town): ALL
Age of Elderly Riders: 60

PIONEER VALLEY TRANSIT AUTHORITY

Passenger Statistics

Fiscal Year: 2012 - 2013

ADA Service Statistics

Month	ADA In Town		ADA Out of Town		ADA Out of County		Total ADA	Undup	Denied	Cancelled	No-Show	Missed	Late
	Elderly	Non-Elderly	Elderly	Non-Elderly	Elderly	Non-Elderly							
July	2,889	3,240	3,292	5,696	418	1,664	17,199	1,069	1	5,434	484	2	7,601
August	3,343	3,653	3,574	6,612	445	1,849	19,476	1,128	0	5,729	522	7	8,325
September	2,985	3,815	3,447	6,673	440	2,140	19,500	1,177	0	5,111	453	10	8,821
October	3,221	4,130	3,541	7,061	460	2,113	20,526	1,170	0	7,675	489	4	9,099
November	2,966	4,057	3,471	7,134	437	2,274	20,339	1,182	0	6,268	561	6	8,677
December	2,725	3,716	3,328	6,023	426	1,805	18,023	1,178	2	6,821	562	16	7,904
January	2,892	4,243	3,467	6,428	427	1,873	19,330	1,131	0	6,133	479	5	8,567
February	2,551	3,749	3,078	6,348	385	1,836	17,947	1,109	3	5,930	449	17	7,903
March	3,048	4,254	3,680	6,900	443	1,952	20,277	1,170	2	6,294	485	12	8,573
April	3,008	4,358	3,820	7,604	511	2,158	21,459	1,203	7	5,298	486	3	9,018
May	3,072	4,321	3,706	7,293	503	1,967	20,862	1,188	7	5,341	529	2	9,392
June	2,956	3,890	3,613	6,632	445	1,633	19,169	1,146	3	4,965	538	1	8,876
Totals	35,656	47,426	42,017	80,404	5,340	23,264	234,107	13,851	25	70,999	6,037	85	102,756

DAR Service Statistics

Month	DAR In Town		DAR Out of Town		DAR Out of County		Total DAR	Undup	Denied	Cancelled	No-Show	Missed	Late
	Elderly	Non-Elderly	Elderly	Non-Elderly	Elderly	Non-Elderly							
July	3,049	1	3,244	0	651	0	6,945	829	0	2,187	234	0	3,107
August	3,483	0	3,722	0	689	0	7,894	897	0	2,512	309	0	3,506
September	2,812	0	2,870	0	490	0	6,172	769	710	1,999	216	3	2,903
October	2,925	0	3,224	0	617	0	6,766	807	514	3,009	257	0	3,134
November	2,991	0	3,021	2	612	0	6,626	804	285	2,324	297	1	3,025
December	2,682	0	2,676	0	481	0	5,839	755	283	2,548	289	7	2,574
January	2,889	0	2,914	0	506	0	6,309	779	259	2,403	284	1	2,720
February	2,456	0	2,803	0	427	0	5,686	730	403	2,104	231	1	2,517
March	2,724	0	3,027	0	464	0	6,215	753	403	2,053	220	0	2,723
April	3,030	2	3,181	0	466	0	6,679	772	503	1,821	204	0	2,963
May	2,985	0	3,168	0	541	0	6,694	755	324	2,067	217	1	3,078
June	2,747	0	2,790	0	546	0	6,083	743	142	1,801	206	1	2,941
Totals	34,773	3	36,640	2	6,490	0	77,908	9,393	3,826	26,828	2,964	15	35,191

Provider (Supplier): ALL
Zone (Tier): ALL
Ciy (Town): ALL
Age of Elderly Riders: 60

PIONEER VALLEY TRANSIT AUTHORITY

Passenger Statistics

Fiscal Year: 2012 - 2013

ADA Service Statistics

Month	ADA In Town		ADA Out of Town		ADA Out of County								
	Elderly	Non-Elderly	Elderly	Non-Elderly	Elderly	Non-Elderly	Total ADA	Undup	Denied	Cancelled	No-Show	Missed	Late

All Trips	July	August	September	October	November	December	January	February	March	April	May	June	Y E A R
(scheduled)	24,144	27,370	25,672	27,292	26,965	23,862	25,639	23,633	26,492	28,138	27,556	25,252	312,015

Appendix I PVTA No-Shows and Cancels

LOGO

No-Shows and Cancels

For Date(s): 07/01/2013 to 05/05/2014
Threshold: 1
Agency: ALL
No-Show Options Included: ALL

Client Name	Client ID	No-Shows	Late Cancels	Same Day Cancels	Advance Cancels	Total	Client Status
ZABINI, JOSEPHINE	21525	0	0	0	1	1	ACTIVE
ZIELINSKI, CYNTHIA	14979	0	0	1	0	1	ACTIVE
ZONONI, VICTOR	24668	0	0	0	1	1	ACTIVE
Grand Total:		5,565	4,127	25,690	45,127	80,509	

StrataGen

Print Date and Time: 05/08/2014 01:14 PM

Page 163 of 163

LOGO

No-Shows and Cancels

For Date(s): 07/01/2012 to 06/30/2013
Threshold: 1
Agency: ALL
No-Show Options Included: ALL

Client Name	Client ID	No-Shows	Late Cancels	Same Day Cancels	Advance Cancels	Total	Client Status
WILLIAMSON, BARBARA	23625	0	1	0	0	1	ACTIVE
WILLIG, ROBERT	18953	0	0	0	1	1	ACTIVE
WILLIS, JEANETTE	8703	1	0	0	0	1	ACTIVE
WILSON, ARNOLD	22247	0	1	0	0	1	ACTIVE
WINSTON, TERRILL	1688	0	0	0	1	1	ACTIVE
WNUK, JAN	23795	1	0	0	0	1	INACTIVE
WOSKO, GERALDINE	4299	0	0	0	1	1	ACTIVE
WOZNIAK, LARRY	12834	0	0	0	1	1	ACTIVE
WRESIEN, KATHLEEN	23661	0	1	0	0	1	ACTIVE
WROBEL, ALICE	8259	1	0	0	0	1	ACTIVE
YANYUK, LYUDMILA	23341	0	0	0	1	1	ACTIVE
YANYUK, VASILIY	22186	0	1	0	0	1	ACTIVE
YASSE, TERESE	23893	1	0	0	0	1	DELETED
Grand Total:		7,284	5,058	31,235	46,085	89,662	

StrataGen

Print Date and Time: 05/08/2014 01:12 PM

Page 176 of 176

LOGO

No-Shows and Cancels

For Date(s): 07/01/2011 to 06/30/2012
Threshold: 1
Agency: ALL
No-Show Options Included: ALL

Client Name	Client ID	No-Shows	Late Cancels	Same Day Cancels	Advance Cancels	Total	Client Status
WRIGHT, BARBARA	16464	0	0	0	1	1	ACTIVE
WRIGHT, LARRY	21502	1	0	0	0	1	ACTIVE
YANYUK, VASILIY	22186	0	1	0	0	1	ACTIVE
YOUNG, PAT	17926	0	0	0	1	1	ACTIVE
YOUNG, ROBERT	21467	1	0	0	0	1	ACTIVE
ZYNDORSKI, THOMAS	21858	0	1	0	0	1	ACTIVE
Grand Total:		8,696	8,736	33,579	50,031	101,042	

StrataGen

Print Date and Time: 05/08/2014 01:08 PM

Page 197 of 197

Appendix J On Time Performance for the Week of April 27th

For Date(s): 04/27/2014 to 05/03/2014
On Time Based On: Arrive Time
Provider: ALL

Daily Summary for Report Period

	Total Trips	Early		On Time		1 - 15 minutes late		16 - 30 minutes late		31 - 45 minutes late		46 - 60 minutes late		61+ minutes late	
Day27 04/27/2014,Sun	126	14	11.11%	109	86.51%	3	2.38%	-	-	-	-	-	-	-	-
Day28 04/28/2014,Mon	1,022	139	13.60%	841	82.29%	36	3.52%	6	0.59%	-	-	-	-	-	-
Day29 04/29/2014,Tue	1,067	139	13.03%	896	83.97%	28	2.62%	4	0.37%	-	-	-	-	-	-
Day30 04/30/2014,Wed	1,071	137	12.79%	906	84.59%	22	2.05%	4	0.37%	1	0.09%	1	0.09%	-	-
Day1 05/01/2014,Thu	1,108	160	14.44%	921	83.12%	23	2.08%	4	0.36%	-	-	-	-	-	-
Day2 05/02/2014,Fri	1,134	134	11.82%	934	82.36%	49	4.32%	14	1.23%	3	0.26%	-	-	-	-
Day3 05/03/2014,Sat	252	41	16.27%	203	80.56%	7	2.78%	1	0.40%	-	-	-	-	-	-
Totals:	**5,780**	**764**	**13.22%**	**4,810**	**83.22%**	**168**	**2.91%**	**33**	**0.57%**	**4**	**0.07%**	**1**	**0.02%**	-	-

Print Date and Time: 07/08/2014 10:00 AM

Page 3 of 3

Appendix K Mystery Rider Report

Pioneer Valley Transit Authority

March 27, 2014

To: Mary MacInnes - PVTA
From: David Johnson - PVPC
Re: Para-transit Mystery Rider Report 1st Quarter 2014

Summary

Observation period:	January, February, March 2014
Observation area:	Hampden and Hampshire Counties
Number of observations:	57 trips (46 in Hampden County, 11 in Hampshire County)
Number on time:	46 trips – (80%)
Number of late pickups:	6 trips (11%) Details below
Number of early arrivals:	5 trips – (9%) Details below

In all cases, the rides booked by PVPC mystery rider observers were completed satisfactorily and the van drivers were polite and helpful.

Early Arrival Reports

Date and time of trip:	1/18/14 10:35 am
Pickup window given:	9:48 to 10:08 am
Pickup location:	717 Northampton St Holyoke
Destination:	Healthtrax 155 Ashley Ave West Springfield
Details:	Van arrived 5 minutes early – rider was ready.
Date and time of trip:	1/11/14 10:37 am
Pickup window given:	9:30 to 9:50 am
Pickup location:	Healthtrax 155 Ashley Ave West Springfield
Details:	Van arrived 2 minutes early – rider was ready.
Date and time of trip:	2/19/14 8:50 am
Pickup window given:	8:14 to 8:34 am
Pickup location:	717 Northampton St Holyoke
Details:	Van arrived 3 minutes early – rider was ready.

Date and time of trip:	2/26/14 9:50 am
Pickup window given:	9:55 to 10:15 am
Pickup location:	Montgomery St Chicopee
Details:	Van arrived 5 minutes early – rider was ready

Date and time of trip:	3/6/14 8:45 am
Pickup window given:	8:00 to 8:20 am
Pickup location:	717 Northampton St Holyoke
Details:	Van arrived 2 minutes early – rider was ready

Late Arrival Reports

Date and time of trip:	1/27/14 9:10 am
Pickup window given:	8:25 to 8:45 am
Pickup location:	717 Northampton St. #51 Holyoke
Details:	Van arrived 7 minutes late – rider was ready.

Date and time of trip:	1/27/14 11:00 am
Pickup window given:	11:00 to 11:20 am
Pickup location:	Holyoke Community College
Details:	Van arrived 2 minutes late – rider was ready.

Date and time of trip:	2/6/14 7:45 am
Pickup window given:	6:59 to 7:19 am
Pickup location:	717 Northampton St. #51 Holyoke
Details:	Van arrived 13 minutes late – rider was ready.

Date and time of trip:	2/7/14 9:00 am
Pickup window given:	8:24 to 8:44 am
Pickup location:	717 Northampton St. #51 Holyoke
Details:	Van arrived 14 minutes late – rider was ready.

Date and time of trip:	2/7/14 1:45 pm
Pickup window given:	1:09 to 1:29 pm
Pickup location:	717 Northampton St. #51 Holyoke
Details:	Van arrived 7 minutes late – rider was ready.

Date and time of trip:	3/6/14 11:45 am
Pickup window given:	12:14 to 12:34 pm
Pickup location:	Pier 1 Hadley
Details:	Van arrived 12 minutes late – rider was ready.

Appendix L Complaint Form Letter

1341 Main Street
Springfield, MA 01103

September 2, 2014

Three Rivers, 20

Dear Monica Doe,

Recently you contacted our Customer Service Center to inform us of an unsatisfactory experience with the PVTA or one of our service providers. The PVTA appreciates your feedback and will be investigating the situation. We thank you for bringing this matter to our attention and we hope you will continue riding with the PVTA.

Thank you again for your feedback.

Sincerely,

Dawn Veautour

Dawn Veautour
Manager of Customer Service

Appendix M Hulmes' Invoices

Hulmes Transportation Services, Ltd
15 Bridge St.
P.O. Box 325
Belchertown, MA 01007-0325
Phone:413-323-6100 Fax:413-323-5900

Invoice

Number: 8879

Invoice Date: 3/31/14

Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513

1039

Invoice Number	Payment Terms	Due Date
8879	Net Due	4/10/14

Quantity	Rate	Description	Amount
		Paratransit Operations 3/1/14 through 3/31/14	
312.00 ✓	1,486.00	Peak Service Per Hour	463,632.00 ✓
1844.00 ✓	28.00	Off-Peak Service Per Trip	51,632.00 ✓
		Less Fares Collected	-29,326.00 ✓
		Penalties / Incentives	- 1,150.00
		Super Unleaded Fuel Purchase	- 256.04
		Subtotal	484,531.96 ~~485,938.00~~

PVTA A/P
Vendor:
Account:
Department:
Entered By:
Approved By:
Date Paid:
Check Number:

Total Invoice Amount:	~~485,938.00~~ 484,531.96
Payment Received:	
TOTAL DUE: $	484,531.96 ~~485,938.00~~

THANK YOU FOR YOUR BUSINESS!

Hulmes Transportation Services, Ltd
15 Bridge St.
P.O. Box 325
Belchertown, MA 01007-0325
Phone:413-323-6100 Fax:413-323-5900

Invoice

Number: 8840

Invoice Date: 2/28/14

Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513

PVTA A/P
COPY
1039

Invoice Number	Payment Terms	Due Date
8840	Net Due	3/10/14

Quantity	Rate	Description	Amount
		Paratransit Operations 2/1/14 through 2/28/14	
288.00 ✓	1,486.00	Peak Service Per Hour	427,968.00 ✓
1562.00 ✓	28.00	Off-Peak Service Per Trip	43,736.00 ✓
		Less Fares Collected	-24,141.50 ✓
		Deduct $1,300 for Jan + Feb 2014 penalties + incentives	- 1,300.00
		3/10/14	
		Subtotal	446,262.50 ~~447,562.50~~
		Total Invoice Amount:	~~447,562.50~~
		Payment Received:	
		TOTAL DUE: $	446.262.50 ~~447,562.50~~

THANK YOU FOR YOUR BUSINESS!

Jan 2014-Mar 2014 Penalties & Incentives

Performance Standards	January 14		February 14		March 14		
	Data	+/- Cash Value	Data	+/- Cash Value	Data	+/- Cash Value	
On-time performance	93.66%	-$2,000	96.78%	$0			
Scheduling Efficiency	1.54	-$250	1.54	-$250			
Denied/Missed Trips	8	$400	4	-$200			
Ride time over 60 min	1.91%	$500	2.53%	$500			
Hold Times on phones	0:22	$500	0:25	$500			
Driver & Driver Trainer Qualifications	N/A	$0	N/A	$0			
Submitting Reports/Invoices	N/A	$0	N/A	$0			
Peventable Accidents	2	-$500	2	-$500			
Unreported Vehicle Damage	0	$0	0		0		Total penalty or incentive
Total	**2**	**-$1,350**		**$50**		**$0**	**-$1,300**

Hulmes Transportation Services, Ltd
15 Bridge St.
P.O. Box 325
Belchertown, MA 01007-0325
Phone:413-323-6100 Fax:413-323-5900

Invoice

Number: 8793

Invoice Date: 1/31/14

Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513

1039

Invoice Number	Payment Terms	Due Date
8793	Net Due	2/10/14

Quantity	Rate	Description	Amount
300		Paratransit Operations 1/1/14 through 1/31/14	$445,800
~~312.00~~	1,486.00	Peak Service Per Hour	~~463,632.00~~
~~1626.00~~	28.00	Off-Peak Service Per Trip $52,108 →	~~45,528.00~~
1861		Less Fares Collected	-27,545.50
		Subtotal	~~481,614.50~~ $470,362.50

PVTA A/P
Vendor:
Account:
Department:
Entered By:
Approved By: NML 1/9
Check #:

Error by Hulmes counting MLK as Saturday Service. Should have been Sunday Service - NML

Total Invoice Amount:	~~481,614.50~~
Payment Received:	
TOTAL DUE$	**~~481,614.50~~**

THANK YOU FOR YOUR BUSINESS! NML $470,362.50

Hulmes Transportation Services, Ltd
15 Bridge St.
P.O. Box 325
Belchertown, MA 01007-0325
Phone:413-323-6100 Fax:413-323-5900

Invoice

Number: 8731

Invoice Date: 12/31/13

Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513

PVTA A/P	
Vendor:	
Account:	
Department:	
Entered By:	
Approved By:	
Check:	
Check Number:	

1039

Invoice Number	Payment Terms	Due Date
8731	Net Due	1/10/14

Quantity	Rate	Description	Amount
		Paratransit Operations 12/1/13 through 12/31/13	
300.00	1,486.00	Peak Service Per Hour	445,800.00
1720.00	28.00	Off-Peak Service Per Trip	48,160.00
		Less Fares Collected	-25,908.00
		Subtotal	468,052.00

Total Invoice Amount: 468,052.00

Payment Received:

TOTAL DUE$ 468,052.00

THANK YOU FOR YOUR BUSINESS!

RJ

Hulmes Transportation Services, Ltd.
15 Bridge St.
P.O. Box 325
Belchertown, MA 01007-0325
Phone:413-323-6100 Fax:413-323-5900

Invoice

Number: 8707

Invoice Date: 11/30/13

Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513

PVTA A/P
Department:
Entered By:
Approved By:
Date Paid:
Check Number:

1039

Invoice Number	Payment Terms	Due Date
8707	Net Due	12/10/13

Quantity	Rate	Description	Amount
		Paratransit Operations 11/1/13 through 11/30/13	
300.00	1,486.00	Peak Service Per Hour	445,800.00
1757.00	28.00	Off-Peak Service Per Trip	49,196.00
		Less Fares Collected	-26,621.50
		Subtotal	468,374.50

Total Invoice Amount: 468,374.50

Payment Received:

TOTAL DUE $ 468,374.50

THANK YOU FOR YOUR BUSINESS!

Hulmes Transportation Services, Ltd.
15 Bridge St.
P.O. Box 325
Belchertown, MA 01007-0325
Phone:413-323-6100 Fax:413-323-5900

Invoice

Number: 8642

Invoice Date: 10/31/13

Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513

Vendor:
Account:
Department:
Entered By:
Approved By:

1039

Invoice Number	Payment Terms	Due Date
8642	Net Due	11/10/13

Quantity	Rate	Description	Amount
		Paratransit Operations 10/1/13 through 10/31/13	
312.00	1,486.00	Peak Service Per Hour	463,632.00
2005.00	28.00	Off-Peak Service Per Trip	56,140.00
		Less Fares Collected	-29,827.00
		penalty/incentive	- 1,050.00
		Using Super Unleaded fuel →	- 217.45
			$ 488,677.55
		Subtotal	489,945.00

Total Invoice Amount: 489,945.00

Payment Received:

TOTAL DUE$ **489,945.00**

THANK YOU FOR YOUR BUSINESS!

Performance Standards	October 13		November 13		December 13		
	Data	+/- Cash Value	Data	+/- Cash Value	Data	+/- Cash Value	
On-time performance	96.63%	$0					
Scheduling Efficiency	1.54%	-$500					
Denied/Missed Trips	6	-$300					
Ride time over 60 min	2.69%	$500					
Hold Times on phones	0:24	$500					
Driver & Driver Trainer Qualifications	No Issue	$0					
Submitting Reports/Invoices	No Issue	$0					
Peventable Accidents	5	-$1,250					
Unreported Vehicle Damage	0	$0					Total penalty or incentive
Total		**-$1,050**		**$0**		**$0**	**-$1,050**

Hulmes Transportation Services, Ltd.
15 Bridge St.
P.O. Box 325
Belchertown, MA 01007-0325
Phone:413-323-6100 Fax:413-323-5900

Invoice

Number: 8613

Invoice Date: 9/30/13

Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513

1039

Invoice Number	Payment Terms	Due Date
8613	Net Due	10/10/13

Quantity	Rate	Description	Amount
		Paratransit Operations 9/1/13 through 9/30/13	
288.00	1,486.00	Peak Service Per Hour	427,968.00
1809.00	28.00	Off-Peak Service Per Trip	50,652.00
		Less Fares Collected	-27,630.00
		Subtotal	450,990.00

PVTA A/P
Vendor:
Account:
Department:
Entered By:
Approved By:

adding 3,550 for July-August incentive per N. Cohn

Total Invoice Amount: 450,990.00

Payment Received: + 3,550.00 = 454,540.00

TOTAL DUE $ 450,990.00

THANK YOU FOR YOUR BUSINESS!

Hulme's Penalties & Incentives

Performance Standards	July 13		August 13		September 13		
	Data	+/- Cash Value	Data	+/- Cash Value	Data	+/- Cash Value	
On-time performance	97.31%	$5,000	97.27%	$0	96.47%	$0	
Scheduling Efficiency	1.56	-$500	1.54	-$500	1.58	-$500	
Denied/Missed Trips	7	-$350	7	-$350	7	-$350	
Ride time over 60 min	2.04%	$500	2.03%	$500	2.72%	$500	
Hold Times on phones	0:21	$500	0:24	$500	0:26	$500	
Driver & Driver Trainer Qualifications	No Issue	$0	No Issue	$0	No Issue	$0	
Submitting Reports/Invoices	No Issue	$0	No Issue	$0	No Issue	$0	
Peventable Accidents	2	-$500	5	-$1,250	2	-$500	
Unreported Vehicle Damage	0		0		0		**Total penalty or incentive**
Total	**2**	**$4,650**	**5**	**-$1,100**		**-$350**	**$3,200**

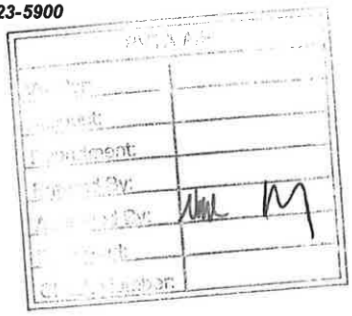
Deducted $350 from July invoice because inadvertantly forgot the 5K OTP incentive.
Paying $3,550 incentive on September invoice.
July deduction Plus September payment equals Total penalty/incentive due for this quarter of $3,200
Per N. Rohan

Hulmes Transportation Services, Ltd.
15 Bridge St.
P.O. Box 325
Belchertown, MA 01007-0325
Phone:413-323-6100 Fax:413-323-5900

Invoice

Number: 8587

Invoice Date: 8/31/13



Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513

1039

Invoice Number	Payment Terms	Due Date
8587	Net Due	9/10/13

Quantity	Rate	Description	Amount
		Paratransit Operations 8/1/13 through 8/31/13	
324.00	1,486.00	Peak Service Per Hour	481,464.00
1510.00	28.00	Off-Peak Service Per Trip	42,280.00
		Less Fares Collected	-27,746.50
		Subtotal	495,997.50

Total Invoice Amount: 495,997.50

Payment Received:

TOTAL DUE $ 495,997.50

THANK YOU FOR YOUR BUSINESS!

Hulmes Transportation Services, Ltd.
15 Bridge St.
P.O. Box 325
Belchertown, MA 01007-0325
Phone:413-323-6100 Fax:413-323-5900

Invoice

Number: 8532

Invoice Date: 7/31/13

PVTA A/P

Check Number: 1039

Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513

Invoice Number	Payment Terms	Due Date
8532	Net Due	8/10/13

Quantity	Rate	Description	Amount
		Paratransit Operations 7/1/13 through 7/31/13	
312.00	1,486.00	Peak Service Per Hour	463,632.00
1394.00	28.00	Off-Peak Service Per Trip	39,032.00
		Less Fares Collected	-26,916.00
		penalty / incentive deductions →	-350.00
		Subtotal	~~475,748.00~~

Total Invoice Amount: ~~475,748.00~~

Payment Received:

TOTAL DUE **475,748.00**

$475,398

THANK YOU FOR YOUR BUSINESS!

Hulmes Transportation Services, Ltd.
15 Bridge St.
P.O. Box 325
Belchertown, MA 01007-0325
Phone:413-323-6100 Fax:413-323-5900

Invoice

Number: 8516

Invoice Date: 6/30/13
Customer ID: 1039
Page: 1

PVTA A/P	
Vendor:	
Account:	
Department:	
Entered By:	
Approved By:	
Date Paid:	
Check Number:	

Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513

Invoice Number	Payment Terms	Due Date
8516	Net Due	7/10/13

Quantity	Rate	Description	Amount
		Paratransit Operations 6/1/13 through 6/30/13	
300.00	1,486.00	Peak Service Per Hour	445,800.00
1535.00	28.00	Off-Peak Service Per Trip	42,980.00
		Less Fares Collected	-28,248.50
		Subtotal	460,531.50

Total Invoice Amount: 460,531.50

Payment Received:

TOTAL DUE$ 460,531.50

THANK YOU FOR YOUR BUSINESS!

Hulmes Transportation Services, Ltd.
15 Bridge St.
P.O. Box 325
Belchertown, MA 01007-0325
Phone:413-323-6100 Fax:413-323-5900

Invoice

Number: 8469

Invoice Date: 5/31/13
Customer ID: 1039
Page: 1

PVTA A/P	
Voucher:	
Account:	
Department:	
Entered By:	
Approved By:	
Date Paid:	
Check Number:	

Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513

Invoice Number	Payment Terms	Due Date
8469	Net Due	6/10/13

Quantity	Rate	Description	Amount
		Paratransit Operations 5/1/13 through 5/31/13	
312.00	1,486.00	Peak Service Per Hour	463,632.00
1662.00	28.00	Off-Peak Service Per Trip	46,536.00
		Less Fares Collected	-27,918.00
		deductions per Ops audit see attached copy.	$ 1,234.44
			$ 481,015.56
		Subtotal	482,250.00
		Total Invoice Amount:	482,250.00
		Payment Received:	
		TOTAL DUE$	**482,250.00**

THANK YOU FOR YOUR BUSINESS!

Hulmes Transportation Services, Ltd.
15 Bridge St.
P.O. Box 325
Belchertown, MA 01007-0325
Phone:413-323-6100 Fax:413-323-5900

Invoice

Number: 8414

Invoice Date: 4/30/13
Customer ID: 1039
Page: 1

Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513

Invoice Number	Payment Terms	Due Date
8414	Net Due	5/10/13

Quantity	Rate	Description	Amount
		Paratransit Operations 4/1/13 through 4/30/13	
312.00 ✓	$ 1,486.00	Peak Service Per Hour	463,632.00 ✓
~~1731.00~~ 1,730.00 ✓	$ 28.00	Off-Peak Service Per Trip	48,440 ~~48,468.00~~ ✓
		Less Fares Collected	~~-28,994.00~~ -28,994.00 ✓
		Incorrectly invoiced for 1,731 off peak fares	
		Incorrectly invoiced for $ 28,994 fares	
		April Performance Standards Penalties	-$5,350.00
		Subtotal	~~483,106.00~~ 477,738.00
		Total Invoice Amount:	~~483,106.00~~
		Payment Received:	~~477,738.00~~ 477,738.00
		TOTAL DUE:	**$ ~~483,106.00~~**

PVTA A/P
Vendor:
Account:
Department:
Entered By:
Approved By:
Date Paid:
Check Number:

5/13/13

5/15/13

THANK YOU FOR YOUR BUSINESS!

5/12/13

Performance Standards	April 13 Data	April 13 +/- Cash Value	May 13 Data	May 13 +/- Cash Value	June 13 Data	June 13 +/- Cash Value	
On-time performance	94.31%	-$2,000					
Scheduling Efficiency	1.58	-$500					
Denied/Missed Trips	2	-$100					
Ride time over 60 min	2.61%	$500					
Hold Times on phones	0:37	$500					
Driver & Driver Trainer Qualifications	See below	-$3,000					
Submitting Reports/Invoices	No Issues						
Peventable Accidents	3	-$750					
Unreported Vehicle Damage	0						Total penalty or incentive
Total		**-$5,350**		**$0**		**$0**	**-$5,350**

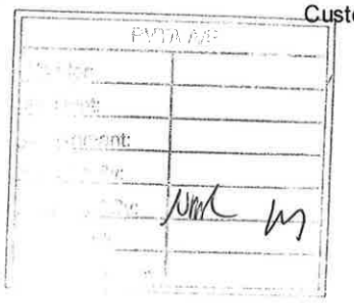
Penalty total deducted from April 2013 invoice RS 5/15/13
$3,000 penalty assessed for audit findings for audit on 3/15/2013

Hulmes Transportation Services, Ltd.
15 Bridge St.
P.O. Box 325
Belchertown, MA 01007-0325
Phone:413-323-6100 Fax:413-323-5900

Invoice

Number: 8384

Invoice Date: 3/31/13
Customer ID: 1039
Page: 1



Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513

Invoice Number	Payment Terms	Due Date
8384	Net Due	4/10/13

Quantity	Rate	Description	Amount
		Paratransit Operations 3/1/13 through 3/31/13	
312.00	$ 1,467.00	Peak Service Per Hour	457,704.00
1732.00	$ 28.00	Off-Peak Service Per Trip	48,496.00
		Less Fares Collected	-27,707.00
		Subtotal	478,493.00

Total Invoice Amount: 478,493.00

Payment Received:

TOTAL DUE: $ 478,493.00

THANK YOU FOR YOUR BUSINESS!

Hulmes Transportation Services, Ltd.
15 Bridge St.
P.O. Box 325
Belchertown, MA 01007-0325
Phone:413-323-6100 Fax:413-323-5900

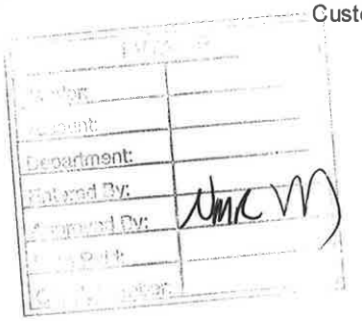
Invoice

Number: 8363

Invoice Date: 2/28/13
Customer ID: 1039
Page: 1

ces Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513



Invoice Number	Payment Terms	Due Date
8363	Net Due	3/10/13

Quantity	Rate	Description	Amount
		Paratransit Operations 2/1/13 through 2/31/13	
288.00	$ 1,467.00	Peak Service Per Hour	422,496.00
1445.00	$ 28.00	Off-Peak Service Per Trip	40,460.00
		Less Fares Collected	-24,592.50
		Deducting driver labor cost for no service on Saturday 2/9.	—$4,940.00
		Super unleaded fuel charges	— $521.55
			$432,901.95
		Subtotal	~~438,363.50~~

Total Invoice Amount: ~~438,363.50~~

Payment Received:

TOTAL DUE: $ ~~438,363.50~~

THANK YOU FOR YOUR BUSINESS!

$432,901.95

Hulmes Transportation Services, Ltd.
15 Bridge St.
P.O. Box 325
Belchertown, MA 01007-0325
Phone:413-323-6100 Fax:413-323-5900

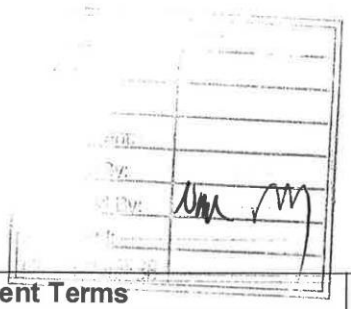
Invoice

Number: 8347

Invoice Date: 1/31/13
Customer ID: 1039
Page: 1

Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513



Invoice Number	Payment Terms	Due Date
8347	Net Due	2/10/13

Quantity	Rate	Description	Amount
		Paratransit Operations 1/1/13 through 1/31/13	
300.00	$ 1,467.00	Peak Service Per Hour	440,100.00
1627.00	$ 28.00	Off-Peak Service Per Trip	45,556.00
		Less Fares Collected	-26,441.50
		July - Dec Performance incentive + $13,900	
		Subtotal	459,214.50

Total Invoice Amount: 459,214.50

Payment Received:

TOTAL DUE: $ 459,214.50

THANK YOU FOR YOUR BUSINESS!

$472,114.50

Hulmes Transportation
Penalty/Incentive Report

Performance Standards	July 12		August 12		September 12		
	Data	+/- Cash Value	Data	+/- Cash Value	Data	+/- Cash Value	
On-time performance	98.12%		98.08%		96.85%	$5,000	
Denied/Missed Trips	3	-$150	2	-$100	5	-$250	
Ride time over 60 min	1.90%		2.18%		2.55%		
Hold Times on phones	0:17	$0	0:23	$500	0:26	$500	
Driver & Driver Trainer Qualifications	N/A		N/A		N/A		
Submitting Reports/Invoices							
Peventable Accidents	3		3		1	$1,000	
Unreported Vehicle Damage	0		0		1	-$500	**Total penalty or incentive**
Total		**-$150**		**$400**		**$5,750**	**$6,000**

Hulmes Transportation
Penalty/Incentive Report

Performance Standards	October 12		November 12		December 12		
	Data	+/- Cash Value	Data	+/- Cash Value	Data	+/- Cash Value	
On-time performance	97.51%		96.90%		96.67%	$5,000	
Denied/Missed Trips	4	-$200	3	-$150	5	-$250	
Ride time over 60 min	2.63%	$500	2.75%	$500	2.96%	$500	
Hold Times on phones	0:22	$0	0:19	$500	0:18	$0	
Driver & Driver Trainer Qualifications	N/A		N/A		N/A		
Submitting Reports/Invoices	N/A		N/A		N/A		
Peventable Accidents	4		2		3	$1,000	
Unreported Vehicle Damage	1	-$500	0		0		**Total penalty or incentive**
Total		**-$200**		**$850**		**$6,250**	**$6,900**

Hulmes Transportation Services, Ltd.
15 Bridge St.
P.O. Box 325
Belchertown, MA 01007-0325
Phone:413-323-6100 Fax:413-323-5900

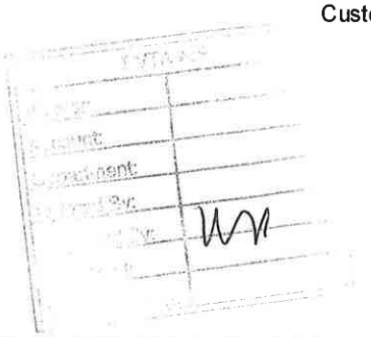
Invoice

Number: 8304

Invoice Date: 12/31/12
Customer ID: 1039
Page: 1

Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513



Invoice Number	Payment Terms	Due Date
8304	Net Due	1/10/13

Quantity	Rate	Description	Amount
		Paratransit Operations 1/1/12 through 1/31/12	
300.00	$ 1,438.00	Peak Service Per Hour	431,400.00
1580.00	$ 28.00	Off-Peak Service Per Trip	44,240.00
		Less Fares Collected	-24,412.50
		Subtotal	451,227.50

Deduct for Super unleaded fuel purchase. -$153.30

Total Invoice Amount: 451,227.50

Payment Received:

TOTAL DUE: $ 451,227.50

THANK YOU FOR YOUR BUSINESS!

$451,074.20

Hulmes Transportation Services, Ltd.
15 Bridge St.
P.O. Box 325
Belchertown, MA 01007-0325
Phone:413-323-6100 Fax:413-323-5900

Invoice

Number: 8245

Invoice Date: 11/30/12
Customer ID: 1039
Page: 1

Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513

Invoice Number	Payment Terms	Due Date
8245	Net Due	12/10/12

Quantity	Rate	Description	Amount
		Paratransit Operations 11/1/12 through 11/30/12	
300.00	$ 1,438.00	Peak Service Per Hour	431,400.00
~~1529.00~~ 1649.00	$ 28.00	Off-Peak Service Per Trip 46,172 →	~~42,812.00~~
		Less Fares Collected	-27,074.50
		Subtotal	450,497.50 ~~447,137.50~~
		Total Invoice Amount:	447,137.50
		Payment Received:	450,497.50
		TOTAL DUE:	**$ ~~447,137.50~~**

THANK YOU FOR YOUR BUSINESS!

Hulmes Transportation Services, Ltd.
15 Bridge Street
P.O. Box 325
Belchertown, MA 01007-0325
Phone:(413) 323-1000 Fax:(413) 323-5900

Invoice

Number: 8201

Invoice Date: 10/31/12
Customer ID: 1039
Page: 1

Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513

COPY

Invoice Number	Payment Terms	Due Date
8201	Net Due	11/10/12

Quantity	Rate	Description	Amount
		Paratransit Operations 10/1/12 through 10/31/12	
312.00 ✓	$ 1,438.00	Peak Service Per Hour	448,656.00 ✓
1850.00 ✓	$ 28.00	Off-Peak Service Per Trip	51,800.00 ✓
		Less Fares Collected	-27,169.00
		Subtotal	473,287.00

Deduct $93.99 for 2 supervisor fuel purchases made in October.
11/5/12

Total Invoice Amount: 473,287.00

Payment Received: Deduct - 93.99
473,193.01

TOTAL DUE: ~~$ 473,287.00~~ 473,193.01

THANK YOU FOR YOUR BUSINESS!

COPY

Hulmes Transportation Services, Ltd.
15 Bridge Street
P.O. Box 325
Belchertown, MA 01007-0325
Phone:(413) 323-1000 Fax:(413) 323-5900

Invoice

Number: 8180

Invoice Date: 9/30/12
Customer ID: 1039
Page: 1

Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513

Invoice Number	Payment Terms	Due Date
8180	Net Due	10/10/12

Quantity	Rate	Description	Amount
		Paratransit Operations 9/1/12 through 9/30/12	
288.00	$ 1,438.00	Peak Service Per Hour	414,144.00
1695.00	$ 28.00	Off-Peak Service Per Trip	47,460.00
		Less Fares Collected	-26,203.00
		Subtotal	435,401.00

Total Invoice Amount: 435,401.00

Payment Received:

TOTAL DUE: $ 435,401.00

THANK YOU FOR YOUR BUSINESS!

Hulmes Transportation Services, Ltd.
15 Bridge Street
P.O. Box 325
Belchertown, MA 01007-0325
Phone:(413) 323-1000 Fax:(413) 323-5900

Invoice

Number: 8120

Invoice Date: 8/31/12
Customer ID: 1039
Page: 1

Services Provided To:

Shantaya Williams
Pioneer Valley Transit Auth'y
2808 Main Street
Springfield, MA 01107-1513

Invoice Number	Payment Terms	Due Date
8120	Net Due	9/10/12

Quantity	Rate	Description	Amount
		Paratransit Operations 8/1/12 through 8/31/12	
324.00	$ 1,438.00	Peak Service Per Hour	465,912.00
1432.00	$ 28.00	Off-Peak Service Per Trip	40,096.00
		Less Fares Collected	-29,585.00
		deduct $165.20 for use of Super Unleaded fuel	- $165.20
		Subtotal	~~476,423.00~~

Total Invoice Amount: ~~476,423.00~~

Payment Received: $ 476,257.80

TOTAL DUE: $ ~~476,423.00~~

THANK YOU FOR YOUR BUSINESS!

Appendix N Survey Form

Pioneer Valley Transit Authority
PARATRANSIT ANALYSIS

PVTA Van Rider Customer Satisfaction Questionnaire

Thank you for helping PVTA to improve its van service by answering this survey. There are 3 ways to complete and return this survey:

Online: If you use a computer, it is easy to take the survey online. Please open your web browser and type in: **http://www.surveymonkey.com/s/PVTAvan**

Mail-in: If you prefer to fill out the paper survey below, you can mail your completed paper survey to the following address:

Nelson\Nygaard Consulting
77 Franklin Street, 10th Floor
Boston, MA 02110

Hand-in: If you complete the paper survey, you may also give the completed survey to your van driver.

The deadline for responses is Thursday, July 3, 2014. Your survey will be confidential, so please be as honest as you can. You are welcome to have someone help fill out this form.

Si desea completar esta encuesta en español, llame al 413-781-7882, 9 a.m. – 4 p.m. de lunes a viernes.

1. Please tell us where you live and how you ride:

City/Town where you live: _____

Have you been certified as ADA paratransit eligible? Yes _____ No _____

Are you over age 60? Yes _____ No _____

Optional: Please provide your ADA or Dial-a-Ride Client ID# (number used when making reservation):

_____

2. What are the top three reasons you ride a PVTA van? (You can mark less than 3)

	Your #1 reason (Check one)	**Your #2 reason (Check one)**	**Your #3 reason (Check one)**
Shopping	☐	☐	☐
Meals Program	☐	☐	☐
Visit Senior Center	☐	☐	☐
Medical Appointment (not dialysis)	☐	☐	☐
Dialysis Appointment	☐	☐	☐
School	☐	☐	☐
Work	☐	☐	☐
Social Visit/Recreation	☐	☐	☐
Other _____	☐	☐	☐

3. Please rate the following aspects of PVTA's ride quality and driver courtesy based on your experience (one mark per line):

	1 Excellent	**2 Good**	**3 Fair**	**4 Poor**	**5 Unacceptable**	***No Opinion***
Driver courtesy	☐	☐	☐	☐	☐	☐
Driver's assistance boarding and exiting vehicle	☐	☐	☐	☐	☐	☐
Driver's assistance getting to and from front door	☐	☐	☐	☐	☐	☐
Driver's ability to control disruptive passengers	☐	☐	☐	☐	☐	☐
Driver's ability to manage other problems (describe problem: _____)	☐	☐	☐	☐	☐	☐

OVER

4. Please rate the following aspects of PVTA's scheduling and service reliability based on your experience (one mark per line):

	1 Excellent	2 Good	3 Fair	4 Poor	5 Unacceptable	*No Opinion*
Safety	☐	☐	☐	☐	☐	☐
Van condition/cleanliness	☐	☐	☐	☐	☐	☐
Ease of reservations	☐	☐	☐	☐	☐	☐
7-day advanced reservation requirement	☐	☐	☐	☐	☐	☐
Helpfulness/courtesy of reservation staff	☐	☐	☐	☐	☐	☐
Helpfulness of automated arrival calls	☐	☐	☐	☐	☐	☐
Van arrives within 20 minute window	☐	☐	☐	☐	☐	☐
Van arrives at destination on time	☐	☐	☐	☐	☐	☐
Reliability of the wheelchair lifts	☐	☐	☐	☐	☐	☐
Process to become ADA eligible	☐	☐	☐	☐	☐	☐
Overall satisfaction with quality and value	☐	☐	☐	☐	☐	☐

5. Do you sometimes ride the regular PVTA bus? Yes _____ No _____

If Yes, why?
(Check all that apply)

_____ I can travel without making a reservation
_____ The fare is lower
_____ I can easily get to/from a bus stop at both ends of my trip
_____ The new low floor buses have made it easier to board the bus
_____ I use the bus on weekends when Dial-a-Ride is not available

6. Would you be interested in free training on how to ride PVTA public transit buses?

___ Yes Phone number *(optional)*: (_____) _____

I would prefer: ____ Attending a group class ____ One-on-one training

___ No, I already know how to use the bus

Do you have a PVTA public bus stop within a few blocks of your home? ___ Yes ___ No

Other comments or suggestions:

_____

_____

_____

Thank you! Your participation helps make van service better for all riders.
PVTA holds regular meetings with van riders. If you would like to receive email invitations to these meetings, please write your address below. We will not use your email for any other purpose.

Email: _____@_____

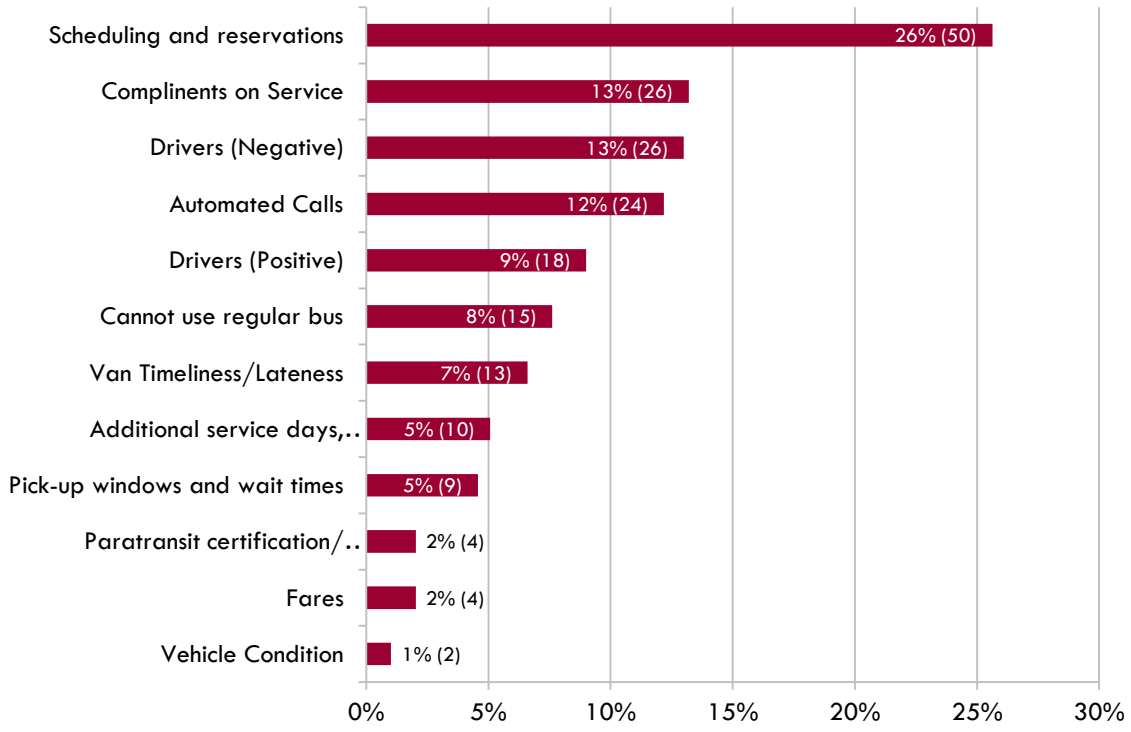
Appendix O Written Comments

Respondents were asked for any additional feedback they had about PVTA van service, and 197 provided written comments.

In order to run an analysis on the general themes, the comments were categorized, as shown in the below chart. It was found that 13% of respondents complimented PVTA's van service or noted how important the service is to them. In addition, 7% of respondents noted that they are unable to use PVTA's fixed-route buses, often due to prohibitive distances to stops or physical disability.

About one quarter of respondents (26%) commented on scheduling rides and PVTA's reservation system. Several respondents (12%) commented that the scheduled trip times are often inconvenient for their travel purposes, with trips scheduled too early, too late, or too far apart. Some respondents (6%) commented on the new automated reservation system, stating that it is difficult to schedule more complicated trips and that they preferred being able to negotiate trip times.

Twelve percent (12%) of respondents specifically referred to the automated calls that customers receive through the reservation system. Many respondents noted that when the automated confirmation calls go to voicemail, the messages are very long and upcoming trip times get cut off, leaving users unable to retrieve their reservation time. Respondents also noted that the five-minute reminder calls often occurred after their van had already arrived, rather than notifying them of the van's upcoming arrival.



Twenty-two (22%) of respondents provided comments about drivers, including both positive and negative feedback. Most of these comments were positive, praising PVTA van drivers for being courteous, respectful, and friendly, and some respondents name specific drivers in their

compliments. 5% of respondents expressed confusion about when or whether drivers are allowed to provide assistance with getting to and from the van to their home/destination, and indicated that they have received conflicting messages from different drivers.
Additional comments and suggestions from respondents:

- Respondents have received automated confirmation calls with incorrect or inconvenient trip times for the following day, but cannot call to correct or revise their trip since it is after hours.
- Several respondents noted that they wish service was available later in the evenings (especially during the summer) and on weekends, and would like to see service to additional destinations in the area.
- Some respondents noted that they preferred being able to reserve van trips 14 days in advance, particularly for appointments and other trip purposes that are scheduled in advance.

GENERAL COMMENTS

- The overall experience of riding on the vans is great.
- Thank you for my ride!
- PVTA is very helpful to me.
- I really appreciate the service.
- I am very blessed, grateful and satisfied with overall service.
- Overall I am pleased with riding the PVTA van.
- We are thankful for the PVTA van because my mom can't drive anymore and I don't drive and this van helps us get around town. She is in a wheelchair.
- I like riding the PVTA van bus from Chicopee to and from Belchertown. The PVTA van bus is a nice ride in and out.
- Very happy generally.
- Thank you for your van service. It has helped me in gaining my independence.

ACCESSIBILITY OF CUSTOMER NOTICES

- [PVTA notices] should be designed with screen reader access in mind for blind passengers. E-mailing these notices should also be done so we don't have to have sighted friends read it to us! Attending the PVTA meeting in the past seemed to be for presentation by PVTA, not listening to passengers!
- Never hear about new programs.

RESERVATIONS

- The daily reservation process for the following week is very stressful for a senior person, and

sometimes I forget and feel panicky when I do. I prefer a standing order when I go to the same place every day and leave at the same time. If I am not going on a standing order, I cancel for that day ahead of time, or on the same day if an emergency.

- I would like to see a return to the 14 day advance reservation policy.
- It would be nice to just set up a regular schedule rather than calling every week.
- One suggestion is that maybe there is a way, if possible, to view/change/cancel pick up times online that would be beneficial to the riders.
- I don't like the current computerized reservation system. It is unfair the way we have to schedule times. You cannot make accurate schedules of outside appointments because you have to "guestimate" what time the computer will give you for drop off and pick up times.
- Reservation should be made after 6pm. Should not be delayed when calling for the trip on the next day.
- Would like a 2-day advance reservation policy.
- Personally, I myself don't care for the 7 day reservation policy; instead, I liked it by far a lot better and easier when it was on a two weeks (14 days) basis a lot better!
- It is quite difficult to resolve incorrect times when the office is closed after the automated call has been made.
- Sensitivity to customer needs or mishaps is lacking. Reservation office is closed when automated service calls so if there is a problem it cannot be corrected.
- When can we schedule online trips?
- Little vans should be made available upon request.
- I would like "same day rides" for times in the later afternoon or evening hours.
- Reservations [staff] prefer reservations be placed 1-2 days in advance.
- We are no longer given the opportunity to negotiate our rides as previously done. A confirmation phone number could be designed using our ID number to confirm rides and schedules. Maybe even a web site to check these. Of course, all of these should be designed with screen reader access in mind for blind passengers. E-mailing these notices should also be done so we don't have to have sighted friends read it to us! Attending the PVTA meeting in the past seemed to be for presentation by PVTA, not listening to passengers!

SCHEDULING

- The schedulers are very knowledgeable and provide excellent routing. You should be proud of their quality.
- The ride schedule could be better. They usually schedule things too close together.
- The only problem I have is this new computer pick up time. Example: appointment began at 1:15, finished at 2:15, and pick-up was at 3:40pm. I get sick, and paranoid and emotional

distress and fear of being left so long.

- Pick-up times are sometimes too far apart or too early.
- The new "computerized" system does not take into account weather, doesn't give quickest way of direction, or account for the busiest times of traffic (7-9am and 4-6:00pm). I was picked up once 1-1/2 hour time JUST to go to Wal-Mart up the road.
- Most of the time I'm given an hour-long wait to get picked up from work.
- Automated scheduling sometimes adds hours to a complicated ride (3 stages or more), forcing me to cancel.
- Drivers' schedules are too tight.
- Since the advent of computer scheduling, my lead times are longer: 4:17 pickup for a 5:20 arrival three miles from home, 9:28pm pickup for 8:30pm request.
- The return rides are scheduled too far out.
- Sometimes we arrive at my destination over an hour before my appointment and we are the only ones in the van. Scheduling sometimes could improve but we are very lucky and grateful.
- Pay attention to scheduling. Scheduling 3-4 people for the same trip does not always mean on time delivery and may mean longer rides.
- I would like to see more thought put into scheduling. Most pickup times are very early or very late to accommodate other trips, but they don't make sense as far as time and distance efficiency. Trips should be adjusted using common sense.
- Time constraints are too strict. I could use a little leeway in getting to medical appointments.
- Scheduling needs work.
- Sometimes the wait time they give you is way too long. You have to wait a long time for a spare van.
- My ride times are usually 30 minutes to 1 hour after my request. That seems like a lot.
- It is a long wait for certain pickup times.
- I have to wait because the time they want [the scheduled time] is very different from the time I want. I have COPD and cannot take the heat and cold because of bad breathing problems. I cannot run my power chair in the rain or snow to the bus stop and wait.
- I would like to see better scheduling.
- If a person would like to come home earlier it shall not be a two hour wait.
- Church: Saturday mass 4pm to 4:45pm. I asked for a return of about 4:50pm and was given 4:15pm. Earlier return was scheduled for 1 hour after service.
- I hate having to stay in any location for 2 hours. When I am going to Wal-Mart just to get my prescriptions, I'm stuck there. Also, it doesn't take 2 hours to shop for groceries. Ridiculous.
- Correct scheduling - 95% clients ride alone. Work on the whole hour before and whole hour

after.

- I have no problem getting to my destination, but I am asked my preferred return time and the time I gave gets changed with the confirmation call Thursday evenings. I have waited 1 hour to 1.5 hours to return. I do call when I am ready to return.
- [Space on the system] is frequently unavailable, yet whenever I ride, I am the only passenger. When I first started with the van, it carried multiple passengers at the same time.
- The service is not completely reliable and this is difficult. I need to get to work on time and sometimes rides are scheduled in such a way that this doesn't happen. I've been forced to go on long rides which are out of my way at times. Scheduling needs to be improved!
- Before the new computer scheduling system, standing order riders were grouped together in a logical order. While the new system keeps vans moving with multiple passengers, it seems to be wasting travel time for both the driver and passenger as well as wasting gasoline and increasing van mileage. I recognize the difficulties involved in providing this dynamic service and appreciate the dedication of the drivers every time I ride. I think the scheduling system has room for improvement.
- Make pickup times closer to what is asked for. If you blame the computer then improve the program or have someone check the times.
- When there is a standing order for pick up, there is usually a set time, but recently the times have changed. Yesterday (6/19/14), my standing order pick up time was 12:30. I was not given a pick up time till 1:20-1:40. The driver arrived and informed me that my ride home would take at least an hour; we had to go 30 minutes in the opposite direction to drop someone off then another 30 minutes to take me home. I cannot be in the van that long, and so I was having a difficult time walking after such a long ride.

AUTOMATED CONFIRMATION AND ARRIVAL CALLS

- Improve the automated calls with pick-up and return times. Please record a slower, very clear message AND repeat the message twice.
- The computerized reservation confirmation calls often give times that are way off. I sometimes have to wait much longer to be picked up than what I had asked. Example: If I need to be picked up at 10am from an appointment, I'm given an 11am pickup, which usually is too late. I might have another appointment.
- I have not been receiving the 5 minute call-ahead from the van.
- Make sure to include all the scheduled times in voice recordings the night before.
- I really appreciate the service. Big issue is not getting the full pick-up message on my machine and there is no one to call. Calls are only heard at end of message and I do not get the times of pickups. My pick-up from my destination was 10-15 minutes late and the van didn't know where to find me. I am afraid to use the regular bus as I need assistance.
- Don't like new call back systems. Message is too long to listen to when I let it go to voicemail my times get cut off.

- When a message is left, unless you pick English or Spanish no "times" message is left... you just know that the van people called. It would be helpful if the times were left in the message. Maureen has been wonderful!! We love to hear her voice on the phone!
- Automated calls: If you're not home, you can't push 1 for English and the recorder doesn't get the message.
- Not happy at all with your automated computer system with call times at night with ride times.
- Never get voice mail.
- I would like having the option to have live operator calls to inform you of your ride times for the next day.
- In terms of automated arrival calls, there are too many calls in one day.
- I don't like the recording for your ride; it talks too fast for me.
- The automated call is a pain- the message is WAY TOO LONG. I prefer the old method when a PERSON would call.
- I would like the option of having a live operator call to inform you of your ride times for the next day.
- The automated phone system at night does NOT leave a message with the next day's times. The rider has to be there to pick up, or call dispatch to get the times.
- Please fix the automated system because sometimes it leaves a message on my phone and sometimes it doesn't.
- Automated calls are too late to correct any problem. I was scheduled to arrive before building was open and I could not change or correct this problem.
- The new automated press 1, press only adds to frustration of trying to discern what the automated voice is saying. The pauses between words are too long
- Unable to follow phone prompts on automated calls. If a support staff person doesn't answer phone, no idea when ride is coming.
- The automated calls the night before to tell me the time of each ride are helpful. Receiving a second call the next day to say the ride will be there shortly is NOT HELPFUL. The majority of the time I have already left my home before the call comes in. I leave my home at 6:15 AM or so and this additional call wakes up my family. I also receive this same call at my home when I am waiting at work for my ride at the end of the day. Obviously I do not get the call. It is not useful.
- I do not like the robocalls.
- Big issue is not getting the full pick-up message on my machine and there is no one to call. Calls are only heard at end of message and I do not get the times of pickups.

- Ride call-backs have so many different splices, they are "unsoundly" to listen to.
- When I get the automatic calls regarding the van arrival, I'm usually already on the van and find them annoying.
- The automated system calling with times is too time consuming; it takes at least 45 seconds for them to even start giving the message to you and then at least 1-2 minutes to here the lengthy message. When this first happened I did not even know what my client number was, so I was not even sure they had the right person. Very impersonal. The call-ahead calls about the arrival of the van are not happening 5 min out; they are happening as the van is pulling up to my home or job. It is annoying to have my phone ringing when I am trying to get to the van, and then the message is half cut off when I retrieve the message. Drivers are not aware that they should be calling out clients 5 min out. So they are seeing the message as they are pulling up then press. They should not have to press if they have arrived at the destination.

DISPATCHING / EARLY RETURNS

- Sometimes the dispatch people (workers) are not very pleasant to talk to.
- Some of the dispatch operators need people skills.
- One suggestion that would help would be to have completely separate dispatch operators from clients and drivers. It would cut out a lot of confusion for dispatch and messages would be more likely relayed rather than forgotten.
- We sometimes have to wait for a bus on way home if we get out of doctors early. This is hard because David is handicapped.
- If a person would like to come home earlier it shall not be a two hour wait. Thank you for my ride!
- We have had a few problems with drivers. One didn't wait a full five minutes to pick us up. She stopped for about a minute and moved on before we had time to get out of the restaurant and get to the van. We had to call dispatch and wait (on a cold day) about a half hour for another van. A third time they sent a regular van (without a lift) to pick us up and my mom is in a wheelchair. The driver called dispatch and we waited 30 minutes for a van with a lift. Sometimes they pick us up too early and we get to our destination and have to wait 1/2 hour or more before appointments or restaurant opens.

DRIVER ASSISTANCE AND TRAINING

- When Patty fell this winter I had requested that someone hold onto her arm when she is walking. I was told it would be done. Not everyone does it. She fell on 6-17-14 and it was because the driver was not holding her arm to help her keep her balance.
- If one is "ADA", consider health issues and weather conditions.
- Lately a few drivers don't deal with a person using a walker to or from door.

- 1. Please exercise greater care when accommodating clients with complicated health issues. 2. When picking up a client at doctor's office, check for them if they're not waiting outside. Don't abandon them!!
- Train drivers how to attach the straps to chair properly.
- I am getting mixed messages from drivers as to whether or not assistance can be given to passengers (some will, some won't).
- I need help getting on and off; driver doesn't even get out of bus.
- Some drivers help me on the bus and some don't.
- Make sure they help me on the van and make sure the van doesn't park outside, have it pull in the driveway.
- Drivers MUST be trained to answer all questions verbally, not just with a nod or shake of the head. Also, when a passenger has requested "Door-to-Door" service, the driver needs to get out of their van and come to the door. Door-to-door service should not be offered as an "all or nothing" option. It should be allowed on a trip by trip basis.
- When a driver deals with a blind passenger, he/she should give the blind persons directions how to find their way to find the door so that he or she can be able to enter into the van and not grab their arm which they have the cane or to grab their shoulders because that's how they lose their concentration on traveling with a cane or if they have a guide dog that they shouldn't grab the left arm which they're using that arm for the guide dog harness because they can also lose their concentration as well.
- Some of the drivers should be trained better for social interactions with the passengers to make them feel more welcome. This would also let the passenger feel that they are not bothering these drivers.
- It makes drivers uncomfortable if my PCA is not standing outside when I get home. She is in the house, but doesn't need to come out and stand there. If there is some issue I'll call ahead and get her to come out but most of the time this is not relevant.
- I have been riding the van for 6 years to and from my job. I am picked up at 6:15 AM or so to start my job at 7:00. I usually go directly to my job with no other pick up. Depending on the driver, my direct route can vary from 12 minutes to 30 minutes. Each driver takes a different route. It might be helpful to have a GPS in the vans to tell the drivers the most direct route for each ride. This would save time and gas and may help to reduce costs to the company.

VAN TIMELINESS / LACK OF DRIVER FAMILIARITY

- The bus is late most of the time (outside of the 20 minute window).
- 70% of my doctors are not on time to see me so I miss the returned trip. Then I have to call them to let them know or to have them send me a van to go home, and there is a long wait.
- I always or most times have problems with my returns because the PVTA transportation comes 1 or 1.5 hours late to pick me up.

- When I work until 1:00 on Tuesday the van was an hour late picking me up.
- My pick-up from my destination was 10-15 minutes late and the van didn't know where to find me.
- Sometimes, [the PVTA van] comes late or on time and the morning and afternoons.
- Every driver should have a working GPS for direction. Twice to my knowledge the driver I had made me wait three hours. Another driver I had to give him directions.
- Some rely so much on GPS the ride is not direct and often takes longer using more gas than necessary.
- Sometimes the wait time for van is too long.
- Vans arrived "over" one hour before my "20 minute window" for just a short trip!!!!
- The drivers are constantly late picking me up, at least 2 hours late on occasion. I understand running late sometimes but it's becoming a reoccurring thing.
- Sometimes the van comes late or early.
- One driver (and only one) has been late three times by a 1/2 hour passed the end of the window. I let him know if there's a fourth time I will call the office. So he has been warned. All else is fine and I love and appreciate the service.
- There have been a few times when I have been picked up outside of my pickup window.
- At UMASS my pick up spot can be difficult for drivers to find, especially when drivers from Chicopee or Springfield are assigned. It is much better for drivers to be familiar with northern tier streets.
- Van picks me up way too early, 1-1.5 hours before desired/requested time about half of the time when the doors at my work are still locked. Need to improve pick-up times. It arrives within the 20-minute timeframe but is way too early for the desired time of arrival at my destination.
- I wish they would come on time more often. Sometimes, it's a longer wait coming home late.
- Service is generally good, but windows are in favor of drivers not riders. Most vans are late making riders wait 20-30 minutes. Bus only has to wait 5 minutes if the riders are late. Service is to driver's advantage and an unfair business practice. You should make practice in favor of customer. Please make drivers arrive on time for pick-up, no windows (which encourage drivers to be late).

DRIVER WAIT TIMES

- I don't take it when the buses are down the street. They wait until time pick-up there should be no penalty for early pick-up.
- If you could give the rider's more than a three minute wait time, when we are in fact disabled.

- It would be helpful if they could wait a little longer to give time to lock up house. I experienced having a driver leave and I missed my doctor's appointment. As of late, some come to the door to let me know they are here. I am 88 years old and do not move very fast.
- Please make sure the PVTA driver waits at the pick-up site instead of coming and going and not coming back to pick me up. Thanks.
- I like the van better, but I would like a longer time window than five minutes to come out the house and reach the van.
- There were 2 times when the van left saying I wasn't ready and I hadn't left van driver waiting more than 5 minutes. Another time I gave the van the address and I saw van at a shopping plaza and it didn't drive around to pick me up and I had to wait an additional hour as well.
- Have drivers check with staff to see how long they must have to wait for a client.

OTHER COMMENTS ABOUT DRIVERS (POSITIVE)

- Qualter Pereira is a very caring and considerate and efficient and good in every way. Smells good and is polite too.
- Most of the time we have very nice and courteous drivers who are very helpful and polite.
- Susan is great!
- The drivers are all kind and professional.
- Very nice people.
- All of the employees have been very supportive. The drivers provide safe rides. The schedulers are very knowledgeable and provide excellent routing. You should be proud of the quality of them.
- PVTA is very helpful to me. The drivers are all kind and professional.
- Most drivers are very good.
- Also, first aid and CPR for drivers as well as higher pay!
- No wheel chair, drivers help me and I have a CNA along with me. Your van service is the best and very helpful to me. Thank you.
- I think all my PVTA drivers are excellent. They are very polite and courteous.
- PVTA, please value your drivers as much as the passengers do.
- Love all the drivers they make me smile.
- 99% drivers on time and are terrific.
- Outstanding drivers. A pleasant time to be with you

- Like people. Some drivers are exceptions. I find no problems. All are courteous.
- Never hear about new programs. Very happy generally. The drivers are great.
- Driver courtesy and safety rated well except for Jay and Erien (sp?)
- All of the employees have been very supportive. The drivers provide safe rides.

OTHER COMMENTS ABOUT DRIVERS (NEGATIVE)

- The other drivers are sometimes difficult and don't handle situations well.
- There are a handful of drivers that need more training. -Safety: some drivers have things on stairs, top of stairs and walking area of van. This can be dangerous for the passengers (things like bags, cups, pen, wrappers and so on) -Safety: There are few drivers that have the vehicle facing the wrong way - that means I had to walk in roadway - go around - praying no car is coming and get on.
- Some drivers will not accept money for round trip due to "paper work".
- Drivers should get off bus and identify themselves and who they are there for.
- Not all the drivers are helpful and friendly. I often have anxiety over which driver I will have. But for the most part I have found them to be friendly and helpful.
- I do find it annoying when I have one driver who plays a religious channel on radio blaring and yelling praise the lord.
- I find music on van service annoying: too loud, not interested in listening. For example: salsa, classical, hard rock, country western, etc, etc – I've experienced all of above :(
- Drivers still get lost (some of them). Service is poorly run.
- Getting mixed messages from drivers as to whether or not assistance can be given to passengers (some will, some won't).
- Fire the driver that drives 55 mph.
- One of the drivers fell asleep while he was driving and almost crashed.
- Some drivers don't take fastest route to the places we go. Some also feel as if they need to drive faster to make reservation times.
- My comments are to stay focused on the road and drive carefully without causing an accident. I hope to get my own vehicle so that I can drive to work on time.
- Drivers don't drive defensively! They drive one-handed, tailgate, use the left lane when right lane is open, and are distracted by phones and the other electronic equipment the vans are equipped with. This situation needs prompt attention!
- We have had a few problems with drivers. One drove too fast, weaving in and out of traffic, switching lanes a lot.

SERVICE AREA, DAYS, AND HOURS

- Wish we could use van on Saturday and Sunday at later hours.

- It would be a pleasure if the ADA paratransit services could cover more member communities such as Hampden County, Hampshire County, Franklin County and so far and so forth. I would be grateful on Federal, State, and local holidays if the ADA paratransit service be able to pick up and drop off in all communities in every county. And also I would be most obliged if the ADA paratransit service could have the summer service on Saturdays and Sundays during the summer. Thank you ever so much.
- I wish you had a route to Southwick.
- I am a senior citizen and I have no way of getting around and I have to use the PTA van to go to appointments. I wish that the seniors could be able to use the transportation on Saturdays and Sundays.
- Pick up dialysis people on holidays in all districts as you do on snow days, as it is difficult to get other rides.
- Can South Hadley please have van service later than 7:30pm in the winter and the summer season!
- Please run 7 days a week, Saturday and Sunday.
- Why can I not go out past 5 and enjoy the summer weather (free concerts etc) and Saturday and Sunday no service so I can't get to church unless kindness of friends who might have other plans.
- Please make a stop at the new South Hadley library.
- Need to have longer hours of availability including weekends.

PARATRANSIT CERTIFICATION/APPLICATION PROCESS

- Can someone please call me to explain ADA: 413-783-1679
- I was very confused on how to apply for PVTA van and needed a social worker to help me.
- The reason I put down poor for process of eligibility was my health problems will get worse. They won't get better; I've been this way since 1995. It just seems like a waste to fill out 10 pages. I did not know you could use the van for social and recreation use. I will use it A LOT more. Thank you for your time.
- My doctor sent a form years ago and then the ADA expired because I didn't use. My daughter is no longer able to drive me and I can't afford taxi fare. The service is very much appreciated!
- I am still waiting for approval from the renewal for several years. My mobility continues to decline and yet I haven't heard anything after several inquires and follow-ups.

VEHICLES

- Vehicle noise, dangling metal tie downs. Please require drivers to lock them down or put rubber on them.
- Some van buses are very dirty not well kept up, some are nice inside the vans.
- The older vans need shocks desperately. Passengers sitting in the back take a beating on rough roads. The vans rattle to a deafening level. The vans would last longer. Or is PVTA too cheap?

FARES AND FARE MEDIA

- I would be willing to pay more for a direct ride to my appointment. No other passengers to be picked up either way.
- Why can't there be a bus pass for the van? It costs twice as much as regular bus for normal people, so why do disabled people on limited income pay double?
- Go to a sliding scale for fares.
- Sometimes I have no money, so I ride W.C. [wheelchair?] to and from destination.
- It would be nice to have a paratransit van monthly pass with our ID "smartcard".
- Everybody should be able to use the tickets.

CANNOT USE REGULAR BUS

- I am filling this out for my handicapped son who is blind/retarded 50 years old. He had free training on how to ride PVTA buses but it was not appropriate.
- I cannot walk well enough to take a regular bus.
- I am afraid to use the regular bus as I need assistance.
- I am unable to ride the regular bus. I have issues in walking to get the bus. I cannot walk very for I am currently using a walker.
- I do not use the regular PVTA bus because of being disabled.
- I am unable to use regular bus.
- I do not use the regular PVTA bus because of being disabled.
- I use regular bus when I have an unexpected need to make a trip. The regular bus is very difficult and VERY LONG. It is 4-5 blocks from by home. Drivers are friendly and helpful 98% of the time, even under less than easy circumstances. Very grateful for access to the van, especially on days I'm very sick.
- Too far for me to walk to PVTA bus stop.
- Closest PVTA bus stop is on Route 33/Memorial Drive on Main Road. No stop on James Street. Bus is not accessible on Saturdays to do shopping or stores.
- Can't get on regular bus because I won't remember my stop. Sometimes they will take me to medical appointment.
- The Hell Towns are the only places where the main PVTA bus is not available in many areas. I live 2.7 miles from the bus. It is a life line.
- Cannot ride regular transit bus. More than a mile from my house.
- I marked "No" above (public bus stop) first as I would not be able to carry groceries that far (4 blocks). I am very grateful for this transportation at 88 years of age.
- Not able to ride the public PVTA bus.

Appendix P ADA Minimum Analysis

The ADA paratransit obligation for any transit agency operating fixed-route service is to provide paratransit services to and from locations within three-quarters of a mile of transit routes and stops at times when those routes are operating for persons who cannot use or access the fixed route service(s) because of their disability. PVTA however currently provides ADA paratransit service beyond the required ¾ mile corridors to the area described previously.

A task specified for this study is to determine how many ADA paratransit trips that are currently made would not have been served if PVTA abided strictly by the ADA minimum requirements, and what the corresponding reduction cost would be.

For this task, we chose to focus solely on the spatial analysis because:

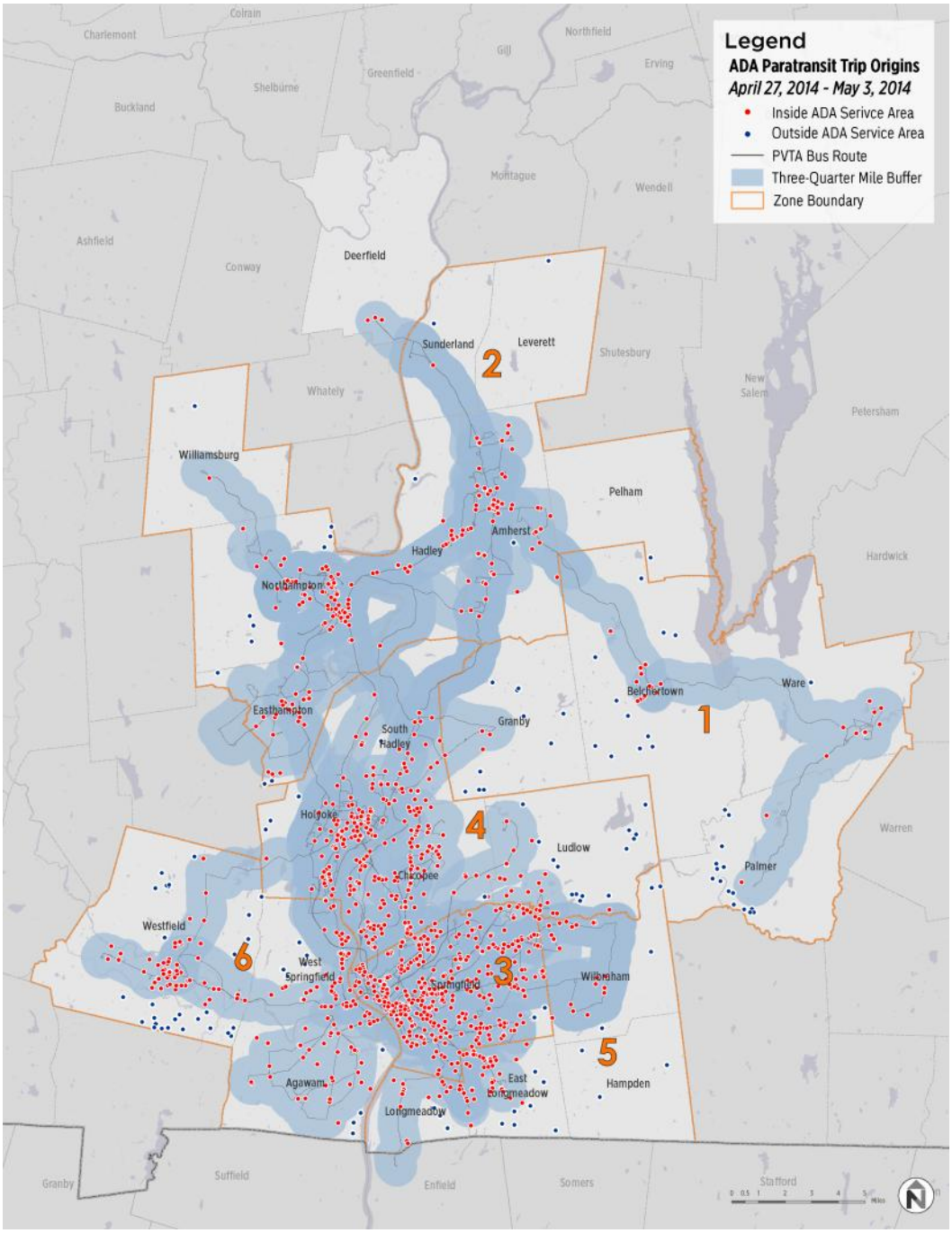
- ADA paratransit service is already provided in accordance with the corresponding fixed-route service days and hours. That is, even within a ¾ corridor, an ADA paratransit trip request is not booked unless it falls beyond the operating hours of the fixed route service.
- PVTA could modify its advance reservation policy to next-day only, which some transit agencies have done, but we do not readily see how that would directly impact Hulmes' Reservations staff or operating costs.

For this analysis, we again used the raw data from the week of April 27, 2014. We first selected only the ADA paratransit (and not the DAR trips) for the analysis, plotting only origins on the map under the presumption that most trips are round trips. These trip origins were plotted on the zone map below, with the number and percentage of origins shown in the table below.

Thus, a going trip whose origin is outside the ¾ mile corridor would also mean that the return trip has a destination outside the ¾ mile corridor. Thus, the number of trips outside of the minimum service boundary was doubled the origins in order to more accurately calculate costs of trips to service origins/destinations outside of the three-fourth mile buffer.

Of the 4,671 trips that were completed during that week,

- 574 trips or 12.3% had trips outside of the minimum service boundary
- While Zone 3 (Springfield) and Zone 4 (Holyoke, Chicopee, South Hadley and Ludlow) had the highest number of completed trips, the number of trips completed with origins and/or destinations outside of three-quarter mile boundary were minimal due to greater fixed-route service coverage in these zones.
- Only handful of trips came from trips outside of the minimum service boundary in Zone 2, which includes 7 communities in the northern region.
- Nearly 20% of the ADA trips in Zone 5 and 6 trips served outside of the boundary.
- Although only 6% of the completed trips come from Zone 1 (Granby, Belchertown, Ware and Palmer) more than 70% of the trips in Zone 1 are outside of the regulation because of the limited fixed-route service coverage in these very sparsely-populated communities.



Source: PVTA 2014

	Zone 1	Zone 2	Zone 3	Zone 4	Zone 5	Zone 6	TOTAL
Trips Inside	85	599	1,356	1,153	246	658	4,097
Trips Outside*	204	54	22	64	54	176	574
Total Trips	289	653	1,378	1,217	300	834	4,671
% Outside	70.6%	8.3%	1.6%	5.3%	18.0%	21.2%	12.3%
Peak Trips Outside	202	50	22	48	44	154	520
Off-Peak Trips Outside	2	4	0	16	10	22	54

Source: PVTA Run Structure for the Week of April 27, 2014

Of the 574 trips outside of the three-quarters of a mile buffer zone, 520 trips or 90.6% of the trips are within 7:00 AM – 7:00 PM peak hours on Monday through Saturday. The average contractor cost for peak trips during FY 2014 was $21.65 while the cost for off-peak trips was $28.00 per trip. Using this unit cost figures, the potential reduction in cost for the week of April 27 is presented below.

	Peak Trips Outside ADA Service Area	Cost per Peak Trip	Off-Peak Trips Outside ADA Service Area	Cost per Off-Peak Trip	Total Costs for Outside Trips	Estimated Annualized Costs for Outside Trips
Monday (4/28) –Saturday (5/3)	520	$21.65	48	$28.00	$12,602	$655,304
Sunday (4/27)	n/a	$21.65	6	$28.00	$168	$8,736
Total (4/27-5/3)	520		54		$12,770	$664,040
Total Costs for Outside Trip	$11,258		$1,512		$12,770	
Annualized	$585,416		$78,624			$664,040

Source: PVTA Run Structure for the Week of April 27, 2014

Using these unit costs, it was concluded that PVTA currently spent a total of nearly $12,770 during that week to provide ADA trips outside of the three-quarters mile boundary. Assuming that this is an average week, the annual expenditure for exceeding the ADA minimum requirements is **$664,040.**

However, because of the particular payment structure for peak hour service, PVTA pays Hulmes for the peak hour service in a lump sum, regardless of the number – and type of – trips served. Thus, it could be argued that during the current contract, the only reduction in costs would be for off-peak trips not served, which total only 54 for the week. This equates to **$78,624** for the year, if the same assumptions are used.

Moreover, it is quite possible that the some of the ADA paratransit customers who are making these "outside-the-ADA-service-area" trips are also seniors age 60 and over and therefore would be eligible for DAR service. While there are no guarantees that capacity will be available for DAR

trips (as there is for ADA paratransit service, the FY 2014 percentage of denials for DAR trips is less than 2%. Hence, if one assumes that several of these formerly-eligible ADA paratransit trips would be served anyway as DAR trips, then the cost reduction estimates above would not materialize.

That said, there is a possibility that PVTA could also gain on the revenue side by charging a higher fare for "premium" service, that is, "ADA" trips that fall outside of the ADA minimum requirement. This could not only apply to the 574 trips for that week (29,848 annualized), but also to ADA customers requesting same-day trips, which is consistent with a police adopted by the MBTA's THE RIDE program. For example, the MBTA charges a premium fare not only when either the origin or destination falls outside of THE RIDE service area but also under the following circumstances, assuming that space is available on the system to serve the trip:

- When a customer calls to make a new, same-day trips request.
- When a customer calls after callbacks to request a different pick-up or drop off time that is over 30 minutes from original time requested. (The MBTA equates this with a new same-day trip.)
- When a customer calls back within one hour before the beginning of the scheduled pick-up window, requests a different pick-up or drop-off that is within 30 minutes of the original time requested, and an alternative pick-up time is negotiated.

The MBTA charges $2.00 more for a premium trip.

We could see various scenarios for charging a premium fare. They include:

- Adding a surcharge of $1.00, $1.50, or $2.00

Current Fare	+$1.00	+$1.50	+$2.00
$2.50	$3.50	$4.00	$4.50
$3.00	$4.00	$4.50	$5.00
$3.50	$4.50	$5.00	$5.50

- Setting the fare based on a multiplier of 1.5 or 2.0; for example,

Current Fare	1.5	2.0
$2.50	$3.75	$5.00
$3.00	$4.50	$6.00
$3.50	$5.25	$7.00

Of course when fares are increased, one can also expect a reduction in demand.

There are some shortcomings to this analysis beginning with the fact that only one week's worth of data was used, per the limitations of the study budget, and that the analysis did not use full-allocated operational costs. A separate follow-up analysis is being commissioned by PVTA to address these two items.