Audit of ADA Paratransit Service Changes

FINAL REPORT

Regional Transportation Authority

October 9, 2009

TranSystems

In association with

Nelson\Nygaard Consulting Associates
Metro Strategies, Inc.
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Section 1. Introduction

The Americans with Disabilities Act of 1990 (ADA) requires that all public entities that provide non-commuter fixed route transit service also provide complementary paratransit service for persons who are unable, because of a disability, to use the fixed route service. The ADA complementary paratransit must meet specific regulatory criteria related to service area, response time, fares, days and hours of operation, trip purposes, and capacity constraints. These regulatory criteria are designed to ensure that ADA complementary paratransit service provides a level of service that is comparable to that provided by the associated fixed route services. Entities are also required to establish a process for determining who is eligible to receive this complementary paratransit service.

ADA complementary paratransit service is required where the CTA and Pace operate non-commuter fixed route transit services. The service provided by Metra does not require complementary paratransit since it is strictly commuter service.

From 1992 through June of 2006, CTA and Pace operated separate ADA paratransit services. CTA operated ADA paratransit in the City of Chicago and Pace operated ADA paratransit in the suburbs outside of the city.

On July 29, 2005, the Illinois General Assembly made changes to the RTA enabling legislation that affected the structure of paratransit service. Pace was tasked with assuming responsibility for the operation of all ADA paratransit services. The RTA was also made responsible for the funding, financial review and oversight of all ADA paratransit services provided by any of the Service Boards.

On July 1, 2006, in response to this legislative directive, Pace assumed responsibility for the operation of all ADA paratransit services throughout the region, both city and suburban services. Initially, Pace continued to operate service in Chicago based on the model that had been developed by the CTA. The three contracted service providers that had been operating for CTA were retained and the service continued without significant changes.

In 2006 and 2007, Pace analyzed the ADA paratransit services in an effort to develop a design and policies that could both improve customer service and service efficiency. Of paramount importance was to ensure that the service was operated in full compliance with ADA requirements and to address what some believed were inherent capacity constraints with the service design.

Nelson\Nygaard Consulting Associates was retained by the RTA to assist with this review. Nelson\Nygaard worked closely with Pace, which arranged and oversaw the process to obtain community input. Several issues were noted with the paratransit services previously operated by CTA. The two most significant issues were: (1) It was noted that the centralized computer software used to record trip reservations and trip data needed to be replaced and improved, and (2) It was felt that, with three contracted
operators each serving the full CTA area, there was overlap and redundancy and an opportunity to improve service efficiency. Plans were developed to address these issues.

In March of 2008, Pace implemented its plans to address the service issues in the CTA service area. The most significant changes were: (1) a zone-based service delivery model; (2) a transition from the CTA trip reservations software to Trapeze PASS software; and (3) the elimination of “will-calls” (the option for riders to leave return trips open-ended and call when they were ready to return). The zone-based design divided the CTA service area into three service areas and a primary service provider was contracted to provide service to ADA paratransit customers in each area. In addition to the three zone-based providers, two other providers—one for subscription service and one for transportation to certification interviews—were also obtained. The new design was intended to allow each contracted provider to focus on its assigned area and to direct trip requests from riders in that area to this one provider. Under this design, each contractor still serves trips going to destinations throughout the CTA service area. The elimination of will-calls was intended to minimize disruptions caused by same day scheduling changes to improve on-time performance.

The new service design utilized existing service providers and added two new contractors. All three of the contractors that had provided service under the prior design were retained as operators by Pace. Two of these were selected as primary zonal providers, while the third was utilized for subscription and other trips. A national paratransit operating company with experience in the Pace suburban operation (MV Transportation), was selected as the third primary zonal service provider. Pace also added a fifth contractor to assist with subscription and other trips. Utilization of existing contractors minimized start-up issues. The addition of MV Transportation as one of the three primary zonal providers did, however, require one provider start-up.

Several problems were encountered during the transition to the new service design and new software. Among the most significant were reports of long telephone hold times, long and circuitous ride times, on-time performance issues, and software reliability and functionality issues.

In response to these reported problems, Pace established a Blue Ribbon Committee (BRC) in June of 2008 for the purpose of seeking independent recommendations regarding ADA paratransit service issues relative to the service changes. Members of the committee included consumers, executives and other representatives of advocacy groups, government leaders, and the chairs of the ADA committees for the RTA and the service boards. The BRC focused on customer service, operations and the Pace ADA service structure. The BRC issued its final report containing 28 recommendations in December 2008.

In an effort to continue to monitor and resolve service issues and as a follow-up to the BRC review, the RTA, with input from its Regional ADA Advisory Committee, contracted with TranSystems to perform an audit of the ADA Paratransit Services provided by the
Pace in the CTA service area. The main purpose of the audit, as stated in the Request for Proposals (RFP), was to determine the effectiveness of the March 2008 changes in meeting the stated goals of improving customer service while at the same time reducing service redundancy and increasing service efficiency. The audit called for a before-and-after comparison of service and performance data. Other objectives of the audit were:

- To review the service performance standards adopted for the new service design;
- Review the effectiveness of Pace’s monitoring of service delivery and performance;
- Obtain input from the community on service before and after the transition;
- Review complaints on file at Pace and the process used by Pace to record and respond to complaints;
- Review the software problems that were encountered immediately following the transition;
- Comment on the business case developed by Pace and the service design selected;
- Review the public process used by Pace to plan for and implement the new service; and
- Review current contractor operations and the effectiveness of use of the new software, driver training, and other aspects of the operations.

TranSystems began the audit on January 28, 2009. Information about ADA paratransit services in the CTA service area was first collected and reviewed. This included:

- Detailed service and performance statistics from January 2007 through December 2008;
- Copies of the current contracts with service providers
- Records of public meetings and public information in 2006 through 2008
- Customer complaint records and a description of the complaint process used by Pace;
- Information about the purchase and installation of the new Trapeze software; and
- Relevant studies and documentation related to the changes made in the ADA paratransit service design.

An on-site visit was then conducted the week of March 23 to 27, 2009. Additional information was collected on Pace service monitoring activities. The operations of the three main zonal contractors—Cook-DuPage Transportation (CDT), SCR Transportation, and MV Transportation—were also visited and call centers, dispatching and other aspects of each operation was observed first-hand. Managers, operations staff and drivers were also interviewed.

Four public meetings were also held to obtain rider input on experiences before and after the transition. A mailing was also done to all ADA paratransit riders in the CTA service area and feedback was requested. Riders were given several options to
provide this feedback, including completion of a brief form included in the mailing or entering information online.

A Draft Report was delivered to the RTA on June 5, 2009. Draft findings and recommendations were presented to the RTA Board of Directors on June 25, 2009. A copy of the Draft Final Report was also shared with Pace for their comment and response. A copy of the Pace response dated September 30, 2009 is provided as Attachment 1.

This Final Report presents the final findings and recommendations of the audit. Section 2 provides some additional background about service design and structure before and after the transition. It also provides a summary of findings from recent relevant studies. Section 3 reviews the key service standards established for the current service. Section 4 provides findings and recommendations related to Pace’s monitoring of the service. Section 5 provides service statistics and performance measures before, during and after the transition. Section 6 summarizes input received from the public as well as a review of complaints on file at Pace and the Pace complaint process. Section 7 discusses the transition period, including issues encountered with the implementation of new software, and the public input and education process used by Pace leading up to and after the transition. Section 8 provides a review of the business case for the service design selected by Pace and also discussed possible service design alternatives. Finally, Section 9 provides several observations and recommendation regarding current contractor operations, including possible alternative service design options.
Section 2. Background: Changes in ADA Paratransit Services in the CTA Service Area and Recent Studies and Reports

This section provides some important background information as well as a description of the ADA paratransit services during three key periods:

1. The “Before” period, i.e., before July 1, 2006, the date on which the responsibility for ADA paratransit then called Special Services (and the Taxi Access Program) in the CTA service area was transferred from CTA to Pace;
2. The “Transition” period from July 1, 2006 to March 27, 2008
3. The “After” period, which begins March 28, 2008, the date when service zones in the CTA service area were put into effect.

Also included are discussions of two relevant recent studies and reports, the RTA 2007 ADA Paratransit Plan, and a report issued by the Blue Ribbon Commission created in 2008 to review the service transition.

A summary of various service design elements, policies, and practices before, during and after the transition is presented in Table 2.1. A discussion of some of the key differences in design and policies follows.

The Before Period (Before July 1, 2006)

During the “Before Period,” CTA contracted with three carriers, Cook-DuPage Transportation (CDT), SCR Transportation, and Art’s Transportation. Special Services customers were allowed to call any of the three Special Services contractors to request a ride, regardless of the origin and destination of the trip, as long as one end was within the CTA service area. (If the trip originated beyond the CTA service area (i.e., within the Pace suburban ADA paratransit areas, a transfer was required.) For trips within the CTA service, all three contractors were permitted to serve trips throughout the CTA service area.

In the 1990’s, CTA had a daily (total) trip ceiling for the system which was geared to the CTA budget for the service. Customers would call the carrier of their own choice, with MAPPER (the CTA’s database system that supported Special Services) keeping track of the number of total requests until the system-wide daily ceiling was reached. Once that ceiling was reached, no more trip requests were taken on that day. Because carriers were paid by the trip, each carrier’s strategy was to take as many trips as quickly as possible before the total ceiling was reached. The reservation lines opened up at 6:00 am, it was not unusual for the ceiling to be reached within 20 minutes, creating a significant hardship for customers. Also, with these telephone and capacity issues, the system was obviously not in compliance with the ADA, although this was never formally recognized.
### Table 2.1 - Service Policy Differences during Before, Transition, and After Periods

<table>
<thead>
<tr>
<th>Service Policy or Practice</th>
<th>Before July 1, 2006</th>
<th>Transition (July 1, 2006 - March 27, 2008)</th>
<th>After (March 28, 2008 to Present)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service areas &amp; contractors</strong></td>
<td>One service area; three carriers</td>
<td>One service area; 3-4 carriers (Jay's was added an overflow carrier in September 2007).</td>
<td>Three zones, 4-5 carriers (Art's discontinued in November 2008); Jay's converted to subscription trip carrier only</td>
</tr>
<tr>
<td><strong>User choice</strong></td>
<td>Customers may call any of the three carriers; each carrier has daily limit split into 6:00 am and 8:00 am stages</td>
<td>Same as Before Period</td>
<td>Carrier limits discontinued, customers call carrier of area of trip origin (return trip done by carrier serving going trip so that customer only has to make one call)</td>
</tr>
<tr>
<td><strong>Subscription trip requests</strong></td>
<td>3+ times/week; arranged through CTA</td>
<td>2+ times/week; arranged through Pace; consistent with regional definition</td>
<td>Same as Transition Period</td>
</tr>
<tr>
<td><strong>Subscription trip wait list</strong></td>
<td>No data</td>
<td>Continuously monitored; trips added where possible</td>
<td>Same as Transition Period</td>
</tr>
<tr>
<td><strong>Advance reservation trip requests</strong></td>
<td>Next day only; arranged through carriers; same day change requests accommodated 2 hours in advance</td>
<td>Same as Before Period</td>
<td>Next day only; arranged through carriers; same day changes only if schedule allows (tough to say no)</td>
</tr>
<tr>
<td><strong>Trip screening</strong></td>
<td>Requests for conditionally eligible trips forwarded to CTA for decision</td>
<td>Requests for conditionally eligible trips forwarded to Pace for decision</td>
<td>Seasonal conditions implemented (83 customers total); carrier call takers decides; screening for other conditionally eligible trips to be implemented</td>
</tr>
<tr>
<td><strong>Reservation hours</strong></td>
<td>Weekdays: 6:00 am – 9:00 pm</td>
<td>Weekdays: 6:00 am – 8:00 pm</td>
<td>Weekdays: 6:00 am – 8:00 pm</td>
</tr>
<tr>
<td><strong>Same-day trip requests</strong></td>
<td>Not accepted</td>
<td>Not accepted</td>
<td>Not accepted</td>
</tr>
<tr>
<td><strong>Subscription trip changes</strong></td>
<td>Accepted</td>
<td>Accepted on space available basis only</td>
<td>Accepted on space available basis only</td>
</tr>
<tr>
<td><strong>Same-day changes</strong></td>
<td>Accepted (2 hour advance notice)</td>
<td>Same as Before Period</td>
<td>Accepted on space available basis only</td>
</tr>
<tr>
<td><strong>Will-calls (open-ended returns)</strong></td>
<td>Accepted for certain trips</td>
<td>Same as Before Period</td>
<td>No unscheduled returns; all returns scheduled (but will accommodate a change in time, as needed, with no-stranded policy)</td>
</tr>
<tr>
<td><strong>Assignment of trips to vehicles</strong></td>
<td>Live (manual dispatching)</td>
<td>Live (manual) dispatching for most of the period; scheduling of trips to vehicles (transition to advance scheduling) began with Trapeze at SCR in August 2007</td>
<td>Advance, real-time scheduling</td>
</tr>
<tr>
<td><strong>Level of driver assistance</strong></td>
<td>Curb-to-curb (per Rider Guide); Door-to-door (per carrier contracts)</td>
<td>Same as Before Period</td>
<td>Origin –to-destination</td>
</tr>
<tr>
<td><strong>Trips between CTA service area and suburbs</strong></td>
<td>Require transfer to/from Pace suburban carrier (2 calls required); customer dropped at transfer point; driver of 1st leg vehicle does not wait for driver of 2nd leg vehicle to arrive at transfer point (if not already there)</td>
<td>Same as Before Period</td>
<td>Require transfer to/from Pace Suburban carrier to wait (2 calls required); driver of 1st leg vehicle required to wait at transfer point until driver of 2nd leg vehicle arrives</td>
</tr>
<tr>
<td><strong>Fare</strong></td>
<td>$1.75</td>
<td>$2.25 (went up January 1, 2007)</td>
<td>$2.25</td>
</tr>
<tr>
<td><strong>Attendants and companions</strong></td>
<td>PCA rides free; companions pay full fare</td>
<td>Same as Before Period</td>
<td>First companion (presumably covering a PCA) rides free</td>
</tr>
<tr>
<td>Service Policy or Practice</td>
<td>Before July 1, 2006</td>
<td>Transition (July 1, 2006 - March 27, 2008)</td>
<td>After (March 28, 2008 to Present)</td>
</tr>
<tr>
<td>----------------------------</td>
<td>---------------------</td>
<td>------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td><strong>Definition of late trip</strong></td>
<td>No more than 20 minutes from the scheduled pick-up time for a trip requested in advance; no more than 60 minutes from the time of a will-call request (carrier reported)</td>
<td>Same as Before Period</td>
<td>No more than 20 minutes from the scheduled pick-up time for a trip requested in advance (AVL time stamped data comes from Trapeze). As of January 1, 2009, tracking of on-time performance for drop-offs begun.</td>
</tr>
<tr>
<td><strong>Vehicles supplied by</strong></td>
<td>Carriers</td>
<td>Carriers</td>
<td>Carriers</td>
</tr>
<tr>
<td><strong>AVL/MDT</strong></td>
<td>Only CDT had MDTs; no AVL systems</td>
<td>CDT had MDTs (transition to MDT/AVL began with SCR in August 2007)</td>
<td>MDT/AVL for all carriers; equipment owned by carriers</td>
</tr>
<tr>
<td><strong>Carrier rate structure</strong></td>
<td>Per trip</td>
<td>Per trip</td>
<td>Per hour</td>
</tr>
<tr>
<td><strong>Street supervision</strong></td>
<td>Little to none</td>
<td>Pace-supplied street supervisors</td>
<td>Both Pace and carriers supply street supervisors</td>
</tr>
</tbody>
</table>
About this time (in 2006), the RTA completed an ADA Paratransit Plan for the region. The scope of the plan covered both ADA paratransit in the CTA service area (Special Services), then under the responsibility of CTA, and ADA paratransit service in Pace’s service area. The study also focused on shift of responsibility for ADA paratransit in the CTA service from CTA to Pace. Some of the key findings from the study included:

- Making no changes to the regional paratransit services under review, with the exception of a re-bid of Special Services, would result in net operational costs increasing from **$64.2 million** in 2005 to nearly **$92.5 million** in 2008. This increase was attributable to a combination of (1) growing demand – from **2.76 million trips** served in 2005 to **3.24 million trips** in 2008 -- and (2) increase in carrier rates.

- Improved telephone access for ADA service in the CTA service area would be required to ensure ADA compliance.

- Available funding for these paratransit services assumed continuation of past funding levels at **$54.25 million per year** through 2008.

- Including all of the above, the funding shortfall would be **$28.0 million** in 2007 and **$32.6 million** in 2008.

- With the transition of Special Services and the Taxi Access Program (TAP) to Pace, Pace would be required to increase fares in order to meet House Bill 1663’s 10% farebox recovery ratio. (Pace did increase fares for both services. For example, on January 1, 2007, the ADA paratransit fare in the CTA service area was increased from $1.75 to $2.25.)

- Mapper, the legacy mainframe-based database system used by CTA and its three contractors to take reservations and manage the paratransit service needed to be replaced.

Several cost efficiency measures were identified in the study to partially address the shortfall with estimates of savings for each.

With respect to service delivery design for the CTA service area, the report also noted the following based on an analysis of trip data:

- There was no evidence that supported the thinking that changing from the then current model of service delivery, which focused more on dispatching and less on advanced scheduling, to a model that did involve advance scheduling would necessarily improve productivity.

- If Pace did implement advance scheduling using Trapeze software for ADA paratransit service in the CTA service area, the current business model would need to be changed to take advantage of potentially ride-shareable trips that otherwise would be called into different carriers. Of the two alternative models considered, it was concluded that a centralized call center would be more efficient than decentralized reservations and scheduling by carriers assigned to a zone.
Given Pace’s stated intention to migrate to advance scheduling via Trapeze, the study noted that if Pace opted for a decentralized design, that would require that the CTA service area to be carved up into service areas similar to the Pace’s contracts in the Pace service area. The point was made that such an approach would potentially result in more deadheading and fewer opportunities for ride-sharing than a centralized approach for reservations and scheduling.

The study also noted that a centralized design should not be counted upon to reduce the cost of the call-taking and scheduling functions themselves compared to having these same functions performed by multiple carriers. Based on information gathered from other peer systems with centralized call centers, the study concluded that it would be cost-neutral, at best. But, in light of the other benefits above, and especially those that directly create efficiencies, and given Pace’s plans to implement Trapeze PASS and advance scheduling for the CTA service area, the report recommended that Pace pursue a centralized service design for the CTA service area.

Transition Period (July 1, 2006 through March 27, 2008)

Pace took over the responsibility for ADA paratransit in the CTA service area on July 1, 2006. For the most part, this involved keeping the preceding service design intact, inheriting and extending the current contracts, and then negotiating new contracts, still on a per trip rate structure, with the three carriers.

As mentioned above, Pace found that the daily system-wide ceiling were routinely being reached, and had to increase both the carrier-specific ceilings, and by extension, the system-wide trip ceiling. Because of fleet limitations, Pace also found it necessary to add a fourth carrier, Jay’s, as an overflow carrier in September 1, 2007.

Besides the general design and the continuation of live dispatching (at least for much of this period), some key policies and practices were retained, notably the accommodation of same day changes with two hours advance notice. The level of driver assistance was also unchanged, noting that there were inconsistencies between information in the rider guide (which stated the Special Services policy was curb-to-curb, and the carrier contracts which specified door-to-door assistance. Indeed, when Pace investigated this discrepancy, they found that the level of service varied dramatically from driver to driver and that was no consistency. Another policy that was continued was the inter-area transfer practice whereby the driver on the first leg of a trip was not required to wait for the second vehicle to arrive.

Still, as part of this transition, Pace revised some of the service policies to create more consistency between the ADA paratransit services in the Chicago suburbs and in the CTA service area. For example, subscription service was re-defined as occurring at least 2 times per week (CTA had defined at as at least 3 times per week). Pace also took a very active role in monitoring the subscription trip wait list, and worked with the carriers to move subscription trips from the wait list to active service. Pace also increased the amount of street supervision.
Most importantly, Pace made the decision to replace Mapper with Trapeze. There was no question that Mapper needed to be replaced. Pace did not trust the data coming out of Mapper and that was reported to Pace by the carriers. Clearly, another system was needed, a conclusion also reached by the RTA ADA Plan. (See above.) The decision to replace it with Trapeze, as opposed to a software system that is based on automated dispatching (e.g., Digital Dispatch System, as used in Los Angeles), was largely based on Pace’s familiarity with the system, and a belief that interactive and advance scheduling along with live dispatching to address same-day issues would be more productive than relying on an automated dispatch system. Indeed, Pace has also stated that advance scheduling also allows a narrower pick-up window which is more customer friendly. Pace also voiced the ultimate goal of using one software system to support ADA paratransit throughout the region.

Moving to Trapeze in effect meant a commitment to advance scheduling. In considering this, Pace also believed that moving directly to a centralized call center model (as the ultimate goal suggested in the RTA ADA Plan) was not a course they wished to pursue. Instead, Pace’s plan was to first migrate to a 3-zone system with carriers assigned to each zone, providing turn-key service much like the model Pace employs in the suburban areas.

In concert with this plan, Pace decided to implement Trapeze at the carriers one-by-one before moving to this zone system, so that they could get used to it. In connection with these implementations, AVL/MDTs were introduced to the carrier fleets. The advent of this equipment was critical for Pace, as it believed (and rightfully so) that it would be the first time that they would be getting accurate, uncompromised data on on-time performance. (Under the CTA regime, only Cook-DuPage Transportation utilized MDTs and none of the carriers had AVL capabilities.)

Among the four carriers, SCR was the first to have Trapeze implemented on-site in September 2007. AVL/MDT equipment was introduced to SCR at about the same time.

During the Transition period, another major focus for Pace was coming into compliance with the ADA and improving customer service. Thus, even though the carrier-specific trip limits were retained during this period, Pace worked with each of the carriers to bolster each of their reservations staff and the number of telephone lines.

Lastly, on January 1, 2007, the fare was increased from $1.75 to $2.25. At the same time, the base fare for the Taxi Access Program (TAP), a non-ADA taxi subsidy program available to ADA customers, was also increased, rendering this option less affordable. Prior to the TAP fare increase, it was determined that TAP usage did not have a statistical relevant impact on the ADA paratransit system—i.e. trips made on TAP probably would not have been made on the ADA paratransit system. However, a similar analysis to see whether this is still the case since the TAP fare increase has not been undertaken to our knowledge.
The After Period (Beginning March 28, 2008)

Beginning March 28, 2008, Pace established a three-zone service delivery structure for the CTA service area, assigning one carrier to each zone, much like its suburban model. The south zone (Zone 1) was assigned to SCR. The central zone (Zone 2) was assigned to CDT. And the north zone (Zone 3) was assigned to a new carrier, MV Transit. Art’s was retained to perform subscription trips and long trips (between Zones 1 and 3).

As mentioned above, Pace provided Trapeze to each carrier. This was done by installing the software on a central server (at a Pace facility) and allowing the carriers to access the software system, much like is done in Pace’s service area in the suburban collar counties. And like the suburban ADA paratransit services, all carriers relied on advance scheduling as the primary method of assigning trips to vehicles (as opposed to live dispatching), and AVL/MDT equipment was installed in all vehicles, thus upgrading the quality of on-time performance being captured.

In the zone-based system, customers were now instructed to call the carrier in which the trip originated (noting that the return trip of a round trip would be served by the carrier that served the going trip, so that the customer would need to make only one call), with the carriers using Trapeze to intake reservations and perform advance scheduling for their area. All three carriers were allowed to serve intra-zonal trips. Carriers from Zones 1 and 3 were allowed to also take trips to Zone 2, while the Zone 2 carrier could take trips to Zones 1 and 3. The design further provided for two carriers—Art’s Transportation and Jay’s Transportation—to provide subscription trips (which they had been doing predominantly under the former design) and to serve (directly) the longer trips between Zones 1 and 3 (originally, the new design was to require a transfer from trips between Zones 1 and 3 but this was never implemented.) Art’s Transportation subsequently discontinued service in November 2008.

Another significant service was related to the trip reservation process and same-day trip requests. Under the new service design, riders can call to see if same day service is available, but these requests are not guaranteed even if made at least two hours in advance. The “will-calls” return trips policy, which allowed riders to leave the return trip open and call when they were ready to return, was also discontinued and all riders are now required to book both ends of each trip.

As previously mentioned, Pace undertook this specific approach as a way to address ADA compliance issues and to improve on-time performance and service quality (Pace’s most immediate goals) while reserving the consideration of other design models (notably the centralized call center model) as a means to further improve service efficiency.

However, there were several problems that arose in the implementation of this model. Problems with the new Trapeze software were encountered in the week immediately following the transition. Carriers had difficulty using the system to advance schedule. During high demand periods of the day, the carriers reverted to manual scheduling and
dispatching. Meanwhile, customers reportedly were experiencing longer hold times than before and could not get through to make reservations or check on late vehicles. Some problems with contractor performance and the capacity of carriers to meet the trip demand were also encountered.

While these problems were ultimately addressed to a large extent, the disability community continued to be dissatisfied with the new service. Perhaps the biggest complaints were:

- for many customers, no longer being able to call their favorite carrier because of the new zone system; and
- no longer being able to count on same day trip changes
- no longer being able to have an unscheduled return trips for certain trips (e.g., medical appointments)

On the positive side, problems with telephone access were improved dramatically, such that customers could call in during any hour of the reservations period. On-time pick-up performance also improved. And, the level of street supervision also improved.

Because of customer disenchantment, Pace established a Blue Ribbon Committee (BRC) in June 2008 for the purpose of seeking independent recommendations regarding ADA paratransit service issues relative to its transition to a region wide system. Members of the committee included consumers, executives and other representatives of advocacy groups, government leaders, and the chairs of the ADA committees for the RTA and the service boards. The BRC focused on customer service, operations and the ADA structure within Pace in developing 28 recommendations.

Abbreviated recommendations related to customer service included the following 12 recommendations:

- Working with its ADA Advisory Committee and the disability community, Pace should develop a curriculum for disability awareness and cross cultural training and provide the training to all Pace and contractor staff involved in the provision of ADA Paratransit service.
- All Pace communications must comply with Title II of the ADA, and be available in English and Spanish. Pace should maintain as part of its ADA paratransit customer files each customers’ preferred format of communication.
- Pace should strive to resolve Paratransit customer complaints within 10 business days of their being filed. The responses should include specific actions to be undertaken as a result of the complaint. A third party should be retained to assess the complaint process.
- The ADA Advisory committee and riders must be consulted as to any proposed policy changes. Pace should not implement the policy, as proposed, if there is significant opposition.
• Pace should re-institute policies allowing for same-day changes and will call reservations.
• Special instructions (e.g., for extra assistance) should be elicited from customers at the time of the trip request, and be made known to schedulers, dispatchers, and drivers.
• Pace should enforce its policies regarding rider reported emergencies.
• Pace should subcontract with an independent organization to conduct customer satisfaction surveys of Paratransit riders on a semi-annual basis. Survey results should be shared semi-annually with the ADA Advisory Committee and at least annually with Paratransit riders.
• Pace contracts should include a provision for rewarding contractor staff for exemplary service based on rider feedback.
• Private information should remain private, with penalties for non-compliance.
• Contractors should institute a separate telephone number or menu option to handle ride cancellations, with the handling of a cancellation by a live operator.
• Working with its ADA Advisory Committee, Pace should develop an incentive program to reduce no-shows and late cancellations by Paratransit riders.

The BRC developed the following 5 recommendations related to ADA Paratransit operations:

• Working with the ADA Advisory Committee and riders, RTA should re-evaluate the Pace Paratransit zoning system and its “reconstruction and/or deconstruction.” It was suggested that this analysis be completed by March 2009. This recommendation in part spurred this ADA Paratransit Audit study.
• Working with the ADA Advisory Committee and riders, Pace should establish a system to evaluate its Paratransit vehicles, particularly with respect to vehicle configuration and features.
• Working with the ADA Advisory Committee and riders, RTA should create an independent monitoring system for ADA Paratransit service, with quarterly reports made public.
• Pace should implement a region wide centralized scheduling system that would allow customers to call one toll-free # region wide to arrange all trips.
• Pace should establish a conflict mediator available through a toll-free number during all hours of operation to immediately address conflicts as they occur.

There were also 11 recommendations related to the structure and workings of the ADA Advisory Committee. These included:

• There should be two new ADA Advisory Committees, one serving the City of Chicago and another serving Suburban Cook County and the five collar counties.
• Each of the two committees would be comprised of 15 members.
• Committee members would serve staggered terms to be determined.
• Both committees should strive for diversity.
• The committees should remain consumer-driven and comprised of riders.
• Two sets of alternating locations should be established for meeting places.
• The initial five members of each committee would be selected by the Pace Board Chairman, and those five would then be tasked with selecting the remaining 10.
• The current co-chairs should be barred from serving in a leadership role on the new committees for two years.
• The chairs of the two Pace ADA Advisory Committees provide a report to the Pace Board of Directors at a Pace Board meeting on a quarterly basis.
• The new Pace ADA Advisory Committees should develop their own by-laws.
• Issue related to ADA enforcement practices such as appeals or mediation should be re-visited by the two committees.

The BRC also concluded that the most prominent results were problems with zoning and the need for better communications and training.
Section 3. Current Service Standards

As part of the service redesign, Pace refined the definitions of several performance and operating measures and established standards for performance for the ADA paratransit service in the CTA service area. These definitions and service standards were included in the RFP used to procure service contractors and in the contracts with the contractors. The definitions clarify how certain key operating items are to be measured. The standards set minimum levels of performance and goals for several key operating performance measures. In some cases, incentive payments for exceeding the goals, as well as penalties for not meeting the goals, are called for in the contracts with the service contractors.

As part of this review, the definitions and standards set by Pace for several key service policies were reviewed. The completeness and reasonableness of the definitions and standards was considered. Findings and recommendations on the current definitions and standards were then developed. The review considered definitions and standards established for:

- Trip Denials and Scheduling Window
- Missed Trips
- On-Time Performance
- Travel Times
- Telephone Performance
- Vehicle Wait Time, No-Show, and Late Cancelations
- Productivity

Following is information about definitions and standards in each of these areas.

Trip Denials and Scheduling Window

Page 11 of Exhibit B of the RFP used to procure service contractors, and included in the contracts, states that:

For the purposes of this Contract a Trip Denials shall be defined as follows:

Any ride request which cannot be accommodated within the guidelines of this Contract for whatever reason. This includes requests which cannot be satisfied because:

1. The requested time slot in the schedule is at capacity.
2. The rider is not eligible for the service (eligibility as defined above)
3. The requested trip is outside specified service areas
4. The requested trip times are outside of service hours specified above
5. The trip is not an eligible trip.
6. Other operational or scheduling reasons.
This section of the RFP goes on to say:

Trip denials are not allowed within a usable hour of the trip request and violate the FTA ADA regulations. For more information reference the FTA website at www.fta.dot.gov. The Contractor must accommodate trip requests as required by the FTA ADA regulations. Pace may provide assistance in extenuating circumstances should the Contractor be unable to fulfill this requirement.

All trip denials shall be recorded by the Contractor according to Pace guidelines in effect and submitted to Pace on a form supplied by Pace. A separate "Trip Denial" list must be maintained for each service component. The information required shall include, but not be limited to, trip request date, time request call was received, rider's name, requested trip date, trip origin, trip destination, requested pick-up time, requested return pick-up time, alternate times offered to the rider by the call-taker, reason for the trip denial, and other information relevant to the trip request. This report shall be submitted with the required monthly report accompanying the Contractor's billing for service provided. The Contractor shall provide all information about the trips denial requested on the trip denial form and must be specific concerning the reason for the trip denial, and the alternatives offered to the caller.

Page 26 of Exhibit B then establishes a liquidated damage for failure to report trip denials. It states:

**Denial Reporting** - Pace may impose liquidated damages in the amount of $500.00 per month if the Contractor exhibits a pattern of failure to record and report denials.

**Observations and Recommendations**

By stating that "Trip denials are not allowed within a usable hour of the trip request," Pace has established a zero denial policy. The policy also implies that trips are to be scheduled within an hour of the requested time. This policy is appropriate and in keeping with DOT ADA regulations and FTA guidance.

The policy also delineates various types of "denials" which may occur in operations, including denials of trips that are outside the service area, hours of operation, or other defined service limits. As detailed later in Section 5, Pace and the contractors also appear to be doing a better job of recording and reporting all types of denials, including eligibility denials.

While there is no liquidated damage for inappropriately denying trips, only for not reporting them, this is appropriate. Having a liquidated damage might imply that Pace expects that there might be some capacity denials. Simply saying that "Trip denials are not allowed" implies that there is no option other than to accept all trip requests.
In general, the trip denial policy is appropriate. We would however, encourage Pace to be more specific regarding the one-hour scheduling window associated with the acceptance and scheduling of trips. Recent compliance reviews of ADA paratransit services conducted by FTA have indicated that the one-hour scheduling window needs to be applied appropriately and should meet the basic trip requirements. For example, if a rider were to request a 5:15 p.m. pick-up to return home from work, FTA has indicated that it would be appropriate to offer a pick-up time from 5:15 to 6:15 p.m., but not a pick-up at 4:15 which would require the rider to leave work early.

Pace does provide the providers with a sample reservations script that does instruct them to schedule going trips based on desired arrival times when appropriate. This leads to the proper use of the scheduling window for most going trips. And, first-hand observations of the trip reservations areas at all three primary zone contractors indicated that in practice the reservationists take riders’ trip needs into consideration when offering pick-up times. But, if an offered time didn’t work for a rider, was within the one-hour window and was the only option generated by Trapeze, it might get recorded as an “adversarial denial” if not accepted.

We would suggest that a more complete discussion of the one-hour negotiation time be developed and included in formal contract language and reservationist training. It would therefore be good to provide additional guidance on the use of the one hour scheduling window as part of the formal policies and contract requirements.

The Trapeze system also has features to ensure appropriate trip scheduling. For example, when scheduling a return trip, it allows reservationists to specify an “Earliest Time” (ET) for the pick-up on the trip booking screen. By specifying this, Trapeze is instructed to only look for pick-up options one hour after the requested time.

It is recommended that Pace consider developing a more specific policy concerning the application of the one-hour scheduling window. The policy could state that the on-hour window should be applied in a way that meets the trip needs and does not require riders to leave appointments or destination earlier than possible, or provide pick-up times that would get riders to appointments late. The policy might also require use of the Trapeze “ET” options when booking trips.

**Missed Trips**

Page 13 of Exhibit B of the RFP used to procure service contractors, and included in the contracts, defines a missed trip as follows:

> A missed trip shall be defined as follows:

1. A scheduled trip for which the Contractor does not make the pick-up for any reason other than rider cancellation or rider no-show. Rides canceled by the Contractor shall be considered a missed trip.
2. A scheduled trip for which the pick-up is made more than sixty (60) minutes late.

A reporting requirement for missed trips is also specified on Page 13 of Exhibit B, as follows:

The Contractor is required to fax to Pace for each missed trip a report of the missed trip…describing all details of the missed trip, including an explanation for the missed trip, the date and time of the missed trip, the rider whose pick-up was missed, the origin and destination of the missed trip, and the communication with the rider. The Contractor must submit such report as soon as possible, but no later than twelve (12) hours after each occurrence.

Page 24 of Exhibit B then specifies the liquidated damages to be assessed for missed trips. It states:

For each missed trip, the value of two (2) service hours or twice the trip rate will be deducted from the Contractor's monthly reimbursement. For any missed trip not reported as required…...the value of four (4) service hours or four (4) times the trip rate will be deducted from the Contractor's monthly reimbursement.

Observations and Recommendations

The current definition of a missed trip appears appropriate. It is common in the industry to consider missed trips to be trips not taken because of contractor performance as well as “very late” trips that are performed.

Pace does not identify a performance goal related to missed trips. In discussions, though, it was indicated that the unstated goal is that there be no missed trips. This very aggressive performance goal is supported by the significant liquidated damage associated with each missed trip occurrence.

One possible clarification in the definition would be to specify what is meant by “more than 60 minutes late.” This could be interpreted as more than 60 minutes after the scheduled pick-up time, or more than 60 minutes after the end of the 20 minute pick-up window (which would be more than 80 minutes after the scheduled pick-up time). Discussions with Pace indicated that they intended the language to mean more than 60 minutes after the scheduled pick-up time and that this is what has been communicated with the contractors. When appropriate, it would be good, though, to clarify this in the formal definition and policy.
Also, first-hand observations of the contractor operations identified some inconsistencies in the coding of trips where vehicles arrived after the end of the 20 minute on-time window, but not more than 60 minutes after the scheduled pick-up time. In some instances, dispatchers coded these occurrences as cancellations. This was done because the trip was not a no-show (the vehicle was late), but also was not a “missed trip” because the vehicle arrived within 60 minutes of the scheduled pick-up time. Pace indicated that if riders call and subsequently question why they were considered a no-show, the coding is changed and the no-show is removed from the record. Technically, as per the definition, these occurrences would be missed trips. However, it is important to distinguish between missed trips where the vehicle is not excessively late and misses where the vehicle is excessively late.

To address these situations, it is recommended that Pace develop additional coding for trips not taken where the vehicle arrived from 21 minutes after the scheduled pick-up time to 60 minutes after the scheduled time. These might be coded as “missed trips,” while occurrences where the vehicle showed up more than 60 minutes after the scheduled time might be coded as “Missed – very late.” Or, trips not taken where the vehicle showed up from 21 to 60 minutes after the scheduled time might be coded as “Late – Not transported,” and trips not taken where the vehicle arrives more than 60 minutes after the scheduled pick-up time might be coded as “Missed Trips.” Pace indicated that it is preparing to install an updated version of the Trapeze software and that it was planning a trip coding adjustment along these lines at that time.

**On-Time Performance**

Page 13 of Exhibit B of the RFP used to procure service contractors, and included in the contracts, defines an on-time pick-up as follows:

> Picking up a rider on-time shall be defined as arriving and or making the pick-up within twenty (20) minutes after the scheduled time.

The performance standard for on-time service is then defines as follows:

> The Contractor shall be expected to achieve on-time performance equaling or exceeding 95% of the pick-ups within twenty (20) minutes of the scheduled time. On-time performance will be determined based on a review of a sample of data for the calendar month or on review of all data submitted by the Contractor as determined by Pace staff.

Page 24 of Exhibit B then identifies the liquidated damages to be assessed for late pick-ups. It states:

> For each pick-up which does not meet the 95% standard for on-time performance the following liquidated damages will be imposed:
1. 10% of the value of one service hour or trip rate will be deducted from the Contractor’s monthly reimbursement for trips picked up 21 to 30 minutes beyond the scheduled pickup time.

2. 40% of the value of one service hour or trip rate will be deducted from the Contractor’s monthly reimbursement for trips picked up 31 to 60 minutes beyond the scheduled pickup time.

3. 50% of the value of one service hour or trip rate will be deducted from the Contractor’s monthly reimbursement for trips picked up more than 61 minutes beyond the scheduled pickup time.

Observations and Recommendations

The definition and standard for on-time pick-ups that is used by Pace, and which has historically been applied in the Chicago area, is a very high one. While there are some large city transit systems that also use a 20 minute on-time window, many ADA paratransit services consider pick-ups to be on-time if made within a 30 minute window. A 2008 study conducted by TranSystems that surveyed 13 large city ADA paratransit programs, found that eight systems used a 30 minute pick-up window, four a 20 minute window, and one a 15 minute window (Table 3.1).

<table>
<thead>
<tr>
<th>City</th>
<th>On-Time Pick-Up Window</th>
<th>On-Time Pick-Up Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boston</td>
<td>20 min (-5/+15)</td>
<td>90%</td>
</tr>
<tr>
<td>Atlanta</td>
<td>30 min (0/30)</td>
<td>95%</td>
</tr>
<tr>
<td>Denver</td>
<td>30 min (-15/+15)</td>
<td>93%</td>
</tr>
<tr>
<td>New York City</td>
<td>30 min (0/30)</td>
<td>NA</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>20 min (0/20)</td>
<td>91%</td>
</tr>
<tr>
<td>Ft. Lauderdale</td>
<td>30 min (NA)</td>
<td>92%</td>
</tr>
<tr>
<td>Minneapolis</td>
<td>30 min (-15/+15)</td>
<td>95%</td>
</tr>
<tr>
<td>Dallas</td>
<td>20 min (0/20)</td>
<td>NA</td>
</tr>
<tr>
<td>Seattle</td>
<td>30 min (-15/+15)</td>
<td>90%</td>
</tr>
<tr>
<td>San Diego</td>
<td>15 min (-5/+10)</td>
<td>95%</td>
</tr>
<tr>
<td>St. Louis</td>
<td>30 min (-15/+15)</td>
<td>96%</td>
</tr>
<tr>
<td>San Mateo</td>
<td>20 min (0/20)</td>
<td>90%</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>30 min (-10/+20)</td>
<td>90%</td>
</tr>
</tbody>
</table>

(Source: ADA Complementary Paratransit Services Peer Review, conducted by TranSystems Corp., conducted for the Massachusetts Bay Transportation Authority, Boston, MA, January 4, 2008)

The systems also reported performance standards that ranged from 90% to 96%. Those systems that used a 30 minute window had standards that ranged from 90% to 96%, with the average being 93%. The three systems that reported their standards and
that used a 20 minute window had standards of 90%, 90%, and 91%. Pace’s 95% standard with a 20 minute window is set for very high customer service.

It was noted that Pace does not currently have an on-time drop-off standard and only recently began tracking on-time drop-off performance. It should be noted, though, that many transit systems do not yet have on-time drop-off performance standards and Pace is one of only a few large systems that does now track on-time drop-offs. In recent compliance reviews, FTA has indicated that it considers on-time drop-offs to be an important consideration in capacity constraint compliance. As noted in Section 5, on-time drop-off performance for services in the CTA service area ranged from 81% to 87% and was several percentage points below on-time pick-up performance in the Fall of 2008.1 Also as noted in Section 5, the lack of an on-time drop-off standard could be a factor in circuitous routing.

It is recommended that, in addition to tracking on-time drop-off performance, Pace consider developing and adopting an on-time drop-off definition and standard. Three of the 13 systems surveyed by TranSystems in 2008 indicated on-time drop-off standards. Boston defined on-time drop-offs as occurring from 30 minutes before the appointment time up to the appointment time (-30/0 window) and required 100% on-time drop-offs. Ft. Lauderdale reported a -30/0 window for drop-offs but did not indicate a specific percentage standard. Minneapolis indicated a -45/0 on-time window and a 90% standard, and St. Louis used a -30/0 drop-off window but had not set an exact standard. It is recommended that Pace consider a drop-off window of -30/0 and a standard, a goal of 95% performance and a minimum performance level of 90%.

Travel Times

Pages 12 and 13 of Exhibit B of the RFP used to procure service contractors, and included in the contracts, address on-board ride times. The following general statement is made about travel times:

**Passenger Travel Time** - While the dispatcher shall attempt to schedule a series of pick-ups so as to load the vehicle to the highest capacity and operate at the highest possible productivity, the dispatcher shall also attempt to minimize a passenger's ride time to insure that it is not excessive.

A standard and requirement are then set forth as follows:

**Standard:** In general, passenger travel time shall be comparable to regular fixed and may include transfers. This standard shall apply except when circumstances exist beyond the Contractor's control, such as inclement weather, unusually heavy traffic, etc.

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1 Pace reports that recent on-time drop-off performance has improved to 89% in April 2009, and 90% in May and June 2009.
**Requirement:** Contractor is required to comply with FTA requirements regarding passenger travel time. For trips provided where the passenger travel time exceeds comparable travel time for that of fixed route service, the Contractor's supervisory personnel for the project shall provide a written explanation for the additional travel time, upon Pace request.

The contracts with contractors do not specify incentive payments or liquidated damages associated with the travel time standard.

Beyond the specific contract language and formal standards, it was noted that Pace has implemented an aggressive monitoring of on-board travel times (see Section 4, “Current Pace Monitoring”).

**Observations and Recommendations**

The current travel time standard complies with FTA guidance that ADA paratransit travel times be comparable to fixed route travel times. Recent compliance reviews by FTA have also suggested that in making a comparison with fixed route service, the fixed route travel time should be considered the on-board ride time, transfer time, plus a reasonable walking and waiting time to and from bus stops at the origin and destination. Pace noted that this methodology is currently used to compare ADA paratransit and fixed route travel times.

While the current standard is consistent with the DOT ADA regulations, its general nature makes it difficult to operationalize. In actual practice, to achieve this standard, Pace and the contractors use a maximum travel time parameter setting in the Trapeze system. That setting is 90 minutes. This means that the Trapeze system will not schedule rides over 90 minutes and will flag as “violations” any rides that are manually scheduled with longer ride times or take or are projected to take more than 90 minutes. Pace then tracks the number and percentage of trips with ride times over 90 minutes (see Section 4).

While the current parameter setting will protect against very long rides, it may not adequately address appropriate ride times for medium-length and shorter trips. It was noted that the Trapeze system has an “On-Board Time Matrix” that allows systems to specify maximum travel times for trips of varying length. This matrix is currently not used by Pace or the contractors.

It is recommended that Pace test various settings in the On-Board Time Matrix in Trapeze to address travel times for medium and shorter trips. These possible settings should be run in a test environment to determine their effect before being made available to the contractors for actual service. The settings might be established to allow 30 minutes, 45 minutes, 60 minutes, 75 minutes, and then 90 minutes for trips of increasing length.
Telephone Performance

Page 21 of Exhibit B of the RFP used to procure service contractors, and included in the contracts, addresses telephone performance. It states:

**Standard:** The Contractor shall assign sufficient personnel to the project to assure that:

1. Calls will be answered within three (3) rings.
2. Seventy-five percent (75%) of the calls will be on hold no more than one-hundred and fifty (150) seconds. Contractor should understand that this represents the minimum standard. Contractor should strive to handle calls so that no less than 90% are answered within 150 seconds.

**Requirement:** The Contractor is expected to provide the appropriate number of personnel having sufficient knowledge of the service area and the Chicago ADA service guidelines so that scheduling of rides can occur at the time the reservation is taken, as required by Pace. All incoming telephone lines used for passenger reservations will be answered "Pace ADA Services", or as otherwise instructed by Pace.

The contracts do not specify incentive payment or liquidated damages related to telephone performance.

**Observations and Recommendations**

The goal of answering 90% of all calls within 150 seconds is comparable to standards established for other large city ADA paratransit programs. The 75% minimum level of performance appears to be somewhat low compared to other systems. Table 3.2 shows telephone performance standards for nine large city systems.

Table 3.2 shows considerable variation among systems and suggests that acceptable levels of performance vary and probably area associated with past performance. In the Chicago area, past telephone performance was reported to be a significant issue. The standards adopted by Pace represent an improvement over prior performance. Improvements in telephone performance were reported by many riders who participated in public meetings and who submitted written comments (see Section 6).

While the standard of 75-90% within 2.5 minutes represents a significant improvement, we would recommend that Pace consider a tighter range of performance in the future—such as an 85% minimum level of performance with a 90% goal. It is also recommended that Pace consider incentive payments and liquidated damages for this metric to encourage contractors to maintain adequate staffing.
Table. 3.2 - Telephone Performance Standards for Selected Cities

<table>
<thead>
<tr>
<th>City</th>
<th>Telephone Performance Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlanta</td>
<td>90% of calls answered within 3 minutes; 100% within 5 minutes</td>
</tr>
<tr>
<td>Denver</td>
<td>100% of calls answered within 2.5 minutes</td>
</tr>
<tr>
<td>New York City</td>
<td>98% of calls answered within 20 seconds</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>Average hold times of less than 2 minutes and 95% of calls answered within 5 minutes</td>
</tr>
<tr>
<td>Ft. Lauderdale</td>
<td>100% of calls answered within 90 seconds</td>
</tr>
<tr>
<td>Dallas</td>
<td>91% of calls answered within 3 minutes</td>
</tr>
<tr>
<td>Seattle</td>
<td>90% of calls answered within 3 minutes</td>
</tr>
<tr>
<td>San Diego</td>
<td>Average hold times not to exceed 2 minutes</td>
</tr>
<tr>
<td>San Mateo</td>
<td>Average hold times not to exceed 2 minutes</td>
</tr>
</tbody>
</table>

(Source: ADA Complementary Paratransit Services Peer Review, conducted by TranSystems Corp., conducted for the Massachusetts Bay Transportation Authority, Boston, MA, January 4, 2008)

Vehicle Wait Time, No-Shows and Late Cancellations

Page 11 of Exhibit B of the RFP used to procure service contractors, and included in the contracts, provides a definition of no-shows that also incorporates vehicle wait time and late cancellation policies. It states:

**No-Show**s - For the purposes of this Contract a no-show shall be defined as follows:

A scheduled ride for which a rider fails to respond within five (5) minutes of arrival of the vehicle. The vehicle must arrive no later than twenty (20) minutes after the scheduled time for this trip to be considered a no-show. In order to be considered a no-show the vehicle must wait until at least five (5) minutes after the scheduled pick-up time.

**Late Cancellations** - For the purposes of this Contract a Late Cancellation shall be defined as follows:

A scheduled ride which is canceled by the rider less than two (2) hours prior to the scheduled pick-up time.

Section V.C of Exhibit B of the contracts details the procedures to be followed when passengers do not appear for a scheduled pick-up. It states:
If the passenger does not appear at the arrival of the vehicle, the driver shall request instructions from the dispatcher. Dispatchers shall make every attempt to contact the rider to notify him/her that the vehicle has arrived for the scheduled pick-up. The dispatcher may direct the driver to continue to the next scheduled pick-up, provided that every possible attempt has been made to notify the rider that the vehicle is waiting, that the vehicle has waited no less than five (5) minutes after the scheduled pick-up time, and the schedule does not permit additional waiting time for the vehicle. The dispatcher shall document the attempt to contact the passenger or the contact of the passenger recording time of the call and dispatcher name.

Pace has also established a “No-Show/Late Cancellation Policy” that allows for suspensions of service for riders who establish a pattern or practice of missing scheduled rides. It should be noted, though, that the policy has not yet been implemented and riders who have a pattern or practice of missing scheduled trips are not being suspended.

First, the policy sets four conditions that must exist for a rider to be charged with a no-show. These conditions are consistent with the definition of a no-show above and are:

- The customer has a scheduled ADA paratransit ride
- The ADA vehicle arrives at the scheduled pick-up point no later than 20 minutes after the scheduled pick-up time
- The driver waits at least five full minutes beyond the scheduled pick-up time, and the customer fails to board the vehicle
- The driver cannot see the customer approaching the vehicle, and the contractor has attempted to make contact with passengers who are visually impaired and passengers who have requested that contact be made

Late cancellations, as defined above, are included in the calculations of “no-shows” for the purposes of the suspension policy.

The policy then indicates that Pace will track scheduled trips, no-shows and late cancellations by rider, and identify riders whose trip making history within a 30-day period meets the following criteria:

- No-shows/late cancellations represent 10% or more of their scheduled trips; and
- The rider has three or more no-shows/late cancellations

Riders whose trip making history meets these criteria will be subject to the following possible actions:

- First occurrence – A warning letter
- Second occurrence – Second warning letter
- Third occurrence – 7 day suspension from service
- Fourth occurrence – 14 day suspension from service
• Additional occurrences – 30 day suspension from service

Finally, the policy allows riders to challenge no-shows with which they have been charged. The policy states that:

*Passengers who contact Pace to challenge no-shows will be provided with a form to complete and submit. Pace will investigate the customer’s challenge using computer and GPS tracking technologies to determine if the challenge is valid. Forms will be available at Passenger Services and on Pace’s web site.*

**Observations and Recommendations**

In general, Pace’s definitions of no-shows and late cancels, and the operating procedures to be followed by contractors related to no-shows, are very thorough. Also, Pace’s “No-Show/Late Cancellation Policy” is constructive in that it focuses on riders with a significant number of no-shows. It is consistent with recent FTA guidance that suggests that the frequency of no-shows, rather than just an absolute number, should be considered when determining if a “pattern or practice” of missing scheduled trips exists. The two warning letters and the proposed periods of suspension are also reasonable and are clearly intended to encourage riders to discontinue no-showing trips before any suspension is actually implemented.

To strengthen the current policy and ensure that it meets DOT regulatory requirements regarding “due process,” the following suggestions are made:

• Pace should consider counting late cancellations as one-half of a no-show, rather than a full no-show. Otherwise, there will be no incentive for riders to cancel trips once it is less than two hours before the scheduled pick-up time.

• It is recommended that Pace inform riders that they will not be charged with no-shows for circumstances beyond their control. This should be stated in the “Pace No-Show/Late Cancellation Policy” document. It should also be indicated in warning letters and letters that propose suspensions.

• In addition to investigating customer challenges of no-shows using computer and GPS data, Pace should consider things other than service-related issues. For example, the regulations indicate that other circumstances might include “a sudden turn for the worse,” or a “sudden family emergency.” Pace might find it useful to develop guidance on this issue to inform both riders and staff who will be reviewing challenges of the things that will be considered beyond the rider’s control. Guidance of this type has been developed by King County Metro in Seattle as well as WMATA in Washington, D.C.

**Productivity**

Page 14 of Exhibit B of the RFP used to procure service contractors, and included in the contracts, detailed productivity standards set by Pace. It states
**Definition - Hourly Service:** The productivity will be calculated by dividing the number of weekday one-way trips provided for Components I and II by the number of weekday service hours provided for Components I and H. For the purposes of determining productivity for this standard, the result of this calculation will be rounded to the nearest tenth of a point using standard rounding rules.

**Standard:** The Contractor shall be required to provide service which equals or exceeds 2 passengers per vehicle hour for weekday service provided under Component I and II.

The Contractor will have sixty (60) days from the start of the Contract to meet this efficiency standard. This standard shall only apply to the productivity of service provided Monday through Friday. At Pace’s option the efficiency standard may be reduced based on service levels provided.

**Productivity Liquidated Damages** - The following liquidated damages shall be applied to the productivity of service.

The following liquidated damages shall be applied to each component of service individually based on the Productivity Standards specified in the Standards section above:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Liquidated Damages</th>
</tr>
</thead>
<tbody>
<tr>
<td>For monthly productivity equaling or exceeding the required passengers vehicle hour or passengers per mile</td>
<td>No Damages</td>
</tr>
<tr>
<td>For each one-tenth of a point less than the required passengers per vehicle hour</td>
<td>Damages equal to 1% of the Contractor’s total net reimbursement for the month</td>
</tr>
</tbody>
</table>

Liquidated damages may be waived where Pace determines circumstances beyond the control of the Contractor existed.

**Observations and Recommendations**

The current standard seems to be set well above the level of performance achieved prior to the transition or since the transition. Following the first three months of the transition, from July through December 2008, systemwide productivity was 1.38 trips per vehicle-revenue-hour. This improved only slightly in the latter months of the year—1.39 in October and November 2008. Productivity varied by contractor, with MV never exceeding 1.22 trips per vehicle-hour in 2008, CDT never exceeding 1.40 trips per hour in 2008, and SCR achieving a high of 1.48 trips per hour.

While it is appropriate to challenge contractors to achieve higher productivities, it may not be constructive to attach significant liquidated damages to performance that has not been achieved by any contractors since the transition. Even with a productivity of 1.48,
the highest achieved in any month in 2008 by any contractor, the liquidated damage provisions would call for that provider to forfeit 5% of its net billings for the month. Such a high liquidated damage could overshadow all other incentives and damages associated with other performance measures and could encourage contractors to have lower on-time performance and longer ride times to minimize losses due to lower than standard productivities.

To ensure that a proper balance of productivity and service quality is maintained, it is recommended that Pace reconsider the 2.0 standard—at least in the short-term. The new service design is still relatively new and there is the possibility that productivity may be able to be increased, but even the best current performance is well below the productivity level at which significant disincentives are applied. A standard at the upper range of current performance, but reasonable and attainable should be considered. For example, based on 2008 performance, a minimum standard of 1.5 trips per vehicle-revenue-hour would seem appropriate. The current liquidated damages would then still be applied to this standard. To encourage even better performance, incentives are recommended. For example, an incentive payment might be made for monthly productivity above 1.7 trips per vehicle-revenue-hour. This would create an “acceptable” operating range between 1.5 and 1.7 trips per hour. The incentives should be set to be a portion of the savings that would be achieved by the higher productivity, so that both Pace and the contractors benefit from the higher level of performance. The incentives should not, however, be set so high that contractors would be incentivized to compromise on-time performance or ride times. In the longer term, Pace could revisit the productivity standard and reset it at levels that are consistent with actual recorded performance.
Section 4. Current Pace Monitoring

One of the objectives of the review was to assess Pace’s current monitoring of the ADA paratransit service in the CTA area. To complete this task, the review team examined the reporting requirements in the contracts between Pace and the service contractors. The review team also examined documentation of service monitoring activities while on site at Pace in March of 2009.

This section provides a summary of current Pace monitoring efforts. It provides findings on the thoroughness and adequacy of current monitoring activities. Recommendations for possible additional activities are also included.

It should be noted that an important component of service monitoring is the acceptance, review, and response to comments and complaints received from riders. This aspect of monitoring was also reviewed by the team, but is presented separately in Section 6.

Current Reporting Requirements

The current service contracts contain numerous reporting requirements. Contractors are required to submit the following reports:

Weekly Operations Reports

Contractors provide Pace with weekly operations reports. These reports include information about the number of trips provided and total hours of service operated. They also include copies of Daily Driver Activity Reports, which show start and ending times and start and ending miles for each vehicle used by each driver for the week. The reports also include detail about all trip requests that are denied.

Monthly Service Reports

Contractors are required to provide Pace with a monthly service report along with monthly billing statements. The monthly reports contain: a summary of trips provided by weekday service and weekend service; total weekday days of service; total weekend days of service; total weekday vehicle-hours of service; total weekend vehicle-hours of service; total cost based on approved contract rates; imputed and collected fares; the net cost of service; a summary of trip requests denied; documentation of the contractor’s on-road monitoring work for the month including a summary of monitoring observations; and documentation of driver training completed during the month including a list of participants. Monthly reporting also includes the submission of Monthly Vehicle Summaries that show miles traveled and work performed by vehicle.

Contractors are subject to a $500 liquidated damage per month for a pattern of failing to comply with the monthly reporting requirements.
**Accident and Incident Reporting**

Contractors must complete and submit a Pace Accident/Incident Report within 24 hours of any accident or incident. Contractors are subject to a $500 liquidated damage per month for a pattern of failing to submit required accident/incident reports.

**Complaint Investigation Reports**

Contractors must investigate and respond within three days to any rider complaints that are forwarded by Pace. Contractors are subject to a $500 liquidated damage per month plus $50 per complaint for failing to provide complaint responses. The complaint investigation process is discussed in more detail in Section 6.

**Trip Denial Reports**

Detailed procedures exist for recording and reporting any and all trip denials. The contracts state that:

> All trip denials shall be recorded by the Contractor according to Pace guidelines in effect and submitted to Pace on a form supplied by Pace. A separate "Trip Denial" list must be maintained for each service component. The information required shall include, but not be limited to, trip request date, time request call was received, rider's name, requested trip date, trip origin, trip destination, requested pick-up time, requested return pick-up time, alternate times offered to the rider by the call-taker, reason for the trip denial, and other information relevant to the trip request. This report shall be submitted with the required monthly report accompanying the Contractor's billing for service provided. The Contractor shall provide all information about the trips denial requested on the trip denial form and must be specific concerning the reason for the trip denial, and the alternatives offered to the caller.

Contractors are subject to a $500 liquidated damage per month for a pattern of failing to record and report trip denials.

**Missed Trip Reports**

Contractors are required to notify Pace each time a trip is missed. A missed trip form must be completed and faxed to Pace. The form includes the date and time of the missed trip, the rider whose pick-up was missed, the origin and destination of the missed trip, and any communication with the rider. An explanation for the missed trip must also be provided. The Contractor must submit these reports as soon as possible, but no later than twelve (12) hours after each occurrence.
Employee Qualifications Reports

Contractors must submit reports documenting drug and alcohol tests for all employees in safety sensitive positions. These reports must be submitted at the time of hire and every two years thereafter.

Contractors must also send Pace documentation of driver qualifications and training. This includes a copy of each driver’s valid license, CDL certificate, DOT physical certificate, and driving record. A checklist showing the types of training completed and the dates of the training must also be submitted. Pace reviews all of this information before generating a driver ID. All drivers must have an ID to operate Pace vehicles.

Drug and Alcohol Testing Reports

Contractors must submit federally required reports that document the number of drug and alcohol tests conducted and the reason/type of test conducted. Reports are required every six months.

Fleet Roster

Each contractor must submit a current fleet roster. As vehicles are added or retired, the roster must be updated and provided to Pace.

Ongoing Monitoring Activities

In addition to the regular and periodic required reporting noted above, Pace and the contractors perform daily, ongoing monitoring of service performance. The types of activities are detailed below.

Pace Monitors

Pace employs about 20 service monitors for its entire operation. At the time of the on-site visit in March 2009, it was reported that three of these monitors are dedicated to making observations of paratransit operations in the CTA service area. It was also noted, though, that Pace is able to utilize and direct as many of the 20 monitors as may be needed to specific services or issues.

The Pace monitors perform both random and targeted monitoring. They have rider IDs and can request trips and ride the service incognito. Their identification is kept confidential by Pace so that the contractors are not aware when a trip is requested or taken by a monitor. They can also be directed to make observations of particular drivers or other contractor employees if these observations are needed as part of the complaint investigation process or for other reasons.
A copy of the checklist used by Pace monitors to record observations provided in Attachment 4A. The first page of the checklist is used to record experiences when call to request and schedule trips. It notes the hold times experienced, whether the trip time requested was available and if not whether an acceptable alternative time was offered, and the professionalism of the contractor employee that booked the trip. The second page of the checklist records information about trips taken. It notes the boarding and alighting times and on-time performance, the driver performance and assistance, and the vehicle condition. This second page is also designed to be used if monitors are not taking trips themselves, but are observing service being provided to others.

**Pace Supervisor Monitoring**

In addition to the dedicated, full-time Monitors, Pace recruits Supervisors to make on-street observations when possible. Supervisors keep copies of a “System-Route Checks” form available and record their on-street observations. A copy of a completed System-Route Check form is provided in Attachment 4B. The forms capture information on the scheduled versus actual pick-up or drop-off time, the driver performance, and the vehicle condition.

**Contractor On-the-Road Service Monitors**

Each contractor is required to have on-the-road service monitors to perform random reviews of driver performance. Required observations of driver performance include:

- Timeliness for passenger pick-ups and drop-offs
- Knowledge of the service area
- Passenger assistance provided
- Completeness and accuracy of record-keeping
- Personal appearance
- Appropriate storage of on-board equipment
- Appropriate use of securement and passenger restraint systems
- Adherence to Pace operating policies and procedures
- Adherence to defensive and safe driving principles

Contractor monitors record all observations on forms. If deficiencies in performance are indentified, drivers are also requested to sign the monitoring form to confirm the observation. A copy of a sample completed form, collected as part of the review team’s March on-site visit is provided as Attachment 4C.

As noted earlier, contractors are required to provide a listing of all on-the-road monitoring activities with their billing statements each month. These summaries identify all monitoring activities that show service issues or performance deficiencies. The forms also indicate what actions were taken by the contractor once the issue was identified. Pace reviews the monitoring summaries and corrective actions. Pace also indicated that they track the results and look for patterns that might show repeated performance issues observed for certain drivers.
Documentation of Monitor and Supervisor Activities

As part of the on-site visit, the review team requested and examined records of monitoring activities for recent months. The documentation provided did not record each and every observation made by Pace monitors, supervisors, or contractor monitors. It did, however, summarize observed issues and deficiencies by contractor as well as actions taken to address the issues and deficiencies noted. The documentation showed significant monitoring activity. In January 2009, for example, monitoring activities by Pace Monitors and contractor On-the-Road Service Monitors identified about 18 issues and deficiencies per contractor. This suggests that a considerable number of total observations were made. The documentation also showed a total of 33 observations by Pace Supervisors in the month of February 2008.

Contractor Site Visits

Pace staff visits contractor sites at least once each week. During these visits, call center activities are observed, the scheduling and dispatching functions are observed, and visual inspections of vehicle cleanliness and condition are made.

Twice each year, Pace also conducts full “desk audits” of each contractor. Reports on each audit are prepared. A review of sample reports showed that they cover the following issues:

- A review of reservations, scheduling and dispatch staffing levels
- A review of telephone hold time records
- A review of the appropriate use of the Trapeze system by reservationists, schedulers and dispatchers
- Observations of professionalism in handling telephone calls and rider inquiries and requests
- A review of source documents to ensure that reported calculations of revenue-miles and revenue-hours are correct
- A review of management assignments and coverage to ensure that immediate response to accidents and incidents can be maintained
- A review of employee records to verify that documentation of drug and alcohol testing, valid licenses, physicals, and other qualifications and background checks exists
- A review of general Quality Assurance procedures and issues with the Quality Assurance Managers

The review team examined documentation of desk audits while on-site. The review showed that desk audits of all four providers of ADA paratransit service in the CTA service area had been audited in February 2009. Reports existed for all four reviews and appeared to be complete.
Travel Time Monitoring

Pace has also implemented an innovative process for monitoring long rides. A Passenger Ride Time Report Form is provided by Pace to each of the contractors. These forms are kept on all vehicles and can be used by riders to report trips that they feel were too long. Pace reported that it has printed and distributed over 177,000 forms since the transition.

The Passenger Ride Time Report Form is also available on Pace’s website and can be accessed and completed by riders after they have taken what they feel is a long trip. A copy of the form as it appears online is provided as Attachment 4D.

An investigation of the travel time is then conducted for each trip reported. Pace staff looks the trip up in the system to confirm the pick-up and drop-off times and ride time reported. They then prepare a fixed route trip plan for a similar trip on the fixed route system. The total travel time by fixed route is then compared to the actual paratransit travel time. Results of the investigations are then kept by Pace to determine if there is a pattern or practice of excessively long ride times for certain trips or riders. If a pattern is identified—such as for a subscription rider who has been grouped with too many other riders—Pace will alert the appropriate contractor and request that the travel time be reduced. Pace also maintains a list of riders with patterns of long ride times and monitors the future rides for these individuals.

Documentation of this process was obtained during the on-site visit in March 2009. As of March 20, 2009, records showed that Pace had received a total of 142 completed Passenger Ride Time Report Forms. The investigations of these trips showed that 68 of the 142 reported long rides (48%) were excessively long when compared to similar trips on the fixed route system. Fifty-six (56) of these trips, though, were one-time occurrences and did not show a pattern of excessive ride times. In 12 cases, the investigations identified riders who had an ongoing pattern of excessively long trips. Records indicated that Pace had contacted the contractors and that ride times for eight of these individuals had been adjusted and corrected. Pace was continuing to monitor ride times for the other four individuals.

Monitoring of Recorded Pick-Up Times

An important aspect of monitoring in any paratransit operations, particularly where the scheduling and dispatching is decentralized, is verifying the accuracy of recorded pick-up and drop-off times. Two specific efforts by Pace in this area were noted. First, taking advantage of the advanced paratransit software that has been implemented, Pace has set the system to not allow drivers to “perform” trips if they are more than 250 yards from the scheduled pick-up location. This setting keeps drivers from “quick-tripping” pick-ups—indicating arrivals earlier than they are actually achieved.

Second, as part of ongoing monitoring by Pace Monitors and Supervisors, actual pick-up times and drop-off times are captured and compared to scheduled pick-up times.
This information can then be used to verify the accuracy of times finally entered into the system.

**Application of Liquidated Damages**

As noted above as well as in Section 3, contracts between Pace and the ADA paratransit service contractors in the CTA service area provide for liquidated damages for performance that falls below established standards or which does not comply with contract requirements. The review team obtained and reviewed documentation of actual liquidated damages assessed by Pace as a measure of the actual implementation of these performance provisions.

The review indicated that Pace is actively evaluating performance and assessing liquidated damages when performance falls below contract standards. The documentation reviewed showed that Pace assessed a total of $821,779 in liquidated damages during FY 2007. This included $230,768 assessed to CDT, $187,421 to SCR, and $403,590 to Arts. Jays, a new contractor starting in August 2008, was not assessed any liquidated damages for the first few months of operation.

In FY 2008, Pace assessed a total of $3,633,055 in liquidated damages to ADA paratransit contractors in the CTA service area. This included $1,690,180 to CDT, $903,875 to MV, $879,236 to SCR, $129,082 to Arts, and $30,682 to Jays.

Prior to the transition in March of 2008 (January 2007 through March of 2008), the amount of liquidated damages assessed averaged about $71,538 per month. In April and May 2008, liquidated damages were not assessed to the contractors selected to continue as service providers. The new contract called for a 60 day “no fault” period after the start of the new service design. From June through December 2008, liquidated damage assessments averaged about $482,948 per month.

The increase before and after the transition is largely due to the implementation of new performance standards and stronger liquidated damage provision in the new contracts. The increased amounts, though, also document that Pace is actively and diligently applying the liquidated damages when contractor performance is below standards.

**Findings and Recommendations**

The review found that Pace has very thorough processes in place for monitoring contract compliance and contractor performance. Reporting requirements in the current contracts are very detailed. The monitoring of driver qualifications and training, in particular, which requires that all documentation be submitted before required ID badges are issued, is particularly thorough. Vehicle maintenance requirements and monitoring is also extremely detailed and complete. A significant amount of on-street monitoring is also conducted by Pace staff as well as contractor staff.
Special reporting and monitoring for key paratransit performance issues has also been developed. Reporting of trip denials and missed trips is very detailed. An innovative process for investigating long ride times is also in place.

Overall, Pace’s service monitoring compares very favorably to other ADA paratransit programs that the review team has studied. Service monitoring is clearly a Pace strength.

While the review team finds the current monitoring process exemplary, several recommendations are made to further strengthen the process. These recommendations do not indicate flaws with the current system, but include some innovative monitoring approaches and activities that have been observed at other transit systems.

- It is recommended that Pace consider recruiting current riders as “secret riders” to supplement the three Pace Monitors that are dedicated to the CTA service area. Having additional individuals involved in this “live” monitoring of the actual use of the service will help to ensure that the process is effective. With only three individuals, protecting their identities is difficult even though efforts are made to maintain confidentiality. A number of transit agencies have implemented secret rider programs. These programs can also be very cost-effective—some transit systems reimburse secret riders for the fares on trips for which reports are submitted. Other than the cost of the fares, there would be some expense for training riders to accurately record and report experiences.

- In addition to investigating the long rides reported on the Passenger Ride Time Report Forms, it is recommended that Pace periodically pull and examine a random sample of trips with relatively long ride times. For example, 30 trips per month could be pulled from a list of all trips with ride times over 60 minutes. Comparisons with fixed route ride times could be developed. This additional analysis might be useful since some riders may not report long rides.

- There may be instances where the fixed route system is not designed to effectively meet certain trips. In such cases, it is recommended that Pace consider alternative methods for determining whether paratransit ride time is “excessive.” For example, one way to evaluate ride times in this case is to compare the shared-ride travel time to direct (non-shared) ride time. The MBTA in Boston uses a standard of no more than twice the direct ride time to assess travel times where fixed route service is inadequate. Direct, non-shared, ride times are calculated by the Trapeze system as part of the scheduling process. This information could therefore be accessed by Pace to make these comparisons.

- The MBTA in Boston has also developed a special report that shows the ratio of direct ride time to shared ride time. For selected trips, the report shows the direct ride time, the scheduled on-board time, and the actual on-board time. The report also shows the ratio of schedule to direct time, as well as the actual to direct ride
time. This report is run for each contractor (the MBTA has four contractors) for a randomly selected day each month. The report is useful in evaluating whether the Trapeze system and contractors are scheduling trips to have reasonable ride times and also whether same day actions (such as add-ons) are causing trips to have longer than desirable ride times. It is recommended that Pace consider developing and using a similar report.

- It is recommended that Pace develop a special report to ensure that trip times are recorded accurately. WMATA in Washington, DC has developed a “Performed and Missed Trips with Coordinates Report,” that compares the geographic coordinates of scheduled pick-ups with the vehicle coordinates when trips are “performed.” This allows monitors at WMATA to determine if trips are being inaccurately recorded when vehicles are not at the actual pick-up location. This report would supplement Pace’s on-street monitoring of pick-up times as well as the safeguards afforded by the “default radius” setting in the Trapeze system. An additional report is recommended because, even with the current default radius setting, the system can be over-ridden and trips performed by dispatchers.

- It is also recommended that Pace consider developing a special report to ensure that no-shows are accurately recorded. WMATA in Washington, DC has developed a “No-Shows with Coordinates” report that compares the geographic coordinates of scheduled pick-ups with those of vehicles when no-shows are recorded. The report also shows the scheduled pick-up time, the actual vehicle arrival time, and the actual vehicle departure time. This additional information allows for verification that the vehicle arrived and waited a full five minutes within the pick-up window.

- It is also recommended that Pace develop procedures for ensuring that cancelled trips are coded properly. Review of other systems has sometimes found that when trips are running late, they may be cancelled and re-booked with a new pick-up time. Various codes can be used, including the advance cancel, late cancel, and even user-error cancel codes. WMATA in Washington, DC has developed a special “cancel Trips Query” that can be run for randomly selected days. The report shows all cancellations made on the same day of service. The time that the cancellation was made is compared in the report to the scheduled pick-up time. Trip “Tracker Notes” are also provided in the report. When reviewing the reports, WMATA monitors focus on cancellations that were made late in the pick-up window or after the scheduled pick-up time. This report has supported efforts to ensure appropriate coding of trips by dispatchers.

The above reports on no-shows, trip coding, and the accuracy of recorded trip times are particularly important in the Pace operations since reservations, scheduling and dispatching are handled directly by the contractors. With centralized reservations, scheduling and dispatching, it is easier to monitor and ensure that times are accurate and codings are appropriate. In a decentralized operation, it is important to monitor these items.
Copies of the MBTA and WMATA special reports noted above are available upon request.
Section 5. Service Statistics and Performance: Before, During and After

A main objective of the audit was to assess the performance of the paratransit service before, during and after the transition to a new service design in March of 2008. To do this, the audit team obtained service information and data from January 1, 2007 through December 31, 2008. This allowed for an analysis of service for the 15 months before the transition—from January 2007 through March 2008, during the transition—considered to be the first two months following the transition (April and May 2008), as well as for a seven month period after the transition—June through December 2008.

This section presents service statistics and performance measures for this two year period. Basic service statistics, including ridership, trip denials, advance cancellations, late cancelations, no-shows, and missed trips are first discussed. Key performance measures, including on-time performance, trip length, accident and incident rates, and telephone hold times are then provided. Finally, service efficiency and cost measures, including productivity, total cost, cost per hour, and cost per trip are presented.

Service Statistics

Tables 5-1 and 5.2 on the following pages provide key service statistics for 2007 and 2008. This includes the number of trips requested, the number and percentage of trips denied, the number of trips scheduled, the number and percentage of trips cancelled, no-showed, or missed, the number of trips provided, and the number and percentage of trips that were provided as subscription trips. Note that prior to the transition and the installation of the Trapeze system, some service statistics were not captured. In particular, the number of denied and missed trips was not recorded prior to April 2008.

Ridership

During the three months that preceded the transition, from January through March 2008, ridership grew by 6.6% over the same period in 2007. This included an 8.1% increase in January 2008, a 12.7% increase in February 2008, and a 0.1% increase in March 2008.

During the transition period, from April through June 2008, ridership growth slowed significantly. In April 2008, ridership increased by 1.1% over the prior year. In May 2008, ridership decreased by 1.9% when compared to May of 2007. And in June 2008, ridership increased by 2.6% over June 2007.

Since June of 2008, ridership has resumed steady growth, ranging from a 2.4% increase in November 2008 to a 14% increase in September 2008. On average, ridership increased by 8.8% from July through December 2008 compared to the same six months in 2007.
Table 5.1 - ADA Paratransit Service Statistics for the CTA Service Area, January through December 2007

<table>
<thead>
<tr>
<th></th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
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<tbody>
<tr>
<td><strong>Trips Requested - Reported</strong></td>
<td>185,671</td>
<td>175,260</td>
<td>199,237</td>
<td>191,725</td>
<td>198,837</td>
<td>192,379</td>
<td>193,208</td>
<td>189,647</td>
<td>201,591</td>
<td>199,093</td>
<td>200,166</td>
<td>2,337,855</td>
<td></td>
</tr>
<tr>
<td><strong>Trips Requested - Calculated</strong></td>
<td>185,671</td>
<td>175,260</td>
<td>199,237</td>
<td>191,725</td>
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<td>% Adversarial/Eligibility Denials</td>
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<td></td>
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<tr>
<td>Advance Cancels</td>
<td>34,560</td>
<td>38,506</td>
<td>36,897</td>
<td>36,156</td>
<td>36,161</td>
<td>36,926</td>
<td>38,584</td>
<td>38,884</td>
<td>38,481</td>
<td>37,407</td>
<td>47,010</td>
<td>451,749</td>
<td></td>
</tr>
<tr>
<td>% Advance cancel</td>
<td>18.6%</td>
<td>22.0%</td>
<td>18.5%</td>
<td>18.9%</td>
<td>18.8%</td>
<td>19.1%</td>
<td>19.1%</td>
<td>18.4%</td>
<td>18.2%</td>
<td>18.8%</td>
<td>23.5%</td>
<td>19.3%</td>
<td></td>
</tr>
<tr>
<td>Late Cancels</td>
<td>753</td>
<td>886</td>
<td>828</td>
<td>1,010</td>
<td>824</td>
<td>989</td>
<td>1,086</td>
<td>1,936</td>
<td>2,612</td>
<td>2,557</td>
<td>2,674</td>
<td>17,010</td>
<td></td>
</tr>
<tr>
<td>% Late Cancel</td>
<td>0.4%</td>
<td>0.5%</td>
<td>0.4%</td>
<td>0.5%</td>
<td>0.4%</td>
<td>0.5%</td>
<td>0.5%</td>
<td>1.0%</td>
<td>1.2%</td>
<td>1.3%</td>
<td>0.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No-Shows</td>
<td>4,048</td>
<td>4,260</td>
<td>4,481</td>
<td>4,124</td>
<td>4,124</td>
<td>4,106</td>
<td>4,255</td>
<td>5,740</td>
<td>7,328</td>
<td>6,928</td>
<td>8,582</td>
<td>65,242</td>
<td></td>
</tr>
<tr>
<td>% No-Show</td>
<td>2.2%</td>
<td>2.4%</td>
<td>2.2%</td>
<td>2.1%</td>
<td>2.1%</td>
<td>2.2%</td>
<td>2.8%</td>
<td>3.8%</td>
<td>3.5%</td>
<td>3.5%</td>
<td>4.3%</td>
<td>2.8%</td>
<td></td>
</tr>
<tr>
<td>Missed Trips</td>
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<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
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<td>NA</td>
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<td>NA</td>
<td></td>
</tr>
<tr>
<td>% Missed</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Trips Provided</td>
<td>146,310</td>
<td>131,608</td>
<td>157,031</td>
<td>150,590</td>
<td>157,542</td>
<td>151,308</td>
<td>156,002</td>
<td>151,381</td>
<td>162,620</td>
<td>152,201</td>
<td>141,900</td>
<td>1,803,854</td>
<td></td>
</tr>
<tr>
<td>Subscription Trips</td>
<td>36,403</td>
<td>33,091</td>
<td>41,448</td>
<td>38,749</td>
<td>41,875</td>
<td>39,753</td>
<td>38,786</td>
<td>42,587</td>
<td>36,543</td>
<td>42,702</td>
<td>38,449</td>
<td>463,804</td>
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<tr>
<td>% Subscription</td>
<td>25%</td>
<td>25%</td>
<td>26%</td>
<td>26%</td>
<td>27%</td>
<td>26%</td>
<td>27%</td>
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<td>26%</td>
<td>25%</td>
<td>24%</td>
<td>26%</td>
<td></td>
</tr>
<tr>
<td>Demand Trips</td>
<td>109,907</td>
<td>98,517</td>
<td>115,583</td>
<td>111,841</td>
<td>111,667</td>
<td>111,555</td>
<td>112,216</td>
<td>113,594</td>
<td>109,018</td>
<td>119,918</td>
<td>113,752</td>
<td>1,340,050</td>
<td></td>
</tr>
<tr>
<td>% Demand</td>
<td>75%</td>
<td>75%</td>
<td>74%</td>
<td>74%</td>
<td>73%</td>
<td>74%</td>
<td>74%</td>
<td>73%</td>
<td>75%</td>
<td>74%</td>
<td>76%</td>
<td>74%</td>
<td></td>
</tr>
</tbody>
</table>

“Trips Requested” is calculated as the number of Trips Scheduled, plus capacity denials, plus adversarial/eligibility denials.
“Trips Scheduled” is the total of Trips Provided, plus Advance Cancels, plus Late Cancels, plus No-Shows, plus Missed Trips.
“% Advance Cancels” is the number of Advance Cancels divided by the total Trips Scheduled times 100.
“% Late Cancels” is the number of Late Cancels divided by the total Trips Scheduled times 100.
“% No-Show” is the number of No-Shows divided by the total Trips Scheduled times 100.
“% Missed Trips” is the number of Missed Trips divided by the total Trips Scheduled times 100.
Below are the calculations and statistics for ADA Paratransit Service for the CTA Service Area, January through December 2008:

**Trips Requested** is calculated as the number of Trips Scheduled, plus capacity denials, plus adversarial/eligibility denials.

**% Missed Trips** is the number of Missed Trips divided by the total Trips Scheduled times 100.

**% Late Cancels** is the number of Late Cancels divided by the total Trips Scheduled times 100.

**% Advance Cancels** is the number of Advance Cancels divided by the total Trips Scheduled times 100.

**% No-Shows** is the number of No-Shows divided by the total Trips Scheduled times 100.

### Table 5.2 - ADA Paratransit Service Statistics for the CTA Service Area, January through December 2008

<table>
<thead>
<tr>
<th></th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trips Requested - Calculated</strong></td>
<td>214,106</td>
<td>206,519</td>
<td>211,476</td>
<td>210,578</td>
<td>206,330</td>
<td>210,340</td>
<td>222,318</td>
<td>227,951</td>
<td>226,160</td>
<td>241,729</td>
<td>218,861</td>
<td>234,223</td>
<td>2,632,591</td>
</tr>
<tr>
<td><strong>Capacity Denials</strong></td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Adversarial / Eligibility Denials</strong></td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>459</td>
<td>1,220</td>
<td>1,746</td>
<td>1,698</td>
<td>1,676</td>
<td>1,990</td>
<td>3,029</td>
<td>3,492</td>
<td>3,520</td>
<td>NA</td>
</tr>
<tr>
<td><strong>% Adversarial/Eligibility Denials</strong></td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>0.2%</td>
<td>0.6%</td>
<td>0.8%</td>
<td>0.8%</td>
<td>0.7%</td>
<td>0.9%</td>
<td>1.3%</td>
<td>1.6%</td>
<td>1.5%</td>
<td>NA</td>
</tr>
<tr>
<td><strong>Trips Scheduled - Reported</strong></td>
<td>214,106</td>
<td>206,519</td>
<td>211,476</td>
<td>204,913</td>
<td>205,582</td>
<td>207,794</td>
<td>219,922</td>
<td>225,691</td>
<td>223,497</td>
<td>238,279</td>
<td>214,731</td>
<td>228,050</td>
<td>2,600,560</td>
</tr>
<tr>
<td><strong>Trips Scheduled - Calculated</strong></td>
<td>214,106</td>
<td>206,519</td>
<td>211,476</td>
<td>210,119</td>
<td>207,110</td>
<td>208,594</td>
<td>220,620</td>
<td>226,275</td>
<td>224,170</td>
<td>238,700</td>
<td>215,369</td>
<td>230,703</td>
<td>2,613,761</td>
</tr>
<tr>
<td><strong>Advance Cancels</strong></td>
<td>45,375</td>
<td>46,610</td>
<td>42,982</td>
<td>36,160</td>
<td>36,568</td>
<td>36,020</td>
<td>42,018</td>
<td>41,318</td>
<td>41,228</td>
<td>39,833</td>
<td>40,146</td>
<td>50,463</td>
<td>500,721</td>
</tr>
<tr>
<td><strong>% Advance cancel</strong></td>
<td>21.2%</td>
<td>22.6%</td>
<td>20.3%</td>
<td>17.2%</td>
<td>17.7%</td>
<td>18.2%</td>
<td>19.0%</td>
<td>18.3%</td>
<td>18.4%</td>
<td>16.7%</td>
<td>18.6%</td>
<td>21.9%</td>
<td>19.2%</td>
</tr>
<tr>
<td><strong>Late Cancels</strong></td>
<td>2,187</td>
<td>2,430</td>
<td>1,854</td>
<td>2,571</td>
<td>3,261</td>
<td>3,680</td>
<td>3,992</td>
<td>4,520</td>
<td>4,690</td>
<td>6,692</td>
<td>6,644</td>
<td>8,034</td>
<td>50,555</td>
</tr>
<tr>
<td><strong>% Late Cancel</strong></td>
<td>1.0%</td>
<td>1.2%</td>
<td>0.9%</td>
<td>1.2%</td>
<td>1.6%</td>
<td>1.8%</td>
<td>1.8%</td>
<td>2.0%</td>
<td>2.1%</td>
<td>2.8%</td>
<td>3.1%</td>
<td>3.5%</td>
<td>1.9%</td>
</tr>
<tr>
<td><strong>No-Shows</strong></td>
<td>8,349</td>
<td>9,159</td>
<td>9,395</td>
<td>13,877</td>
<td>11,256</td>
<td>10,913</td>
<td>10,961</td>
<td>11,265</td>
<td>11,643</td>
<td>12,283</td>
<td>12,121</td>
<td>14,776</td>
<td>135,998</td>
</tr>
<tr>
<td><strong>% No-Show</strong></td>
<td>3.9%</td>
<td>4.4%</td>
<td>4.4%</td>
<td>6.6%</td>
<td>5.4%</td>
<td>5.2%</td>
<td>5.0%</td>
<td>5.0%</td>
<td>5.2%</td>
<td>5.1%</td>
<td>5.6%</td>
<td>6.4%</td>
<td>5.2%</td>
</tr>
<tr>
<td><strong>Missed Trips</strong></td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>5,206</td>
<td>1,528</td>
<td>800</td>
<td>698</td>
<td>584</td>
<td>673</td>
<td>421</td>
<td>638</td>
<td>2,653</td>
<td>13,201</td>
</tr>
<tr>
<td><strong>% Missed</strong></td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>2.5%</td>
<td>0.7%</td>
<td>0.4%</td>
<td>0.3%</td>
<td>0.3%</td>
<td>0.3%</td>
<td>0.3%</td>
<td>0.3%</td>
<td>0.3%</td>
<td>1.1%</td>
</tr>
<tr>
<td><strong>Trips Provided</strong></td>
<td>158,195</td>
<td>148,320</td>
<td>157,245</td>
<td>152,305</td>
<td>154,497</td>
<td>155,181</td>
<td>162,951</td>
<td>168,588</td>
<td>165,936</td>
<td>179,471</td>
<td>155,820</td>
<td>154,777</td>
<td>1,913,286</td>
</tr>
<tr>
<td><strong>% Increase Over Prior Year</strong></td>
<td>8.1%</td>
<td>12.7%</td>
<td>0.1%</td>
<td>1.1%</td>
<td>-1.9%</td>
<td>2.6%</td>
<td>7.9%</td>
<td>7.9%</td>
<td>14.0%</td>
<td>10.4%</td>
<td>2.4%</td>
<td>9.1%</td>
<td>6.1%</td>
</tr>
<tr>
<td><strong>Subscription Trips</strong></td>
<td>42,287</td>
<td>38,420</td>
<td>40,227</td>
<td>44,765</td>
<td>42,031</td>
<td>40,702</td>
<td>43,633</td>
<td>42,393</td>
<td>45,204</td>
<td>48,375</td>
<td>38,341</td>
<td>36,384</td>
<td>502,762</td>
</tr>
<tr>
<td><strong>% Subscription</strong></td>
<td>27%</td>
<td>26%</td>
<td>26%</td>
<td>26%</td>
<td>27%</td>
<td>26%</td>
<td>27%</td>
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<td>27%</td>
<td>25%</td>
<td>24%</td>
<td>26%</td>
<td>61%</td>
</tr>
<tr>
<td><strong>Demand Trips</strong></td>
<td>115,908</td>
<td>109,900</td>
<td>117,018</td>
<td>107,540</td>
<td>112,466</td>
<td>114,479</td>
<td>119,318</td>
<td>126,195</td>
<td>120,732</td>
<td>131,096</td>
<td>118,479</td>
<td>118,393</td>
<td>1,410,524</td>
</tr>
<tr>
<td><strong>% Demand</strong></td>
<td>73%</td>
<td>74%</td>
<td>74%</td>
<td>71%</td>
<td>73%</td>
<td>74%</td>
<td>73%</td>
<td>75%</td>
<td>73%</td>
<td>75%</td>
<td>76%</td>
<td>74%</td>
<td>46%</td>
</tr>
</tbody>
</table>

*Trips Requested* is calculated as the number of Trips Scheduled, plus capacity denials, plus adversarial/eligibility denials.

*Trips Scheduled" is the total of Trips Provided, plus Advance Cancels, plus Late Cancels, Plus No-Shows, plus Missed Trips.

"% Advance Cancels" is the number of Advance Cancels divided by the total Trips Scheduled times 100.

"% Late Cancels" is the number of Late Cancels divided by the total Trips Scheduled times 100.

"% No-Shows" is the number of No-Shows divided by the total Trips Scheduled times 100.

"% Missed Trips" is the number of Missed Trips divided by the total Trips Scheduled times 100.
Subscription Trips

Subscription service is provided to riders who travel to and from the same locations at the same time several times a week. Typically, subscription service is for trips made more than two times a week. Riders who have subscription service do not need to call to schedule each trip, only if there are changes to their regular travel plans. All new requests for subscription service are reviewed and approved by Pace. Subscription trips are then assigned to the appropriate contractor by Pace.

The percentage of trips performed on a subscription basis does not appear to have changed under the new service design. In 2007 and early 2008, prior to the transition, 24% to 27% of trips were performed on a subscription basis. In April 2008, the percentage increased slightly, with 29% of all trips performed as subscription trips. From May through December 2008, though, subscription trips were 24% to 27% of all trips—the same as before the transition.

Trip Denials

Pace tracks three types of trip denials. Those that result from limited service capacity are termed “denials-capacity.” A capacity denial could result from an inability to schedule a trip at all, or could be a situation where a trip cannot be scheduled within an hour of the time requested by a rider. Trip requests that are denied because the requested trip is outside the area, or otherwise not eligible, are called “denials-eligibility.” Finally, if a valid trip offer is made to a rider—an offer within an hour of the requested time—but the rider refuses the trip because it is not at a convenient time, this interaction is termed a “denial-adversarial.”

As indicated in Table 5.1, trip denials were not tracked prior to the transition in March 2008. Pace indicated that the structure as inherited from the CTA did not permit the tracking of trip denials. Therefore, no trips denial of any type are indicated for 2007 and the first three months of 2008.

Since March 2008, no capacity denials have been recorded. ADA compliant trip offers have been made in response to all eligible trip requests during this time.

Achieving zero capacity denials is a significant achievement. Prior to the transition, there was a daily allocation of trips to each contractor in the CTA service area. Contractors would accept trip requests up to this daily allocation. Once the allocation was reached by one contractor, riders would be referred to the other contractors. Because the contractors would not know if capacity existed in the other portions of the operation, they would never record a trip as “denied.” Riders, however, reported not being able to get trip offers from any of the contractors if they did not place trip requests first thing in the morning—before the daily trip allocations were reached. There was reason to believe that capacity denials did exist in the system even though they were
never recorded. This was a serious potential ADA compliance issue. Eliminating this issue is a significant achievement of the new service.

As shown in Table 5.2, the number and percentage of adversarial and eligibility denials has increased steadily since the transition. In the first three months following the transition, a total of 3,425 adversarial/eligibility denials were reported. In the next three months, from July through September 2008, a total of 5,364 adversarial/eligibility denials were reported. And from October through December 2008, 10,041 adversarial/eligibility denials have been recorded.

The increase in the number or recorded adversarial and eligibility denials appears to be due not so much to the service design, but to increased service monitoring and better record-keeping. The recording of adversarial and eligibility denials requires that reservation agents remember to code a trip transition that is not completed before they log out of the trip booking screen. Since reservation agents were not used to doing this coding in the past, it is likely that many adversarial and eligibility denials simply were not recorded in the first few months after the transition. Pace staff also indicated that use of the Trapeze system also has allowed for better identification of trips that are outside the service area and therefore not eligible. In the past, these trips might have been accepted by the contractors. After the transition, Pace is doing a more diligent job of ensuring that only eligible trips are served.

**Advance Cancellations**

As noted in Chapter 3, advance cancellations are cancellations that are made at least two hours before the scheduled pick-up time. In 2007 and the first three months of 2008, prior to the transition, advance cancels were running at about 18% to 22% of scheduled trips. During the three-month transition period, from April through June 2008, the advance cancellation rate declined slightly. In April and M, it was 17.2% and 17.7% respectively. In June it increased slightly to 18.2%.

Following the transition period, from July through December 2008, advance cancels have been between 16.7% and 21.9% of scheduled trips. This is similar to, but slightly lower than the rates for the same months in 2007. A relatively high advance cancelation rate was recorded in December 2008, but this appears to be a seasonal issue rather than a service design or transition issue. High advance cancel rates were also recorded from December through March of 2007.

In general, after the transition period, the percentage of advance cancels has not changed significantly. The slightly lower rate could be due to better record-keeping by the contractors. In the past, late cancels and even no-shows and missed trips might have been incorrectly coded just as advance cancels. Since the installation of the Trapeze system, it appears that contractors are doing a better job of distinguishing between advance cancels and other types of cancels or non-performed trips.
**Late Cancellations**

As noted in Chapter 3, late cancellations are defined as cancellations made less than two hours before the scheduled pick-up time. In 2007, prior to the transition, late cancels comprised between 0.4% and 1.3% of all scheduled trips. From January through August 2007, the rate was fairly constant at 0.4% to 0.5%. In the last four months of 2007, the rate increased to 1.0% to 1.3%. In the first three months of 2008, just prior to the transition, the rate continued to be around 1.0% (ranging from 0.9% to 1.2%).

During the transition, from April through June 2008, the rate of late cancels increased to between 1.2% and 1.8%. And following the transition, from June through December 2008, the rate continues to increase from 1.8% to 3.5%.

Most of the increase in late cancels is probably due to improved recordkeeping. As noted above, the implementation of the Trapeze system probably allowed for more accurate coding of cancelled trips. Prior to the transition and the implementation of Trapeze, some late cancels were probably recorded as just “cancels” and counted as advance cancellations.

**No-Shows**

As noted in Chapter 3, a no-show is defined as a scheduled trip for which the rider fails to board within five minutes, and the vehicle waited at last five minutes within the scheduled pick-up window. If vehicles arrive after the end of the 20 minute on-time window and riders fail to board, these situations are defined as missed trips and not no-shows.

In 2007, prior to the transition, no-shows comprised between 2.1% and 4.3% of all scheduled trips. From January through July 2007, the rate was fairly constant and ranged only between 2.1% and 2.4%. In the last five months of 2007, the rate increased steadily from 2.8% in August to 4.3% in December. The no-show rate for all of 2007 was 2.8% of all scheduled trips.

Just prior to the transition, from January through March 2008, the no-show rate remained at the higher levels that were experienced at the end of 2007. The rate ranged from 3.9% in January to 4.4% in February and March.

During the transition, from April through June 2008, the rate of no-shows increased. In April, the first month of the transition, the rate was 6.6%. It decreased to 5.4% in May and then to 5.2% in June 2008.

The increase in the no-show rate during the transition is interesting. Even if contractors were getting used to using the Trapeze system, this should not have had a significant impact on no-shows. If trips were incorrectly geocoded, for example, and vehicles
showed up at incorrect addresses, these situations should have been coded as missed trips and not no-shows.

Some of the increase could be a miscoding of certain late vehicle arrivals as no-shows. By definition, no-shows only occur when trips are not taken and vehicles arrive within or before the on-time window. However, as noted in Chapter 3, there is some lack of clarity about the coding of trips when the vehicle arrives from 21 minutes past the scheduled pick-up time to 60 minutes past the scheduled pick-up time. Because these trips are not no-shows or missed trips, some contractors simply cancel the trip out of the system (so as not to record it as a no-show against the rider). It is also possible that contractors are sometimes recording trips not taken where the vehicle arrived from one to 40 minutes late as no-shows. This might explain some of the increase in no-shows as more vehicles arrived late during the transition—although it would seem that if contractors were coding trips this way they would have done it both before and after the transition.

It is also possible that some of the increase in no-shows during the transition was related to the elimination of will-calls. Riders who were used to scheduling will-calls for some return trips had to get used to scheduling returns even if the return time was hard to predict. It is likely that some riders did not estimate return trip times accurately and no-shows return trips.

It is also possible that some of the increase in no-shows could be related to the change in rider assistance policies. Prior to the transition, drivers routinely provided door-to-door service. Following the transition and a switch to door-to-door service only on an as needed basis, some connections may have been missed if riders did not understand that they needed to request assistance from the door and were expecting drivers to still come to the door, as they had done in the past.

In the four months following the transition, the no-show rate decreased slightly, to 5.0% in July and August 2008, 5.2% in September, and 5.1% in October 2008. It then increased to 5.6% in November and to 6.4% in December 2008, although the high percentage in December was due in part to severe weather.

While the no-show rate decreased some following the transition, it still remained much higher than prior to the transition. In the six months following the transition, from July through December 2008, the no-show rate ranged from 5.0% to 6.4%. In 2007 and the first three months of 2008, prior to the transition, the no-show rate ranged from 2.1% to 4.4%. This increase is likely related to changes in policies—particularly the elimination of will-calls and the switch to door-to-door assistance only on an as needed basis.

A no-show rate of 5.0% to 6.4% is slightly high by ADA paratransit best practice standards. A rate of 3.0% to 5.0% is often considered desirable. It should be noted, though, that systems with lower no-show rates often aggressively implement no-show suspension policies. Pace has elected not to suspend riders who have a pattern or
practice of no-shows given the recent changes in the service design and the transition issues.

**Missed Trips**

As noted in Chapter 3, a trip can be missed for several reasons. First, a trip is considered missed if it has not been cancelled by the rider but is not performed by the contractor, including trips canceled by the contractor. Also, a trip is considered missed if it is performed very late—more than 60 minutes after the scheduled pick-up time.

Missed trips were not recorded by CTA or Pace prior to the transition. Following the transition, with all carriers using the new Trapeze software, Pace began tracking missed trips.

In April 2008, the first month of the transition, 2.5% of scheduled trips were missed. This is a relatively high percentage. The rate decreased significantly after this first transition month, though. In May 2008, missed trips were only 0.7% of all scheduled trips. In June 2008, the missed trip rate decreased to only 0.4%. And from July through November, missed trips were only 0.2% to 0.3% of all scheduled trips.

In December 2008, the missed trips rate increased to 1.1%. This increase appears due to the weather, though, rather than to the transition to new service policies.

It should be noted that a missed trip rate of only 0.2% to 0.3% (the rate excepting December 2008), is very good by ADA paratransit standards. Many large city paratransit systems run at 0.5% missed trips or more.

**Key Performance Measures**

Tables 5.3 and 5.4 on the following pages provide key performance information for the ADA paratransit service in the CTA service area before and after the March 2008 transition. This includes information about on-time pick-ups, on-time drop-offs, trips with long ride times, and accidents and incidents. Table 5.3 provides this information for calendar year 2007. Table 5.4 provides calendar year 2008 information.

It should be noted that some data was not available for the full two year period. Information about trips with ride times over 90 minutes was only provided for 2008. On-time drop-off information was only available beginning in October 2008. And vehicle-revenue-miles of service, needed to calculate an accident rate, only began to be recorded for each contractor after the March 2008 transition. In 2007 and for the first three months of 2008, vehicle-revenue-miles were estimated. Data is provided in Table 5.3 for 2007, and data after the transition is included. Estimates of systemwide vehicle-miles were not available, however, for the first three months of 2008.
Table 5.3 – Performance Measures for ADA Paratransit Service in the CTA Service Area, January through December, 2007

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jan</td>
</tr>
<tr>
<td>% On-Time Pick-Ups</td>
<td></td>
</tr>
<tr>
<td>CDT</td>
<td>89%</td>
</tr>
<tr>
<td>SCR</td>
<td>90%</td>
</tr>
<tr>
<td>MV</td>
<td>NA</td>
</tr>
<tr>
<td>Arts</td>
<td>86%</td>
</tr>
<tr>
<td>Jays</td>
<td>NA</td>
</tr>
<tr>
<td>% On-Time Drop-Offs</td>
<td>NA</td>
</tr>
<tr>
<td>% Trips With Travel Times Over 90 Minutes</td>
<td>NA</td>
</tr>
<tr>
<td>CDT</td>
<td>NA</td>
</tr>
<tr>
<td>SCR</td>
<td>NA</td>
</tr>
<tr>
<td>MV</td>
<td>NA</td>
</tr>
<tr>
<td>Arts</td>
<td>NA</td>
</tr>
<tr>
<td>Jays</td>
<td>NA</td>
</tr>
<tr>
<td>Total Accidents and Incidents</td>
<td>119</td>
</tr>
<tr>
<td>Preventable Accidents</td>
<td>14</td>
</tr>
<tr>
<td>Vehicle-Revenue-Miles*</td>
<td>1.32M</td>
</tr>
<tr>
<td>Preventable Accidents per 100,000 Revenue-Miles</td>
<td>1.1</td>
</tr>
</tbody>
</table>

*Note: "M" = million (rounded)
Table 5.4 – Performance Measures for ADA Paratransit Service in the CTA Service Area, January through December, 2008

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jan</td>
</tr>
<tr>
<td>% On-Time Pick-Ups</td>
<td>88%</td>
</tr>
<tr>
<td>CDT</td>
<td>88%</td>
</tr>
<tr>
<td>SCR</td>
<td>89%</td>
</tr>
<tr>
<td>MV</td>
<td>NA</td>
</tr>
<tr>
<td>Arts</td>
<td>84%</td>
</tr>
<tr>
<td>Jays</td>
<td>93%</td>
</tr>
<tr>
<td>% On-Time Drop-Offs</td>
<td>NA</td>
</tr>
<tr>
<td># of Trips With Travel Times Over 90 Minutes</td>
<td>2,374</td>
</tr>
<tr>
<td>CDT</td>
<td>0</td>
</tr>
<tr>
<td>SCR</td>
<td>1,447</td>
</tr>
<tr>
<td>MV</td>
<td>0</td>
</tr>
<tr>
<td>Arts</td>
<td>777</td>
</tr>
<tr>
<td>Jays</td>
<td>150</td>
</tr>
<tr>
<td>% of Trips With Travel Times Over 90 Minutes</td>
<td>1.55%</td>
</tr>
<tr>
<td>CDT</td>
<td>0.00%</td>
</tr>
<tr>
<td>SCR</td>
<td>2.96%</td>
</tr>
<tr>
<td>MV</td>
<td>NA</td>
</tr>
<tr>
<td>Arts</td>
<td>2.80%</td>
</tr>
<tr>
<td>Jays</td>
<td>2.90%</td>
</tr>
<tr>
<td>Total Accidents and Incidents</td>
<td>156</td>
</tr>
<tr>
<td>Preventable Accidents</td>
<td>13</td>
</tr>
<tr>
<td>Vehicle-Revenue-Miles*</td>
<td>NA</td>
</tr>
<tr>
<td>Preventable Accidents per 100,000 Revenue-Miles</td>
<td>NA</td>
</tr>
</tbody>
</table>

*Note: "M" = million (rounded)
In some cases, limited data about pre-transition performance was available from recent studies. For example, long ride time data was available from the RTA 2007 ADA Paratransit Plan. Where available, this information was used to develop better comparisons of pre-transition and post-transition performance.

**On-Time Pick-Ups**

As shown in Table 5.3, 87% of pick-ups were made on-time in 2007. CDT and SCR performed at or above the system average during most months. Arts typically was several percentage points below the system average. Jays, which started providing service in August 2007, performed better than the system average.²

Table 5.4 shows similar performance in early 2008, just before the transition. Systemwide, 88% of pick-ups were on-time in January 2008, 84% in February, and 89% in March. Jays had the best performance just before the transition, running at between 92% and 96% on-time. CDT was on-time 83% to 88% of the time, and SCR was on-time 83% to 89% of the time. Arts again had lower performance at 76% to 87%.

On-time performance dropped for the first month following the transition. In April 2008, systemwide on-time performance was only 82%. The transition impacted the performance of the primary zonal contractors—CDT, SCR and MV—rather than the subscription service contractors—Arts and Jays. In this first month under the new service design, CDT made only 79% of pick-ups on-time, SCR made 82% of its pick-ups on-time, and MV made 81% of its pick-ups on-time. Jays performed 92% on-time and Arts was 94% on-time.

On-time pick-up performance improved steadily improved from May through August 2008. In May, 89% of pick-ups were on-time, in June 91% were on-time, and in July and August 93% of pick-ups were on-time. Performance dropped slightly in September and November 2008—to 91%, but was at 93% in October 2008. In December 2008, performance dropped to 84%. There is general agreement, though, that the drop in December was due to severe weather rather than to contractor performance or system design issues.

Performance of the various contractors differed somewhat in the five months following the transition (July through November 2008). Of the three primary zonal contractors, SCR had the best performance—ranging between 92% and 95%. MV operated at between 89% and 94% on-time. Arts had very good performance, at 91% to 96% on-time, and Jays ran 93% to 97% on-time (except for August 2008, when their performance dipped to 88%).

CDT’s performance was slightly below the system average, running 88% to 90%. This variation was likely due to the fact that CDT only began using the new Trapeze software

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² Pace indicated that performance prior to the transition, implementation of the Trapeze system and the current monitoring efforts was largely contractor reported and that verification of the reported percentages was less comprehensive.
in March 2008. SCR had transitioned to the software several months earlier and MV had experience using Trapeze in other operations.

Excluding the month of December 2008, on-time performance was 4% to 6% better after the initial three months of the transition compared to performance prior to the transition. Systemwide, performance was 91% to 93% from July through November 2008, compared to 87% in 2007 and 84% to 89% just prior to the transition in early 2008.

As noted in Chapter 3, Pace has established a narrow on-time pick-up window compared to many other large city ADA paratransit programs. A 20 minute window is used by Pace. Many other ADA paratransit programs allow a 30 minute on-time pick-up window.

Additional analysis of late trips was done to determine what the level of performance would be if Pace utilized a 30 minute pick-up window. The number and percentage of trips that were only one to 10 minutes late was reviewed. Table 5.5 shows the percentage of late trips that were only one to 10 minutes late from May through December 2008. It then shows the on-time pick-up performance if a 30 minute, rather than a 20 minute pick-up window were used.

Table 5.5 – Percentage of Late Pick-Ups Only One to 10 Minutes Late and On-Time Pick-Up Performance Using a 30 Minute Pick-Up Window, May Through December 2008

<table>
<thead>
<tr>
<th>Month</th>
<th>% On-Time Pick-Ups Using 20 Minute Window</th>
<th>% of Trips Only One to 10 Minutes Late</th>
<th>% On-Time Pick-Ups Using a 30 Minute Window</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 2008</td>
<td>89%</td>
<td>50%</td>
<td>94.5%</td>
</tr>
<tr>
<td>June 2008</td>
<td>91%</td>
<td>54%</td>
<td>95.9%</td>
</tr>
<tr>
<td>July 2008</td>
<td>93%</td>
<td>58%</td>
<td>97.1%</td>
</tr>
<tr>
<td>August 2008</td>
<td>93%</td>
<td>57%</td>
<td>97.0%</td>
</tr>
<tr>
<td>September 2008</td>
<td>91%</td>
<td>55%</td>
<td>96.0%</td>
</tr>
<tr>
<td>October 2008</td>
<td>93%</td>
<td>60%</td>
<td>97.2%</td>
</tr>
<tr>
<td>November 2008</td>
<td>91%</td>
<td>57%</td>
<td>96.1%</td>
</tr>
<tr>
<td>December 2008</td>
<td>84%</td>
<td>47%</td>
<td>91.5%</td>
</tr>
</tbody>
</table>

As shown, 94.5% of all pick-ups were made in May of 2008, the second month of the transition within 30 minutes of the scheduled pick-up time. This increased to 95.9% in June of 2008. From July through November 2008, on-time performance using a 30 minute performance window ranged from 96% to 97.2%. And in December 2008, even with severe weather conditions, on-time pick-up performance using a 30 minute window was 91.5%. This is very good performance for a large city ADA paratransit service.

It should be noted that, while we have assumed a 30 minute window to compare Pace performance to other cities, we are not recommending that Pace adopt a 30 minute on-
time window. The current 20 minute window is well established in the CTA service area and riders have become accustomed to it. Adopting a 30 minute window would likely result in significant rider dissatisfaction. Over time, it is also our belief that as ADA paratransit service operations improve, more systems will move to a 20 minute window rather than a 30 minute window. Thirty minutes is a relatively long time to wait for a scheduled pick-up.

All of the above percentages of on-time pick-ups include pick-ups made early. That is, when it is reported that 91% of trips are picked-up “on-time,” this means that these pick-ups were made within the 20 minute pick-up window or before the start of the window (before the scheduled pick-up time). When considering on-time performance, it is therefore important to examine the number and percentage of pick-ups made early. In particular, it is important to examine the number and percentage of very early pick-ups.

Early pick-up information was provided by Pace for the months of January, February and March 2009. This information is shown in Table 5.6. Pick-ups made more than 10 minutes early are shown for the total service as well as for each contractor. Often, vehicles may arrive one to 10 minutes early, riders will be ready, and will board the vehicles a bit early. Pick-ups up to 10 minutes early are therefore not considered an issue. Pick-ups made more than 10 minutes early could indicate a service issue. This may indicate that drivers need to run early and make pick-ups early to stay on-time. Very early vehicle arrivals can also make riders feel pressured to go early, even if drivers do not come to the door. Having the vehicle outside and waiting that early can make riders feel that they need to board.

As shown in Table 5.6, 23% to 24.2% of pick-ups were made more than 10 minutes early from January through March 2009. Of these, 19.8% to 21.2% were made from 10 to 30 minutes early and 2.8% to 3.2% were made more than 30 minutes early.

The percentage of early pick-ups varied by contractor. MV made 17.9% to 23.8% of pick-ups 10 or more minutes early and 1.6% to 2.2% more than 30 minutes early. CDT made 18.5% to 22.8% of pick-ups 10 or more minutes early and 1.9% to 2.3% more than 30 minutes early. SCR made 24.6% to 25.7% of pick-ups 10 or more minutes early and 3.3% to 4.2% more than 30 minutes early. Jays made 31.1% to 37.5% of pick-ups 10 or more minutes early and 6.5% to 7.4% more than 30 minutes early.

The high percentage of very early pick-ups by Jays is interesting given that much of that contractor’s service is subscription service. It is possible that adjustments to pick-up times have been made over time with riders and programs and these times are not reflected in the official trip records.

The slightly higher percentage of early pick-ups by SCR could also be part of the reason why this contractor shows slightly higher on-time performance.
### Table 5.6 – Number and Percentage of Pick-Ups Made Early, January through March 2009

<table>
<thead>
<tr>
<th></th>
<th>January 2009</th>
<th>February 2009</th>
<th>March 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Trips</td>
<td>Early</td>
<td>% Early</td>
</tr>
<tr>
<td><strong>10 to 20 Minutes Early</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDT</td>
<td>63,699</td>
<td>8,431</td>
<td>13.2%</td>
</tr>
<tr>
<td>SCR</td>
<td>63,478</td>
<td>9,605</td>
<td>15.1%</td>
</tr>
<tr>
<td>MV</td>
<td>20,626</td>
<td>3,613</td>
<td>17.5%</td>
</tr>
<tr>
<td>Jays</td>
<td>12,176</td>
<td>2,045</td>
<td>16.8%</td>
</tr>
<tr>
<td><strong>21 to 30 Minutes Early</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDT</td>
<td>63,699</td>
<td>8,431</td>
<td>13.2%</td>
</tr>
<tr>
<td>SCR</td>
<td>63,478</td>
<td>9,605</td>
<td>15.1%</td>
</tr>
<tr>
<td>MV</td>
<td>20,626</td>
<td>3,613</td>
<td>17.5%</td>
</tr>
<tr>
<td>Jays</td>
<td>12,176</td>
<td>2,045</td>
<td>16.8%</td>
</tr>
<tr>
<td><strong>31 to 40 Minutes Early</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDT</td>
<td>63,699</td>
<td>8,431</td>
<td>13.2%</td>
</tr>
<tr>
<td>SCR</td>
<td>63,478</td>
<td>9,605</td>
<td>15.1%</td>
</tr>
<tr>
<td>MV</td>
<td>20,626</td>
<td>3,613</td>
<td>17.5%</td>
</tr>
<tr>
<td>Jays</td>
<td>12,176</td>
<td>2,045</td>
<td>16.8%</td>
</tr>
<tr>
<td><strong>&gt; 60 Minutes Early</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDT</td>
<td>63,699</td>
<td>8,431</td>
<td>13.2%</td>
</tr>
<tr>
<td>SCR</td>
<td>63,478</td>
<td>9,605</td>
<td>15.1%</td>
</tr>
<tr>
<td>MV</td>
<td>20,626</td>
<td>3,613</td>
<td>17.5%</td>
</tr>
<tr>
<td>Jays</td>
<td>12,176</td>
<td>2,045</td>
<td>16.8%</td>
</tr>
<tr>
<td><strong>All Early</strong></td>
<td>159,979</td>
<td>36,797</td>
<td>23.0%</td>
</tr>
</tbody>
</table>

### On-Time Drop-Offs

On-time drop-off performance was not measured by Pace until September of 2008. On-time drop-off performance information was also not included in the RTA 2007 ADA Paratransit Plan. A pre-transition and post-transition comparison of performance in this area was therefore not possible.
Information from September through December 2008, included in Table 5.4 above, shows that on-time drop-off performance was several percentage points below pick-up performance during this four month period. Riders were on-time for appointments only 84% of the time in September 2008, while pick-ups that month were 91% on-time. In October and November 2008, drop-offs at appointments were 87% on-time, while pick-ups were 91% to 93% on-time. And in December, 81% of drop-offs were on-time compared to pick-up performance of 84%.

This difference in performance is likely due to the fact that Pace did not have an on-time drop-off standard in 2008 and was not measuring this aspect of performance until October 2008. Contractors did not receive incentive payments for good performance in this area and were not assessed penalties if they had poor performance. Schedulers and dispatchers were therefore focused more on picking riders up on-time than on getting riders to appointments on-time.

Contractor focus primarily on pick-ups rather than drop-offs likely also contributes to circuitous routing and longer ride times. On the day of service, if runs were behind schedule, dispatchers would likely reroute drivers to ensure that pick-ups were made on-time, even if this caused some riders to travel longer and arrive at appointment late.

Additional analysis of drop-off data also indicated that a significant percentage of drop-offs are being made very early. Drop-off performance for a randomly selected day—March 18, 2009—was analyzed during the on-site review. It was found that about 35% of drop-offs were made more than 30 minutes before the scheduled appointment time. It was also confirmed that March 18 was a typical operating day, with no major service disruptions or severe weather conditions.

Very early drop-offs can result if the pick-up times offered include too much travel time for the length of the trip. As noted in Section 3, a “global” 90 minute travel time parameter is currently used for all trips. This global parameter could be contributing to very early drop-offs. The amount of time programmed into the system for the possibility of adding trips to runs could also be contributing to very early drop-offs. A review of Trapeze parameter settings and tests with alternative settings are recommended to reduce the number and percentages of very early drop-offs.

As indicated in Chapter 3, it is recommended that Pace develop an on-time drop-off standard and associated incentives and penalties for contractor performance. A standard similar to that for on-time pick-ups is suggested—a minimum of 95% on-time performance. It is also recommended that more detailed travel time parameter settings that address trips of varying lengths be developed.

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3 Pace indicated that, subsequent to the on-site visit, it has established an on-time drop-off performance standard, has continued to monitor performance in this area, and has worked with contractors to increase on-time drop-offs. Pace reported that on-time drop-offs improved to 89% in April 2009 and 90% in May and June 2009.
Verification of On-Time Pick-Up Performance Statistics

To verify the accuracy of on-time performance data reported by Pace, the review team analyzed on-time pick-up performance for a randomly selected day—March 18, 2009. Detailed trip data was obtained from Pace and on-time performance was independently calculated. The review team’s calculations were then compared to the on-time performance reported by Pace for that day.

The independent on-time performance calculations matched those reported by Pace. The review found that performance for that day was 89.4% at CDT, 89.2% at SCR, 89.8% at MV, and 94.1% at Jays. The overall on-time performance was calculated at 89.8%, which matched the number reported by Pace.

Travel Times

As a measure of on-board travel time, Pace captures and reports information about the number and percentage of trips with excessively long ride times. An excessively long ride is considered to be one with a travel time of more than 90 minutes.

Information about excessively long rides was provided for calendar year 2008. Pace did not provide travel time information for calendar year 2007. However, the RTA 2007 ADA Paratransit Plan does include information about long rides. It reports that trips within the City of Chicago took more than 90 minutes only 1.6% of the time in calendar year 2005. Trips to and from the suburbs took more than 90 minutes about 2.2% of the time in 2005.

As shown in Table 5.4 above, performance was similar in the three months just prior to the transition, from January through March 2008. Systemwide, only 1.5% to 1.8% of trips took more than 90 minutes. Performance varied by contractor. CDT reported no trips over 90 minutes in January and February 2008 and only 112 trips over 90 minutes in March 2008 (likely all in the last few days of this month following the March 28 transition). Trips provided by SCR took more than 90 minutes 3.0% to 3.6% of the time from January through March 2008. Trips provided by Arts were excessively long 2.4% to 3.2% of the time, and trips on Jays were very long 2.3% to 3.3% of the time.

In April 2008, the first month following the transition, very long trips systemwide rose to 4.8% of the total. This ranged from 2.9% at CDT, to 5.2% at Jays, to 5.7% at SCR, to 6.3% at Arts, to 7.8% at MV.

In May and June of 2008, the second and third months of the transition period, performance improved somewhat. Still, though, 2.9% to 3.6% of trips were over 90 minutes long.

Travel time performance improved somewhat from July through November 2008. During this five month post-transition period, 1.9% to 2.7% of trips took more than 90 minutes. Performance varied by contractor. CDT reported very long trips only 0.7% to
0.9% of the time. SCR reported very long trips 2.0% to 3.2% of the time. MV reported that 2.3% to 3.4% of its trips took more than 90 minutes. Arts reported that 4.1% to 5.2% of its trips took more than 90 minutes, and Jays reported 3.8% to 4.7% of its trips over 90 minutes. The higher percentage of very long trips by Arts and Jays is likely due to group subscription trips. The higher percentage at SCR and MV is likely due to trips to and from the downtown area.

A higher percentage of very long trips were reported in December 2008. Systemwide, 3.3% of all trips took more than 90 minutes. This ranged from 1.2% at CDT to 9.2% at Jays. Again, longer travel times in December 2008 were due to extreme weather conditions that month rather than to transition issues or service design issues.

Overall, travel times appear to have increased following the transition. Data from January through March 2008, as well as the RTA’s 2007 ADA Paratransit Plan indicate that only about 1.5% to 1.8% of trips had travel times greater than 90 minutes. From July through November 2008, the five months following the transition period (and excluding the unusual month of December), about 2.3% of all trips had ride times of over 90 minutes.

These longer travel times do not necessarily mean that the on-board ride times do not meet ADA regulatory requirements. The DOT ADA regulations only requires that ADA paratransit travel times be comparable to fixed route travel times for similar trips. As noted in Section 4, Pace analyzes all long trips reported by riders. This analysis has not indicated a large number of ADA paratransit trips with a pattern of being longer than fixed route travel times.

While not necessarily an indication of an ADA issue, the data does suggest that riders in the CTA service area are experiencing longer ride times after the transition. This is to be expected in a more pre-scheduled, shared-ride service design.

**Accident and Incident Rates**

Tables 5.3 and 5.4 above also show the total number of accidents and incidents reported by all service contractors in 2007 and 2008. They also show the number of preventable accidents each month.

The number of vehicle-revenue-miles of service driven each month in 2007 and from April through December 2008 is also provided. The ratio of preventable accidents per 100,000 miles of service is then shown where information about miles of service was available.

As noted earlier, information about the miles of service driven was estimated systemwide prior to the transition in March 2008. Miles of service only began to be captured for each contractor after the transition. Given that different methodologies were used to generate this information, it is possible that miles of service information...
and the accidents rates based on this data may not be fully comparable before and after the transition.

As shown in Table 5.3, there were a total of 1,254 reported accidents and incidents in 2007, an average of about 104 per month. Of these, it was determined that 146 were preventable accidents, and average of about 12 per month.

As shown in Table 5.4, the total number of accidents and incidents in early 2008 increased slightly. From January through March 2008, there were a total of 531 accidents and incidents (177 per month), and 48 preventable accidents (16 per month). This increase appears due mainly to the time of year—more accidents and incidents are recorded during winter months—and also to increased ridership between 2007 and 2008.

In the three month transition period from April through June 2008, there were a total of 577 accidents and incidents (192 per month) and 69 preventable accidents (23 per month).

For the six post-transition months from July through December 2008, there were a total of 1,433 accidents and incidents (239 per month) and 114 preventable accidents (19 per month).

The rate of preventable accidents per 100,000 miles of service was somewhat higher during and after the transition. In 2007, the rate of preventable accidents per 100,000 miles of service averaged 0.9. In April 2008, the first month following the transition, there were 31 preventable accidents, and the rate was 2.2 preventable accidents per 100,000 miles of service.

From May through December 2008, the accidents rate decreased and remained relatively constant. Between 14 and 22 preventable accidents were reported each month during this period, and the rate ranged from 0.8 to 1.4 preventable accidents per 100,000 miles of service. A rate of only about one accident every 100,000 miles is considered very good in paratransit operations.

As noted above, because information about vehicle-revenue-miles of service was generated in different ways before and after the transition, it is possible that the accident rates based on this information are not fully comparable before and after. Therefore, a second method for looking at accident rates was developed—based on total ridership. Table 5.7 below shows the total number of trips provided, total incidents and accidents reported, and preventable accidents reported for the 15 months prior to the transition, the three month transition period, and the six month post-transition period. Calculations of the number of total accidents and incidents and preventable accidents per 100,000 trip provided are also included.
### Table 5.7 – Accident and Incidents Rates per 100,000 Trips Provided, Before, During and After the March 2008 Transition

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<td>Trips Provided</td>
<td>2,267,614</td>
<td>461,983</td>
<td>987,543</td>
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<tr>
<td>Total Accidents and Incidents</td>
<td>1,785</td>
<td>577</td>
<td>1,433</td>
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<tr>
<td>Preventable Accidents</td>
<td>194</td>
<td>69</td>
<td>114</td>
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<tr>
<td>Total Accidents and Incidents per 100,000 Trips Provided</td>
<td>79</td>
<td>125</td>
<td>145</td>
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<tr>
<td>Preventable Accidents per 100,000 Trips provided</td>
<td>8.6</td>
<td>15</td>
<td>12</td>
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As shown, the rate of total accidents and incidents per 100,000 trips provided appears to have increased during and after the transition. In the 15 months prior to the transition, 79 total accidents and incidents were reported per 100,000 trips provided. During the three-month transition period, this increased to 125 total accidents and incidents per 100,000 trips. And post-transition, the rate has been 145 total accidents and incidents per 100,000 trips provided.

The rate of preventable accidents increased during the transition period, dropped following the transition, but still appears to be higher than prior to the transition. Prior to the transition, 8.6 preventable accidents were reported for every 100,000 trips provided. This increased to 15 preventable accidents per 100,000 trips during the transition. In the six months following the transition, 12 preventable accidents have been reported for every 100,000 trips provided.

Some of the increase since the transition could be due to improved recordkeeping and reporting under the new contracts.

### Telephone Hold Times

The review also considered telephone service performance—particularly busy signals and hold times. Detailed telephone performance information was provided by Pace for the period from October 2008 through January 2009. Records prior to this time were not available to the review team.

While detailed telephone records were not available for the period prior to the transition, there was considerable qualitative evidence that telephone access was a significant problem prior to the transition of the service to Pace. Under the old service design, CTA provided each contractor with a maximum daily number of trips that could be accepted.
Riders therefore felt compelled to call very early in the morning, as soon as the phone lines opened in order to get a trip with their preferred contractor. Riders reported that busy signals were often received when calling to place trip requests. The public input received as part of this review indicated that riders had to sometimes make up to 20 calls to get through to place trip requests. They also reported that when they did finally get through, trips were often not available at the times needed.

Since the transition to the new service design, contractors are required to accept all eligible trip requests in the zones they serve. Riders no longer need to call first thing in the morning to get rides at the times needed. Reservations are taken from 6 a.m. to 8 p.m. and a review of telephone call records indicated that riders make calls to place trip requests throughout this 14 hour period. Riders now appear comfortable waiting until later in the day to place trip requests without the concern that there will not be and remaining capacity.

As noted in Chapter 3, Pace has established a telephone performance standard that requires contractors to answer at least 75% of all calls 2.5 minutes (150 seconds). A goal of answering 90% of all calls within 2.5 minutes has also been established.

Table 5.8 shows actual contractor performance from October 2008 through January 2009. The percentage of all calls answered within 2.5 minutes is shown by contractor for each major call group—the reservation group and the dispatch group. As shown, contractors have performed above the minimum standard for all months except December 2008. On severe weather days in December, long hold times were documented at CDT and SCR causing these contractors to fall below the minimum level of performance for this month.

MV’s performance approached and sometimes exceeded the higher goal of 90% throughout this four month period, including in December 2008. CDT’s performance approached the higher 90% goal in both call groups in October 2008 and in the dispatch call group in November 2008. SCR approached the 90% goal in the dispatch call group in October 2008.

While on-site in March 2009, the review team also examined the latest telephone performance reports available at CDT, SCR and MV Transportation. It was observed that performance had continued to improve at these three contractors in February and March. A review of sample data from each contractor indicated that about 90% of calls to reservations and about 95% of calls to dispatch were answered in 2.5 minutes or less in February and March 2009.
Table 5.8 – Percentage of Calls Answered Within 2.5 Minutes by Contractor and By Call Group, October 2008 through January 2009

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<td>CDT</td>
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<tr>
<td>Reservations</td>
<td>85.6%</td>
<td>81.5%</td>
<td>70.7%</td>
<td>75.5%</td>
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<td>Dispatch</td>
<td>89.4%</td>
<td>88.4%</td>
<td>77.2%</td>
<td>81.8%</td>
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<td>SCR</td>
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<tr>
<td>Reservations</td>
<td>82.0%</td>
<td>77.4%</td>
<td>64.1%</td>
<td>80.6%</td>
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<tr>
<td>Dispatch</td>
<td>86.5%</td>
<td>82.4%</td>
<td>69.9%</td>
<td>84.5%</td>
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<tr>
<td>Reservations</td>
<td>89.3%</td>
<td>85.2%</td>
<td>85.9%</td>
<td>88.4%</td>
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<tr>
<td>Dispatch</td>
<td>94.6%</td>
<td>91.8%</td>
<td>89.9%</td>
<td>90.7%</td>
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Service Efficiency and Cost

Prior to the transition in late March 2008, contractors were not required to report on the number of vehicle-revenue-hours of service or vehicle-revenue-miles of service each month. Because this information was not captured, it was not possible to calculate the service productivity (trips per vehicle-revenue-hour) or the revenue-miles per trip before the transition. A pre and post comparison of these measures of service efficiency was therefore not possible.

Service data was available starting in April 2008 and is summarized below. Cost information and a pre and post comparison of cost per trip were also possible and are also summarized in this section.

Productivity

As shown in Table 5.9, systemwide productivity was 1.22 trips per vehicle-hour in April 2008, the first month following the transition. This increased to 1.40 trips per hour in May 2008 and continued at between 1.38 and 1.40 through November 2008. In December 2008, with severe weather, productivity dipped to 1.34 trips per vehicle-revenue-hour.

A review of productivity by contractor after the transition shows that it varied somewhat. MV operated throughout the period at lower than average productivity. CDT has been slightly lower than average, while SCR has been above average and Arts, which provides mainly subscription service, operates well above the systemwide average.
Table 5.9 – Revenue-Vehicle-Hours, Revenue-Vehicles Miles, Productivity and Miles, 2008

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<td>143,179</td>
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*Note: “M” = million (rounded)
In April 2008, MV operated at only 1.00 trips per hour, CDT was slightly better at 1.09 trips per hour. SCR operated at 1.42 trips per hour and Arts was at 1.64 trips per hour.

CDT’s productivity increased significantly after the first month of the transition, rising to 1.37 trips per hour in May 2008. MV’s productivity increased somewhat from 1.00 to 1.09 trips per hour in May 2008 and then to 1.11 trips per hour in June 2008.

The lower productivities at CDT in the first month of the transition is likely due to the fact that this contractor had not used the Trapeze system live until the transition. MV’s lower productivity was likely due to the fact that this contractor was starting a new operation. The higher productivity at SCR reflects the fact that this contractor had been using the Trapeze system for several months prior to the transition and had a stable operation going into the transition.

From July through November 2008, following the three month transition period (and excluding the unusual month of December), productivity at SCR, CDT and Arts has seemed to stabilize. SCR consistently operated at a productivity ranging from 1.43 to 1.48 trips per hour. CDT consistently operated at between 1.34 to 1.38 trips per hour. Arts has operated at between 1.68 and 1.77 trips per hour.

MV was able to increase its productivity throughout 2008. Productivity was between 1.11 and 1.15 from June through September. It increased to 1.19 in October, again to 1.22 in November, and even increased in December—despite the weather—to 1.23 trips per hour. With continued experience as a contractor in the CTA service area, MV could probably increase its productivity somewhat.

It should be noted that the actual productivities achieved by the primary contractors (CDT, SCR and MV) is well below the standard established by Pace. As noted in Chapter 3, the Pace productivity standard is set at 2.0 trips per vehicle-revenue-hour. Contractors are assessed penalties for performance below this standard and incentive payments for performance above this standard. To date, all contractors have paid penalties each month for operating well below the standard.

A systemwide productivity of 1.40 trips per hour is a typical productivity for a large city ADA paratransit service—particularly a service with average trip lengths of over 10 miles (see next section). It is probably unrealistic to expect the contractors to operate at the standard of 2.0 trips per hour.

*Miles per Trip*

Also shown in Table 5.9, the system operated at 9.5 and 9.6 revenue-miles per trip in April and May 2008, the first two month following the transition. From June through December 2008, the systemwide average miles per trip increased and then stabilized at between 10.2 and 10.7 revenue-miles per trip.
Aside from Arts, the revenue-miles per trip of the primary zonal contractors are fairly similar. From July through December 2008—following the three month transition period—Arts has had the lowest miles per trip, ranging from 9.4 to 9.9. This is to be expected since many of Arts trips are group subscription. The miles per trip for CDT, SCR and MV have varied only slightly. In July and August, MV and SCR had slightly higher miles per trip than CDT (11.0 to 11.7 versus 10.3 to 10.4). With increases in productivity at SCR and MV, the miles per trip decreased from September through December 2008. In November all three operated at between 10.4 and 10.6 miles per trip. And in December 2008, all three operated at between 10.3 and 10.6 miles per trip.

**Service Cost**

Actual operating and administrative costs for the ADA paratransit service in the CTA service area were obtained from Pace for FY 2007 and FY 2008. The projected cost for FY 2009 was also provided. For a longer historical perspective, the total administrative and operating costs for the service in FY 2005 were also derived from information contained in the *RTA 2007 ADA Paratransit Plan*. Table 5.10 provides this past and current cost information. It also provides a comparison of the cost per trip for each fiscal year. Finally, it provides the projected cost per vehicle-revenue of service for FY 2009. Vehicle-revenue-hour information was not included in the *RTA 2007 ADA Paratransit Plan*, so a cost per hour comparison prior to 2007 was not possible.

**Table 5.10 – Total Administrative and Operating Cost, Cost per Trip, and Cost per Hour, ADA Paratransit Service in the CTA Service Area, FY 2005, 2007, 2008 and 2009 (projected)**

<table>
<thead>
<tr>
<th></th>
<th>FY 2005</th>
<th>FY 2007</th>
<th>FY 2008</th>
<th>FY 2009 (projected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Admin. and</td>
<td>$45,361,387</td>
<td>$61,235,445</td>
<td>$83,615,490</td>
<td>$101,858,400</td>
</tr>
<tr>
<td>Operating Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Trips Provided</td>
<td>1,673,628</td>
<td>1,802,854</td>
<td>1,913,286</td>
<td>NA</td>
</tr>
<tr>
<td>Total Vehicle-Revenue-</td>
<td>NA</td>
<td>NA</td>
<td>1,310,697</td>
<td>NA</td>
</tr>
<tr>
<td>Hours</td>
<td></td>
<td></td>
<td>estimated</td>
<td></td>
</tr>
<tr>
<td>Cost per Trip</td>
<td>$27.10</td>
<td>$33.97</td>
<td>$43.70</td>
<td>NA</td>
</tr>
<tr>
<td>Cost per Revenue-Hour</td>
<td>NA</td>
<td>NA</td>
<td>$63.79</td>
<td>NA</td>
</tr>
</tbody>
</table>

FY 2005 Data from *RTA 2007 ADA Paratransit Plan*
FY 2007, 2008 and 2009 data provided by Pace

**Total Operating and Administrative Cost**

The total administrative and operating cost for the service for FY 2005 was derived as follows: The *RTA 2007 ADA Paratransit Plan* reported that total operating costs for Special Services in the CTA service area was $44,024,795. It also indicated that costs for the TAP program that year totaled $8,682,935. Administrative costs for both programs totaled $1,117,519, and overhead costs for both programs totaled $492,832.
A pro-rated share of the administrative and overhead costs was added to the Special Service operating costs. The share of administrative and overhead costs was estimated at 83% of the total given that the Special Services operating costs were 83% of the total Special Services plus TAP operating costs. Eighty-three percent of the administrative cost was $927,541, and 83% of the overhead cost was $409,051. Total operating and administrative/overhead costs for the Special Services program was therefore estimated at $45,361,387 ($44,024,795 plus $927,541 plus $409,051).

The total administrative and operating cost for the service for FY 2007, FY 2008, and FY 2009 was derived using audited expense information provided by Pace. A copy of the information provided is included as Attachment 5A. In FY 2007, purchased transportation costs for the CTA service area totaled $58,260,000. There were also administrative costs of $3,233,000 that were shared with the Mobility Direct and TAP programs. These costs were allocated based on the percentage of purchased transportation costs for each program. Van services were 92% of the total, so 92% of the administrative cost, or $2,974,360, was allocated to CTA service area van service. There also was $1,340,000 in overhead costs shared between services in the Chicago area and Suburban services. Again, these overhead costs were allocated based on the total operating cost of each program. The Chicago van service accounted for 81% of the total operating cost, so 81% of the overhead cost—$1,085,400—was allocated to the Chicago van service. Total operating and administrative costs were therefore estimated to be $61,235,445.

In FY 2008, purchased transportation costs for the CTA service area totaled $76,737,000. Shared administrative costs totaled $4,153,000, of which 95% was allocated to Chicago van services ($3,945,350). Shared overhead costs totaled $3,577,000, of which 82% was allocated to the Chicago van service ($2,933,140). Total operating and administrative costs were therefore estimated to be $83,615,490.

In FY 2009, purchased transportation costs for the CTA service area are estimated to be $94,497,000. Shared administrative costs are estimated at $4,554,000, of which 96% is estimated to be van service related. Shared overhead costs are estimated at $3,559,000, of which 84% can be allocated to the Chicago van service ($2,989,560). Total operating and administrative costs for FY 2009 are therefore estimated at $101,858,400.

As these estimated indicate, total operating and administrative cost for the ADA paratransit service in the CTA service area has increased significantly. Between FY 2005 and FY 2007, costs increased by 35.0%—or about 17.5% per year. A ridership increase of 7.7% over this two year period contributed to some of the increase. Escalating fuel costs and insurance costs, experienced throughout the industry also likely contributed to the increase.

From FY 2007 to FY 2008, costs increased by 36.6%. Ridership increased by 6.1% over this time, which again explains some of the cost increase. And fuel costs also likely contribute to some of the increase. More significant factors appear to be the new
contractor rates that became effective after the transition and start-up costs for the transition. The *RTA 2007 ADA Paratransit Plan* notes that contractor rates were extended year to year without increases for several years. The *Plan* notes that contractor costs in FY 2005 were significantly below typical industry rates. The *Plan* predicted that a significant increase in costs would occur once the services were rebid. This appears to be the case. Also, start-up costs for the transition were recorded in FY 2008.

In FY 2009, total operating and administrative costs for the ADA paratransit service in the CTA service area are expected to again increase by 21.8%. This increase is based on projected ridership increases and new contractor rates for that year.

**Operating Cost per Trip**

As shown in Table 5.10, the operating and administrative cost per trip in FY 2005 was reported in the RTA 2007 ADA Paratransit Plan to be $27.10. In FY 2007, the cost per trip was $33.97. This represents a 25% increase over this two year period, or about 12.5% per year.

In FY 2008, the cost per trip was $43.70, a 28.6% increase over FY 2008. Again, this cost increase appears to reflect the higher contractor rates that were received when the service was re-bid.

**Operating Cost per Hour**

As noted above, vehicle-revenue-hour data was not reported by the service contractors until April of 2008. It was therefore not possible to compare this cost-efficiency measure before and after the transitions.

Using data from April through December 2008, together with estimates of vehicle-revenue-hours developed by Pace for the first three months of 2008, it was estimated that about 1,310,697 vehicle-revenue-hours were operated in FY 2008. This then suggests that the operating cost per vehicle-revenue-hour in FY 2008 was about $63.79.

In 2007, TranSystems gathered detailed operating cost information from several large paratransit programs as part of a paratransit study for the Regional Public Transportation Authority (RPTA) in Phoenix, AZ. The cost information obtained at that time is shown in Table 5.11. As can be seen, the operating cost per hour of ADA paratransit services in the nine cities surveyed ranged from $53.06 to $71.41. The costs reported were for FY 2006. Allowing for 3% inflation per year, this range would increase to a FY 2008 estimate of $56.30 to $75.76. The FY 2008 cost estimated for the Pace is well within this range.
Table 5.11 – Operating Costs per Vehicle-Revenue-Hour Reported by Nine Other Cities

<table>
<thead>
<tr>
<th>City</th>
<th>2006 Operating Cost per Vehicle-Rev.-Hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTD, Denver, CO</td>
<td>$55.56</td>
</tr>
<tr>
<td>King County Metro, Seattle, WA</td>
<td>$71.41</td>
</tr>
<tr>
<td>Tri-Met, Portland, OR</td>
<td>$58.46</td>
</tr>
<tr>
<td>RTC, Las Vegas, NV</td>
<td>$64.53</td>
</tr>
<tr>
<td>UTA, Salt Lake City, UT</td>
<td>$61.38</td>
</tr>
<tr>
<td>VIA, San Antonio, TX</td>
<td>$56.30</td>
</tr>
<tr>
<td>OCTA, Orange County, CA</td>
<td>$53.42</td>
</tr>
<tr>
<td>RT, Sacramento, CA</td>
<td>$60.54</td>
</tr>
<tr>
<td>MTS, San Diego, CA</td>
<td>$53.06</td>
</tr>
</tbody>
</table>

It is, therefore, our opinion that most of the cost increase experienced in recent years in the CTA service area is due to a correction in contractor rates that were well below industry norms prior to FY 2008.
Section 6. Community Input and Pace Customer Service

Obtaining community input about the service changes was an important aspect of this project. This section describes the results of three key activities:

- Review of the outcome of four listening sessions that were hosted to obtain feedback from current Chicago ADA paratransit riders
- Analysis of comment cards submitted as part of the Listening Session process
- Review of Pace complaint records and resolutions

These activities, together with the results of the review of public meetings held by Pace prior to the transition and discussed in Section 7 of this report, helped us to assess how customer service and consumer interaction were managed during and after the transition.

Listening Sessions

Overview

Four Listening Sessions were held to help the consultants and RTA better understand Chicago ADA paratransit rider concerns and comments before, during, and after the transition. The sessions were jointly organized by consultant and RTA staff, with primary meeting logistics and publicity handled by RTA and primary meeting content and facilitation provided by the consultants. At the request of RTA, Pace provided a list of Chicago ADA paratransit riders who had used the system since March 2008.

Approximately 12,750 invitations were mailed first class and additional copies were sent to community groups, the RTA ADA Advisory Committee members, and others. The 11- by 17-inch flyers were produced in 16 point type font and included a postage-paid comment card and a special RTA e-mail address that was set up to receive comments related to this process. Comments could also be dropped off at the RTA administrative offices. Attachment 6A includes copies of the meeting invitation and handouts used to facilitate the Listening Session discussions.

As part of the outreach effort, RTA developed a media plan that included providing meeting information to the local print media and radio stations, promoting the Listening Session on RTA’s and Pace’s respective home pages, sending about a dozen e-mail blasts to various lists of interested persons, as well as other one-on-one efforts. Posters were also provided to carriers for inclusion on vehicles, space permitting. The RTA, with input from the consultants, secured meeting space at the following times and locations:
Tuesday March 17, 2009 from 10:30 a.m. – noon
South Shore Cultural Center – Solarium
7059 S. South Shore Dr., Chicago

Friday, March 20, 2009 from 10:30 a.m. – noon
Mayor’s Office for People with Disabilities – Rooms 1 & 2
2102 W. Ogden Ave., Chicago

Monday, March 23, 2009 from 7 – 8:30 p.m.
Howard Mohr Community Center – Community Room
7640 Jackson Blvd., Forest Park

Wednesday, March 25, 2009 from 10:30 a.m. – noon
Copernicus Center – Lobby
5216 W. Lawrence Ave., Chicago

The locations were chosen in consultation with the RTA’s Advisory Committee and others familiar with planning for large public meetings. Particular attention was given to ensuring that the meeting spaces were all fully accessible, large enough for the expected attendance and room setup desired, and provided easy access for paratransit vehicles. Accessible materials were available if requested; a sign language interpreter was provider at each session, and Spanish language interpreter was requested and provided at the central Listening Session. A court stenographer was used to prepare transcripts of the presentations and group reports.

The average attendance at the Listening Sessions was 77, ranging from 31 during the evening session at the Mohr Center in Forest Park to 109 at the central location at the Mayor’s Office for People with Disabilities. On average, 10 RTA and consultant staff members were present at each meeting to assist with meeting logistics. Each meeting was also attended either by an RTA Board member or the RTA Executive Director and other senior staff, who provided an overview and welcomed attendees. The meeting logistics were coordinated with Pace and Pace provided on-site assistance to facilitate transportation to and from the meetings.

Unlike other public meetings that are set up to receive public comments through individual testimony, the Listening Sessions were organized as self-facilitated roundtable discussions, designed to allow for interaction in a small groups setting. A spokesperson selected by each group reported the highlights of the small group discussion back to the full group. An intended benefit of the format was to allow customers to interact with one another to share ideas and concerns.

Each session began with brief welcoming remarks from either an RTA Board member or the RTA Executive Director, followed by an overview of the purpose of the Listening Sessions presented by the consultants. The consultants’ facilitator then gave the group discussion assignments. The groups were asked to discuss the following questions,
which closely matched the questions listed on the comment cards sent with the meeting invitations:

1. What specific concerns, if any, did you have with service prior to the changes in March 2008?
2. What is working well now?
3. What is not working well now?

In each session, the small groups discussed the first question about service concerns prior to the March 2008 service changes. Then the spokesperson debriefed the entire group with the consultants recording comments on flip charts for later review. Depending on the size of the Listening Session, the other two questions were either discussed in the small group setting and reported back to the large group, or individuals were invited to offer their comments directly. The responses were recorded on flipcharts for later analysis. A public address system and wireless microphone were used at every meeting to make it easier to hear the comments. Many participants commented that they liked the format and appreciated having a chance to participate in discussions, rather than simply listening to one-way remarks.

The presentations and reports from the small groups and individuals were transcribed by a court stenographer. In addition to the facilitated group discussions, participants were invited to submit written comments if they did not wish to speak publicly or had specific concerns that were beyond the scope of the meeting (such as an issue with a particular paratransit trip).

**Listening Session Results**

The Listening Sessions were used to identify concerns and satisfaction with service before and after the transition to the zone system in March 2008. The discussions identified items that were positive or negative about each time period. In some cases, what was viewed as a positive by one group might have been considered negative by another.

Below is a summary of comments received at the Listening Sessions. They are divided into major topic areas that were identified by participants in the meetings including:

- Zone system
- Will call trips
- Reservations and telephone access
- Routing and scheduling
- Dispatchers and drivers
- Late rides
- Passenger no-shows
- Vehicles
- Customer service and complaints
Highlights of the Listening Session discussions are included below. The information was used to help guide topics for review as part of the overall audit of the Pace Chicago ADA paratransit service.

**Zone System**

Complaints about the new “zone system” were voiced at each of the Listening Sessions. The zone system was implemented in March 2008 with SCR serving the south zone, CDT the central zone, and MV the north zone. When asked to clarify what they do not like about the zone system, participants typically cited the lack of carrier choice as an issue as well the need to call multiple carriers when traveling within different zones during the day. In the past, riders had a choice of carriers, although it was also sometimes necessary to call more than one carrier when trying to book a ride, a problem that has basically been eliminated under the new system.

**Discussion:** Several groups suggested that providing a centralized reservation number would make it easier to work with the zone system by eliminating the possible need to call multiple carriers to book trips. Pace has been evaluating the potential for developing centralized reservations, which could help to alleviate the concern about having to call multiple carriers to reserve service, although this would not resolve concerns about the lack of consumer choice. While consumer choice is often cited as a desire of riders, in practice around the country it is rarely offered and is not required by the ADA regulations. Instead, transit agencies tend to focus on making service policies and practices consistent among carriers.

**Will Calls**

Several service policy changes have been difficult for riders to accept. In particular, the elimination of will call return trips (i.e., trips that have open-ended returns allowing a rider to call when ready for the return trip). Prior to the service transition, will call trips were provided. At every session the request for a return to will call trips was made and in each case the audience responded with applause or verbal agreement with the comment.

**Discussion:** Will call trips are not required under the ADA regulations and may be provided at local discretion. Serving will-calls in a pre-scheduled environment can be a challenge and a significant number of will-calls can impact on-time performance and ride times. Where used in other systems, will-calls are usually restricted to medical trips with uncertain return times. When ready to leave, the rider calls to request a will call ride and the carrier usually allows itself up to 90 minutes to respond to the request. Pace has eliminated will calls and encourages riders to estimate sufficient time for their trips with uncertain return times. It is possible for riders to make same-day changes when space is available and Pace does have a “no-strand” policy, meaning that they will not
leave a rider without a trip home if it turns out that a prescheduled return time has
to be changed.

**Telephone Access and Reservations**

One of the problems most often cited with service prior to the transition focused on
accessing the telephone reservation system:

- The phone system could require 20 or more attempts to get through to
  reservations
- Busy signals were common as were long hold times and dropped calls
- Reservations had to be made by 8 a.m. or there might not be any rides available
- Often there were no trips available for the time desired, if at all
- People said they felt rushed on the phone and the call-takers and dispatchers
  were rude

Since the transition to the new system, there are far fewer complaints about accessing
the telephone reservation system and making trip reservations:

- Reservations are working well now; able to get through now with limited hold
  issues
- Able to call until 8 p.m. to reserve a ride

However, there are some concerns about current telephone access and reservations
including:

- Some customers do not like negotiating for their pick-up time
- Customer service representatives do not always relay specific trip information
  such as which door to use at locations with multiple entrances or residences with
  multiple doors
- Having to specifically request door-to-door assistance has led to inconsistent
  service in this regard

**Discussion:** There is agreement and evidence to support the comments about
improvements to telephone access. It is easier to get through on the telephone
to make a reservation and it is possible to wait until the end of the day prior to
service and still be able to book a trip close to the desired travel time. It appears
that some of the concerns with negotiating reservation times stem from past
experience where trip requests were simply recorded as quickly as possible and
schedules developed later. Negotiating up front for a pick-up time may require
some compromise on the part of customers; however, negotiating up to one hour
of the usable window before and after the requested pick-up time is permissible
under the ADA and in practice is necessary in order to accommodate all trip
requests without denials. Additional discussion about making reservations and
scheduling trips is provided in Section 9 of this report.
With respect to capturing more accurate trip information, it does appear that repetitive details about specific trip information may be missed sometimes during the reservations process or not consistently conveyed to drivers. Furthermore, the switch from door-to-door service to curb-to-curb service, with door-to-door assistance provided upon request, may be resulting in inconsistent passenger assistance. The ADA requires that “origin-to-destination” service be provided, meaning that if curb-to-curb service is the normal level of service provided, operators must provide assistance to the exterior door (door-to-door service) if needed. Door-through-door assistance is not required by the ADA, nor should it be offered for liability reasons. Rider assistance policies are discussed in more detail in Section 9.

Finally, although expanding the telephone reservation hours to 8 p.m. is commendable, the ADA only requires that reservations be provided during normal business hours and at least one day prior to the desired travel time. Most ADA paratransit systems end reservations at 5 or 6 p.m. the day before service is to be provided. This is done to allow sufficient time for schedulers to complete their review prior to finalizing schedules for the next day. As is discussed in Section 9 of this report, more time may be needed to prepare schedules. Ending reservations at 6 or 7 p.m. may result in better schedules without significantly impacting reservations. However, any change of this type would need to be discussed as part of the public outreach process.

Routing and Scheduling

Considerable discussion was generated on the topic of circuitous routing of trips and resulting longer ride times throughout the service area. Ride times were not viewed as a problem in the past but have become a topic of discussion among riders since the transition in 2008. For example, Listening Session participants commented:

- Ride time is much longer now than when CTA - passengers should be paid for excess time on vehicles and for having to use cell phones
- Routing of trips poorly planned; long trips / out of the way

Discussion: Issues with routing and long ride times can occur for a variety of reasons including scheduling issues, inserting trips into an existing schedule without noting the effect on other trips, and the fact that rides are now shared, whereas in the past many rides were not shared. Again, these comments were helpful for underscoring the need for the audit to focus on what appears to be happening with routing and whether, in fact, ride times are longer now and, more importantly, excessively long when compared to fixed route service. The results of this review are described in detail elsewhere in this report. It does appear that some circuitous routing may be occurring and there may be some software settings that could be adjusted to make the routing more direct. It also is true that some rides may feel that they are riding too long simply because the system is now operating with more shared rides than in the past, so routing from a
person’s origin to destination may involve picking up or dropping off other customers, creating a longer ride time.

**Dispatchers and Drivers**

Drivers have the most contact with passengers and it is not surprising that the topic of drivers and dispatchers was brought up throughout the Listening Sessions. Riders and passengers interact quite a bit, and passengers also observe any radio communication with dispatch. Prior to the transition, there were problems related to drivers that were noted during the Listening Sessions including, for example:

- Lack of professionalism and respect/rude
- Spent too much time on cell phones
- Were not easily identified by a uniform
- Playing music too loud

At the same time, some drivers were also praised for being courteous and helpful.

New issues about drivers have surfaced under the new system with comments like:

- Drivers don't know city
- Drivers should come to the door; it’s curb-to-curb only - should be building to building
- Drivers won’t assist passengers on/off vehicles or secure wheelchairs well
- Rushed boarding
- Some are rude
- Some drivers drive too fast
- Drivers don’t know where they are going

There also were comments about the interaction between dispatchers and drivers, including comments about rude dispatchers in the current service:

- Dispatchers need to be nicer to drivers so drivers will be nicer to passengers.
- Driver not properly informed by dispatchers (what to do)
- Reservation made for one time, driver sent at an earlier time without customer being told - resulted in people being called no-shows inappropriately

Other comments were aimed at providing a better working environment for drivers including scheduled lunch breaks and increased pay.

**Discussion:** The comments about drivers and driver/dispatcher interaction appear to underscore some of the issues related to how service is operated and inconsistencies among drivers and carriers related to passenger assistance, no-shows, and the circuitous routing issue. Drivers and dispatchers play a key role in the success of the program and additional time may need to be invested in retraining drivers and dispatchers in radio etiquette and improving knowledge of
the city-related map reading and routing. Making same-day schedule adjustments is an important part of dispatching. However, dispatchers also may need to be reminded that while productivity is a relevant concern, they need to ensure that they are not adversely affecting existing trips when making same-day schedule adjustments. The issue of inserting trips into an existing schedule may occur because of rescheduled trips or repeat attempts to pick up passengers who may have been no-showed earlier or were not ready to leave when their ride first appeared. Again, these items were addressed as part of the review and discussed throughout the document.

Late Rides

Many groups commented on the issue of late rides, both in terms of being picked up late and being dropped off late for appointments. Some of the comments include:

- Late pick-ups compounded with additional pick-ups (shared ride)
- Not picking up or not arriving on time
- Too long wait for pick-up status when rides is late (wasting time on cell phone)
- Tardiness is okay for carriers but no-show for customers

**Discussion:** Late pick-ups and drop-offs seem to be an ongoing concern for the Listening Session participants as well as being reflected in the customer complaint files. Customers appear to be linking the issue of late rides to other issues such as long rides and passenger no-show practices.

Passenger No-Shows

Another topic that generated extensive discussion was the perception that there has been an increase in unjustified passenger no-shows being declared in the new system. Passenger comments include:

- No-shows for no reason/false no-shows
- Quick/false no-shows (esp. with high rise buildings) / how long is the NS window?
- Not notified about ride being there and then called a no-show

A no-show occurs when a vehicle arrives during the on-time pick-up window and waits five minutes for the person to appear. If the person cannot be located, the driver is supposed to contact dispatch who, in turn, attempts to contact the rider. If the rider cannot be contacted and dispatch has verified the proper location of the driver, dispatch can declare the rider a no-show and direct the driver to move on.

**Discussion:** According to the ADA regulations a passenger should not be declared a no-show if they miss their trip through no fault of their own, including, for example, operational problems such as vehicles arriving outside the on-time pick-up window, wrong vehicle sent, unexpected illness or other events that the
passenger cannot control. An increase in actual no-shows may be due in part to the switch from curb-to-curb to door-to-door service and that carrier operators may be approaching passenger assistance inconsistently with some drivers knocking on a passenger’s door while others wait for passengers to appear on their own. A no-show also could occur if the reservation lacks specific information about alternative waiting areas or the driver does not look at the notes section on the MDT or manifest. The topic of no-shows was specifically looked at as part of the audit and is discussed in Section 9.

Vehicles

Vehicles also surfaced as a significant issue, both prior to the transition but also as a concern for current service. It should be noted that under the current service design vehicles are purchased and owned by the contractors. The focus on vehicles was not expected coming into the review and points to the value of hosting the Listening Sessions and hearing what customers have to say about the service they receive. Prior to the transition, comments centered on problems with dirty vans and vehicles that were generally in poor condition or even unsafe. With respect to the current service there were a number of criticisms specific to the types of vans selected for new service:

- Slippery surfaces getting in/out of new vans - feel like they will fall - need non-slip surface, handles, assistance from drivers
- Vehicles are too small (referring to minivans)
- Need seat belt extenders
- Seats are small and new vans have short seats
- Ramp not wide enough
- Seats in back of MV vans are too high and the seat belt can choke you

**Discussion:** The comments about vehicles were helpful for informing the review. While visiting carriers, the consultant team was able to verify some of the issues raised about the size and configuration of vehicles. Vehicles are discussed in more detail in Section 9.

Customer Service and Complaints

Few comments were made about customer service prior to the transition in March 2008, although it was noted by some groups that customer service agents with the carriers were sometimes rude and they had negative attitudes. While a few positive comments were made (e.g., “customer service is respectful”), a number of comments were voiced about current customer service and complaint processing including:

- They pass the buck on complaints - no resolution on part of Pace, carrier says talk to Pace
- Customer complaints not being handled
- There should be a clearer complaint process – there is a fear of fear of "retaliation"
• A problem - very difficult getting anything on how a complaint was resolved (no feedback)

Discussion: Most of the concerns appear to center around the lack of response to complaints submitted to Pace for resolution. A discussion of the Pace complaint process is included later in this section of the report.

Comment Cards

As described above, comment cards were included as part of the invitation to the Listening Sessions. Comments could be returned to the RTA via Business Reply Mail (free to the customer), e-mail, or dropped in a comment box at the administrative offices at 175 W. Jackson in Chicago. Some of the comment cards were turned in at one of the Listening Sessions.

As was the case for the Listening Sessions, the comment cards were not intended to represent a statistically valid survey of current riders but, rather, to provide a sense of the issues and concerns current customers have about the Chicago ADA paratransit service, and to inform the consultants and the RTA about what customers think about the service. It also was hoped that riders who could not attend one of the Listening Sessions would have several ways in which to contribute their thoughts to the process.

A total of 873 comment cards and e-mails/letters were completed and returned. Of those, 780 were comment cards, 64 were e-mails, and 29 were letters. In addition, there were 30 cards returned that were either blank (28) or unreadable (2). The content of the comments were analyzed and sorted into 3,678 individual comments. Of those, about 74 percent were negative comments critical of the program at some point before, during, or after the transition, and 24 percent were positive comments.4

The written comments closely paralleled the results of the Listening Sessions, although there were more positive comments included in the written comments than at the public meetings. Highlights of the comment cards are presented below.

Reservations/Phones

• Prior to the transition, customers really disliked the phone system. They reported having to call 20 or more times before they were able to get through without a busy signal or ring out. Once they did get through, hold times were long and, ultimately, there were no trips available for the time and day they wished to travel.

• Respondents are happy with the new reservation system, especially the extended reservation hours that go until 8 p.m.

4 Some comment cards may have been completed by individual who attended listening sessions; therefore, some comments may repeat comments made at the Listening Sessions.
Respondents noted their frustration with a perceived lack of thoroughness on the part of the reservationists. They said that reservationists did not record their need for an accessible vehicle, even when specifically requested at time of reservation, making them unable to use the vehicle that was sent out for the trip. Similarly, respondents complained that when they communicated important pick-up information, such as the name of the building, location of second entrance, etc. at time of booking, that information was either not recorded by the reservationist, or not relayed to the driver by the dispatcher.

**Scheduling, Routing, and Dispatching**

- The overwhelming complaint from many respondents was circuitous routing of trips and the long rides as a result of the routing. This seemed to occur only occasionally before March 2008, and a little more frequently during the transition, but is now noted as a frequent occurrence and a huge concern for riders. Respondents seemed more passionate about this topic than any other issue. Terms most often used to describe the routing include: “joyride,” “tour of the city,” and “trip around the world.” Most respondents provided specific examples, including street names, of instances in which they were picked up on one side of the city and driven to another part of town before being dropped off within blocks of their original pick up location.

- Respondents also felt passionately about their desire for will call trips, primarily for medical appointments. In most cases, respondents wrote at length about why will calls were necessary for themselves and other riders and claimed that Pace was making them “guess” about what time they would be done with a doctor’s appointment. Respondents said that it is really unfair to make them wait up to three hours for a pick up if they missed their scheduled pick up time due to their doctors’ schedule.

- Poor attitude from dispatchers when calling to check on rides is more of a concern now than it was prior to the transition. To avoid the need for repeatedly calling dispatch to inquire on a ride, some respondents suggested a call on their cell phone or automated text message alerting them to ride ETA.

- There were two instances in which drivers were specifically mentioned, with regard to dispatching. First, a few respondents felt that dispatchers are rude to drivers over the radio. Second, respondents felt that scheduling trips too close together was unfair to the drivers.

- Many respondents indicated that currently, there are too many riders in one vehicle.
**Trip-Related**

- Late pick up is an ongoing concern. In fact, 566 (or 15%) of all 3,678 individual comments were about late pick-ups with current service providers. Many respondents gave specific examples of the result of repeated late pickups and drop offs; a few reporting being terminated from their jobs. One respondent said that she had scheduled a ride to the recently held Pace public meeting, but that her ride was so late, she missed the meeting.

- Late pickups and extended waiting times seem to be a particular problem for return trips and trips occurring in the afternoon hours.

- On the other hand, many respondents indicated that their carriers are more on-time now then prior to the transition.

**Driver-Related**

- For those who did comment on overall driver behavior, a majority felt the drivers are generally much more courteous, professional, and helpful now than prior to the transition. Those who reported poor driver performance generally did so with the caveat that “Many drivers are wonderful, but…” Riders were generous with their compliments of the drivers, and in a few instances, provided the names of drivers they particularly liked.

- There seems to be some confusion about the level of assistance that drivers are supposed to provide to riders. Some respondents commended the drivers on their assistance and said that they would not be able to ride without driver help, while others said the drivers were “lazy and rude” and will not help at all.

- A few respondents suggested that the need to have the same drivers every day for their subscription trips and said that they did, prior to the change to Pace. One respondent whose son uses the service has been particularly disappointed with the change because their previous driver, who drove her son daily, had developed a good working relationship with him, understood his needs and “quirks,” but is no longer the driver.

- Drivers’ failure to announce their arrival at a pick-up location and then improperly marking riders as no-shows is a big concern. Although a few reported experiencing this problem prior to the transition, the majority said that this is a current problem. Many respondents complained that drivers do not announce their arrival by honking the horn, but more riders felt that drivers should get out of their vehicles and ring doorbells or go to the front desk at a medical center, etc. Most respondents reported that many pick-up locations do not have protected (or even unprotected) seating locations to wait for a ride and that, especially because they are often waiting for more than an hour, they must, for health.
reasons, wait inside their pick up location. Numerous respondents pointed out that they would not be using Pace service if they were able to stand for more than 15 minutes.

- In this same vein, riders said that drivers routinely mark them as no-shows, when they actually are not. In some cases this is because the driver failed to announce their arrival (as discussed above). In many other cases, respondents said that it was actually the driver that was a no-show and that the rider was at the proper pick up location. They reported drivers being lost and not admitting it to dispatch, or going to the wrong door of a large building or facility.

**Vehicles**

- Physical layout of vehicles is problematic for some mobility device users, especially when placed on a van with other riders

**Service Area/Zones**

- There were numerous comments about the zones and service areas, which, as with the Listening Sessions, appear to relate specifically to a lack of carrier choice and the need to call more than one carrier when traveling within another zone.

**Carriers**

- There was no one carrier that was overwhelmingly liked or disliked based on the comments. What is important here is that, when respondents did comment on a particular carrier, they generally liked one carrier over another, depending on personal preference, and did not like being forced to ride with a carrier they did not choose. While one respondent would say they disliked a particular carrier and preferred a different one, another person would state just the opposite.

**Customer Service/Complaints**

- Respondents feel that Pace ignores complaints or sends out generic form letters in response to specific complaints, months after the fact

- Respondents noted a general sense of confusion on the part of Pace staff and the carriers during the transition period. One respondent reported calling numerous carriers, just to have each carrier says she was not in their zone and refer her back to the other carriers.
Policies

- Since the transition, voucher and transit card pick up has been difficult for Pace customers. Being allowed to pick up vouchers at the Currency Exchanges was mentioned numerous times.

- Many respondents do not like the limit on the amount of bags/packages they can bring on a Pace vehicle. Numerous respondents said that they are only able to grocery shop once per month and that they need to carry all of their groceries on that particular ride.

- Riders do not like the 5-minute pick up window for two reasons. First, they think it is impossible for older adults and persons with disabilities who, for health reasons, cannot wait outside, to descend stairs/lock doors/etc. and generally exit the premises within the 5-minute period. Second, as most adamantly outlined by many respondents, riders perceive it as totally unfair that they may have to wait more than an hour after their scheduled pick up time for a ride, while they still only have 5 minutes to get out to the vehicle. Many respondents said that they had to move to more protected or safer areas while waiting for their ride and then were unable to get to the ride within five minutes, even though they knew the ride was there.

Other

- Many respondents provided general comments. Most of the positive comments were along the lines of “God bless this service,” or “Great job- keep it up,” or “I could not get out without Pace,” etc.

- A good portion of respondents simply wrote “Everything” or “Nothing” under the question about what was currently working well.

Pace Complaint Records

Overview

All customer complaints and commendations are processed through Pace Passenger Services, located in South Holland. The procedure at Pace includes the following steps:

1. Customer complaints and commendations are submitted to Pace Passenger Services, which is the central point of contact for all fixed route and paratransit complaints. Complaints may be submitted in writing, via e-mail, or by calling the Passenger Services department. The telephone number and e-mail address for submitting complaints is included in the on-line Pace ADA Paratransit Services City of Chicago Customer Guide.
2. When received, Passenger Services enters the complaint or commendation into an electronic Customer Assistance Form (CAF).

3. Once entered, the complaint or commendation is electronically transferred to the Paratransit Quality Assurance e-mail box.

4. ADA paratransit staff reviews the form using information from Trapeze, voice logger, and calls to customers for clarification as appropriate. Additional information pertinent to the complaint or commendation is added to the CAF.

5. Complaints or commendations requiring investigation by carriers are electronically forwarded to the carrier.
   
   a. Carriers have three days to investigate and forward a written response back to the Pace ADA paratransit office with details about what happened and corrective action that may be needed.

6. The paratransit office reviews the carrier response and either returns it to the carrier for additional clarification, investigation, or corrective action, or sends the complaint back to Passenger Services.

7. Once the CAF is “approved” by ADA paratransit and returned to Passenger Services, the Passenger Services staff then contacts the customer via telephone, letter or e-mail to advise them of the resolution of the complaint or commendation.

According to Pace Passenger Services staff, there is no formal standard for completing the complaint cycle and responding back to passengers; however, there is an internal goal of 10 days from receiving the complaint or commendation and responding back to the customer. Pace readily acknowledges that this timing has not been met for the Chicago ADA paratransit service. Staff admits that responses have taken as much as three months to complete and that from March through September 2008, Pace was unable to respond to individual complaints because of the volume received during the transition. That is not to say that complaints were not reviewed internally; according to staff, those complaints requiring immediate action were attended to. However, with staff shortages and a doubling of call volume, Pace Passenger Services staff could not keep up with volume of CAFs and had difficulty answering calls at the call center.

Beginning in about October 2008, Passenger Services and the ADA paratransit office resumed a more structured approach to reviewing complaints and responding to customers. Having said that, letters to customers were still being generated two and even three months after the complaint had been investigated by the ADA paratransit office.

The consultants observed that while the letters generated to customers are based on form letter templates, an effort is made to provide appropriate detailed information in the letters, which takes time. The Passenger Services staff also reported that it is sometimes difficult for them to decipher the most important content of the complaint since they did not do the actual complaint investigation; that was done by the ADA
paratransit office and they are not aware of some of the nuances and details of what happened and why.

Starting in February 2009, Passenger Services reports that it began calling ADA paratransit customers to discuss the outstanding complaints and to close the CAF files. If requested, letters are issued but Passenger Services feels that calling customers and talking to them about their outstanding complaints is more effective and responsive than sending form letters months after the fact.

**Observations**

For this analysis, the consultant reviewed two sets of data. The first set was a summary of complaint statistics by carrier and by category and subcategory of complaint. The consultants also drew a random sample of CAFs to conduct a detailed review of the content of the investigations and the average time taken to process complaints and respond to customers.

First, we reviewed the monthly Comprehensive Customer Feedback Summaries, produced by Passenger Services for the period January through December 2008. These reports summarize the complaints and commendations by category and subcategory for each carrier. The reports include the total number of CAFs processed, as well as the total number of complaints represented by the CAFs. The total number of entries (“M-Cat”) is larger because some CAF reports include more than one category of complaint (e.g., my ride was long and the driver was late).

Table 6.1 shows a summary of the number of CAFs submitted (“forms”) and the number of complaints (M-CAFs) represented by those forms. For the year, a total of 10,283 complaints were filed. April 2008 showed a marked increase in complaints, as the complaints nearly quadrupled from March to April, from 527 to 2,202. Complaints dropped back significantly from April to May, from 2,202 to 1,292. By the end of the year, they had stabilized, with an increase shown in December, which was probably related to the onset of bad weather and related service delays. The most common complaint for both SCR and CDT was late pick-ups. The most common complaint for MV varied from late pick-ups to operator issues, and poor routing of service.

Second, we reviewed two months of data to compute the average time required to complete the complaint resolution process, from the time the complaint was filed until a letter was sent to the customer. The analysis was completed for a sample of CAFs opened in October 2008 and in January 2009.

A total of 31 CAFs were selected by the consultants for the month of October 2008. The average time to complete the review, from entering the CAF to contacting the customer was 98 days, ranging from 22 to 123. The average review time for the ADA paratransit office to investigate and return the CAF investigation to Passenger Services was 6 days, ranging from 3 to 32 days.
Table 6.1
Number of Complaints and CAFs Submitted: 2008

<table>
<thead>
<tr>
<th>2008</th>
<th>CDT</th>
<th>MV</th>
<th>SCR</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Forms (CAFs)</td>
<td>Complaints (M-CAFs)</td>
<td>Forms (CAFs)</td>
<td>Complaints (M-CAFs)</td>
</tr>
<tr>
<td>January</td>
<td>297</td>
<td>320</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>February</td>
<td>344</td>
<td>377</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>March</td>
<td>293</td>
<td>334</td>
<td>18</td>
<td>21</td>
</tr>
<tr>
<td>April</td>
<td>902</td>
<td>1,049</td>
<td>322</td>
<td>390</td>
</tr>
<tr>
<td>May</td>
<td>565</td>
<td>665</td>
<td>213</td>
<td>254</td>
</tr>
<tr>
<td>June</td>
<td>452</td>
<td>556</td>
<td>119</td>
<td>144</td>
</tr>
<tr>
<td>July</td>
<td>248</td>
<td>290</td>
<td>77</td>
<td>86</td>
</tr>
<tr>
<td>August</td>
<td>250</td>
<td>311</td>
<td>77</td>
<td>96</td>
</tr>
<tr>
<td>September</td>
<td>286</td>
<td>342</td>
<td>93</td>
<td>123</td>
</tr>
<tr>
<td>October</td>
<td>332</td>
<td>426</td>
<td>84</td>
<td>96</td>
</tr>
<tr>
<td>November</td>
<td>244</td>
<td>304</td>
<td>82</td>
<td>97</td>
</tr>
<tr>
<td>December</td>
<td>374</td>
<td>443</td>
<td>148</td>
<td>188</td>
</tr>
<tr>
<td>Totals</td>
<td>4,587</td>
<td>5,417</td>
<td>1,233</td>
<td>1,495</td>
</tr>
</tbody>
</table>

The time to process complaints through Passenger Services improved significantly during January 2009. A total of 33 CAFs were reviewed and the average processing time had dropped to 39 days, ranging from 8 to 76. The processing time for ADA paratransit to review remained at 6 days on average, ranging from 3 to 12. Table 6.2 summarizes the findings. According to Pace, since February 2009, the Passenger Services staff has begun calling customers in an effort to catch up on open CAFs and to provide better customer service and complaint resolution.

Table 6.2
Average Processing Time for CAFs

<table>
<thead>
<tr>
<th>Average Processing Time</th>
<th>October 2008</th>
<th>January 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average time from when complaint was filed in CAF to resolution forwarded to passenger services by ADA paratransit</td>
<td>6 days</td>
<td>6 days</td>
</tr>
<tr>
<td>Average time from when complaint filed to letter was mailed to customer</td>
<td>76 days</td>
<td>39 days</td>
</tr>
</tbody>
</table>

In reviewing the CAF documentation, it was noted that the investigations appear to be appropriate and the ADA paratransit staff does push carriers to respond in a complete and timely manner, and requires further documentation of the actions taken to remedy problems.

Findings and Recommendations

Based on the results of the review of Pace customer service, it appears that while some things are done well, other items could use improvement. With respect to the actual review of complaints by Pace ADA paratransit staff and its carriers, that process has
been happening in a consistent and timely way, averaging six days to review, investigate, and approve a complaint to be processed by Pace Passenger Services. The review of individual CAFs from customers showed that the investigations appeared to be appropriate and ADA staff does required documentation from carriers to back up their responses.

On the other hand, the Passenger Services department has not been able to keep up with the sheer volume of complaints and there have been significant delays in providing responses to customers. From April through September, virtually no complaints in the CAF system were closed (i.e., few if any letters were generated in response to customer complaints). In the Fall of 2008, an effort was made to begin processing complaints but those letters took about three months to process and issue letters. By January 2009, the processing time was cut significantly and in February the department began calling customers in an effort to clear the complaints and provide better customer service.

We recommend that Pace ADA paratransit and Passenger Services work together to develop a solution for processing complaints more quickly and responsively. Because the timing and responsiveness of complaints affects how riders view the ADA paratransit service, it is in the agency’s best interest to ensure that customer complaints are responded to quickly and completely.
Section 7. Transition Period

Any significant change in a major service, particularly a complex service such as ADA paratransit, can result in short-term performance issues. The experiences of many transit agencies across the country attest to this fact. A transition can be particularly difficult when making changes to a service that has existed for many years. In these cases, public understanding of the changes is as much of a challenge as the implementation of new operating models or technologies.

Some issues were reported with the change in the ADA paratransit service in the CTA service at the end of March 2008. In particular, problems with the performance of the new Trapeze software were reported during the first week. Rider dissatisfaction with some of the service policy changes also has been a continuing concern. Some aspects of service quality, such as on-time performance, also declined for a few months after the transition, as noted in Section 5.

As part of the review, several aspects of the transition were examined. First, information about the purchase of the Trapeze system and reported implementation problems was collected and reviewed. The adequacy of training provided by Trapeze was also examined. Factors that may have contributed to substandard carrier performance were also examined. Finally, the public process used by Pace to plan for and inform riders about the service change was reviewed. Following is a summary of information obtained and observations on the transition period.

Trapeze Software Purchase and Cost

Trapeze Overview

Trapeze Software Group, a subsidiary of Constellation Software of Toronto, Canada, provides intelligent transportation systems (ITS) and mobile technologies to the transit industry throughout North America and the world. Trapeze provides a variety of software products, including software for demand response routing, scheduling, dispatching, and on-board hardware and software. Pace had been using Trapeze PASS for several years in its suburban ADA complementary paratransit service. With the addition of the Chicago ADA paratransit service area, Pace became the largest Trapeze installation in North America. At the time of the transition in March 2008, Trapeze had an installation of comparable size at Transport For London (TFL) in England, although not all of the dial-a-ride vehicles at TFL were equipped with mobile data terminals (MDTs).

In preparation for assuming responsibility for the provision of ADA complementary paratransit service in the city of Chicago, Pace awarded a contract for software to Trapeze to provide the following software components:
• **PASS** – the paratransit scheduling and dispatching software designed to provide tools for customer management (eligibility), automated scheduling and real-time dispatching of vehicles.

• **PASS CT** (Coordinated Transit) - an add-on module to PASS that provides tools for managing multiple carriers providing service in one area.

• **PASS-Mon** – an add-on product to PASS, the Mon module provides the on-board computing tools (mobile data terminals, automatic vehicle location and global positioning). These tools provide real time data to dispatchers and are designed to optimize the operation of the dispatch center.

In addition to the software components, Trapeze also specified the hardware necessary to enhance and expand the existing hardware configuration to allow for the additional software components for the Chicago service. Trapeze determines the necessary hardware configuration, purchases the required equipment and acts as a reseller of the hardware. The hardware for the Chicago service project included:

• Two file servers, one primary and one backup. These servers run the software programs needed for operations.

• Two database servers, one primary and one backup. These servers contain the data used by the software such as client information, trip information vehicle information and all other data necessary for operations.

• Two Scheduling Server/Address Matcher servers, one primary and one backup. The scheduling server is the component of the Pass software that generates the scheduling solutions and runs the batch schedule feature.

• Two Street Routing Scheduling Server/Dispatcher servers, one primary and one backup. This server is used to calculate the suggested path the vehicles will use to perform the scheduled trips. It also estimates the distance between each stop on a run.

• Two Pass Mon Servers and one X-Gate – these are the servers that allow communication between the on-board MTDs and the Pass database.

• Two Pass Mon Servers (SCR and MV) – used as dedicated servers for the MTDs for the carriers to talk to the X-gate and Pass Mon server. CDT already had the necessary hardware in place since they were using MTDs at the start of the project.

• Three Citrix Servers – servers used to allow communication between the users at the carrier sites and the other hardware and software components of the system.

The hardware provided as part of the project also included the database engine (Oracle) required for the project, necessary licenses for Oracle, and all cabling, rack equipment and infrastructure needed for installation.

**System Cost**

The consultant team attempted to compare the cost incurred by Pace for the Trapeze software to other comparable systems using Trapeze. The team requested a copy of
the RFP response submitted by Trapeze, information regarding actual costs incurred by Pace, and costs incurred by similar systems.

Pace is the largest North American Trapeze site. Although there are no comparable sites in terms of size (trips provided), the consultant team contacted and attempted to obtain cost information from the following system:

- Washington Area Metropolitan Transportation Authority (WMATA) – MetroAccess
- Metropolitan Transit Authority of Harris County (Houston, Texas)
- Metro-Dade Transportation Authority (Miami)
- Central Florida Regional Transit Authority (LYNX)

According to data provided by the RTA accounting office, payments to Trapeze for hardware and software totaled $2.6 million from 2007 through October 2008. These costs were for all necessary hardware and software components as well as implementation services. The hardware components included the core infrastructure components and servers needed to complete the project. Implementation services are the cost for the training and on-site support during go-live. The software included the licenses for Pass-CT (Coordinated Transportation Module) and Pass Mon (MDT module). The CT and Mon modules are add-on products to the basic Pass software.

Of the four sites contacted the consultant team was able to obtain cost information from MetroAccess in Washington, DC. In 2006 MetroAccess purchased Trapeze software for use by its single carrier MV Transportation. According to data provided by MetroAccess the costs related to the purchase of the necessary hardware, software and implementation services was $1.7 million. There are important differences with regard to the MetroAccess operation and the Pace operation. First MetroAccess has only one turn-key provider of service, not three separate providers of service. Also at the time MetroAccess purchased the software the level of service provided by MetroAccess was ½ of the current level of service provided by Pace. The number of trips provided by MetroAccess at the time of purchase was estimated to be up to 4,500 per day. The comparable number of trips for Pace at the time of purchase was up to 12,000 per day. As a result, the number of licenses and the resulting license fees would have been less. Also, not all of the vehicles used in service in MetroAccess service are equipped with MDTs. This would result in a lower license fee cost for the Pass Mon module for MetroAccess

Preliminary cost information was received from Metro-Dade Transit authority in Miami, Florida. The consultant team is awaiting a written response with a listing of the hardware, software and costs of the procurement. What is known is that Metro-Dade purchased Trapeze software in 2002. The procurement consisted of at least nine servers comprised of six Citrix servers, a schedule server, a database server and a file server. Also purchased was two add-on software components, COM (for complaints) and CERT (for client certification) were purchased. However, Miami-Dade paratransit vehicles do not include MDTs. Therefore they incurred no cost for the Pass MON component or an MON license requirements.
Metro-Dade, like Pace operates 24 hours a day, seven days a week. Metro-Dade was providing about 8,000 trips per day when they installed trapeze software. They are essentially an operation that provides service 24 hours per day, 7 days per week. They have one company that acts as the call center. This company is only responsible for taking the trip reservations. The company that acts as the call center does not schedule the trips or provide the dispatching, vehicles or drivers to provide the requested trips. There are three carriers who are responsible for providing the scheduling, dispatching and provision of service.

The consultant team also contacted the Central Florida Regional Transportation Authority (LYNX). LYNX purchased Pass in 2002. At the time of the purchase LYNX was using software from a software company that Trapeze had recently purchased. As a result the purchase of Pass was treated by Trapeze as an upgrade of software and not a new purchase. As an incentive to install the Trapeze software the costs associated with the project were discounted by Trapeze. Therefore it would not be appropriate to compare the LYNX procurement with the Pace procurement.

No response was received from the Metropolitan Transit Authority of Harris County

**Findings**

As noted above Pace is the largest North American Trapeze site. Additionally each site contacted structured their service in a manner different from Pace. Differences in how service is structured will often lead to differences in the costs associated with the purchase and installation of software. Costs also vary based upon the number of software user licenses required for the purchaser. Pace as the largest Trapeze site would necessarily incur higher software licensing fees.

Based upon the limited information available for comparison the consultant team believes that the costs associated with the procurement of Trapeze software by Pace appear to be appropriate and reasonable for a project of this size. This is based upon the relative size of Pace, to the other sites contacted, and the difference of three years between the procurement by Metro Access and the procurement by Pace.

**Trapeze Implementation**

Transitioning to new software takes advance planning and it is best not to make a major switch all at once. The software implementation was phased-in starting with SCR in September 2007, MV Transportation in February 2008, and CDT on March 28, 2008. SCR was a service provider prior to the new contract and a smaller carrier than CDT, making it a logical choice to begin transitioning to Trapeze PASS. MV began using the Trapeze scheduling and dispatching functions beginning in February 2008, but did not use all of the features until the end of March 2008, when CDT began using Trapeze. In addition, CDT had its own mobile data terminals (MDTs), which were different from
those being installed by the other providers. Therefore, transitioning SCR and MV first was a logical sequence for the transition.

During any software transition, several activities must occur:

- Installation of appropriate hardware
- Setting software system parameters
- Converting data from the old system to the new one
- Providing real-time startup support

System parameter settings are described in Section __, along with a discussion of current carrier proficiency with using the software. The remaining transition period activities are discussed below.

**Data Conversion**

A first step in any software installation is converting existing data from the old system to the new one. The conversion includes transferring information for geographic data (the map), client files (registered customers), and sometimes trip files (specifically subscription/standing order trips). According to Trapeze representatives and Pace, the data conversion process for the Chicago service was “par for the course” and went smoothly. The client files were imported in PASS as was the address file. The map data was updated by Pace prior to the data conversion. As a result, the only geographic information that was updated during the data conversion process was the addition of the Chicago ADA polygons. In PASS a polygon is an area on the map. In this case the ADA polygons represent the ADA service area based the ¾-mile corridor around the fixed routes.

Carriers accept reservations one day in advance. Therefore, the only trip files that needed to be transferred were for subscription trips. Instead of automatically transferring subscription information, Pace staff said that they verified existing subscription trips and then manually entered the subscription trip information into PASS. This was done in an effort to ensure that current information was entered for subscription trips. Automatically transferring subscription trips without verifying their accuracy can result outdated information and errors. Also during any data conversion there is a risk of data being lost during the conversion process, or information appearing in the incorrect fields. The consultant team felt that the approach taken was a sound approach.

**Go-Live Support**

A major issue that arose during the transition period was the performance of the Trapeze software and hardware system, particularly the MDTs. As part of this project the consultant team interviewed Pace staff and Trapeze staff involved with the transition and reviewed correspondence and other background materials related to the software performance issues experienced during March and April 2008.
According to Trapeze, part of the challenge of bringing the carriers on-line (also referred to as “go-live”) was the fact that go-live support needed to be provided for a 24-hour operation. Support for scheduling, dispatching and MDTs would be provided by a combination of Trapeze and Pace staff. The schedule for go-live support showed that Trapeze had people at the carrier site for reservations, dispatching and scheduling support from 4 a.m. until 2 p.m. and from 2 p.m. until midnight. During the first week of the go-live the first shift included up to six Trapeze staff. Pace provided three staff members from 5:30 a.m. until 10 a.m., five from 10 a.m. until 2 p.m., three from 2 p.m. until 6:30 p.m., and one person from 6:30 p.m. until 9:30 p.m. On-site support at each carrier location appeared to be more than adequate.

The go-live process for the first two carriers was routine. There were no significant problems encountered during the go-live phase for either. Live reservations were taken on a Friday, assistance with scheduling was provided on Friday afternoon and evening. Live dispatching started on Saturday. This schedule was chosen since the level of service is lower on the weekend. It was a way to ease into using the software before dealing with a full weekday schedule.

CDT was the last carrier, and the largest carrier to go-live with the software. As was the case for SCR and MV, CDT was brought up over a weekend (beginning on Friday, March 28, 2008). With CDT coming on-line the number of transactions processed would be at the highest level. A transaction are actions such as a trip being booked or scheduled, trips being edited or canceled, messages sent from dispatchers to vehicles, an data being transmitted between the vehicles and the appropriate servers. After bringing CDT on-line, periodic slowdowns in transaction processing for all carriers started to be noted during Saturday and Sunday, March 29 and 30. By Sunday evening it became apparent to Trapeze and Pace that there was a serious issue with software response time.

According to information provided by Pace, the slowdown in data transaction processing ranged from 2 to 20 minutes more than the normal transaction processing time. At times Pace said that it appeared that the system was frozen. Trips could not be scheduled, current trip status could not be determined, and trips could not be performed in a timely manner.

Upon investigation, Trapeze determined that the problem was not a hardware (insufficient hardware capacity) or bandwidth issue. The problem was determined to be related to the level of data transmitted and how the software transmitted the data from and to the MDTs. Basically the way the system would transmit through the MDT and Schedule Server data was by transmitting it “en masse” (all at once). The volume of messages being transmitted and the volume of trip transactions being processed overwhelmed the servers.

By Monday, March 31, Trapeze had devised a “workaround.” Under the workaround only the vehicle arrival information was transmitted via the MDTs. Also, as needed, the
schedule server would be shut down and restarted during the day as a way to mitigate the server performance issue. Restarting the schedule server would clear the cache (memory) and as a result transaction processing speed would increase. As the cache (memory) starts to fill up, the processing time gets slower. The workaround was used until a patch could be developed to fix the data transmission issue that only the vehicle arrival data would be transmitted, and that the schedule server would be shut down and restarted as necessary. In the meantime, Trapeze development staff undertook the task of developing a solution to the data transmission problem. By Thursday, April 3, transaction processing had improved by to between 1 and 5 minutes, and trip departure information was being transmitted.

By the following weekend (April 5-6, 2008), Trapeze had prepared a patch that would resolve the problem. Over the weekend, Trapeze arranged a schedule with Pace to bring the system down and install the patch. The patch changed the way in which data was transmitted. Instead of transmitting the data “en masse,” the data that was transmitted was "parsed" or broken into smaller pieces of data and transmitted. Trapeze staff was on-site to provide support during the process of installing the patch and using the software with the patch installed. The patch was successfully installed and processing time for transactions returned to normal, which was less than one second per transaction. The fact that no additional hardware, and no enhancements to hardware were required, proved that the analysis of the problem by Trapeze was correct.

Findings and Recommendations

The data conversion process appeared to go relatively well and appeared to be typical of most software transitions. The client and address files are the two files that can be converted with a high degree of reliability. And since the map files were updated prior to the conversion of data the underlying geographic information was as up to date as possible. As noted above the manual entering of subscription trips is a very good practice and a good way to verify trip data and build confidence and expertise with the software.

The effect of bringing CDT on-line and the resultant slowdown of processing data were not anticipated by Trapeze or Pace. The level of booking and scheduling transactions could be tested in a test database; however, the level of MDT message traffic generated by the fleet the size in operation in the Chicago area could not be simulated at the time. The installation at Pace is the largest North American site for Trapeze and there was no comparable site. Although Trapeze has a site in Great Britain that is comparable in size to Pace (Transport For London), not all of the TFL vehicles have MDTs installed. As a result, while a comparison of the number of trips scheduled and system performance could be conducted, the effect of the number of data transactions transmitted for a comparable fleet was not possible.

Both Pace and Trapeze Software staff agree that the issues experienced after bringing CDT on line with PASS were a result of how the software managed and transmitted the
data generated via the MDTs. When the software patch was installed that changed how data was transmitted, the data transaction speed returned to normal. Testing conducted after the patch was installed and system operation was considered stable, indicated that the speed at which data transactions were processed was less than one second. During an interview in May 2009, Trapeze indicated that the recent hardware and IT infrastructure enhancements were made at Pace and testing now shows that the data transactions are being processed in milliseconds.

It should be noted that the degraded system performance issue was recognized within two days of CDT beginning to use the software. Both Pace and Trapeze appear to have dedicated the necessary resources to resolve the issue within one week after identifying the problem. According to Trapeze, within two weeks after installing the patch they considered the system stable and fully functional.

In our opinion, this level of support from both Trapeze and Pace appeared to provide adequate coverage for the carriers during the go-live period.

Based on the above information it appears that Trapeze and Pace adequately addressed the RFP requirements with regard to required hardware and technologies. When the method of handling the data transmission was changed from en masse to parsed, the system was able to handle the volume of traffic produced by the Chicago carriers. When the issue with system performance was identified Trapeze and Pace allocated the necessary personnel to resolve the situation. It appears that Pace and Trapeze appear to have taken appropriate and timely action given the circumstances.

**Trapeze Training**

As part of this review, TranSystems requested specific information about the Trapeze training received by Pace and its contractors as part of the transition. Trapeze proposed 115 days of training for Pace and its carriers. Eighty-five days of training were provided in advance of the transition date. Trapeze proposed an additional 30 days of follow-up training. It should be noted that the follow-up training is not part of the standard training offered by Trapeze. Pace requested the follow-up training for staff as part of the software procurement to allow for additional training for staff after the service transition in order to answer unanticipated questions related to the provision of service and the use of the software. It should also be noted that Pace staff was present at all user training. This is also not usually done during training. The purpose of Pace staff attendance during training was to ensure that carrier staff understood how to use the features of the software consistent with stated Pace service policies. Both Trapeze and Pace staff said this approach was very beneficial in ensuring consistency from one carrier to the next.

The initial training was divided into five sections, each targeting slightly different audiences:
- **PACE (MIS) Staff Training (10 days)** – the goal of this training is to provide training on maintaining the new infrastructure. It includes an overview of troubleshooting, disaster recovery, and report generation training. Approximately 12 staff persons received this training.

- **Paratransit Contract Administration Manager Training (10 days)** – this training is referred to as “Static” training. Static training is provided to promote an understanding of the major components of PASS for setup purposes. Topics covered included how to set up ancillary data, run information, and creating and managing subscription trips. Each user was scheduled to receive five days of training. Approximately 15 staff persons received this training.

- **Pace Paratransit Administration of PASS Training (10 days)** – this training is delivered to the person(s) who will act as a system administrator in order that support can be provided to other users. Topics include items such as new features in the software, and the functionality of all components of the system (including PASS-CT and PASS-MON). The goal of the training is to provide a level of on-site support for users of the system. Approximately 10 staff persons received this training.

- **Paratransit Staff User Training (15 days)** – the goal of this training is to provide general training for carrier managers and “site champions.” A site champion is a person who is proficient in the use of the software and can function as an in-house support person. Topics include items such as an understanding of major components of PASS (including PASS-CT and PASS-MON), the ability to use the Schedule Administrator, understanding mapping, locations, clients, and subscriptions, understanding trip booking and trip administration, the ability to use Schedule Editor and understanding Dispatch functions in the software. Each of the users was scheduled to receive four days of training. Approximately 25 staff persons received this training.

- **Paratransit Scheduling and Dispatch Staff Training (40 days)** – This training is the operations training for PASS. It covers all the basic functions required for the operation of the software. These include reservations, scheduling, dispatching, and trip editing. Each user was scheduled to receive four days of training. Approximately 75 staff members received this training.

With the exception of the follow-up training, this approach to training is consistent with standard training offered by Trapeze to other customers. The training provides for the development of knowledge by on-site IT staff to support the infrastructure. It also promotes the development of knowledge by Pace management staff to act as system administrators and as the first line of support when there are questions or problems experienced by the users. It also looks to develop a staff person who can be the on-site “expert” at each carrier site.
During each site visit, carrier staff was asked about the training received. Each carrier indicated satisfaction with the quantity and quality of training received. SCR indicated that it received some pre-training and as a result had about six to eight weeks of training. As the first site to go live with Trapeze, this additional training is not unusual to ensure a smooth transition to the new software. CDT indicated that it received a total of about four weeks of training. It is important to remember that CDT already used MTDs so the learning curve for this part of the technology was not large. MV Transportation indicated a total of about two-to-three of training received. However, for their start-up, staff was brought in from other MV sites. This staff was already familiar with Trapeze software, but needed to be trained on the proper Pace procedures for using the software. Therefore, the amount of training received seems appropriate given the level of Trapeze skill present in the staff. As noted earlier, Pace staff was present during all training provided to carrier staff.

**Operations Training**

The TranSystems team reviewed the operations training agenda and the dispatch (MDT) training agenda. Both agendas follow the standard approach used by Trapeze at other sites. The operations training covered basic functions found in PASS. – Trip Booking, Trip Administration features and using the Schedule Editor. They are covered in that order and the lessons learned in each topic are built on the information provided in the previous topic.

Topics covered in the Trip Booking training included a discussion of all the time fields found in the booking screen, booking a one-way trip, a round trip, and a multi-leg trip. The time fields found on the booking screen – Req (requested time), ET (earliest time) and LT (latest time) - are explained. Scheduling a trip using the Booking Wizard is explained next. The different times - Requested Time, Negotiated Time, Scheduled Time and Estimated Times – are explained. Time for hands on practice was scheduled as part of the class.

After the trip booking training was completed, the Trip Administration features were reviewed. Trip Administration is part of the program where trips already booked or scheduled can be edited. In this part of the program trips can be unscheduled, rescheduled, or canceled. This part of the program is generally used by customer service representative and schedulers as part of their routine daily functions. Time for hands on practice was scheduled as part of the class.

The last part of the training covered the functions of the Schedule Editor. The Schedule Editor is a feature in PASS where trips on individual runs can be reviewed and moved. It contains many of the functions found in Trip Administration, but is based on runs rather than individual trips. It is most often used by schedulers and dispatchers to manage runs either before the day of service or on the day of service. Topics specific to Schedule Editor are drag and drop trips, cut and paste trips, no showing trips, the vehicle breakdown wizard and violations. Time for hands on practice was scheduled as part of the class.
Dispatcher Training

The Dispatcher Training included a Mobile Data Terminal overview and was composed of seven topics. The approach to this part of the training is consistent with training provided by Trapeze for other customers using MDTs. The sections of the training and a brief explanation are:

- Logon/Logoff – this is hands-on training illustrating how to log on to the MDT at the beginning of the shift and how to log off the MDT at the end of the shift. The importance of these events was explained.

- Messaging – an explanation of the reception of text messages from the dispatcher and how to respond to messages. Also explained was the notification of manifest changes.

- Arrive/Perform – an explanation of the functions of arriving at an address for a pick-up, performing the pick-up, arriving at a drop-off and performing that drop-off. The importance of those actions, and the effect those actions have on the schedule were covered.

- No-Show – an explanation of the functions of a No-Show request

- Breaks/Lunch – an explanation of the functions of a Breaks/Lunch event and the effect of a Break/Lunch on the schedule.

- Assignment of a vehicle to a run – an explanation of the purpose and function of a vehicle assignment. This included an explanation of the basic steps of a manifest transfer in the event of a vehicle breakdown.

- Dispatch screen with Auto-send – an explanation of the process of updating a manifest due to a change in dispatch.

Included in each of these topics was an explanation of the background functions occurring in the dispatch office when these events occur.

It should be noted that during the training at each site a series of “cheat sheets” were provided to trainees. These “cheat sheets” provided a written explanation of topics covered during training. These sheets provided screen shots of various screens and were designed to provide a reference document for the users.

Findings and Recommendations

It appears that Pace and Trapeze exceeded the training effort usually associated with software implementations of this nature. The training provided to carrier and Pace staff prior to the service transition was consistent with training usually provided by Trapeze.
What was unique to this effort was that Pace staff was involved in all of the training with carriers in order to ensure that Pace’s policies and procedures were consistently applied by each carrier. As noted earlier both Trapeze and Pace indicated that this approach was very beneficial to the project. Follow-up training also was provided, which is not commonly done by other transit agencies. Follow-up training is very helpful as it allows time for staff to use the system and develop questions that can be addressed through the follow-up training. Pace and Trapeze are to be commended for the level of training provided in preparation for the implementation of the software.

**Possible Contractor Performance Factors**

In our interviews, at least one carrier mentioned that there were service capacity issues during the transition period that started on March 28, 2008.

One possible factor for this was information on ridership and productivity that was in the RFP. Exhibit B of Addendum #4 (dated June 28, 2007) provided the following information on the “average projected weekly and daily trips and service hours (revenue vehicle hours) for each zone. The daily information is presented below:

<table>
<thead>
<tr>
<th>Daily Trip Projections</th>
<th>Daily Service Hour Projections</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weekday</td>
</tr>
<tr>
<td>Zone 1 (South)</td>
<td>1048</td>
</tr>
<tr>
<td>Zone 2 (Central)</td>
<td>1763</td>
</tr>
<tr>
<td>Zone 3 (North)</td>
<td>560</td>
</tr>
<tr>
<td>Subtotal - Zone-Based Carriers</td>
<td>3371</td>
</tr>
<tr>
<td>Component 1B</td>
<td>2527</td>
</tr>
<tr>
<td>Total</td>
<td>5898</td>
</tr>
</tbody>
</table>

As discussed in Addendum #4, the service hour projections were estimated based on a productivity of 2.5 trips per hour. To our knowledge, these projections were never altered further (by way of an addendum) during the procurement phase.

The table of actual ridership for the first three weeks of the contract is presented below. What this shows is that while the actual weekday ridership for the system was very close to the projected figure, the distribution of trips among the carriers/zones was off. For example, SCR’s weekday ridership was 80% above the projected figure; CDT’s actual ridership was 28% above the project figure; and MV’s actual weekday ridership was 12% above the projected figure. Moreover, the service productivities of these three carriers were far below the 2.5 productivity figure which was used to estimate the projected number of service hours. For example in April, the average service productivities for the three zone-based carriers were 1.42 trips per hour for SCR, 1.09 trips per hour for CDT, and 1.00 trips per hour for MV. (And, while these have improved over the course of the year – the system average was 1.45 trips per hour for FY 08 – it
is still significantly below the projected 2.5 trips per hour.) Using these productivity figures, the average numbers of actual service hours, corresponding to the three actual productivity figures for April 2008, were calculated for each carrier. These are also shown in the table below.

<table>
<thead>
<tr>
<th>Daily Trips (3/30/08-4/19/08)</th>
<th>Average Weekday Trips</th>
<th>Estimated Service Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCR (Zone 1 carrier)</td>
<td>1887</td>
<td>1329</td>
</tr>
<tr>
<td>CDT (Zone 2 carrier)</td>
<td>2256</td>
<td>2070</td>
</tr>
<tr>
<td>MV (Zone 3 carrier)</td>
<td>629</td>
<td>629</td>
</tr>
</tbody>
</table>

In comparing the projected vs. actual weekday service hours for the three zone-based carriers, we calculate that SCR’s actual service hours for weekday service were 217% over the projected number of service hours; that CDT’s actual service hours for weekday service were 194% over the projected number of hours, and that MV’s actual service hours for weekday service were 181% over the projected number of service hours. Simply put, the carriers’ proposals were based on the projected information and not the actual levels of service that materialized. And even if they could have all achieved a productivity figure of 1.45 (noting that SCR, which had had Trapeze the longest in the CTA service area, achieved a 1.42 productivity in April 2008), the discrepancy between the ridership figures and productivity figures still would have left the three carriers at a disadvantage.

It is unclear to what extent this issue actually resulted in an undersupply of vehicles and/or service hours at the start of the contract. Pace indicated that the management/transition teams from the carriers met almost daily from December 2007 through the implementation in March 2008 and that during this time they provided revised estimates. However, despite these efforts, at least one carrier, MV Transportation, had to borrow vehicles and drivers from some of their other contracts in order to keep up with the demand for service at the start of the contract. The MV manager reported to the transition team that he began with an initial fleet of 65 vehicles (compared to the 87 vehicles operated by March 2009).

As noted by Pace in an interview, there were also some issues with MV’s initial management team which contributed to their challenges during the transition period. This initial management team was replaced.

**Pace Public Process**

The purpose of the review of public meetings held by Pace during the service transition was to determine the number, cost, and content of the public meetings and to evaluate the effectiveness and candidness of those meetings in regard to the March 2008 ADA paratransit service transition. The results of this review can indicate where
improvement may be made to more adequately address the concerns of consumers and stakeholders.

Pace held three separate rounds of formal public outreach meetings over its two-year transitioning of Chicago ADA paratransit service beginning in 2006, when it initially inherited the service from CTA, through the service changes that occurred in March 2008. Each round served a different purpose depending on the issues at hand. The public meetings were used both to disseminate information and to gather input from riders. Throughout the process Pace also met with its ADA Advisory Committee and in 2007 convened a Subcommittee/Working Group to consider service issues raised by riders and to assist with development of the proposed restructuring plan.

An overview of each set of meetings is described below.

**Round 1 Public Meetings: April – June 2006**

The public outreach conducted in Spring 2006 was to inform Chicago ADA paratransit riders of the new legislation that transferred service from CTA to Pace, introduce riders to Pace, inform riders of small modifications that Pace was implementing started July 1, 2006 and, most importantly, to hear from riders about their needs and current service issues. The public involvement held during this period is relevant to understanding the entire public outreach process, the information communicated and how Pace determined the types of service improvements needed.

A total of 46 public meetings were held between April 12 and June 16, 2006. The meetings were held by City Ward. The following is the schedule of the meetings:

- April 12: Ward 15
- April 13: Ward 36
- April 19: Ward 1
- April 20: Ward 18
- April 22: Ward 13
- April 25: Ward 26
- April 26: Ward 2
- April 27: Ward 4
- April 29: Ward 11
- May 1: Ward 5
- May 2: Ward 33
- May 4: Ward 23
- May 6: Ward 46
- May 8: Ward 25
- May 9: Ward 9
- May 10: Ward 24
- May 11: Ward 44
- May 12: Ward 47
- May 13: Ward 22
- May 18: Ward 43
- May 19: Ward 34
- May 20: Ward 14
- May 22: Ward 6
- May 23: Ward 41
- May 24: Ward 49
- May 25: Wards 28/29/37
- May 26: Ward 20
- May 27: Ward 21
- May 30: Ward 30/31
- June 2: Ward 32
- June 3: Ward 45
- June 5: Ward 17
- June 6: Ward 27
- June 7: Ward 35
- June 8: Ward 10
- June 9: Ward 12
- June 10: Ward 3
- June 12: Ward 7
Meetings were held Monday through Saturday and at varying times of the day – morning, afternoon, evening – allowing for people with different schedules the opportunity to attend one of the 46 meetings. All meetings were held within the City of Chicago and were geographically dispersed throughout the entire city. All meeting locations were accessible.

Each meeting had several Pace staff members present as well as a CTA representative. A sign language interpreter for the hearing impaired was also at the meetings. Besides the interpreter for the hearing impaired, Pace did not make the review team aware of any additional special accommodations that were provided, such as materials in Braille or audio recordings of information. It does not mean that they did not provide additional accommodations, only that the review team was not informed of what those items were.

Each meeting started with a 12-slide PowerPoint presentation and 8-minute video. The presentation introduced Pace and its relationship to RTA and the other service boards. The Pace service area was shown with information on Pace’s current ADA suburban service presented. It was stressed that starting July 1, 2006 Pace will assume city ADA service responsibilities with no service changes, only some minor improvements, to ensure as seamless a transition as possible. Pace stated it wanted to get to know the service first and hear from riders before making any real changes to city paratransit service. Pace staff stated that changes may happen slower than what people may want but Pace wanted to make sure it is a processed change because people know the current system and they do not want things to fall through the cracks.

The minor changes explained that occurred beginning on July 1, 2006 included:

- **Centralized inquiries.** Complaints would now go to Pace and not to the carriers as had been the practice with CTA. Pace said this will make Pace more accountable. Pace views the carriers as part of Pace and if they fail, Pace fails. Pace will follow through and take steps to explain how they are correcting the situation investigated from the complaint.

- **Vehicle maintenance and safety inspections.** Pace expects all vehicles to be clean and safe. All vehicles were being inspected prior to the transition and they would not be allowed to operate if they are found to be unclean or unsafe. Staff asked riders to call and let them know if a vehicle is not clean. It was announced that carriers would be getting new vehicles.

- **Phone lines recorded and voice logs maintained.** This would allow Pace to better investigate complaints so they can verify exactly what was said. Riders would now hear a beep on the phone when they call in.
- **Driver uniforms and arm badges.** All drivers would have uniforms and an easily identifiable badge with a number. This would allow riders to be able to identify a driver without having to ask for a name.

- **Computerized scheduling and dispatching.** Pace would work with riders on issues that may arise from going to a computerized scheduling system. They understood CTA tried a computerized system and had some problems. Pace stated they would work with riders on correcting any problems and know in the long run this system will work much better. An advantage to a computerized system is that vehicles would have tracking devices allowing Pace to locate and track vehicles.

- **ADA Advisory Committee meetings and consumer feedback.** There are three ADA advisory committees: Pace suburban ADA advisory committee, Pace city ADA advisory committee and RTA ADA advisory committee. Riders can gain information from these committees as well as use them to work through issues that may arise in the future.

Pace also discussed at these meetings that it was experimenting with swipe cards for fare payment instead of paper vouchers for TAP and Mobility Direct services. If this system works past the demonstration period, Pace will expand the program to move away from paper to an all swipe card technology.

The short video presented showed the participants how the computerized scheduling and dispatching would work. It was stated by Pace staff that if a trip was not on time, the bus sends that information back and Pace can make adjustments based on that information. Meeting handouts included Frequently Asked Questions about the CTA Paratransit Transition to Pace Suburban Bus (printed in English and Spanish), the schedule of meetings, and a card listing suburban and Chicago ADA telephone numbers. In the future, Pace stated that it would work toward having one number, but for now will continue with the multiple numbers.

Meeting sign-in sheets showed attendance ranged from 7 people to 142 with a total number of 1,696 attending the public meetings. Pace’s summary of the meetings had a total number of 2,035 for attendance at all the meetings. At least one meeting sign-in sheet was missing from the materials provided and that was for the meeting held for the 20th Ward and several people most likely did not sign in so a total attendance of slightly over 2,000 is reasonable for the number of meetings held. That would be an average of 44 attendees per meeting.

Three press releases were distributed announcing the public meetings and describing Pace’s new role as the city ADA paratransit provider. Press releases were distributed on April 24, May 19, and June 27, 2006. Meeting information was posted on Pace’s website and meetings were promoted in each city ward through notices posted at libraries, ward offices and related agencies. According to Pace internal documents, 4,400 flyers and 230 posters were made available at 160 locations within the City of Chicago. The flyers and posters were printed in English, Spanish, and Chinese. Flyers were also provided to the carriers for availability on the vehicles. A letter was mailed to
all Chicago Aldermen with the schedule of meetings and a request to help advertise the forums. Three separate mailings were sent to city ADA paratransit riders. These letters, dated March 31, May 1, and June 1, 2006, notified riders of the change in service provider from CTA to Pace and a listing of the public forums being held. There were also three frequently asked questions included in the letter:

- Will my service change when Pace takes over on July 1, 2006?
- Will I have to be re-certified by the RTA to ride paratransit?
- Will I still pay $1.75 per trip?

Pace’s records of the public meetings state that 58,752 pieces in total were mailed. Each meeting sign-in sheet has a notation that thank you letters were sent to the meeting participants which demonstrates a follow up process occurred after each meeting. However, a copy of the letter and any materials that were included in the follow up correspondence were not available for review.

Pace staff prepared a meeting summary after each meeting that included the meeting date and time, Chicago Ward, number of people that attended, staff present and a summary of comments made at the meetings. Each meeting was tape recorded and Pace has a full set of the meeting recordings. The meetings and the discussions that occurred are well documented.

After the presentation Pace staff opened the floor for questions and comments. Verbal and written questions were addressed. Completed comment cards were not provided for review; however, a list of comments by category was provided and meeting recordings were made available for review.

Reoccurring themes at each meeting included problems with call-in time and the scheduling process, people being marked as no shows, on-time performance, bad routing and long trips, drivers not knowing their way around, discourteous drivers, vehicles not being clean, and the complaint process. A common question was in regard to the fare and whether it would increase. Pace responded that the fare would remain the same for now until the RTA completed its study of ADA service costs and fares. It was also noted that before Pace can raise any fares they would have to hold public hearings.

Pace stated that it operates a shared ride system but that shared ride travel times would be comparable to ride times on the fixed route system. It is shared ride service in order to maximize efficiency of service but at the same time people should not be on a vehicle for an exorbitant amount of time. The issue of city boundaries and transfers to get to suburban locations was raised. Pace said that now that they will operate all ADA service in the region they will be able to look at the entire system and where people are going to make the system - city and suburban - work better and be more connected. It was stated that this is one of the reasons for the transitioning of service over to Pace. Pace will operate their two ADA paratransit systems as they exist now and then over time they will merge the policies to move to a more connected, uniform system. In order
to get there, Pace stated it would need to look at funding issues along with everything else.

It was stressed that at this stage Pace is taking over the service as it currently exists and in the future Pace will work with the community to make improvements. This was the main message at all the public meetings. Pace staff clearly stated that they understood they were inheriting an inefficient ADA system with many problems. They knew changes needed to take place, but before that could happen they needed to operate the system to learn first-hand about the issues and they also needed to hear from riders. Hearing from riders was an important reason for having the extensive public outreach process that occurred during this first round.

Pace staff noted that there will be new contracts with the carriers in 2007 so Pace will hold more meetings in 2007 and hope by then there will be improvements to the service. It was stated regularly that the transition and move to improved service will be a long process but Pace intended for service to get better.

This first round of outreach was thorough and effective in accomplishing its two main objectives:

- Introduce Pace to the riders as the new service provider for Chicago ADA paratransit service.
- Open dialogue and hear from riders about what service problems there are and what improvements are needed.

**ADA Advisory Committee and Subcommittee Meetings: January – April 2007**

From January through April 2007, Pace held two ADA Advisory Committee meetings (January 18 and March 18). As noted in the minutes of the January 18, 2007 ADA Advisory Committee meeting, Pace formed a Subcommittee to work with the transit agency on development of the new Chicago ADA paratransit service. The following excerpt from that meeting explains the planned process:

“… we would like to form a smaller committee that we can work with to begin working on the new service contracts before we go to bid. … Mr. Groeninger said following the sub-committee meetings, we are going to rewrite the RFP and to do that there will be publicized community meetings similar to what was done before Pace took over the service, but not in all fifty wards; they will be grouped. Following those community meetings, we want to get the sub-committee back together again sometime in early March to get their input and in April we’re going to publish an RFP with the goals of having new contracts by October of this year. We need at least three month process of getting feedback from the Committee and from riders as to what service design should look like.”
At that meeting Pace staff also presented the concept of a three- or four-zone system, with one carrier assigned to each zone.

Five Subcommittee meetings were held. Copies of agendas were made available; however, no meeting notes were provided by Pace for review as part of this study.

- **Subcommittee Meeting: February 13, 2007**
  Agenda topics included Trapeze computer software, computerized scheduling and dispatching; service area design; and service guidelines.

- **Subcommittee Meeting: February 27, 2007**
  Agenda topics included passenger travel time, service guidelines, and recommendations for locations for public meetings.

- **Subcommittee Meeting: March 9, 2007**
  Agenda topics included service guidelines overview, service zones, and recommendations for public meeting locations

- **Subcommittee Meeting: March 16, 2007**
  Agenda topics included public meetings, a second overview of service zones, and transfer locations discussion

- **Subcommittee Meeting: April 2, 2007**
  Agenda topics included service zones, service guidelines overview, recommendations for public meeting locations, transfer locations, and transfer issues identified.

**Round 2 Public Meetings: April – May 2007**
A second round of eight public meetings was held between April 17 and May 3, 2007. According to the meeting schedule, these meetings were held on Monday through Saturday at varying times of the day – morning, afternoon, evening – to provide a sufficient choice of meetings to attend. The eight locations were disbursed throughout the City of Chicago and were ADA accessible. A total of 1,103 people signed in to the meetings:

- Access Living  62 attendees
- Austin Library  27 attendees
- Daley College  69 attendees
- Bethesda Church  68 attendees
- Garfield Park  66 attendees
- Olive Harvey  184 attendees
- Chicago Dept. on Aging  490 attendees
- Westside Technical Institute  137 attendees
The last meeting at Westside Technical institute was added after the original meeting schedule was advertised. The last three meetings made up 74% of the meeting attendance.

Pace indicated that the meetings were intended to summarize what Pace had heard from riders and to lay out the service suggestions that Pace had developed in conjunction with the ADA Advisory Committee. Unlike the first round of meetings, however, there is no documentation of the discussion that took place at these meetings such as staff notes, meeting minutes or recordings.

Pace stated that the 20-slide PowerPoint presentation served as the meeting agenda. A copy of the PowerPoint presentation was provided to the review team. From the presentation slides it can be concluded that Pace presented the improvements made during the first year it had been operating the service. Those were broken down into four categories with specific achievements.

1. **Pace's Transition Focus**
   - Vehicle maintenance and appearance
   - Operational improvement in ADA services
   - Customer service/quality of service
   - Audit of taxi programs

2. **Service Delivery Focus**
   - On-site carrier monitoring
   - Increase in the number of paratransit vehicles on the road
   - Monthly passes available for purchase 24/7
   - 24/7 emergency dispatch eliminating stranded passengers
   - Increased subscription trips to ease phone congestion – added 425
   - On-time performance – improved to 88% in January
   - Install pick up signage at common locations

3. **Customer Service Focus**
   - Complaints now processed by Pace staff and not individual carriers
   - Pace is implementing a new computerized complaint system for expedited feedback to the riders
   - Implemented Voice Loggers to better respond to customer complaints and inquiries

4. **Focus on Specific Carrier Issues**
   - Additional new vehicles added to service – 51 to date
   - Need for better phone response – incorporated new phone systems
   - Need for additional call center staff – 11 added
   - Need for cleaner vehicles – staff added
   - More driver accountability – drivers now wear ID badges
Pace’s conclusion from the first year was that while it had made small improvements, they had been too little, too late; the service they inherited does not work; and the system needs to be changed.

The presentation goes on to present Pace’s service restructuring goals, which included more accountability for services provided; increase on-time performance and service efficiency, including reducing travel time; one number to book trips; and provide easier travel between the city and the suburban ADA service areas.

The work of the ADA Subcommittee and the proposed restructured service was presented next including how Pace was going to meet the above mentioned goals. Pace presented the computerized system; the guarantee return trip time with trip request that would eliminate the need for will-calls; elimination of same day trip changes; and the three zones assigned to one particular carrier. It also appears that the swipe card technology for TAP and Mobility Direct was discussed and that it would be continued and expanded. The PowerPoint does layout the changes that Pace was proposing to make.

The only items Pace provided to the consultants about the marketing of the meetings is a press release dated April 10, 2007, which includes information on some of the small improvements made to date, the swipe card implementation, the proposed zone system, and a listing of the eight meetings. One flyer, in English only, was also provided for review. The flyer acknowledges that the service needs improvement and that Pace wants to hear from riders. It also states that Pace has some ideas on how it wants to improve service. The meeting schedule is included on the flyer. It is not know how this flyer was distributed, whether it was mailed to all riders, used as a seat drop, or both.

More may have been done to promote the public meetings and disseminate information about the proposed changes; however, without any records or documentation, a definitive finding regarding the effectiveness of the marketing for this round of meetings is not possible.

**ADA Advisory Committee and Subcommittee Meetings: May 2007 – February 2008**

Five ADA Advisory Committee meetings and four Subcommittee meetings were held between May 10, 2007 and February 28, 2008. Brief summaries of the meetings are provided below. The information is based on agendas and available meeting documentation provided by Pace.

- **ADA Advisory Committee Meeting: May 10, 2007**
  A report was given by Ms. Metzger on the services changes implemented to date. Proposed changes using Trapeze were presented. Sally Williams presented the concept of having three zones and the one transfer if crossing all
zones. Ms. Metzger announced that they will be switching all three carriers to Trapeze at one time.

- **ADA Advisory Committee Meeting: August 8, 2007**
  Pace described the upcoming meetings to be held for ADA paratransit riders in the Chicago service area and for people who live outside the area and use Chicago paratransit services. Pace said it was particularly trying to reach out to CTA’s ADA Committee members to attend. The Working Group (formerly called the Subcommittee) will meet on February 14, 2008. The Working Group meetings will be held every other month alternating with Pace’s ADA Advisory Committee meetings. Also discussed at this meeting were the numerous proposals received and the activities of the RFP Committee, which includes Commissioner Karen Tamley. Carrier recommendations will go to the Pace Board in December 2007. Trapeze software was implemented at SCR and went smoothly. Arts will be next.

- **ADA Advisory Committee Meeting: August 23, 2007**
  Continuing work on developing the zones for the city. Also discussed additional carriers, need to improve responsiveness to complaints, interactive voice recognition system, and overlapping the city and suburban services. Mr. Watkins said, when Pace first started public meetings in Chicago, the first round was at numerous locations that had extreme accessibility issues. They were promised that this would never happen again. Again, in the last round of meetings, they had accessibility issues with the buildings, along with lack of alternative formats. He will make a suggestion that the Steering Committee has to make the right recommendations to Pace on what the proper procedures are for accessible meetings, noting that this is no longer acceptable and it has been a long term problem.

- **ADA Advisory Committee Meeting: September 26, 2007**
  At this meeting there was discussion at the end on the role of the ADA Advisory Committee and its role in regard to the transition. Ms. Rodriquez said she would like to make a motion to establish a transition subcommittee to work on the transition of Pace taking over Chicago CTA services. The idea was tabled until it could be understood how the subcommittee would work, how it would interact with the larger committee, and what the mission statement would be. A member of the public said there is still a lot of confusion about the zones and asked if Pace could do a mailing. Ms. Metzger responded that Pace would be happy to if they could combine it with other mailings. She cautioned that a mailing costs between $10,000 and $18,000 if they mail to all the passengers in the system. She said Pace tries to get the information to the press, puts it on the website, tries to get everything to the ADA Committee as soon as possible, and it is on the vehicles. The person responded that handouts on the vehicles were not an alternative to mailings and if that was the only way, Pace needed to make sure the drivers hand the information to every person that enters the vehicle.
• **ADA Advisory Committee Meeting: January 1, 2008**  
  At the meeting a clarification was asked as to whether “Working Group” and “Subcommittee” are used interchangeably or if they are two separate entities. Ms. Metzger said there is a regular Chicago Working Group as well as subcommittees to work on specific tasks. The next meeting of the Working Group was scheduled for February 14, 2008. A schedule of the Working Group and the ADA Advisory Committee was provided. The Chicago zones were explained, the phone line for questions was described, and the flyer with the information was read aloud. The Subcommittee will work on when to provide information to the public. Transfers were discussed and Ms. Metzger said there was also a Working Group reviewing transfer locations and issues over the past summer. New ADA paratransit carriers have been selected with new contract rules.

• **Subcommittee Meeting: January 3, 2008**  
  Agenda topics include service zones, transfer locations discussion, and potential transfer issues were identified. Ms. Metzger stated that the flyers regarding the zones were in the vehicles and drivers had instructions to hand them out. Members commented that they are on the vehicles but the drivers are not handing them out. The Subcommittee commented that care should be given to ensure that flyers are handed out to all customers. Mr. Groeninger added that Pace is committed to these transfers, stating: “If they have been tried and do not work Pace will look at other options.”

• **Subcommittee Meeting: February 7, 2008**  
  Agenda topics include transfers, origin to destination service, public awareness, service guidelines, subscription trips, service area effect on Wilmette/Skokie, Bellwood, and Maywood. (No meeting notes were provided.)

• **Subcommittee Meeting: February 14, 2008**  
  Agenda topics include service guidelines and subscription trips. (No meeting notes were provided.)

• **Subcommittee Meeting: February 28, 2008**  
  Agenda topics included service guidelines and public awareness, flyers, coming public meetings and presentations. (No meeting notes were provided.)

**Round 3 Public Meetings: March 2008**

The purpose of the last round of public meetings was to inform riders of the service changes taking place at the end of March 2008. The meetings were held between March 3 and March 18, 2008. As in the last round of public meetings, eight meetings were held during the day, Monday through Friday. There were no Saturday meetings scheduled. An additional meeting was added at the end since only seven meeting dates were advertised. It was not communicated to the review team why an additional meeting was added to the original schedule of seven meetings or how that additional
meeting was advertised. All meetings took place within the City of Chicago, were geographically dispersed, and were ADA accessible.

It was announced at the beginning of the meeting that if materials were needed in an alternate format such as Braille or large print to please let Pace know. Handouts were made available at the meetings which included the zone map and information about the zones, information on transfers, Frequently Asked Questions, and the service improvements made to date.

Meetings started with a 10-slide PowerPoint presentation. The changes being discussed at these meetings were to take place starting March 28, 2008. Pace staff presented how the system Pace inherited was not working and how real changes needed to be made. The history of the public outreach from 2006 and 2007 was discussed as well as the work conducted with Pace’s ADA advisory committee. The beginning of the presentation talked about the accomplishments to date. The goals of the restructuring were discussed which included improvement to the reservation phone system, guarantee trip requests and elimination of calling multiple carriers, better on-time performance, improved accountability through computerized management, easier travel between the city and suburbs with service to additional suburban locations, and better quality vehicles.

The service changes explained included:

- The three new service zones
- The new computerized system
- Expansion of the service area
- Elimination of trip capacity issues
- New vehicles
- Two additional carries

The main discussion of the meetings was on the three service zones and how they would work. It was explained that one carrier is assigned to a specific zone. Riders must call the carrier of the zone in which their trip is originating to schedule a ride. It was explained that the only time a transfer between zones would be needed is when a person is traveling from the northern zone to the southern zone or vice versa. The transfer would be arranged by the prime carrier. A rider would not be taken off of the vehicle until the transfer vehicle was there. If the transfer vehicle does not show or is late, Pace will give permission for the initial vehicle to continue on through with the rest of the trip to the rider’s destination. All Pace transfers would be vehicle to vehicle transfers. Pace found that most people travel within their own zone. Only about 1% of riders go beyond their own zone, and even then, people usually are only traveling to an adjacent zone.

It was explained that if a rider has multiple trips within a day, they may need to call multiple carriers. An example was given of a rider making multiple trips throughout the day in different zones – home to downtown, downtown to lunch, lunch location to the
doctor, doctor to home. If the downtown location was a different zone than the originating home location then the carrier for that zone would need to be called to schedule the downtown to lunch trip.

The other service changes such as 24/7 operations and the expanded service area to include more suburban locations were also explained in detail. Subscription service was remaining unchanged.

It was acknowledged by Pace staff that complaint responses had been slow. Pace stated they were short staffed in that department due to funding, but they encouraged riders to still call to register complaints. They said that they realize their complaint system is a problem and they are working to improve the process, but they strongly stressed that they still need to hear from riders.

After the presentation, the meeting was opened for questions and comments. People had signed up to speak and were given 2 minutes. This part of the meeting was conducted in a more formal format than the first round of meetings held in Spring 2006; the purpose was to allow time for everyone to speak and to keep the meeting moving so they would end in a reasonable amount of time to keep transportation on schedule. From the tape recordings reviewed, Pace answered each question in detail and with examples.

A common question unrelated to the service changes was about the raising of the fee of the monthly pass. Pace explained that they are required to recover 10% of the service cost from the fare. The CTA was not at 10%. In order for Pace to make up the 10%, rather than raising the single fare, the board chose to raise the monthly pass.

When asked about who came up with the zone idea, Pace staff responded that they looked at trip patterns and then worked with the ADA committee. Pace also noted that it needs to be able to determine which carriers are performing and which ones are not, commenting that it was hard for Pace to determine performance the way the service was set up at the time. The zones would help address many of the complaints that Pace was receiving: not getting rides, long rides, late pick-up and drop-off.

The guarantee trip reservation was explained. People seemed upset about losing “will call” return trips. For doctor visits it was explained to give a best guess estimate on a return trip and if that time could not be met to call. The first trip would need to be cancelled and the new trip scheduled. Pace stated it would not leave anyone stranded. It was explained that 20% of trips are will call and those trips end up taking the rest of the trips off schedule. A rider will no longer have to wait 90 minutes for a return trip, but the person does need to schedule the return trip when making the reservation.

Pace also explained that starting March 28, 2008 riders should give any special accommodations that are needed for pickup, such as if the driver needs to ring the bell for pick up. This way the scheduler can build those accommodations into the schedule.
Trip time negotiation was discussed. It was presented by Pace that if someone needs an exact pick up time – e.g., 7 a.m., they still will need to get up early to make that reservation. If a person is more flexible and can take a trip within the useful hour than they can be more flexible as to when they call in to make a reservation.

Call-takers need to answer calls within 2½ minutes. Comments were made about on-time performance; e.g., on-time should not just mean picking up someone on time; it should also mean getting the person to where they need to be on time. It doesn't help someone if they are picked up on time but dropped off a half hour late for their appointment.

Meeting attendance ranged from 38 people to 169 with the total number of attendees being 831. A sign language interpreter and a translator for the Spanish speaking community were available at each meeting. Staff noted in their summary that the translator and interpreter were used by attendees at nearly every meeting. Tape recordings of the meetings were made available for review; however, five out of the eight tapes were blank.

Two press releases were distributed during this round of public outreach. The first press release, dated February 29, 2008, announced the public meetings. This press release announced seven public meetings. The second press release, dated March 28, 2008, announced the service changes effective that day. A letter was mailed to riders on February 21, 2008. The letter announced the zones and the meetings to take place. Materials were included in the mailing such as the map with the zones. A letter was mailed to elected officials explaining the changes and the reasons for the changes along with a listing of the public meetings taking place. A third letter was mailed on February 25, 2008 to transportation coordinators of the workshops and ADA centers. Forty-eight letters were mailed to agency transportation coordinators. The mailing included Frequently Asked Questions, the service map, and the list of public meetings. Seat drops were produced that announced the changes to take place and a listing of the meetings were printed on the back.

The objective of this round of public outreach was to inform and educate riders on the service changes taking effect on March 28, 2008. Pace presented the information clearly and thoroughly and provided materials on the changes to take effect as well as contact information for follow up and questions. A hot line number was set up during the transition. Riders could call into the recorded line if they had questions on the service and someone would get back to them within 24 hours with an answer.

It can be concluded that Pace listened to the complaints made in the Spring of 2006 and made changes to the service that were intended to improve the service from the complaints received. In reviewing minutes of the Pace ADA advisory committee meetings, Pace’s ADA paratransit committee dealt with a lot of the issues raised and assisted in formulating the new service and Pace staff continues to look for ways to improve service; however, this was not always communicated to the riders. Starting in August, 2008 Pace began producing weekly Chicago ADA Bulletins that are made
available on vehicles and on Pace’s website. These Bulletins provide a stat of the week and information on paratransit service. Another means to help communicate with riders is a survey. It was announced at one of the public meetings in March 2008 that Pace was going to conduct a survey of the riders.

The weekly Bulletin may be an effective avenue to conduct the survey and communicate the information. Although a survey may be an effective tool to reach out to riders and hear about what is happening with the service, but just taking a survey is not enough. The results should be communicated back to participants as to the results of the survey so they understand what is happening with the information they provided.

At the March 2008 meetings, Pace staff admitted they were still dealing with continued challenges of the complaint system not working to their expectations, but that they would continue to improve on the system. The complaint services process was mentioned both in Spring of 2006 and March 2008 as a continuing problem. Improved communication on how complaints are being handled is recommended. It is understood that intimate details cannot be given especially if it involves personnel issues, but a response to the complainant is needed. It seems Pace is investigating the complaints it receives there is just not enough, or quick enough follow up to communicate back to people on the response.

Overall, Pace did seek extensive input into its process to improve the ADA paratransit service in the City of Chicago and Pace appeared to have proactively informed riders of the changes that were to take place in March 2008. There is a need, however, for ongoing, two-way dialogue between Pace and the riders, particularly as the transit agency makes additional changes and service adjustments. In addition to public meetings and Internet-based materials, Pace should consider providing printed materials (including alternative formats) to advise riders about proposed changes and to solicit feedback.
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Section 8. Service Design Considerations

As part of the review, TranSystems was asked to comment on the service design that was implemented by Pace in March of 2008. A review of the reasons for the service design selection and recommendations for possible alternative service designs were requested. This section provides this analysis.

The Business Decision

The Service Design Model

As described in Section 2, Pace made several changes to the design of ADA paratransit services in the CTA service area. Among the biggest changes were the implementation of a three-zone system and the removal of user choice of carriers. Under the new design, Pace assigned one carrier to each of the three zones:

- SCR was assigned to the south zone (Zone 1)
- CDT was assigned to central zone (Zone 2)
- MV Transit was assigned to the north zone (Zone 3).

Art’s and later Jay’s (replacing Art’s) were also retained to perform subscription trips and long trips (between Zones 1 and 3), noting that the new design was to require a transfer from trips between Zones 1 and 3 but this was never implemented.

In the zone-based system, customers were directed to call trip requests in to the carrier based on the zone of the trip origin.

- Thus, if a trip originated in Zone 2, the customer would call CDT.
- In the new design, all three carriers were allowed to serve intra-zonal trips. Carriers from Zones 1 and 3 were allowed to also take trips to Zone 2, while the Zone 2 carrier could take trips to Zones 1 and 3.
- Now, if a customer called for an inter-zonal round trip, the carrier serving the going trip would also serve the return trip, thus eliminating the need for the customer to make two calls.
- However, if a customer who lives in Zone 1 needs to request a one-way trip from Zone 2 to Zone 1, the customer would call CDT (the Zone 2 carrier) and not SCR the Zone 1 carrier.

So, from the customers’ perspective, they would no longer have user choice of carriers; now the carrier is pre-determined in advance by the service model design. The only exception to that is for subscription trips. Working with the three zone-based carriers, Pace assigns standing orders to the carrier who is best able to serve the trip. If the trip does not fit in well with any of the three carriers, the trip is given to Jay’s. Still, the user
does not have a say in this decision. While moving away from user choice has been a big change from the previous design, user choice is a rarity among ADA paratransit systems; in fact, among larger ADA paratransit systems, only the (previous) Chicago design allowed user choice.

Another service model change involved migrating from a system that relied heavily on live-dispatch to a system that focused on advanced and interactive scheduling with live dispatch to accommodate same-day issues. From the carrier perspective, this meant they needed to add more reservation staff and lines, and they needed to devote staff to the scheduling function. From the customer perspective, this meant more time on the telephone in arranging trips as well as trip time negotiation, especially when the daily schedules get tight, which has also been a new experience.

The other big service design change was not allowing same-day changes. Under the previous design, customers were permitted to call in changes to trips as long as the change was called at least two hours in advance. Under the previous design, the premise of this feature was to allow flexibility in one’s schedule; and, it was doable because the primary method of assigning trips to vehicles was by live-dispatching. Given the number of same-day changes and type of changes that were being requested, it was clear though that numerous customers were calling in “place-holder” trips only to fine-tune them, if not make wholesale changes the day of the trip. Again, while this was possible to accommodate in a live-dispatching system, this would wreak havoc to schedules under an advance schedule model. Thus, it was discontinued, much to chagrin of many customers.

As one considers this service design model, there were four underlying goals adopted by Pace:

- To get the service into compliance with the ADA—two major issues that were resolved were (1) to bolster the reservations capabilities (staff and lines) to mitigate the problems customers had with accessing reservations staff; and (2) to allow reservations to be made throughout the day.

- To revise service and monitoring policies so that there is consistency in ADA paratransit policies throughout the region – Pace has made much headway with this goal. Thus, ADA paratransit customers in the CTA service area now have a similar experience as those in the suburbs.

- To be able to accurately capture service performance data that Pace can rely upon to make decisions – with the implementation of Trapeze at all of the Chicago-based carriers, this has been accomplished.

- To be able to contain costs while meeting ADA obligations – Costs have certainly increased significantly since the former design; however, most of this cost increase has been attributable to the fact that service rates under the former design had been bid seven years earlier and did not account for massive
increases in carrier costs. An alternative service design and its possible cost-
savings and benefits are discussed below.

It is important also to note that Pace has had a different model in its sites: that of a
centralized call center that would centralize the reservations, scheduling, and
dispatching function (and transfer these functions away from the operations carriers).
Pace has considered the model since it was suggested in the 2007 RTA ADA
Paratransit Plan, and really ever since the decision was made to transfer the
responsibility of ADA Paratransit in the CTA service area to Pace. And, it is still under
consideration. The decision to implement the current service model was thought to be
necessary because:

• There was not a good set of data available to be able to make the decision to go
directly to a centralized model. Moreover, if Pace decided to procure a call
center contractor, there was insufficient data to give to prospective proposers.

• It was unclear whether the cost of either an in-house or contracted call center
would be offset by additional efficiencies gained by allowing carriers to operate
throughout the region combined with the savings in carrier rates as a result of
transferring those functions away from the carriers.

• There would likely be a longer ramp-up time to get such a design in place, and
Pace’s first focus was to get the system into ADA compliance as soon as
possible.

• Implementing the current system would meet most of the goals above while
serving as either a transition model to the final design – or the design that would
be in place for the long-term.

We cannot fault this logic, i.e., this business decision appears to be quite reasonable,
given the circumstances and the accuracy of the data – or lack thereof – that was
available to Pace at that time.

**Vehicle Ownership**

Regarding regional consistency, another major difference between the service model in
the CTA service area and the suburbs involves the ownership of vehicles. In the
suburban contracts, Pace provides the vehicles. In the CTA service area, the carriers
own the vehicles. Asking for the carriers to provide vehicles for this contract period
made sense because:

• The existing carriers already had a fleet of vehicles; this would preserve their
investment, and hold down costs; and

• There was insufficient time and capital funding for Pace to order and acquire a
fleet of paratransit vehicles, again pointing to Pace’s desire to get contracts in
place as soon as possible in order to achieve ADA compliance.
It is Pace’s long-term goal to provide vehicles to its Chicago-based contractors, as it does with its suburban contractors. This would ultimately enable lower overall local costs because:

- Capital funding is available at an 80% federal match vs. a 50% federal match for operating costs.
- Carriers should experience lower maintenance costs (because of uniformity).
- Having larger vehicles – and/or perhaps better designed smaller vehicles where “Last-In-First-Out (LIFO) issues do not result in back-tracking – should increase scheduling and dispatching flexibility and should improve service productivity.

(However, it is still unclear whether or not the “savings” resulting from any increase in productivity outweighs the reduced capital and operating costs associated with the smaller vehicles. This is something that still needs to be studied.)

Moreover, in the event that Pace decides to move to a call center system, it could more easily transfer vehicles from one carrier to another than under the current design.

Thus, we support this long-term goal of Pace’s which would mean that RTA would need to increase the capital budget for such purchases.

### The Transition to the New Service Design Model

As mentioned in Section 2, Pace provided Trapeze to each carrier one at a time during the “Transition” period, i.e., before March 28, 2008. This was done so that Pace could devote its senior staff to each carrier’s transition one at a time, and so that any wrinkles could be addressed one carrier at a time. All-in-all, this was a sound decision on the part of Pace staff.

Note also that Pace installed Trapeze on its central server (at a Pace facility), allowing the carriers to access the software system, much like is done in Pace’s service area in the suburban collar counties. This is done primarily so that Pace has control over the parameters that are used for scheduling and so that Pace has control over the data, a situation that really was not the case under Mapper, where carriers were in control of service performance data and CTA nor Pace could verify the accuracy of that data.

And like the suburban ADA paratransit services, vehicles were equipped with AVL/MDT equipment, further upgrading the quality of on-time performance being captured, as well as providing additional information to resolve complaints.

There were some transition issues; most notably issues with the full implementation of the Trapeze software, and an underestimate of service hours that resulted from a combination of underestimating the expected trip volume and overestimating the service productivity. As a result, there were some initial capacity adjustments, especially at the new carrier, MV Transit, during the first few weeks, but the gap in matching of capacity
to demand eventually closed. Transition issues are discussed in more detail in Section 7.

It should be noted that as large city ADA paratransit transitions go, the transition to Pace was “relatively” smooth. As noted in Section 5, on-time performance dipped for the month following the transition, but then rebounded and improved by the third month. The software and capacity issues appear to have been addressed quickly. Recent transitions in Washington, DC, Orange County, CA, and Boston, MA seem to have had longer and more significant impacts. The major transition issues remaining in the Chicago service area are more related to revised policies—discontinuation of rider choice, discontinuation of will-calls, and somewhat longer rides due to increased ride-sharing—than to service performance.

The Centralized Call Center Model – Does it Make Sense for the CTA Service Area?

The Premise

In the 2007 RTA ADA Plan, there was a case made for considering a centralized call center model for the CTA Service Area. The Plan identified the major shortcomings of the zone design concept: it would potentially result in more deadheading and there would be fewer opportunities for ride-sharing than a centralized approach. Since the 2007 study, Pace has continued to explore the possibility of a centralized call center model and, in fact, is pursuing this concept in the DuPage/Kane County service areas.

The biggest question that needs to be resolved for the CTA Service Area is how much “savings” would result from the increases in productivity and lower carrier rates (given the transfer of the reservations, scheduling and dispatching functions) and how that level of savings compares with any additional cost of the call center. We attempt to answer that question below.

Prior to that analysis, it is also important to re-state a number of additional advantages to a centralized call center, compared to a decentralized approach:

- A central call center would ensure uniformity, consistency, and control, which in turn should have a material effect on service quality, and should help make up for customers not being able to choose their carrier and make same-day changes.

- Under a centralized approach, the CTA service area would not need to be carved up into service areas, as all trip requests would come into one central source; this would maximize the flexibility and opportunity to schedule shared-ride trips and minimize deadheading.

- A centralized call center design would facilitate the ability to exercise a market share shift among the carriers, based on performance. This should improve service quality significantly. (Note that Pace ownership of vehicles would facilitate this strategy.)
• A centralized call center would provide enhanced ability to make effective use of a diverse fleet of vehicles.

• A centralized approach would provide a better forum for integrating taxicabs into ADA paratransit operations. With carriers taking the reservations, there is an inherent conflict of interest. This could have a significant and positive impact on productivity and hence an additional increase to cost efficiency.

• A centralized approach would also enable better control of the TAP program, with requests for TAP going through the call center. As was found to be the case in Denver, this should significantly decrease opportunities for fraud, while also decreasing administrative staff needed to identify fraud. Hence, further savings.

For all of these reasons, the 2007 RTA ADA Plan recommended that Pace consider a centralized service design for the CTA service area, and to further look into whether the savings due to increased productivity and rate reduction alone evidence further consideration.

It is important to note that implementation of a centralized call center would still not provide for a return to user choice. A centralized call center would schedule trips to the contractor and vehicle that fit best with a systemwide daily schedule. So, any ride could be assigned to any contractor in the system.

**The Cost Analysis**

There were four steps to our analysis to test whether a centralized call center and no zones for the CTA service make sense, purely from a cost standpoint.

• Compare the current scheduled productivity of the three-zone-based carriers with the scheduled productivity of a zone-less system, and translate any increased productivity into annual “savings.”

• Estimate the savings in carrier contracts from transferring the reservations, scheduling, and dispatching function to the centralized call center.

• Estimate the annual cost of a centralized call center

• Compare the annual savings with the annual cost.

**Productivity Analysis**

Service productivity is measured in number of customer trips (as opposed to all trips which include PCAs and companions) per revenue service hour. Hereinafter, this will be simplified as “trips per hour.”

The gist of this analysis was to test, for the three zone-based carriers only, the scheduled productivity for a selected day and compare that with the scheduled
productivity for the same day while ignoring the zonal design. The scheduled productivity is the productivity that is measured at the end of the scheduling process the night before the service is to be delivered, as opposed to the actual productivity which is measured at the end of the service day. Actual productivity of course includes late cancellations, cancels-at-door, no-shows, and any changes that dispatchers make during the service day, which include scheduling any unscheduled trips and transferring trips from one vehicle to another. Scheduling productivity is almost always greater than the actual productivity. For example, for Wednesday, March 18, the day that was selected for this analysis, the scheduling and actual productivities were as follows:

<table>
<thead>
<tr>
<th>Carriers</th>
<th>Scheduled Productivity</th>
<th>Actual Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCR</td>
<td>2.00</td>
<td>1.70</td>
</tr>
<tr>
<td>CDT</td>
<td>1.90</td>
<td>1.40</td>
</tr>
<tr>
<td>MV</td>
<td>1.86</td>
<td>1.50</td>
</tr>
</tbody>
</table>

The average scheduled productivity of the three carriers for that day was **1.94** trips per hour.

To compute the scheduled productivity of that day’s trips, we undertook the following steps.

**Step 1:** The final trip data for March 18 was moved to a test area

**Step 2:** All trips for suburban carriers and Jay’s trips were deleted from the test set, leaving just trip data for the three zone-based carriers.

**Step 3:** All remaining trips were “unperformed”; this means that all actual trip service performance data was stripped from the record.

**Step 4:** All late cancels, no-shows, cancels at door, etc. were undone.

**Step 5:** Advance cancels were deleted, since they did not enter into the equation either way.

The results of Steps 1-5 thus was to get a set of “fresh” trip requests that best mirrored what schedulers did face on March 17, and what central call center schedulers would be tackling.

**Step 6:** Change scheduling parameters to allow polygon violations for MV and SCR runs. Because these two carriers only serve two zones (MV cannot travel to Zone 1, and SCR cannot travel to Zone 3), Pace staff set up polygons in Trapeze that would prohibit such automated assignment of such trips to these
carriers, or in the case of manual assignments, the system would display a polygon violation.

**Step 7**: Change scheduling parameters to allow provider violations. This pretty much does the same. Under the current system, one cannot schedule a Zone 1 trip to MV Transit. Allowing a provider violation would allow this.

**Step 8**: Subscription trips were unscheduled. It was a surprise for us to learn that at least two of the carriers regularly do this every day before they begin their batch scheduling process. Thus, instead of keeping these scheduled the way they were in the subscription templates, these schedulers would unschedule all the subscription trips before beginning the batch scheduling.

**Step 9**: Begin batch scheduling. Trips were batch scheduled on an hour-by-hour basis, with two exceptions: trips from midnight to 5:00 am were batched at the same time; and trips from 8:00 pm to midnight were batched at the same time.

For the steps that were taken, there 7631 trips scheduled. The resulting scheduled productivity was 1.96, only 0.02 trips per hour higher than the scheduled productivity reported for that day, as follows:

**Scheduled Productivity for Three Zone-Based Carriers**  
With and Without Zones for Wednesday, March 18 (in trips per hour)

<table>
<thead>
<tr>
<th>Productivity (With Zones)</th>
<th>Productivity (Without Zones)</th>
<th>Unscheduled Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCR</td>
<td>2.00</td>
<td>190</td>
</tr>
<tr>
<td>CDT</td>
<td>1.90</td>
<td>178</td>
</tr>
<tr>
<td>MV</td>
<td>1.86</td>
<td>59</td>
</tr>
<tr>
<td>Total</td>
<td>1.94</td>
<td>427</td>
</tr>
</tbody>
</table>

Note, however, there were 427 trips left unscheduled in our analysis. It is surmised that there were far fewer on March 17. This is because the schedulers routinely manually schedule as many of the unscheduled trips as possible before the scheduling process is completed (at which point scheduled productivity is reported). The three carriers and different schedulers do this somewhat differently. Certain schedulers try to manually schedule most all these trips. Other schedulers try to schedule all trips before noon, and leave the afternoon/evening trips for the dispatchers.

Thus, we are forced to make certain assumptions, based on the 427 trips, in order to make a more “apples-to-apples” comparison. For the purpose of this exercise, the productivity figures (without zones) have been inflated to reflect the addition of a certain percentage of unscheduled trips onto the existing runs. This also assumes that no additional hours are added by way of additional or expanded runs.
Scheduled Productivity for Three Zone-Based Carriers
Assuming Certain Percentages of 427 Unassigned Trips Are Scheduled
Without Zones for Wednesday, March 18 (in trips per hour)

<table>
<thead>
<tr>
<th></th>
<th>0%</th>
<th>25%</th>
<th>50%</th>
<th>75%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCR</td>
<td>2.02</td>
<td>2.05</td>
<td>2.08</td>
<td>2.12</td>
<td>2.15</td>
</tr>
<tr>
<td>CDT</td>
<td>1.91</td>
<td>1.94</td>
<td>1.97</td>
<td>2.00</td>
<td>2.02</td>
</tr>
<tr>
<td>MV</td>
<td>1.94</td>
<td>1.98</td>
<td>2.00</td>
<td>2.03</td>
<td>2.06</td>
</tr>
<tr>
<td>Total</td>
<td>1.96</td>
<td>1.99</td>
<td>2.02</td>
<td>2.05</td>
<td>2.08</td>
</tr>
</tbody>
</table>

With the assumption in mind, this analysis shows that it may be possible to improve the scheduled productivity from 1.94 to as much as 2.08 trips per hour for the selected date. This represents the potential to increase productivity by as much as 7%. For the purposes of this exercise we shall use a more realistic range of 2.6% representing the addition of 25% of the 427 trips to 5.7% representing the addition of 75% of the 427 trips.

Annualized, this range of increased productivity of 2.6% to 5.7% represents an increased annual savings of $2.01 million to $4.41 million, based on the estimated $77.3 million in carrier expenses that Pace paid to the three zone-based carriers in FY 2008. If one uses the midpoint of this range, also reflecting the addition of 50% of the 427 trips, the 4.1% improvement in productivity (from 1.94 to 2.02 trips per hour) yields a potential savings of $3.17 million.

Reduction in Contractor Costs

For this estimate, we used cost information pertinent to the three functions of reservations, scheduling and dispatching that was itemized in three recent (2008) carrier proposals in Boston, which like the current model in Chicago now has three zones, with one carrier assigned to each zone, and where the carrier performs reservations, scheduling, and dispatching. From this information, we calculated that the labor cost alone for the reservations, scheduling, and dispatching functions among the three selected carriers averaged $2.22 per trip. The actual range was $1.93 to $2.56 per trip. Collectively, the number of FTEs among the three carriers (for these functions) totaled 103 to cover a total of 1.7 million annual trips throughout the three zones (a volume very close to the 1.9 million trips for the CTA service area).

Using the $2.22 per trip average figure, and applying this to the FY 08 number of trips in the CTA service area (1,913,286), we can estimate the reduction in carrier costs to be at least $4.25 million, noting that further reductions in space requirements, training, etc. is difficult to estimate.

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5 The $7.73 million estimate is based on actual amounts paid to the three zone-based carriers from July through December 2008. These amounts were then doubled and totaled to arrive at the $7.73 million figure.
**Estimate of Call Center Costs**

To arrive at this estimate, we used call center contractor cost data from Denver, Portland, and Seattle, each of which has a model that has a centralized call center contractor that performs reservations, scheduling, and dispatching and multiple contractors that perform service delivery.

FY 08 call center contractor costs, annual trips, and call center costs per trip for two of these three systems are presented below.

<table>
<thead>
<tr>
<th>Call Center Costs</th>
<th>Annual Trips</th>
<th>Cost per Trip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denver</td>
<td>$1,791,007</td>
<td>775,643</td>
</tr>
<tr>
<td>Portland</td>
<td>$1,913,316</td>
<td>1,122,041</td>
</tr>
</tbody>
</table>

In addition, we have the same data for the Seattle/King County system for FY 06. Call center costs for that year were $2,173,109, with 1,157,496 trips served. This works out to a call center cost of $1.88. If we apply a 3% annual inflation figure to this cost per trip figure, we estimate a cost of $1.99 for FY 08.

The average of these three systems for FY 08 is exactly $2.00 per trip. Applying this cost per trip to the FY 08 number of trips in the CTA service area (1,913,286) yields an estimated cost of $3.83 million.

**Comparison of Estimated Savings and Costs**

The estimated savings and costs from the above calculations are compared below:

- Savings from Increased Productivity: +$3.17 million
- Savings from Reduced Carrier Contracts: +$4.25 million
- Costs for a Call Center Contractor: -$3.83 million

This would seem to indicate that the net savings of moving to a call center model would be $3.59 million.

**Caveats**

As noted in each section above, several assumptions were used to calculate estimates and there is a wide range of data reflected in a very limited number of data points. Hence, the margin of error is undoubtedly great and further study and analysis is needed and recommended.
Section 9. Current Service Observations and Recommendations

As part of the review, an on-site visit was conducted the week of March 23-27, 2009. Review team members spent time at each of the primary zonal contractors—CDT, SCR and MV—observing the operations. First-hand observations of the reservations, scheduling and dispatch functions were made. Managers, operations staff, and several drivers were interviewed at each site. Fleet information was collected and vehicle design was examined.

Several observations about the current operations and service design are provided in this section. Recommendations for contractor and Pace consideration are also made.

Vehicle Size and Design

As noted in Section 6, public input received as part of the review suggested possible issues with the design of vehicles used by contractors. Riders mentioned, in particular, that with more than one rider using a wheelchair on-board, space was very limited and it was difficult for other passengers to move around in the vehicles or for drivers to secure the wheelchairs.

A review of the contractor fleets indicated that most of the vehicles being used by SCR and CDT are either ramp-equipped minivans or sedans. MV operates mainly raised-roof vans with some sedans (Toyota Priuses) and a few ramp-equipped minivans. Very few larger body-on-chassis minibuses are used. SCR has four and MV indicated that it is considering purchasing some larger body-on-chassis minibuses, but had only one test vehicle at the time of the on-site review.

First-hand observations of the interior design and space of vehicles was also made by the TranSystems team as vehicles brought riders to and from the public listening sessions held as part of the review. These first-hand observations confirmed that that space on the current vehicles is limited. If two riders who use wheelchairs are being transported at the same time, there is limited space for the driver or other riders to maneuver inside the vehicles. And, the first person using a wheelchair cannot be disembarked from the vehicle without the second person using a wheelchair first being disembarked (and then re-boarded). On the ramp-equipped minivans, it is also difficult to maneuver a second rider using a wheelchair into position once one rider using a wheelchair is already on board. And even in the “larger” raised-roof vans, the location of the second rider using a wheelchair almost completely blocks the aisle and does block access to the lift—which again requires “first on, last off” operation when transporting more than one rider using a wheelchair.

The “first on, last off” issues created with the current vehicles could also be contributing to some circuitous routing. Dispatchers may make decisions on the day of service to
route vehicle in a way that avoids having to disembark one rider to get another off the vehicle, even if this is not the most direct route.

It was noted that sedans and ramp-equipped minivans have been the vehicles of choice of contractors in the CTA service area for many years. This type of vehicle probably worked better, though, in the non-prescheduled, same-day dispatch method of operation used before the transition. Rider grouping and vehicle loads were likely less in the pre-transition operations.

It is recommended that Pace and the contractors reconsider the size and design of vehicles used in the new service design. Pre-scheduled operation, with increased trip grouping and increased vehicle load factors would seem to call for larger vehicles. A body-on-chassis design, similar to the style of vehicles used in many of Pace’s suburban operations should be considered. Larger vehicles that can accommodate at least two riders using wheelchairs without blocking the aisle or access to the lift or ramp would eliminate interior space issues and the “first on, last off” problem.

**Vehicle Condition**

As noted in Section 6, some comments were received from riders about the cleanliness and condition of vehicles. As part of the on-site review, the team visually inspected several vehicles at each contractor site. Drivers were also interviewed and asked if vehicles were repaired promptly and kept in good condition.

The visual inspections showed that the vehicles at SCR were in very good condition and were clean inside and out. Vehicles also appeared to be clean and in good condition at MV Transportation. Vehicles at CDT were clean on the outside, but inside cleanliness was only fair on some of those vehicles inspected.

Six drivers were interviewed at SCR and all six indicated that repairs are made promptly and vehicles are kept clean and in good condition. Five of the six drivers at MV also indicated that vehicles are repaired promptly and in good condition. One driver at MV said repairs are “sometimes” not made promptly. This driver also said the vehicles “could be cleaner.” None of the 10 drivers interviewed at CDT provided information on this question. Eight of the nine said that repairs are made promptly. One said repairs are not always done promptly and rated maintenance as “7 out of 10.” Five of the CDT drivers indicated the vehicles were clean and in good condition. Three said that interior cleanliness could be better and one said that general cleanliness could be better.

**Fleet Mix and Spare Ratios**

Vehicle availability was also examined at each of the three primary zonal contractors. Information about the total fleet size, the number of vehicles available for service each day, the peak pull-out requirement, and the typical spare ratio was obtained and considered.
Records showed that SCR has a fleet of 201 total vehicles. On weekdays, at the time of the on-site visit, the peak pull-out was 163 vehicles. This allowed for a spare ratio of 21% to 23% on weekdays. The SCR window dispatchers reported that there are typically enough vehicles to cover scheduled pull-outs. They noted that the only time they have a problem is from noon to 2:00 p.m. when a total of 60 runs are scheduled to pull-out. If there are unusual issues that cause many of the morning runs to be late, there might not be enough vehicles to allow all afternoon run to go out on time. This was indicated as a rare occurrence, though.

CDT operated 209 total vehicles at the time of the on-site visit. The weekday peak pull-out is 185 vehicles. This allows only about 24 spares on weekdays (only a 13% spare ratio). While this spare ratio is low, it was noted that CDT has a 24-hour maintenance operation and performs all preventive maintenance during the evening or early morning hours. A review of vehicle availability and pull-out records did not show problems with run coverage.

MV Transportation operated a total fleet of 88 vehicles. The weekday peak pull-out requirement was 65 vehicles, which provided for 23 weekday spares (a healthy 35% spare ratio). Daily vehicle availability records indicated that between five and 10 vehicles were typically held out for maintenance or repairs on weekdays, which still allowed for 13-18 available spares. Operations staff indicated that runs typically are not closed for a lack of vehicles.

It was noted that 16 of the 88 vehicles at MV were sedans (20% of the total) and that 14 of these were Toyota Priuses. Operations staff indicated that the Priuses were undersized and often made up all or the bulk of the spares that are available on weekdays. Typically, all or almost all of the lift vans are placed in service. Managers indicated that fewer sedans and more lift vans were needed.

In general, there appeared to be an adequate fleet to cover scheduled runs. SCR and MV operate with health spare ratios. CDT operates with a low spare ratio, but has a maintenance operation that ensures that an adequate number of vehicles are available each day. While MV Transportation has an adequate total fleet, almost all available spares on weekdays are sedans. A higher ratio of lift vehicles and fewer sedans appears to be needed to ensure accessible spare vehicles are available on weekdays.

**Scheduling**

During each site visit time was set aside to interview schedulers. The purpose of the scheduler interviews was to obtain an understanding of the scheduling process and to assess the schedulers’ level of proficiency with PASS. Unlike the reservations and dispatching observations, the consultant team was not able to observe the scheduling process first hand. Much of the scheduling occurs after the close of normal business hours and after the reservation lines are shut down for the day. The review of the process was accomplished by a series of interviews with the lead schedulers. Each carrier has set their own procedures with regard to stating and completing the
scheduling process. In general the scheduling process starts in the afternoon, while reservations are still being taken. The process is not completed, nor manifests printed, until some point after 8:00 pm, when the reservation lines close for the day.

Discussions with the scheduling staff at each of the carriers showed that the scheduling staff had a level of familiarity with various scheduling tools available to them. Some observations by carrier follow.

Drivers at each contractor site were also interviewed and asked if, on whole, the schedules they were asked to perform were “about right,” “too loose,” or “too tight.” While the driver responses are entirely subjective, and drivers may often feel schedules are too tight, it was a perspective that, combined with other information and observations, assisted in the development of findings and recommendations.

**SCR Transportation**

The schedulers at SCR start out by unscheduling all the scheduled trips, subscription trips included. It continues with schedulers scheduling certain trips by hand. Trips such as transfer trips and “group” trips are scheduled in this manner. A group trip means that there is a common pick-up location, drop-off location, or common pick-up and drop-off location. A report called the Optimize Report is used to identify these trips. The trips, once scheduled are “frozen” or locked into place on the run.

The next step taken is to batch schedule all the remaining unscheduled trips (which includes the unscheduled subscription trips). This is done on an hour-by-hour basis, except for early morning trips (2:01 AM to 4:59 AM) and late evening trips (after 8:00pm) that are batched in those multi-hour groupings. After each hour is batch scheduled, there are a certain number of unscheduled trips remaining. The SCR schedulers then manually schedule those trips for each hour, thus completing the scheduling for that hour, before moving onto the next hour’s trips. To manually schedule these trips, the SCR schedulers use both the trip Booking Wizard (a type of computer assisted scheduling) and using the “drag and drop” (manual insertion) feature of the Trapeze software.

Schedulers indicated that it is generally more difficult to schedule rides in the afternoon (3 to 4 pm). They indicated that the number of trips that remain unscheduled at the end of the process usually ranges from 12 to 15 trips. It is up to the dispatchers, on the day of service, to fit these trips onto runs.

The schedulers also indicated that after the scheduling process is completed, they try to balance out the schedules. To do this they run a report called Productivity Report by run and look for runs with productivity that is too high (not a specific number) and trips below 1.7 trips per hour. They look to move trips from the higher productive runs to the lower productive runs to balance the workload.
Six drivers were interviewed at SCR. Five of the six indicated that the schedules were reasonable and doable. One of these five said that while the schedules start off reasonable, add-ons during the day sometimes make it tough to stay on schedule. The sixth driver said that the nature of the schedules varied day-to-day—sometimes too tight, but mostly doable.

**MV Transportation**

As with SCR, MV Transportation schedulers also unschedule all scheduled trips prior to the start of the scheduling process. Certain trips are manually scheduled before using the batch scheduling feature. Group trips are scheduled first. MV schedulers use the Optimize Report to identify trips that have common pick-ups and/or drop-offs. Once these have been manually scheduled, the batch scheduling process begins. MV’s schedulers opt to start the batch scheduling process with trips that are longer than 10 miles. (The concept behind this is to schedule the “tougher” trips first; otherwise, the risk is that the longer trips would wind up being left unscheduled after the batch routines have been completed. Thereafter, trying to manually schedule long trips into an existing schedule is doubly difficult.) Once these longer trips have been batched scheduled, the MV schedulers run the batch schedule process a second time to “tighten” the run for better run efficiency.

When that process has been completed, the MV schedulers batch schedule the remaining (shorter) unscheduled trips. Similar to the process at SCR, MV schedulers manually schedule any remaining unscheduled trips using the Booking Wizard feature or the Drag and Drop process. Here too, the Optimize Report is run to identify any potential additional grouping of trips.

MV schedulers also generate the Route Productivity Report to identify unproductive runs. (The Route Productivity Report shows the number of trips, hours and productivity of each run.) For these unproductive runs, schedulers will attempt to reschedule trips from these runs onto other more productive runs, and then close the unproductive runs.

This entire process is usually completed by 6 pm. After the close of the reservation lines an additional seven or eight runs are opened, and any new trip requests, plus any remaining unscheduled trips are batch scheduled onto these runs. Schedulers estimated that about 150 to 200 additional trips requests are received between 6:00 pm and 8:00 pm.

After the process is completed the schedulers run the Route Productivity Report and check for unproductive runs (not a specific productivity). Trips on the unproductive runs are reassigned to other runs after which these (now-empty) runs are closed. Staff indicated that up to 25 trips may remain unscheduled at the end of the process.

Six drivers were interviewed at MV Transportation. Three felt the schedules were workable. A fourth said the schedules tended to be too tight on most days. The fifth driver said they were sometimes too tight and mentioned not having enough boarding
time allowed. The sixth driver also said they tended to be too tight, that not enough time was allowed to get from Point A to Point B, and that not enough boarding time was allowed.

**Cook DuPage Transportation (CDT)**

The scheduling at CDT does not start until after 8 pm and after the reservation queue is clear. As with the other two carriers, all trips, including subscriptions, are unscheduled. CDT also batch schedule longer trip first, but with trips longer than 15 miles. Any trips greater than 15 miles that are not scheduled using the batch schedule feature are scheduled manually, via the Booking Wizard or the Drag and Drop process, as described above.

CDT schedulers next batch schedule trips that are between 5 and 15 miles, and manually schedule those that remain unscheduled after the batch scheduling process has been completed. The remaining trips, those trips less than five miles, are scheduled last in the same fashion.

Schedulers indicated that after the scheduling process is complete that they refine the schedules, using the Optimize Report to identify trips that could be grouped together. Trips that remain unscheduled after this process are left for the early morning dispatcher to schedule. Staff estimated that the number of unscheduled trips at the end of the process ranges from 20 to 35 trips per day. On the day of the consultant team site visit there were two unscheduled trips at the start of the day.

Two to three schedulers then review the first two to three hours of each run. During the review they may remove and reschedule trips that they feel do not fit well on the original run. This tuning process is usually completed by 4:00 am on the day of service.

Ten drivers were interviewed at CDT. One driver said the schedules were generally okay. Three said the schedules varied and were sometimes okay and sometimes too tight. Six said the schedules were mostly too tight. Circuitous routing was mentioned by two drivers. Having “two pick-ups at the same time” was mentioned by six drivers. And not being able to get riders to destinations on time was mentioned by one driver.

**Staff Proficiency with Pass**

The schedulers at each of the sites knew how to use the selection features found in the batch scheduler. Two sites, MV Transportation and CDT, use the batch scheduler to identify and select trips for scheduling based on trip length in miles. SCR uses the batch scheduler to select and schedule trips by time of day. All three sites indicated that they use the Optimize Report as a tool to identify trips that could logically be scheduled on the same vehicle. The explanation of the scheduling process and tools used by the schedulers indicated a proficiency that would be expected of an experienced user of the software.
Findings and Recommendations

The scheduling procedures varied slightly among the carriers. This is not surprising since there are many different successful approaches to scheduling rides for paratransit customers. The timing of the scheduling process appears to be appropriate; there are no recommendations regarding the timing of the scheduling process at each carrier.

It was noted that when starting the scheduling process all three carriers unschedule the scheduled rides, including the subscription trips. Subscription trips are generally placed on runs and left there as a base upon which individual demand trips are scheduled. This is done to cut down on the amount of trips to be scheduled and to help provide a consistency for the customer and enhance productivity. The consultant team feels that unscheduling the subscription trips prior to running the batch scheduling function may not result in optimum productivity. It is recommended that Pace, working with its carriers, investigate and test the results of scheduling when leaving the subscription trips assigned to runs.

It was also noted that each carrier had slightly different procedures when using the batch schedule feature. SCR schedules its trips by time of day, starting with the trips from 12:01 to 4:59 AM, and then scheduling trips in one hour blocks after that up until the evening block. CDT schedules their trips starting with the trips over 15 miles first, and then scheduling trips 5 to 15 miles, and finally scheduling trips under 5 miles. MV follows a similar process except that it schedules trips 10 miles or greater first, and then trips under 10 miles. There is merit to each of these approaches. As discussed above batch scheduling the longer trips first makes it easier to manually schedule the unscheduled trips after the batch process has been completed. While it is unclear which process ultimately produces a higher productivity, the mileage-based approach probably requires less staff time. The consultant team recommends that Pace work with its carriers to investigate which of the three methods produces more optimum productivity. It is further suggested that this test also include the batch scheduling longer, non-ambulatory trips first.

During the course of the interviews, several of the schedulers and General Managers mentioned being hamstrung by smaller vehicles. This results in two issues that directly and adversely affect productivity.

- **LIFO.** The first has to do with LIFO – last in first out – on some of the smaller vehicles. Comments were made that some of the run schedules (operated by these smaller vehicles) are perhaps not as productive as they could be because stops are manually re-ordered – with some backtracking – so that the last person in the vehicle is dropped off before the first person is dropped off, even though it makes more sense to drop the first person off first. The root of this problem lies with customers who use wheelchairs and the limited

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6 While there is a LIFO feature in Trapeze that one can assign to certain vehicles of a specific type, this feature is currently turned off.
maneuverability in these vehicles. Thus, carriers are forced to either route the vehicle in a non-optimal manner, or have a customer deboard on the lift to make room so that another passenger is able to deboard. Both are time-consuming and detract from optimal productivity.

- **Group Trips.** Another issue mentioned in the interviews was the problem of not being able to accommodate ridesharable trips and especially those going or coming from the same place because of limited capacity of the smaller vehicles. Some of the general managers and schedulers mentioned that this results in sometimes sending several vehicles to one location, when a larger vehicle (if one were available) would do.

The consulting team recommends that Pace experiment with replacing some or all of the existing fleet of smaller vehicles with larger vehicles (like the ones used in the suburbs) in a test database, and comparing any gains in productivity with the differences in capital and operating costs between the smaller and larger vehicles.

Lastly, SCR recently went through a process where, with the help of a local consultant, it assessed its run structure and is currently testing a revised run structure to determine whether or not it results in productivity improvements. It is important to note that Trapeze’s software and virtually all other paratransit scheduling software do not have the capability to automatically suggest a run structure; rather, this is still a manual process. The new software product called OptiRun that the consultant uses is designed to suggest an optimal run structure. Preliminary results at SCR and other transit agencies around the US look promising. Therefore, we recommend Pace encourage its other carriers to work with this consultant to see if productivity improvements can be achieved by re-structuring their respective run structures.

Looking forward, note too that this software product also has the capability to suggest an optimal split between dedicated service (the current model) and non-dedicated service, such as taxis. Pace may also wish to work with this consultant to determine whether the overall operating cost per trip can be further lowered by shifting certain portion of trips and/or certain trip types to taxis.

**Trapeze System Parameter Settings**

Part of the preparation for using Trapeze involves setting parameters that tell the software how to manage certain aspects of the scheduling process. There are certain system-wide parameters that are used by all carriers, including both the suburban and Chicago carriers. Some parameters may be set individually; however; at this time the Chicago carriers had not adjusted individual settings. This subsection discusses the parameter settings that were observed and offers findings and recommendations.

There are a number of settings in PASS that can be set by the user. These settings, called system parameters include settings that govern how the software schedules the trips onto runs. Some parameters are global settings. This means that the parameter cannot be set for each carrier. Other parameters may be customized by carrier.
Purchase of the PASS-CT module allows Pace more latitude in setting parameters by carrier. The list of parameters is lengthy, but some of the more important are:

- **Average Speed** – the speed at which the software assumes a vehicle may travel. The average speed may be factored (sped up or slowed down) by time of day and/or length of trip. This may be a global or local setting. Purchase of the CT software allows for the average speed to be set by carrier.
- **Load/Unload Time** – the amount of time the system uses to determine how fast passengers may enter or leave the vehicle. This time can be factored for multiple boarding’s at one location. This is a global setting.
- **Maximum Ride Time** – the maximum amount of time a person may be scheduled to ride on a vehicle. This is a global parameter. An on-board time matrix may be created to govern ride times based on the calculated direct ride time. This on-board time matrix is also a global parameter.
- **Pick-up Tolerances** – this is a parameter that sets the range of time around the scheduled or negotiated time that a vehicle may arrive and be considered on time. It is stated in terms of x minutes before the negotiated time to x minutes after the negotiated time.
- **Drop-off Tolerance** – this setting works the same as the Pick-up Tolerance. It sets a time around a requested appointment (or drop-off) time when a vehicle may arrive and be considered on time. It is usually stated as x minutes before the appointment time and 0 minutes after the appointment time.

In addition to these parameter settings Trapeze also has “Costing Weights.” Costing Weights are settings that determine how the software looks for scheduling solutions. Each carrier, in cooperation with Pace was able to set their own set of costing weights. In addition to the individual carrier costing weights, there are a set of default costing weights that were set by Pace. Some of the weights are:

- **Minimize Distance** – how important is it to minimize the distance traveled by a run during the day.
- **Minimize Run Time** – how important is it to minimize the amount of time a run is on the road for a day.
- **Minimize Out of Way (OOW)** – how important is it to minimize the distance a vehicle must travel off of its current path to accommodate a new trip.
- **Minimize On Board Time (OBT)** – how important is it to minimize the ride time for the passenger.
- **Minimize Backtrack** – backtracking is when a run returns to a point previously visited stop. This weight is for determining how important it is to minimize backtracking.
- **Minimize Violations** – violations are undesirable events that may happen in service such as exceeding on board times, scheduling a trip to be picked up late and so forth. This setting allows a user to indicate how important not having violations is when scheduling.
- **Minimize Requested Deviation** – how important is it to schedule a trip as close to the requested time as possible.
As noted above, violations are certain undesirable events that may happen to a run and rider while in service. These include items such as scheduling a trip to be picked up late, allowing a maximum on-board time to be violated, or allowing backtracking. Each carrier in cooperation with Pace was able to set their own Violation set. As with the costing weights there is a Default Violation set that was created by Pace.

While on-site the consultant team reviewed the Trapeze System Settings, parameters and violation sets. Although each carrier can set its own, unique set of parameters, a review of the settings for each carrier revealed that the basic parameter settings (pick-up and drop-off tolerances, on-board time setting, and backtrack ratios and thresholds) were the same for each carrier: The key settings were:

- Average speed of 21.2 miles per hour.
- Load times of 3 minutes for an ambulatory person and 7 minutes for a person using a wheelchair. The unload times were 1 minute for an ambulatory person and 6 minutes for a person using a wheelchair.
- Maximum Ride Time of 90 minutes.
- No On-Board-time Matrix is set up.
- Pick up tolerances of 10 minutes before the scheduled time to 20 minutes after the scheduled time
- Drop-off tolerance - the drop off tolerance feature is not turned on

The On-Board-Time matrix is a way to ensure that shorter trips do not ride for an excessive amount of time. The matrix allows a user to set a maximum ride time for a trip based upon the computed direct ride time. So, for example, a passenger with a trip with a 15 minute ride time may not be allowed ride more than two times the direct ride time, or 30 minutes in this case. It should be noted that this matrix would apply to both the Chicago and the suburban service.

Even though each carrier had their own costing weights, it was observed at each carrier site that the default costing weights (set by Pace) were used. The default costing weights used for scheduling had the following weights set as more important:

- **Minimize Distance** – it is more important, when adding a trip to a run, to minimize the extra distance a vehicle must travel to accommodate the trip
- **Minimize Run Time** – it is more important, when adding a trip to a run, to minimize the amount of extra time that is added to the run by accommodating the trip
- **Minimize Out of Window (OOW)** – it is more important, when adding a trip to a run, to minimize the distance that the vehicle must travel off of its existing path to accommodate the trip.
- **Minimize On Board Time** – it is important, when adding a trip to a run, to minimize the on-board time for the customers already on the run that will occur when adding the new trip.
• **Minimize Requested Deviation** – it is important when scheduling a trip to a run, to minimize the difference in time between the time requested by the customer and the scheduled time.

It was observed during the site visit that no Violation set was specified, either by the customer service representatives or by the schedulers when scheduling the trips. The effect of not have a violation set specified is that Trapeze assumes that no violations are to be allowed when scheduling, which is appropriate. Schedulers may find it necessary to manually adjust schedules, which may introduce a “violation”; however, this action may be appropriate given the scheduler’s knowledge of the service area. For example, Trapeze may indicate a violation of some sort when adding an additional pick-up to a run; however, the scheduler knows that the added rider lives at the same location as another passenger on the run and, therefore, there will not be a negative impact on the schedule by adding the extra passenger.

**System Speed**

Although each carrier has the option of having a unique system speed, Pace has set the system speed set to 21.2 miles per hour. In PASS the average speed may be factored by time of day and/or length of the trip. Pace has chosen to factor the average speed by time of day, but not by length of trip. The speed factors for Pace are shown in Table 9.1 below:

<table>
<thead>
<tr>
<th>From Time</th>
<th>To Time</th>
<th>Speed Factor</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00</td>
<td>9:00</td>
<td>0.85</td>
<td>18.0 mph</td>
</tr>
<tr>
<td>9:00</td>
<td>14:00</td>
<td>1.00</td>
<td>21.2 mph</td>
</tr>
<tr>
<td>14:00</td>
<td>18:00</td>
<td>0.80</td>
<td>17.0 mph</td>
</tr>
<tr>
<td>18:00</td>
<td>6:00</td>
<td>1.00</td>
<td>21.2 mph</td>
</tr>
</tbody>
</table>

The way the calculation works is:

\[
\text{Average Speed} \times \text{Speed Factor} = \text{Factored Average Speed}
\]

\[
21.2 \times 0.85 = 18.0 \text{ mph}
\]

For each time period the average speed is multiplied by the speed factor. The factored speed is used when calculating travel time between stops. So between 6:00 and 9:00, the average system speed is assumed to be 18.0 miles per hour. For the afternoon rush hour, 14:00 to 18:00 the average speed is assumed to be 17.0 miles per hour. The speed by time of day is a global setting. This means that the factoring of the speeds applies to both Chicago and suburban providers.

Factoring the speed by length of the trip works the same way as factoring by time of day. The theory behind factoring speed by length of trip is that a vehicle with a shorter
trip will likely use local roads and as a result not drive as fast on average as on a longer trip. A vehicle with a longer trip may use major arterials or highways, and as a result operate at a higher rate of speed. It should be noted that the speed factor by time of day and length of trip is cumulative. That is both factors are applied to the average system speed. For example, if a trip length of less than 10 miles had a factor of .85 the speed computation for a trip under 10 miles between 6 am and 9 am would be as follows:

\[
\text{Average Speed} \times \text{Time of Day Factor} \times \text{Length of Trip Factor}
\]

\[
21.2 \times .85 \times .85 = 15.3 \text{ miles per hour}
\]

As with factoring by time of day, factoring by trip distance would apply to all trips in the system – those within Chicago and the suburban trips. In discussions with the Trapeze Project Manager for the software implementation and Pace staff it was discovered that not factoring by distance was a conscious decision. It was felt that since the factoring by trip distance would affect the suburban as well as the Chicago trips that there would be no overall benefit by factoring the speed by length of trip due to the differing nature of the suburban and Chicago service areas.

\textbf{Passenger Load and Unload Times}

Passenger load and unload times are the amount of time that PASS assumes it will take for a passenger to board or exit a vehicle. This load time setting also includes a load factor. The load factor is used to calculate how long it takes for each additional person to board at a stop where there is more than one passenger boarding. The load factor is stated as a percent of the load time multiplied by the applicable load time to get the amount of time subsequent passengers at one stop will need to board the vehicle.

Table 9.2 shows the load factors for each passenger space type (ambulatory, wheelchair/extra-wide wheelchair/service animal).

\textbf{Table 9.2 - Passenger Space Type Factors}

<table>
<thead>
<tr>
<th>Space Type</th>
<th>Load</th>
<th>Load Factor</th>
<th>Unload</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambulatory</td>
<td>3 mins.</td>
<td>0.33</td>
<td>2 mins.</td>
</tr>
<tr>
<td>Wheelchair</td>
<td>7 mins.</td>
<td>0.50</td>
<td>6 mins.</td>
</tr>
<tr>
<td>Service Animal</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

The load time for an ambulatory passenger is set to 3 minutes, the unload time is set to 2 minutes and the Load Factor is set to 0.33. This setting means that when a vehicle arrives to pick up an ambulatory person, PASS assumes that it will take 3 minutes for that person to board. If more than one ambulatory person boards the vehicle at the same location each additional ambulatory person will take 1 minute each (3 minutes x 0.33) to board the vehicle. For example, a vehicle arrives at 9:00 to pick up two ambulatory passengers. PASS will assume that the two passengers will be on board.
the vehicle by 9:04 (3 minutes + 1 minute), and that the vehicle will be ready to depart for the next stop at 9:04. When the vehicle arrives at the first destination, PASS assumes that it will take 2 minutes for the ambulatory passenger to exit the vehicle.

The load time for a person using a wheelchair is set to 7 minutes, the unload time is set to 6 minutes and the Load Factor for multiple boarding’s at one stop is set to 0.50 meaning that each subsequent passenger using a wheelchair will take 3.5 minutes (7 minutes x 0.5) to board the vehicle. For example, a vehicle arrives at 09:00 to pick up three passengers using wheelchairs PASS will assume that the three passengers will be on board the vehicle and be ready to depart for the next stop at 09:14 – (7 minutes plus 3.5 minutes plus 3.5 minutes). When the vehicle arrives at the first destination PASS assumes that it will take 6 minutes for the first person using a wheelchair to exit the vehicle.

Although there is a space type for a service animal, no load or unload time is associated with it. This makes sense since the service animal would board with the customer and require no extra time. The space type was created to allow the trip record to include the use of a service animal by a passenger.

**Findings and Recommendations**

Setting the scheduling parameters is the not only a very important part of installing and using software, it is also a difficult task. Different systems have different philosophies about scheduling and have different views on what the key factors are when scheduling. These factors include the importance of minimizing ride times for passengers, how important is it to schedule a ride close to the requested time and other factors discussed above. As a result there is no 'one size fits all" approach to setting scheduling parameters. After reviewing the parameters that have been set in Trapeze the consultant team has the following observations and recommendations.

The review team believes that the placement of the costing weights is appropriate and has no recommendations regarding changing those. Also the consultant team believes that the practice of using a Violation set that allows no violation to be automatically allowed is a sound business practice.

It has been found in other paratransit operations that a 30 minute on-scheduling or on-time window is fairly common. The pick-up tolerance set by Pace is 10 minutes before to 20 minutes after the scheduled or negotiated time. For purposes of calculating on-time performance Pace uses scheduled time to 20 minutes after the scheduled time. It is recommended that Pace consider set an on-time window and pick-up tolerance window that are consistent with each other. That is both are either 10 minutes before to 20 minutes after the scheduled or negotiated time or both are zero minutes before to 20 minutes after the scheduled or negotiated time.

Equally as important as the pick-up tolerances is the drop-off tolerance. The pick-up tolerance helps to ensure the software schedules a timely pick-up. Likewise, the drop-
off tolerance helps to ensure that drop-off for a customer is timely. This is very important to making sure that riders get to work, medical or other time sensitive drop-offs in a timely fashion. Generally the drop off tolerance is set to never scheduling a rider to get to an appointment late (0 minutes after) to being dropped off a certain number of minutes early. The number of minutes early varies from paratransit system to paratransit system, but is usually in the 20 to 30 minute range. Thirty minutes is usually the outside range of the early drop-off. The consultant team recommends that the drop-off tolerance feature be turned on in Pass, and a tolerance of at no more than 30 minutes before and appointment to 0 minutes after the appointment.

At the present time, Pace does not factor the average speed by length of trip. Proper set up of the speed factors may make scheduling long trips more efficient by calculating travel times more accurately. However in discussions with Pace and Trapeze staff, it was determined that not factoring speed by length of trip was a conscious decision. The decision was made because it was felt that the difference between the Chicago and suburban service areas would make doing so would negatively impact the scheduling of suburban rides. This theory has not been tested in the test database. The consultant team recommends that Pace create and test factoring average speed by length of trip. To do this the effect on trips for both Chicago and suburban carriers needs to be determined. If the current assumption is true, and the scheduling of suburban services would be negatively impacted, then the speed settings can stay as currently configured. If however the above assumption is incorrect, factoring speed by length of trip may help to improve the scheduling of longer trips due to more accurate computation of travel time.

Also, currently no On-Board Time matrix has been set up. As with the speed by time of day discussion above, we recommend that a similar test using an on-board time matrix be conducted in the test database. Since the matrix would affect suburban providers and Chicago providers the purpose of the test would be to determine the effect of the matrix on the scheduling of suburban rides and Chicago rides. Based upon the results it may be determined that it is beneficial to establish the matrix in the production system.

The load times and load factors associated with the ambulatory and non-ambulatory trips appear to be appropriate and consistent with other similar sites. However, the consultant team noted that the unload time for non-ambulatory passengers appeared to be higher than at other sites using scheduling software equipped with the load/unload time feature. The wheelchair securement systems generally have a “quick release” feature for the straps used to hold the mobility device in place. Disengaging the straps from the mobility device is therefore quicker than when the passenger boards the vehicle. When the passenger boards the vehicles the straps must be attached to the frame of the mobility device and tightened, making this a longer process than when a person using a mobility device is secured in the vehicle. The consultant team recommends that the unload time for passengers who use wheelchairs be reviewed by Pace and its carriers and changes should be made as appropriate. A test should be conducted to measure how long, on average it takes for a driver to unload a passenger using a wheelchair. It should be noted that any change to the unload time should be
thoroughly tested. The effect of changing the unload time could be significant. For example, if Pace provides 10,000 rides per day and 20 percent are persons who use wheelchairs, 2000 rides per day would be affected by a change in the unload time. If the unload time was reduced to 5 minutes, an extra 33.3 hours \((2,000 \text{ trips} \times 1 \text{ minute}) / 60\) would be available for scheduling using the existing vehicles. This adjustment could improve productivity. Thorough testing of a change of this nature is essential.

**Dispatching and Coding of No-Shows**

During each site visit time was set aside to observe and interview dispatchers. The purpose of the observations and interviews was to obtain an understanding of the dispatching and to assess the dispatchers’ level of proficiency with PASS.

Observations of and discussions with the dispatching staff at each of the carriers showed that the staff had a level of familiarity with various scheduling tools available to them. The primary tool used by dispatchers at all sites was the Schedule Editor. The Schedule Editor allows a user to view real time information about trips for the day of service. Generally the dispatchers used the Schedule Editor feature to look at a run or runs in service. A dispatcher can see trips that have been performed, trips that have yet to be performed. The Schedule Editor will also indicate the estimated time of performance of upcoming trips and will alert dispatchers when a run is falling behind. Each dispatch center monitors trips that are estimated by the software to be greater than 20 minutes late and trips that are not performed by the driver. This information is displayed on two large LCD screens in the office. These boards show the run number and basic trip information so that the dispatchers can access the information in Trapeze and then contact the appropriate driver.

Another important tool for dispatchers is the Tracker Action Notes feature in Trapeze. Tracker Action is a way to attach notes to a trip for later reference. These are different than trip or client notes that may be viewed for a trip. A Tracker Note is a way to explain why a certain action was taken on a trip. It may indicate who called to cancel a trip, or it may indicate what actions a dispatcher took before authorizing a no-show for a trip. Good use of Tracker Notes was noted at all three sites.

Some additional observations by carrier follow.

**SCR Transportation**

SCR dispatchers are each responsible for between 30 and 35 runs on a daily basis. Dispatchers handle driver requests for no-shows and other requests for driver assistance. The process for handling no-shows is as follows:

- Before authorizing a no, show a dispatcher must verify the time and location of the vehicle
- The dispatcher must attempt to make contact with the client.
• If the time and location are correct, and the client cannot be reached, the no-show is authorized once the driver has waited the appropriate length of time.
• The dispatcher codes the trips as “NS.”
• The dispatcher must then enter notes into the Tracker Action Log for the trip.

Customer Service Representatives will provide information on the ride status to clients by checking the run to see where the vehicle is located and the estimated arrival time. However, if the ride is significantly late or the CSR has a question about the information displayed in the system, they will transfer the call to dispatch. The dispatcher will contact the driver to obtain information about the estimated time of arrival or resolve any question the customer may have.

While at SCR it was noted that the dispatch area is very crowded and the ventilation was poor, making it a difficult environment work in for dispatchers.

During our discussions with staff an issue was raised about periodic problems with connectivity between the base and drivers. It was explained that the issue was recognized as a Verizon issue and that a plan was in place to remedy the situation. Basically Verizon was going to rewire the building which was described as making the building like a radio tower. Staff also indicated that they were going to obtain a new modem from their MDT provider.

During the site visit the consultant team had the opportunity to speak with six drivers. Included in the discussion were questions about dispatching. All six drivers interviewed felt that the dispatchers worked well with the drivers and were responsive to driver requests for information and assistance. The drivers also had a good understanding of no-show procedures and indicated that dispatchers would try to make call outs before approving a no-show request.

**Cook DuPage Transportation (CDT)**

CDT had recently reorganized its dispatch office into “pods.” Each pod includes four people: three run monitors (dispatchers), one troubleshooter (lead dispatcher). Each pod is responsible for 60 runs as assigned by the “Daily Run Group Assignment” lists. “Where’s my ride?” calls are typically handled by the customer service representatives. However, as with SCR if there is a problem with the ride or it is very late, the CSR will transfer the call to the appropriate pod. The pods also handle driver requests for no-shows and other requests for driver assistance. The proper procedure for handling no-shows is:

• Before authorizing a no, show a dispatcher must verify the time and location of the vehicle
• The dispatcher must attempt to make contact with the client.
• If the time and location are correct, and the client cannot be reached, the no-show is authorized once the driver has waited the appropriate length of time.
• The dispatcher codes the trips as “NS.”
• The dispatcher must then enter notes into the Tracker Action Log for the trip.

It was noted during the observations that the level of activity in the dispatch area was higher and more intense than at the other carriers. This may be due, in part, to the fact that CDT is a larger carrier. However, the space was also very crowded and some exchanges between drivers and dispatchers appeared to be rather curt. It also was noted that there was more radio time spent with exchanges between drivers and dispatchers, suggesting less reliance on the MDTs than at other locations. When asked how the notification of drivers by MDT works it was explained that a beep is generated to alert the driver when a change has occurred to the manifest and been transmitted via MDT. However, CDT has set the MDTs to be blank when the vehicle is traveling faster than 5 mph; therefore, drives have to stop before viewing the MDT.

The consultant team interviewed nine drivers at CDT. The same questions asked of the SCR drivers were asked of the CDT drivers. Three of the drivers interviewed indicated that dispatch support was good. Five of the nine indicated that support was “okay” or “so-so.” One of the five who indicated below average support felt that at first the dispatchers did not know the system well, but have improved. The ninth driver had indicated that it was better not to rely on dispatch. Three of the nine drivers indicated that the dispatchers needed better “people skills.” As indicated earlier, the consultant team observed curt interactions between drivers and dispatch, and this comment reinforces that observation.

Three of the nine drivers indicated that follow through on no-shows was lacking. All three indicated that they are often told “you know what to do” instead of following the set procedures for handling no-shows. One driver indicated he has been instructed to call the client. Another indicated that he does not bother to contact dispatch for a no-show approval. It should be noted that the consultant team did not observe these actions while on site.

**MV Transportation**

MV Transportation dispatchers are each responsible for up 20 runs on a daily basis. Dispatcher’s handle driver requests for no-shows. One of the dispatchers also serves as window dispatch, checking drivers in and out. As with CDT, there also is a troubleshooter or lead dispatcher who handles same-day trip reassignments and assists the dispatchers with any problems they may encounter. Before authorizing a no-show the following procedures are to be followed:

- Before authorizing a no-show a dispatcher must verify the time and location of the vehicle
- The dispatcher must attempt to make contact with the client.
- If the time and location are correct, and the client cannot be reached, the no-show is authorized once the driver has waited the appropriate length of time.
- The dispatcher codes the trips as “NS.”
- The dispatcher must then enter notes into the Tracker Action Log for the trip.
A dispatcher may also handle “where’s my ride?” calls. Customer Service Representatives will provide information on the ride to clients unless the ride is significantly late or the CSR has a question about the information displayed in the system. In those cases the CSR will transfer the call to the appropriate dispatcher.

A total of six drivers were interviewed at MV Transportation. One of the drivers interviewed indicated that the relationship with drivers was not good. Three of the six drivers indicated that it was sometimes difficult to get through to dispatch. Another driver indicated that when she cannot get through to dispatch she sometimes would leave without no-show approval.

Customer Comments and Complaints

Prior to and during the site visit of March 23 through March 27, a series of Listening Sessions were held with customers. In addition; a sample of customer complaints were reviewed. The following items, pertaining to dispatch were identified:

- Dispatchers need to be nicer to drivers so that drivers will be nicer to passengers (from a customer in zone 1)
- Dispatchers are not properly informed by dispatch about what to do
- Reservations are made for one time and the driver was sent at an earlier time, without notification to the client.

Although these events were not observed during the site visit it appears that there may be some issues with the performance of dispatch. Certainly the first two comments listed above reinforce the observations of drivers, especially at CDT and MV Transportation.

Another issue that was raised by consumers had to do with add-on trips. It appears, according to customer comments and complaints, that trips were being added to runs on the day of service without regard to the effect the trip insertion would have on customers currently on board the vehicle.

Findings and Recommendations

The consultant team’s review of dispatch functions at each provider showed that the dispatchers were using the tools available to them in the software. The dispatchers at all three carriers appeared to be familiar with and comfortable using the technology tools available to them.

However, the driver comments at CDT and MV, and the customer comments and complaints, are cause for concern. The proper handling of no-shows is a key component of dispatching. It is vital that the proper procedures be followed before marking a person as a no-show. An improperly coded no-show will often lead to having to send another vehicle to perform the ride. It will also usually lead to the customer...
filing a complaint about the improper coding of the trip. It is strongly recommended that the proper procedure for handling and coding of no-shows be reinforced with all providers. Retraining of dispatch staff on the proper procedures for handling no-shows should be provided.

Another issue raised by the customers, and observed by the consultant team was the level of use of the radio by dispatch. Usually as system using MDT’s has minimal radio traffic. It is recommended that a review be conducted of radio usage to determine if there is a decreased reliance on MDTs.

Finally it is recommended that CDT should consider ways to expand the work area to make it easier for dispatch to function. Likewise, the dispatch area at SCR was crowded and had poor ventilation, which should be addressed to make it easier to function within the department.

Rider Assistance Policy

Interviews with Pace managers, contractor staff and drivers indicated that there were inconsistencies in rider assistance policies under the pre-transition service design. The formal policy was that only curb-to-curb service was provided. In practice, door-to-door service was often provided. Drivers indicated that they would typically provide assistance to and from the vehicle if needed and would go to the door if a rider did not board the vehicle soon after it arrived for a pick-up.

Under the new service design, the official policy is door-to-door assistance on an as needed basis. Riders must request assistance beyond the curb and this is to be noted in the trip details for drivers. The current recommended reservations script does not however, instruct reservation agents to ask riders if they will need assistance beyond the curb at the pick-up, drop-off, or both. And first-hand observations indicated that reservation agents do not request this information.

Interviews with drivers also indicated that those who worked for the prior contractors—CDT and SCR—were continuing to provide essentially full door-to-door service. Operators at MV, the new contractor, had mixed responses when asked what level of assistance beyond the curb they provided. Some parroted the policy of assistance “as requested,” while others indicated they provided assistance more broadly.

Input from riders (see Section 6) also noted some recent inconsistencies in riders’ experiences with driver assistance. It was noted that some drivers will come to the door at the pick-up point while others will not.

Inconsistency in the level of assistance provided and the actions at the pick-up could be contributing to no-shows. As noted in Section 5, no-shows have increased following the transition, from 2.8% in 2007 to between 5.0% and 5.6% following the transition.
It also is the experience of review team members that door-to-door assistance on an “as needed” or “as requested” basis poses operational challenges. The need for door-to-door assistance cannot be accurately captured in the eligibility determination process as riders’ needs will vary based on the environment at the origins and destinations of their trips—which are not known at the time of eligibility determination. Capturing the need for assistance beyond the curb in the reservations process also poses problems, since many riders may not be familiar with the physical environment at locations that they have not traveled to in the past. Accurately recording the need for assistance and then consistently getting it on the trip record—and making sure that drivers use this information—also is an operational challenge. And even if all trip information is accurately gathered, recorded, and transmitted, making sure that all drivers act in a consistent way is difficult at best.

There also is no evidence that full door-to-door service is less efficient. On the contrary, a recent study conducted for WMATA in Washington, DC found that there was no appreciable increase in dwell times with full door-to-door service. This study concluded that the only costs that would accrue as a result of a shift by WMATA to full door-to-door service would be the cost to retrain operators in the new policy. As a result of the study, WMATA switched to full door-to-door service in July 2007 and has reported good success with the change. Drivers in the WMATA system now provide assistance to and from the exterior door at pick-ups and drop-offs. A detailed service policy has been developed that identifies exactly what level of assistance will be provided and safe operating conditions that must be maintained by the drivers. For example, there must be a safe, accessible path-of-travel between the curb and the door, and drivers cannot go more than 150 feet from the vehicle and must maintain sight of the vehicle at all times. The detailed rider assistance policy is posted on WMATA’s website.

Some paratransit managers at systems that have long provided full door-to-door service also have expressed the opinion that providing assistance to and from the door can make service more efficient that waiting for riders to board without assistance. They also indicate that it can help with making connections at the pick-up and can therefore reduce no-shows and the service disruptions caused if vehicles have to be sent back to make a pick-up following a missed connection and a no-show.

It is recommended that Pace consider revising its rider assistance policy to call for door-to-door assistance whenever possible. The policy should then provide guidance on when assistance beyond the curb is possible and under what circumstances it will not be able to be provided (e.g., limits on the number of curbs or steps, path-of-travel issues, maintenance of effective control of vehicle issues, etc). WMATA has developed and used a detailed policy which might be helpful. Input from drivers should also be obtained as the policy is crafted, since it appears that many have been offering full door-to-door service without significant incidents for many years.

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Driver Training

As part of the review, driver training materials and curricula were obtained from each of the three primary zone contractors –CDT, SCR and MV--and examined. A total of 22 drivers were also interviewed and asked two questions that were meant to determine their knowledge of service policies and requirements. These were questions on the understanding of the on-time pick-up window (when they were “late”), and on proper procedures when riders do not appear to board as scheduled (no-show procedures). Finally drivers were asked “Did the training you received when you were first hired adequately prepare you for the job?” This last question was meant to gauge driver satisfaction with the training they were provided. The 23 drivers were selected randomly as they returned from completing shifts. The 23 drivers had a range of experience ranging from six months of service to 17 years of service.

A review of the training curricula showed that SCR drivers receive five days of classroom training followed by three days of on-the-road training. More on-the-road training is provided if needed. The classroom training includes a full day of instruction on mobility aid securement and passenger restraint systems. The instruction includes demonstration by the instructor as well as a hands-on element where trainees must demonstrate proper securement techniques. The classroom training also includes 3.5 hours of disability awareness (“sensitivity”) training that involves riders with disabilities.

CDT drivers receive five days of classroom training and a minimum of two days on-the-road instruction (and more on-the-road as needed). The classroom training includes six hours of disability awareness training and one full day of training on the use of securement systems and passenger restraint systems. Trainees are required to demonstrate their proficiency in using securement and restraint systems.

MV drivers receive six days of classroom training plus a minimum of seven days of on-the-road training. The on-the-road training includes three days with the trainee observing and four days minimum with the trainee driving and being observed by the trainer. The classroom training includes four hours of disability awareness training and a full day of instruction in the use of securement and passenger restraint systems. As with the other contractors, trainees must demonstrate their proficiency in using securement systems before they can complete this segment of the course.

All six of the drivers interviewed at SCR indicated that they felt that the training adequately prepared them for the job. Eight of the 10 drivers at CDT indicated that the training they received adequately prepared them for the job. Two drivers felt the training could be improved, and both mentioned that more time was needed on-the-road learning the area. Five of the six drivers interviewed at MV felt the training prepared them for the job. One driver said the training was “Okay.” This driver, plus one who felt the training was good overall mentioned that more on-the-road training learning the area was needed.
Seventeen of the 22 drivers interviewed had a correct understanding of the on-time pick-up window. This included all six drivers at SCR and all six at MV. Five of the 10 drivers interviewed at CDT did not appear to have a correct understanding. Two indicated that they were late if it was one minute past the scheduled pick-up time. One indicated “from 10 minutes before to 20 minutes past the scheduled time,” one indicated “15 minutes before to 20 minutes after the scheduled time,” and one seemed unclear on the question and did not provide an answer.

Twenty-one of the 22 drivers interviewed were asked about no-show procedures. One driver left the interview early and did not answer this question. Eleven of the 21 drivers had a good understanding of the no-show procedures. They mentioned the need to wait five minutes after the scheduled pick-up time, as well as the need to contact dispatch for instructions and authorization before no-showing a rider. Ten drivers, however, did not demonstrate a full understanding of the policy. This included three of the six drivers at SCR, three of the nine at CDT, and two of the six at MV. The three drivers at SCR mentioned the need to contact dispatch for instructions, but did not mention the need to wait for five minutes after the scheduled pick-up time. Two of the three drivers at CDT mentioned waiting five minutes but did not indicate that this had to be after the scheduled pick-up time (with one even saying it might be before the pick-up time). The third driver at CDT did not mention a required wait time at all and simply indicated that he contacted dispatch. The two drivers at MV also noted that they called dispatch, but did not specifically mention the required five minute wait after the scheduled pick-up time.

Based on the information collected, it appears that the training in general is good. The classroom training, including required disability awareness training, appears to be good. Drivers also appear to be trained to proficiency in the use of securement systems and passenger restraint systems. All three of the contractors examined require that trainees demonstrate their ability to secure passengers and mobility devices.

The amount of on-the-road training at SCR and CDT appears to be below industry norms. A recent survey of ADA paratransit systems indicated that drivers at systems that contracted out typically received at least one week of on-the-road instruction. The average for contracted operations was 54 hours. Drivers at in-house publicly operated systems received an average of 94 hours of on-the-road instruction (although this was due in some cases to drivers being cross-trained in both paratransit and fixed route operation). As noted above, four of the drivers interviewed also indicated a need for more on-the-road training and better orientation to the area.

The driver interviews also indicated a possible need for refresher training, or at least an informational bulletin, at some contractors on certain service policies. Refresher instruction on the definition of “on-time” performance appears to be needed at CDT.

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Refresher training on no-show policies and the need to wait five minutes within the pick-up window appears to be needed at all three contractor sites.

**Educating Riders About the Pick-Up Window**

As noted in Section 6, Pace staff that respond to rider complaints noted that a significant number of riders complain about being picked up late, but the investigation shows that the pick-up was actually made within the 20 minute pick-up window. First-hand observations of the contractor operations also indicated that riders often call to check on a “late ride” before the end of the 20 minute pickup window.

While the public information provided by Pace clearly indicates that there is a 20 minute pick-up window, this is not reinforced in daily operations. The recommended script provided by Pace to contractors indicates that reservation agents are to communicate only the exact scheduled pick-up time. First-hand observations confirmed that riders are not told that they will be picked up within a 20 minute period, but are given an exact pick-up time.

Many ADA paratransit systems try to reinforce the 20 minute pick-up window in daily operations. In some systems, after the exact pick-up time is given, reservation agents remind riders that the pick-up might take place anytime within the pick-up window (and give the exact range based on the local pick-up time policy). Some systems have even stopped giving an exact time and quote the window to the riders (e.g., “Your pick-up will be between 9:00 a.m. and 9:20 a.m.”).

It is recommended that Pace consider ways to reinforce the pick-up window with riders in daily operations.

**Special Pick-Up Information**

As noted in Section 6, some comment was received at the listening sessions and through mail-ins about special pick-up instructions. Some riders felt that the information they provided as part of the trip booking process did not always get to the drivers or was not used by the drivers.

As part of the on-site review, the reservation process at each contractor was observed. Drivers were also interviewed and asked whether they received special pick-up instructions and whether the instructions were accurate.

Reservation observations at SCR showed that agents were consistent in following a standard script and asking for pick-up detail and special instructions. Agents at MV Transportation were also observed to be consistent on this point. Some inconsistency in specifically asking for any special instructions was noted at CDT. At all three contractor operations, if riders did mention special instructions, these were recorded on the trip booking screen.
Six drivers were interviewed at SCR. All six said that special instructions were provided and were accurate. Six drivers were also interviewed at MV Transportation. Three said that instructions were provided and were accurate. Two said that instructions were “mostly” provided an accurate. One driver said “sometimes.” Nine of the 10 drivers interviewed at CDT answered this question. Six said that special information is provided and is accurate. Two said it is “sometimes provided,” and one said information is not always provided. In total, six of the 21 drivers interviewed indicated that the accuracy of special instructions could be improved to some degree. While this represents a limited sample, it is an indication of a possible issue that Pace should examine further.

It is also possible that some drivers may not know how to access this information on the MDTs. The drivers interviewed seemed to be aware that they needed to “scroll down” to get special instructions, but two mentioned that newer drivers may not know how to do this.

**Driver Turnover, Extraboard, and Run Coverage**

The adequacy of the driver workforce, often an issue in ADA paratransit operations, was examined as part of the review. The availability of an extraboard and the coverage of scheduled runs was also examined.

Driver turnover was also calculated as a way of determining if an experienced and stable workforce existed. Information was obtained on driver terminations over the most recent six month period. Terminations that took place within the training period were taken out. The remaining number of terminations was then annualized (doubled) and compared to the total; workforce to arrive at an annual post-training turnover rate.

The review at SCR indicated that there are 343 total drivers to cover about 232 weekday runs—a ratio of 1.48 drivers per weekday run. Records showed a very low number of “unscheduled call-outs”—only about 3%. To cover possible call-outs, SCR typically scheduled 6-7 extra drivers at the morning pull-out. A review of one week of pull-out coverage records—March 15 to 21, 2009—showed zero closed runs in this one week period.

The analysis of driver turnover indicated an annual post-training turnover rate at SCR of 39% for from September 2008 through March 2009. The rate for the most recent three months was down slightly—at 34%. This rate is moderate for ADA paratransit operations. A recent survey of ADA paratransit operations indicated an average annual turnover rate of 27% (30% for private contractors and 14% for in-house public operations.10

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9 An industry “rule of thumb” is that about 1.3 drivers per weekday run are needed to ensure run coverage.

Records at CDT indicated a workforce of 476 total drivers to cover up to about 290 weekday runs—a ratio of 1.64 drivers per weekday run. CDT typically schedules about a 15% extraboard each day to ensure run coverage. A review of one week of pull-out coverage records—March 15 to 21, 2009—showed zero closed runs in this one week period.

The analysis of driver turnover indicated an annual post-training turnover rate at CDT of 35% for the six month period from October 2008 through March 2009. Again, this appears to be slightly above the 30% rate for private contractors indicated in a recent national survey.

The review at MV Transportation indicated that there were 130 drivers at the time of the on-site visit. MV Transportation scheduled about 103 weekday runs—a ratio of 1.26 drivers per weekday run. MV operations staff indicated that only two extraboard drivers are typically scheduled on weekdays. A review of one week of pull-out coverage records—March 15 to 21, 2009—showed that no runs were closed at pull-out, but from two to seven runs were closed in the final scheduling process to increase productivity (and possibly to match the drivers available). MV managers noted that another five to seven drivers were needed.

The analysis of driver turnover indicated an annual post-training turnover rate at MV of 85% from October 2008 through March 2009. Some of this turnover is likely due to the fact that MV started a new operation and hired all new drivers. Still, this is a very high rate. As a result, MV appears to operate with a higher percent of relatively inexperienced drivers. The high turnover rate can also contribute to a less than ideal number of available drivers as it may be difficult to hire and train enough drivers to cover for the turnover.

It is recommended that Pace work with MV Transportation to address the high driver turnover rate. A more stable, experienced workforce should aid in increasing productivity and should also improve on-time performance.
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Attachment 1
Pace Response to Report
September 30, 2009

Mr. Stephen E. Schlickman  
Executive Director  
Regional Transportation Authority  
175 W. Jackson Blvd  
Chicago, IL 60604

Dear Mr. Schlickman:

Pace thanks the RTA and their consultants, for the thoroughness of the report “Audit of ADA Paratransit Service Changes”. ADA paratransit service and the related compliance issues are extremely complex. The report reflects the consultant’s in-depth knowledge of the industry and its related standards.

While the scope of this audit was not specifically ADA compliance, this report, when coupled with the other recently completed RTA report, “ADA Paratransit Compliance”, clearly documents that Pace has brought the region into ADA compliance regarding the delivery of mandated paratransit services. The report also recognizes the commendable job Pace does in the delivery of service. Specifically, the report states that “Overall, Pace’s service monitoring compares very favorably to other ADA paratransit programs that the review team has studied. Service monitoring is clearly a Pace strength.” Pace has worked tirelessly to restructure ADA service delivery. The benefits to our riders are reflected in service quality, including improved telephone access, zero denials, computer assisted accountability, and increased on-time performance for both pick-ups and appointments. Pace appreciates this recognition by these nationally recognized firms.

Pace finds the report to be a fair representation of the service transition and the Pace service delivery system. However, while Pace appreciates the recognition of ADA compliance and quality service delivery, Pace is at the same time concerned that the report recommends the consideration of a number of items, beyond ADA compliance, that will greatly increase the cost of service delivery, possibly by several million dollars. The RTA is faced with serious financial challenges over the next several years. Pace is always striving to improve service. However, any recommendation which increases the cost of the service must be funded by the RTA. In fact, recommendations beyond ADA are actually contrary to the recent RTA ordinance mandating, as part of the recent funding package, the implementation of service changes that would actually bring the service into stricter compliance with ADA regulations.

This concern can best be illustrated in the report’s recommendation that, for certain trips, Pace consider a ride time standard that is beyond the ADA mandated standard. Pace is very concerned for the riding public and understands that this recommendation might allow for a higher level of service, to some riders on some trips, than what ADA requires. However, a requirement such as this could cost the region several million dollars that Pace cannot afford within the funding levels provided by the RTA. The RTA should be especially sensitive to issues such as this, since Pace will expect the RTA, as the legally mandated ADA funding body, to pay for any service modifications to the ADA service delivery system.
Another example of a potentially high cost item recommended for consideration is the size and design of the vehicles. While Pace supports the goal of this recommendation, implementing this type of change through the operating budget would cost several million dollars. An entirely new type of fleet simply cannot be paid for through the operating budget unless the RTA is willing to pay for this increase in cost. The better approach that Pace would support would be for the RTA to identify capital funds for such a purpose. If successful, this would actually lower the operating budget.

As a side note, any suggestion to consider standards beyond ADA mandated standards would be at odds with the other recently completed RTA study “ADA Paratransit Compliance”. The “ADA Paratransit Compliance” report outlines a number of areas where Pace could raise revenues and/or cut service to achieve a lower overall deficit. The RTA Board has directed Pace to move forward on these steps as part of a recent funding package. These two reports, complementary in nature, offer radically contradictory views. One report identifies where to cut back to the minimum service required; the second provides recommendations that would expand service beyond federally mandated requirements and actually increase the cost of the service.

Thank you for the opportunity to offer comment on this report. Pace thanks the RTA and its consultants for the recognition that the service has been brought into ADA compliance and that service quality has been improved. Pace is very concerned for our riders and takes pride in the quality of service provided. Pace has made these improvements while maintaining a reputation as an efficient, cost-effective provider. Pace’s costs are favorable compared to other major cities and efficiency measures continue to improve. However, we are not funded to provide service in excess of ADA guidelines and will be looking to the RTA to pay for any service modifications that result in higher costs.

We continue to look forward to working with the RTA on undertaking the enormous task of providing ADA compliant service to the six county region.

Sincerely,

Thomas J. Ross
Executive Director
Revenue Services

Cc: Melinda J. Metzger, Deputy Executive Director
Attachment 4A

Pace Monitor Checklist
PACE MONITORS
PARATRANSMIT DISPATCHER MONITORING CHECKLIST

Project: SCR

Date Called: 12-28-09 Sun.

Time Called: 13:27

How many times did the phone ring, before your call was answered? 1

If you were put on hold, how long did you have to wait? None

How does the dispatcher identify the service when answering? Good

Was the dispatcher helpful in scheduling your ride? Yes

Was the dispatcher friendly and courteous? Yes

If the time you selected was already full, did the dispatcher offer you an alternate time? 

Please list any necessary comments regarding the dispatcher:

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<td>41. OTHER</td>
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### Comments (Indicate number of infraction)

- 37 Infractions were scheduled to be picked up at 09:00. Operator arrived at 10:06, 46 minutes late. Mantra called couple times and was put on hold for about 10 minutes.
- 35 Operator had the Music Radio on loud.

### Comments - Bus Condition

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### Carrier Response

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### Response By

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### Operator Signature

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- AC = Acceptable
  - NS = Not Seen
  - UNAC = Unacceptable

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COPY 1 - Original (Return with Response)  
COPY 2 - Operator  
COPY 3 - Maintenance  
COPY 4 - Center  
COPY 5 - Operator
Attachment 4B
Pace Supervisor Monitoring Form
## TRANSPORTATION SECTION SYSTEM-ROUTE CHECKS, NON-DIVISION

**Chicago & Suburban Paratransit, VangoPool, Contract Carriers**

**DATE:** 3/16/09  
**DAN:** Monday  
**WEATHER:** Sunny  
**DIVISION:** Northwest

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<th>Location</th>
<th>Due</th>
<th>Actual</th>
<th>Miss. Early</th>
<th>Miss. Late</th>
<th>Total # Of Pass.</th>
<th>Comments</th>
</tr>
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<td>11W</td>
<td>4467</td>
<td>32200</td>
<td>Ansley</td>
<td>14:46</td>
<td>14:46</td>
<td></td>
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<td>11W777</td>
<td></td>
<td>Client's Last Name, First Name</td>
<td>Vehicle Cond. Inside</td>
<td>OK</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>ID Checked Yes / No</td>
<td>Yes</td>
<td></td>
<td>Client Observations</td>
<td>Vehicle Cond. Inside</td>
<td>OK</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</table>

<table>
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<tr>
<th>Carrier</th>
<th>Veh. No.</th>
<th>Badge No.</th>
<th>Location</th>
<th>Due</th>
<th>Actual</th>
<th>Miss. Early</th>
<th>Miss. Late</th>
<th>Total # Of Pass.</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>104</td>
<td>7001</td>
<td>60145</td>
<td>Westchester</td>
<td>14:54</td>
<td>14:54</td>
<td></td>
<td></td>
<td>1</td>
<td>Driver had nothing with her badge on, non-uniform attire,</td>
</tr>
<tr>
<td>Client ID #</td>
<td>104663</td>
<td></td>
<td>Client's Last Name, First Name</td>
<td>Vehicle Cond. Inside</td>
<td>OK</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>ID Checked Yes / No</td>
<td>Yes</td>
<td></td>
<td>Client Observations</td>
<td>Vehicle Cond. Outside</td>
<td>OK</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Carrier</th>
<th>Veh. No.</th>
<th>Badge No.</th>
<th>Location</th>
<th>Due</th>
<th>Actual</th>
<th>Miss. Early</th>
<th>Miss. Late</th>
<th>Total # Of Pass.</th>
<th>Comments</th>
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<tbody>
<tr>
<td>C05</td>
<td>2341</td>
<td>52661</td>
<td>Lawrence</td>
<td>15:04</td>
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<td>Client's Last Name, First Name</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ID Checked Yes / No</td>
<td>Yes</td>
<td></td>
<td>Client Observations</td>
<td>Vehicle Cond. Outside</td>
<td>OK</td>
<td></td>
<td></td>
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</tbody>
</table>

**TOTAL CHECKS:** 5  
**LATE CHECKS:**  
**EARLY CHECKS:**  
**ON TIME CHECKS:** 5  

Revised 07/08
Attachment 4C
Contractor Supervisor Monitoring Form
ROAD SUPERVISOR'S OBSERVATION

Unit Number
Driver's Name

\[ \begin{array}{ccc}
 E = \text{EXEMPLARY} & \quad & \text{U = UNSATISFACTORY} \\
 S = \text{SATISFACTORY} & \quad & \\
 \end{array} \]

- Driver is in clean presentable uniform
- Driver is utilizing the Driver's seat belt
- All boarded ambulatory clients are in seat belts
- All boarded wheelchairs are properly secured
- Dash board is free of any objects

Note: Any actions receiving a mark of "UNSATISFACTORY" must be corrected immediately on site by the Supervisor and re-training must be scheduled with the in Service Driver Trainer prior to the next day of service.

INSATISFACTORY OBSERVATIONS:

[Handwritten: Observed on cellphone while driving, advised on company policies.

OBSERVED EXEMPLARY PERFORMANCE:

[Blank]

Road Supervisor/Signature

\[ X \]

Driver's Signature

CORRECTIVE ACTION TAKEN:

[Blank]

I hereby certify that I have retrained the driver in all areas that he/she was observed to be deficient in.

I hereby verify that I have received corrective training for the actions that I was observed to be deficient in.
Attachment 4D

Passenger Ride Time Report Form
Passenger Ride Time Report Form

To investigate, you must provide all of the following data:

Please enter passenger and home information:

ADA Passenger’s Name:
RTA Eligibility ID Number:
Phone Number:
Street Address:

Please enter information about the ride.
Pace will be unable to investigate your report if you do not provide this information:

Date of trip to be reviewed:
Time of trip to be reviewed:
Pick-up Address:
Drop-off Address:
How long did the trip take:

(Optional, not required)

Please enter additional information about problems related to this ride:
Attachment 5A

FY 2007 and FY 2008 Expenses
FY 2009 Budget
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<thead>
<tr>
<th></th>
<th>Suburban</th>
<th>City</th>
<th>Regional</th>
<th>Suburban</th>
<th>City</th>
<th>Regional</th>
<th>Suburban</th>
<th>City</th>
<th>Regional</th>
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<th>City</th>
<th>Regional</th>
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<th>08-09</th>
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<th>08-09</th>
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<th>08-09</th>
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<th>08-09</th>
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<td><strong>Revenue</strong></td>
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<tr>
<td>Fares - Contract</td>
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<td>$5,078</td>
<td>$1,512</td>
<td>$4,430</td>
<td>$5,042</td>
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<td>Fares - TAP &amp; Mob Dir</td>
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<td>L-Share / RTA Cert.</td>
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<td>$834</td>
<td>$339</td>
<td>$600</td>
<td>$939</td>
<td>$331</td>
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<td>$978</td>
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<td>-2.4%</td>
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<td>-4.5%</td>
<td>22.0%</td>
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<td>22.0%</td>
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<td><strong>Total Revenue</strong></td>
<td>$1,666</td>
<td>$5,350</td>
<td>$7,016</td>
<td>$1,851</td>
<td>$6,084</td>
<td>$7,935</td>
<td>$1,912</td>
<td>$6,450</td>
<td>$8,362</td>
<td>11.1%</td>
<td>3.3%</td>
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<td>13.7%</td>
<td>6.0%</td>
<td>13.1%</td>
<td>5.4%</td>
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<td><strong>Operating Expense</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>Purchased Trans-Contract</td>
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<td>$16,700</td>
<td>$76,737</td>
<td>$93,437</td>
<td>$17,866</td>
<td>$94,497</td>
<td>$112,363</td>
<td>22.1%</td>
<td>7.0%</td>
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<td>31.7%</td>
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<td>31.9%</td>
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<td>$58</td>
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<td>Labor / Fringe</td>
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<td>$478</td>
<td>$3,179</td>
<td>$3,557</td>
<td>$505</td>
<td>$3,860</td>
<td>$4,166</td>
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<td>RTA Certification</td>
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<td><strong>Total Operating Exp</strong></td>
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<td>$102,972</td>
<td>$127,858</td>
<td>22.5%</td>
<td>9.5%</td>
<td></td>
<td>27.2%</td>
<td>21.8%</td>
<td>28.6%</td>
<td>18.8%</td>
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<tr>
<td><strong>Funding Required</strong></td>
<td>$14,236</td>
<td>$61,112</td>
<td>$76,688</td>
<td>$17,633</td>
<td>$78,480</td>
<td>$99,690</td>
<td>$19,415</td>
<td>$96,522</td>
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<td>28.4%</td>
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<td>30.0%</td>
<td>19.9%</td>
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<tr>
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<td><strong>Net Funding Available</strong></td>
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<td>$75,010</td>
<td>$100,000</td>
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</tbody>
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Prepared by Budget Planning
4/23/2009
Omit (000's)
Attachment 6A

Listening Session Materials

- Flyer advertising the Listening Sessions (original flyer printed on 11 x 17 card stock with 16 pt font)
- Handouts used at the meetings
  - March 2009 Chicago ADA Paratransit Service Listening Sessions
  - Group Comments
  - Individual Comments
Chicago ADA Paratransit Service
Moving Forward

Schedule of
RTA-Sponsored Listening Sessions
See Details Inside

Tuesday March 17, 2009 • 10:30 a.m. – noon
South Shore Cultural Center – Solarium
7059 S. South Shore Drive, Chicago

Friday, March 20, 2009 • 10:30 a.m. – noon
Mayor’s Office for People with Disabilities –
Rooms 1 and 2
2102 W. Ogden Avenue, Chicago

Monday, March 23, 2009 • 7 p.m. – 8:30 p.m.
Howard Mohr Community Center – Community Room
(please use parking lot entrance)
7640 Jackson Boulevard, Forest Park

Wednesday, March 25, 2009 • 10:30 a.m. – noon
Copernicus Center – Lobby
5216 West Lawrence Avenue, Chicago

Meetings are open to the public and ADA accessible.
If you require a reasonable accommodation, please
contact Daphine at (312) 913-3153 (voice), (312) 913-
3122 (TTY) or e-mail at: fosterd@rtachicago.org at
least 2 business days before the meeting.

Please note due to allergies of some of the participants,
these are scent-free meetings; therefore, those in
attendance are asked not to wear fragrances.
Chicago ADA Paratransit Service

Moving Forward

The Regional Transportation Authority (RTA) has contracted with an independent consultant to review the Chicago ADA Paratransit service. If you are a current Pace Chicago ADA Paratransit customer, particularly if you used the service before March 2008, we would like your opinion about service in the past, present, and future.

- Did you have any specific concerns with the Chicago ADA Paratransit service prior to the service transition in March 2008?
- Did you have any specific concerns with Pace Chicago ADA Paratransit service during the transition (March through June 2008)?
- Do you have any specific concerns with Pace Chicago ADA Paratransit service now?
- What is working well?
- What needs to be improved?

How to Participate

There are five options for you to provide comments to the RTA’s consultants:

1. Participate in a Listening Session in your area
2. Mail written comments using the attached postage-paid comment card
3. Fax comments to: (312) 922-9274
4. Drop-off comments at the RTA Office located at
   175 W. Jackson Blvd., Suite 1550, in Chicago
5. E-mail comments to:
   ADAcomments@rtachicago.org

Listening Sessions

The purpose of the Listening Sessions is to gather rider comments and suggestions specific to the Chicago ADA Paratransit service before, during, and after the service change in March 2008.

- The format will feature small group discussions with fellow riders that will allow everyone to participate.
- Discussion topics will include service elements such as making trip reservations, on-time service, travel time, knowledge of the service area, driver performance, public information materials, and customer service.
- Each small group will select its own recorder and spokesperson who will present a summary of the group’s discussion and suggestions.

Each session will last 1½ hours. A list of meeting dates, times, and locations is included on the back of this invitation.

Written Comments

If you cannot or do not wish to attend a meeting you may provide written comments using the postage-paid comment card. Or you may fax your comments to the RTA at (312) 922-9274 or drop-off your comments at the drop box located at the RTA Office, 175 W. Jackson Blvd., Suite 1550, in Chicago.

E-mail Comments

You may also e-mail your comments to:
ADAcomments@rtachicago.org.

This information is posted on-line in text format, PDF, and Spanish at: www.rtachicago.com/paratransitaudit

Si usted utiliza el servicio paratránsito de Pace en la área de Chicago (de bajo de la ley sobre Estadounidenses con Discapacidades - ADA) queremos su opinión sobre el servicio. Por favor llame Gilberto Feliciano a 1-312-913-3237 o visite www.rtachicago.com/paratransitaudit

Chicago ADA Paratransit Service Comment Card

Thank you for responding by March 31, 2009

- What specific concerns, if any, did you have with service prior to the changes in March 2008?
- What specific concerns, if any, did you have during the transition (March through June 2008)?
- What is working well now?
- What could be improved?
- Please share any other comments.

Name ______________________________ (optional)

To submit additional comments, please see the "How To Participate" section of this brochure.
Chicago ADA Paratransit Service Listening Sessions

The Regional Transportation Authority (RTA) has contracted with an independent consultant to review the Chicago ADA Paratransit service. We would like to hear from Chicago ADA Paratransit customers about service before and after the service changes in March 2008.

The RTA is committed to establishing an objective view on how the current Chicago ADA Paratransit service is operated. The independent review will give RTA a better understanding how service performs overall, such as reserving a ride, providing on-time service, travel time on vehicles, driver performance, and complaint resolution.

The sessions will last for 1-1/2 hours. The format will feature small group discussions with fellow riders that will allow everyone to participate and then a group spokesperson will summarize the discussion back to the full group.

The attached questions will be used to frame the discussion. We encourage you to provide written comments as well so that we can hear directly from everyone.

Written Comments

You may also e-mail comments to ADAcomments@rtachicago.org, fax comments to the RTA at (312) 922-9274, return the postage-paid comment card included in the meeting mailer, mail comments to: ADA Comments, Regional Transportation Authority, 175 W. Jackson Blvd., Suite 1550, Chicago, IL 60604, or drop-off comments at the RTA office.

Thank you for sharing your thoughts!
Chicago ADA Paratransit Service
Customer Comments

1. What specific concerns, if any, did you have with service prior to the changes in March 2008?

2. What is working well now?

3. What is not working well now?

4. Please share any other comments.
Group Comments

1. What specific concerns, if any, did you have with service prior to the changes in March 2008?
2. What is working well now?

3. What is not working well now?
March 2009
Chicago ADA Paratransit Service
Listening Sessions

Individual Comments
If you have a specific complaint related to a recent trip, please report it to the Pace Passenger Services Center at: 800-606-1282 Option #2 / TTY: 847-364-5093 / Fax: 847-228-2329 / passenger.services@pacebus.com.

Name (Optional):_______________________________