Paratransit Operations Improvements

Organizational, Services & Performance Monitoring Committee
March 3, 2020
Operational Priorities

• Leverage Scheduling Technology
• Improve the Customer Service Experience
  – Reduce call wait time
• Modernize Communication Technology
• Increase on time performance (OTP)
• Reduce on-board travel times (OBT)
Leverage Scheduling Technology

• Scheduling logic
  – Improved ordering and grouping of trips
  – Reduced on-board travel times

• Travel time calculations
  – Modified to reflect traffic patterns
Leverage Scheduling Technology

• What is optimization?
  – Computerized optimization program
  – Weights
    • On Board Time, Backtracking, Distance traveled

• Other Industries – FedEx, Amazon, Uber
Leverage Scheduling Technology
Improve Customer Service Experience

• Additional customer service training
• Cancellations handled by call center
• Call wait times reduced by over 60%
  – Expanded hours of operations
    • Previously 8:30 a – 4:00 p, Currently 7:30 a – 4:30 p
  – Additional (2) Reservationist positions
Reduce Call Wait Time

Greater Cleveland Regional Transit Authority
Modernize Communications Technology

• DriverMate On Board Tablets (Fall 2019)
  – Paperless manifest
  – Google Maps navigation (turn-by-turn directions)
• Enhanced visibility of vehicle location

Greater Cleveland Regional Transit Authority
Modernize Communications Technology

• Implemented Dispatch Manager/Monitor (Trapeze)
  – Reduced radio traffic

• Improved Radio Reliability
  – Statewide radio system (MARCS)
  – Improved coverage, eliminated dead zones
Increase On Time Performance

- July 2019: 78.23%
- August 2019: 79.02%
- September 2019: 81.16%
- October 2019: 84.09%
- November 2019: 82.63%
- December 2019: 83.39%
- January 2020: 85.17%

Greater Cleveland Regional Transit Authority
## Reduce On-Board Travel Time

<table>
<thead>
<tr>
<th>Trip Length</th>
<th>July 2019 %</th>
<th>Jan. 2020 %</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 15 Mins</td>
<td>20.28 %</td>
<td>24.71 %</td>
<td>4.43 %</td>
</tr>
<tr>
<td>16 - 30 Mins</td>
<td>34.65 %</td>
<td>38.20 %</td>
<td>3.55 %</td>
</tr>
<tr>
<td>31 - 45 Mins</td>
<td>21.15 %</td>
<td>22.28 %</td>
<td>1.13 %</td>
</tr>
<tr>
<td>46 - 60 Mins</td>
<td>11.21 %</td>
<td>9.75 %</td>
<td>-1.46 %</td>
</tr>
<tr>
<td>61 + Mins</td>
<td>12.72 %</td>
<td>5.07 %</td>
<td>-7.65 %</td>
</tr>
</tbody>
</table>
Next Issues to Tackle

• Implementation of Street Routing software
  – Modernizes road speed calculations

• High cancellation rate (35% - 40%)
  – Higher call volumes, longer call wait times, increased overtime, undesirable pick up windows
  – Research and develop solutions/strategies
Case Study – February 7th, 2020

2,517 Trips Scheduled
-913 Trips Cancelled
1,604 Trips Delivered