Analysis of Bus Collision Incidents Using Data Driven Tools in Developing and Building a Safety First Culture

Presented by Harold Wyatt
Overview
Rate Calculation
Data Review
Observations
Next Steps
Bus Accident March 2019
Bus Collision Rate

Measured as the number of collisions involving bus service per 100,000 miles.

\[
\text{( # of collisions) \ (100, 000)}
\]

Mileage
**Bus Collisions per 100K Miles** measured as the number of collisions involving bus service per 100,000 hub miles.
## Preventable Bus Collision Rate Per 100,000 Miles

<table>
<thead>
<tr>
<th></th>
<th>Hamilton</th>
<th>Laredo</th>
<th>Perry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>.83</td>
<td>.58</td>
<td>.91</td>
</tr>
<tr>
<td>Feb</td>
<td>1.49</td>
<td>.99</td>
<td>1.11</td>
</tr>
<tr>
<td>March</td>
<td>1.1</td>
<td>1.08</td>
<td>.98</td>
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![Preventable Collision Rate Graph](graph.png)
October 2018 to December 2018 total collisions = 325

Total Bus Collision Rate = 4.6
Non-Preventable Bus Collision Rate = 2.72
Preventable Bus Collision Rate = 1.44

January 2019 to March 2019 total collisions = 279

Total Bus Collision Rate = 4.04
Non-Preventable Bus Collision Rate = 1.98
Preventable Bus Collision Rate = 1.36
What a Collision Costs

July 2016 to June 2017

981 Claims Average Total Paid = $1600
Average Maintenance Cost = $5300

July 2017 to June 2018

Average Maintenance Cost = $4683
Field Observations

- Rule Violations
- Inconsistent use of Defensive Driving techniques
- Distracted Driving
- Scheduling Issues
- Route Issues
Collision Mapping
(Preventable/Non-Preventable Collisions)
Corrective Action Plan

<table>
<thead>
<tr>
<th>Continue coaching sessions and evaluations with operators</th>
<th>Route Hazard Analysis observations of top five accident routes</th>
<th>Hiring Criteria Line Instructor Re-Certification</th>
<th>Strategic radar and line observation checks</th>
<th>Safety Modules incorporated into training Mentoring Program Operator Safety Recognition</th>
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Collision reduction committee
Weekly contact with operators to deliver safety messages/coaching

Route Analyses/Ride Checks Surveys are performed (Revamped Survey form in Survey Monkey)

Establishing of additional Safety Committees, addressing Safety First Concerns, and HEAT tickets

Collision mapping is being utilized to identify where to perform line observations and hotspots

Progress in FY19
Questions?