Tackling Congestion

Making Safety Part of the Solution

A presentation for discussion with the AMPO Operations Committee

Las Vegas, Nevada
September 29, 2006
Atlanta Region

Atlanta Urban Area
1950-2000
(Generalized)

Intro to Atlanta
Congestion Problem
The Safety Solution
ARC Initiatives
Contact Info
Atlanta Region

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- Over 2,000 square miles
- Current population approximately 4 million
- Will add 2 million more by 2030
The Congestion Problem

- Annual congestion cost = $1.8 billion *
- 4th highest congestion delay per person *
- 52% of congestion caused by incidents *
- Frequently the #1 issue in polls measuring quality of life and economic growth concerns

* Texas Transportation Institute; 2005 Urban Mobility Report
Is Capacity the Solution?
Land for expansion is increasingly scarce and more expensive
The public is much more savvy about transportation planning and better organized to fight projects
Planning and construction can take years (or even decades) to complete
All the capacity in the world is virtually useless when a major incident occurs.
Incidents are responsible for 52% of congestion in the Atlanta region !!!
As a general rule, safety projects and programs are:

- Lower cost
- More cost effective
- Faster to implement
- Less controversial
Changing the Mindset

How do you get planner, engineers, politicians and the public to think about congestion differently?
Changing the Mindset

Take advantage of the negatives of major capacity projects and turn the dialogue in a different direction
Including crash history as a component of the “congestion relief” factor in evaluating projects
Capacity Project Evaluation

- Calculate crash rate per million VMT for each crash type
- Compare to regional average crash rates
- Assign points based on comparison
- Counts for 15% of overall project score
Identification of “most congested” facilities currently uses three dimensional analysis

1. INTENSITY
   How bad does congestion get on a particular roadway?

   MINIMAL  SEVERE
Identification of “most congested” facilities currently uses three dimensional analysis

DURATION
How long do congested conditions last on the roadway?

ROAD “A”
9 TOTAL HOURS

ROAD “B”
4 TOTAL HOURS

NEVER
ALWAYS
Identification of “most congested” facilities currently uses three dimensional analysis

**EXTENT**
From a regional perspective, how many people are impacted by congestion on the roadway?

- FEW
- MANY
CMP Methodology

Will be updated over the next year to include a “reliability” dimension
ARC requires access management plans during PE for STP Urban funded capacity projects
RTP consultants developing materials to help “sell” access management to decision makers
Increasing signal density from two to four per mile results in 40% to 150% increase in number of crashes.
Access Management

Each additional driveway or unsignalized intersection increases the number of crashes by 4%
Raised medians can eliminate a third of all crashes along a roadway
County Safety Profiles

Traffic Crash Profiles for the Atlanta Region

COBB COUNTY

Atlanta Regional Commission

September 2006

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# County Safety Profiles

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Total</th>
<th>Regional Total</th>
<th>% of Regional Total</th>
<th>Regional Ranking (18 Counties)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Crashes</td>
<td>26,742</td>
<td>189,500</td>
<td>14.1%</td>
<td>4</td>
</tr>
<tr>
<td>Fatal Crashes</td>
<td>58</td>
<td>518</td>
<td>11.3%</td>
<td>4</td>
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<tr>
<td>Injury Crashes</td>
<td>6,098</td>
<td>45,754</td>
<td>13.3%</td>
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<tr>
<td>PDO Crashes</td>
<td>20,591</td>
<td>143,229</td>
<td>14.4%</td>
<td>4</td>
</tr>
<tr>
<td>Total Fatalities</td>
<td>62</td>
<td>558</td>
<td>11.2%</td>
<td>4</td>
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<tr>
<td>Total Injured Persons</td>
<td>8,870</td>
<td>68,310</td>
<td>13.0%</td>
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<tr>
<td>Crashes Per 100 Million VMT</td>
<td>415.2</td>
<td>382.5</td>
<td>n/a</td>
<td>4</td>
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<tr>
<td>Pedestrian Crashes</td>
<td>135</td>
<td>1,389</td>
<td>9.7%</td>
<td>3</td>
</tr>
<tr>
<td>Bicycle Crashes</td>
<td>55</td>
<td>378</td>
<td>14.5%</td>
<td>3</td>
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<tr>
<td>Commercial Vehicles Crashes</td>
<td>1,163</td>
<td>8,675</td>
<td>13.4%</td>
<td>4</td>
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<tr>
<td>Crash Costs</td>
<td>$600,413,867</td>
<td>$4,720,152,500</td>
<td>12.7%</td>
<td>4</td>
</tr>
</tbody>
</table>

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![Graph showing crash costs across different counties with regional rankings and percentages. Average crash cost is 382.5.]
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Pedestrian Crashes
SEVERITY
- Fatal Crash
- Non-Fatal Injury
- PDO Crash
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Ongoing Initiatives

CARE crash data software training

- Require detailed analysis of safety problem by sponsor when applying for STP Urban funds
- Provide feedback to GDOT and University of Alabama on potential improvements
Ongoing Initiatives

Continue key role in development of Strategic Highway Safety Plan

- Identify emphasis areas
- Participate on task groups
Develop interactive safety data website

- Enable “on the fly” queries
- Show relationship to congestion, bicycling suitability and planned projects
Continue to advocate for lower cost, less intrusive solutions to problems
Each transportation project should be considered a single step towards solving congestion and safety problems. Good data and honest dialogue keep us heading in the right direction.
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