Transportation Infrastructure Systems Needs and Challenges: Progress Report

Alabama House Speaker Mac McCutcheon

Justice Smyth
Outreach Director

Steven Polunsky
TPRC Director

Shashi Nambisan
Executive Director

July 19, 2018
Why We’re Here

• Alabama’s transportation infrastructure has not kept pace with our population or our economy.

• As a result, it is costing us time, lives, jobs, opportunity, and money.
Fuel Tax Revenues & Population

- Gasoline tax revenues
- Diesel tax revenues
- Population

Revenue [Millions of dollars]
- $0
- $100
- $200
- $300
- $400
- $500
- $600

Population [millions]
- 4.2
- 4.3
- 4.4
- 4.5
- 4.6
- 4.7
- 4.8
- 4.9


ALABAMA TRANSPORTATION INSTITUTE
Fuel Tax Revenues & VMT

Revenue [Millions of dollars]

VMT [billions]

Gasoline tax revenues
Diesel tax revenues
VMT
National Highway Construction Cost Index and Consumer Price Index

March 2003 Index = 1.000

NHCCI  CPI
Fuel Tax Purchasing Power

- Effective Federal Tax
- Effective AL Tax
- Fuel tax rate

Cents per Gallon

Years: 2003 to 2016

Effective Federal Tax:
- 2003: 18.1
- 2004: 16.3
- 2005: 13.6
- 2006: 11.8
- 2007: 11.7
- 2008: 10.9
- 2009: 12.5
- 2010: 12.6
- 2011: 11.9
- 2012: 11.3
- 2013: 11.2
- 2014: 10.7
- 2015: 10.7
- 2016: 10.9

Effective AL Tax:
- 2003: 18.0
- 2004: 16.2
- 2005: 13.6
- 2006: 11.8
- 2007: 11.7
- 2008: 10.9
- 2009: 12.5
- 2010: 12.5
- 2011: 11.9
- 2012: 11.2
- 2013: 11.2
- 2014: 10.7
- 2015: 10.6
- 2016: 10.8

Fuel tax rate:
- 2003: 18.0
- 2004: 16.2
- 2005: 13.6
- 2006: 11.8
- 2007: 11.7
- 2008: 10.9
- 2009: 12.5
- 2010: 12.5
- 2011: 11.9
- 2012: 11.2
- 2013: 11.2
- 2014: 10.7
- 2015: 10.6
- 2016: 10.8
Fuel Efficiency & Consumption

12,000 miles / year

Fleet MPG
Gasoline Used [gal]

ALABAMA TRANSPORTATION INSTITUTE
Projected Revenues: Nominal Dollars

- **Federal Aid**
- **State Funds**
Projected Revenues: Inflation Adjusted

(Based on 2 percent annual inflation)

$8.4 Billion lost to inflation

Federal Aid (Adjusted for inflation)

State Funds (Adjusted for inflation)
Changes Between 1990 and 2015

- Population: 20%
- Vehicles Registered: 46%
- VMT: 57%
- Lane Miles: 14%
Annual Peak Hour Delay Per Commuter in Alabama

2040 Annual Cost of Delay to Commuters: $1.4 billion (in 2010 dollars)

2040 Economic Impact to Alabama: $2.3 billion (in 2010 dollars)

Based on MPO Projections
# ASCE Infrastructure Report Card: 2017

<table>
<thead>
<tr>
<th>State</th>
<th>Bridges</th>
<th>Roads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td>C-</td>
<td>D+</td>
</tr>
<tr>
<td>Arkansas</td>
<td>C+</td>
<td>D+</td>
</tr>
<tr>
<td>Florida</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>Georgia</td>
<td>C-</td>
<td>C-</td>
</tr>
<tr>
<td>Kentucky</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Louisiana</td>
<td>D+</td>
<td>D</td>
</tr>
<tr>
<td>Mississippi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Carolina</td>
<td>C-</td>
<td>C</td>
</tr>
<tr>
<td>South Carolina</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tennessee</td>
<td>B</td>
<td>C+</td>
</tr>
<tr>
<td>Texas</td>
<td>B</td>
<td>D</td>
</tr>
</tbody>
</table>
Alabama’s Annual Road Fatalities

60% of the fatalities occurred in rural areas

Economic impact of crashes on Alabama’s roads = $17.4 Billion in 2015
Five Working Groups

- Revenue and standardization
- Physical infrastructure and safety
- Ports and inland waters
- Technology
- Public policy
• Consider indexing the fuel tax to CPI, CAFE, Highway Construction Cost Index, or an combination of two or more

• City/County split of fuel tax
  o Currently no consensus from cities and counties

• Collection standardization
  o DOR is working to gather data
Indexing the Fuel Tax

States that Currently Index State Motor Fuels Tax to CPI/PPI
- Florida: CPI
- Georgia: CAFE and CPI through July 2018, Only CAFE after July 2018
- Indiana: CPI, set to expire in 2024
- Maryland: CPI
- New York: Producer Price Index for refined petroleum
- North Carolina: CPI for energy costs
- Rhode Island: CPI
- Utah: CPI, starting the year the actual price per gallon reaches $2.45

Legislation Approved for Future Indexed State Motor Fuels Tax
- California: CPI beginning Jan. 1, 2019
- Michigan: CPI starting Jan. 1, 2022
## Recent Gas Tax Increases

<table>
<thead>
<tr>
<th>State</th>
<th>Year</th>
<th>Increase in cents per gallon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alabama</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arkansas</td>
<td>2012</td>
<td>0.5</td>
</tr>
<tr>
<td>Florida</td>
<td>2018</td>
<td>0.3</td>
</tr>
<tr>
<td>Georgia</td>
<td>2015</td>
<td>18.5</td>
</tr>
<tr>
<td>Iowa*</td>
<td>2015</td>
<td>10.0</td>
</tr>
<tr>
<td>North Carolina</td>
<td>2017</td>
<td>4.7</td>
</tr>
<tr>
<td>South Carolina</td>
<td>2017 (phased over six years)</td>
<td>12.0</td>
</tr>
<tr>
<td>Tennessee</td>
<td>2017 (phased over three years)</td>
<td>6.0</td>
</tr>
</tbody>
</table>
Technology Working Group

• Uniform ride sharing policy statewide: bill passed

• Future considerations
  o Disruptive technologies
  o Hybrid and electric vehicles
  o Ownership

• Connected automated vehicles and infrastructure systems (CAVIS)

• Demand and supply considerations
  o Public agencies
  o Individuals
  o Businesses
Physical Infrastructure and Safety Working Group

• Ensure State, County, and Municipal agencies’ stewardship of the taxpayers money in terms of roadway cost, performance, and life

• Improve Safety: reduce crashes and their outcomes
  o Fatalities, injuries, property damage
  o Economic and societal losses

• Build a system that reflects our aspirations

• Provide adequate revenues for transportation

• Improve rural accessibility and mobility
  o Access to opportunities
The Legislature establish a grant program at a minimum of $10 million annually for the State’s waterway ports, both public and private to fund the development and improvement of port and waterway facilities.

Eligible projects must have a benefit-to-cost ratio greater than one, and generate a rate of return to the State of at least 2 percent.

Grant recipient is responsible for funding, as a minimum, 10 percent of the project cost.

Program administered by the Alabama State Port Authority.

An Advisory Board be appointed that has a majority of its representation made up of primarily representatives of the ports to provide recommendations to the grant administrator.
Five alternate scenarios
- Business as usual (current spending trend)
- Preserve the current system (maintenance)
- Keep it from getting worse (performance and maintenance)
- Middle of the pack in southeast
- Best in the southeast

For each scenario
- What would it cost?
- What would we get?

The cost of doing nothing

Greater transparency and accountability
# Outcomes & Schedule

<table>
<thead>
<tr>
<th>Task</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial meetings</td>
<td>Oct. 2017</td>
</tr>
<tr>
<td>Working group meetings</td>
<td>Oct. 2017 - Mar 2018</td>
</tr>
<tr>
<td>Progress report to legislature and stakeholders</td>
<td>March 2018</td>
</tr>
<tr>
<td>Continue efforts with working groups</td>
<td>~ Monthly 2018 - …</td>
</tr>
<tr>
<td>Updates to legislature and stakeholders</td>
<td>Quarterly 2018 - …</td>
</tr>
</tbody>
</table>

- Local and regional outreach: April to October 2018
- Legislative briefings: November to December 2018
Next Steps

• Comments and concerns?
• Guidance from Speaker McCutcheon
Alabama Transportation Institute:

A Resource for Alabama...

Justice Smyth, Outreach Director
E-mail: justice.smyth@ua.edu

Steven Polunsky, TPRC Director
E-mail: polunsky@ua.edu

Shashi Nambisan, Executive Director
E-mail: shashi@ua.edu