



# Transportation Needs and Funding Options

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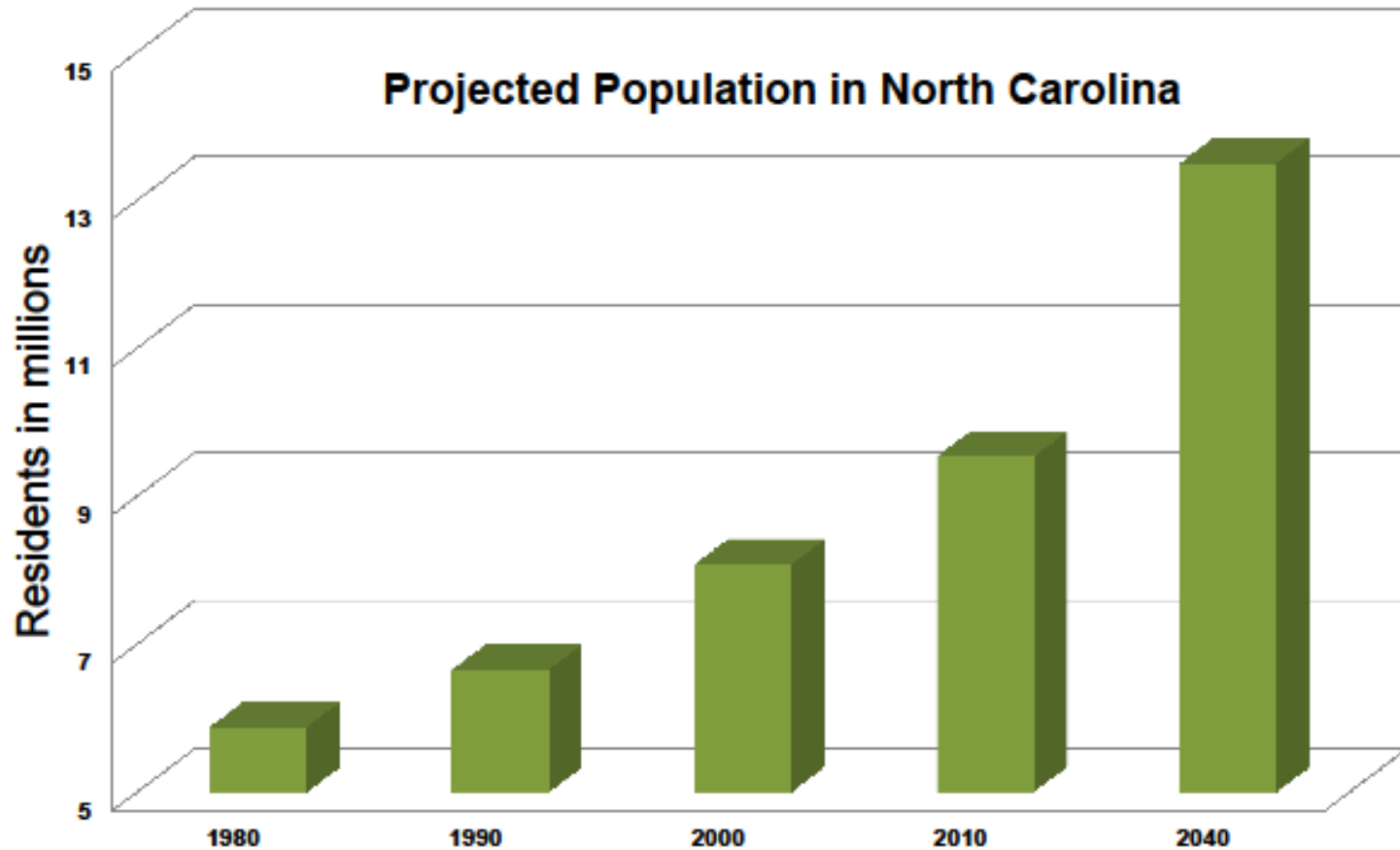
# AGENDA

- ☐ Review of Challenges facing North Carolina
- ☐ Review of Transportation Finance Options
- ☐ Review of Transportation Revenue Options



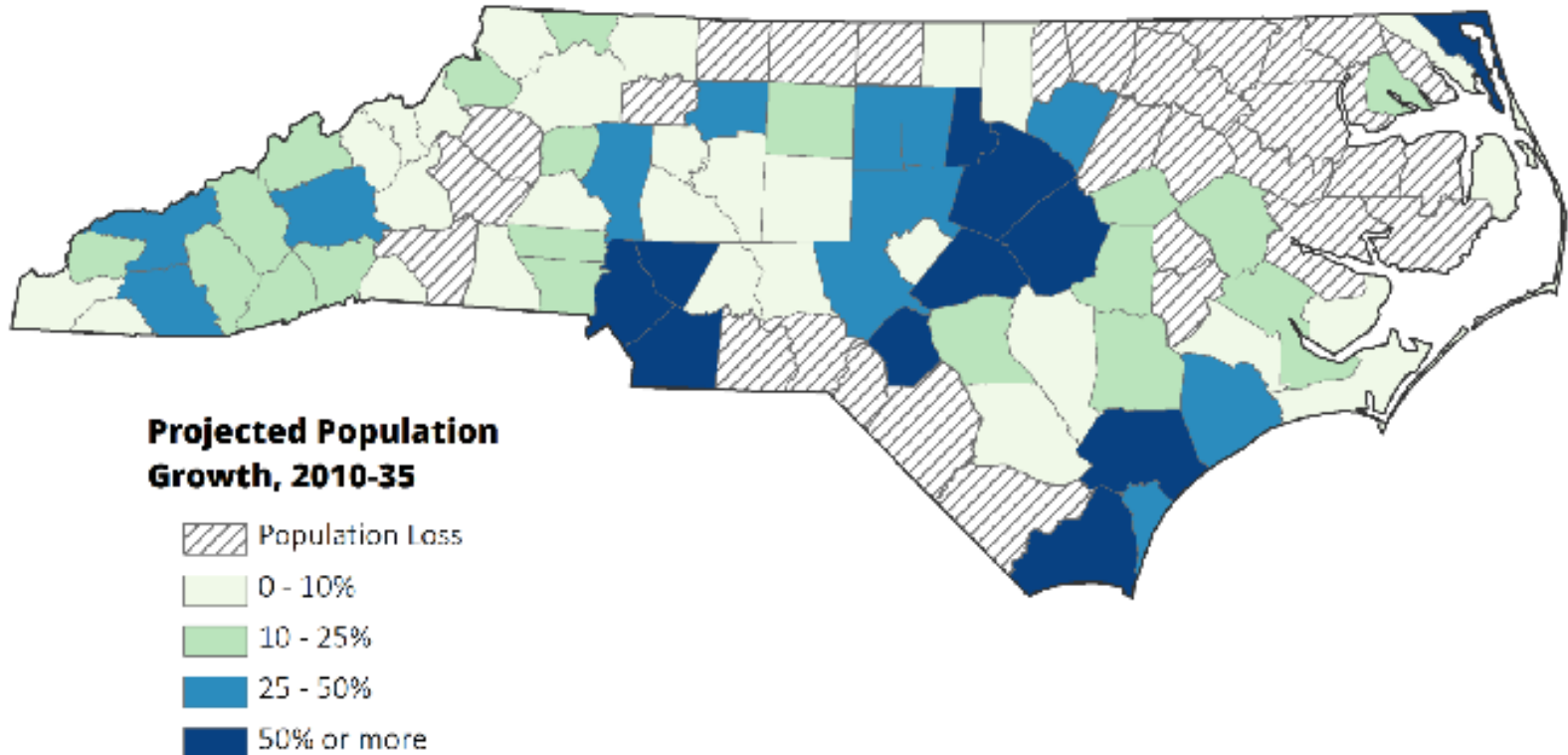
# Review of Challenges facing North Carolina

## *2040 Population Growth*



# Population growth will be uneven across North Carolina

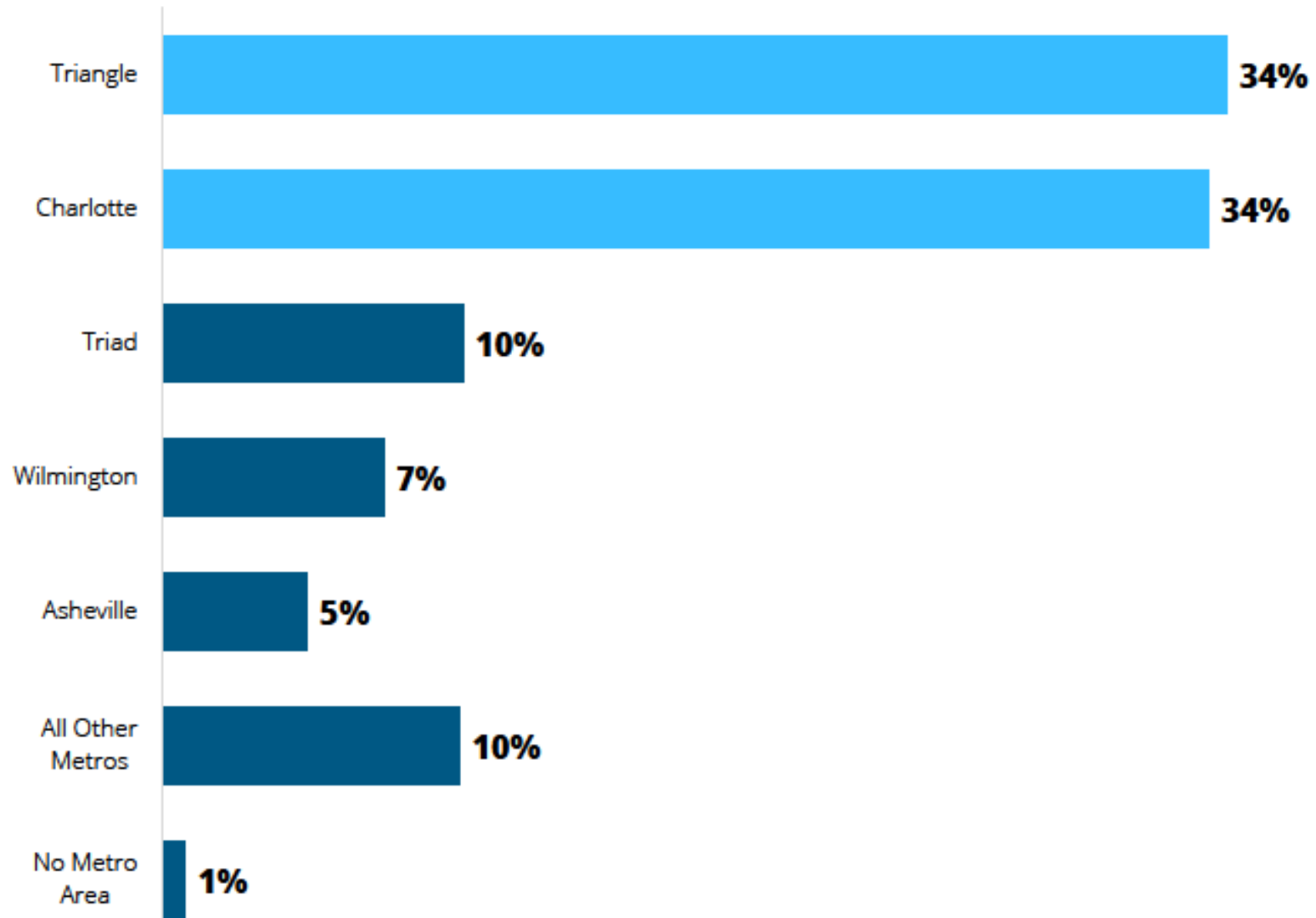
*Projected population growth, 2010-2035*



Data Source: NC OSBM

## Two-thirds of NC growth projected to occur in Triangle or Charlotte

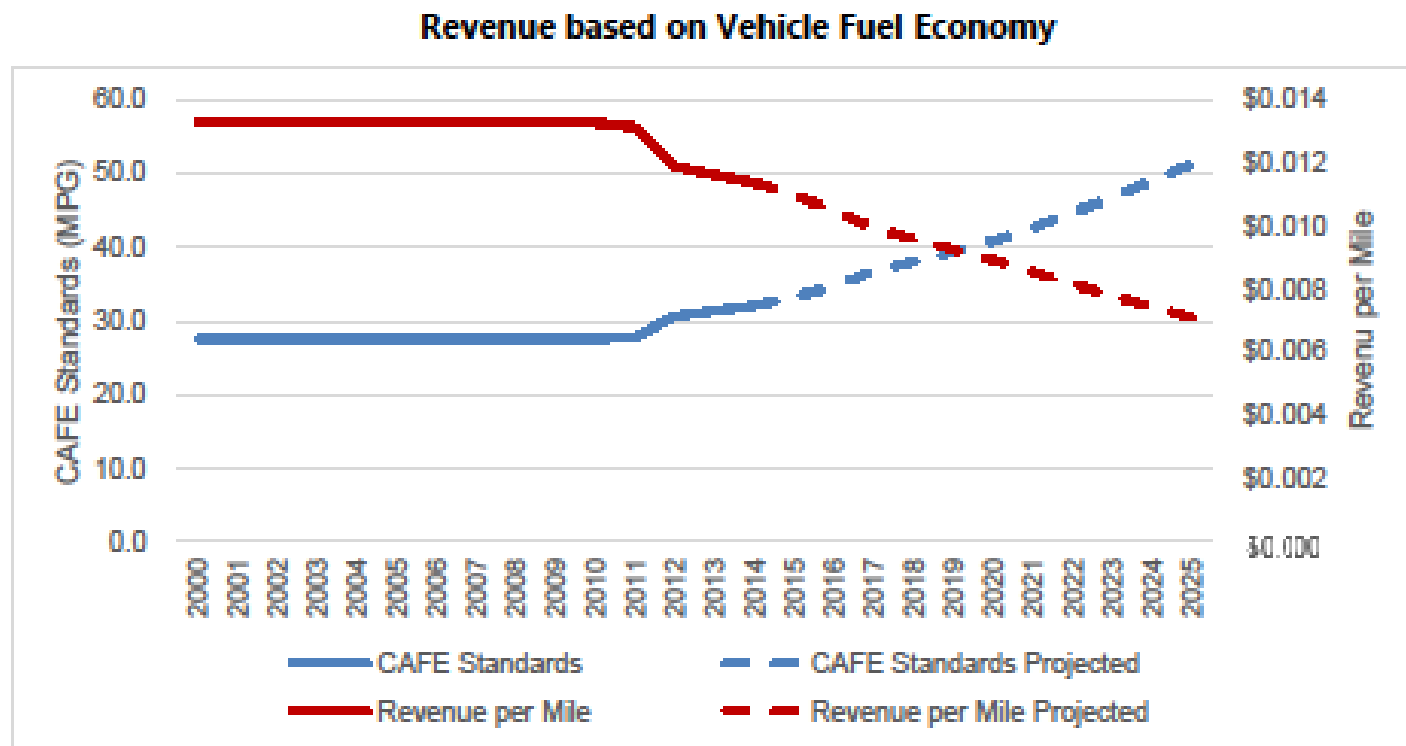
*Projected share of 2010-2035 state population growth for select North Carolina metropolitan areas*



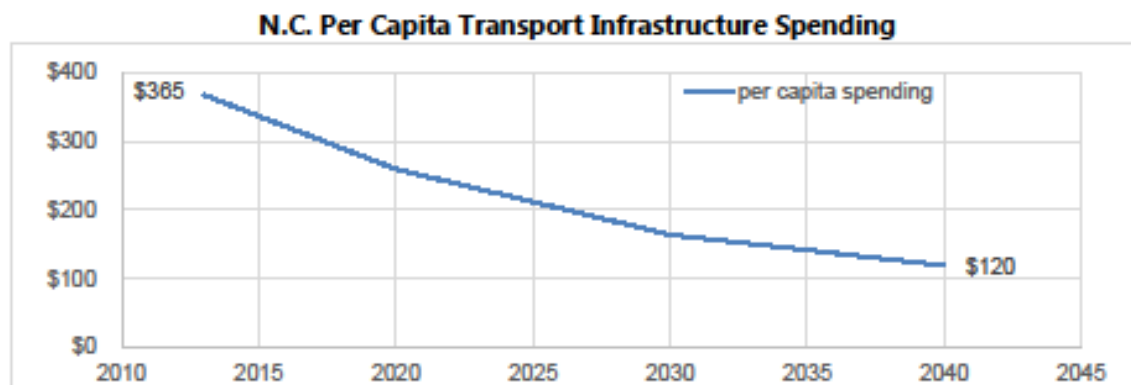
Data Source: NC OSBM

## CAFÉ Standards

- 2016 – 35.5 mpg
- 2025 – 54.5 mpg

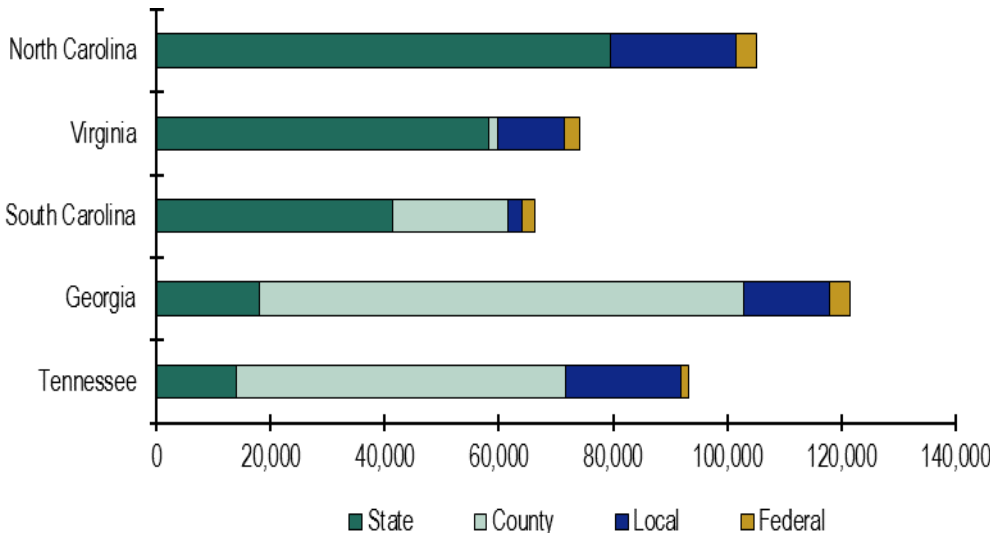


Source: Derived from Environmental Protection Agency, October 2012.

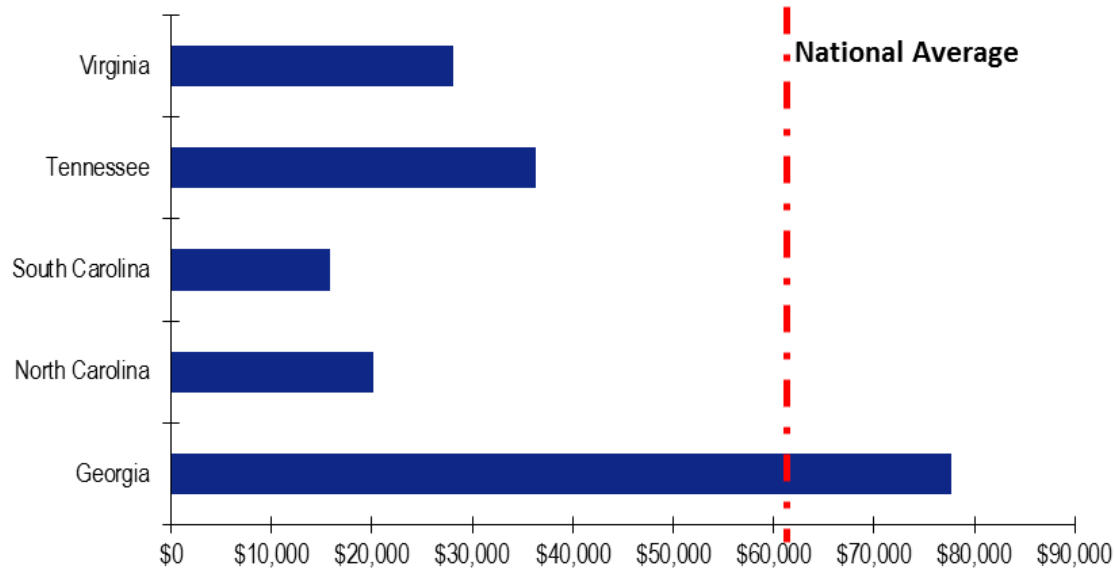


Source: Institute for Transportation Research and Education.

# Mileage of Roads

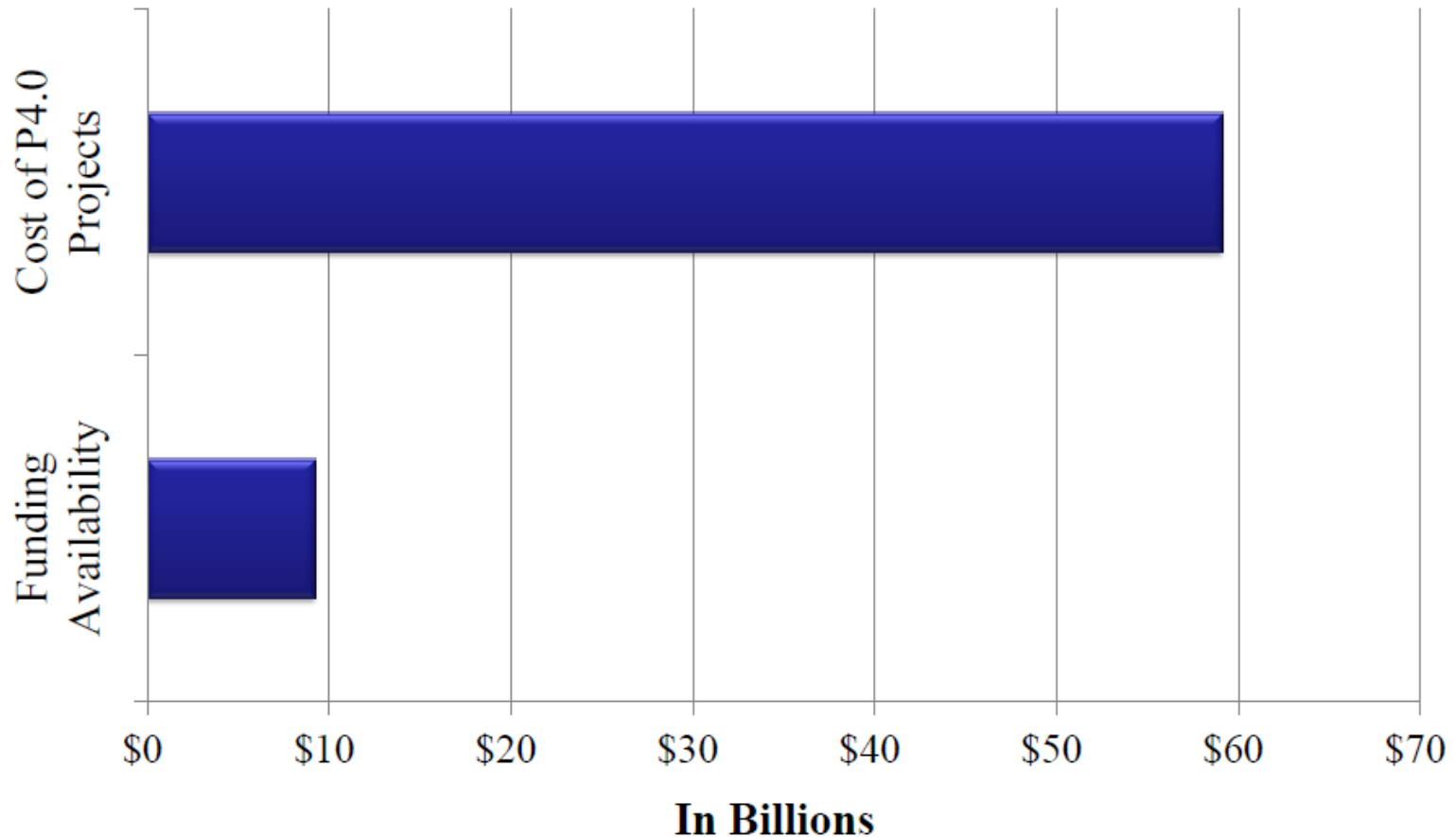


# State Investment Per Lane-Mile





# Is STIP Funding Sufficient?



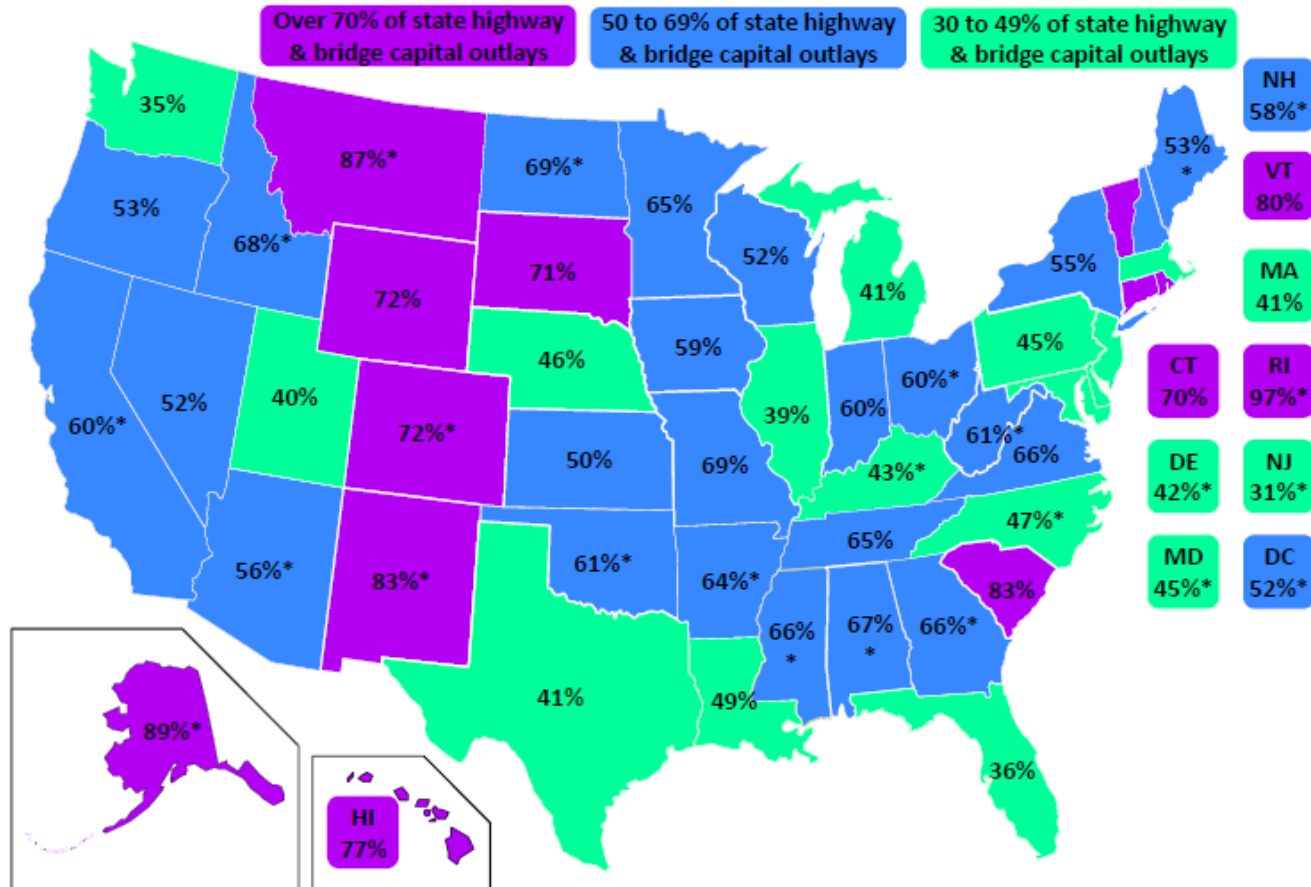
# Two Snapshots of MPO Programs

FBRMPO STI SPOT Prioritization 3.0 Outcome		Percent Funded
Statewide Projects Submitted	\$1,115,193,000	
Statewide Projects Funded in 2016-2025 STIP/TIP	\$707,081,000	63.4%
Regional Projects Submitted	\$1,024,360	
Regional Projects Funded in 2016-2025 STIP/TIP	\$79,367,000	
Division Projects Submitted	\$798,337,000	
Division Projects Funded in 2016-2025 STIP/TIP	\$44,098,000	
Total FBRMPO Project Needs based on STI SPOT 3.0		\$2,937,896,138
Total Projects Funded in 2016-2025 STIP/TIP	\$830,546,000	28.3%
Unfunded Project Needs	\$2,107,350,138	71.7%

Funding Tier	P3.0 Outcome	Percent Funded
Statewide Projects Submitted	\$4,528,364,501	29.2
Statewide Projects Funded in 2016-2025 STIP/TIP	\$1,320,602,000	
Regional Projects Submitted	\$1,672,104,490	14.0
Regional Projects Funded in 2016-2025 STIP/TIP	\$233,783,000	
Division Projects Submitted	\$1,148,598,613	8.9
Division Projects Funded in 2016-2025 STIP/TIP	\$101,866,000	

# Federal funds, on average, provide 52% of annual State DOT capital outlays for highway & bridge projects



Source: ARTBA analysis of FHWA Highway Statistics data, total ten year average 2004-2013 from tables SF-1 and SF-2. The percent is the ratio of federal aid reimbursements to the state and total state capital outlays and is indicative of the importance of the federal aid program to state capital spending for highways and bridges. Does not include local capital spending. Federal highway reimbursements are primarily used for capital outlays, including construction, right of way and engineering, but are also used for debt service for GARVEE bonds.

\* States that have issued GARVEE bonds before 2013.

**ARTBA** American Road & Transportation Builders Association

# Summary of Challenges

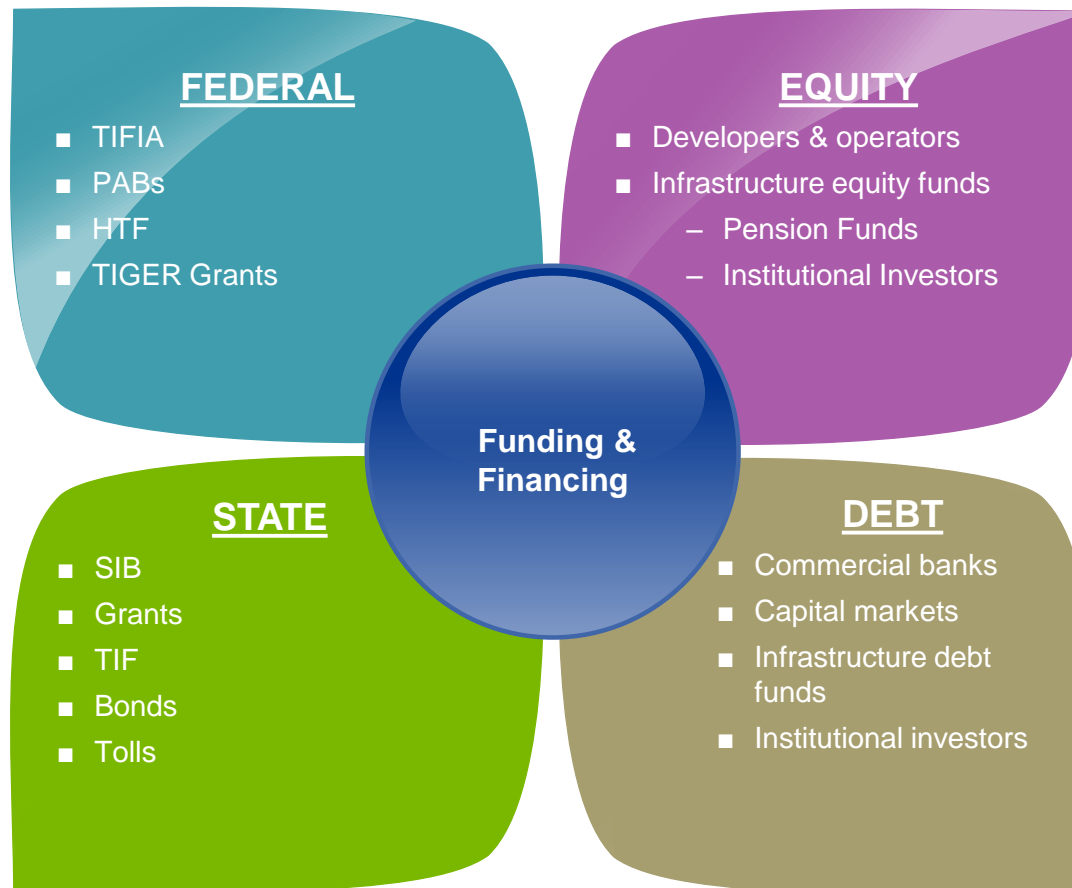
- Population growth will increase demand
- Demand growth and types of demand will not be uniform
- Heavy dependence on existing revenue structures will produce diminishing capabilities in all modes

In 1921, responding to public demand for better roads, the legislature passed the historic Highway Act, which included a one-cent-per-gallon tax on gasoline to help finance hard-surface, all-weather highways. By 1929 the legislature had raised the gas tax to five cents per gallon and authorized \$150 Million in Bonds. These funds allowed the state to pave more than three thousand miles of hard-surface (concrete or asphalt) highways connecting the county seats and state attractions. Because of these achievements, North Carolina developed a national reputation as the Good Roads State.



# Review of Transportation Finance Options

# Variety of financing mechanisms for transportation projects



# State Level Financing Mechanisms

State-Level Finance Mechanism	Authorization and Use		Eligible Transportation Activities							Citations and Additional Details
	Authorized by state constitution or statute	In current use	Roads and bridges	Public transit	Rail	Airports and aviation	Ports and waterways	Pedestrian and bicycle projects	Other	
General obligation bonds		•	•							Highway Bonds; authorized in session law, not statute
Revenue bonds	•	•	•							North Carolina Turnpike Authority (N.C. Gen. Stat. §136-89.189)
Build America Bonds		•	•							Issued in 2010 by the North Carolina Turnpike Authority; authorized in session law, not statute
GARVEE bonds	•	•	•							Authorized in state statute; debt service is capped at 15 percent of expected average annual Federal revenue (N.C. Gen. Stat. §136-18); most recently issued in 2015
Private activity bonds	•	•	•							Authorized in statute for public-private partnerships (N.C. Gen. Stat. §136-18); issued
Federal credit assistance: TIFIA		•	•							Active loan(s), used for highway projects

# State Level Finance Mechanisms

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Advance construction		•	•							
Partial conversion of advance construction		•	•							
Federal-aid matching: tapered match		•	•							
Design-build	•	•	•	•	• Pas- senger and freight	•	•	•		Authorized in statute; not restricted by mode (N.C. Gen. Stat. §136-28.11); used for several road projects
Public-private partnerships	•	•	•	•	• Pas- senger and freight	•		•		Authorized in statute for a limited number of projects; various transportation modes are eligible (N.C. Gen. Stat. §136-18, §§136-28.6 et seq., §§136-89.180 et seq.); used by the state for at least two road projects
State infrastructure bank	•	•	•	•						Capitalized with Federal funds; may be used for highway or transit projects (N.C. Gen. Stat. §136-18)



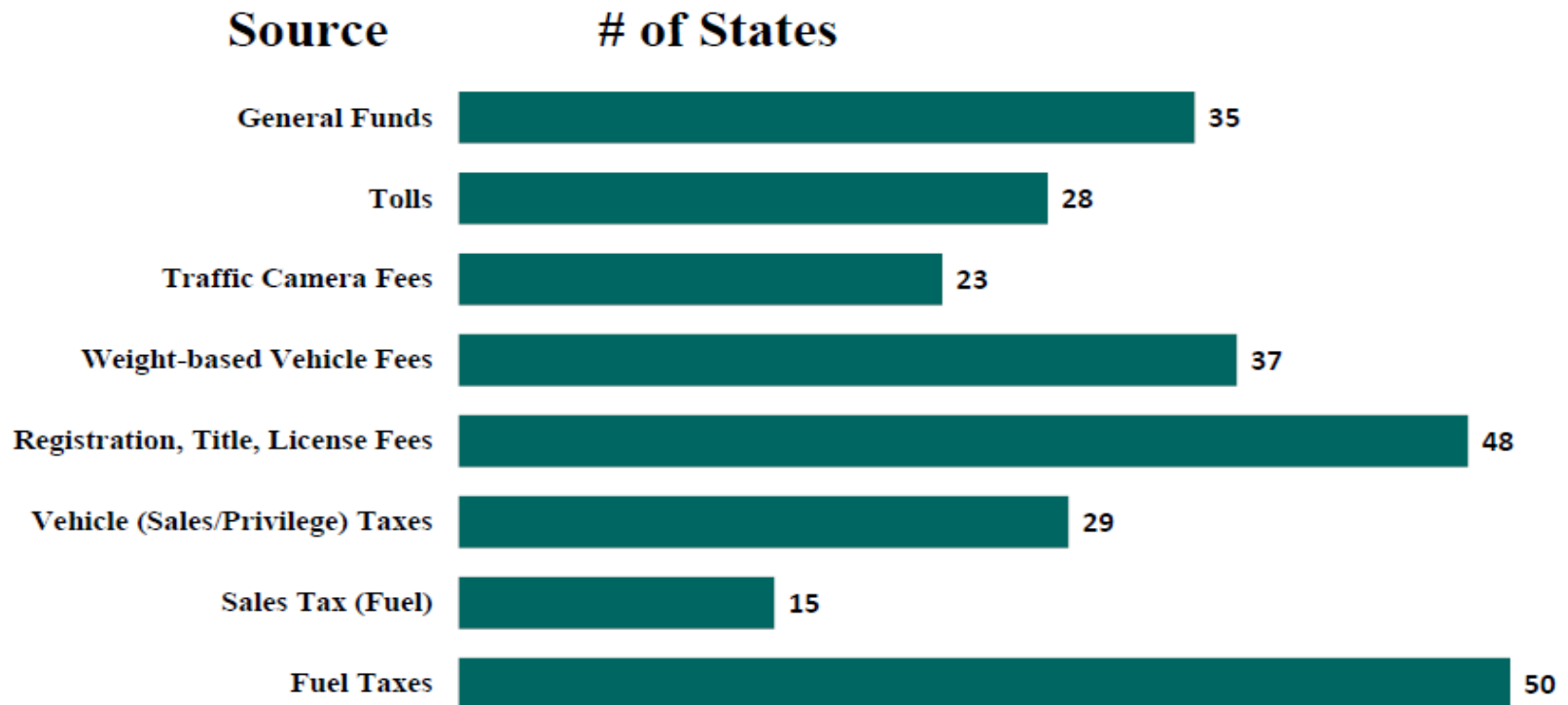
# \$2 Billion Issued Over Four Years

<b>Exceed 6% of Highway Revenue</b>	<b>No</b>
<b>Year with Highest Debt Service Ratio</b>	<b>2023</b>
<b>Highest Debt Service Ratio Percentage</b>	<b>5.75%</b>
<b>Future Capacity within 6% Limit</b>	<b>Total of \$120.8M over the next 5 years</b>



# Review of Transportation Revenue Options

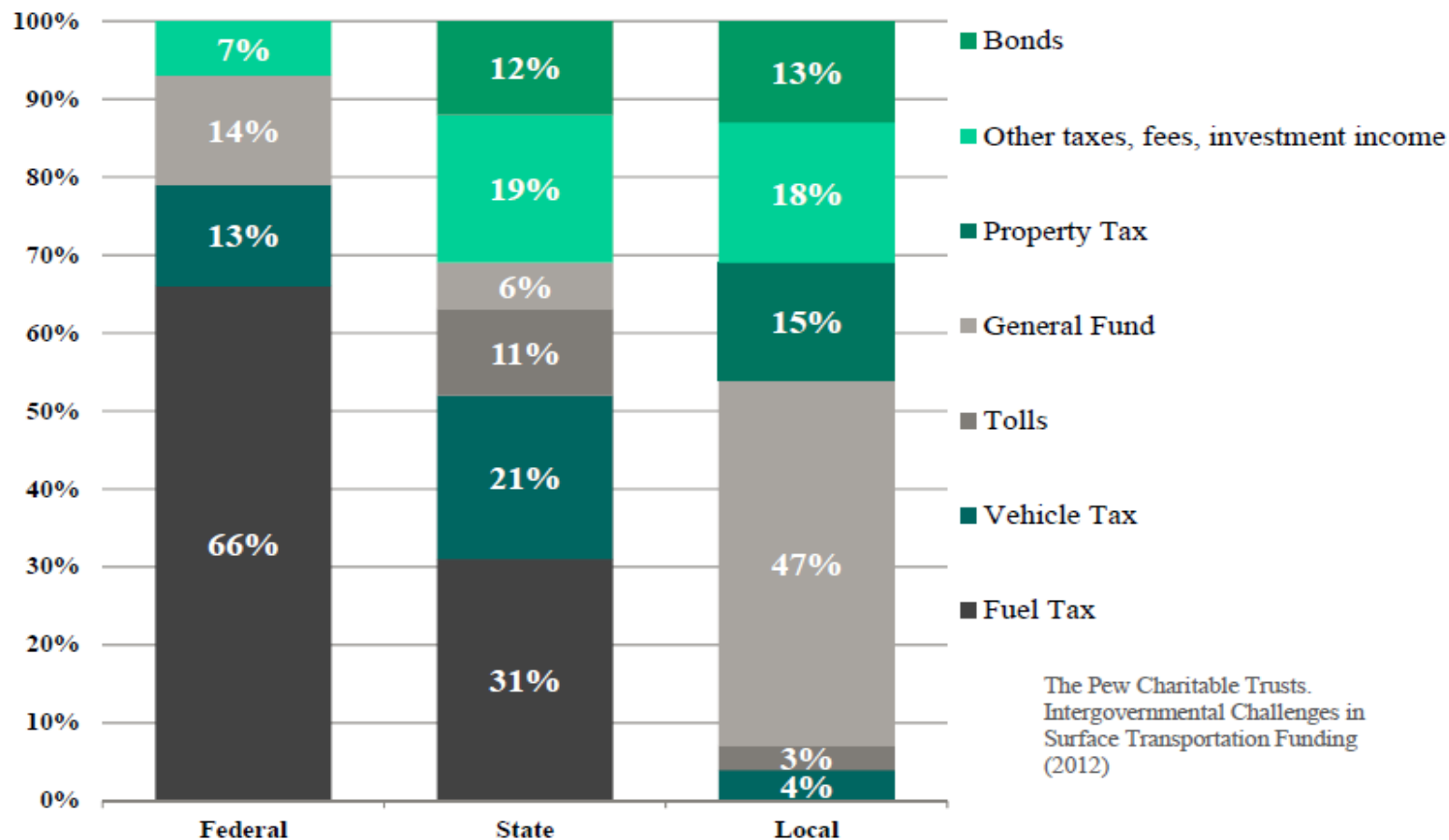
## Which revenue sources are most commonly used?



National Conference of State Legislatures & AASHTO  
Center for Excellence in Project Finance. Transportation  
Governance and Finance Report. 2011



## How reliant are *states* on these sources?



## Which sources aren't used in North Carolina?

**General Funds** (Alabama, Alaska, Arizona<sup>M</sup>, Arkansas<sup>M</sup>, Colorado, Connecticut, Delaware\*, Georgia<sup>M</sup>, Illinois<sup>M</sup>, Kansas, Kentucky<sup>M</sup>, Louisiana, Massachusetts, Minnesota<sup>M</sup>, Missouri<sup>M</sup>, Nebraska\*, Nevada, New Hampshire<sup>M</sup>, New Jersey, New York, North Dakota<sup>M</sup>, Ohio<sup>M</sup>, Oklahoma, Oregon<sup>M</sup>, Pennsylvania<sup>M</sup>, Rhode Island<sup>M</sup>, South Carolina\*, South Dakota<sup>M</sup>, Texas, Utah, Vermont\*, Virginia, West Virginia<sup>M</sup>, Wisconsin\*, Wyoming)

**Impact Fees** (Alabama, Arizona, Arkansas, California<sup>L</sup>, Colorado, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Maine, Montana, New Mexico, Oregon, Pennsylvania, Rhode Island, South Carolina, Texas, Utah, Vermont, Virginia, Washington<sup>L</sup>, West Virginia)

**State Sales Tax** (Colorado<sup>M</sup>, Indiana<sup>M</sup>, Kansas, Maryland, Massachusetts, Michigan (auto-related products), New Jersey, Pennsylvania<sup>M</sup>, Texas (motor lubricants), Utah<sup>M</sup>, Virginia)

**State Lottery/Gaming** (Arizona<sup>M</sup>, Colorado, Iowa (casinos)<sup>M</sup>, New Jersey, Oregon<sup>M</sup>, Pennsylvania<sup>M</sup>)

**Weight-Distance Tax** (Kentucky, New Mexico, New York, Oregon)

**Ad Valorem Tax** (Arkansas<sup>M</sup>, Nevada)

**Fines** (Minnesota, Maine, Texas)

**Container Fees** (Maryland, Oregon, Wyoming)

**Vehicle Miles Traveled** (Oregon (pilot))

**Documentary Revenue Stamp** (Florida), **Regional Payroll Tax** (New York), **Oil Company Tax** (New York), **Tobacco Tax** (Oregon)<sup>M</sup>, **Mass Transit Tax** (Oregon)<sup>M</sup>, **Tire Tax** (Pennsylvania), **Mineral Royalties & Mineral Severance Tax** (Wyoming), **Train Mile Tax** (Nebraska)

# How are other states responding to their funding needs?

*24 states enacted revenue increases between 2012 and 2016.*

**Supplemented funding from the General Fund or increased general sales taxes for transportation.**

Idaho, Indiana, Michigan, Texas, Arkansas, Virginia

**Increased motor fuel tax rate(s) on a cents-per-gallon basis.**

Georgia, Kentucky, Massachusetts, Michigan, Nebraska, New Hampshire, New Jersey, Rhode Island, South Dakota, Utah (diesel, natural gas, hydrogen), Vermont (diesel), Washington, Wyoming

**Indexed motor fuel tax rate(s) to inflation.**

Maryland, Massachusetts, Utah

**Increased vehicle sales taxes and/or registration, license, and weight-based fees.**

Delaware, Georgia, Idaho, Iowa, Michigan, Pennsylvania, South Dakota, Virginia, Washington

**Converted from a cents-per-gallon basis to a sales tax on motor fuels, or added a sales tax.**

Pennsylvania, Utah, Virginia, Maryland, Vermont

**Authorized additional debt financing.**

Arkansas, Indiana, Ohio, Rhode Island, Vermont

**Authorized local option sales taxes for transportation.**

Georgia, Indiana, South Dakota, Utah, Virginia, Washington



# Summary and Observations

## Challenges and Opportunities

- Growth will provide continued pressure on transportation delivery and resources
- NC has experience with a wide variety of financing mechanisms
  - GARVEE and Toll Revenue Bonds have highest utilization
  - New GO Bond Authority
  - SIB Expansion
- NC utilizes a variety of revenue sources
  - Provided examples of other states
  - Few new potential sources and emerging opportunities
  - Driving question is the right scale or magnitude for each source
  - Motor Fuels Revenue has highest uncertainty in the long term – causing the greatest challenges at Federal and State levels
- Great examples of State Revenue & Finance Models examined

