

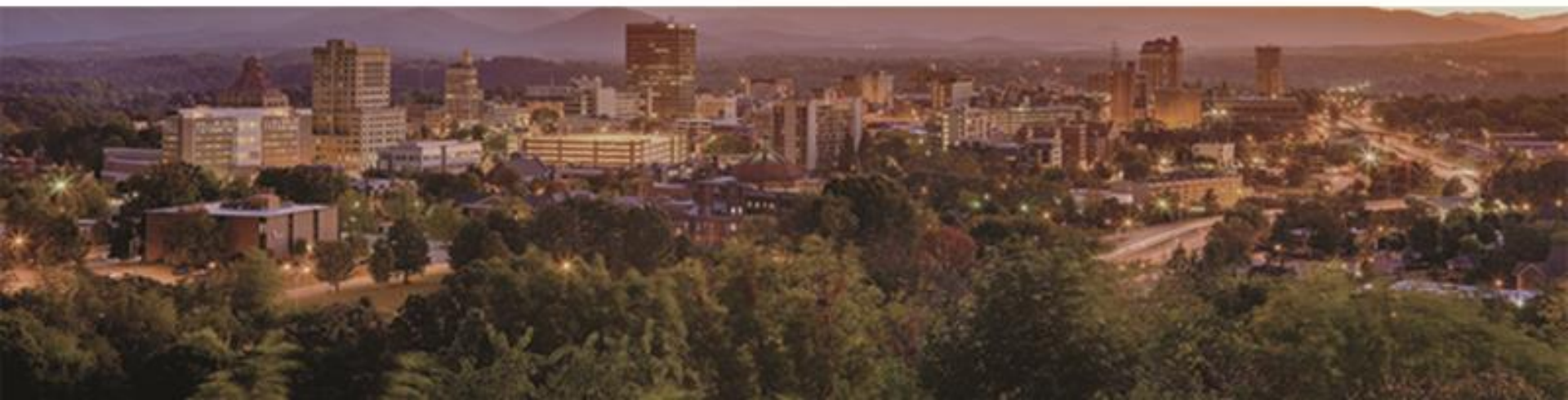


## House Select Committee on Strategic Transportation Planning and Long Term Funding Solutions

### Transportation Revenues, 2040 Plan

H. Tasaico, Patrick Norman

February 1, 2016



# Transportation Funding and Needs Presentations Outline

## Revenue Forecasting (Tasaico)

- Infrastructure Funding
- Vehicle Ownership Cost
- State & Federal (historical and projected)
- Benchmarking

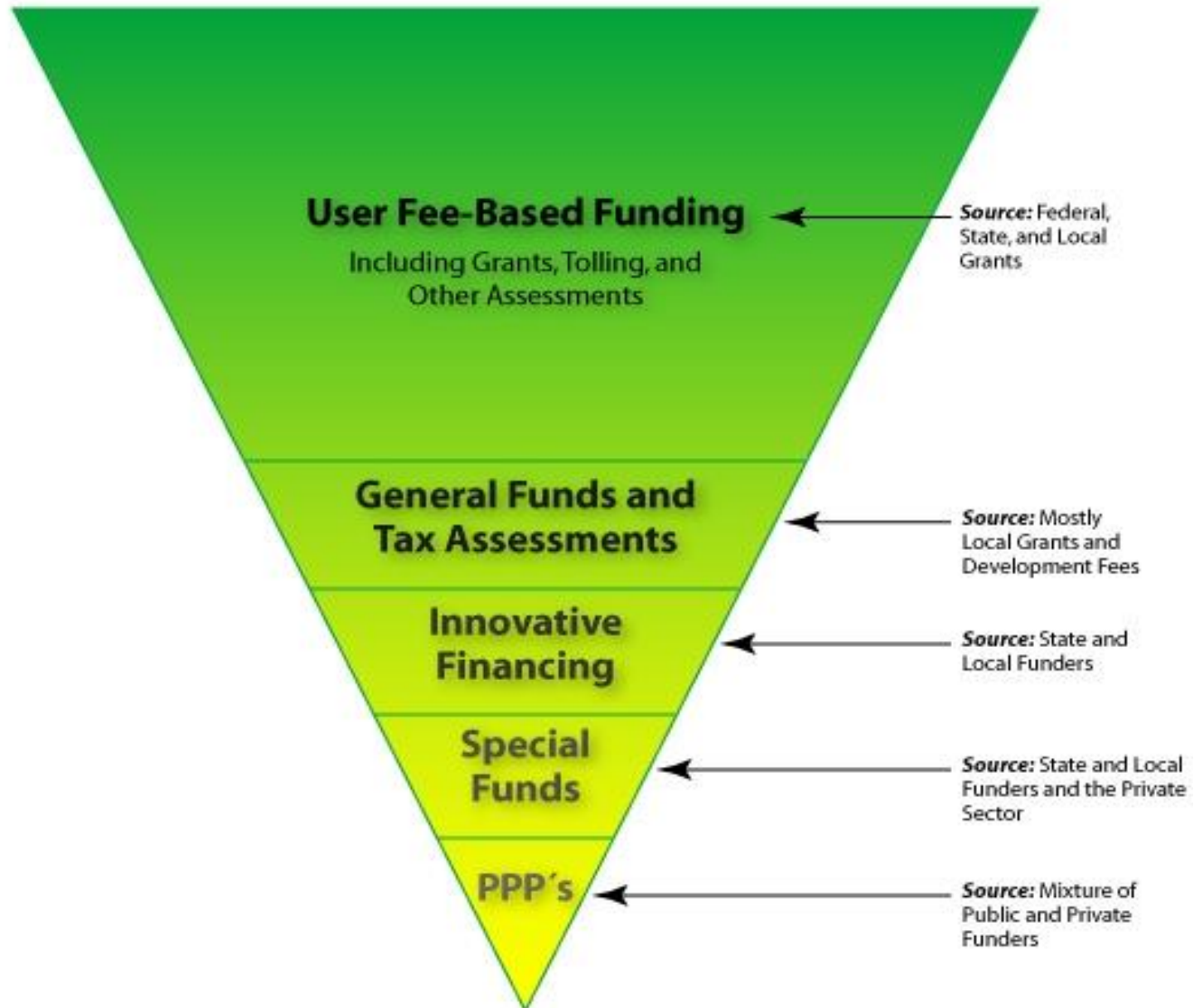
## Transportation Needs (Norman)

- 2040 Plan

## Transportation Funding (Tasaico)

- Other States
- Studies (national and NC)
- 2015 Enacted Changes
- Transportation Revenue not used in NC

# Funding for Infrastructure Projects



# Vehicle Ownership - \$7,100/year

2014 Edition

**AAA**

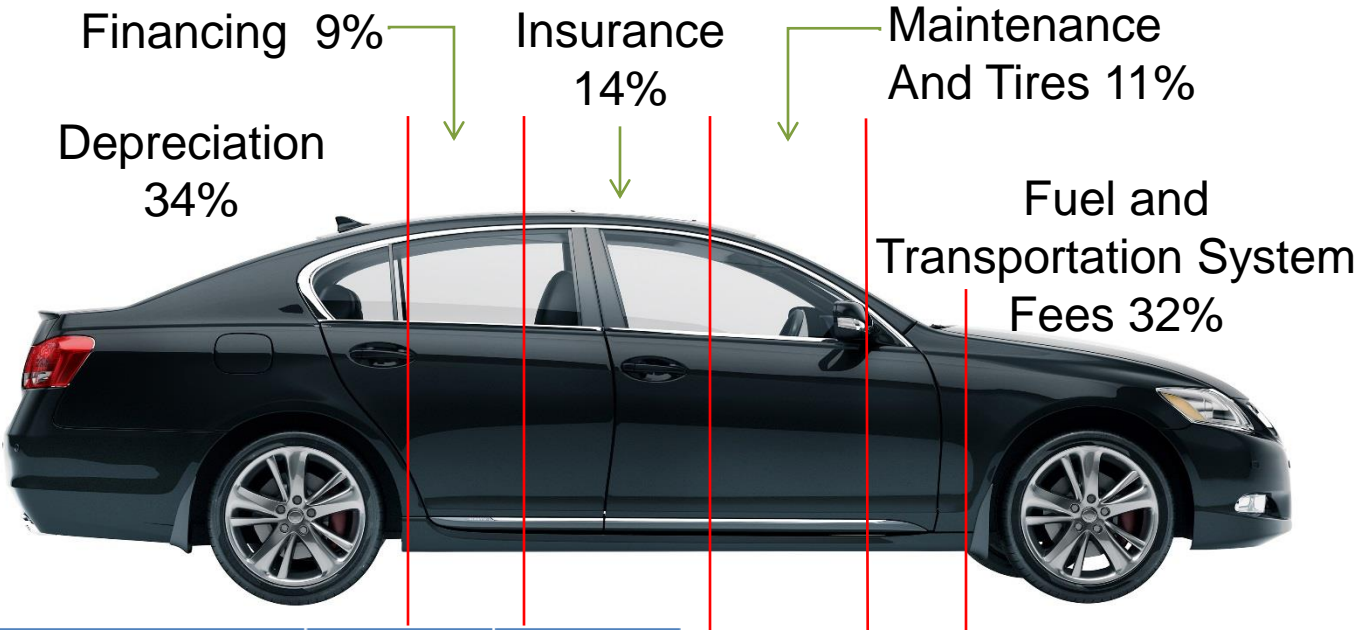
**YOUR DRIVING COSTS**

How much are you really paying to drive?



**nc** North Carolina Chamber  
A force for business.

**ITRE**



Transportation System Fees (9%)	%	Annual
Fuel Taxes	66	\$422
DMV Fees	15	\$96
Civil Penalties	1	\$6
Highway Use Tax	13	\$83
Other	5	\$32
Total		\$640



# Present Funding

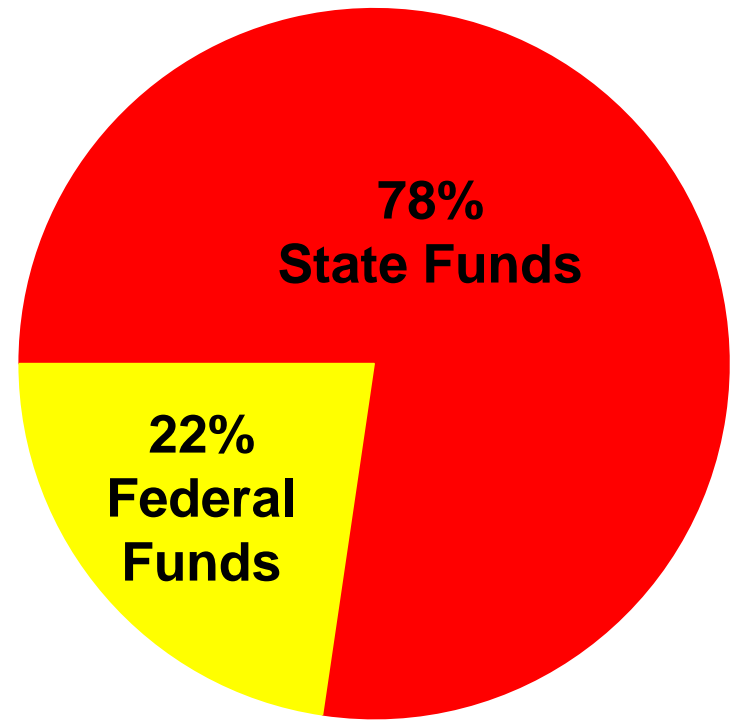
## State Funding



Motor Fuel Tax  
55%

Highway  
Use Tax  
20%

Fees  
25%



## Federal Funding (since 2008)

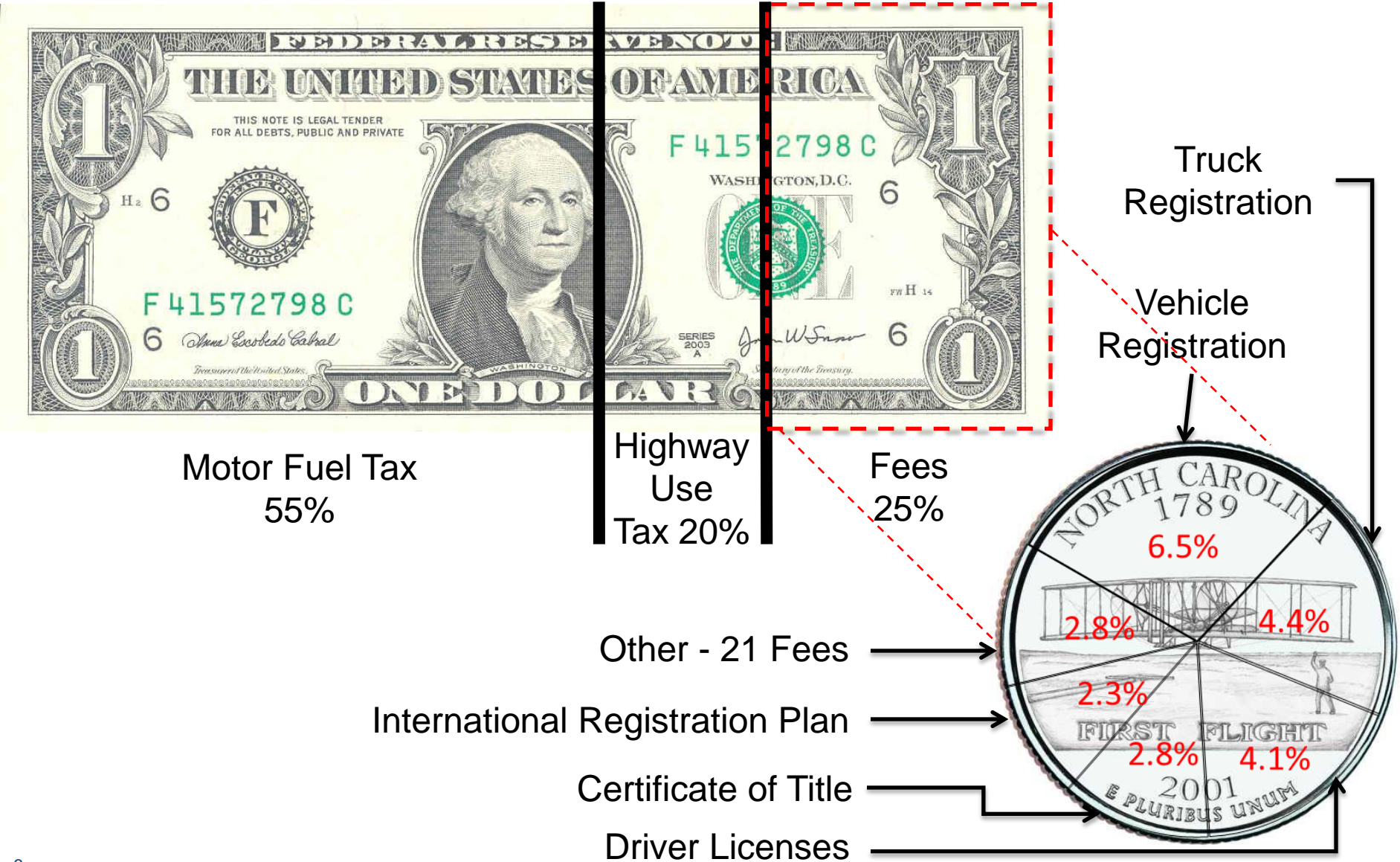


Motor Fuel Tax 70%

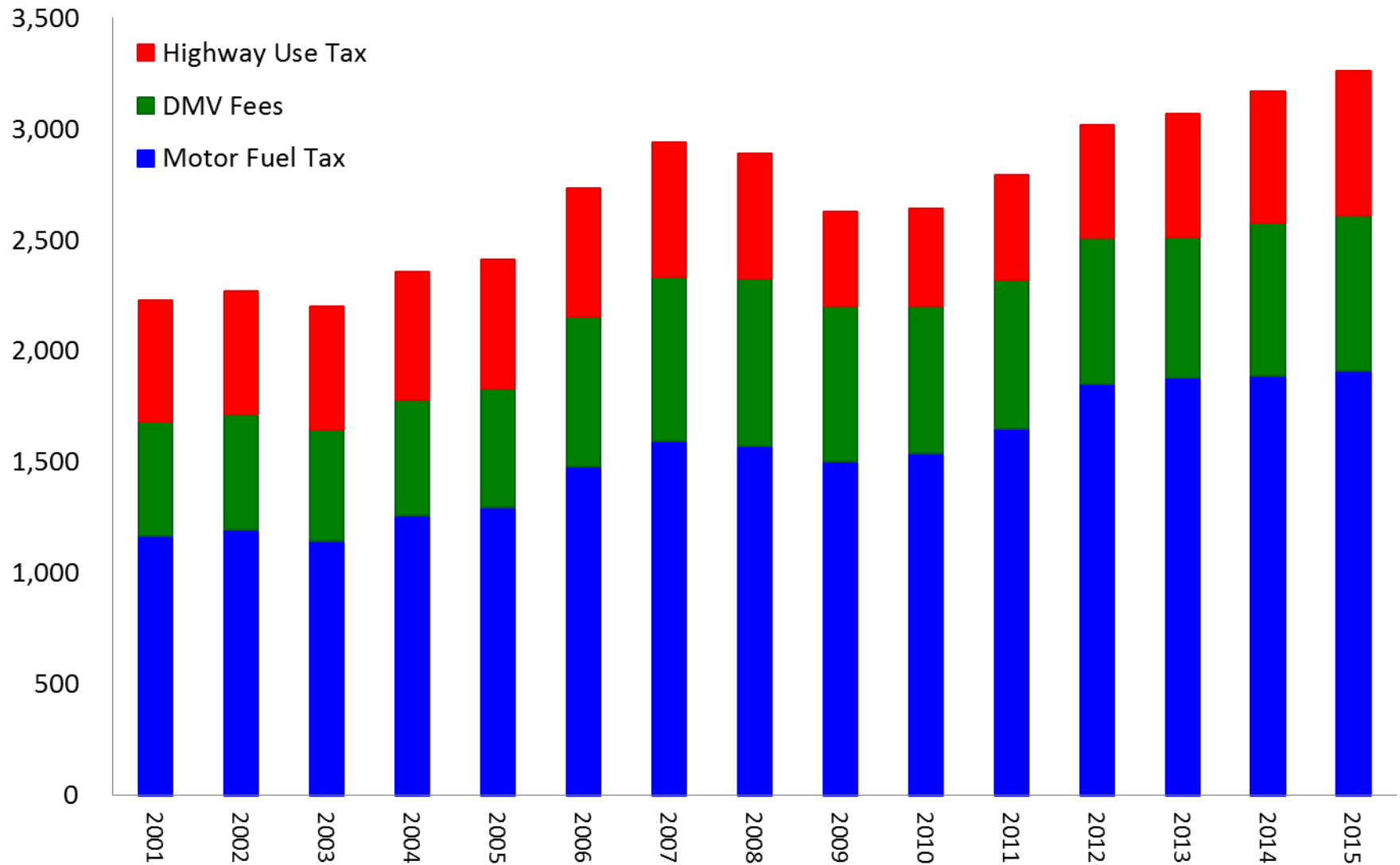
Fees 10%  
General Fund 20%

- No Political Appetite for National Solutions
- Up to States to Fix

# State Revenue Sources



# Transportation Revenue Sources (2001 – 2015)



# Legislative Session 2015 – Funding

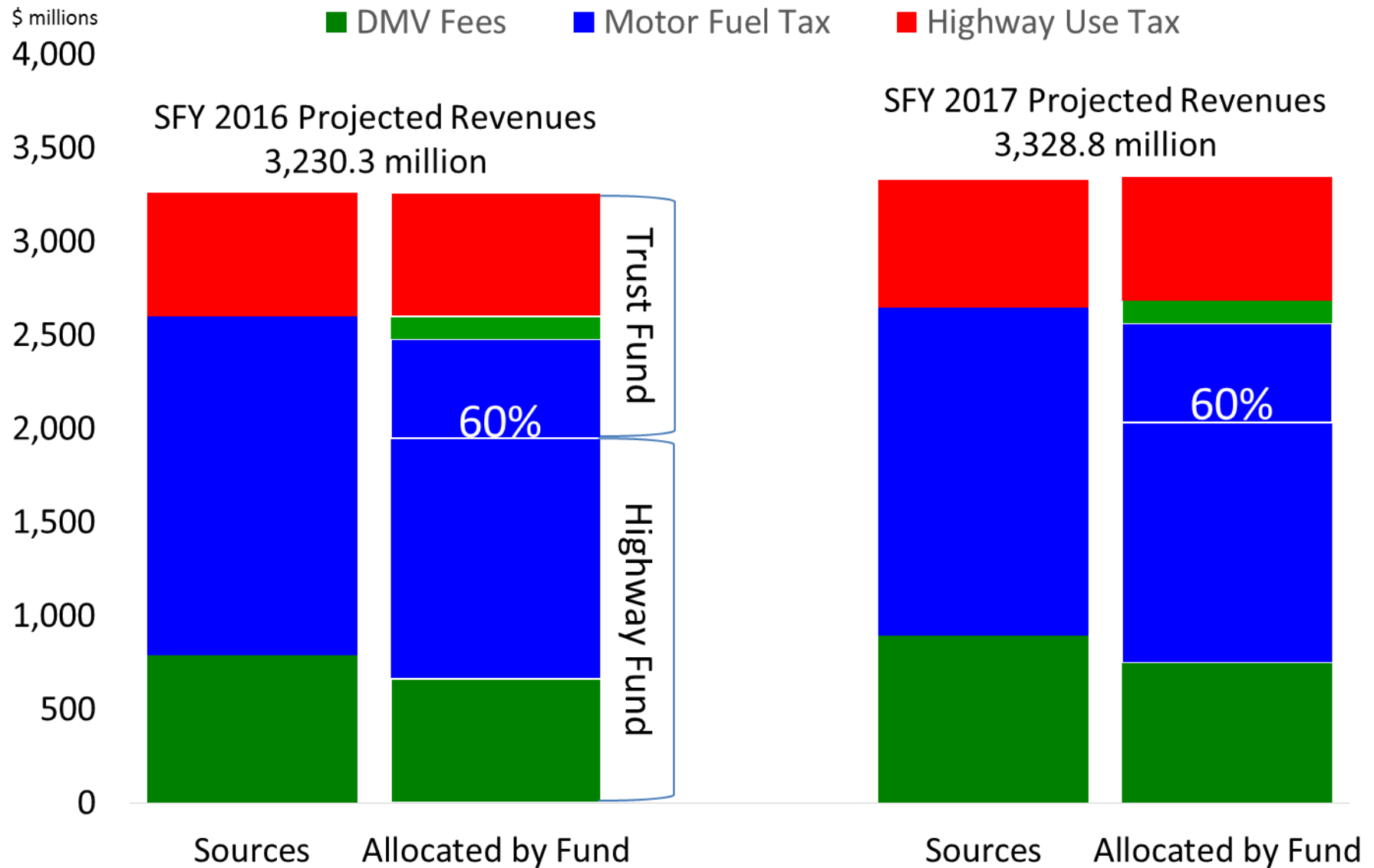
- Session Law 2015-2 (SB 20)
  - Changed variable motor fuel tax rate formula to be based weighted change rate of Population (75%) and CPI-Energy (25%) starting January/2018 on a 34.0 cpg base
- Session Law 2015-241 (HB 97)
  - \$273 M in new revenues
    - Increases most DMV fees by 30%
    - Adjust DMV fees every 4 years based on CPI
    - Increased some Highway Use Tax Caps
    - Reduces motor fuel tax deductions
  - \$435 M in increased budget availability (not revenues) by stopping General Fund Transfer
- Changes Motor Fuel Tax Revenue Distribution
  - From 75% to Highway Fund\* and 25% to Highway Trust Fund\*\*
  - To 71% Highway Fund and 29% to Highway Trust Fund
- Increases State Transportation Revenues used for Transportation
  - From 85% in 2008
  - To 99.5+% in 2016 forward

\* Highway Fund is for Maintenance and Operations activities

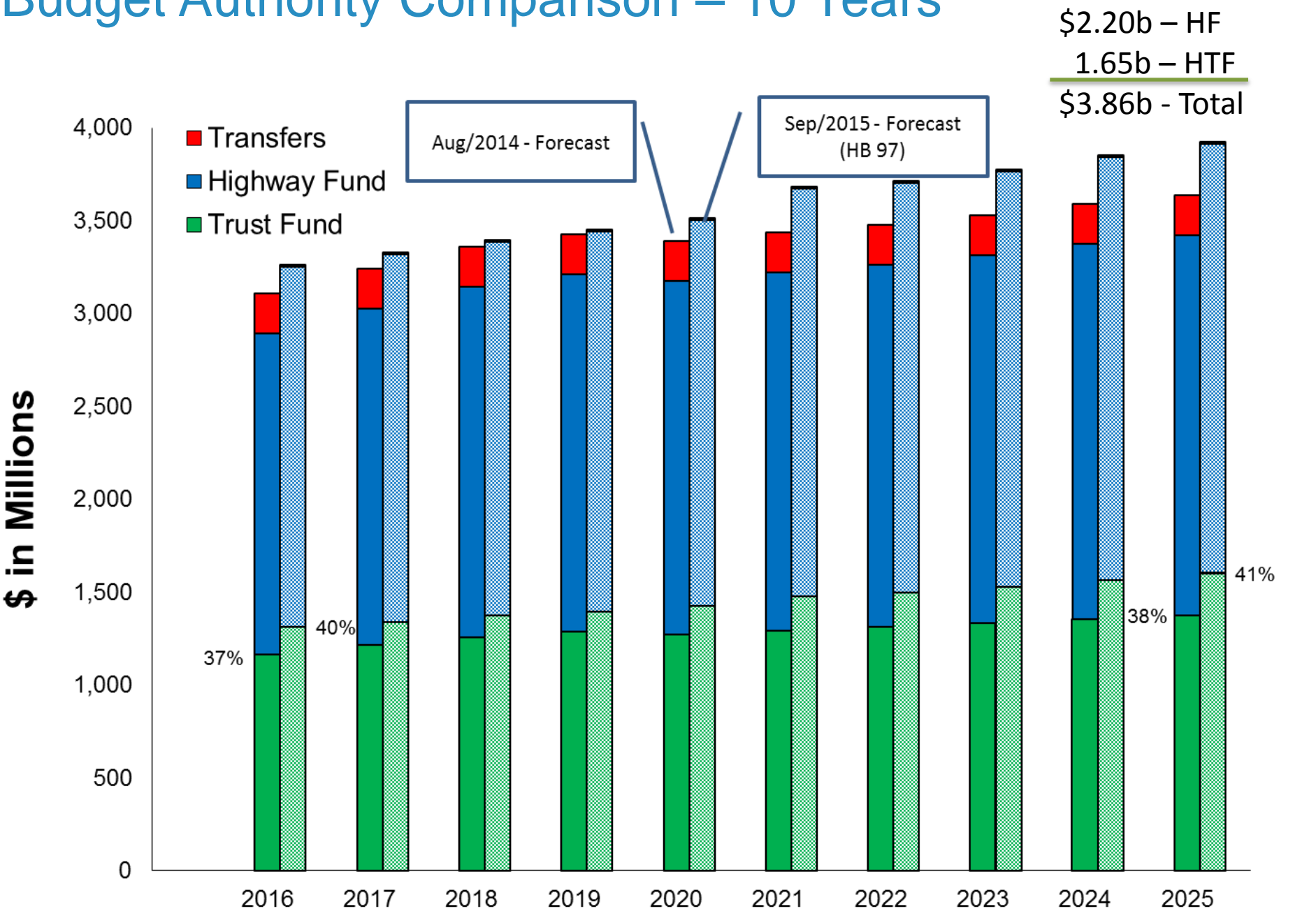
\*\* Highway Trust Fund is for Capital Projects



# Biennium Budget - Forecast



# Budget Authority Comparison – 10 Years



# Revenue Variable and Data Sources

Source	Variables	Data Sources
Motor Fuel Tax	Rate	<ul style="list-style-type: none"> <li>• US – EIA</li> <li>• Global Insight</li> <li>• Legislative</li> </ul>
	Fuel Consumption	<ul style="list-style-type: none"> <li>• In-House Model</li> </ul>
DMV Fees	Rate	<ul style="list-style-type: none"> <li>• General Statute</li> </ul>
	Transactions	<ul style="list-style-type: none"> <li>• Regression Analysis</li> <li>• Historical</li> <li>• NC Population Growth</li> </ul>
Highway Use Tax	Rate	<ul style="list-style-type: none"> <li>• General Statute</li> </ul>
	Transactions	<ul style="list-style-type: none"> <li>• Historical</li> <li>• NC Population Growth</li> </ul>
	Vehicle Pricing	<ul style="list-style-type: none"> <li>• Global Insight</li> </ul>
Federal	Revenue	<ul style="list-style-type: none"> <li>• Congressional Budget Office</li> </ul>

# Revenue Variable Projections

Source	Variables	1 to 10 Years	11 to 30 Years
Motor Fuel Tax	Rate	Stable	Stable
	Fuel Consumption	Decline	Decline
DMV Fees	Rate	Increase	Increase
	Transactions	Increase	Increase
Highway Use Tax	Rate	No Change	Increase 20??
	Transactions	Increase	Increase
	Vehicle Pricing	Increase	Increase
Federal	Revenue	Decline	Decline



# *Transportation Needs, 2040 Plan*



# *North Carolina's Statewide Transportation Plan The 2040 Plan*

Adopted in 2012, the 2040 Plan is:

- A federally required plan (23 USC 135) that provides for the development and implementation of the intermodal transportation system of the State
  - High level document used to help guide NCDOT decisions
  - NCDOT's overarching guide for transportation planning and programming.
  - A broad direction for where NCDOT should concentrate efforts in the future
  - Recommendations for needed process improvements for NCDOT to pursue

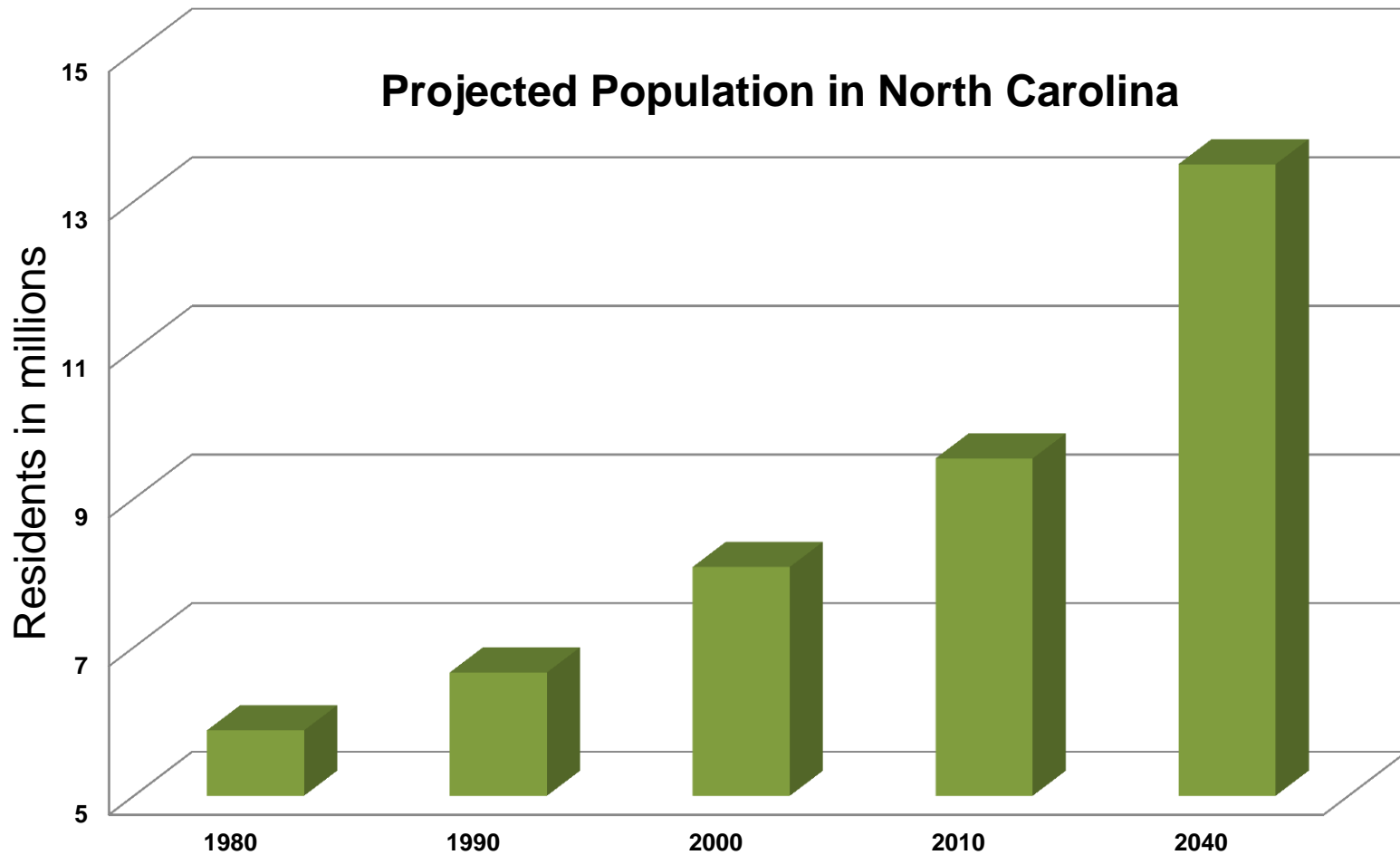


# *North Carolina's Statewide Transportation Plan The 2040 Plan*

The 2040 Plan is NOT:

- A list of specific project recommendations
- A schedule for project implementation
- A recommended future funding strategy

## *2040 Population Growth*





## Level of Service Definitions

LEVEL OF SERVICE	General Condition	Highways	Public Transport- ation	Aviation	Bicycle/ Pedestrian	Ferries	Passenger Rail	Ports*
<b>A EXCELLENT</b>	High quality conditions, very convenient service, widely available	Very smooth roads, minimal congestion	Frequent service and good geographic coverage	No safety issues	Many and varied bike and pedestrian routes	No ferry delays	Good cross-state rail service	No safety issues
<b>B ABOVE AVERAGE</b>	Good quality conditions, convenient service, good availability	Generally smooth roads, some congestion	Good bus service	Some safety issues	Some bike routes	Periodic ferry delays	Decent state rail service	Some safety issues
<b>C AVERAGE</b>	Minimally acceptable conditions, minimally convenient service, moderate availability	More rough roads, potholes & deficient bridges, common congestion	Infrequent service and limited geographic coverage	Many safety issues	Scattered bike routes	Frequent ferry delays	Limited state rail service	Many safety issues
<b>D BELOW AVERAGE</b>	Poor facility conditions, very minimal service, limited availability	Many rough roads, broad congestion	Barebones service	Many safety issues	Few bike routes	Frequent ferry delays	Poor state rail service	Many safety issues
<b>F FAILING</b>	Deteriorated facility conditions, spotty and irregular services, very limited availability	Widespread rough roads, potholes & deficient bridges, widespread congestion	Very restricted service	Widespread safety issues	No bike routes	Regular and long ferry delays	No state rail service	Widespread safety issues

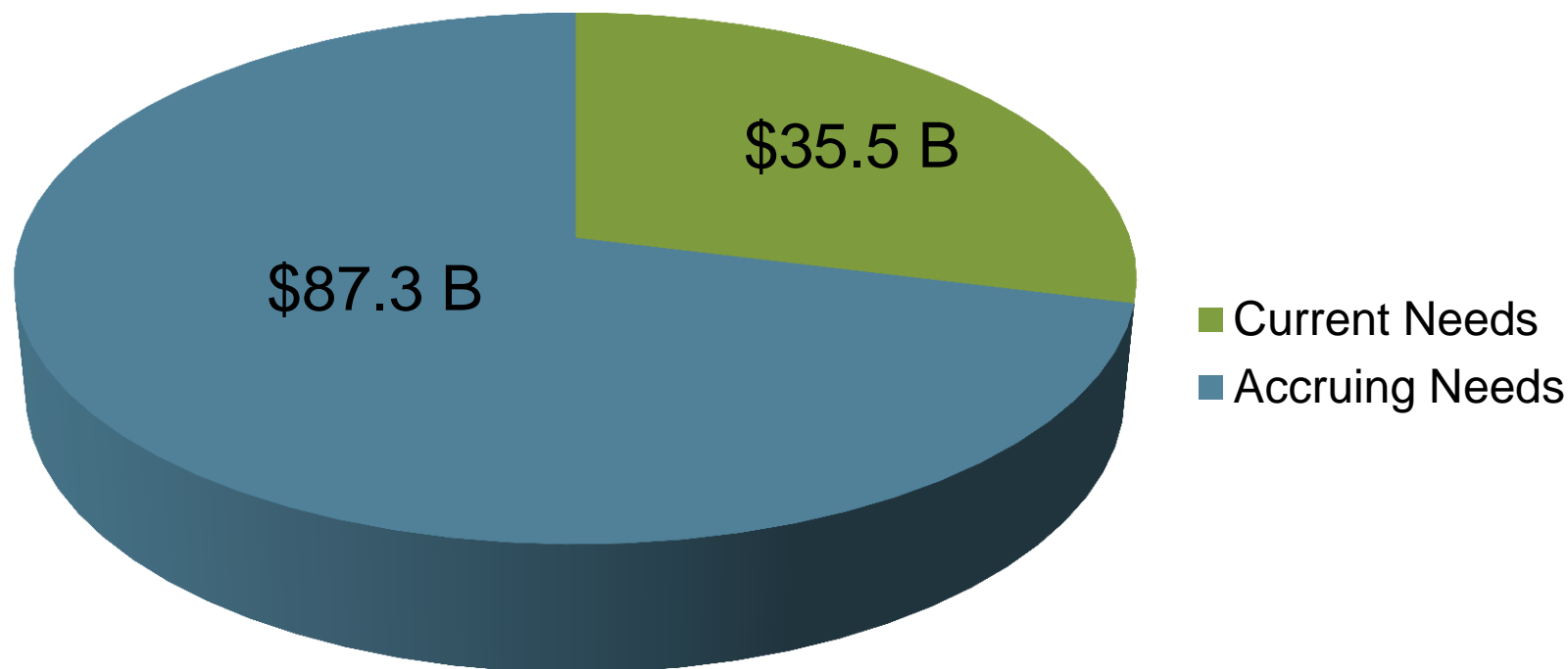
Shaded cells denote current overall modal level of service, as determined by NCDOT as part of its 10-Year Project Prioritization process, based on degree to which modal systems meet defined performance standards.

Shaded cells denote desired overall modal level of service ('Target LOS'), as determined by NCDOT as part of its 10-Year Project Prioritization process, based on degree to which modal systems meet defined performance standards.

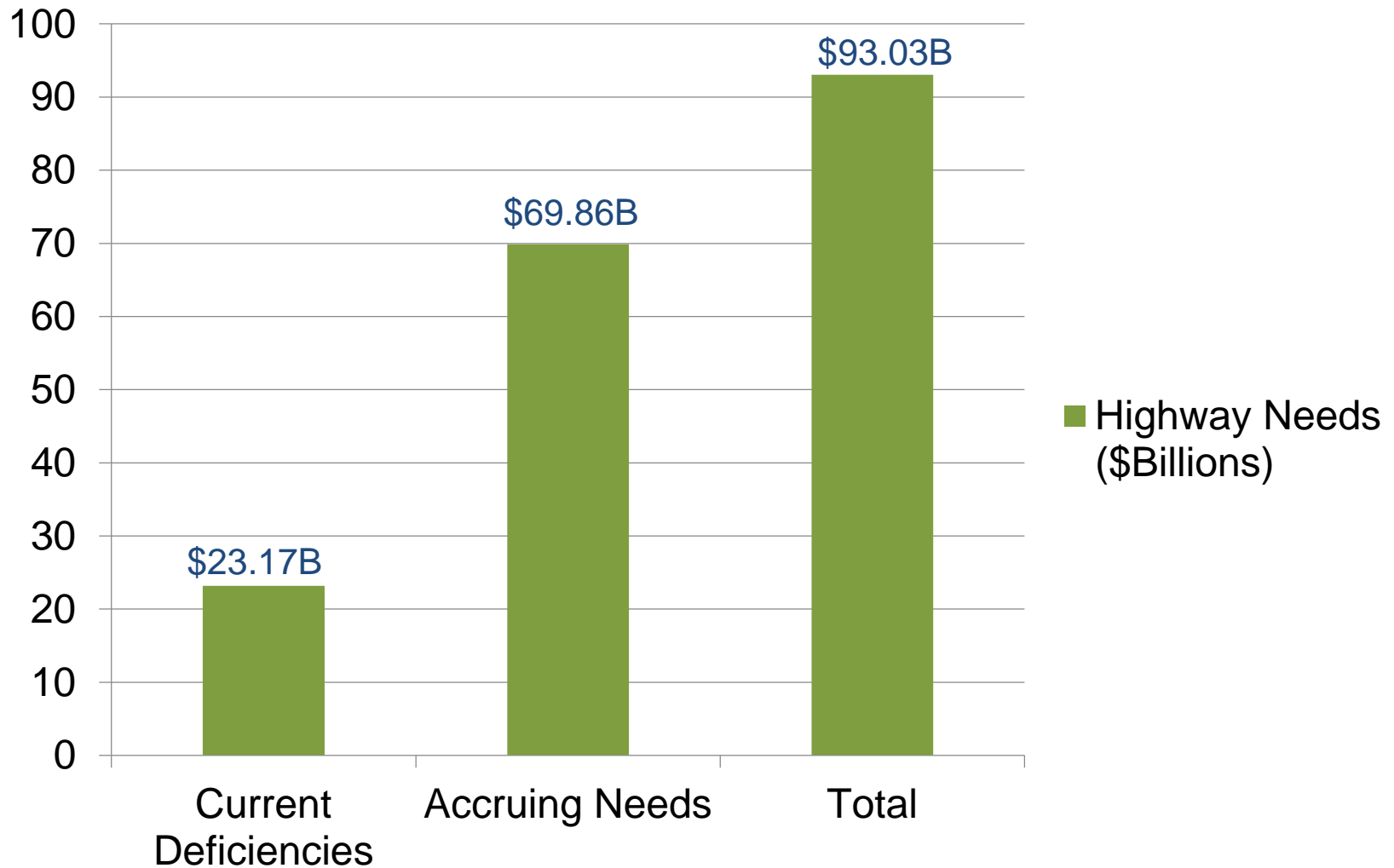
\*Ports came under NCDOT management in 2012, and LOS has not yet been rated.

## *2040 Total Investment Needs*

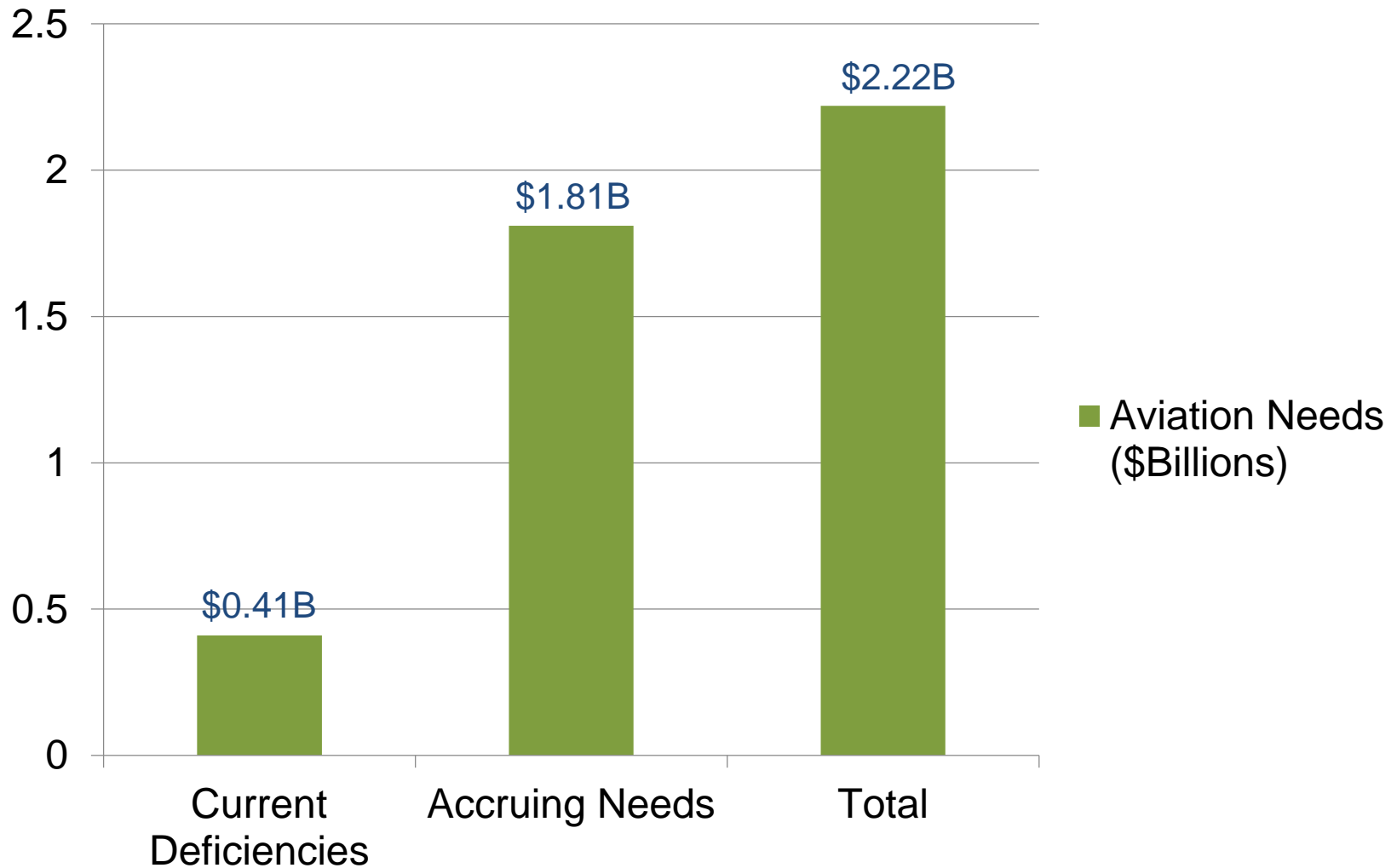
**System Wide Estimated Needs to meet Target:  
\$122.83 B (All Modes)**



## *2040 Multi-Modal Needs: Highways*

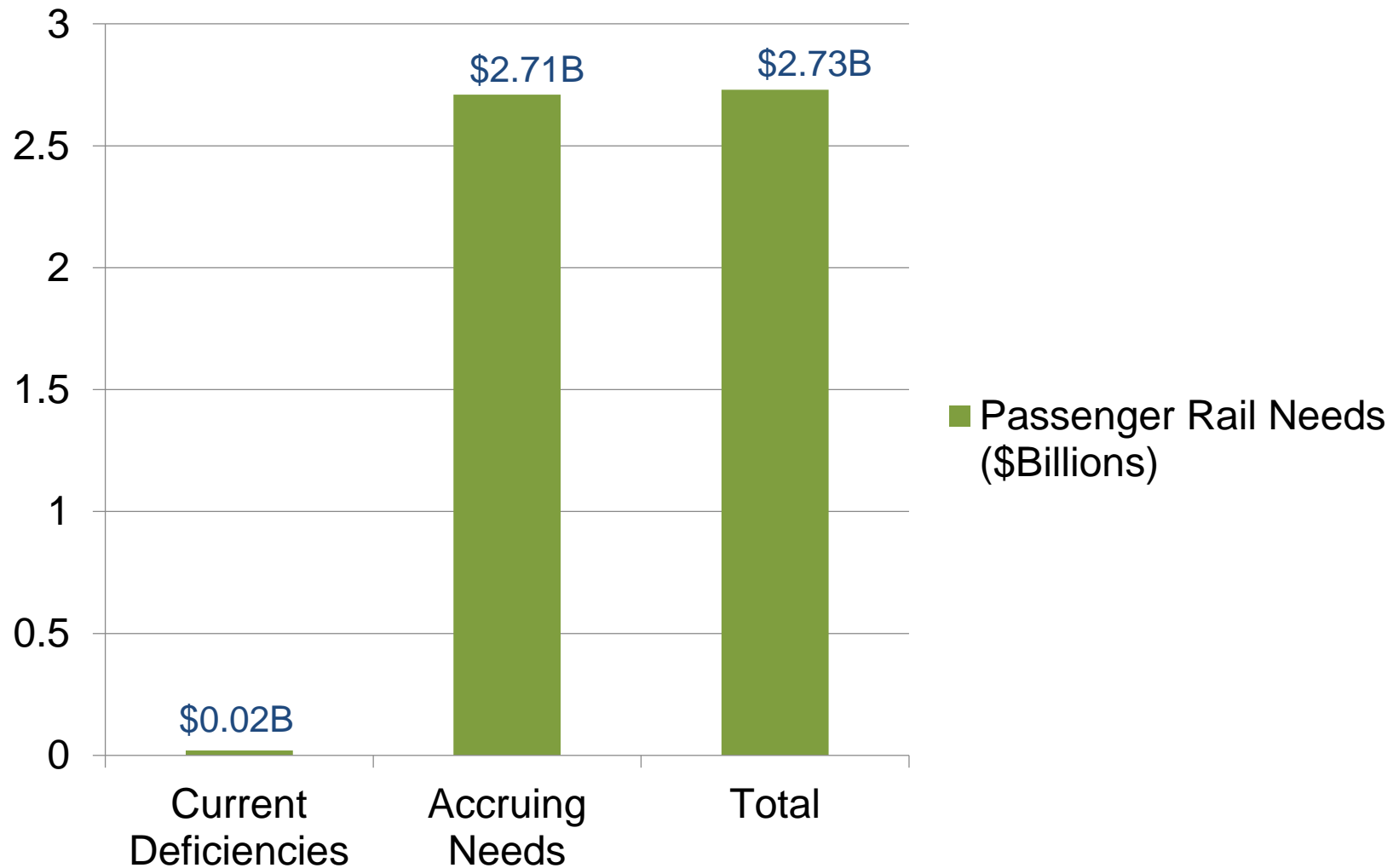


## 2040 Multi-Modal Needs: Aviation

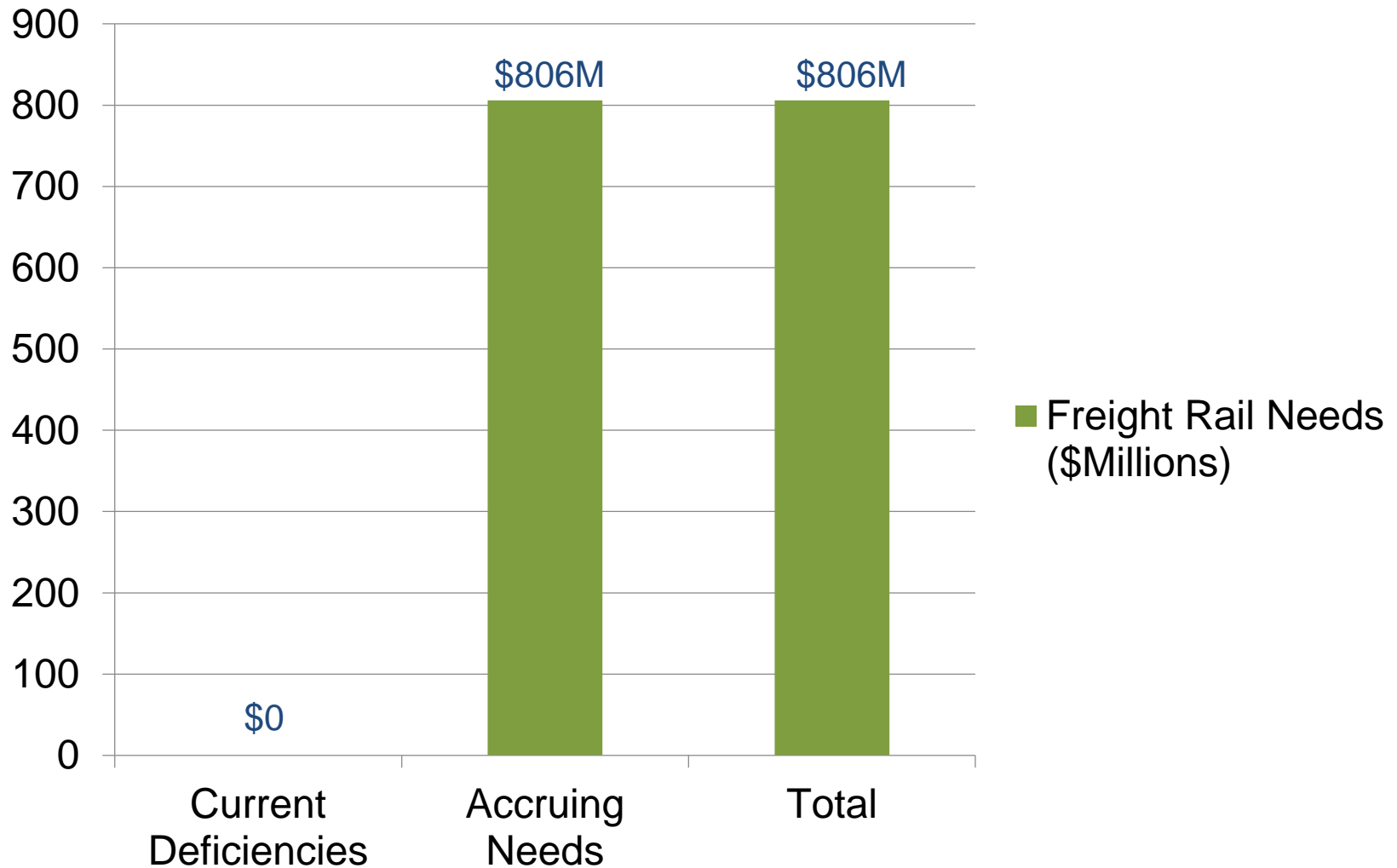




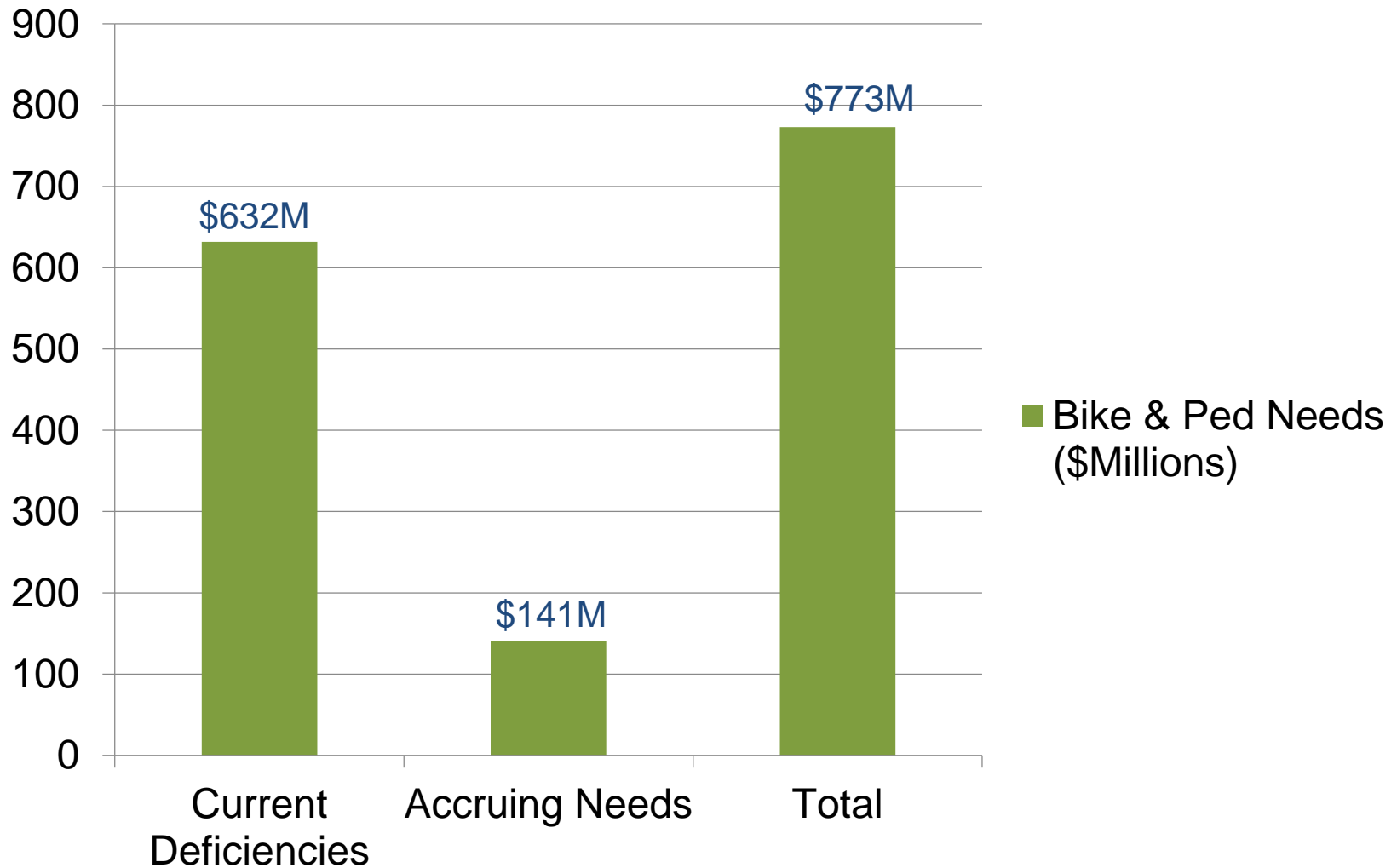
## 2040 Multi-Modal Needs: Passenger Rail



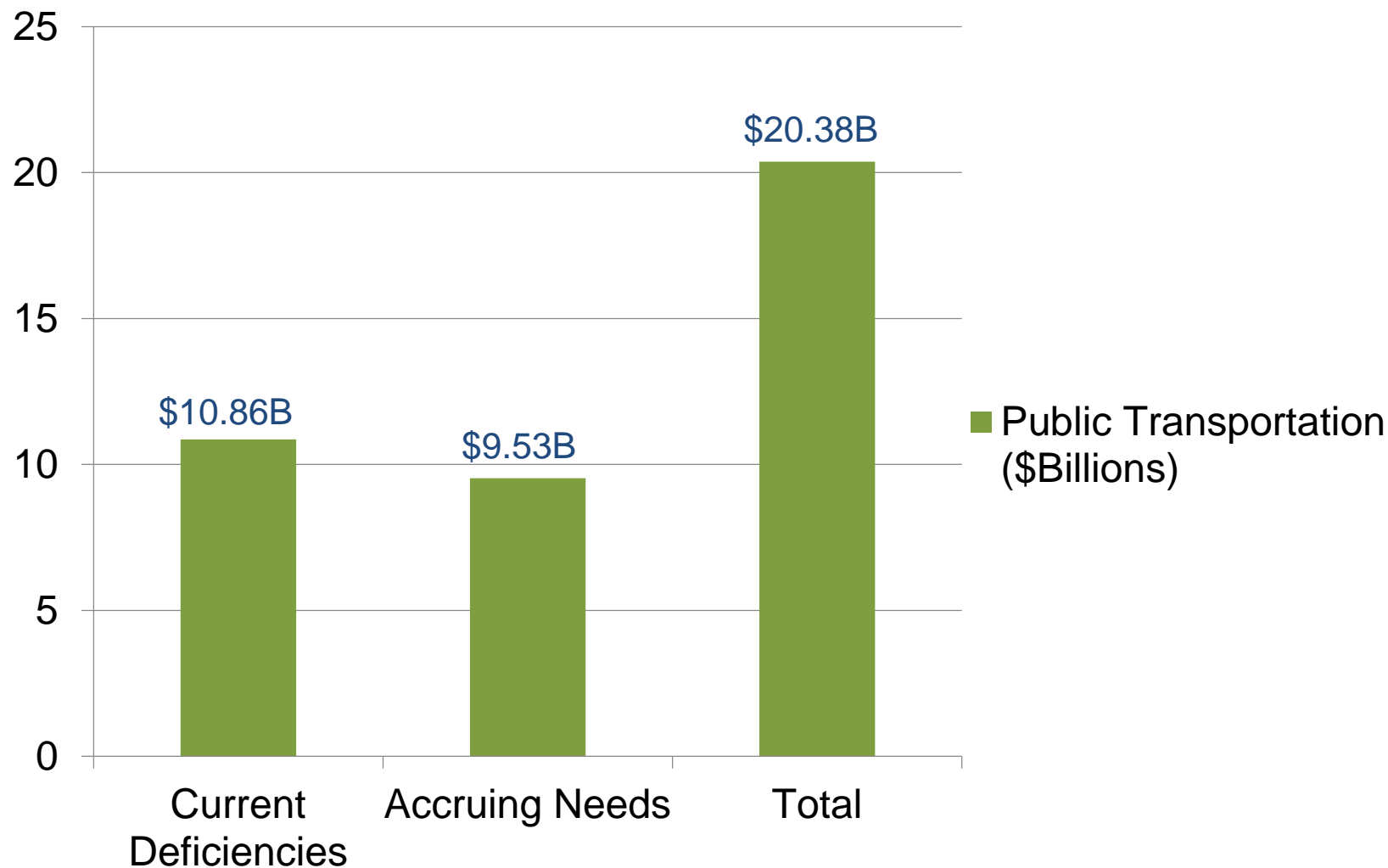
## *2040 Multi-Modal Needs: Freight Rail*



## 2040 Multi-Modal Needs: Bike & Ped

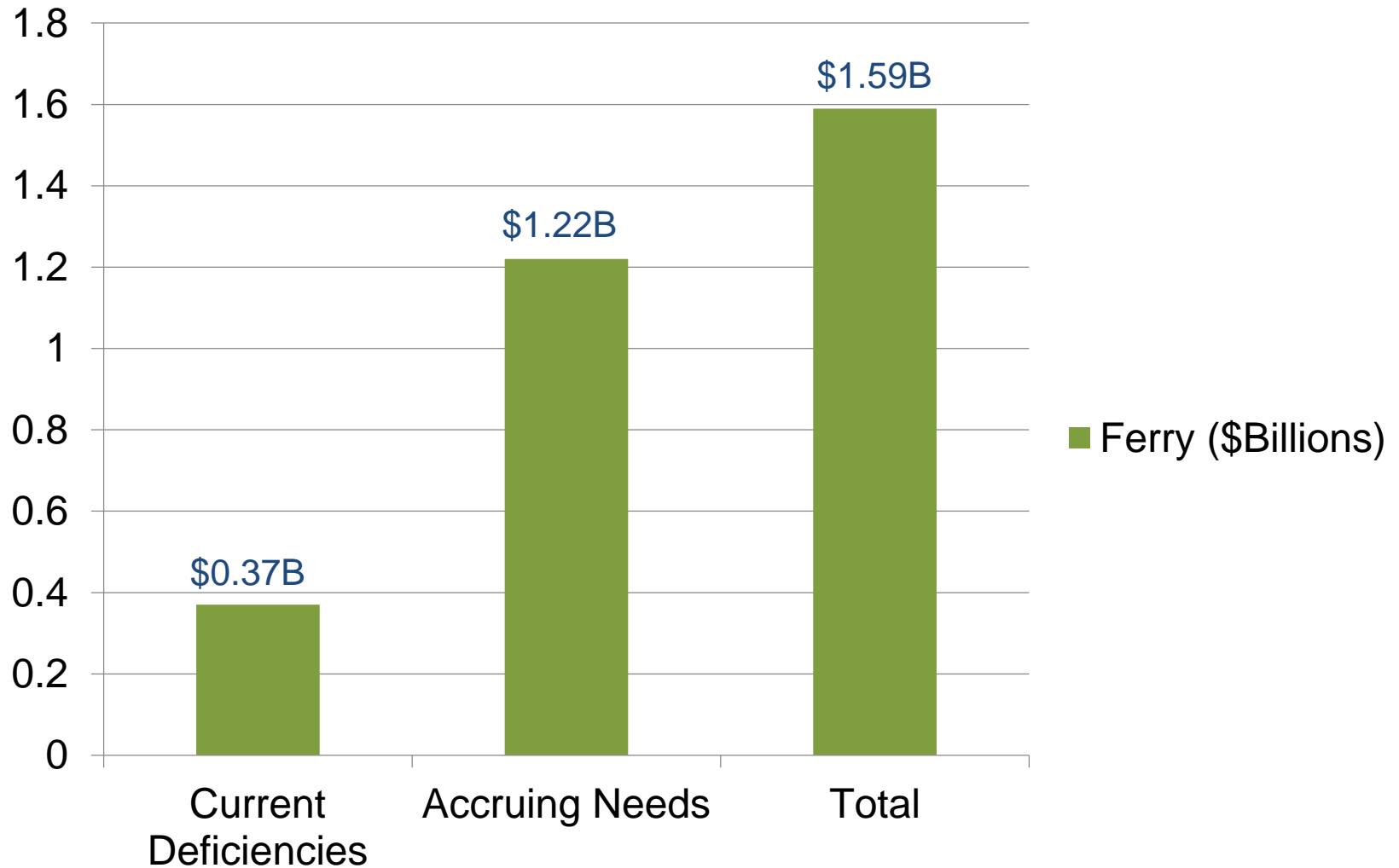


## 2040 Multi-Modal Needs: Public Transportation

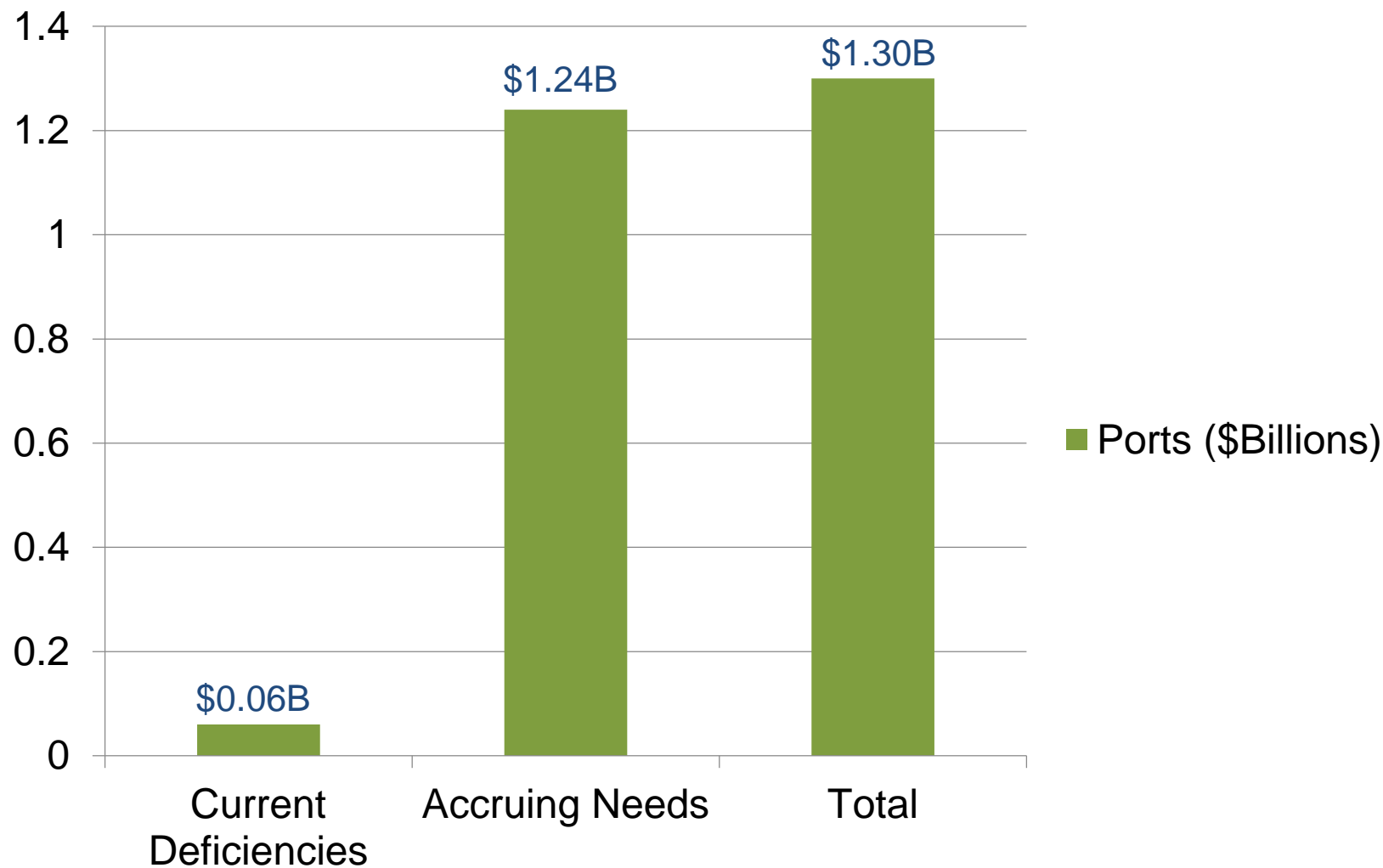




## *2040 Multi-Modal Needs: Ferry*



## *2040 Multi-Modal Needs: Ports*



# North Carolina's Statewide Transportation Plan

## The 2040 Plan

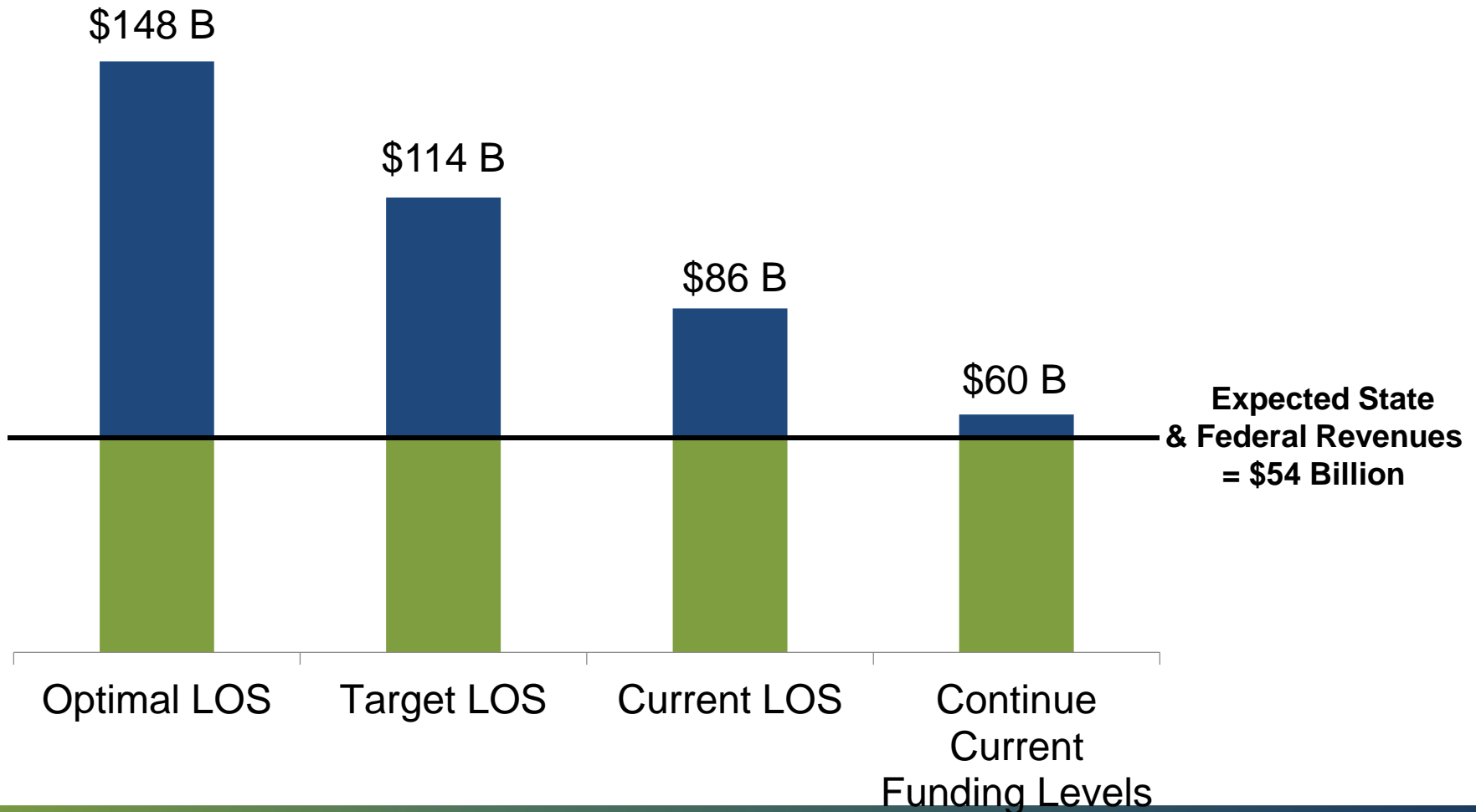
NCDOT's 30-Year Needs and Funding Gap:

30-Year Investment Needs by Quality of Service and Mode (in 2011 \$ billions)			
Mode	Target LOS	Current LOS	Continue Current Funding Levels
Aviation	2.22	2.08	1.46
Rail	3.54	3.03	1.66
Bicycle/Pedestrian	0.77	0.77	0.34
Public Transportation	20.38	17.34	14.74
Ferries	1.59	1.42	0.71
Ports	1.30	0.97	0.65
Highways	93.03	68.52	46.62
<b>Total Needs</b>	<b>122.83</b>	<b>94.13</b>	<b>66.17</b>
NCDOT Share of Needs	114.11	86.30	59.70
Total Baseline Revenues	54.03		
<b>Funding Gap</b>	<b>60.08</b>	<b>32.27</b>	<b>5.67</b>

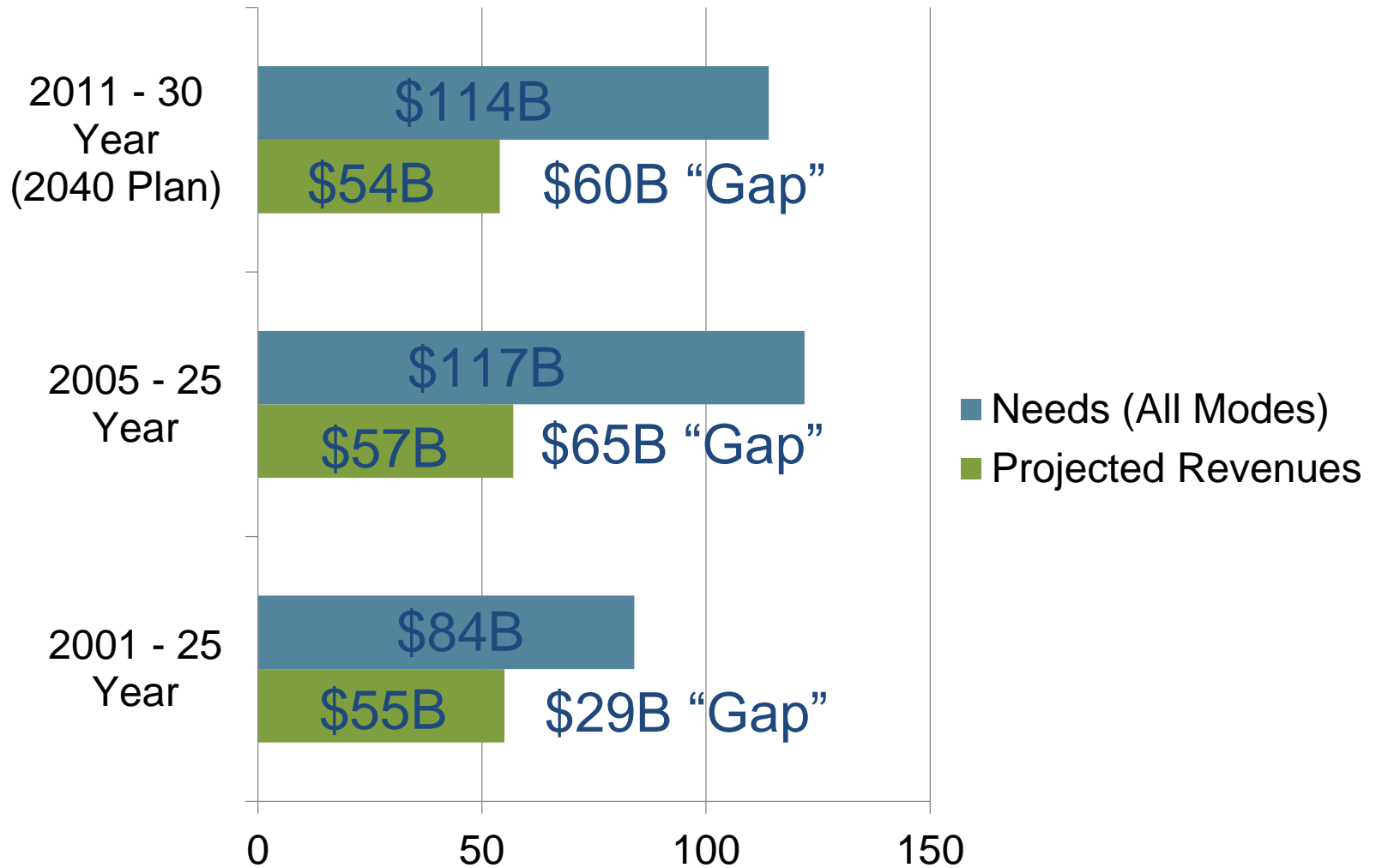
# *North Carolina's Statewide Transportation Plan*

## *The 2040 Plan*

NCDOT's 30-Year Needs and Funding Gap:



## *Funding Gap*



## *Next Steps*

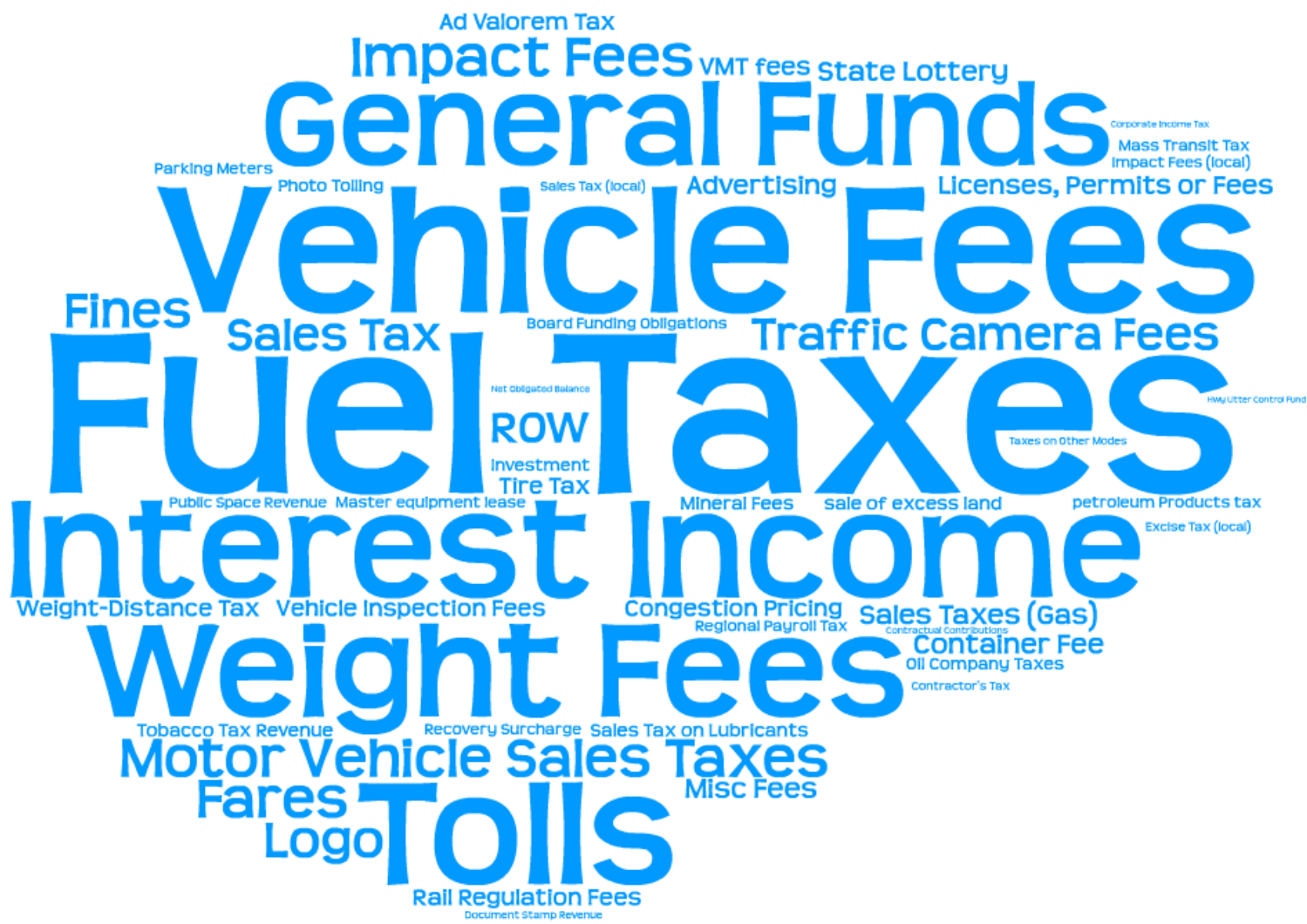
- Statewide Freight Plan Development
- Updated Revenue Projections
- Statewide Plan Update (Including Freight Plan)
- Update Cycle

# State Revenue Traditional Sources

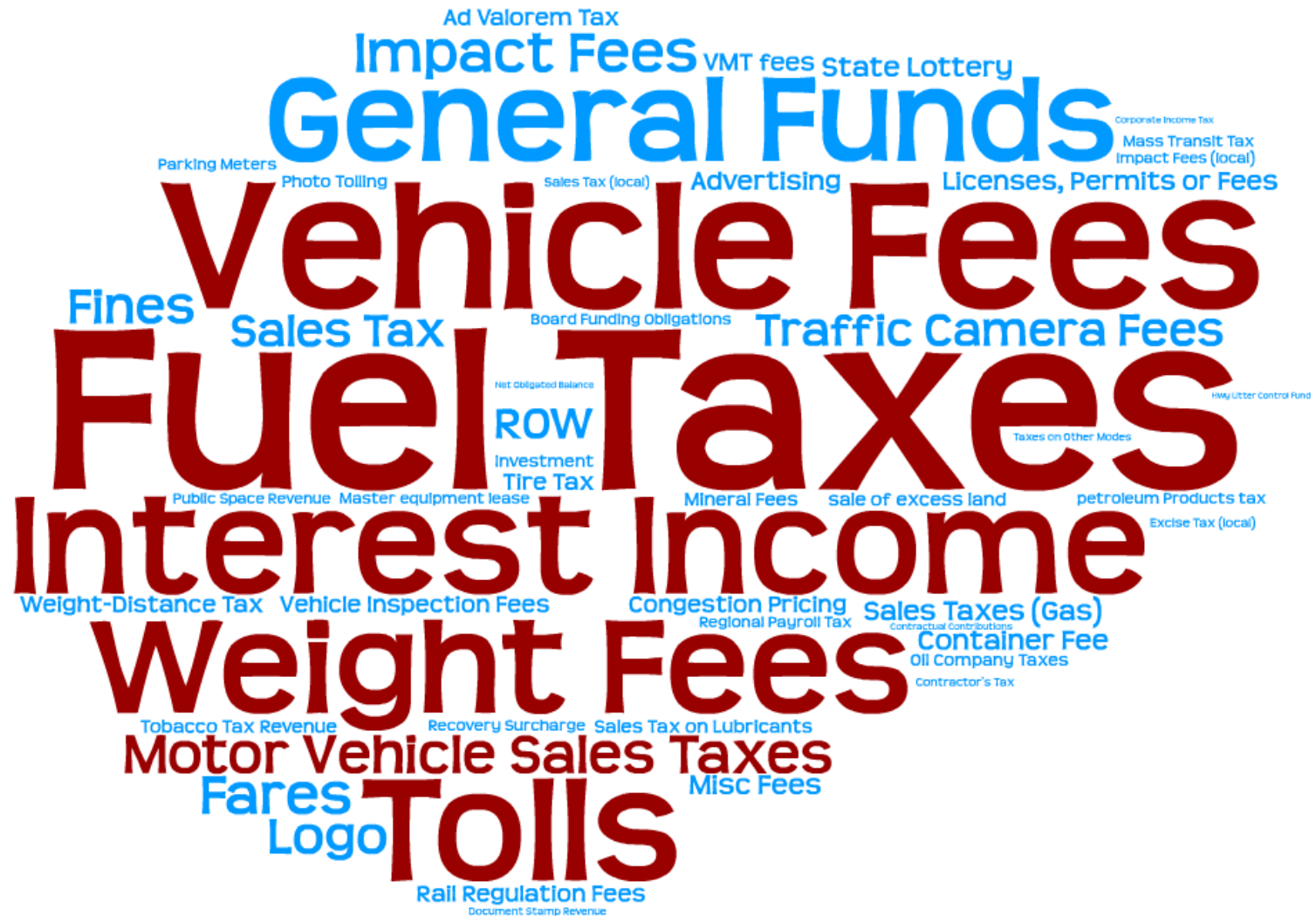
General Funds  
Vehicle Fees  
Fuel Taxes  
Interest Income  
Weight Fees  
Tolls  
Motor Vehicle Sales Taxes  
Sales Taxes (Gas)



# State Revenue All Sources



# State Revenue Sources

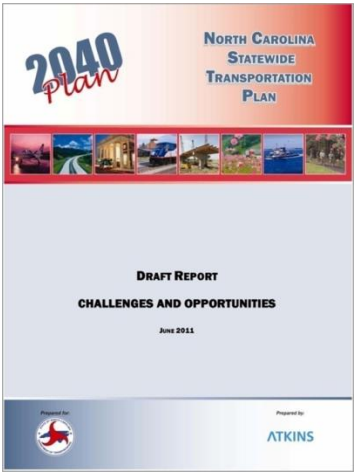
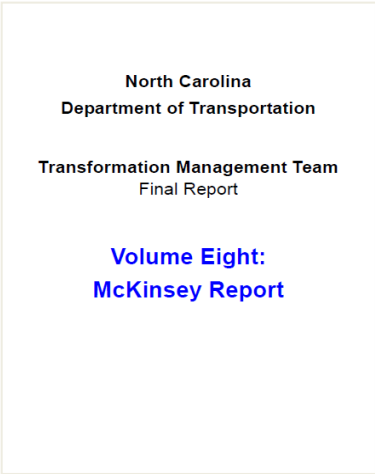
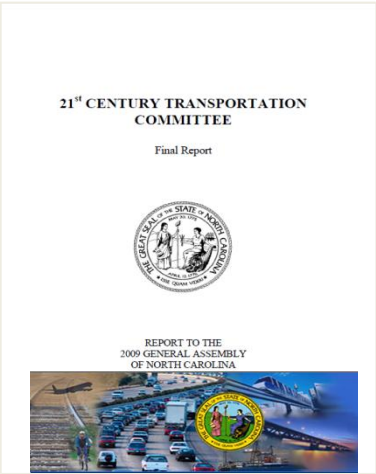


Sources North Carolina participates in  
are indicated in red

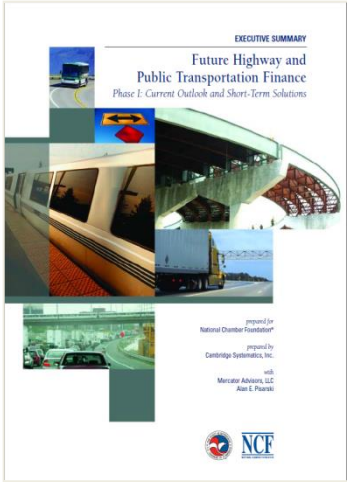
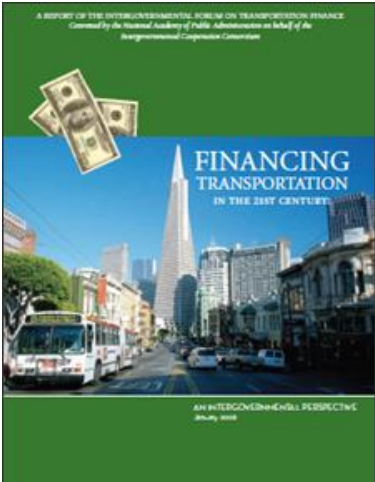
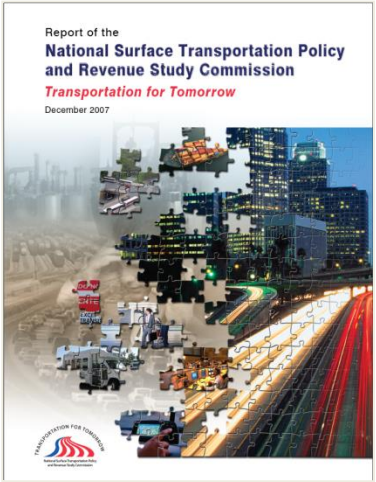
# States are Seeking Transportation - Funding and Finance

Traditional Funding Options	Less Traditional Options
<ul style="list-style-type: none"><li>• Gas taxes</li><li>• Other taxes on motor fuels</li><li>• Motor vehicle fees</li><li>• Tolls</li></ul>	<ul style="list-style-type: none"><li>• Distance-based fee</li><li>• Taxes on alternative fuels</li></ul>
Finance Solutions that borrow against or otherwise leverage revenues	
<ul style="list-style-type: none"><li>• Bonds</li><li>• Federal credit assistance</li></ul>	<ul style="list-style-type: none"><li>• State infrastructure banks</li><li>• Public-private partnerships</li></ul>

# Previous Revenue Studies



State



National

# AASHTO – Revenue Options

## Matrix of Illustrative Surface Transportation Revenue Options

AMERICAN ASSOCIATION OF  
STATE HIGHWAY AND  
TRANSPORTATION OFFICIALS  
**AASHTO**  
THE VOICE OF TRANSPORTATION

Matrix of Illustrative Surface Transportation Revenue Options

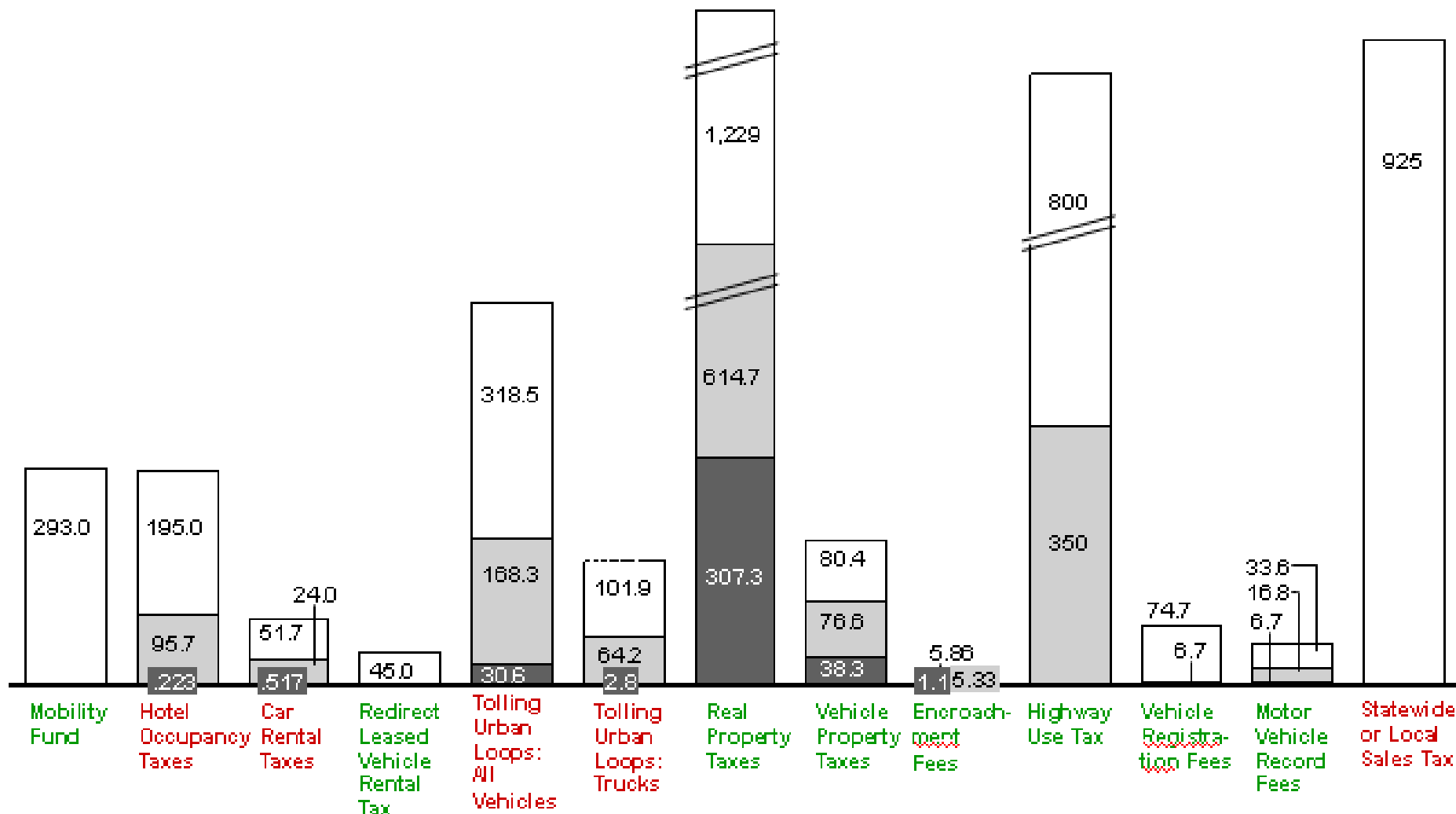
Existing Highway Trust Fund Revenue Mechanisms	Illustrative Rate or Percentage Increase	Definition of Mechanism/Increase	\$ in Billions	
			Assumed 2014 Yield*	Total Forecast 2015-2020
Motor Fuel Tax—Diesel	15.0¢	\$/gal increase in current rate (approx. 10% increase in total rate)	\$6.54	\$41.79
Motor Fuel Tax—Gas	10.0¢	\$/gal increase in current rate (approx. 10% increase in total rate)	\$13.21	\$78.12
Heavy Vehicle Use Tax	50%	Increase in current revenues, structure not defined	\$0.55	\$3.42
Sales Tax—Trucks and Trailers	10%	Increase in current revenues, structure not defined	\$0.33	\$2.19
Tire Tax—Trucks	10%	Increase in current revenues, structure not defined	\$0.04	\$0.23
Total				
Potential Highway Trust Fund Revenue Mechanisms	Rate or Percentage Increase	Definition of Mechanism/Increase	Assumed 2014 Yield*	Estimated Yield 2015-2020*
Container Tax	\$15.00	Dollar per TEU	\$0.66	\$4.26
Customs Revenues	5.0%	Increase in/reallocation of current revenues, structure not defined	\$1.80	\$11.66
Drivers License Surcharge	\$5.00	Dollar annually	\$1.08	\$6.98
Freight Bill—Truck Only	0.5%	Percent of gross freight revenues (primary shipments only)	\$3.07	\$19.90
Freight Bill—All Modes	0.5%	Percent of gross freight revenues (primary shipments only)	\$3.80	\$24.60
Freight Charge—Ton (Truck Only)	10.0¢	¢/ton of domestic shipments	\$1.17	\$7.54
Freight Charge—Ton (All Modes)	10.0¢	¢/ton of domestic shipments	\$1.44	\$9.29
Freight Charge—Ton-Mile (Truck Only)	0.10¢	¢/ton-mile of domestic shipments	\$1.41	\$9.15
Freight Charge—Ton-Mile (All Modes)	0.10¢	¢/ton-mile of domestic shipments	\$3.48	\$22.52
Harbor Maintenance Tax	25.0%	Increase in/reallocation of current revenues, structure not defined	\$0.43	\$2.79
Imported Oil Tax	\$2.50	Dollar/barrel	\$5.76	\$37.28
Income Tax—Business	1.0%	Increase in/reallocation of current revenues, structure not defined	\$2.79	\$18.06
Income Tax—Personal	0.5%	Increase in/reallocation of current revenues, structure not defined	\$6.70	\$43.36
Motor Fuel Tax Indexing to CPI—Diesel	—	\$/gal excise tax	—	\$5.22
Motor Fuel Tax Indexing to CPI—Gas	—	\$/gal excise tax	—	\$10.87
Oil, Gas, and Minerals Receipts	25.0%	Increase in/reallocation of current revenues, structure not defined	\$2.20	\$14.26
Registration Fee—Electric LDVs	\$100.00	Dollar annually	\$0.01	\$0.06
Registration Fee—Hybrid LDVs	\$50.00	Dollar annually	\$0.17	\$1.12
Registration Fee—Light Duty Vehicles	\$15.00	Dollar annually	\$3.57	\$23.11
Registration Fee—Trucks	\$150.00	Dollar annually	\$1.63	\$10.54
Registration Fee—All vehicles	\$20.00	Dollar annually	\$4.98	\$32.21
Sales Tax—Auto-related Parts & Services	1.0%	Percent of sales	\$2.32	\$15.04
Sales Tax—Bicycles	1.0%	Percent of sales	\$0.06	\$0.38
Sales Tax—Diesel	7.6%	Percent of sales (excl. excise taxes)	\$9.65	\$62.50
Sales Tax—Gas	5.6%	Percent of sales (excl. excise taxes)	\$24.05	\$155.66
Sales Tax—New Light Duty Vehicles	1.0%	Percent of sales	\$2.41	\$15.61
Sales Tax—New and Used Light Duty Vehicles	1.0%	Percent of sales	\$3.46	\$22.40
Tire Tax—Bicycles	\$2.50	Dollar per bicycle tire	\$0.08	\$0.53
Tire Tax—Light Duty Vehicles	1.0%	Of sales of LDV tires	\$0.33	\$2.12
Transit Passenger Miles Traveled Fee	1.5¢	¢/passenger mile traveled on all transit modes	\$0.84	\$5.45
Vehicle Miles Traveled Fee—Light Duty Vehicles	1.0¢	¢/LDV vehicle mile traveled on all roads	\$27.12	\$175.58
Vehicle Miles Traveled Fee—Trucks	4.0¢	¢/truck vehicle mile traveled on all roads	\$10.93	\$70.73
Vehicle Miles Traveled Fee—All Vehicles	—	¢/vehicle mile traveled on all roads	\$38.05	\$246.31

\* Base annual yield escalated using CPI-U.

## **Goal: \$1 billion per year for the next 10 years**

- Eliminate Transfers (HF and HTF)
- Implement VMT (Statewide and Local Option)
- Increase Highway Use Tax Rate and Class A & B caps
- Increase Passenger Vehicle Registration Fees
- Increase Stagger Registration Fees
- Consider Weight based Vehicle Registration Fees
- Consider Bond Referendum
- Allow Local Option Tax
- Implement Indexing DMV Fee Rates Structure
- Implement Statewide Interstate Tolling
- Implement Differential Fuel Tax Rates

# McKinsey Report – Revenue Options



Legend = New Sources of Funding/Current Sources of Funding

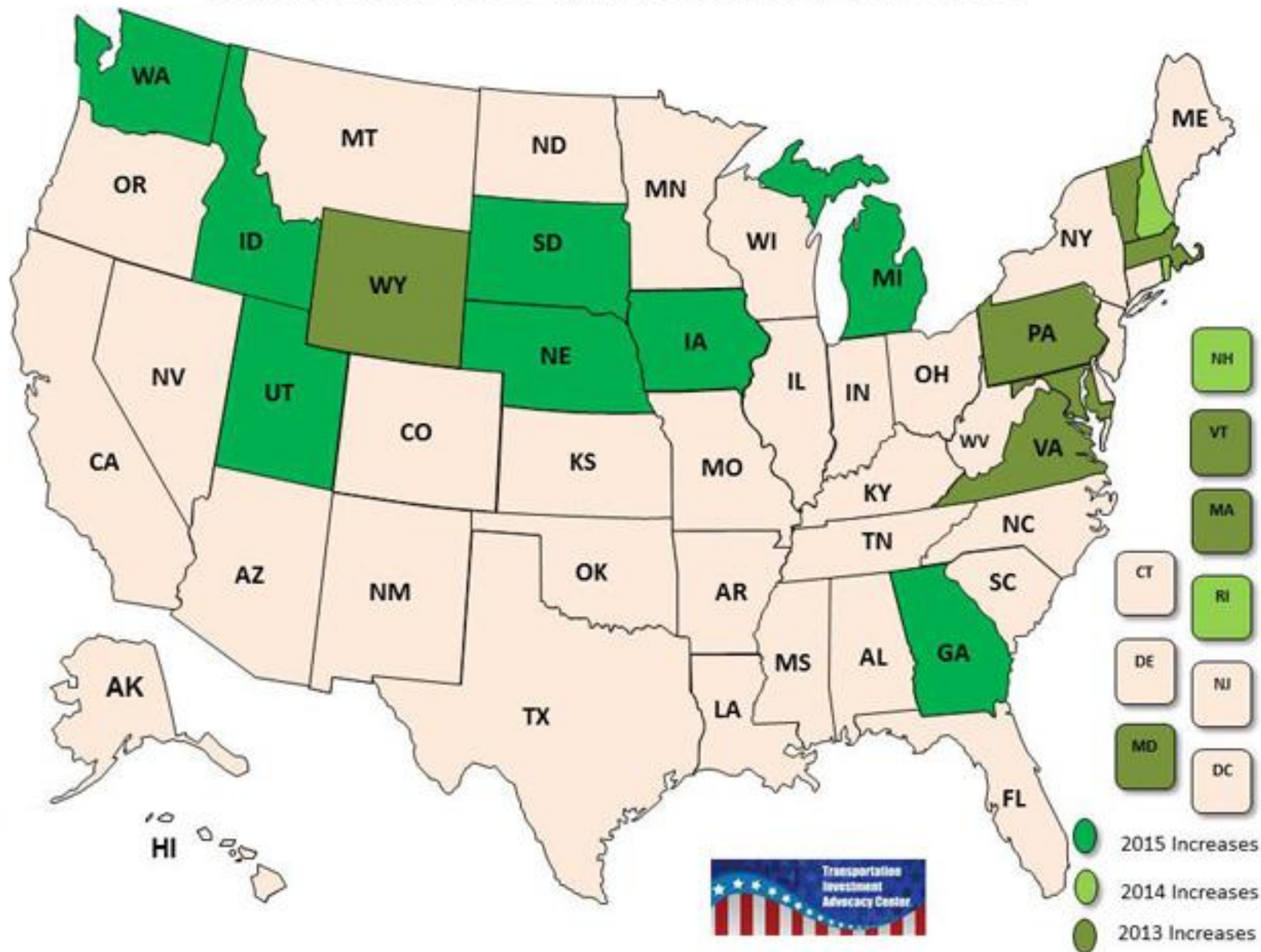
\* Except Leveraging Debt, which measures additional revenues every other year over an 8-year period; and General Fund transfers, which measures average annual return over an 8-year period.



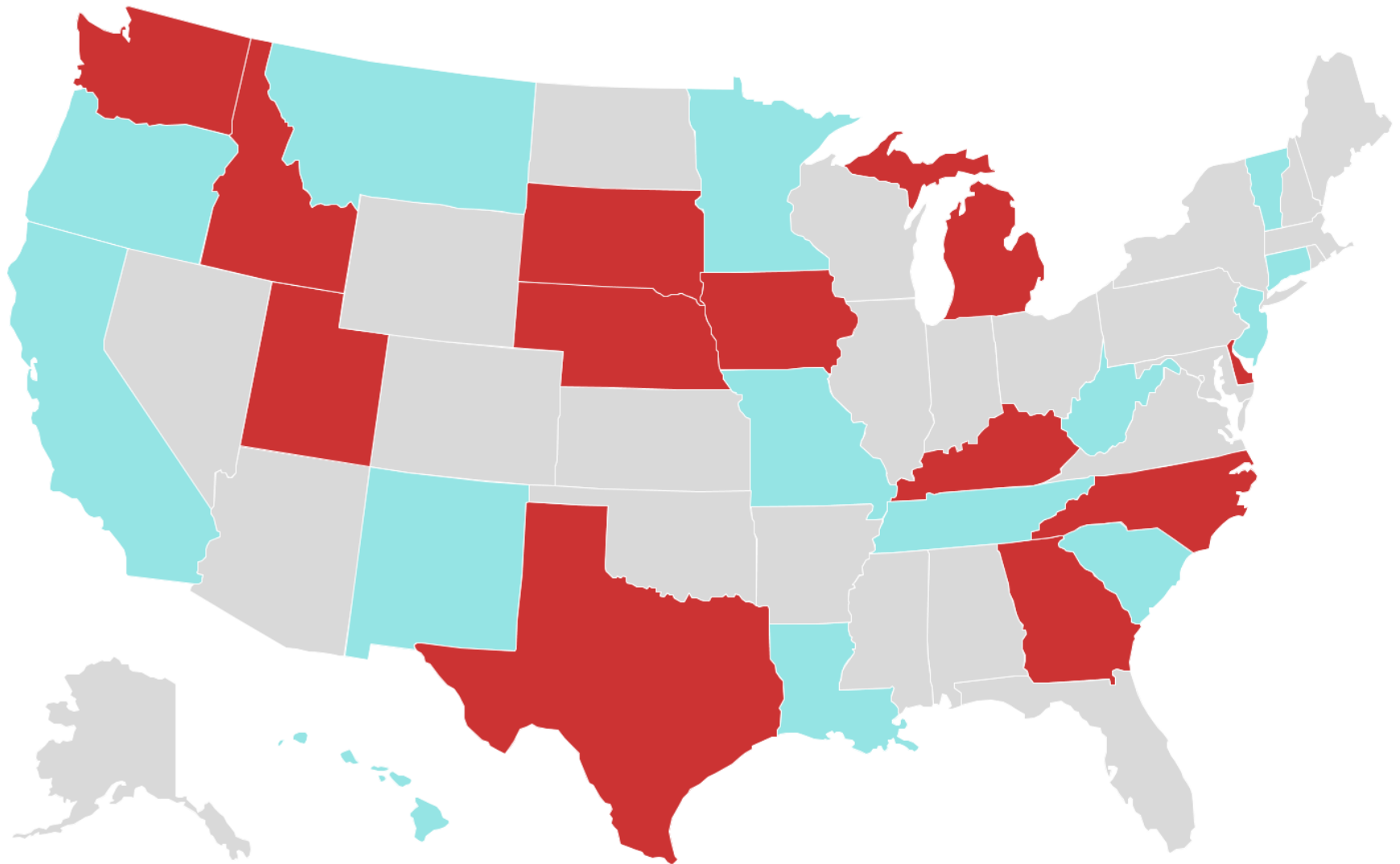
# 2040 Plan - Revenue Enhancement Options

Continue motor fuel tax indexing	<b>\$19 Billion</b>
Increase registration/license fees	<b>\$6 Billion</b>
Eliminate Highway Fund transfers	<b>\$4 Billion</b>
Redirect vehicle lease fee to NCDOT	<b>\$1 Billion</b>
Increase Highway Use Tax	<b>\$3 Billion</b>
Local vehicle property tax	<b>\$1 Billion</b>
Auto insurance surcharge	<b>\$12 Billion</b>
Wholesale motor fuels tax	<b>\$12 Billion</b>
Interstate tolling	<b>\$42 Billion</b>
VMT Fee	<b>\$27 Billion</b>

## State Motor Fuel Tax Increases: 2013-2015



## 2015 state legislation to raise additional transportation revenue



- Successfully enacted during 2015 sessions
- Actively considered during 2015 sessions

# Transportation Revenues not Collected in NC

- **General Fund** (Alabama, Alaska, Arizona, Arkansas, Colorado, Connecticut, Delaware, Georgia, Illinois, Kansas, Kentucky, Louisiana, Massachusetts, Minnesota, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Texas, Utah, Vermont, Virginia, West Virginia, Wisconsin, Wyoming, DC)
- **Impact fees** (Alabama, Arizona, Arkansas, Colorado, Florida, Georgia, Hawaii, Illinois, Indiana, Maine, Montana, New Mexico, Pennsylvania, Rhode Island, Texas)
- **State Lottery/Gaming** (Arizona, New Jersey, Oregon, Pennsylvania)
- **Ad Valorem tax** (Arkansas, Nevada)
- **State sales tax** (Colorado, Indiana, Kansas, Maryland, Massachusetts, New Jersey, Pennsylvania, Texas, Utah, Virginia)
- **Documentary Revenue Stamp** (Florida)
- **Casino taxes** (Iowa)
- **Weight-distance tax** (Kentucky, New Mexico, New York, Oregon)
- **Auto-related sales tax** (Michigan)
- **Fines** (Minnesota, Maine)
- **Regional payroll tax** (New York)

Source: National Conference of State Legislatures  
Transportation Governance and Finance Report

## Transportation Revenues not Collected in NC (Continued)

- **Tobacco revenue tax** (Oregon)
- **Vehicle-miles travelled tax (pilot)** (Oregon)
- **Tire tax** (Pennsylvania)
- **State-distributed mineral royalties and mineral tax** (Wyoming)
- **Container tax** (Oregon, Wyoming)
- **Oil/Petroleum tax** (Connecticut, New Jersey, New York, Texas, Puerto Rico)
- **Locomotive fuel tax** (Mississippi, Wyoming)

Source: National Conference of State Legislatures  
Transportation Governance and Finance Report