

Transportation Funding

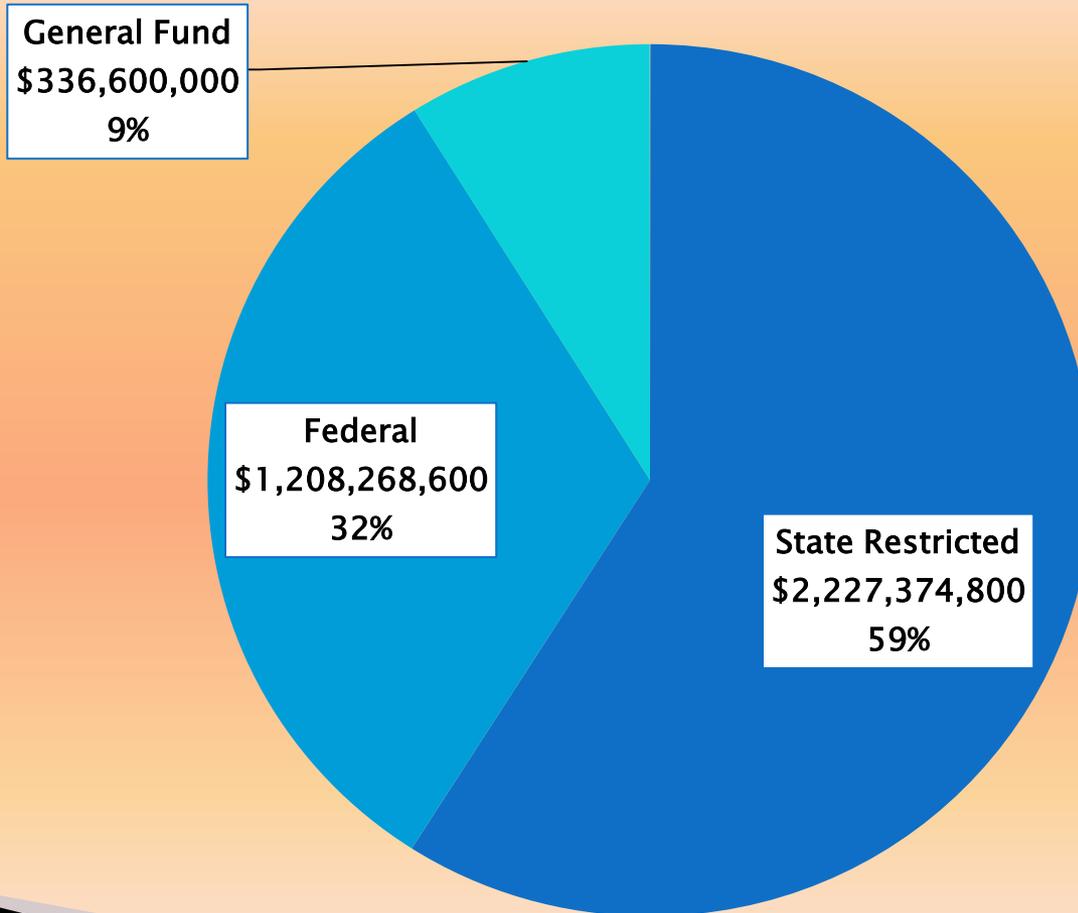
Glenn Steffens
Senate Fiscal Agency
August 2014

Transportation Basics

- ▶ Fuel Tax and Registration Tax are constitutionally dedicated to transportation.
- ▶ The Michigan Transportation Fund (MTF) may receive only certain funds under PA51.
- ▶ PA51 controls the distribution of the MTF to State Trunkline, Local Government Road Agencies.

Transportation Revenue Sources

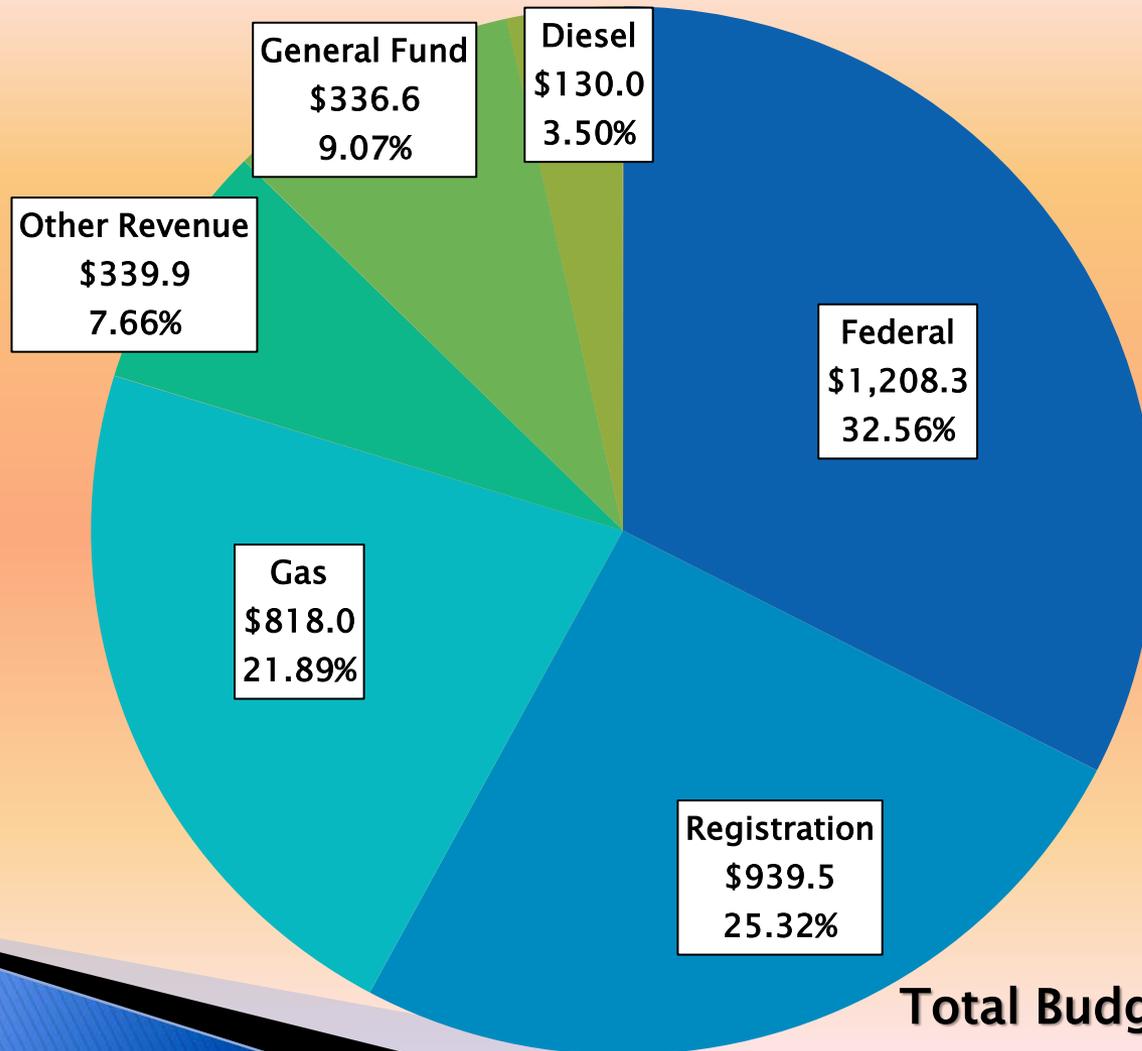
Est. for FY 2013-14:



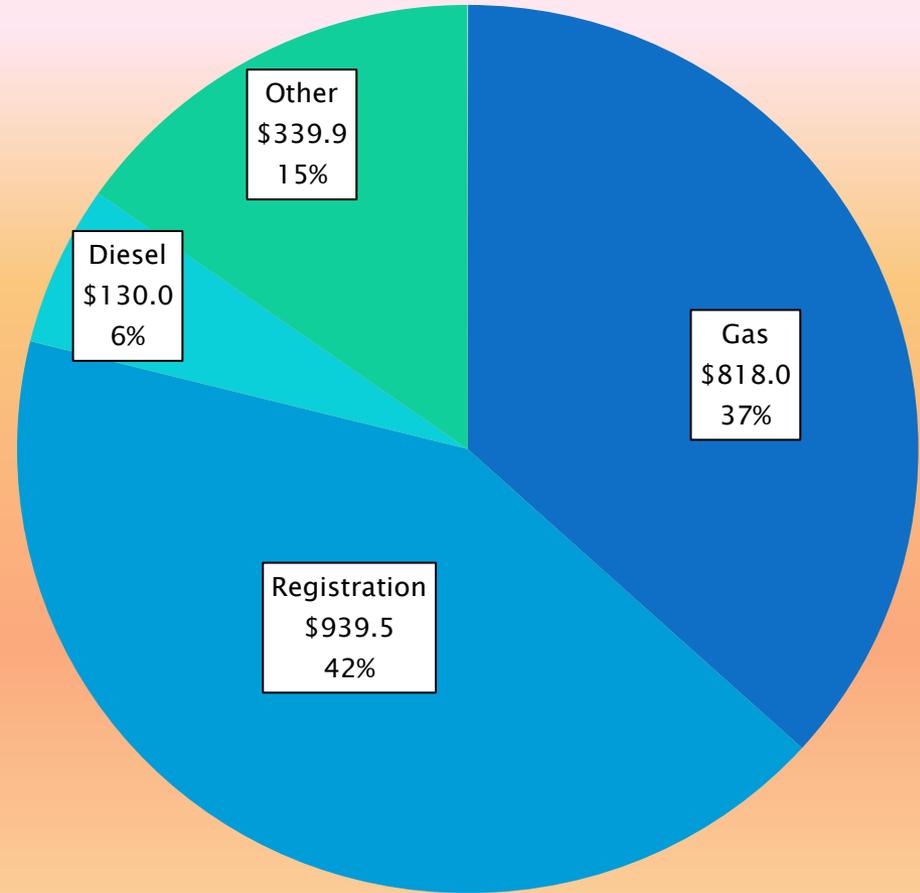
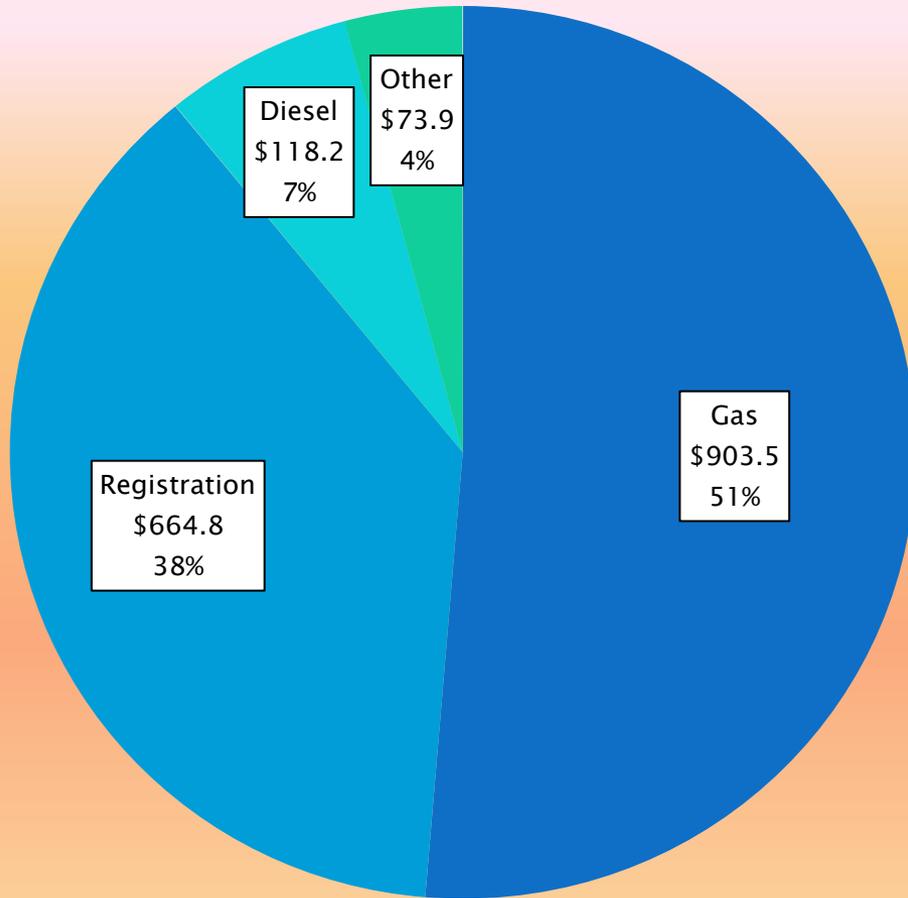
Total Budget: \$3.8 Billion

Transportation Revenue Sources

Est. for FY 2013-14:



State Revenue: 1998 & 2014:

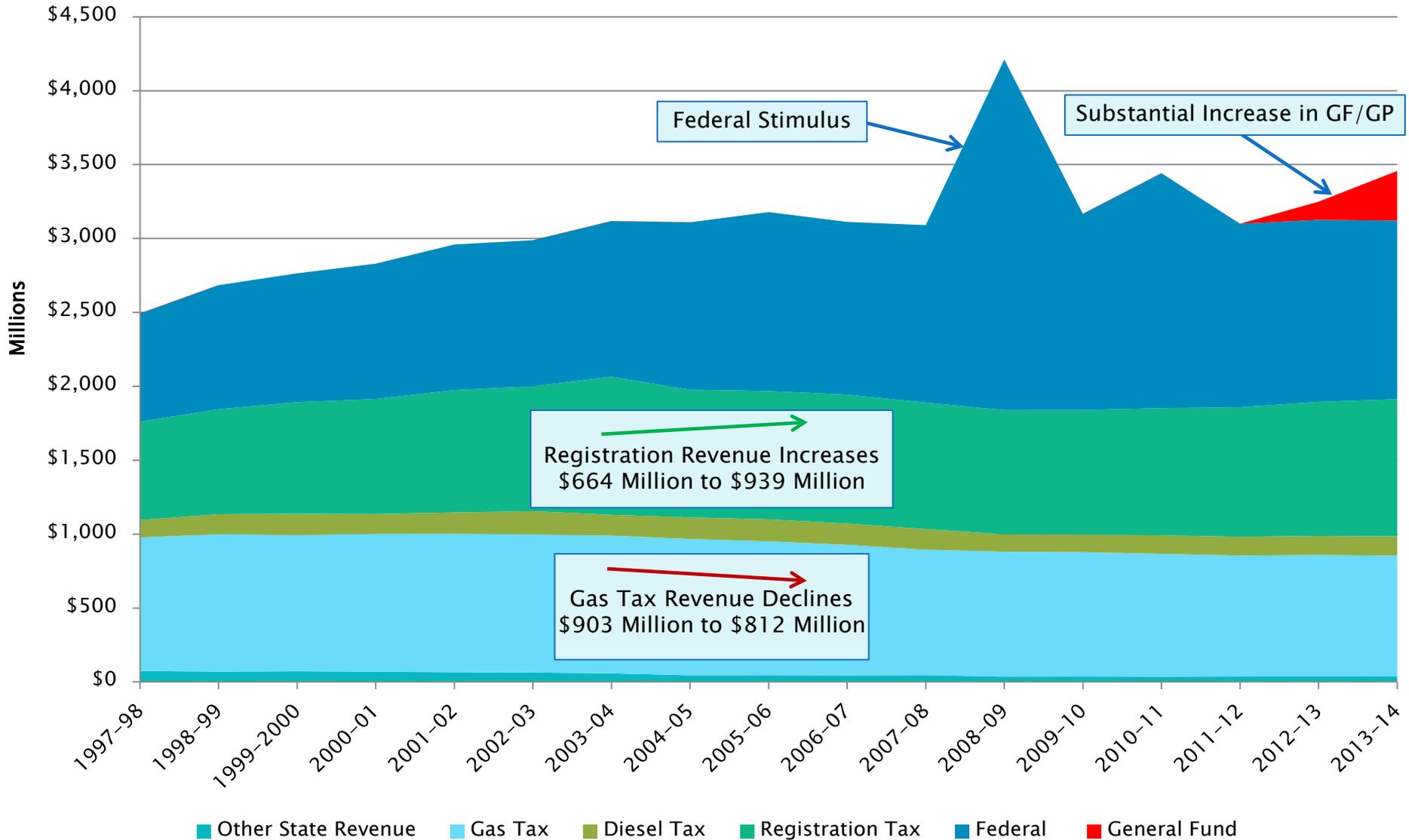


1997-98: \$1.76 Billion
(2.59 Billion in 2014 Dollars)

2013-14: \$2.23 Billion
(1.54 Billion in 1997 Dollars)

Accounting for CPI, revenue has decreased by 12.5%.

MTF Revenue by Source 1997–Present



Federal Funding Issues

The Federal Government struggles with the same problems as Michigan.

- The Federal Government has been appropriating General Fund to fund Transportation.
- Like Michigan's Gas Tax, the Federal Gas Tax is fixed.
- The Federal government has been struggling to meet funding obligations due to decreasing fuel consumption and revenue.

Federal Funding Issues

Michigan appropriates GF/GP to make Federal Match.
Cause: Declining Transportation Revenue.

- Transportation revenue falling short of meeting the Fed Match ceiling is a relatively new problem for Michigan.
- Most Federal Funding requires a 20% match.
 - For every \$1 that Michigan appropriates toward Fed Match, the Fed provides \$4, up to the ceiling, which changes annually.
- Since FY 2012–13, Michigan has appropriated over **\$371.3 Million General Fund** to Transportation for Fed Match.
 - This does not include \$359.5 Million General Fund that have been directed to MDOT and Locals for other purposes.
- Note: Maximizing Federal Match is insufficient to meet infrastructure demands.

A Look at General Fund for Roads and Bridges Since 1997

Fiscal Year	Amount (Millions)	Fund Source	Purpose	Recipient
1996-97	\$69.0	Budget Stabilization Fund	Build Michigan Initiative	State & Locals
1999-2000	\$170.0	Budget Stabilization Fund	Build Michigan Initiative	State & Locals
2011-12	\$0.5	General Fund	Fix Two Swing Bridges	Specific Earmark
2012-13	\$100.0	Sales Tax Redirect	Federal Match	State
2013-14	\$121.3	General Fund	Federal Match	State
	\$230.0	RRR Fund* (\$115 Mil.) General Fund (\$115 Mil.)	Priority Road Projects	Selected Projects
	\$100.0	General Fund	Special Winter Maintenance	State & Locals via PA51
2014-15	\$127.0	General Fund	Federal Match	State
	\$144.5	General Fund	State & Local Road Programs	State & Locals via PA51

*The \$115.0 Million in RRR was originally appropriated from GF/GP.

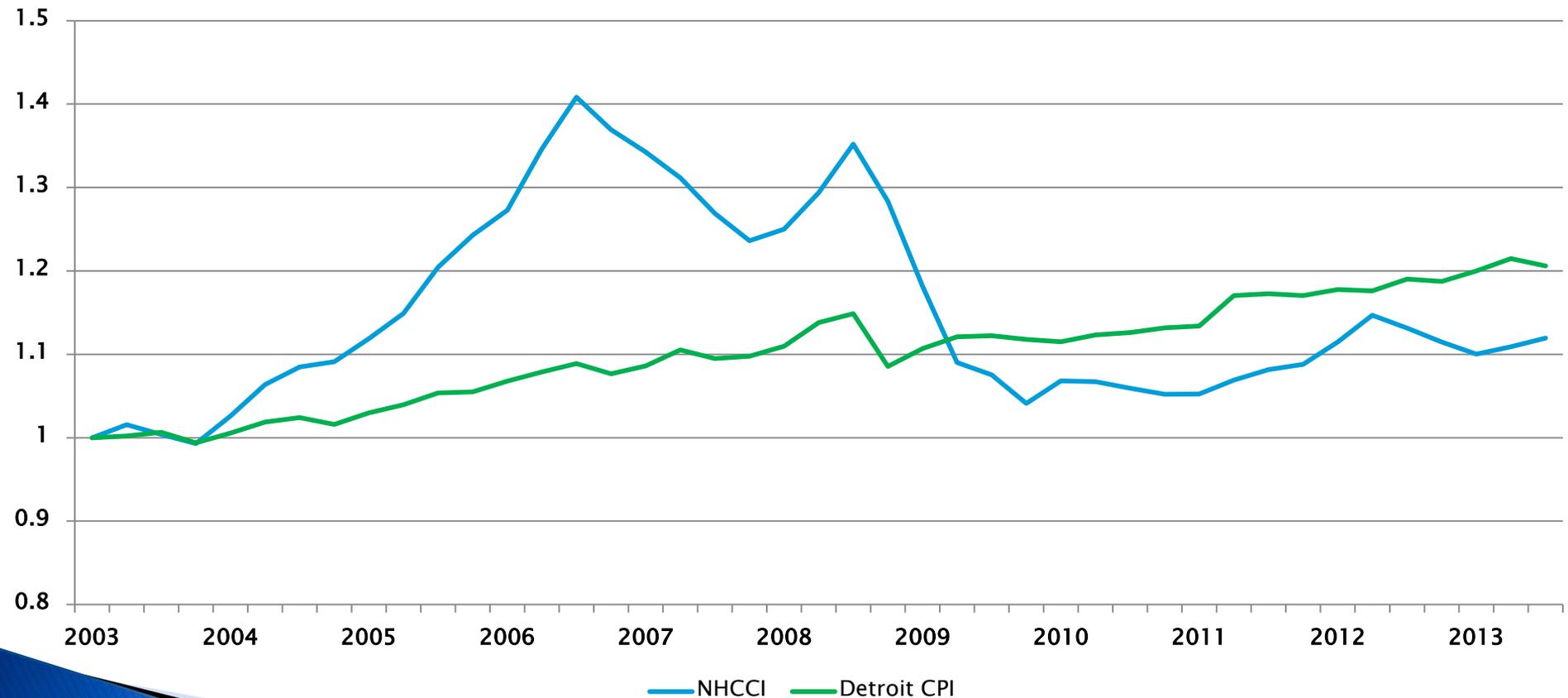
Gasoline Tax from the Consumer Viewpoint:

Gasoline Prices, Inflation, and the Tax Burden

Inflation Considerations

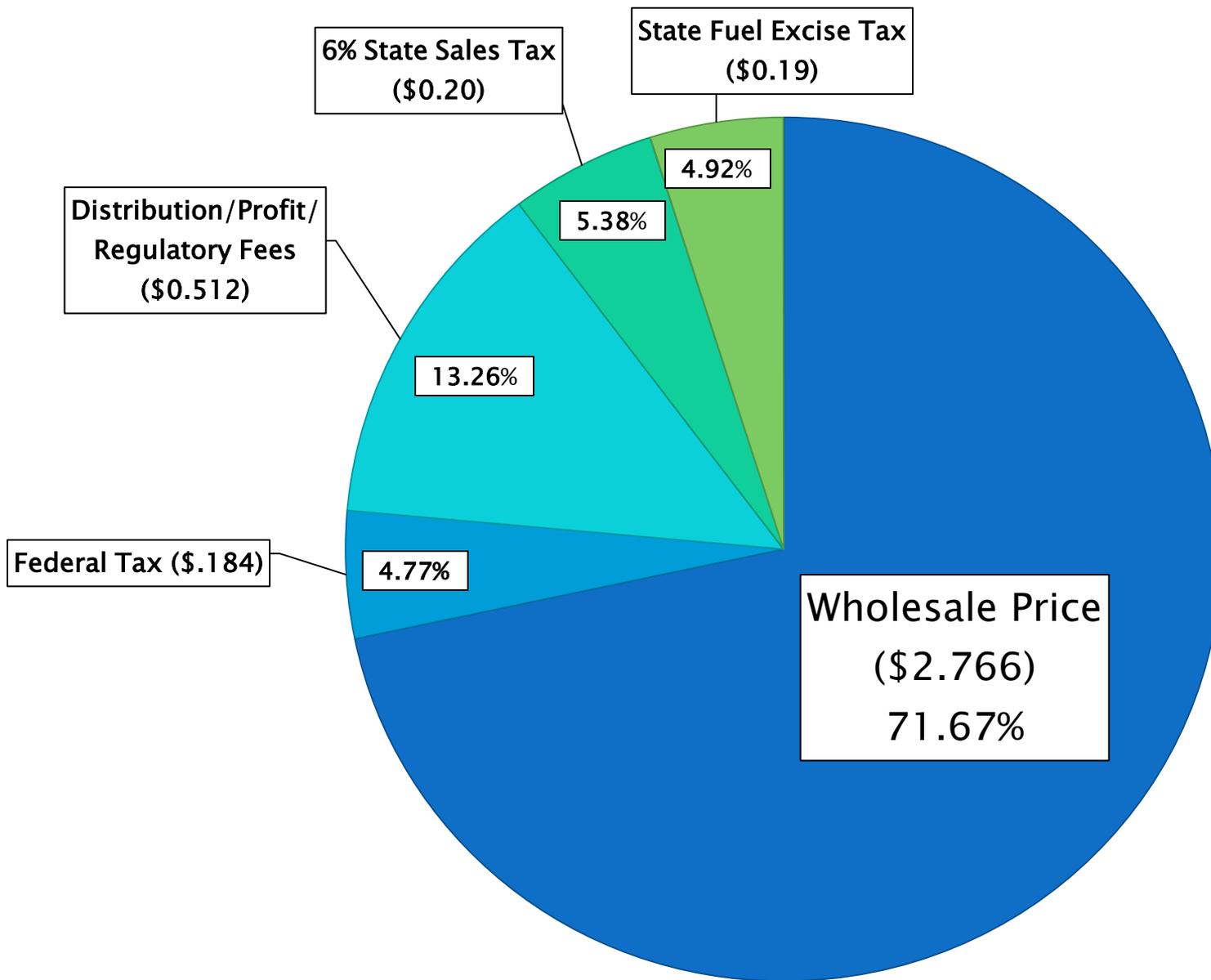
CPI: Consumer Perspective

National Hwy Const. Cost Index: Road Agencies



2003 = 100%

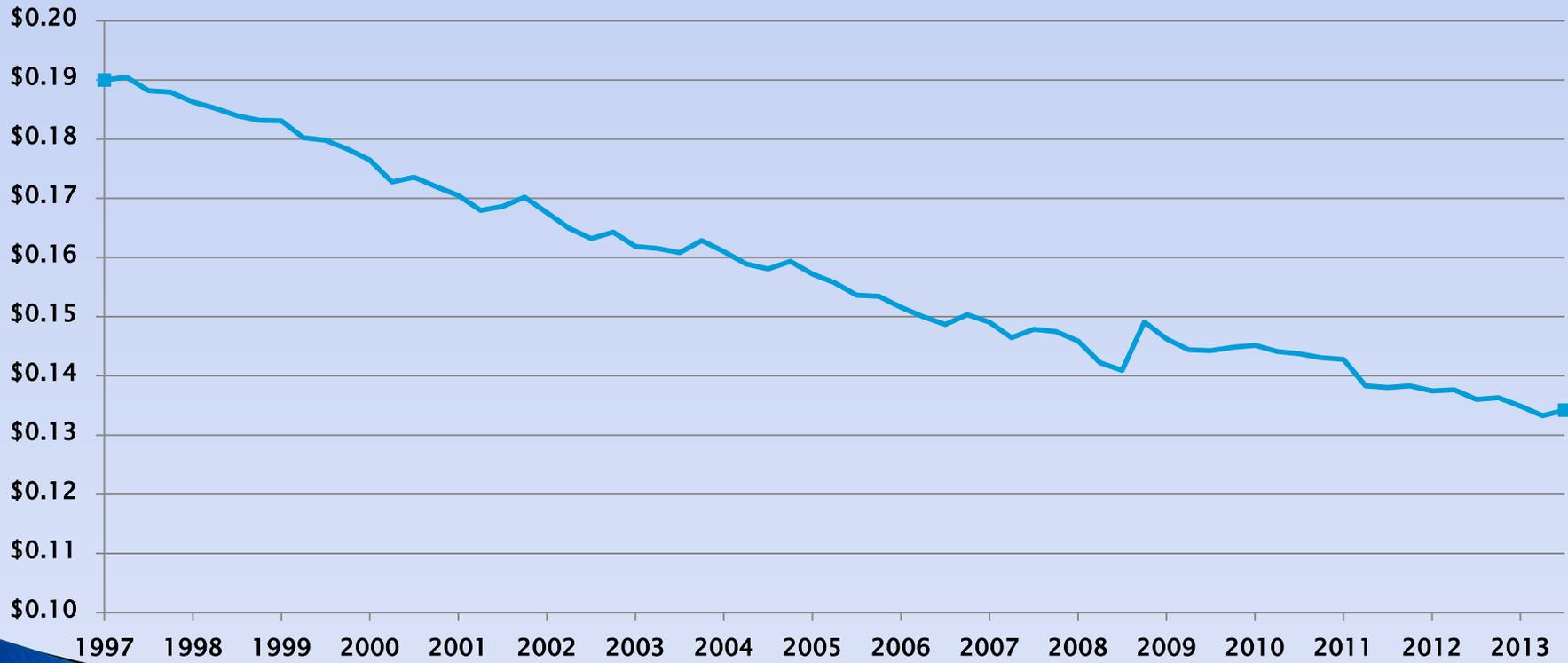
Breakdown of Gasoline Pump Price Per Gallon (FY 2014–15)



Based on Expected State Average Pump Price of \$3.86/Gallon

The Decreasing Gas Tax Burden

Adjusted for inflation, 19 cents in 1997 equals roughly 13.5 cents today. (Based on Detroit CPI)



Gas Tax vs. Wholesale Price

1997

WS Gas Price:	\$0.70
Gas Tax:	\$0.19
Tax % of WS Price:	27.14%

2014

WS Gas Price:	\$2.77
Gas Tax:	\$0.19
Tax % of WS Price:	6.87%

At today's rate of 6.87% of WS gas price, we would have paid \$.05 per gallon in 1997.

At 1997's rate of 27.14% of WS gas price, we would pay \$0.75 per gallon in 2014.

Consumer Viewpoint Summary:

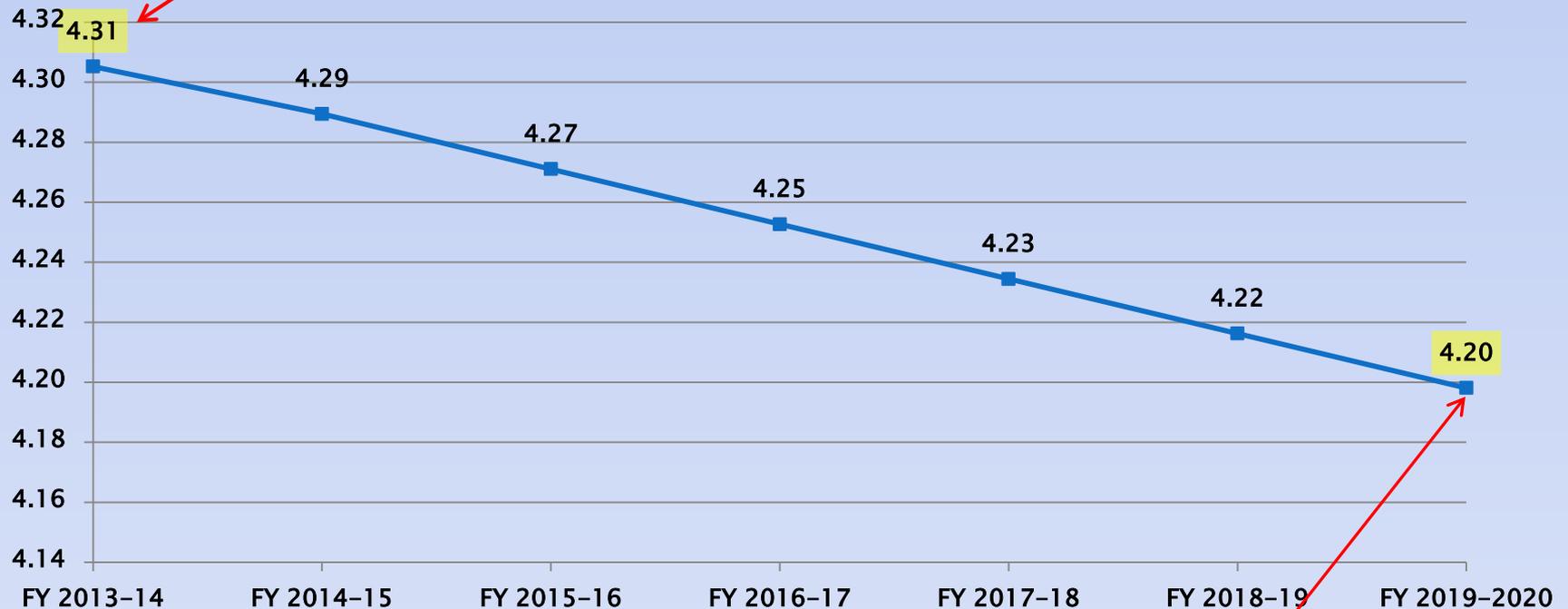
- ▶ Consumers' gas tax burden has been steadily decreasing since 1997.
- ▶ Gasoline has increased in wholesale price by more than 395% since 1997.
- ▶ If consumers today paid the same ratio of WS price to gas tax as in 1997, gas tax today would be 75 cents per gallon.
- ▶ If the gas tax was adjusted for inflation (CPI) since 1997, the current tax would be 28 cents per gallon.

Gasoline Tax as a Stable Revenue Source

Consumption, User Fees, and the Changing
Landscape of Transportation

Current Projected Gas Consumption (Billions of Gallons)

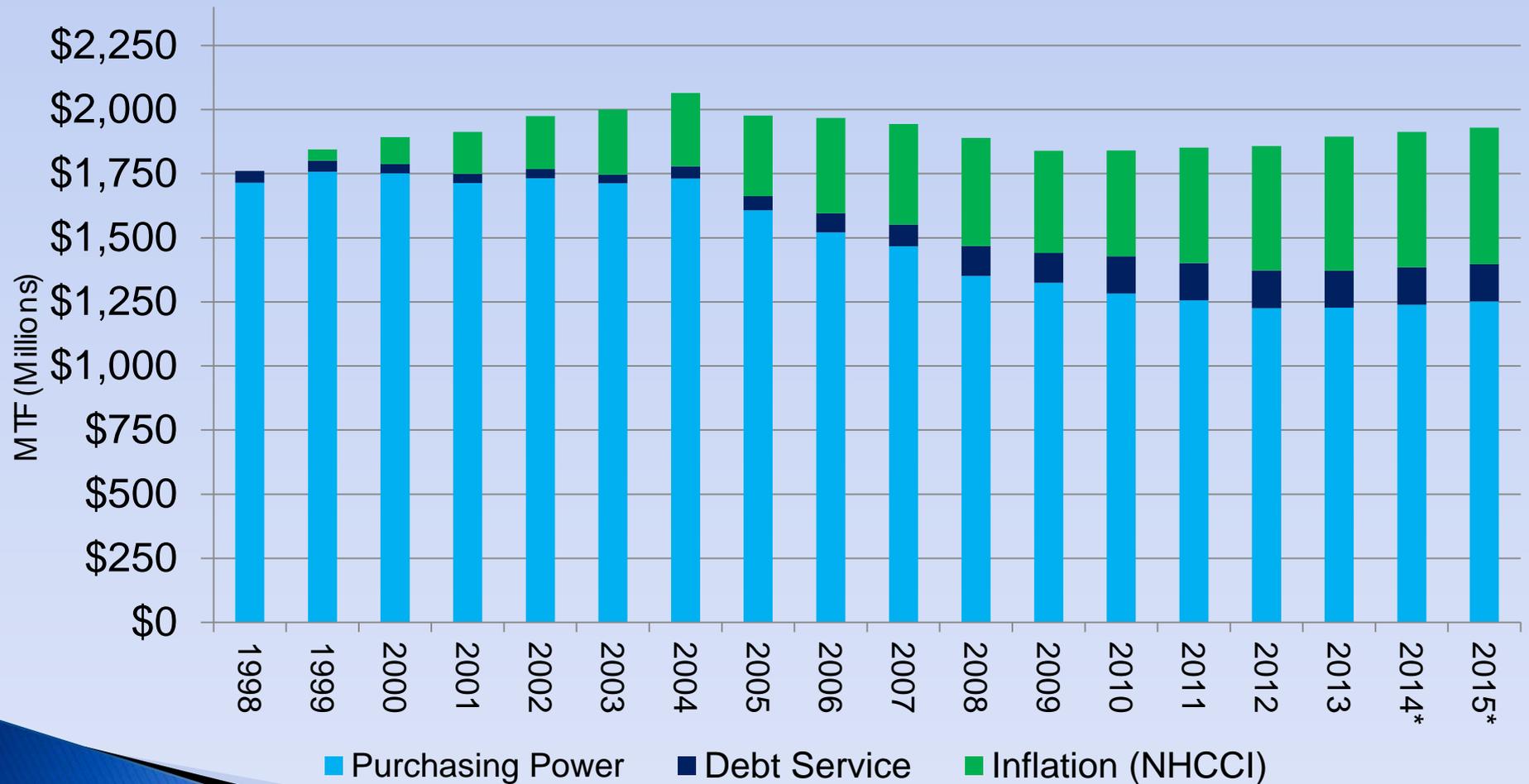
\$818 Million in Revenue @ 19 Cents/Gallon in 2014



\$798 Million in Revenue @ 19 cents in 2020

Gas Consumption Decrease of Approx. 20 Million Gallons/Yr.
Revenue Loss per Year = Approx. \$3.0 Million

Highway Construction Dollars & Reduced Buying Power



User Fee Theory: Gas Tax As An Odometer

1980's and prior:

- Fuel economy is relatively uniform across the board.
- Gas consumption is a great indicator of miles driven.

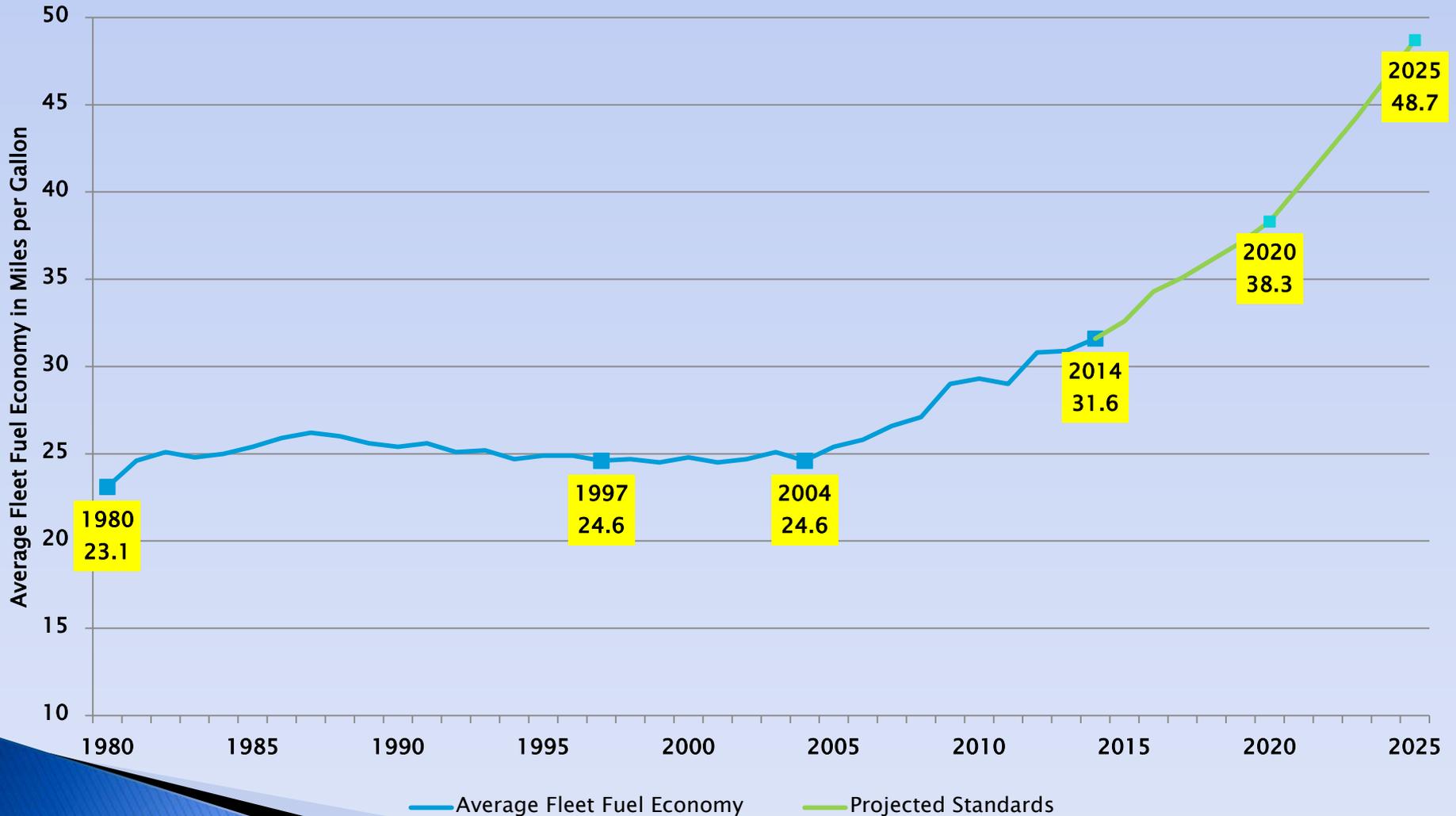
1990's:

- Fuel economy improves for many vehicles.
- SUV sales explode and mitigate increases in fuel economy.
- Gas consumption is somewhat less reflective of miles driven as disparity in fuel economy increases.

2000's: Fuel Economy makes significant gains.

- ▶ Average fleet fuel economy has increased by 28% since 2004.
 - This accounts for conventional vehicles as well as alternative fuel vehicles.
- ▶ Electric Vehicles
 - Owners pay registration fees based on vehicle value, but no gas tax. The rate at which these vehicles will make up more of the market is the subject of some debate.
- ▶ Hybrid Vehicles
 - The fuel economy of hybrid vehicles can vary drastically.

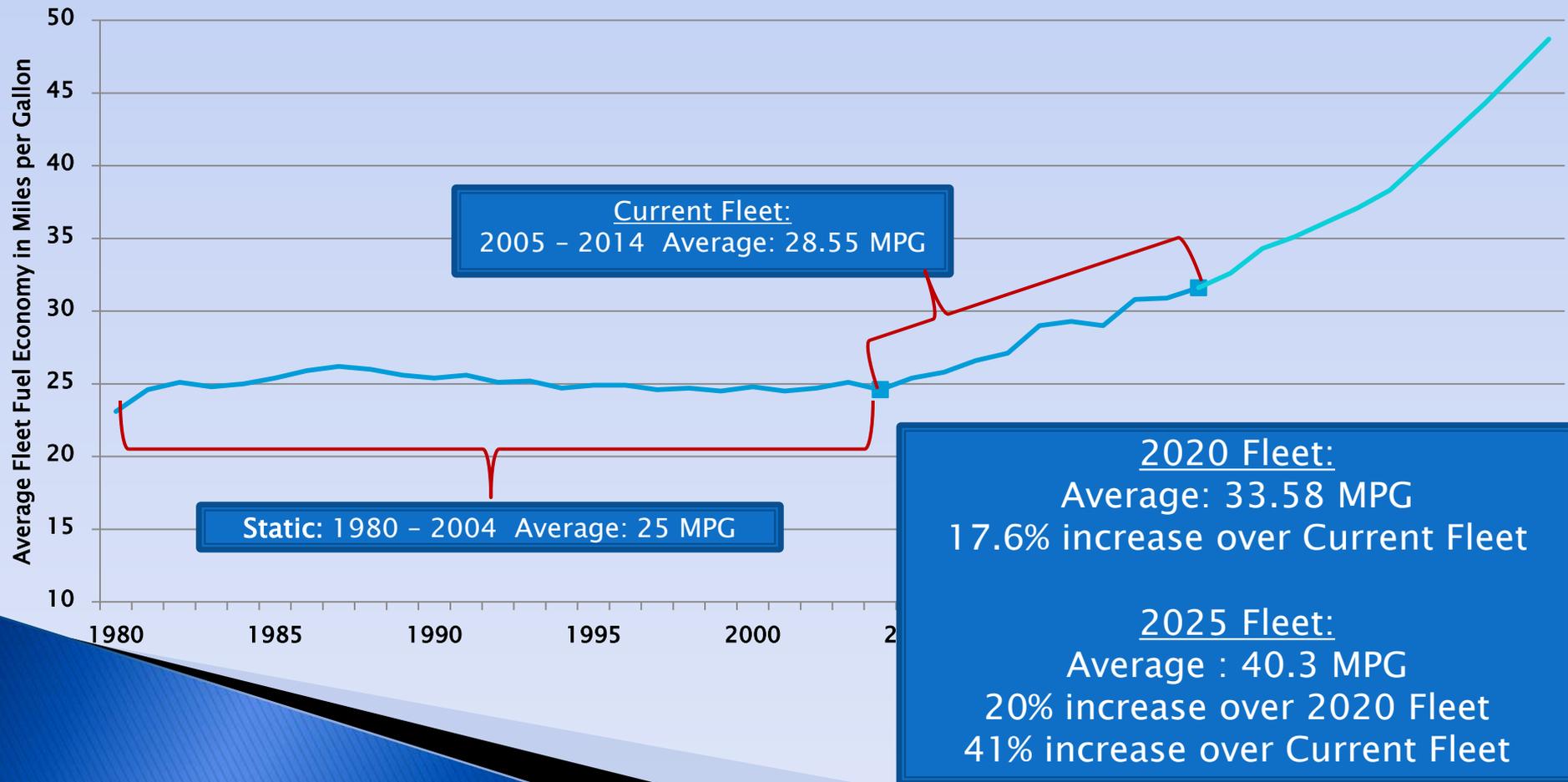
New Vehicle Fuel Economy 1980–2014 & Projected Requirements 2015–2025



Fleet Turnover and Fuel Economy

Assuming a ten-year fleet turnover rate, we can get an idea of the average fuel economy of the fleet.

For example:



Summary:

Gas Tax as a Stable Revenue Source

A Two-Part Problem

Part 1

- ▶ Inflation (NHCCI) has resulted in a significant loss of buying power for Road Agencies.
- ▶ Some proposals for a Gas Tax increase have considered inflation (both CPI and NHCCI).

Part 2

- ▶ Increasing Fuel Economy and Declining Consumption continue to result in a significant loss of revenue for Transportation.
- ▶ Proposals have included higher registration fees for alternative fuel vehicles to account for higher fuel economy.

User Fee Issue: Fuel Economy Examples

Vehicles today range from poor to excellent fuel economy.



Ford Focus Electric:

0 Gallons per Mile

Gas Tax = \$0.00/mile



Chevy Camaro
(V8 Supercharger):

14 Miles per Gallon

Gas Tax = 1.35 Cents/mile



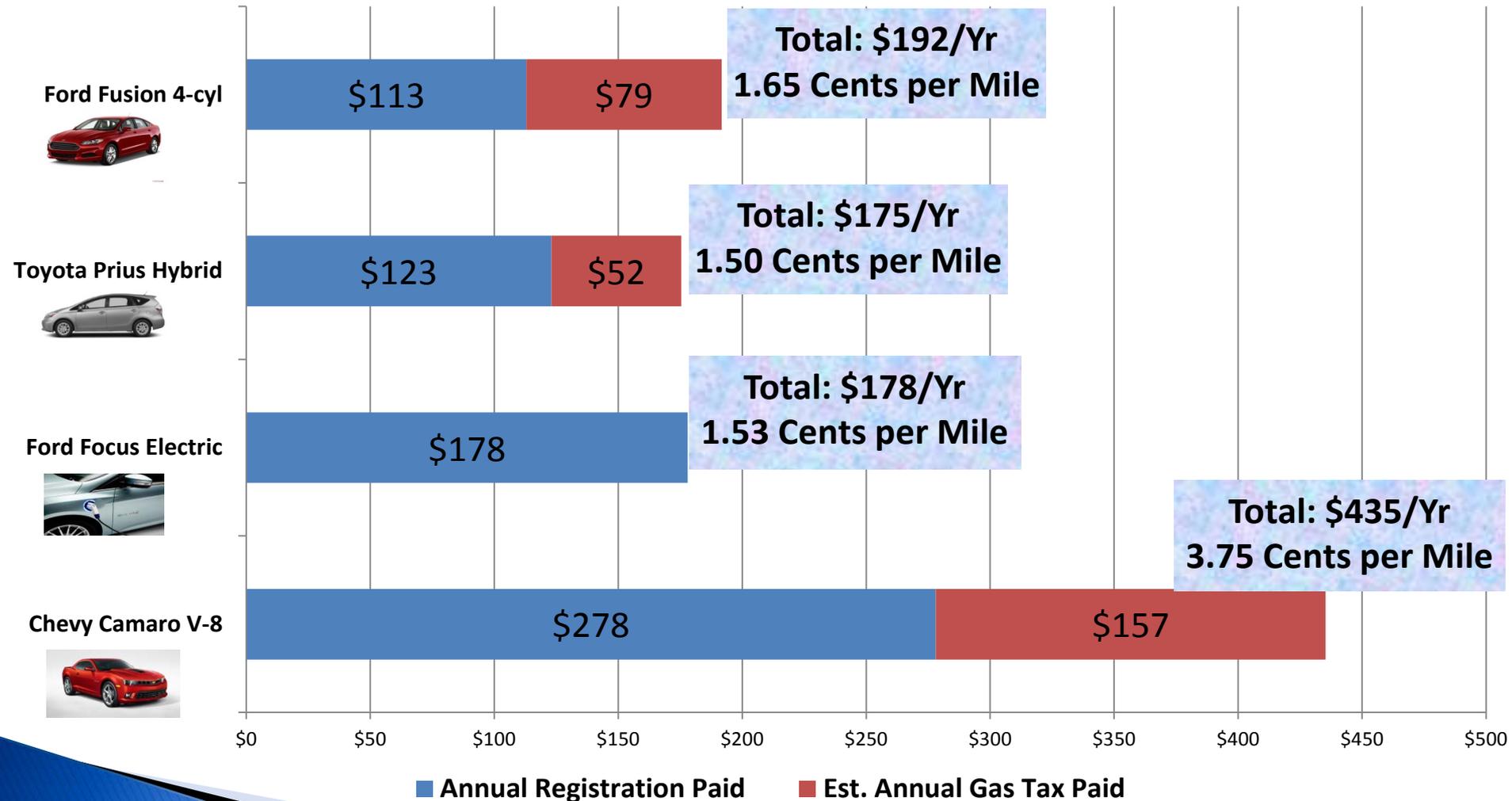
Toyota Prius Hybrid:

42 Miles per Gallon

Gas Tax = 0.45 Cents/mile

The disparity in fuel economy presents problems for a user-fee system. The fuel economy and price of a vehicle determine a person's tax rate.

Annual Transportation Taxes: Examples



Based on 11,593 average miles per vehicle per year in Michigan (Source: FHWA). Does not reflect depreciation discount rates.

Fuel Efficiency Summary

The fuel tax paid per mile driven is inconsistent between different types of vehicles.

- Fuel Economy Disparity has resulted in substantial differences in Gas Tax paid per mile.
 - Registration fees may make up for lost gas tax revenue, but only if prices remain substantially different between conventional and alternative fuel vehicles.
- Ad Valorem Registration Tax: Since Registration Tax is based on a vehicle's value, it does not account for actual road usage.

Fuel Economy and the Future

- ▶ We are in the midst of sweeping changes and advancements in automotive technology.
- ▶ Until Fuel Economy levels off and sales of electric vehicles can be predicted with more accuracy, the sustainability of any gas tax revenue plan is very difficult to assess in the long term.

Alternative Taxation for Alternative Vehicles

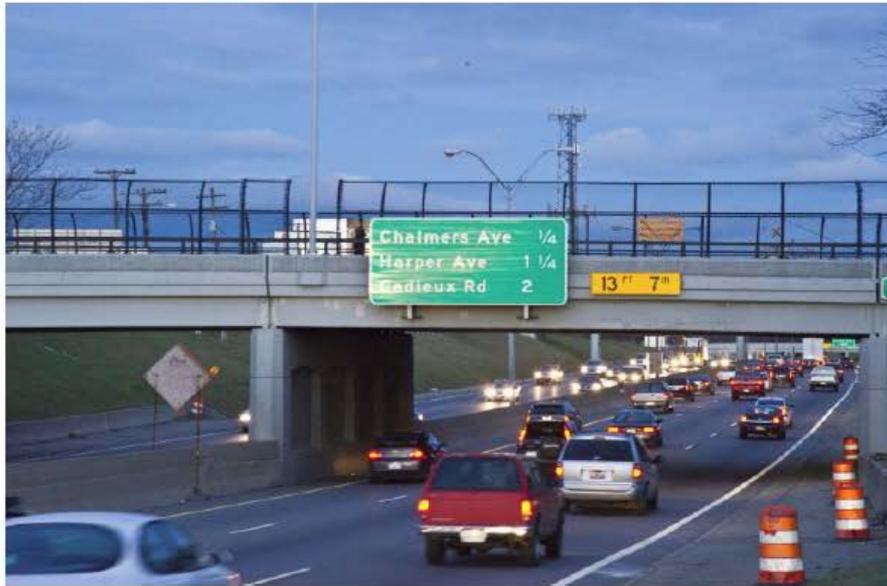
- ▶ **Electric Charging Station Tax**
 - Essentially a fuel tax.
 - Potential disparity in fuel economy within this class.
 - Other states have successfully implemented.
 - Michigan does not have many charging stations.
- ▶ **Mileage Readings**
 - Controversial in the House hearings in 2013.
 - Privacy and Administrative Concerns
- ▶ **Increased Registration Fees for Alternative Fuel Vehicles**
 - Also controversial in the House hearings.
 - Automakers: Increased fees would eliminate incentive for purchasing these vehicles.

State Trunkline Condition and Pavement Quality

State Trunkline Goals Explained

- ▶ Four Classes of State Trunkline:
 - International/National Corridor (6,658 Miles)
 - Statewide Corridor (7,485 Miles)
 - Regional Corridor (8,587 Miles)
 - Local Corridor (7,117 Miles)
- ▶ MDOT's Goals – “95 / 85”
 - Freeways: 95% in good or fair condition
 - Non-freeways: 85% in good or fair condition

International/National Corridors



I-94 in the City of Detroit

I-96 at Spencer Road in Livingston County



Statewide Corridors



M-53 in Macomb County

Us-23 AT Warren Road in Washtenaw County



Regional Corridors



US-2 Crystal Falls in Iron County



M-37/M-46 Roundabout Intersection near Cassanovia in Muskegon County

Local Trunkline Corridors



M-69 in Crystal Falls, Iron County

M-82 in Newaygo County



PASER–Pavement Surface Evaluation & Rating



GOOD



PASER = 10, 9, 8

Routine Maintenance

- Crackseal
- Minor Patching

FAIR



PASER = 7, 6, 5

Preventive Maintenance

- Crackseal
- Patching
- Surface Treatment
- Concrete Joint Repair

POOR



PASER = 4, 3, 2, 1

Rehab/Reconstruct

- Resurface
- Structural Overlay
- Replace Concrete Slab
- Complete Reconstruct



Genesee County



Royal Oak



Washtenaw County



Grand Rapids



Detroit

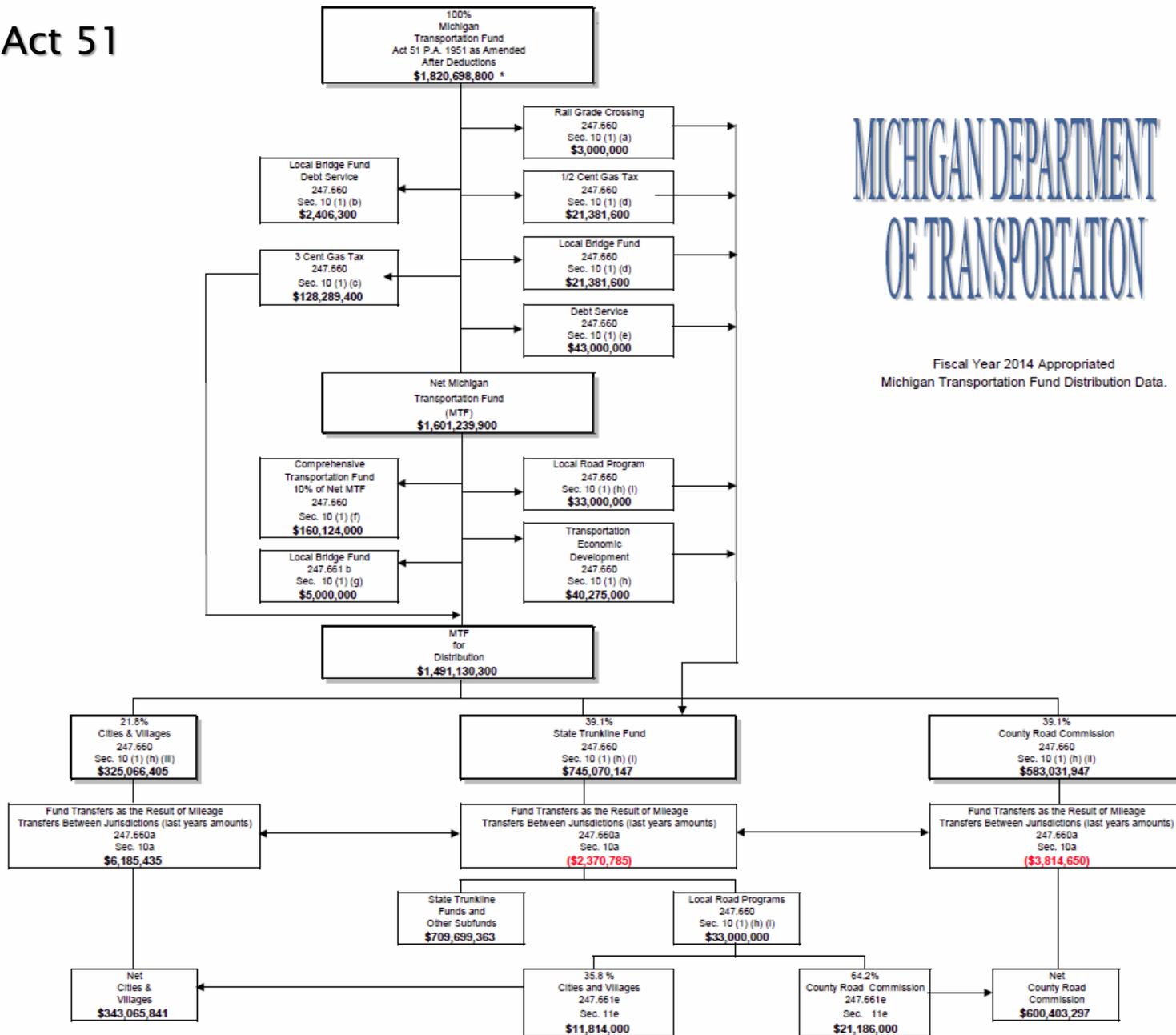
Funding Concerns

Public Act 51, Demands Facing State Trunkline
and Locals, and Additional Revenue Issues

Public Act 51

MICHIGAN DEPARTMENT OF TRANSPORTATION

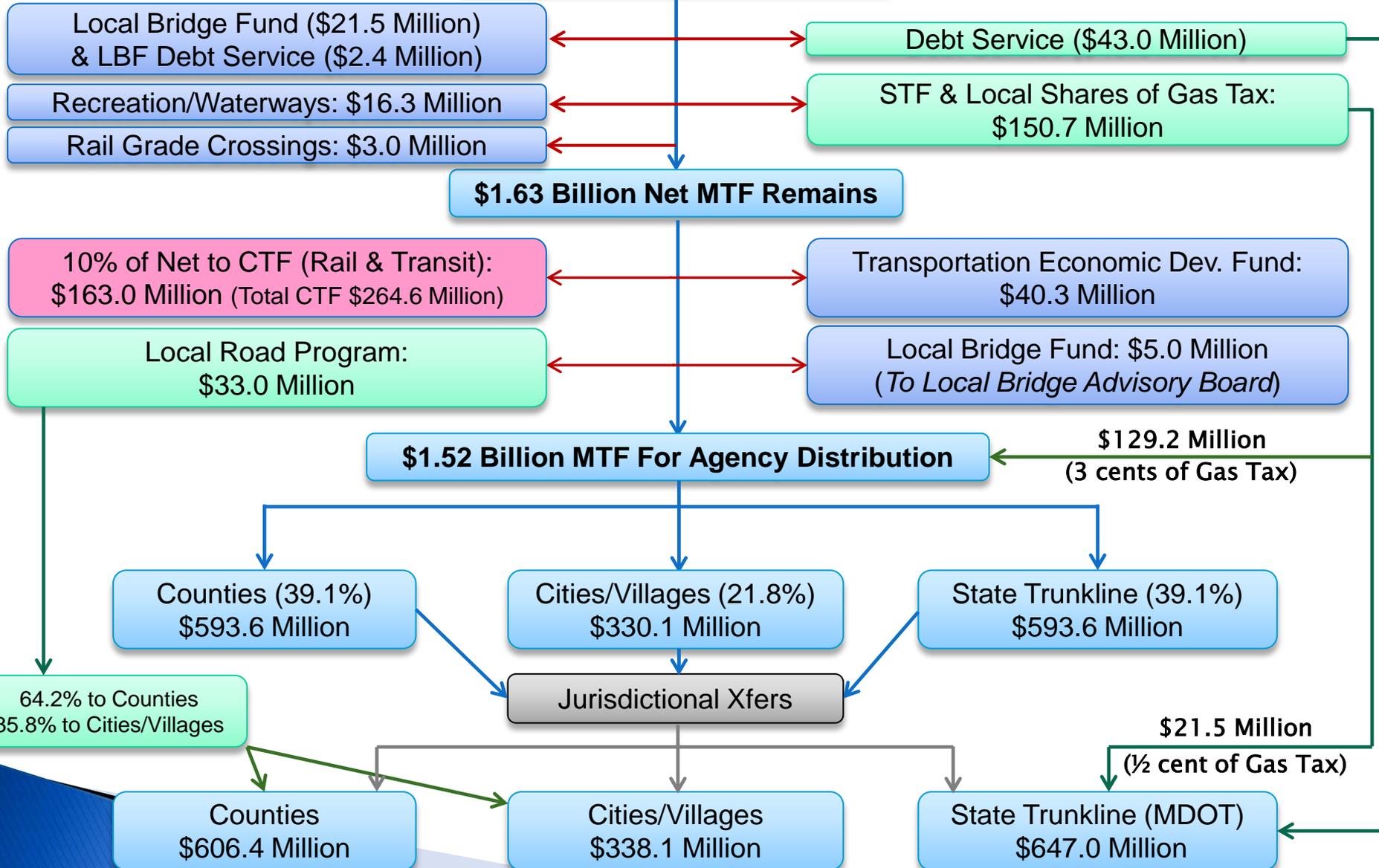
Fiscal Year 2014 Appropriated Michigan Transportation Fund Distribution Data.



* All dollar amounts based on appropriated amounts for the fiscal year of October 1, 2013 through September 30, 2014.

Public Act 51

FY 2013-14 MTF Revenue For Distribution (Est. \$1.91 Billion)

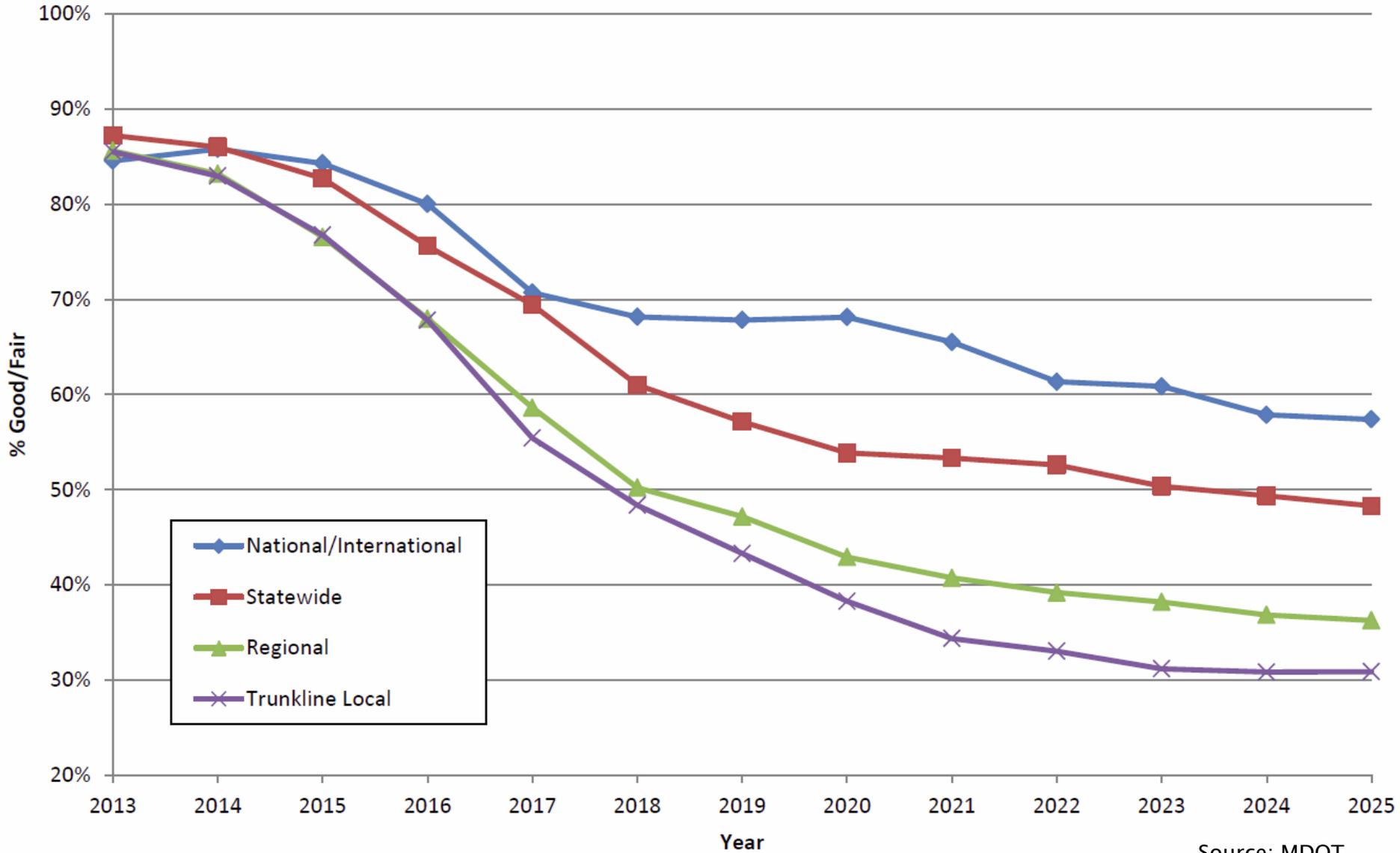


How Much Revenue?

State Level:

- **MDOT:** \$1.113 Billion needed immediately for State Roads and Bridges to meet its goals by 2025.
- Delays in funding are not “year for year” in terms of pushing back MDOT goals.
 - Degradation of roads is exponential. For every year that funding increases are delayed, the 2025 goal will be pushed back at an increasing rate. Costs also exponentially increase.

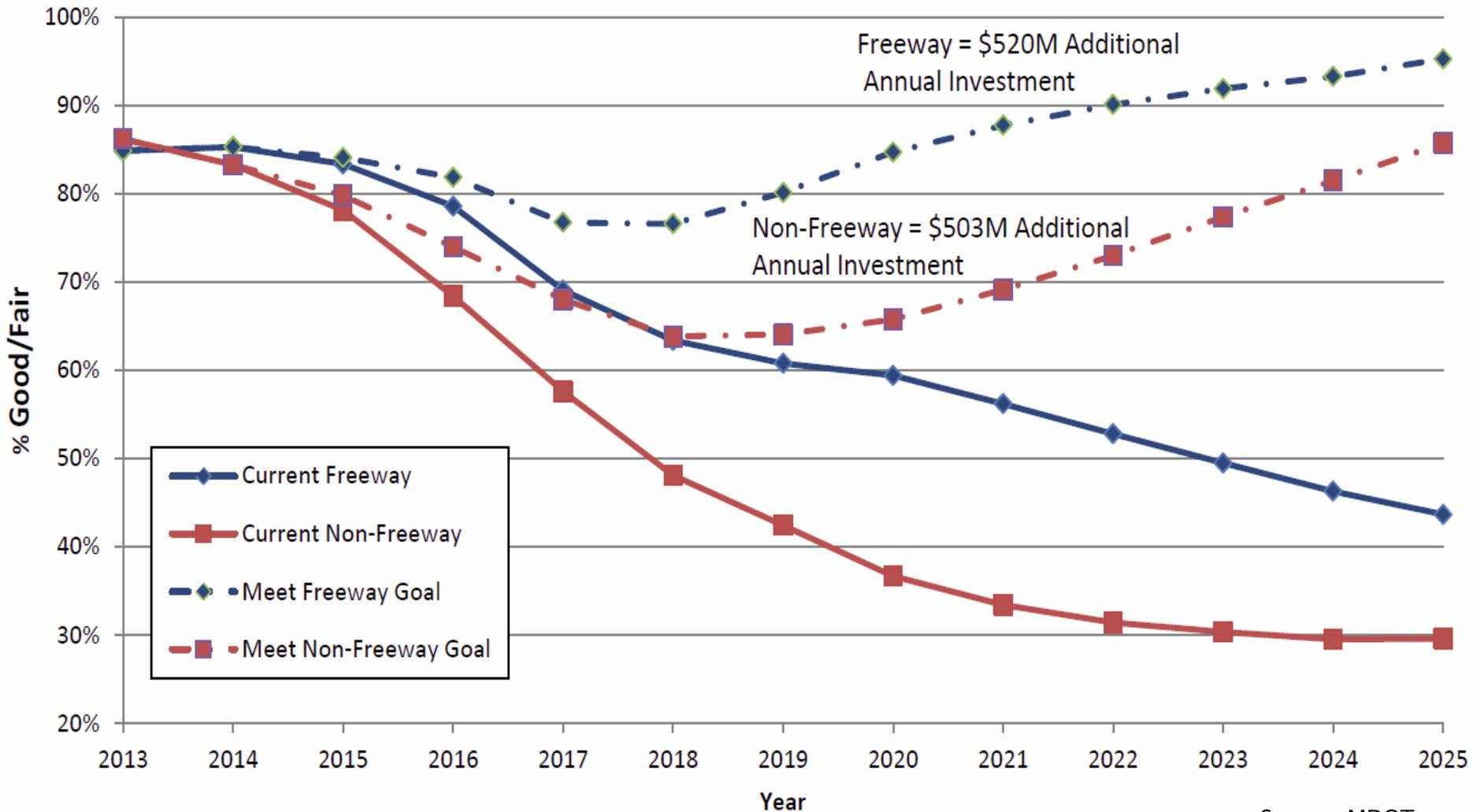
Trunkline Pavement Condition Forecast by COHS at Current Investment Levels



State Trunkline Pavement Condition Forecast

Current Investment vs Meet 95/85 Goal Strategy

\$1.023B Additional Annual Investment



Additional \$3.2 Billion in Funding

MTF Revenue For Distribution
($\$1.91 \text{ Billion} + \3.2 Billion)
Total \$5.11 Billion

New Revenue:
\$3.2 Billion

PA51 Deductions

STF & Local Shares of Gas Tax:

\$128.3 Million
(3 cents of Gas Tax)

Counties

(Currently \$600.4 Million)
Total \$1.84 Billion

Gain of \$1.24 Billion

Cities/Villages

(Currently \$343.1 Million)
Total \$1.03 Billion

Gain of \$683.3 Million

State Trunkline (MDOT)

(Currently \$648.0 Million)
Total \$1.88 Billion

Gain of \$1.24 Billion

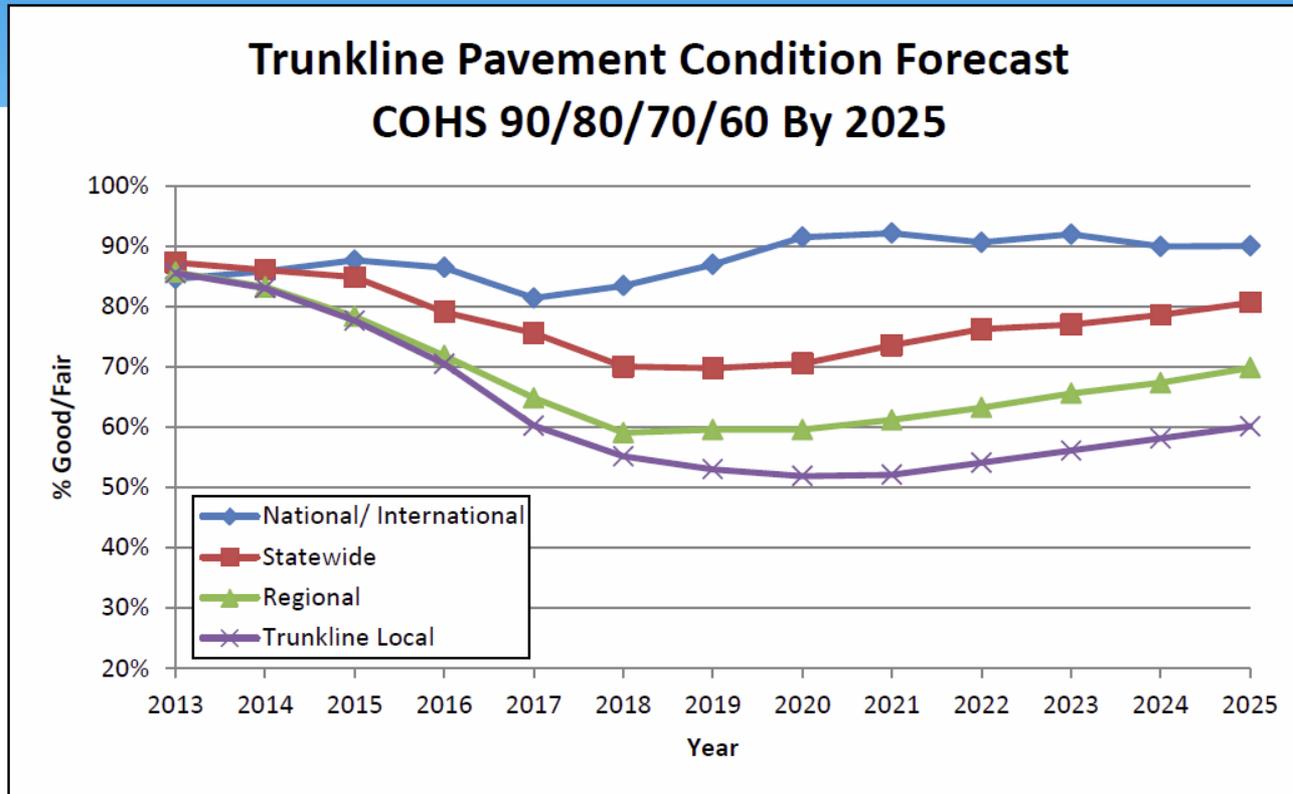
Local Gain: \$1.92 Billion

\$21.4 Million
($\frac{1}{2}$ cent of Gas Tax)

Contingency Plans

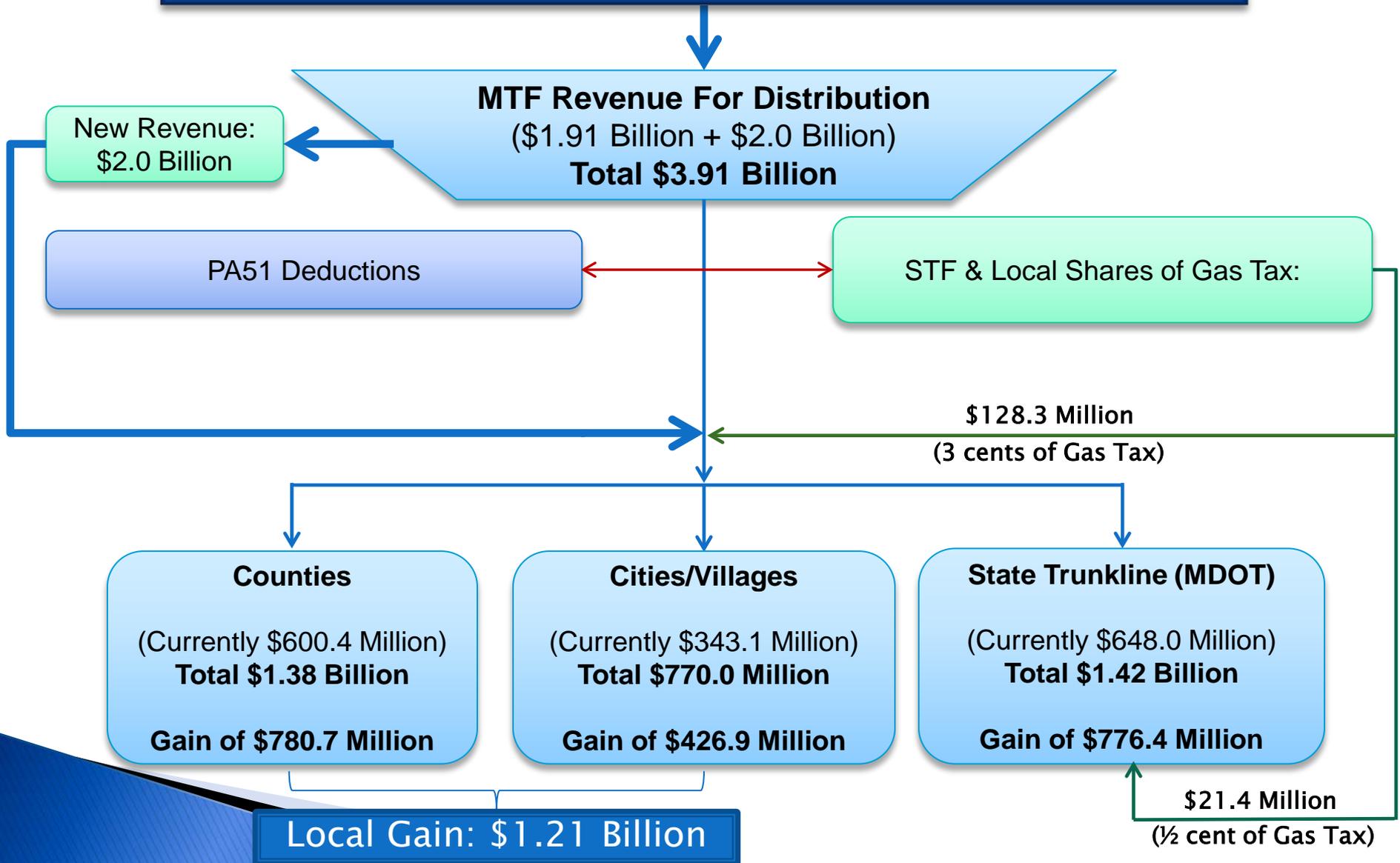
- ▶ Director of MDOT:
 - MDOT must consider reassessing goals to “Avoid Self Destruct”.
- ▶ In case MDOT does not receive funding to meet the 95/85 goals, MDOT is considering alternative goals.
- ▶ These alternative goals sacrifice long-term savings in order to meet short-term needs.

Example Scenario #1

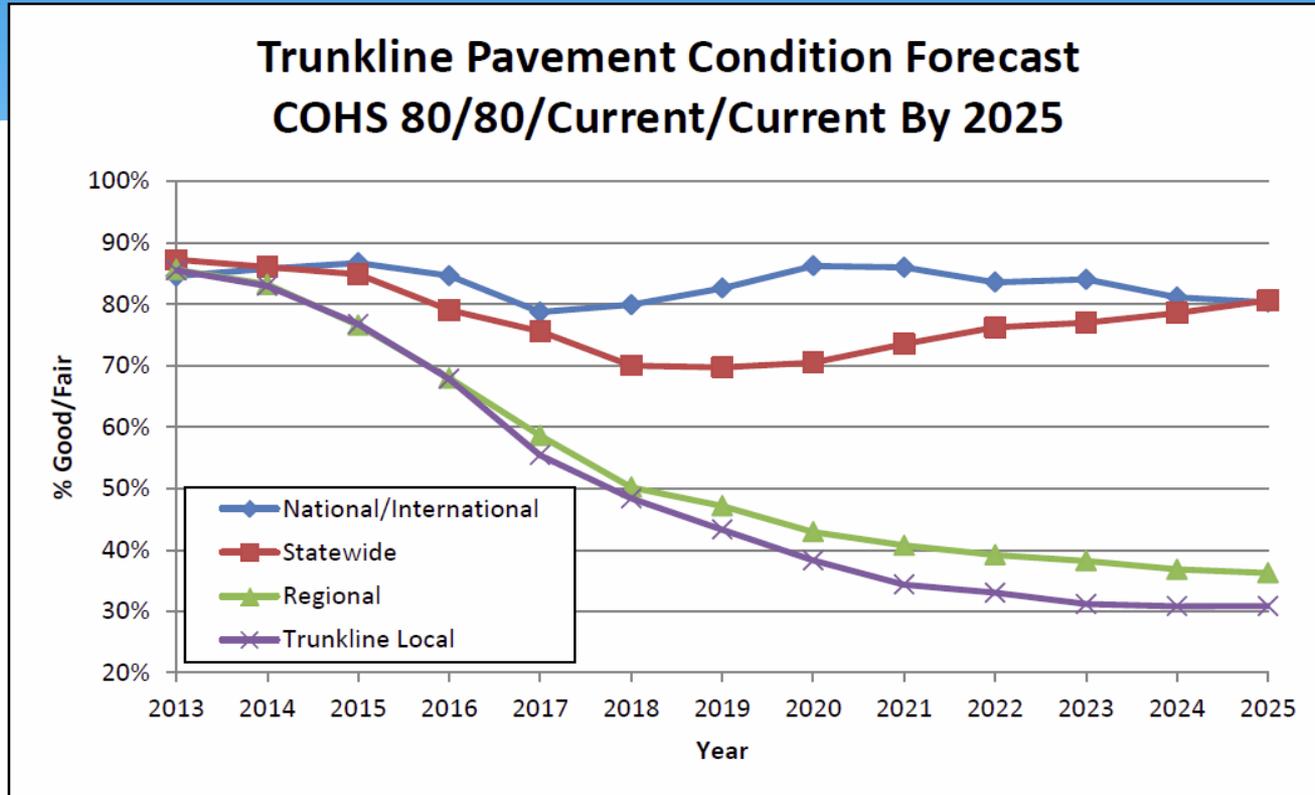


**Additional Revenue Needed:
\$775 Million**

Scenario 1: Additional \$2.0 Billion in Funding



Example Scenario #2



**Additional Revenue Needed:
\$465 Million**

Scenario 2: Additional \$1.2 Billion in Funding

MTF Revenue For Distribution
($\$1.91 \text{ Billion} + \1.2 Billion)
Total \$2.11 Billion

New Revenue:
\$1.2 Billion

PA51 Deductions

STF & Local Shares of Gas Tax:

\$128.3 Million
(3 cents of Gas Tax)

Counties

(Currently \$600.4 Million)
Total \$1.07 Billion

Gain of \$730.2 Million

Cities/Villages

(Currently \$343.1 Million)
Total \$599.1 Million

Gain of \$256.0 Million

State Trunkline (MDOT)

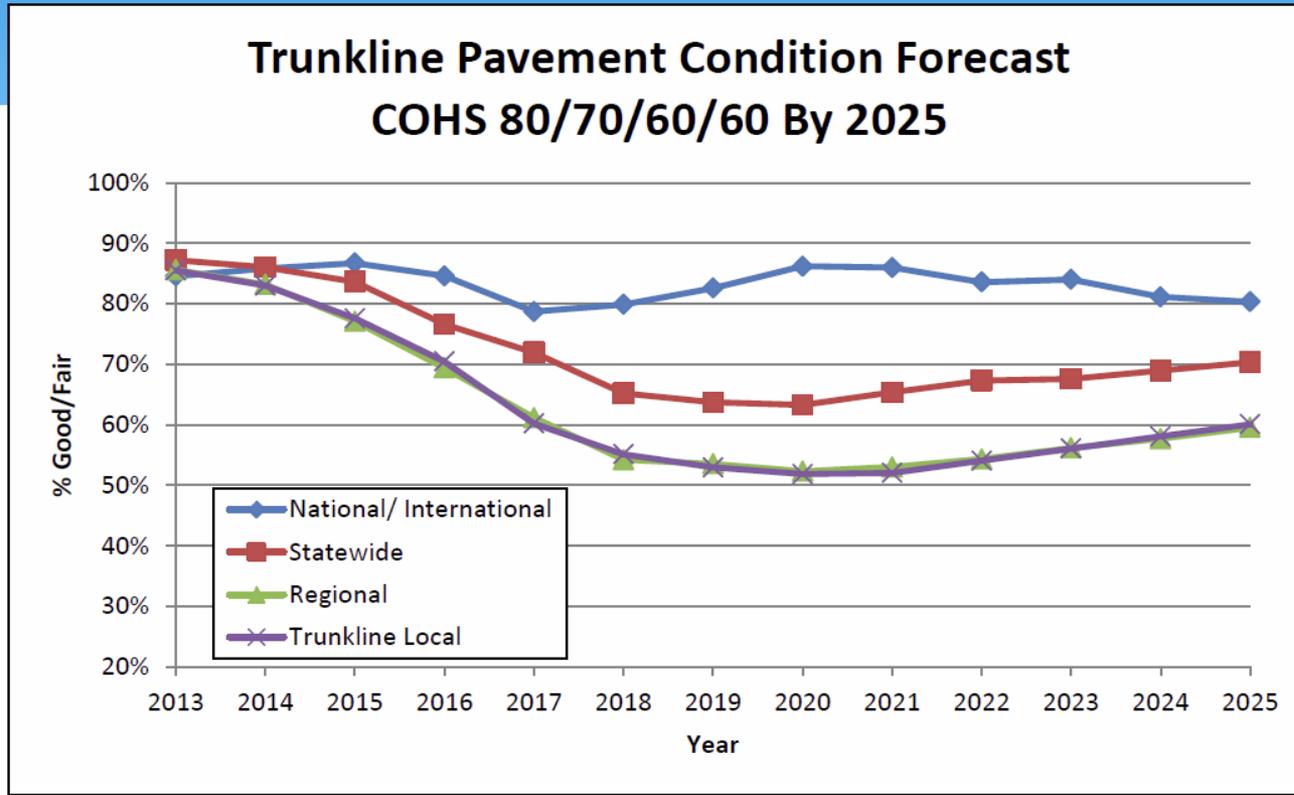
(Currently \$648.0 Million)
Total \$1.12 Billion

Gain of \$469.9 Million

Local Gain: \$986.2 Million

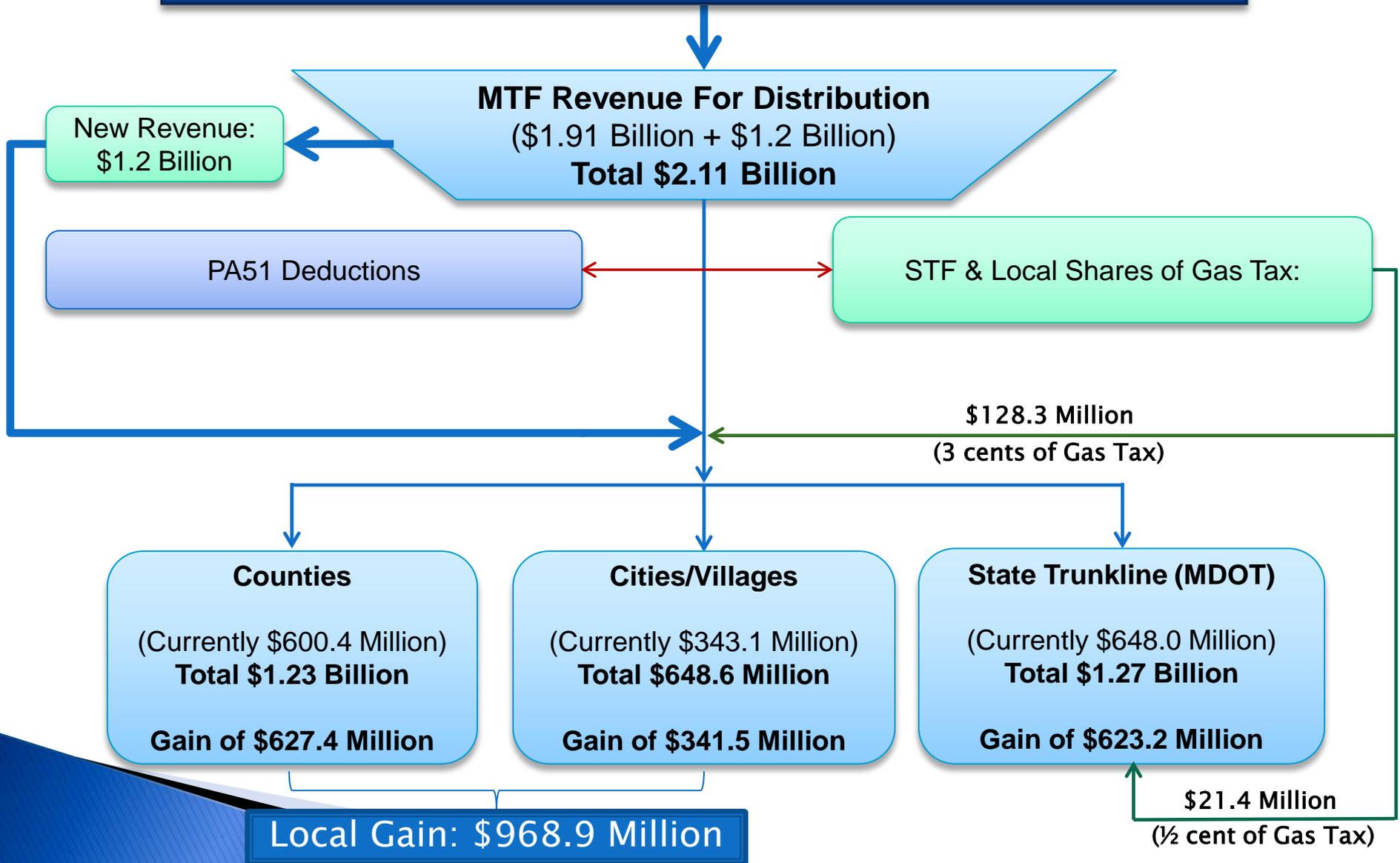
\$21.4 Million
($\frac{1}{2}$ cent of Gas Tax)

Example Scenario #3



**Additional Revenue Needed:
\$604 Million**

Scenario 3: Additional \$1.6 Billion in Funding



What Funding is Needed at the Local Level?

- ▶ Local Level: Very Difficult to Quantify
 - PA51 simply gives us a formula-based number. It does not necessarily reflect actual funding needs.
 - Needs studies have been based on estimates and comparisons between local road costs and State Trunkline costs.
 - More information is needed to determine exactly what locals need. Current data suggests over \$1.0 billion is needed.
 - Rep. Olson Report to the House Transportation Committee Workgroup – Findings:
 - Over \$2.2 billion is needed statewide.
 - The report infers local road needs based on MDOT trunkline data.

A Shift in Funding Philosophy?

Locally raised revenue for roads has been increasing in recent years.

LOCAL GOVERNMENT ROAD FUNDING:

- Road Millages
 - Requires a vote of the people.
 - Constitutional limitations on Millages.
 - Based on Property Values.
 - “User–Fee” theory issues
 - In August 2014, 156 road millages were on the ballot at the local level (new millages and renewals). 142 of these millages were approved.

A Shift in Funding Philosophy?

LOCAL GOVERNMENT ROAD FUNDING:

- Income Tax
 - Grand Rapids: Passed income tax for city streets and sidewalks in 2014.
 - Based on individual income level.
 - “User-Fee” theory issues

A Shift in Funding Philosophy?

LOCAL GOVERNMENT ROAD FUNDING:

- Special Assessments
 - Does not require a vote of the people.
 - Texas Township: \$60 per parcel charge for roads approved by the Township Board in 2010.
 - Stated Philosophy: All township residents benefit from having better roads.
 - Potential legal challenges? Benefit to the property?
 - Texas Supervisor: Several failed challenges in first year at Tax Tribunal level.
 - Several other townships have pursued this option.
 - “User-Fee” theory issues

A Shift in Funding Philosophy?

LOCAL GOVERNMENT ROAD FUNDING:

Should supplemental funding that is raised at the local level be considered when looking at what local governments need?

- This will have a significant impact on the amount needed from State taxation.

Is continued local support expected as transportation reform moves forward?

- Local road revenue options generally are not ongoing, and will either expire or be renewed.
- If continued local support is expected but falls through, there will be funding shortfalls at the local level.

Thank you.

Questions?