



# Carbon Reduction within Oregon Transportation

Before the Senate Interim Committee  
on Environment and Natural Resources

Waylon Buchan – January 13, 2020



Collectively we represent a broad cross-section of key transportation stakeholders including those who own, maintain, build, use, and pay for Oregon's transportation infrastructure.

Key Issues:

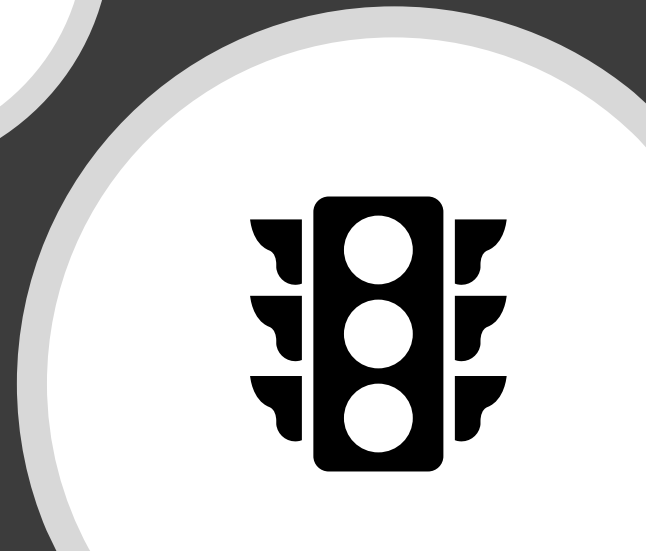
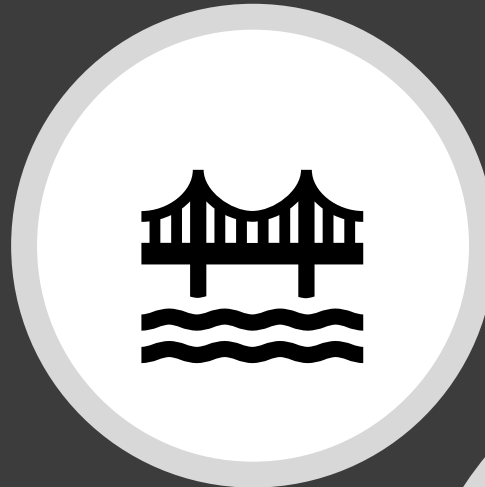
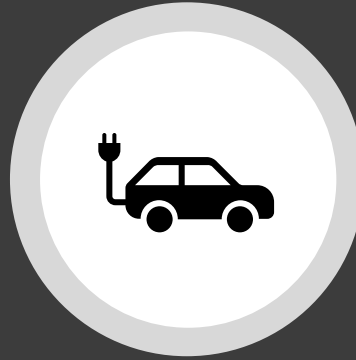
Impacts to Highway Trust Fund

Cost Containment and Impact to Motorists and Trucking

Future Transportation Investments and the Economy

Price Impacts on Labor and Procurement

Expedited Review



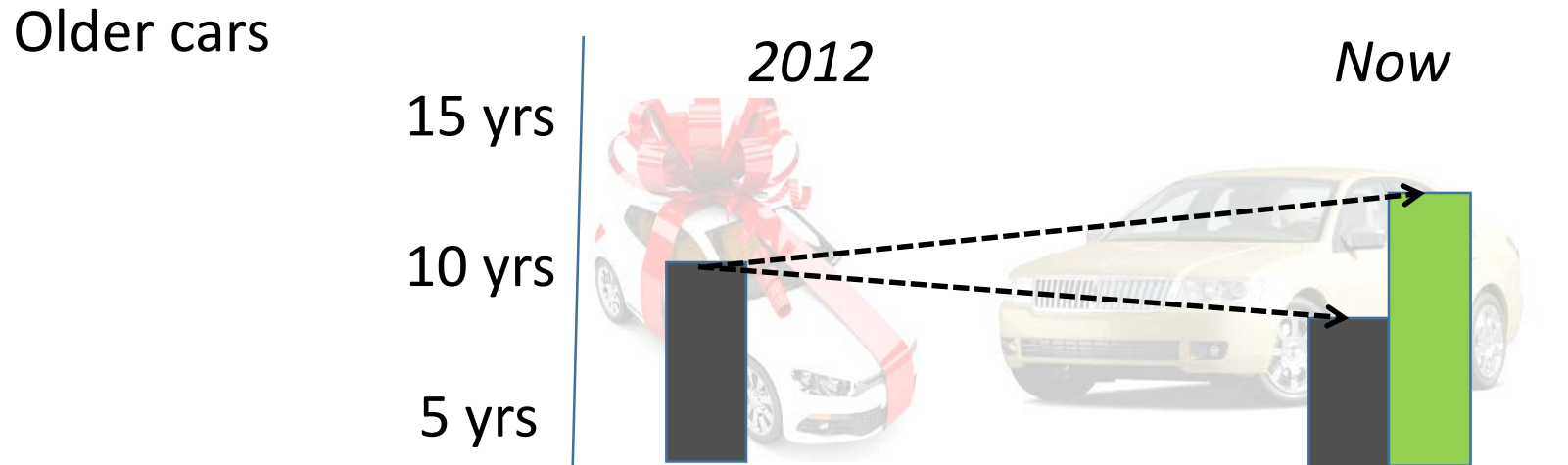
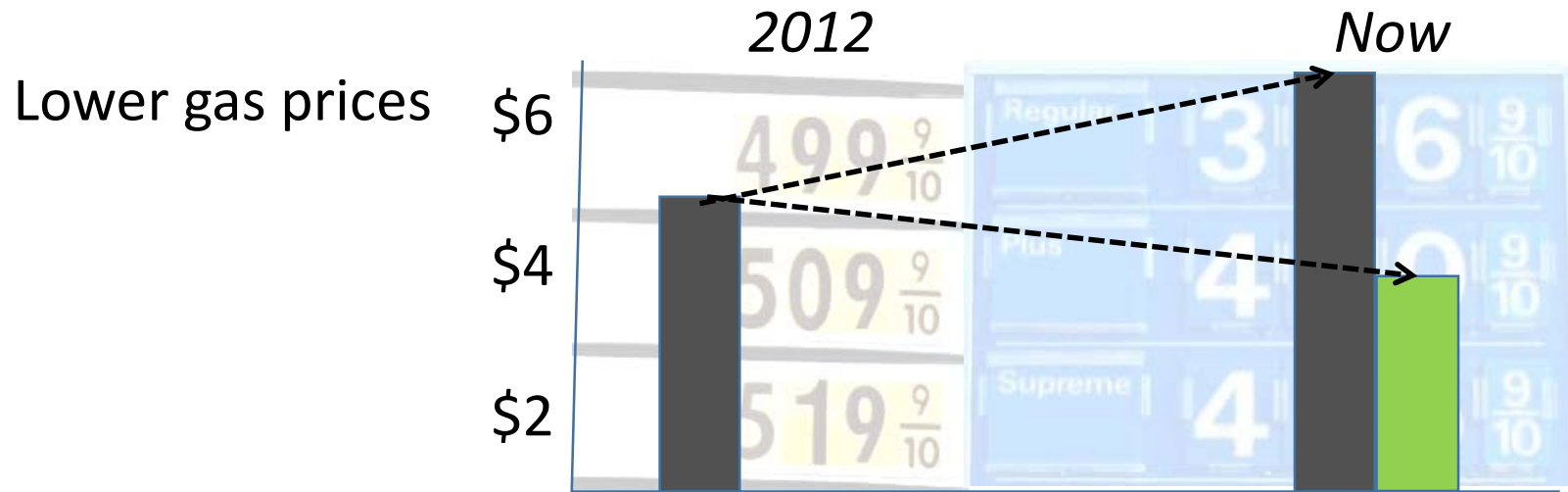
## Highway Fund Vote History Constitutional Amendments

<u>Year</u>	<u>Description</u>	<u>Result</u>	<u>Vote</u>
1942	Exclusive Use of Gasoline and Motor Vehicle Tax (Creating State Highway Fund) (Measure 3, Nov. 3, 1942)	Passed	59.3 – 40.7
1952	Equitable Taxing Method for Use of Highways (amendment to prohibit weight-mile tax) (Measure 16, Nov. 4, 1952)	Failed	21.8 – 78.2
1974	Highways Fund Use for Mass Transit (Measure 2, May 28, 1974)	Failed	34.1 – 65.9
1976	Authorize Vehicle Tax for Mass Transit (Measure 4, May 25, 1976)	Failed	24.3 – 75.7
1980	Limit Use of Gasoline and Highway User Taxes (Measure 1, May 20, 1980)	Passed	63.7 – 36.3
1990	Allow Local Vehicle Tax for Transit (Measure 1, May 15, 1990)	Failed	47.5 – 52.5
1992	Allow Future Fuel Taxes for Police (Measure 1, May 19, 1992)	Failed	35.1 – 64.9
1992	Allow Future Fuel Taxes for Parks (Measure 2, Nov. 3, 1992)	Failed	27.7 – 62.3
1994	Allow New Fuel Tax Revenue for Transit and Parks (Measure 2, May 17, 1994)	Failed	26.1 – 63.9
1999	Require Road User Taxes To Be Fair and Proportionate (Measure 76, Nov. 2, 1999)	Passed	54.2 – 45.8
2000	Allow Road User Taxes And Fees For Highway Policing (Measure 80, May 16, 2000)	Failed	35.7 – 64.3
2004	Remove "Mobile Home" From Constitutional Description Of Motor Vehicles (Measure 32, Nov. 2, 2004)	Passed	61.3 – 38.7

# Barriers to Change

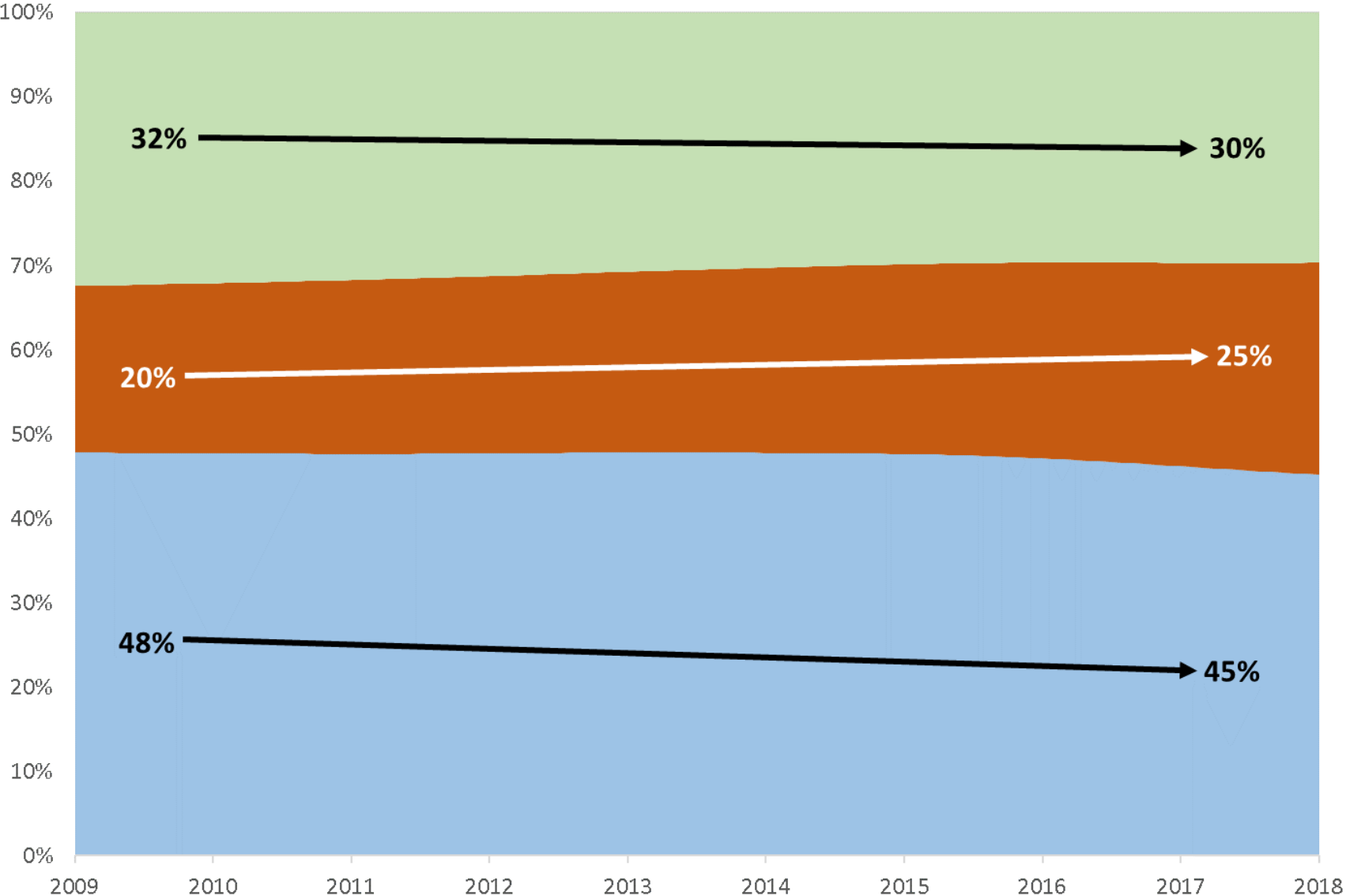
# Progress: Restraining Forces For Reducing GHG Emissions

- Trends
- STS Vision



# Oregon's Passenger Vehicle Shares by Vehicle Class

Cars SUVs Trucks & Vans



# Oregon's Passenger Vehicle Shares by Fuel Type

Year	ZEV	Hybrid	Gasoline & Ethanol	Diesel
2009	0.0%	1.0%	94.0%	4.9%
2010	0.0%	1.2%	93.8%	5.0%
2011	0.0%	1.3%	93.6%	5.1%
2012	0.1%	1.5%	93.2%	5.2%
2013	0.1%	1.8%	92.8%	5.3%
2014	0.2%	2.0%	92.5%	5.4%
2015	0.2%	2.1%	92.2%	5.4%
2016	0.3%	2.3%	91.9%	5.5%
2017	0.4%	2.4%	91.7%	5.4%
2018	0.6%	2.6%	91.5%	5.4%
Oct-2019	0.8%	2.8%	90.9%	5.6%



# Why change is slow to occur

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Average Age (years) – Vehicles are getting older

Low  
11.1 in 2009

High  
13.2 in 2017

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## Replacement Rates

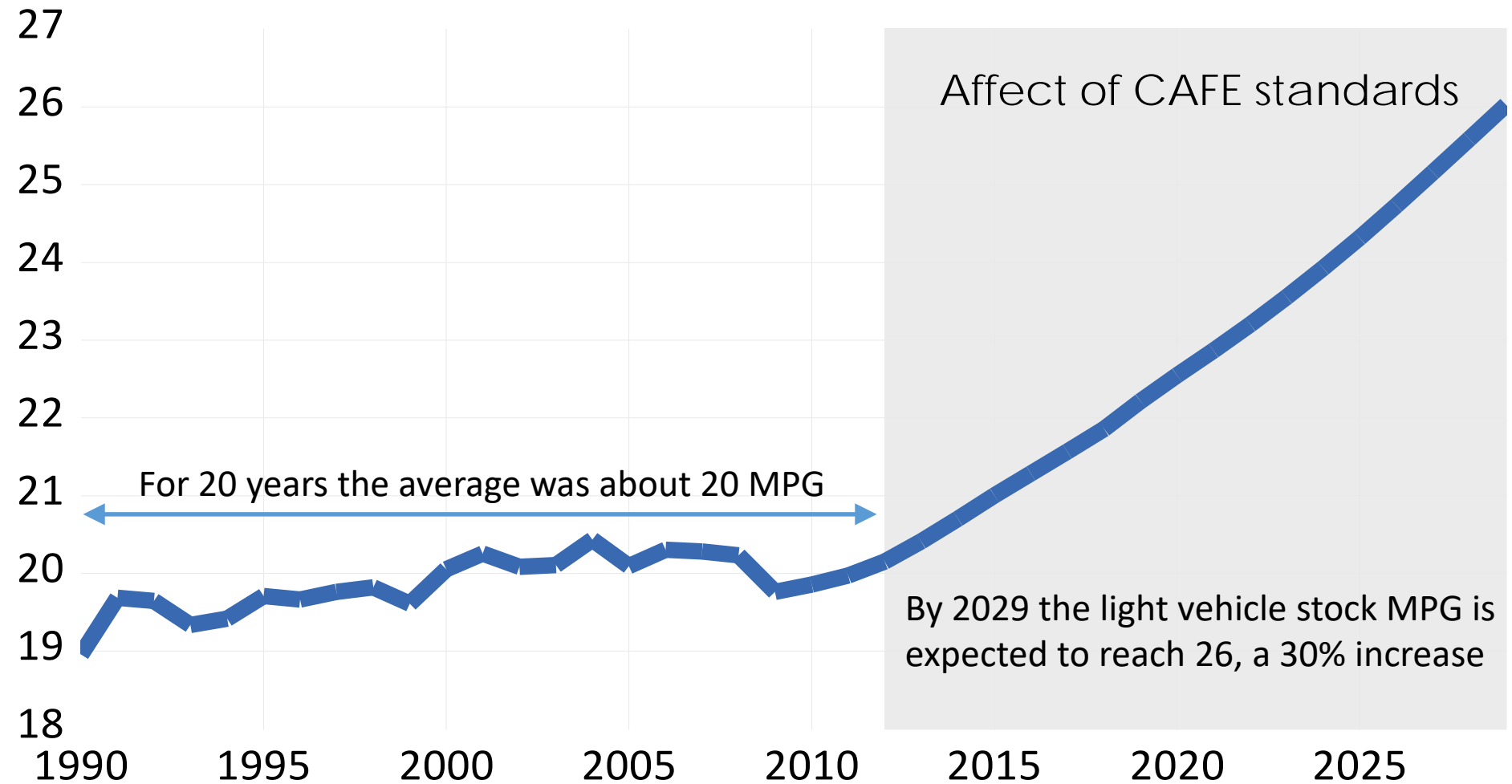
- 15% of passenger vehicles are replaced each year
    - 10% are replaced by used vehicles
    - 5% are replaced by new vehicles
- 

Other factors like consumer preferences, household incomes, vehicle prices, and fuel prices

# Implications for the Highway Fund

# Implications for the Highway Fund - Fuel Efficiency

## Light Vehicle Stock Fuel Efficiency



# Implications for the Highway Fund - Fuel Efficiency



2000 Silverado  
17/23

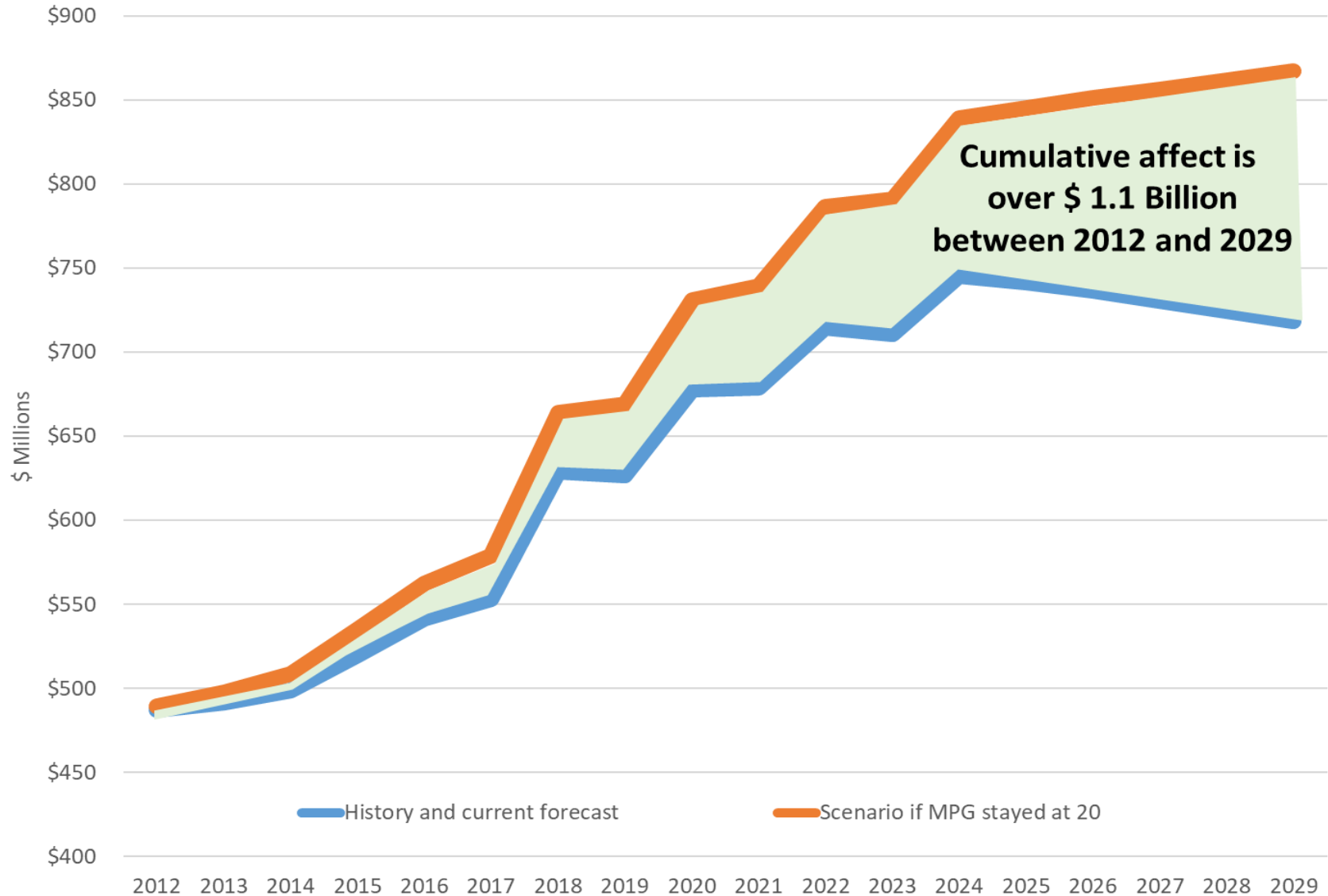


2020 Silverado  
23/33

Using the 30% increase in stock MPG by 2029, this translates into about an 18% decrease in fuel consumption.

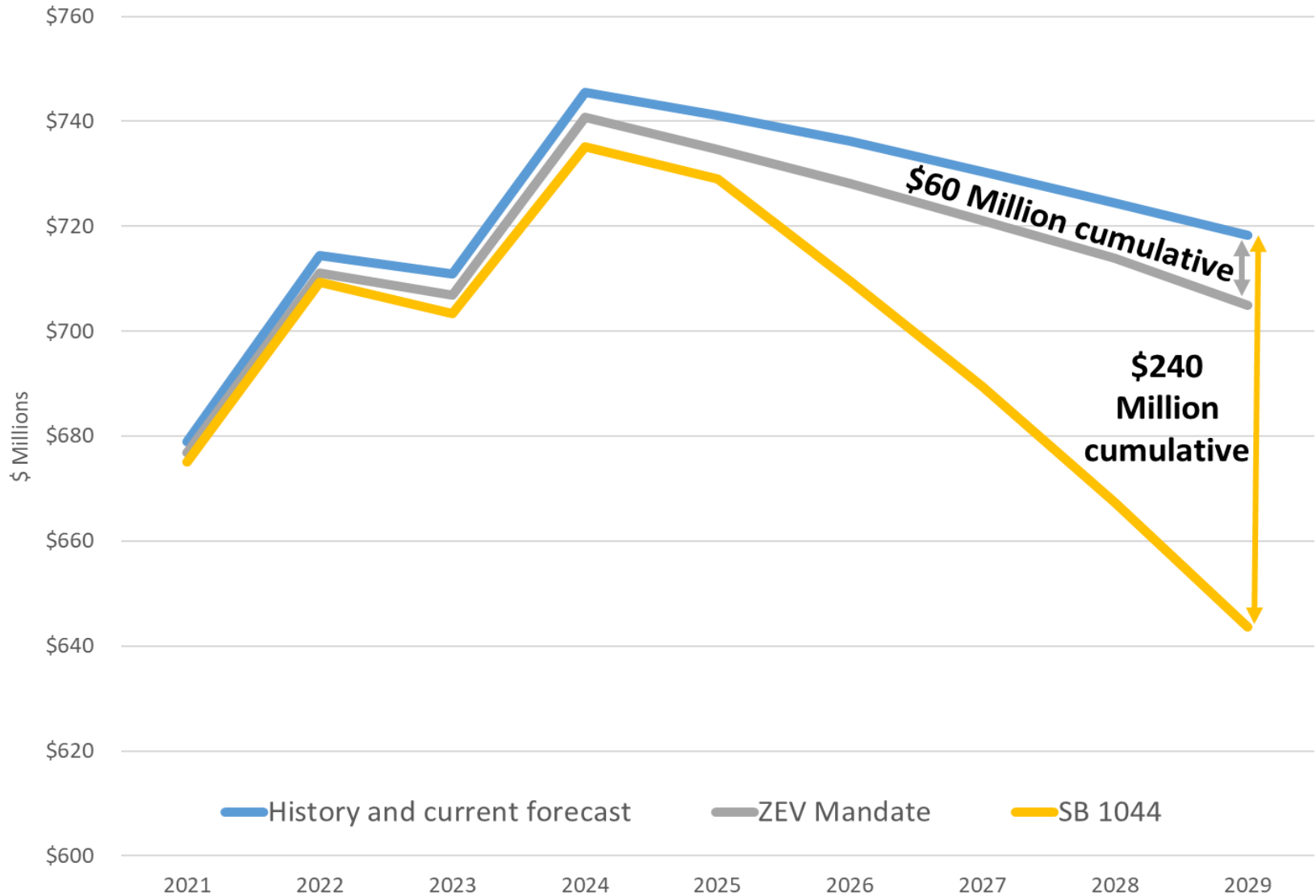
# Implications for the Highway Fund - Fuel Efficiency

## Gross Motor Fuels Tax Revenue



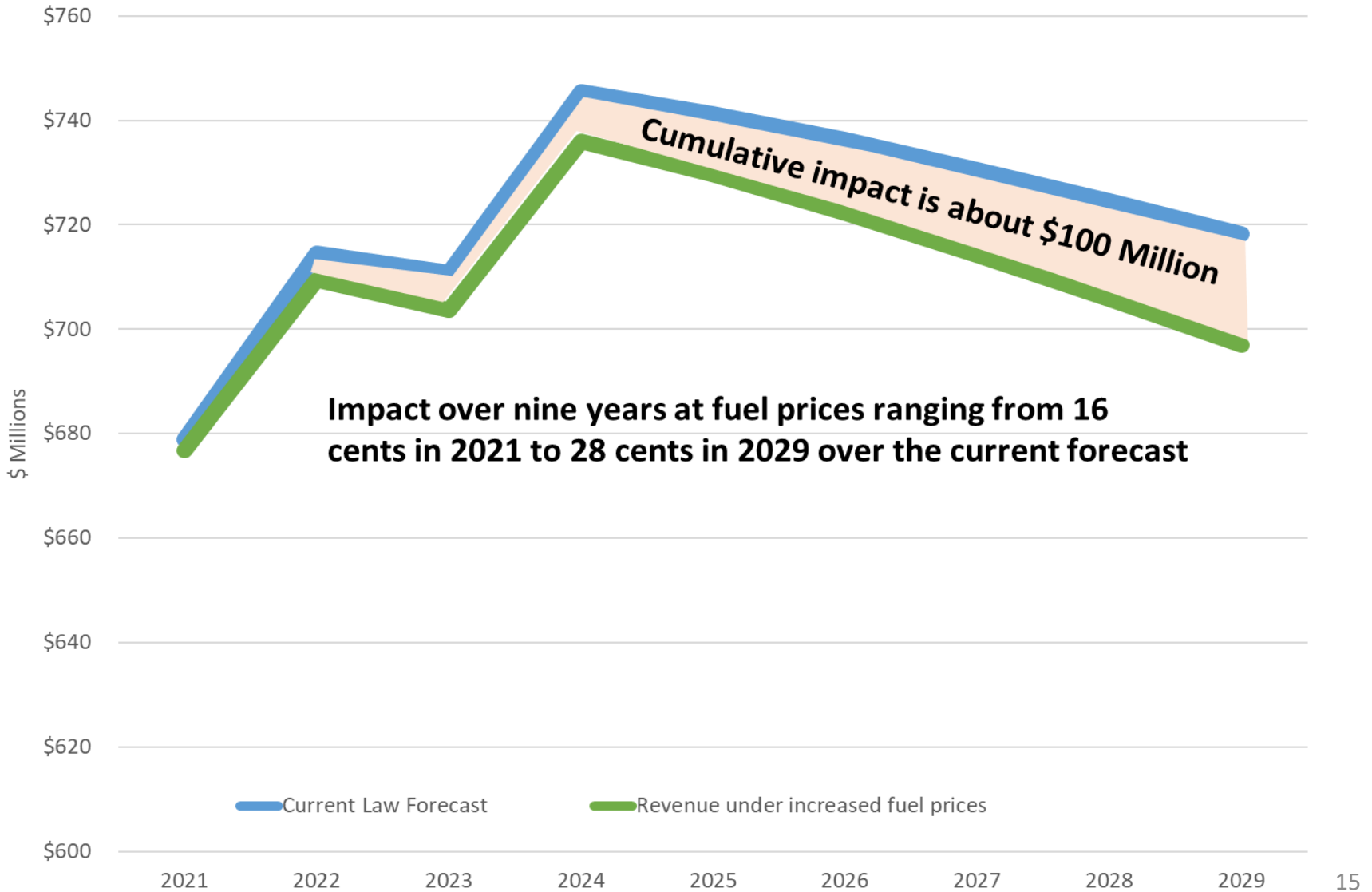
# Implications for the Highway Fund - Fuel Efficiency

## Gross Motor Fuels Tax Revenue Under Alternative EV Policies



# Implications for the Highway Fund - Fuel Price Affects from Cap and Trade

## Gross Motor Fuels Tax Revenue



# Implications for the Highway Fund – Fuels based Cap & Trade Revenue

Projected Cap & Trade revenue from motor fuels using market floor prices

