

54.5 Miles Per Gallon

Moving America Forward

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Natural Resources Defense Council



SAE *International*™

54.5
MILES PER GALLON

MOVING AMERICA FORWARD

ROLAND HWANG
NATURAL RESOURCES DEFENSE COUNCIL

SAE Government/Industry Conference
Washington, D.C.
JANUARY 26, 2012

54.5
MILES PER GALLON



BENEFITS OF STRONGER STANDARDS, MY 2012-2025

2030

SAVES
DRIVERS

\$125

BILLION
DOLLARS

CUTS OIL
IMPORTS BY

1/3rd

CUTS CO₂
POLLUTION
EQUAL TO

90

MILLION CARS

NET SAVINGS
INCLUDING COST OF
FUEL SAVINGS
TECHNOLOGIES

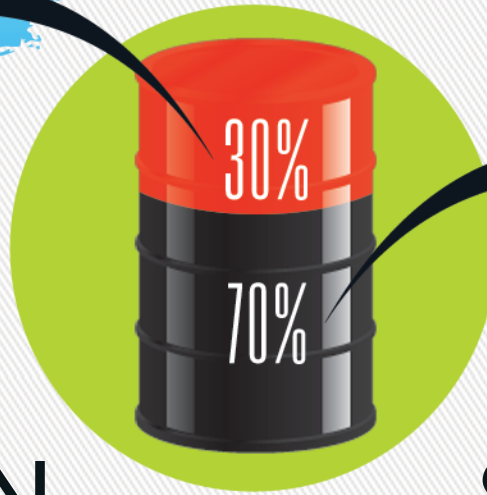
50 BILLION GALLONS
OR
3.3 MILLION
BARRELS PER DAY

EQUIVALENT TO
150 COAL POWER
PLANTS

54.5
MILES PER GALLON



WHERE WILL WE CHOOSE TO
INVEST \$500 BILLION?



\$150 BILLION

ADDITIONAL
OIL INDUSTRY
REVENUE

\$350 BILLION

SENT TO THE
MIDDLE EAST & OTHER
OIL-EXPORTING COUNTRIES

54.5
MILES PER GALLON



WHERE WILL WE CHOOSE TO
INVEST \$500 BILLION?



\$300 BILLION

TO U.S. AUTO INDUSTRY
FOR ADDITIONAL
TECHNOLOGY

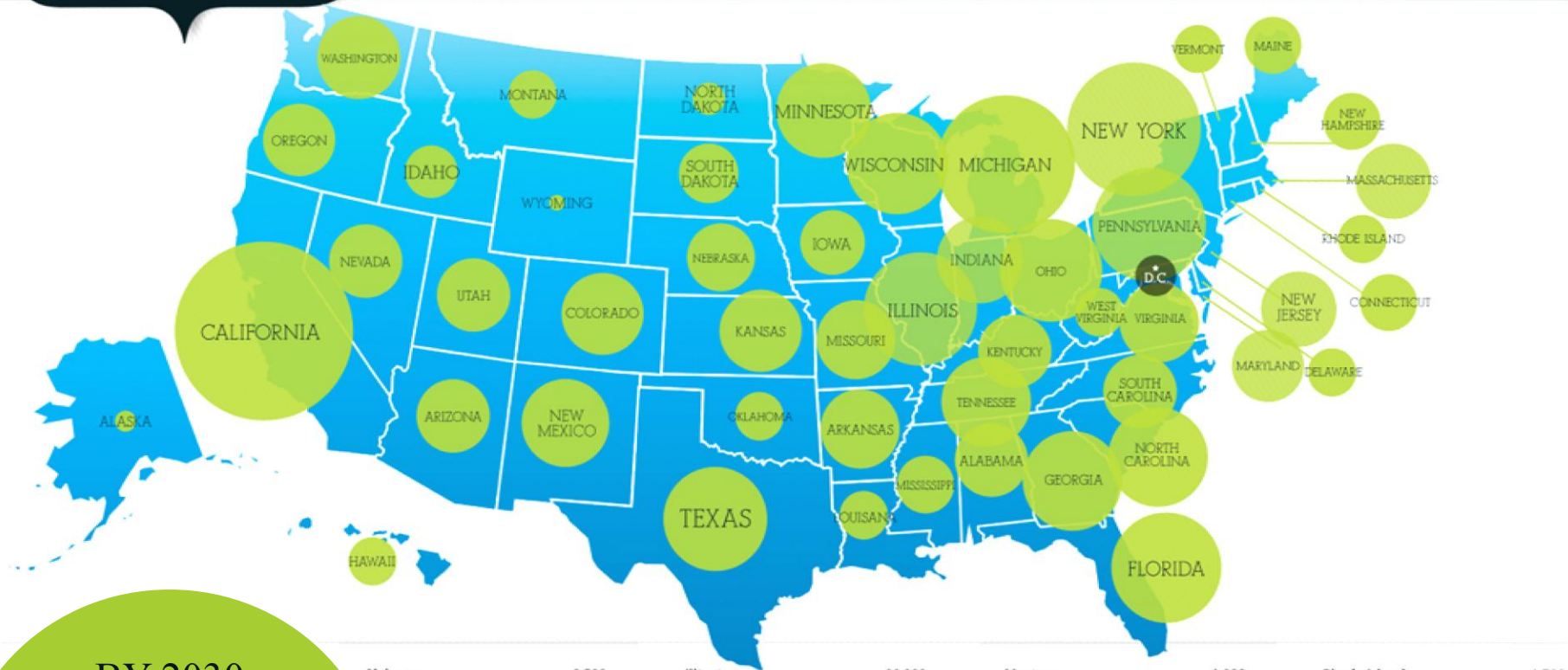
\$200 BILLION

TO U.S.
CONSUMERS

54.5
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HALF A MILLION NEW JOBS



BY 2030
484,000
NEW JOBS
ALL ACROSS
AMERICA

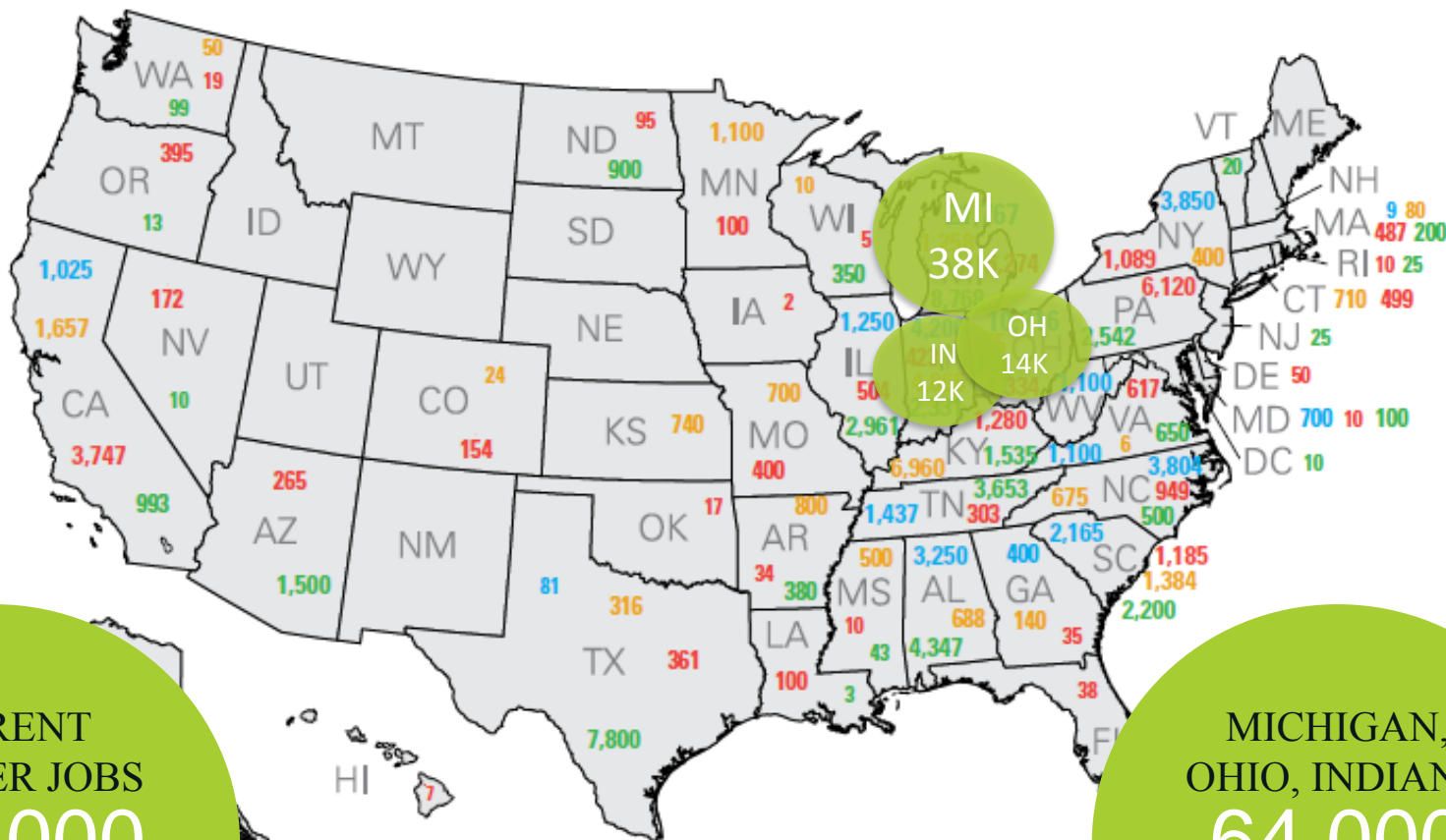
Alabama	9,500	Illinois	22,000	Montana	1,300	Rhode Island	1,700
Alaska	100	Indiana	16,600	Nebraska	3,600	South Carolina	7,200
Arizona	7,800	Iowa	6,000	Nevada	4,000	South Dakota	1,600
Arkansas	4,100	Kansas	4,800	New Hampshire	2,600	Tennessee	12,600
California	57,300	Kentucky	8,900	New Jersey	12,900	Texas	19,400
Colorado	5,800	Louisiana	1,800	New Mexico	1,600	Utah	3,800
Connecticut	5,900	Maine	2,300	New York	34,400	Vermont	1,300
Delaware	1,500	Maryland	8,400	North Carolina	18,000	Virginia	11,000
District of Columbia	1,400	Massachusetts	12,200	North Dakota	900	Washington	10,200
Florida	26,400	Michigan	22,600	Ohio	23,800	West Virginia	1,800
Georgia	14,900	Minnesota	10,300	Oklahoma	1,800	Wisconsin	10,800
Hawaii	2,100	Mississippi	3,800	Oregon	6,800	Wyoming	
Idaho	2,400	Missouri	10,900	Pennsylvania	21,300		

Source: Roger Bezdek, *Jobs per Gallon*, a Ceres study, July 2011

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CURRENT JOBS IN FUEL EFFICIENCY SUPPLY CHAIN



CURRENT
SUPPLIER JOBS
150,000
ALL ACROSS
AMERICA

MICHIGAN,
OHIO, INDIANA
64,000
40% OF ALL
CURRENT JOBS



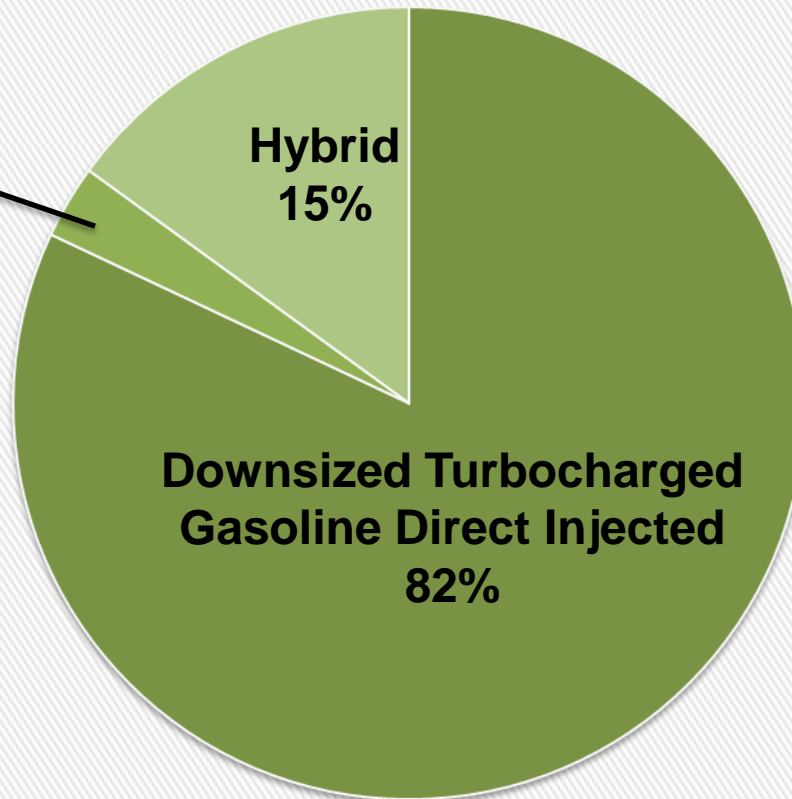
Source: UAW, NRDC & NWF, *Supplying Ingenuity*, August 2011

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**STANDARD CAN BE MET PRIMARILY
WITH GASOLINE ENGINES**

**Battery Electric
Vehicle
3%**



Source: EPA and NHSTA, *Regulatory Impact Analysis*, Proposed 2017-2025 Standards

54.5

MPG
MILES PER GALLON



WE CAN DO IT WITH KNOWN TECHNOLOGY

54.5 MPG CAN BE MET WITH 82% GASOLINE TURBO ENGINES,
15% HYBRIDS & 3% ELECTRIC CARS



Improved Aerodynamics



Improved Air
Conditioning Systems
with New Refrigerant



Cooled Exhaust
Gas Recirculation



8-Speed Transmission,
Automatic or Dual Clutch
Automated Manual



Variable Valve
Lift



Dual Cam Phasing



Gasoline Direct
Injection



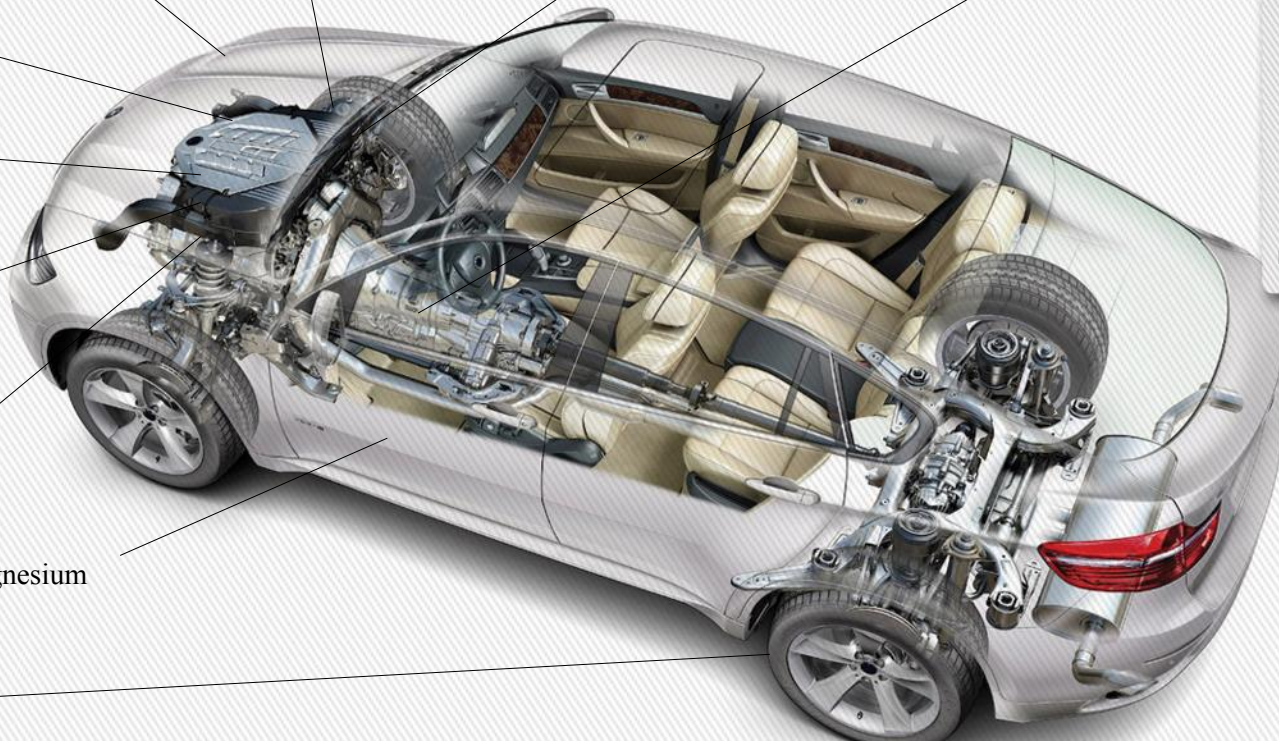
Variable Geometry
Turbocharger



Advanced High Strength
Steel, Aluminum, & Magnesium



Fuel-Efficient
Tires



ALREADY
AVAILABLE



IN
PRODUCTION



NEW TECHNOLOGY

Source: EPA and NHSTA, Regulatory Impact Analysis, Proposed 2017-2025 Standards

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CONSUMER POCKETBOOK SAVINGS



SAVE
\$4400
OVER THE LIFE
OF THE VEHICLE

Source: EPA and NHSTA, Notice of Proposed Rulemaking, 2017-2025 Standards

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CONSUMER POCKETBOOK SAVINGS

IMMEDIATE MONTHLY COST SAVINGS



SAVE

\$140

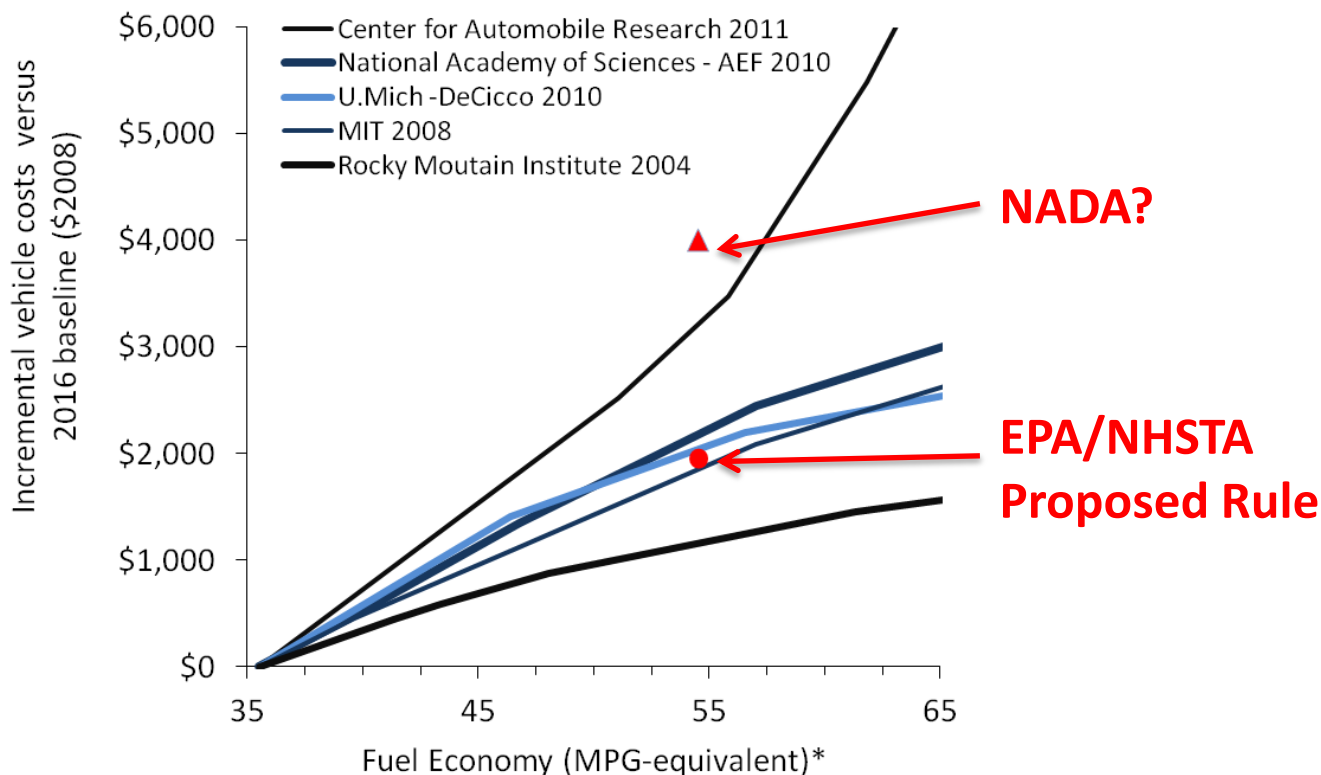
FIRST YEAR
OWNERSHIP

Source: EPA and NHSTA, Notice of Proposed Rulemaking, 2017-2025 Standards

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EPA/NHSTA CONSISTENT WITH OTHER INDEPENDENT STUDIES



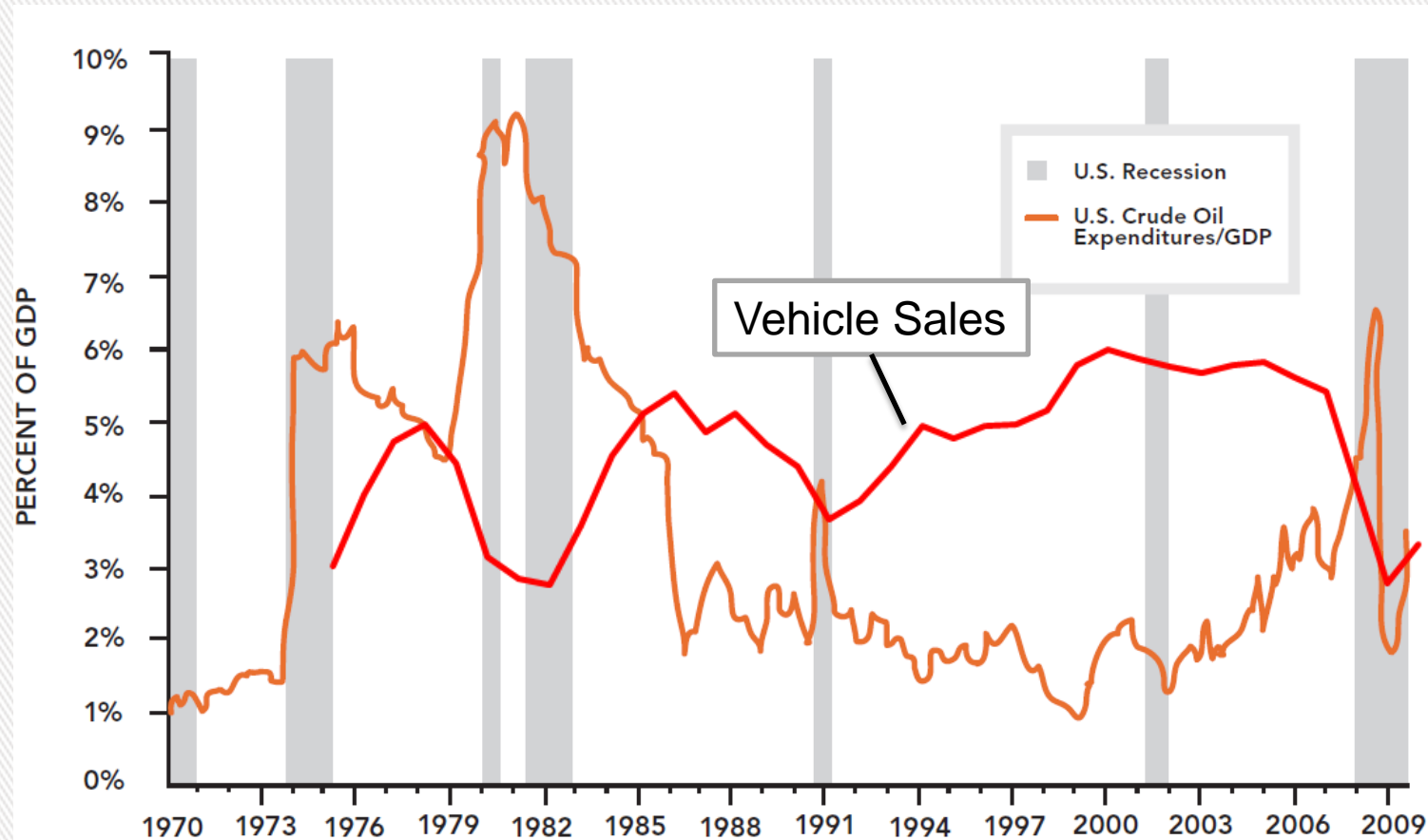
* The nominal MPGe value refers to the value obtained on the regulatory test cycle if all CO₂ reductions occur from fuel economy improvements. A credit for A/C improvements is included that results in CO₂ reductions, but would not actually translate into MPG improvements.

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OIL PRICES IMPACT ON SALES

HIGHER FUEL EFFICIENCY HELPS INSULATE ECONOMY FROM HIGH AND VOLATILE OIL PRICES

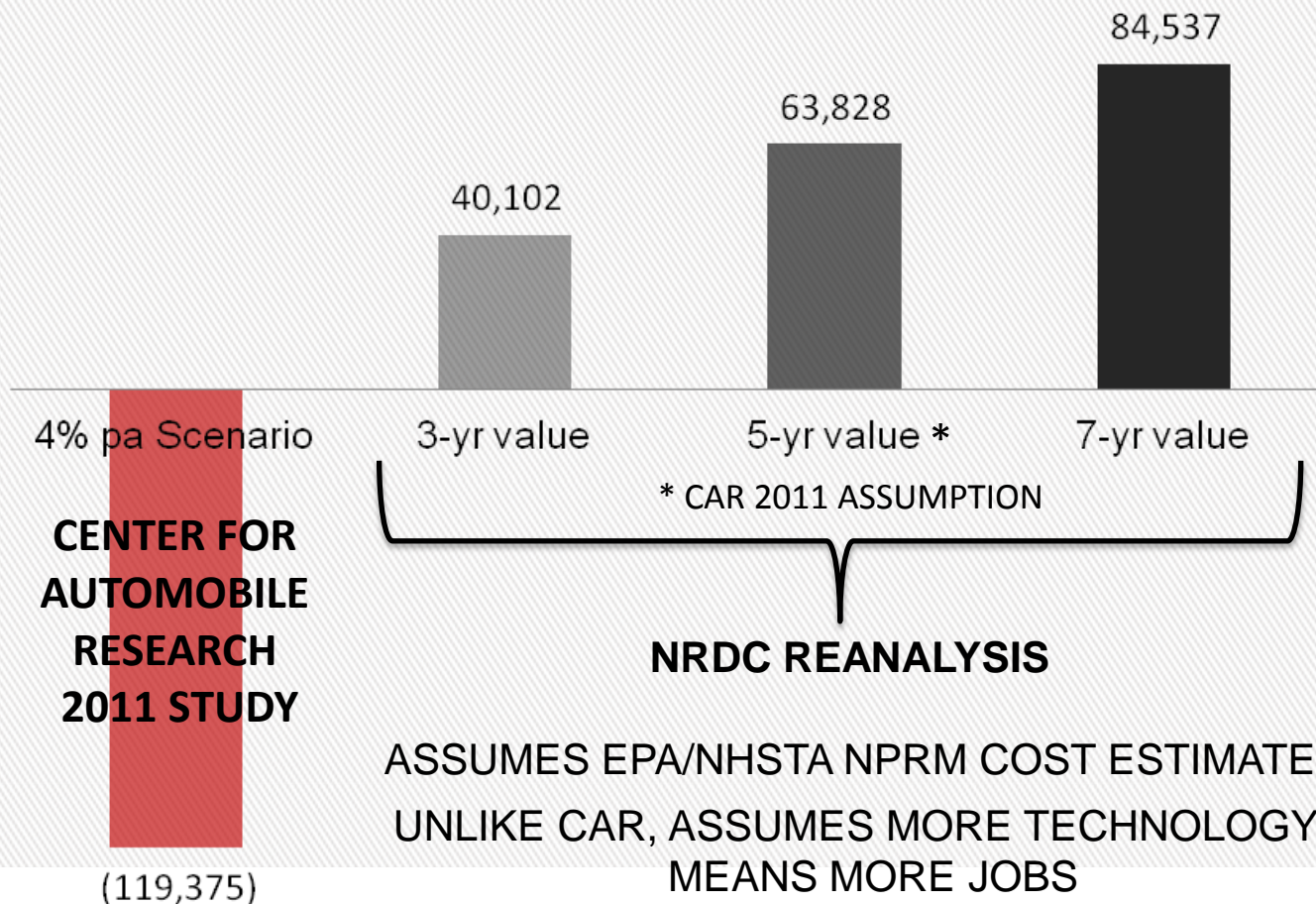


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DIRECT JOB CREATION

AUTO SECTOR ONLY. ~10X MULTIPLIER FOR
OTHER INDUSTRIES, INDIRECT AND INDUCED



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> MOVING AMERICA FORWARD

Rep. John D. Dingell

“We’re celebrating something that has taken a long time to reach. There appears to be no significant opposition amongst responsible persons.”

Bob King, President UAW

“The proposed rules are sensible, achievable, and needed. They are good for the auto industry and its workers, good for the broader economy, good for the environment and good for our national security.”

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