

# Corporate Average Fuel Economy Standards



## Advancing U.S. Efforts to Gain Energy Independence

**The U.S. DOT's National Highway Traffic Safety Administration** (NHTSA) has turned to Volpe for critical analytical support on the development of standards to regulate and increase the average fuel economy of cars and light trucks sold in the U.S. First enacted by Congress in 1975, the purpose of Corporate Average Fuel Economy (CAFE) standards is to

reduce U.S. energy consumption. NHTSA has recently set new standards to increase CAFE levels rapidly over the next several years. The new standards, in addition to those already in place, will improve our nation's energy security by dramatically reducing oil consumption, saving consumers money at the pump, and reducing related greenhouse gas emissions.

**Volpe**



U.S. Department of Transportation  
**Research and Innovative Technology Administration**  
Volpe, The National Transportation Systems Center



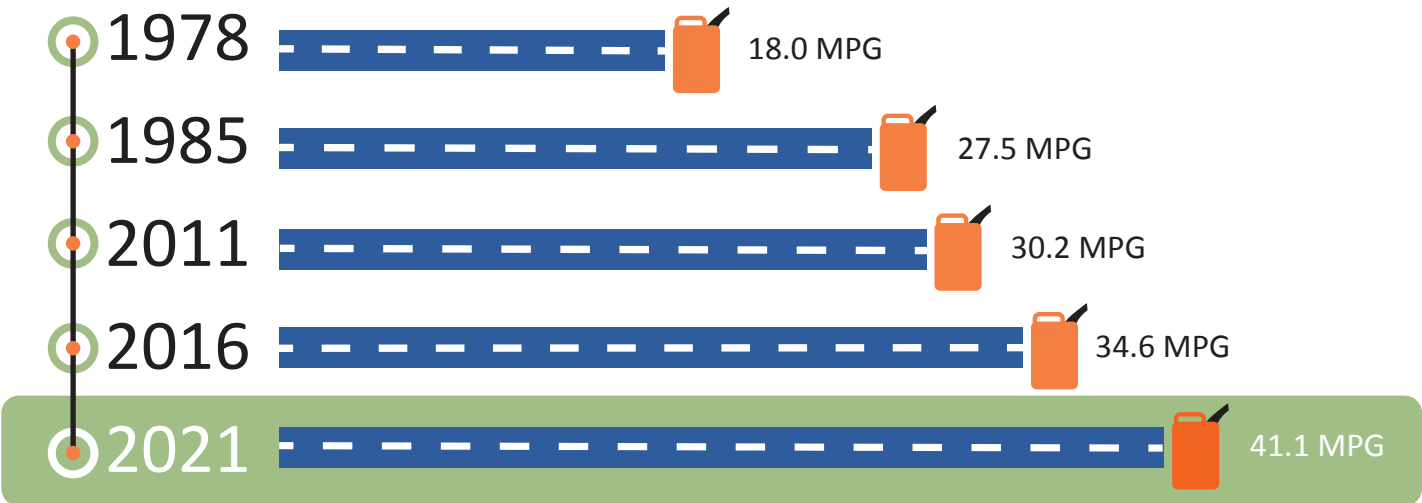
[Watch the video from a Volpe expert](#)

## The Standards

### In the Year 2021, the Fleet-Wide Average Will Be At Least 40 MPG

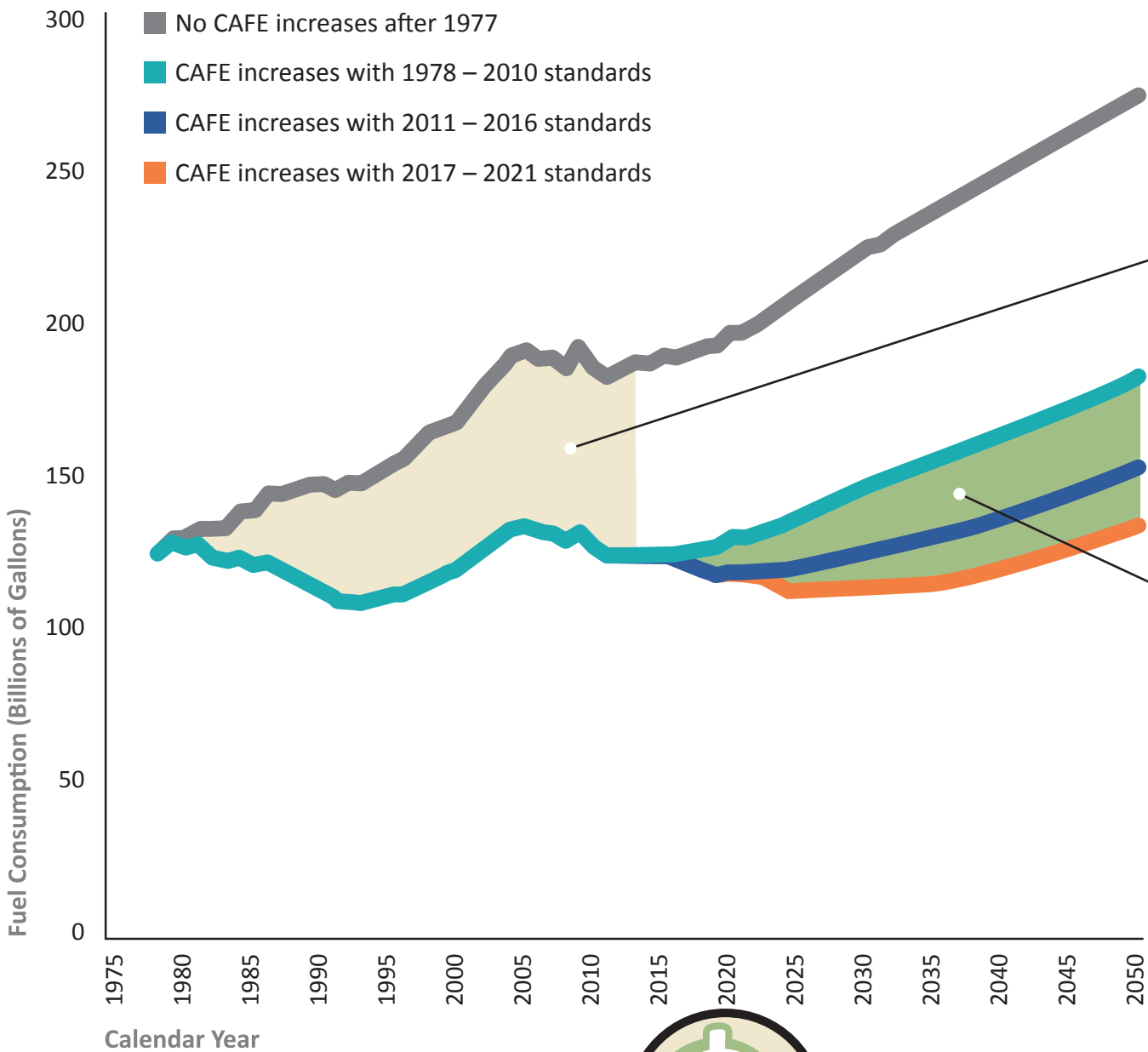
Volpe developed and now maintains and applies the [CAFE Compliance and Effects Modeling System](#), which calculates fuel savings, emission reductions, compliance costs, and consumer and societal benefits of potential new CAFE standards.

Standards for model years 2021 and beyond will be addressed in a future new regulatory action.



The years 2016 and beyond reflect the upper limits of CAFE ranges. All values refer to average fuel economy levels under controlled laboratory conditions.

## Reducing Fuel Consumption



So far, CAFE standards have saved about **1.2 trillion gallons of fuel\*** and **14 billion tons of CO<sub>2</sub> emissions.**

\* This is the equivalent of taking all light-duty vehicles off the road for the next 9.5 years!

CAFE standards will rise quickly over the next several years. Through 2050, new CAFE standards could save an additional **1.1 trillion gallons of fuel** and **12 billion tons of CO<sub>2</sub> emissions.**

## Landmark Legislation

- 1975** **Energy Policy Conservation Act (EPCA)** established CAFE standards for passenger cars and light trucks:
- U.S. DOT sets and enforces standards.
  - Standards in each year must be the maximum feasible.
  - EPA defines test procedures.
- 2007** **Energy Independence and Security Act (EISA)** continued provisions under EPCA and introduced new requirements and flexibilities:
- Standards must be based on vehicle attribute(s).
  - Fleet must achieve 35 mpg by 2020.
  - CAFE "credits" can be transferred between fleets and traded between manufacturers.
  - Expands CAFE to medium- and heavy-duty vehicles.

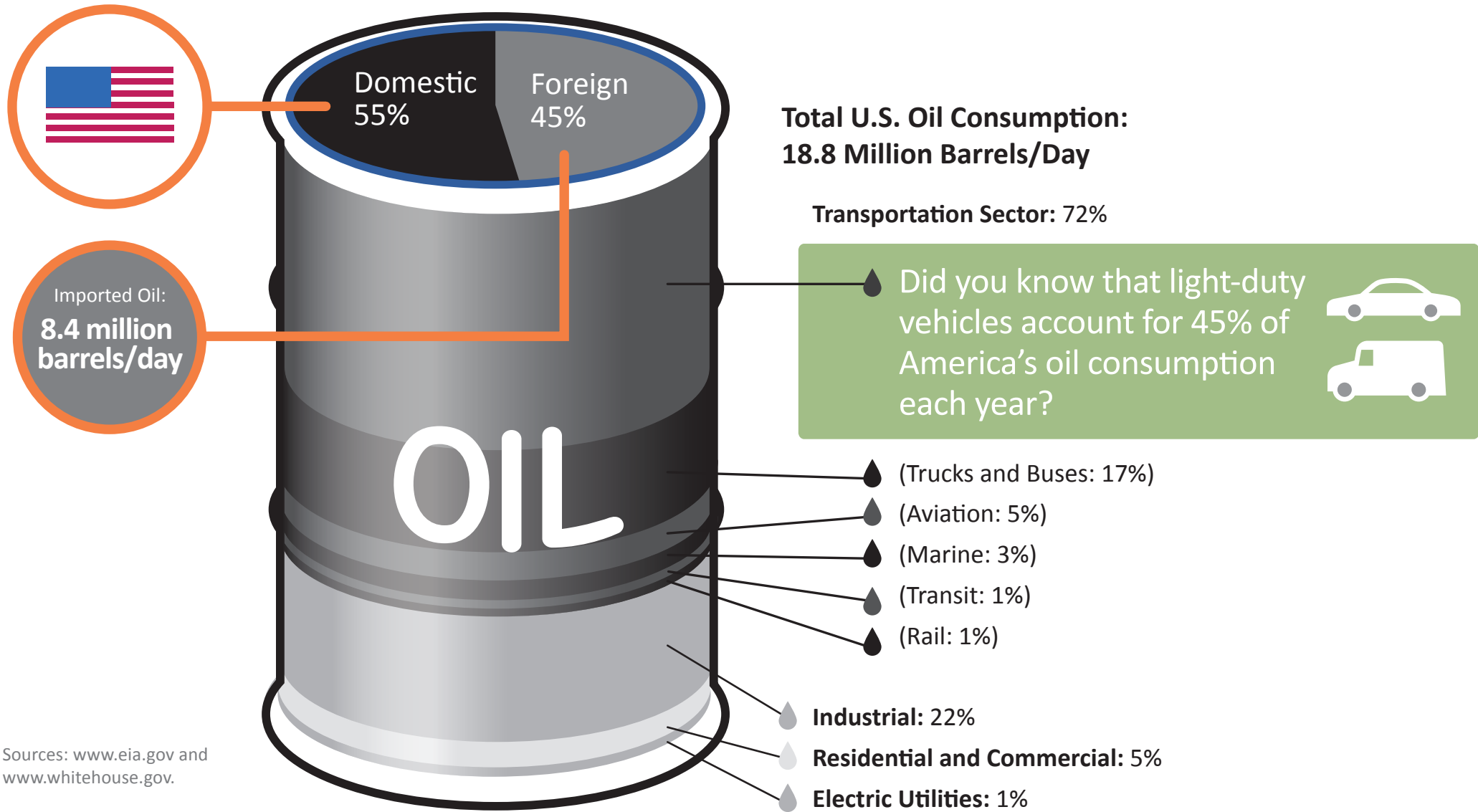


By 2021, consumers may save between **\$660 and \$860 billion** at the pump over the life of the program.

A family that purchases a new vehicle in 2021 could save **\$7,500 – \$10,000** in fuel costs, compared to a similar vehicle purchased in 2010.

CAFE standards have saved an estimated **14 billion tons of CO<sub>2</sub> emissions** since the 1970s.

## Reducing the U.S. Transportation Sector's Oil Consumption



## Key Support to Recent Rulemakings

### Volpe Also Supports NHTSA's Ability To:

Develop strategic fuel economy proposals consistent with U.S. energy and environmental goals.

Consider input from key stakeholders including industry, environmental, other non-governmental organizations, and the states.

## Read All About It

### Volpe Has Supported Every Recent NHTSA Fuel-Economy Rulemaking:

- [2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards; Final Rule.](#)
- [Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards; Final Rule.](#)
- [Average Fuel Economy Standards for Passenger Cars and Light Trucks: Model Year 2011.](#)
- [Average Fuel Economy Standards for Light Trucks: Model Years 2008-2011.](#)
- [Light Truck Average Fuel Economy Standards Model: Years 2005-2007.](#)

Volpe staff also present CAFE-related technical information in public meetings and other settings. Some examples of recently-presented material include:

- [National Research Committee on Assessment of Technologies for Improving Fuel Economy of Light-Duty Vehicles.](#)
- [U.S. DOT's CAFE Rulemaking Analysis.](#)