Please note that this presentation was given during the United Nations Climate Change Conference (COP-15) in Copenhagen, December 7-18, 2009 for more information please visit http://www.cop15.state.gov/ .

Driving Down GHG Emissions, Driving Up Fuel Efficiency:

Coordinating a Groundbreaking National Vehicle Policy

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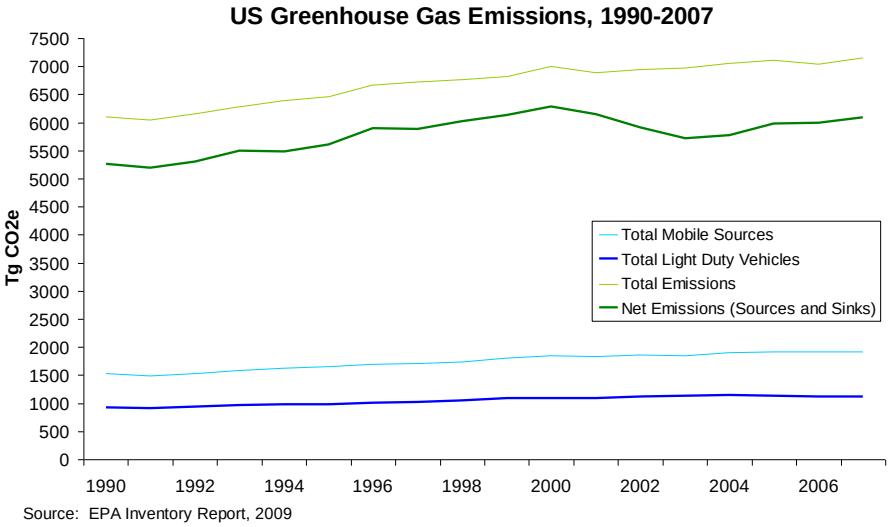
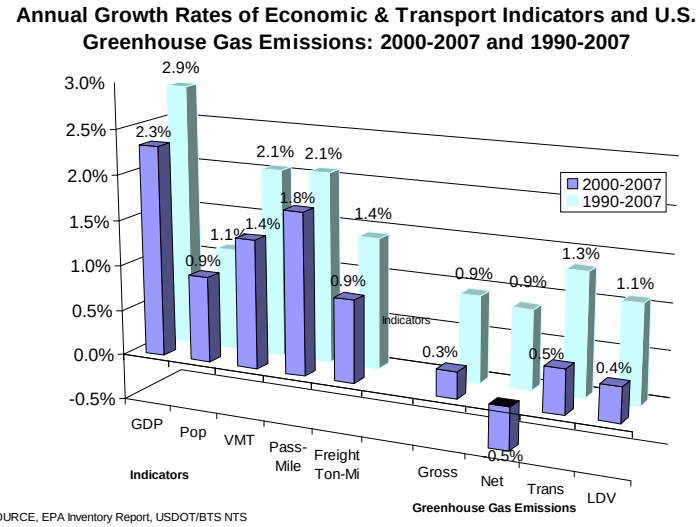
US Greenhouse Gas Emissions & Transportation

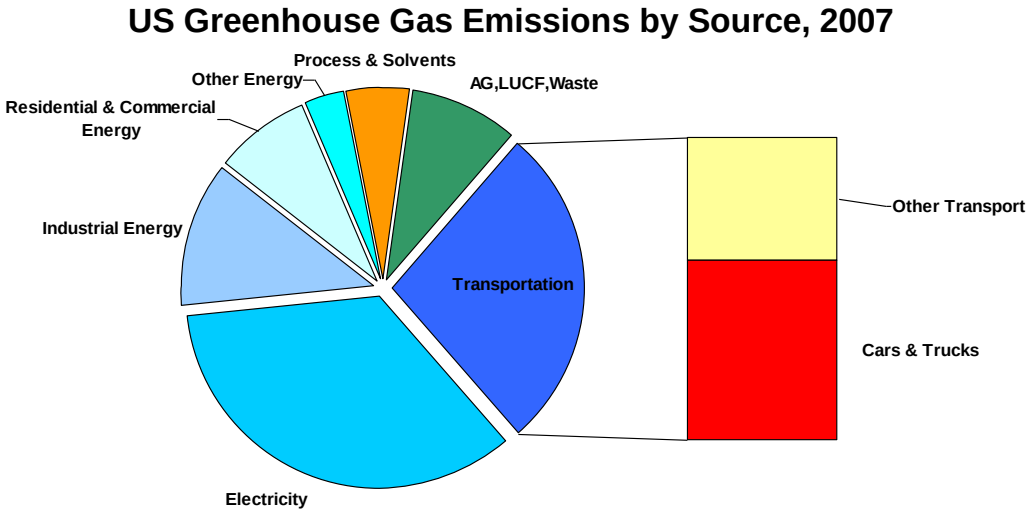
- The US is the world's second largest emitter of greenhouse gases
- Emissions have grown more slowly since 2000.
- Transportation accounts for about 28 percent of gross emissions.
- Cars & light trucks account for almost 60 percent of transport emissions.



Source: EPA Inventory Report, 2009



SOURCE, EPA Inventory Report, USDOT/BTS NTS

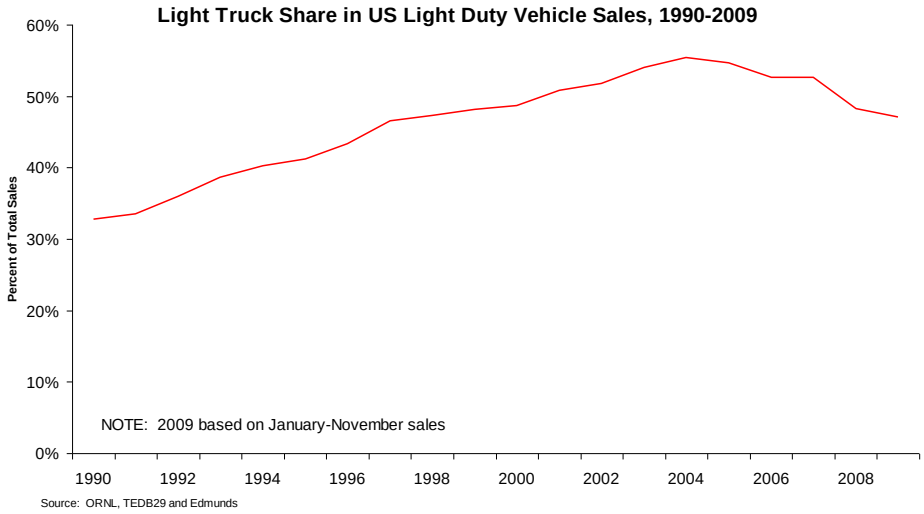


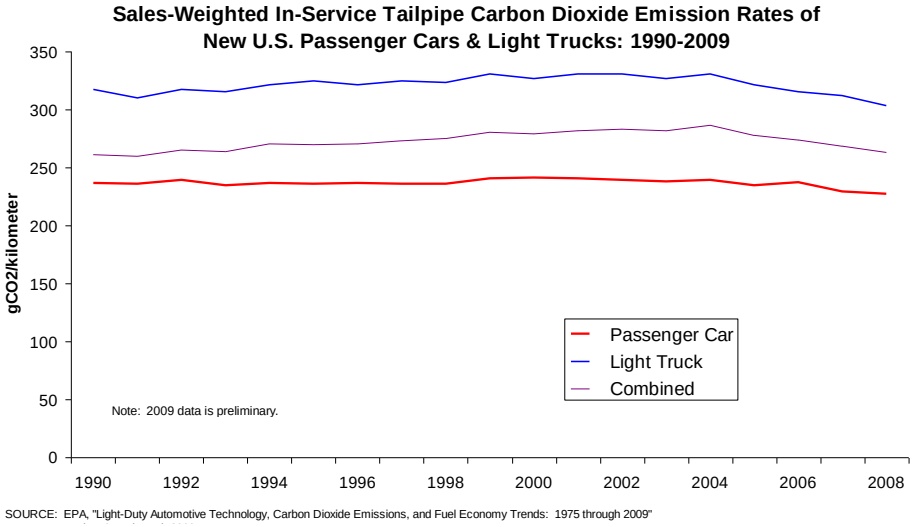
US Vehicle Fleet

- 242 million registered light duty vehicles for a population of 301 million. 87 percent of the driving age population are licensed drivers.
- Average vehicle is 8-10 years old, and driven 11,000-12,000 miles per year (18,000-19,000 km). New vehicles are driven further, circa 15,000 miles/year (24,000 km), while older vehicles driven much less. Newer vehicles account for a large share of total travel.
- Almost all vehicles use gasoline spark ignition engines, few diesels in light duty service.
- Existing fleet has lower fuel economy/emissions than new vehicles.
- Though new vehicle regulation affects total fleet profile only gradually, heavier use of new vehicles accelerates the fuel/emissions impact of regulation.

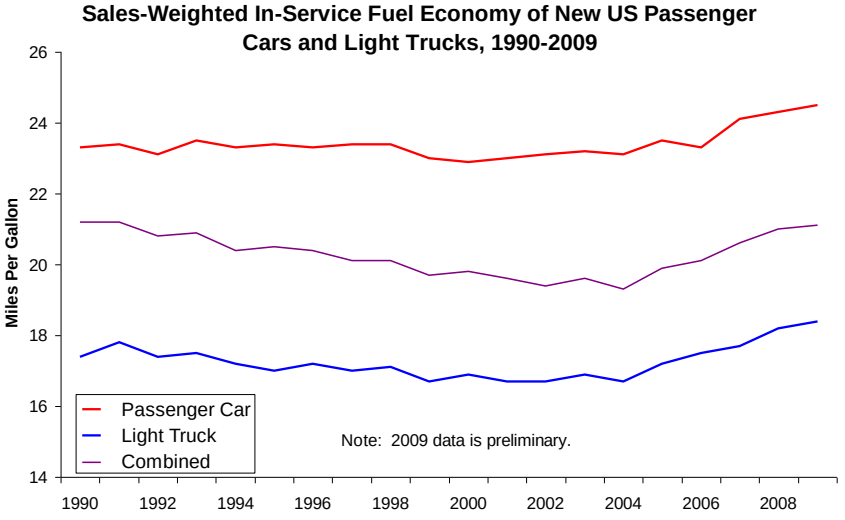
New Vehicle Fuel Economy/CO2 Emissions Rates Have Begun to Improve in Recent Years

- Light change in vehicle fuel economy 1990-2003—technological improvements used for vehicle size/performance.
- Since 2004, fuel economy of both fleets has increased, and sales have begun to shift back towards cars
- New 2008 vehicle sales-weighted average fuel economy/emissions:
  - cars 24.3 mpg (9.7 l/100 km, 227 gCO2/km)
  - trucks: 18.2 mpg (13 l/100km, 303 gCO2/km)





SOURCE: EPA, "Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 through 2009"



SOURCE: EPA, "Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 through 2009"

US Fuel Economy Regulation

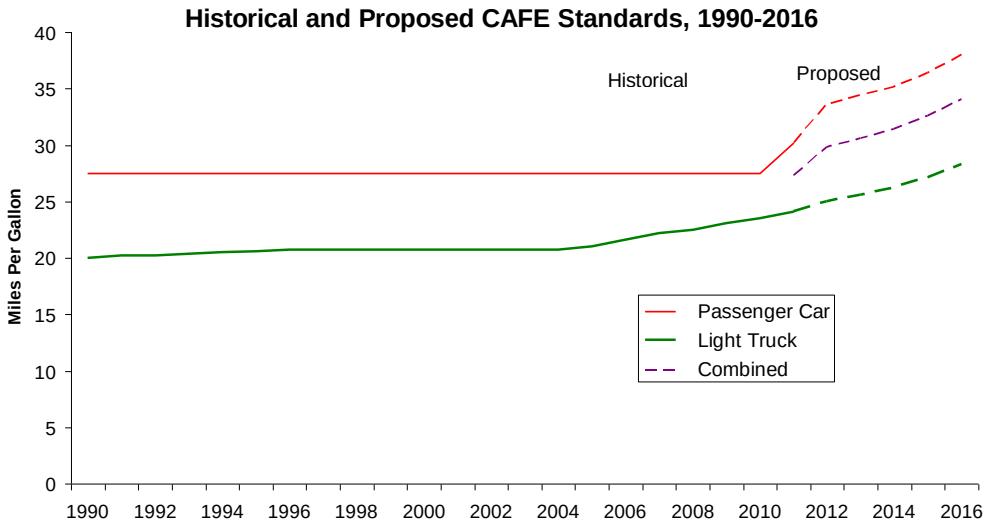
- Corporate Average Fuel Economy (CAFE) Program initiated in 1975 by Energy Policy and Conservation Act. US new light vehicle fuel economy increase 50 percent between1976 and 1985.
- Political consensus for more stringent regulation evaporated in early 1990s. Little further progress, until…
- Standard-setting for new light trucks resumed in 2003, with increasing stringency through model year 2010.
- Light truck standards reformed by beginning transition to attribute-based standards in model year 2008.
- Reform extended to car standards by Energy Independence & Security Act of 2007. First standard (for MY 2011 cars and trucks) under new law issued in April 2009.

National Fuel Efficiency Policy

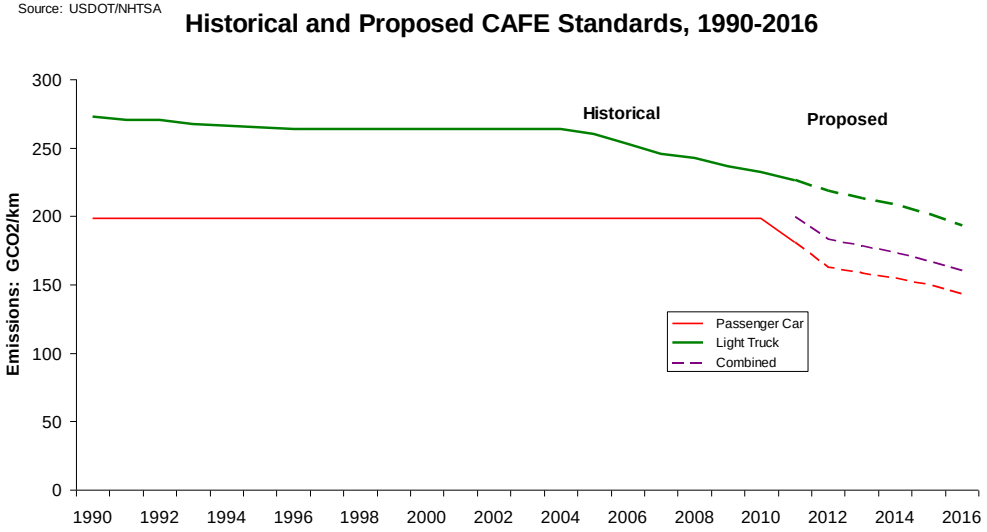
- By 2009, multiple, overlapping legal authorities for light duty vehicle regulation.
- Deepening concern among policymakers about both climate change and petroleum situation.
- President Obama announces new National Fuel Efficiency Policy - May 19, 2009
- Joint Rulemaking by USDOT and EPA, covering tailpipe CO2 and fuel economy proposed September 28, 2009.

Standards Increase 5 percent Per Year: A Break with the Past

- NHTSA is proposing Corporate Average Fuel Economy (CAFE) standards for MY 2012-2016 passenger cars and light trucks, and EPA is proposing national greenhouse gas (GHG) emissions standards to be established under Clean Air Act.
- The standards are closely coordinated. Manufacturers can build a single fleet compliant with both standards.
- Standards rise by 5 percent a year, raising industry-wide average to 35.5 mpg (6.6 L/100km, 154 gCO2/km) by 2016.
- Because of differences in legal authorities, CAFE standard is slightly lower than CAA standard.



Source: USDOT/NHTSA

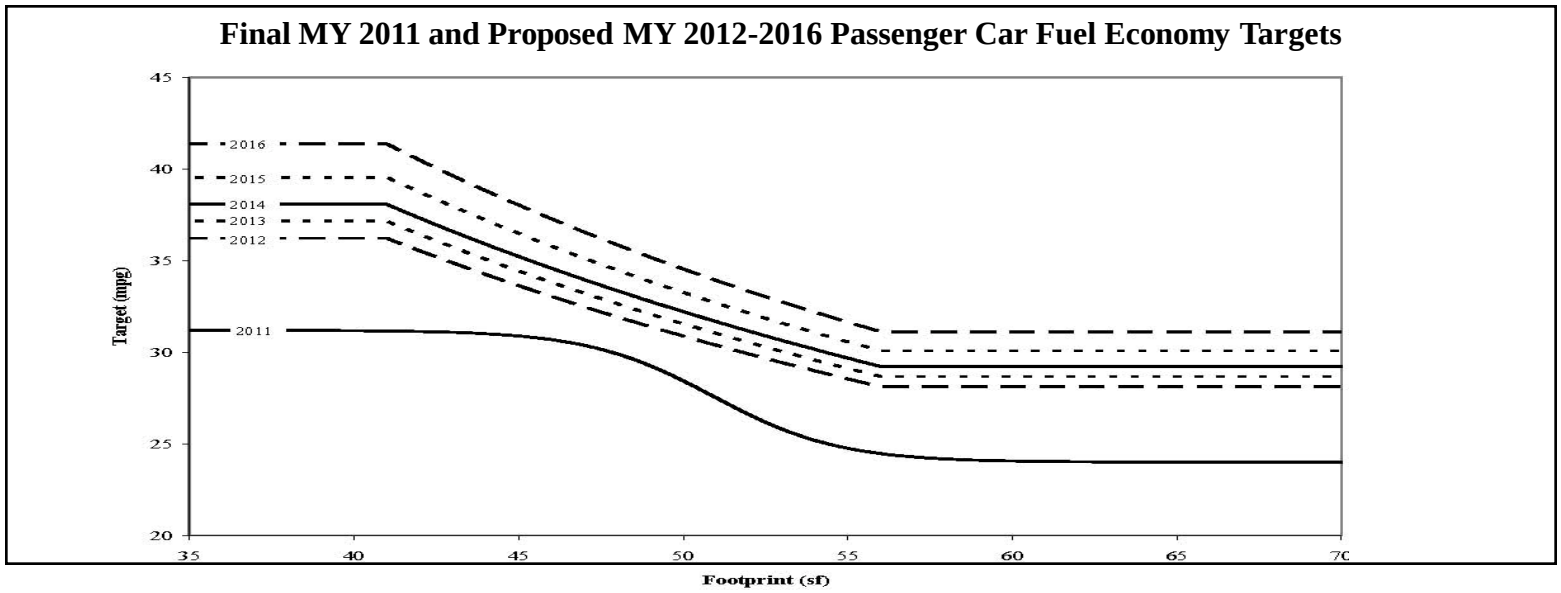


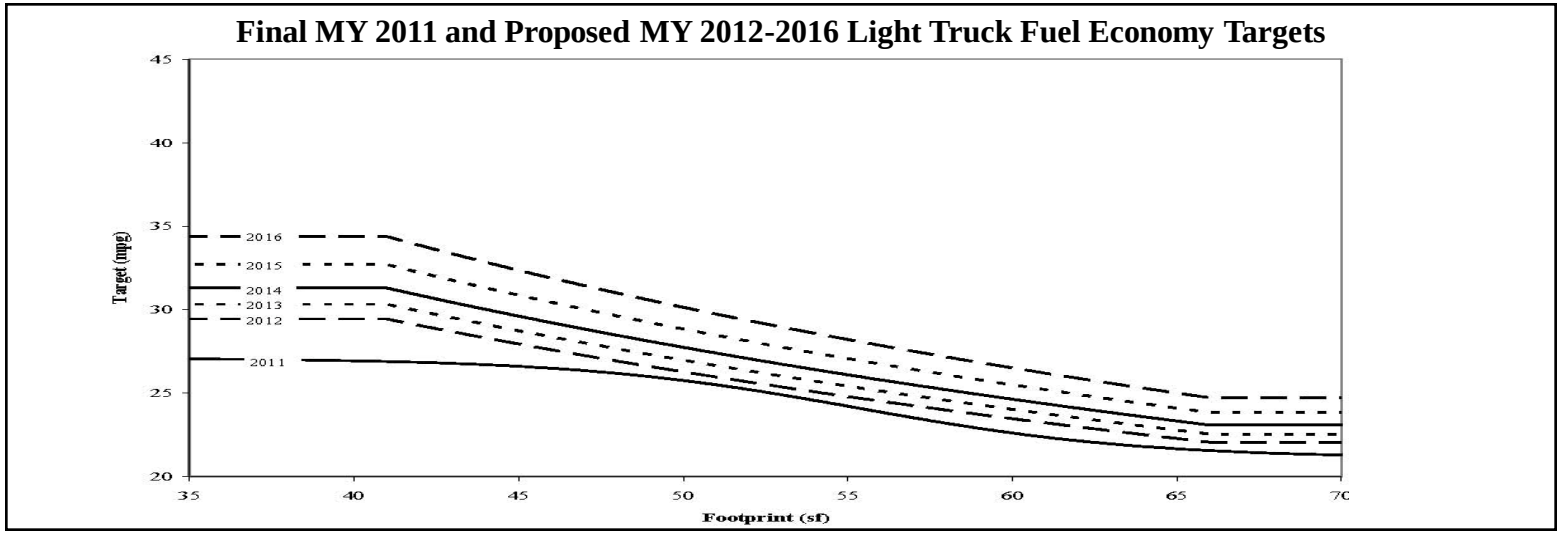
Source: NHTSA 2012-2016 CAFE NPRM

Design Features

- Footprint-based standard sets targets proportional to vehicle size.
  - Mitigates safety impacts
  - Preserves consumer choice
  - Greater regulatory efficiency
  - Size-based standard preserves incentive for weight reduction (vs. weight-based standard)
  - Flat curve for larger vehicles eliminates incentive for upsizing.
- Credits are tradable between manufacturers, and transferable between a manufacturer's cars and trucks (limited for CAFE, fully for CAA)
- Banking and borrowing
- Limited provisions for renewable fuel vehicles per CAFE law, limited provision for small manufacturers (CAA only).
- Non-compliance subject to fines (CAFE) and potential suspension of authority to sell vehicles (CAA)

Footprint-Based Standard





Benefits

- Reduce carbon dioxide emissions by 950 million metric tons (CAA) over the life of the regulated vehicles;
- Save 1.8 billion barrels of petroleum (CAA) over the life of the regulated vehicles;
- Benefits exceed costs by 4:1
- Savings to consumer of over $3,000 over life of a 2016 regulated vehicle
- Regulatory certainty and harmonized rules for auto industry.
- On track to achieve CAFE statutory requirement of 35.0 mpg industry-wide average by 2020 years early.

Regulatory Innovations

USDOT has an extensive transportation sector regulatory, infrastructure development, and project evaluation activities. Two key regulatory innovations from the CAFE program are being extended to other USDOT activities, which will have significant long-term impacts on the transportation sector:

- Environmental Impact Statement covering climate impacts of the proposed regulation;
- Use of social cost of carbon in evaluating regulatory costs and benefits

Next Steps

- Issuance of Final Environmental Impact Statement (early 2010);
- Final Rule (April 2010)
- Vehicles regulated by rule began to be sold to the public (MY 2012, or September 2011).