

BACKGROUND

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Cap-and-Trade for Cars Means Higher Prices and Less Choice for Car Buyers

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Abstract

New fuel-efficiency standards issued by the U.S. Department of Transportation and the Environmental Protection Agency will increase the average cost of a new car by \$3,000 by 2025. Furthermore, consumers are unlikely to realize the projected fuel savings used to justify these standards, and the new standards will further constrain consumer choice. The market is better able to meet the needs of American consumers—including fuel efficiency—than the paternalistic government in Washington, which already uses the tax code and other government subsidies to pick winners and losers in the auto marketplace, distorting it to the detriment of consumers and the economy.

Just in time for automotive year-end sales drives, the Obama Administration recently finalized new fuel-efficiency rules for cars and light trucks for model years 2017–2025 that require a near doubling of the current standards. Combined with the more stringent rules for 2011–2016, the new standards will increase the average cost of a new car by \$3,000 by 2025 by the government's own account.

Proponents of the rule claim that the more stringent miles per gallon (mpg) standard is a win for producers, consumers, and environmentalists, arguing that it will save consumers money on fuel, reduce dependence on foreign oil, and reduce global warming. In reality, federal fuel-efficiency standards are unnecessary, benefit special interests, and have numerous unintended consequences that will adversely affect American families.

Cap-and-Trade-Style Rules Benefit Special Interests

On August 28, 2012, the U.S. Department of Transportation (DOT) and the U.S. Environmental Protection Agency (EPA) finalized the corporate average fuel economy (CAFE) for cars and light-duty trucks. The new rule requires an average fuel economy of 54.5 mpg

KEY POINTS

- The U.S. Department of Transportation and the Environmental Protection Agency recently finalized new fuel-efficiency standards for cars and light-duty trucks that will require an average fuel economy of 54.5 miles per gallon (mpg) for 2025 model year vehicles.
- This rule is part of the Obama Administration's goal to reduce greenhouse gas emissions, but the resulting reduction in global emissions will be almost unnoticeable.
- Fuel-efficiency mandates restrict consumer choice and overstep the boundaries of the role of the federal government.
- The new rule will drive up the upfront cost of vehicles significantly, and consumers will likely realize only a fraction of the fuel savings that the government claims.
- Consumers value saving money on fuel expenses, but they also consider safety, size, performance, price, and many other factors. Auto manufacturers, not the federal government, are much better equipped to meet the demands of consumers.

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for 2025 model year vehicles. This is a stringent increase from President Barack Obama's 2012–2016 standard, which increases the CAFE average to 35.5 mpg by 2016, up from the current CAFE average of 29 mpg.¹

Thirteen major automakers, the United Autoworkers Union, the state of California, and environmental organizations worked with the government to craft the rule. This can be explained in part by California's agreement to adopt the federal standard rather than create its own, thereby averting the creation of a patchwork of different fuel-efficiency regulations throughout the country. The benefit of the negotiation is that the Administration agreed to re-evaluate the standards for model years 2022–2025 if they are not technologically attainable or cost-effective. The problem is that all of the special-interest groups involved in the rulemaking stand to be protected, leaving consumers with higher prices and limited choice.

The rule attempts to provide some additional flexibility that will benefit some automakers more than others and further promote alternative fuel vehicles. Producers can collect credits by meeting targets earlier and either use those credits if they fall short another year or sell or trade them to manufacturers that fail to meet the target. For instance, electric vehicles—already heavily subsidized with grants, loan guarantees, and tax credits—receive double credit for model years 2017–2019. Manufacturers can receive

credits for hybrid electric, natural gas, and other alternative fuel vehicles as well.

Cap-and-trade was a flawed approach for carbon dioxide reduction and is also inappropriate for automobiles. Unlike previous rulemaking, manufacturers cannot pay a fine if they cannot meet the standards. Instead, they would need to buy costly credits from other manufacturers.

ALTERNATIVE FUEL VEHICLES SHOULD NOT BE RELIANT ON PREFERENTIAL TREATMENT FROM THE GOVERNMENT TO BE COMPETITIVE.

Along with using the tax code and other government subsidies to pick winners and losers in the auto marketplace, the federal government is also using regulatory dictate to provide these credits, which hurts the taxpayers, the market, and consumers. When the government artificially lowers the cost of production, manufacturers must forgo the value of the goods that they might have produced if they had allocated their time, effort, and other resources in alternative ways. As Americans are currently witnessing with electric vehicles and plug-in hybrid vehicles, the market distortions could also incentivize auto manufacturers to produce vehicles that consumers may be unwilling to purchase.

Alternative fuel vehicles should not be reliant on preferential treatment from the government to be competitive. If they are dependent

on such treatment, then this is a good indication that those technologies are not yet competitive.

CAFE Constrains Choice

At the heart of the debate over fuel-efficiency standards is the government's paternalistic role in the economy that restricts consumer choice and ignores the trade-offs that consumers make. According to a poll by the American Energy Alliance, fuel economy is already the top consideration when consumers consider buying a new car. If consumers value saving money on gasoline, they will simply choose to purchase more fuel-efficient cars, and automakers will meet that demand without a federal mandate. Artificially raising the price of vehicles by an average of several thousand dollars hurts buyers.

Moreover, new mandates are not needed to achieve fuel savings. For example, before the new mandate takes effect, a driver of a 2006 Chrysler Sebring could save \$800 per year in fuel costs by buying a 2012 Ford Focus.² Switching from an SUV or truck to a sedan would save even more. Consumers can choose from a wide selection of vehicles, including almost 300 different models that achieve better than 30 mpg on the highway.³ While some may argue that this increased efficiency came as a result of mandated fuel-efficiency standards, which have been around since the 1970s, fuel efficiency has always been a top priority for consumers, whether they are purchasing compact cars, light-duty trucks, or heavy-duty trucks.

1. U.S. Environmental Protection Agency and U.S. Department of Transportation, National Highway Traffic Safety Administration, "2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards," *Federal Register*, Vol. 77, No. 199 (October 15, 2012), pp. 62623–63200, <https://www.federalregister.gov/articles/2012/10/15/2012-21972/2017-and-later-model-year-light-duty-vehicle-greenhouse-gas-emissions-and-corporate-average-fuel> (accessed November 27, 2012).

2. This assumes 15,000 annual miles at current prices. See U.S. Department of Energy, "Fuel Economy," <http://www.fueleconomy.gov/> (accessed November 1, 2012).

Consumers have other preferences as well, including weight and engine power, for safety, enjoyment, and practical reasons. Ignoring those preferences and forcing companies to make vehicles that are lighter and thus more fuel efficient has the unintended consequence of making them less safe.

WHETHER THE CONSUMER'S PREFERENCE IS FOR SAFETY, PERFORMANCE, OR FUEL EFFICIENCY, THE MARKET—NOT THE FEDERAL GOVERNMENT—IS IN THE BEST POSITION TO MEET THAT DEMAND.

Consumers need safer and heavier vehicles for a number of reasons: to take their children to soccer practice, to tow their boats, or to haul equipment or produce on small farms. In fact, a 2011 paper from the Massachusetts Institute of Technology found that if weight, horsepower, and torque were held constant at 1980 levels, fuel efficiency would have increased 60 percent from 1980 to 2006 instead of the 15 percent increase that did occur.⁴ Yet over the years, auto manufacturers have continued to meet consumers' demand for heavier, more powerful vehicles.

Increased fuel efficiency also incentivizes people to drive their vehicles more. Although the EPA and DOT account for this rebound effect, their low-end assumptions are questionable. Moreover, customers also consider price and affordability. Under this new mandate, the Energy Information Administration warns that new cars priced under \$15,000 may no longer be available.⁵

Consumers consider these trade-offs and place higher or lower values on different vehicle features depending on what they want. Automakers have an incentive to balance those trade-offs and preferences of consumers because their sales will suffer if they fail to do so. Whether the preference is for safety, performance, or fuel efficiency, the market—not the federal government—is in the best position to meet that demand.

Higher Prices, Overly Generous Savings Estimates

By the Obama Administration's own admission, the new fuel-efficiency standards will raise the sticker price for light-duty vehicles by an average of \$1,800, and standards for model years 2011–2016 will increase the costs another \$1,200 for a total of \$3,000.⁶ The EPA and DOT argue that consumers will save \$3,400 to

\$5,000 over the life of the vehicle because of dramatic fuel savings.⁷ However, these cost savings estimates are overly generous.

To capture the full savings from the fuel-efficiency standards, the federal government assumes that the purchaser of a 2025 model year vehicle will keep that vehicle for its entire lifetime. The agencies' Joint Technical Support Document uses a weighted distribution to estimate savings for a 30-year lifetime for cars and 37-year lifetime for light-duty trucks.⁸ For instance, the government estimates a 10.6 percent chance that a car purchased in 2025 will be driven in 2048. It further estimates that if the car survives those 23 years, it will be driven an additional 8,037 miles, and it compares the fuel savings to a baseline without fuel-efficiency standards. The savings estimate also includes a 2.4 percent chance that a car will be driven 7,227 miles 30 years after being purchased and a 2.7 percent chance that a light-duty truck will be driven 7,209 miles 37 years after being purchased and adds that into the projected lifetime fuel savings.⁹

While a weighted distribution may be a legitimate calculation to estimate miles driven throughout different ages of a vehicle, it is

3. Alliance of Automobile Manufacturers, "Fuel Efficient Production," <http://www.autoalliance.org/auto-marketplace/fuel-efficient-production> (accessed November 7, 2012).

4. Christopher R. Knittel, "Automobiles on Steroids: Product Attribute Trade-Offs and Technological Progress in the Automobile Sector," *The American Economic Review*, Vol. 101, No. 7 (December 2011), pp. 3368–3399, http://web.mit.edu/knittel/www/papers/steroids_latest.pdf (accessed November 27, 2012).

5. U.S. Energy Information Administration, *Annual Energy Outlook 2011 with Projections to 2035*, April 2011, p. 27, [http://www.eia.gov/forecasts/archive/aeo11/pdf/O383\(2011\).pdf](http://www.eia.gov/forecasts/archive/aeo11/pdf/O383(2011).pdf) (accessed November 27, 2012).

6. Cost estimates in 2010 dollars. *Federal Register*, Vol. 74, No. 59 (March 30, 2009), p. 14413; *Federal Register*, Vol. 75, No. 88 (May 7, 2010), p. 25635; *Federal Register*, Vol. 76, No. 231 (December 1, 2011), p. 74889. See also, National Automobile Dealers Association, "NADA Supports a Single National Fuel Economy Standard," <http://www.nada.org/legislativeaffairs/fuel-economy-environment/california-waiver/default.htm> (accessed December 13, 2012).

7. These figures assume discount rates of 7 percent and 3 percent, respectively.

8. U.S. Environmental Protection Agency and U.S. Department of Transportation, National Highway Traffic Safety Administration, *Joint Technical Support Document: Final Rulemaking for 2017–2025 Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards*, August 2012, <http://epa.gov/otaq/climate/documents/420r12901.pdf> (accessed November 27, 2012).

9. *Ibid.*, pp. 423–425.

disingenuous to advertise all of this as projected fuel savings that the consumer will realize. If consumers sell their cars after paying off their loan within 36–72 months,¹⁰ they will enjoy only a fraction of the fuel savings. In fact, even Volvos and Fords—the cars that Americans keep for the longest periods (between six and seven years)—are a far cry from the lifetime ownership that the federal government assumes.¹¹ It is difficult to estimate what portion of the increased costs the original owners will be able to pass on when they sell or trade their vehicle.

Further, the EPA and DOT estimate that gas prices will be \$3.87 per gallon in 2025, increasing to \$4.24 per gallon by 2040. While that scenario is plausible, increases in supply could certainly drive prices down, and consumers would save less. Alternatively, gas prices could rise even higher than the government projections, and consumers could save more money, but it is difficult to project gas prices for the next year, let alone for the next 27 years. This makes the savings estimates even more questionable.

Furthermore, higher sticker prices affect the demand for and supply of new vehicles. Higher prices reduce demand and induce people to keep their older vehicles longer.

Reduced demand means fewer cars produced, which means automakers will employ fewer workers. Although employment losses are not directly attributable to the Administration's new rule, the Defour Group, a Michigan-based consulting firm, projected that a 56 mpg standard would destroy 220,000 jobs.¹²

SINCE REGULATION OF TAILPIPE GREENHOUSE GAS EMISSIONS WOULD REDUCE GREENHOUSE GAS EMISSIONS LESS THAN A CAP-AND-TRADE BILL WOULD HAVE, THE REGULATIONS WILL HAVE EVEN LESS OF AN IMPACT ON GLOBAL TEMPERATURES.

No Reduction in Warming

The latest fuel-efficiency standards are part of newly implemented and proposed regulations to regulate carbon dioxide and other greenhouse gas emissions to combat global warming. In collaboration with DOT, the first target of the EPA's regulation of carbon dioxide was new motor vehicles, beginning with the increase in fuel-efficiency standards for 2012–2016 model year vehicles.¹³

The EPA's backdoor regulations come after Congress failed to pass

cap-and-trade legislation to reduce greenhouse gas emissions to 83 percent below 2005 levels by 2050, but these bills would constitute negligible reductions in emissions, as acknowledged by EPA.¹⁴ Since regulation of tailpipe greenhouse gas emissions would reduce greenhouse gas emissions less than a cap-and-trade bill would have, the regulations will have even less of an impact on global temperatures.

Congress Needs to Act

The market does a far better job of meeting consumers' needs, and each iteration of more stringent fuel-efficiency standards takes America's automobile market further in the wrong direction. Congress should intervene to prevent the EPA and DOT from enforcing the fuel-efficiency standards, either by withholding funds or by passing legislation that prohibits the regulation. Removing CAFE standards would benefit both producers and consumers, both now and in the long run.

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10. A recent survey by Polk, an auto information firm, found that consumers are keeping their vehicles an average of nearly six years, up from an average of four years in 2003. Polk, "U.S. Consumers Hold on to New Vehicles Nearly Six Years, an All-Time High," February 21, 2012, https://www.polk.com/company/news/u.s._consumers_hold_on_to_new_vehicles_nearly_six_years_an_all_time_high (accessed November 2, 2012).

11. Americans keep Volvos an average of 7.05 years and Fords for 6.02 years. Together these account for 15 percent of the market. Christopher Noble and Jim Jelter, "Cars Americans Drive Longest," MarketWatch, November 9, 2012, [http://live.wsj.com/video/cars-americans-drive-longest/CE595DB9-B8A9-4771-90CE-2F044142B7CD](http://live.wsj.com/video/cars-americans-drive-longest/CE595DB9-B8A9-4771-90CE-2F044142B7CD.html#!CE595DB9-B8A9-4771-90CE-2F044142B7CD) (accessed November 13, 2012).

12. Press release, "54.5 MPG Standard by MY2025 a Daunting Challenge," Defour Group, July 29, 2011, <http://defourgroupp.com/> (accessed October 22, 2012).

13. U.S. Environmental Protection Agency, "Regulatory Initiatives," <http://epa.gov/climatechange/EPAactivities/regulatory-initiatives.html> (accessed October 23, 2012).

14. U.S. Senate Committee on Environment and Public Works, "Jackson Confirms EPA Chart Showing No Effect on Climate Without China, India," July 7, 2009, http://epw.senate.gov/public/index.cfm?FuseAction=Minority.PressReleases&ContentRecord_id=564ed42f-802a-23ad-4570-3399477b1393 (accessed December 13, 2012).