



Automobile Fuel Economy Standards

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The federal government's fuel economy standards for new cars are a prime example of a program whose unintended consequences far outweigh its regulatory goals. The program, popularly known as CAFE (Corporate Average Fuel Economy), was enacted in 1975 in the wake of the Middle East oil shocks. Its purpose was to reduce U.S. consumption of gasoline and dependence on foreign oil by setting minimum standards for the fuel efficiency of new cars. Over the years, that purpose has expanded. Today, the alleged threat of climate change is one of the major arguments in support of making CAFE standards more stringent.

Since the CAFE program's enactment, fuel economy for new cars has doubled. Much of that increase, however, was due not to CAFE standards but to rising gasoline prices, which

increased consumer demand for more fuel-efficient cars. Moreover, the CAFE program has had a number of side effects that have reduced its fuel-saving effect. For example, by restricting the availability of large passenger cars, the CAFE program has boosted consumer demand for even less fuel-efficient vehicles, such as vans and sport utility vehicles (SUVs), which fall into a less regulated vehicle category. Moreover, higher fuel-efficiency mandates tend to stimulate more driving by reducing the cost of each additional mile.

Most important, the program's fuel savings have imposed a human toll that proponents refuse to acknowledge: CAFE standards kill people. They cause new cars to be downsized—that is, to be made smaller and lighter. Smaller cars generally get more miles per gallon than

larger cars, but they are also less crashworthy. The result is that the CAFE program has increased traffic fatalities by 1,000 or more deaths per year. Given that this program has been in effect for over a quarter of a century, the cumulative death toll may well make it the federal government's deadliest regulatory program.

Government mandates to reduce gasoline use rest on a very questionable principle. Why shouldn't people be able to use as much gasoline as they are willing to pay for? After all, we derive benefits from natural resources. Mobility empowers us. It allows us to structure our lives, giving us flexibility in choosing our communities and our jobs and in handling our family and professional responsibilities. As long as the price we pay for gasoline at the pump is not subsidized by the government, any attempt to restrict our mobility should be subject to serious question.

If the government is going to restrict gasoline consumption (and that is a big *if*, the validity of which we question), then higher gasoline taxes are the most efficient way of doing so. They immediately affect all consumers, compared to the many years that it takes for CAFE to affect the production of new cars. More important, a tax increase is far more politically honest than the CAFE standards, because its magnitude is readily apparent to the public. The CAFE program's effects, in contrast, are relatively invisible. That is what makes the program so attractive to politicians and government regulation advocates—and so dangerous to the public at large.

Background

The CAFE program established an initial series of congressionally mandated fuel economy

standards for the nation's new-car fleet, with an eventual goal of 27.5 miles per gallon for 1985. It authorized the U.S. Department of Transportation (DOT) to set car standards for subsequent years, subject to a statutory maximum of 27.5 miles per gallon, and also to establish fuel economy standards for light trucks, a vehicle category that includes vans and SUVs. The current new-car standard is 27.5 miles per gallon. The more lenient standard for light trucks, which is not subject to a statutory cap, is currently 21.6 miles per gallon, and it is set to increase to 24 miles per gallon by the 2011 model year.

The CAFE standards must be met by every carmaker's new vehicles sold within a given model year. Individual vehicles can fall below the standard, but they must be offset by a company's sales of other vehicles that exceed the standard or by a company's use of CAFE credits earned in other years.

The Clinton administration generally favored higher CAFE standards, but a series of congressional appropriation freezes barred DOT from raising those standards. The Bush administration raised the light truck standard and also began a reform of the CAFE program aimed at reducing its adverse safety effects. With the Democrats taking control of Congress in 2007, there is more impetus to drastically increase both the car and light truck standards. The intensification of the global warming debate will give such proposals even more prominence than they have had in the past.

Although much of this debate will center on appropriate CAFE levels, the real issue is the wisdom of the CAFE program itself. As the following sections indicate, the program's underlying premises are in need of basic reconsideration.

A Questionable Effect on Gasoline Consumption

Since the passage of CAFE standards, the fuel efficiency of new cars has nearly doubled. Much of this increase, however, is due not to the standards but to the auto market's response to rising oil prices. For example, in the years immediately following CAFE's enactment, new-car fuel economy increased to levels even higher than those required by statute, as consumers, faced with steadily rising gasoline prices, demanded far more fuel-efficient cars than they had in the past. Only in the mid-1980s and later, when gas prices first stabilized and then actually began to decline, did CAFE itself exert a real effect on car design and on the mix of models available. The drop in gas prices, however, meant that conservation had become a less pressing need. Similarly, during the post-Katrina increase in gasoline prices, from late 2005 through the summer of 2006, sales of large SUVs declined drastically while smaller SUVs and hybrids boomed in popularity. These changes took place far more quickly than anything that the CAFE program might have accomplished.

Although CAFE has forced some changes in the new-car fleet, many of its effects have actually *increased* fuel consumption. The restriction on large cars caused consumers to hang onto their older, less efficient cars for longer periods of time. Because consumers were limited in their choice of new cars, demand for larger vehicles, such as vans, minivans, and SUVs, was boosted. These vehicles, which were subject to the less stringent light truck CAFE standard, were often less fuel efficient than the cars they replaced. Finally, because fuel efficiency reduces the costs of driving, the CAFE program actually encourages more driving.

Increases in Traffic Fatalities

Vehicle downsizing is one of the most effective means of increasing fuel economy. Downsized vehicles, however, are less crashworthy than similarly equipped large cars in practically every type of accident. As a result, the CAFE program increases highway fatalities. A 1989 Harvard-Brookings Institute study calculated that the CAFE program's 500-pound downsizing effect on new cars caused a 14 to 27 percent increase in occupant fatalities—or 2,200 to 3,900 additional traffic deaths per year.¹ More recently, a 2002 National Academy of Sciences study estimated that the program's downsizing effect contributed to between 1,300 and 2,600 additional deaths per year.²

Ironically, the CAFE program is administered by the National Highway Traffic Safety Administration (NHTSA), a unit of DOT. Even though its middle name is *Safety*, NHTSA has

1. The earliest and still one of the foremost analyses of this issue can be found in Robert W. Crandall and John D. Graham, "The Effect of Fuel Economy Standards on Automobile Safety," *Journal of Law and Economics* 32, no. 1 (1989): 97–118. For other analyses that reach similar conclusions, see National Highway Traffic Safety Administration, *Relationship of Vehicle Weight to Fatality and Injury Risk in Model Year 1985–93 Passenger Cars and Light Trucks* (Washington, DC: National Highway Traffic Safety Administration, 1997); James R. Healey, "Death by the Gallon," *USA Today*, July 2, 1999, section B. For an application of the Crandall-Graham analysis to recent traffic statistics, see "CAFE's Yearly Death Toll: State by State" Competitive Enterprise Institute, Washington, DC, 2002, <http://www.cei.org/gencon/025,02407.cfm>.

2. Committee on the Effectiveness and Impact of Corporate Average Fuel Economy (CAFE) Standards, National Research Council, *Effectiveness and Impact of Corporate Average Fuel Economy (CAFE) Standards* (Washington, DC: National Academies Press, 2002), 3, <http://books.nap.edu/books/0309076013/html/3.html#pagetop>.

largely failed to assess the safety effect of this program. In 1989, a federal appeals court, ruling in the case of *Competitive Enterprise Institute and Consumer Alert v. NHTSA*, found that the agency had engaged in “decisional evasion” and “statistical legerdemain” in dealing with this issue.³

Proponents of higher CAFE standards argue that new technologies have replaced downsizing as means of enhancing fuel economy. The CAFE program, however, imposes a safety tradeoff on vehicles regardless of how technologically sophisticated they may be. Take the most high-tech car imaginable: if you then make it larger and heavier, it will be safer, but it will also be less fuel efficient. Because the CAFE program prevents such cars from being “upsized,” it continues to impose its lethal effect.

No Reduction in Automobile Emissions

Proponents of higher CAFE standards claim that the standards will reduce the threat of global warming. Fuel-efficient cars do emit less carbon dioxide per mile traveled, but this effect will be diminished by the program’s stimulus to increase driving. Moreover, new vehicles constitute a miniscule source of overall carbon dioxide emissions. Finally, as explained elsewhere in *The Environmental Source*, the evidence in support of a threat of global warming is extremely speculative.

As for pollutants, all vehicles are subject to the same U.S. Environmental Protection Agency emissions standards in terms of allowable grams per mile. In this respect, cars with high

fuel economy and cars with low fuel economy perform the same. More important, most vehicle emissions come not from new cars but from older ones. Because the CAFE program results in these cars being kept on the road even longer, the result may well be more—rather than less—air pollution.

Little Reduction in U.S. Dependence on Foreign Oil

Despite the CAFE program, oil imports currently account for 60 percent of U.S. oil consumption, as compared with 35 percent in 1975.⁴ Half of those imports, however, come from other Western Hemisphere nations, and our single largest foreign source of oil is Canada.⁵

America’s dependence on foreign oil is essentially determined not by the fuel economy of our cars, but by world oil prices. Our domestic oil sources are relatively high cost in nature. When world oil prices are low, the United States tends to increase its imports of low-cost foreign oil. If Congress wishes to reduce such imports (a goal whose wisdom is itself debatable), the best way to do so is to eliminate the extensive federal restrictions on domestic oil exploration and development.

3. *Competitive Enterprise Institute and Consumer Alert v. NHTSA*, 956 F.2d 321 (D.C. Cir. 1992).

4. U.S. Department of Energy, Energy Information Administration, *Oil Market Basics* (Washington, DC: U.S. Department of Energy), http://www.eia.doe.gov/pub/oil_gas/petroleum/analysis_publications/oil_market_basics/default.htm.

5. U.S. Department of Energy, Energy Information Administration, “Crude Oil and Total Petroleum Imports Top 15 Countries,” U.S. Department of Energy, Washington, DC, http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/company_level_imports/current/import.html.

Key Experts

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Recommended Readings

Competitive Enterprise Institute. CAFE Café website. <http://www.cei.org/pages/cafecafe/opeds/index.cfm>.

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