



Regulation Without Results

It's hard to disagree that fuel economy standards are bad policy.

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March 27, 2017

This month President Trump visited Detroit to announce that his administration would revisit the Corporate Average Fuel Economy regulations that require vehicles to attain an average minimum gas mileage. The Obama administration had agreed to increase those standards by 2025 to 60 miles per gallon for small cars and 46 for large cars, and 50 for small trucks and 30 for large trucks.

Why are such requirements necessary? CAFE supporters claim that consumers don't fully appreciate the value of good gas mileage. Specifically consumers are not willing to pay more initially for a vehicle that gets better gas mileage and has lower operating costs over the lifetime of the vehicle. Thus the government must mandate the production of more efficient vehicles.

Are consumers myopic? Clemson University economist Molly Espey examined sales price data for 2001 model year cars and found that consumers paid *more* than the fuel savings for different cars that, apart from gas mileage, were comparable. In another paper, a team of researchers led by James M. Sallee of the University of California, Berkeley, examined monthly sales data for vehicles sold between July 1993 and June 2008 and found that consumers paid more for better mileage cars when fuel prices increased and paid less for them when fuel prices decreased. Consumers' willingness to pay perfectly replicated expected future fuel costs without any government intervention.

CAFE supporters respond that the Obama standards weren't intended to address consumer failings to appreciate fuel savings, but rather to reduce carbon emissions and their effects on the climate. But CAFE is a clumsy way to combat climate change, both because it targets only one source of greenhouse gases and because it does so indirectly and thus inefficiently.

A less costly way is to tax carbon emissions, which would encourage consumers to economize in both their gasoline use and their other carbon-emitting activities. The problem is that the public, and thus politicians, hate new taxes, even if they are revenue-neutral.

In addition, many prefer CAFE standards because they believe that taxes on carbon emissions are regressive, falling heavily on lower-income households. Academic researchers agree with this, but they find CAFE places an even heavier burden on those with low-incomes.

A recent paper by Georgetown economist Arik Levinson looks at the distributional implications of gasoline taxes, keeping in mind how the resulting tax revenues would be used. Levinson finds that the most affluent 5 percent of households have at least 10 times the income of the poorest 20 percent, but those rich households use only four times more gasoline. That means that a gasoline tax would be regressive in the sense that the affluent would pay a lower percentage of their income. But if the proceeds were then rebated equally to all households, the overall tax-plus-rebate program would be progressive because low-income households would get back more money than they paid.

CAFE standards are equivalent to a tax on the gasoline used per mile of travel. Thus to assess the distributional effects of CAFE standards, we need to know whether a direct tax on gasoline use increases faster with income than a "CAFE standard-equivalent" tax. Affluent households use four times as much gasoline as poor households, but affluent households use only three times the gasoline *per mile* as poor households. Thus, an explicit tax on gasoline goes up faster with respect to income for affluent households than the tax-equivalent cost of CAFE standards with respect to income. Put more simply, a gasoline tax would be more progressive than the cost of CAFE standards.

CAFE's regressivity has grown worse in recent years. There was once a single standard for cars and a single standard for trucks, but in 2011 the federal government began using different standards for small and large cars and small and large trucks. The larger vehicles face more lenient standards and, of course, wealthier people tend to drive larger vehicles. Thus, the new CAFE standards are even more regressive relative to a gas tax.

To summarize, academic researchers have shown that consumers correctly consider fuel costs when making vehicle-buying decisions. CAFE standards cannot be justified as correcting some sort of consumer failure to appreciate fuel savings. The idea that CAFE reduces carbon emissions is slightly more reasonable, but it is a very indirect, inefficient and regressive method. Thus it's hard to disagree with the Trump administration that the CAFE standards are bad regulation.

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