

# Fuel Efficiency, Consumers, and Income

## HIGHLIGHTS

*Strong fuel efficiency and global warming emissions standards for new passenger vehicles save consumers money at the gas pump and cut America's oil use and pollution. The nation's federal fuel efficiency standards, which Americans widely support, are set to nearly double the fuel economy of new cars and light trucks by 2025. Maintaining the standards and reaching this goal would benefit all Americans. It would especially help low- to middle-income households, which historically have benefitted the most from improved fuel efficiency. And strong standards will help the nation be a leader in the global race to produce the clean and equitable transportation systems of tomorrow.*

Today's federal fuel efficiency and global warming pollution standards save money for all income groups in America (Greene and Welch 2017). The savings from driving a car that requires less fuel also mean more for low- to middle-income Americans than for other households. Low- and middle-income households spend a larger share of their income on transportation compared with higher earners, so any money saved on fuel has added impact on their budgets (see the box, p. 2).

Because the benefits reach everyone, Americans across demographic, economic, and political lines strongly support the fuel efficiency standards that were finalized under the Obama administration (CFA 2016). But despite the benefits and broad support, auto industry lobbying has helped convince President Trump and his administration to reexamine these standards. This places at risk the nation's goal of nearly doubling the average fuel efficiency of new cars and light trucks by 2025.

## Fuel Efficiency Saves Drivers Money

According to a detailed analysis of Consumer Expenditure Surveys, improvements in fuel efficiency saved low- to middle-income households up to an average of 2 percent of their income from 1980 to 2014. The nation's highest earners saved as well, although at a lower level: about an average of 0.5 percent of income across the years of the study (see the figure, p. 3) (Greene and Welch 2017).

A 2 percent savings on income is significant for millions of American households. For example, fuel-efficient vehicles saved an average middle-income household as much as \$17,000<sup>1</sup> from 1980 to 2014, providing money that could be used



Willie B. Thomas/Stock

*If federal fuel efficiency standards are maintained, the average new car buyer will save about \$6,000 in fuel costs over the life of a new 2025 vehicle, even after paying for the cost of fuel-saving technology.*

for other essentials, from food and clothing to education, health care, and family savings (Greene and Welch 2017).

The current fuel efficiency standards, if maintained, are forecast to once again provide net savings to all American drivers, including low- and middle-income households. The 2017–2025 federal fuel efficiency and global warming pollution standards are on track to save the average new car buyer about \$6,000 over the life of a new 2025 vehicle, even after paying for the cost of technology to improve fuel efficiency (UCS 2016).<sup>2</sup> Collectively, improved fuel efficiency is forecast to save Americans a total of about \$50 billion by 2030, money they can spend locally instead of profiting multinational oil companies (UCS 2016).

### The Impact of Fuel Efficiency on Rural Drivers

Rural Americans tend to travel farther to access jobs and services than do city dwellers, making them typically more dependent on personal vehicles. At the same time, lower population densities in rural areas make it more challenging to deploy many transportation options that are relatively common in cities, such as public transportation or bicycling infrastructure. In a survey by the American Public Transportation Association, only 11 percent of rural respondents had public transportation available to their homes, compared with 83 percent in central cities (APTA n.d.).

Relative to urban households, rural households tend to own more vehicles and, as a result, spend more of their total income on vehicle purchases, gasoline and motor oil, insurance, and vehicle maintenance (BLS 2016). Providing both rural and urban low-income communities with better transit options and with vehicles that cost less to fuel can help make transportation more affordable and its costs more predictable, protecting drivers from oil price swings.

### Fuel Efficiency Standards Keep Vehicles Affordable

Automakers claim that fuel efficiency standards make vehicles more expensive and less affordable, especially for low-income consumers (AAM 2016). Indeed, increasing fuel efficiency does come at a modest cost, but the rise in the average transaction price of a new vehicle can be attributed largely to automakers' increased sales focus on luxury SUVs and expensive pickup trucks, both of which usually yield higher profit margins than do smaller, more fuel-efficient vehicles (Baum and Luria 2016).

## The Impact of Vehicle Ownership Costs on Low-Income Households

Transportation represents the second largest expense for many Americans (BLS 2015). The average middle-income household devotes almost 20 percent of its income to transportation (Schanzenbach et al. n.d.). Over one-quarter of that goes to gasoline and motor oil (BTS 2016). For low-income households, transportation consumes about 30 percent of total income (Haas et al. 2006). These households typically spend more on fuel than on vehicle purchases, so any money saved on fuel has added impact on their budgets (Greene and Welch 2017).

As sprawl has worsened and access to affordable housing in cities or near transit hubs has decreased, affordable and efficient transportation options have become less likely to serve low-income communities. As a result, many low-income households have placed a greater reliance on personal vehicles as their primary mode of transport.

The automakers' focus on less-efficient vehicles has helped widen the price gap between the cheapest and most expensive vehicles on the market (Comings and Allison 2017). Yet the top-selling affordable new vehicles in 2015 actually cost almost the same as those marketed in 2005. For example, the 2015 Chevrolet Cruze L Manual sold for \$16,170; in 2005, a new Honda Civic DX sold for \$16,177 in 2015 dollars. In contrast, the most expensive vehicles of 2005 cost 40 percent more in 2015 after adjusting for inflation.

In other words, the average transaction price of a new vehicle has risen due in part to the rise in the price of luxury vehicles. At the same time, the cost of the most affordable vehicles has remained effectively constant even though today's vehicles are more efficient and cheaper to drive.

***The rise in the average transaction price of a new vehicle can be attributed largely to automakers' increased sales focus on luxury SUVs and expensive pickup trucks.***

## Consumers Want Fuel Efficiency

Given the burden that transportation places on many household budgets, as well as continuing fluctuations in gasoline prices, it should come as no surprise that consumers support strong fuel efficiency standards. The Consumer Federation of America found that 75 percent or more of Americans support stronger fuel efficiency standards, and that support cuts across all demographics and the political spectrum (CFA 2016). For example, in a December 2016 poll, two-thirds of Donald Trump voters and four-fifths of Hillary Clinton voters supported strong standards (CFA 2016).

Support for strong fuel efficiency standards and for fuel-efficient vehicles is not a recent phenomenon. Historically, fuel efficiency has ranked as one of the most important factors Americans consider when purchasing a vehicle, and they continue to rank it highly today. The National Automobile Dealers Association found that both car and truck buyers considered fuel economy the most important factor when purchasing a new vehicle (NADA 2014), and 84 percent of consumers have said that fuel economy drives their decision, regardless of whether they are buying an SUV, a sedan, or a minivan (Fuels Institute 2014). In 2017, nearly 9 out of 10 Americans said they wanted automakers to continue improving fuel efficiency (Consumers Union 2017).

**A majority of Americans, across all demographics and the political spectrum, support stronger fuel efficiency standards.**

## Current Standards at Risk

In March 2017, at the request of auto manufacturers, President Trump began reevaluating the 2022–2025 federal fuel efficiency and global warming emissions standards for cars and light trucks (EPA 2017). This reversed a decision made under the Obama administration to affirm the current standards, which were set to provide enormous benefits to American consumers, especially the low- and middle-income earners who most benefit from improved fuel efficiency (ICCT 2017).

As part of this review process, the Environmental Protection Agency and the Department of Transportation will solicit comments from the public, the auto industry, and other interested parties on whether the United States should maintain its goal of nearly doubling the average fuel efficiency of new cars and light trucks by 2025. This process will help shape

## Household Savings from Vehicle Fuel Efficiency Standards



The figure shows net savings from vehicle standards, expressed as a fraction of average household income, for households of different income levels. Low- and middle-income households gain the most from strong vehicle standards. This is due to the higher share of household spending low- and middle-income quintiles use for fuel and the impact of the increased availability of more efficient vehicles on both the new and used vehicle market.

SOURCE: GREENE AND WELCH 2017, TABLES 7, 9, 15.



PXhere

*The average new car or truck is going ever farther on a gallon of gas, thanks to federal fuel efficiency standards. This means big savings for rural and low-income households, which spend a larger portion of their income on transportation-related expenses compared with urban dwellers and higher earners, respectively.*

the future of the auto industry, setting a trajectory that will extend beyond the current regulations and continue toward further reductions in fuel use and emissions after 2025.

Too much is at stake to put a hold on federal standards for fuel efficiency and global warming emissions. No other existing federal policies can deliver greater oil savings, consumer benefits, and emissions reductions. Without measures like these, the United States will spend nearly \$2 billion every day on dirtier, harder-to-reach oil—and that would hit the pocketbooks of low- to middle-income Americans the hardest (UCS 2016).

Keeping the standards strong will help insulate family budgets from oil price spikes and ensure that American families continue to see cost savings at the pump. And strong standards will help the nation be a leader in the global race to produce the clean and equitable transportation systems of tomorrow.

---

**Josh Goldman** is a senior policy analyst in the UCS Clean Vehicles Program.

#### ENDNOTES

- 1 2015 dollars.
- 2 Vehicle fuel savings calculations are based on the following assumptions: base fuel efficiency of 28.4 miles per gallon (mpg) on government tests (about 22.6 mpg on road), with lifetime mileage of about 205,000 miles; efficient 2025 vehicle with an average on-road fuel economy of 36.6 mpg; projected fuel prices according to the Energy Information Administration; future fuel costs and savings discounted at an annual rate of 4.5 percent, consistent with the average annual rate of return of the Dow Jones Industrial Average from 1992 to 2012; and a 10 percent rebound effect for increased miles driven per year under improved fuel efficiency.

#### REFERENCES

- Alliance of Automobile Manufacturers (AAM). 2016. Comments on Draft Technical Assessment Report. September 26. Online at [www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2015-0827-4089&attachmentNumber=1&contentType=pdf](http://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2015-0827-4089&attachmentNumber=1&contentType=pdf), accessed June 26, 2017.
- American Public Transportation Association (APTA). No date. Rural communities, expanding horizons. Online at [www.apta.com/resources/reportsandpublications/Documents/Rural-Communities-APTA-White-Paper.pdf](http://www.apta.com/resources/reportsandpublications/Documents/Rural-Communities-APTA-White-Paper.pdf), accessed June 26, 2017.
- Baum, A., and D. Luria. 2016. Affordability of vehicles under the current national program in 2022–2025 for Detroit three automakers. Boston, MA: Ceres. Online at [www.ceres.org/resources/reports/affordability-vehicles-under-current-national-program-2022-2025-detroit-three](http://www.ceres.org/resources/reports/affordability-vehicles-under-current-national-program-2022-2025-detroit-three), accessed June 21, 2017.
- Bureau of Labor Statistics (BLS). 2016. Urban and rural household spending in 2015. Online at [www.bls.gov/opub/ted/2016/urban-and-rural-household-spending-in-2015.htm](http://www.bls.gov/opub/ted/2016/urban-and-rural-household-spending-in-2015.htm), accessed June 26, 2017.
- Bureau of Labor Statistics (BLS). 2015. Consumer expenditures—2015. Online at [www.bls.gov/news.release/cesan.nr0.htm](http://www.bls.gov/news.release/cesan.nr0.htm), accessed June 21, 2017.
- Bureau of Transportation Statistics (BTS). 2016. Household spending on transportation. Online at [www.rita.dot.gov/bts/sites/rita.dot.gov/bts/files/Transportation\\_Economic\\_Trends\\_2016\\_Chapter\\_6.pdf](http://www.rita.dot.gov/bts/sites/rita.dot.gov/bts/files/Transportation_Economic_Trends_2016_Chapter_6.pdf), accessed June 21, 2017.
- Comings, T., and A. Allison. 2017. More mileage for your money: Fuel economy increases while vehicle prices remain stable. Yonkers, NY: Consumers Union. Online at <http://consumersunion.org/wp-content/uploads/2017/03/Synapse-CU-Affordability-Report-3-15-corrected-1.pdf>, accessed June 21, 2017.
- Consumer Federation of America (CFA). 2016. Comments to Environmental Protection Agency docket nos. EPA-HQ-OAR-2015-0827. December 30. Online at [http://consumerfed.org/wp-content/uploads/2017/01/12-30-16-CAFE-Final-Determination\\_Comments.pdf](http://consumerfed.org/wp-content/uploads/2017/01/12-30-16-CAFE-Final-Determination_Comments.pdf), accessed June 21, 2017.

- Consumers Union. 2017. Nearly 9 in 10 Americans want automakers to raise fuel efficiency, according to latest Consumers Union survey. Press release, June 29. Online at <http://consumersunion.org/news/2017-fuel-economy-survey>, accessed July 1, 2017.
- Environmental Protection Agency (EPA). 2017. EPA to reexamine emission standards for cars and light duty trucks—model years 2022–2025. Press release, March 15. Online at [www.epa.gov/newsreleases/epa-reexamine-emission-standards-cars-and-light-duty-trucks-model-years-2022-2025](http://www.epa.gov/newsreleases/epa-reexamine-emission-standards-cars-and-light-duty-trucks-model-years-2022-2025), accessed June 21, 2017.
- Fuels Institute. 2014. Consumers and alternative fuels: Economics are top of mind. Alexandria, VA. Online at [www.fuelsinstitute.org/ResearchArticles/ConsumersandAlternativeFuels.pdf](http://www.fuelsinstitute.org/ResearchArticles/ConsumersandAlternativeFuels.pdf), accessed June 21, 2017.
- Greene, D., and J. Welch. 2017. *The impact of increased fuel economy for light-duty vehicles on the distribution of income in the U.S.: A retrospective and prospective analysis*. Knoxville, TN: Howard Baker Center for Public Policy. Online at <http://bakercenter.utk.edu/white-paper-on-the-impact-of-increased-fuel-economy-for-light-duty-vehicles>, accessed June 21, 2017.
- Haas, P., C. Makarewicz, A. Benedict, T. Sanchez, and C. Dawkins. 2006. *Housing & transportation cost trade-offs and burdens of working households in 28 metros*. Chicago, IL: Center for Neighborhood Technology. Online at [www2.nhc.org/media/documents/chp-pub-hl06-cnt-report.pdf](http://www2.nhc.org/media/documents/chp-pub-hl06-cnt-report.pdf), accessed June 21, 2017.
- International Council on Clean Transportation (ICCT). 2017. Consumer benefits of increased efficiency in 2025–2030 light-duty vehicles in the U.S. Washington, DC. Online at [www.theicct.org/sites/default/files/publications/US-LDV-Efficiency-Consumer-Benefits\\_ICCT\\_Briefing\\_21062017\\_vF.pdf](http://www.theicct.org/sites/default/files/publications/US-LDV-Efficiency-Consumer-Benefits_ICCT_Briefing_21062017_vF.pdf), accessed June 26, 2017.
- National Automobile Dealers Association (NADA). 2014. New car shopper preference survey. McLean, VA. Online at <http://automotivedigest.com/wp-content/uploads/2014/08/2014-NADA-New-Car-Shopper-Preference-Survey.pdf>, accessed June 21, 2017.
- Schanzenbach, D.W., R. Nunn, L. Bauer, and M. Mumford. No date. Where does all the money go: Shifts in households spending over the past 30 years. Washington, DC: The Hamilton Project. Online at [www.hamiltonproject.org/assets/files/where\\_does\\_all\\_the\\_money\\_go.pdf](http://www.hamiltonproject.org/assets/files/where_does_all_the_money_go.pdf), accessed June 21, 2017.
- Union of Concerned Scientists (UCS). 2016. Fuel economy and emissions standards for cars and trucks, model years 2017 to 2025. Cambridge, MA. Online at [www.ucsusa.org/sites/default/files/attach/2016/06/Fuel-Economy-Standards-2017-2025-summary.pdf](http://www.ucsusa.org/sites/default/files/attach/2016/06/Fuel-Economy-Standards-2017-2025-summary.pdf), accessed June 21, 2017.

*The Union of Concerned Scientists puts rigorous, independent science to work to solve our planet's most pressing problems. Joining with people across the country, we combine technical analysis and effective advocacy to create innovative, practical solutions for a healthy, safe, and sustainable future.*

**NATIONAL HEADQUARTERS**

Two Brattle Square  
Cambridge, MA 02138-3780  
Phone: (617) 547-5552  
Fax: (617) 864-9405

**WASHINGTON, DC, OFFICE**

1825 K St. NW, Suite 800  
Washington, DC 20006-1232  
Phone: (202) 223-6133  
Fax: (202) 223-6162

**WEST COAST OFFICE**

500 12th St., Suite 340  
Oakland, CA 94607-4087  
Phone: (510) 843-1872  
Fax: (510) 451-3785

**MIDWEST OFFICE**

One N. LaSalle St., Suite 1904  
Chicago, IL 60602-4064  
Phone: (312) 578-1750  
Fax: (312) 578-1751