



# Consumer Federation of America

## ISSUE BRIEF:

### **PUBLIC SUPPORT FOR A 60 MILE PER GALLON FUEL ECONOMY STANDARD**

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The Consumer Federation of America (CFA) and more than twenty of its member groups recently called on the White House to set a much higher long term standard for fuel economy for light duty vehicles – 60 miles per gallon (mpg) by 2025 compared to the current target of 35 mpg by 2016.<sup>1</sup> CFA has conducted analyses of vehicle purchases, consumer opinion, behavior and pocketbook issues for over six years. This issue brief summarizes recent research including public opinion polling,<sup>2</sup> financial evaluation of investment decisions<sup>3</sup> and econometric analysis of consumer behavior.<sup>4</sup>

As the Obama Administration initiates the process of setting fuel economy standards for the long term, it is critical that policymakers recognize the consumer benefits of and the strong public support for dramatically higher standards. This issue brief provides evidence that consumers support a dramatic increase in fuel economy standards and analysis that shows a 60 mpg would benefit consumers' pocketbooks.

Although the technologies necessary to achieve the goal of a 60 mpg by 2025 standard are already in hand, or soon will be, the auto industry requires long lead times to transform the vehicle fleet. Setting the standard at a high level for the long term is critically important in order to put the industry on a track to achieve a fuel economy level that public opinion and economic analysis clearly supports.

#### **SUPPORT FOR HIGHER STANDARDS**

Survey data from CFA and others show that the public overwhelmingly supports (75 percent or more) higher fuel economy standards as a general policy. This support has been strong and consistent over time. For the past few years, CFA has gone beyond general questions to examine public support for specific target levels. In our most recent survey, we ask about the specific target of 60 mpg by 2025.

As the following table shows, there is substantial majority support for standards at high levels. A large majority (59 percent) said that the government should set the standard at 60 mpg by 2025, while only 37 percent disagreed.

## Public Support for Fuel Economy Targets

Survey Date	Policy Goal	Percent Supporting
Apr-07	One gallon per year for ten years (10 mpg)	81
Nov-09	Increase from 27 to 35 in 2016	78
Mar-10	50 by 2025	65
Sep-10	60 by 2025	59

Source: CFA Surveys:

APR-07: Congress is considering legislation that would require auto manufacturers to increase their new car gas mileage by about one mile per gallon per year for ten years. In this period, new car gas mileage would increase by ten miles per gallon.

Nov-09: In implementing a law passed by Congress in 2007, federal agencies have proposed increasing average fuel economy for new vehicles from 27 miles per gallon today to 35 miles per gallon in 2016. How do you feel about this proposed change?

Mar – 10: The federal government has recently required automobile manufacturers to increase the fuel economy of their motor vehicle fleets from an average of 25 miles per gallon today to 35 miles per gallon by 2016. Do you think the government should increase this standard to an average of 50 miles per gallon by 2023?

Sep-10: The federal government has recently required automobile manufacturers to increase the fuel economy of their motor vehicle fleets from an average of 25 miles per gallon today to 35 miles per gallon by 2016. Do you think the government should increase this standard to an average of 60 miles per gallon by 2023?

The support for 60 mpg cuts across all demographic groups. The only statistically significant differences were among young respondents (18-34) who were more likely to support a 60 mpg target (65 percent) and older respondents (65+) who were less likely to support a 60 mpg target, although even here, 50 percent said yes.

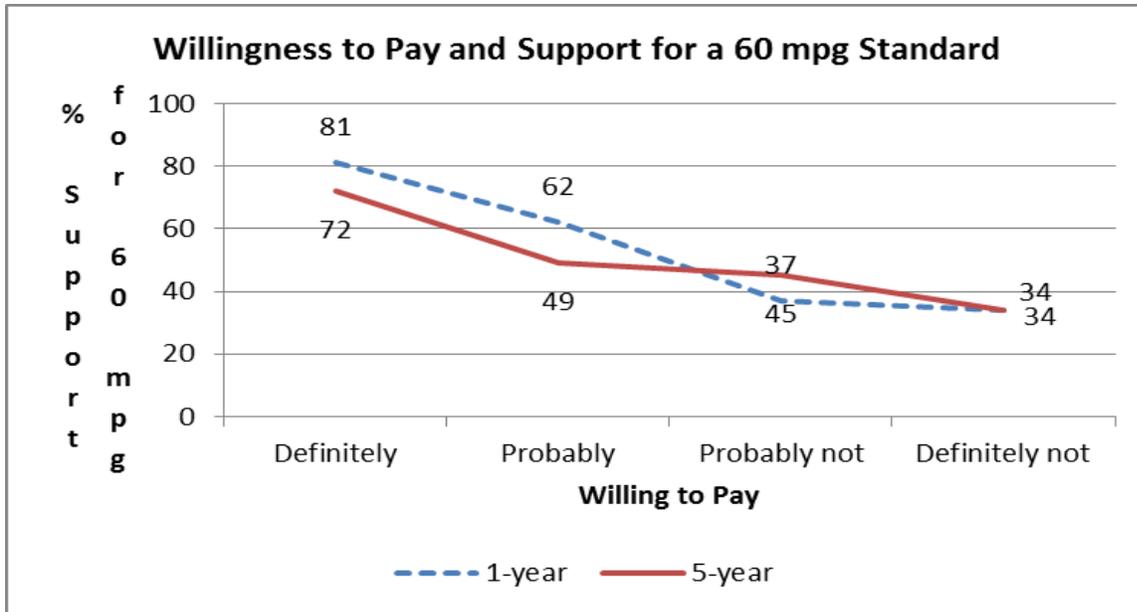
## Willingness to Buy More Fuel Efficient Vehicles

To gauge the willingness of respondents to pay for higher fuel economy, we asked them whether they would be willing to spend more for more efficient vehicles, if the cost of higher efficiency was offset by fuels savings over a specified period, as in the following question.

Automobile manufacturers claim that more fuel efficient vehicles will also be more expensive. Would you definitely be willing, probably be willing, probably not be willing, or definitely not be willing to pay more for a new car if, in FIVE years, (ONE year), you completely recovered this additional expense through lower fuel costs.

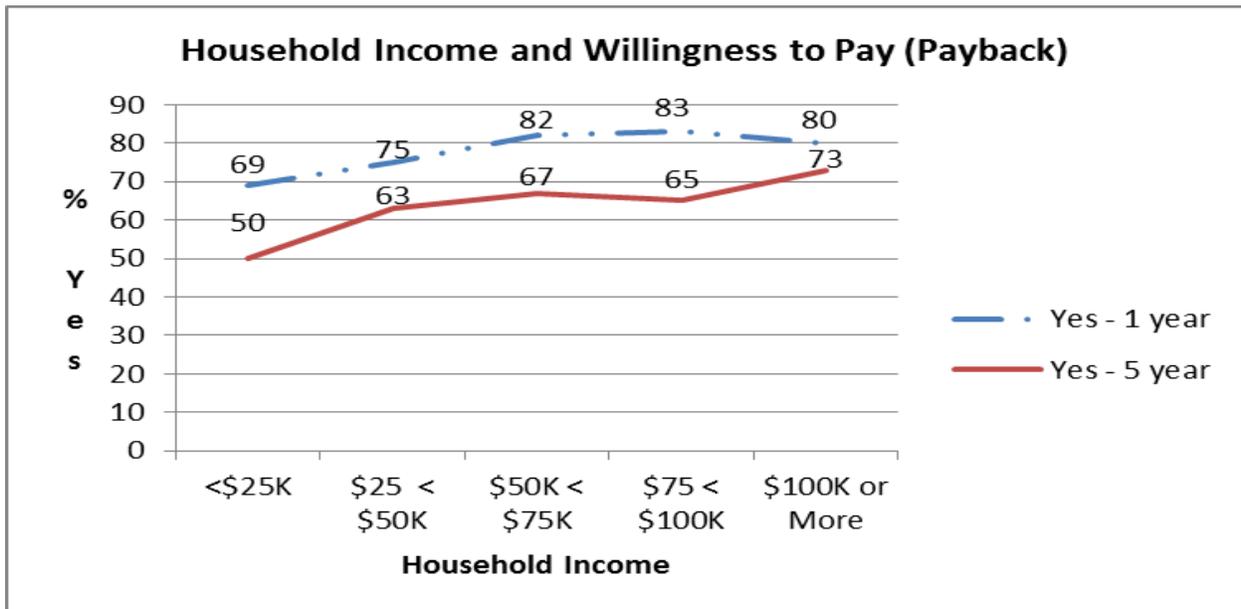
75 percent said yes if the payback period was one year (47 percent said definitely yes; 28 percent said probably), while 62 percent of respondents said they would be willing to pay more with a five-year payback (24 percent definitely, 38 percent probably).

We find that the more willing respondents are to pay for higher fuel economy, the more likely they are to support a 60 mpg standard. As the following figure shows, 81 percent of respondents who said they were definitely willing to pay in a one-year payback scenario said they supported a 60 mpg standard. The support for a 60 mpg standard declined as the willingness to pay did, with just 34 percent of those who were definitely not willing to pay supporting the 60 mpg standard. The pattern for the five-year payback is similar, with 72 percent of those definitely willing to pay in a 5-year scenario supporting a 60 mpg standard.



Source: The federal government has recently required automobile manufacturers to increase the fuel economy of their motor vehicle fleets from an average of 25 miles per gallon today to 35 miles per gallon by 2016. Do you think the government should increase this standard to an average of 60 miles per gallon by 2023? Automobile manufacturers claim that more fuel efficient vehicles will also be more expensive. Would you definitely be willing, probably be willing, probably not be willing, or definitely not be willing to pay more for a new car if, in FIVE years (ONE year), you completely recovered this additional expense through lower fuel costs. 5-year, Chi Square = 107.9,  $p < .001$ ; 1-year = 185.8,  $p < .001$

The responses to the willingness to pay questions exhibit the strongest correlation with a demographic characteristic that gives us confidence in the results, as shown in the following figure. Respondents are much more willing to accept a one-year payback. The willingness to accept both a one-year and a five-year payback increases as income increases.



Source: CFA Survey, Sep-10: Automobile manufacturers claim that more fuel efficient vehicles will also be more expensive. Would you definitely be willing, probably be willing, probably not be willing, or definitely not be willing to pay more for a new car if, in FIVE years (ONE year), you completely recovered this additional expense through lower fuel costs. 5-year, Chi Square = 89.3,  $p < .001$ ; 1-year = 63.7,  $p < .003$

## Perceived Benefits of Higher Fuel Economy

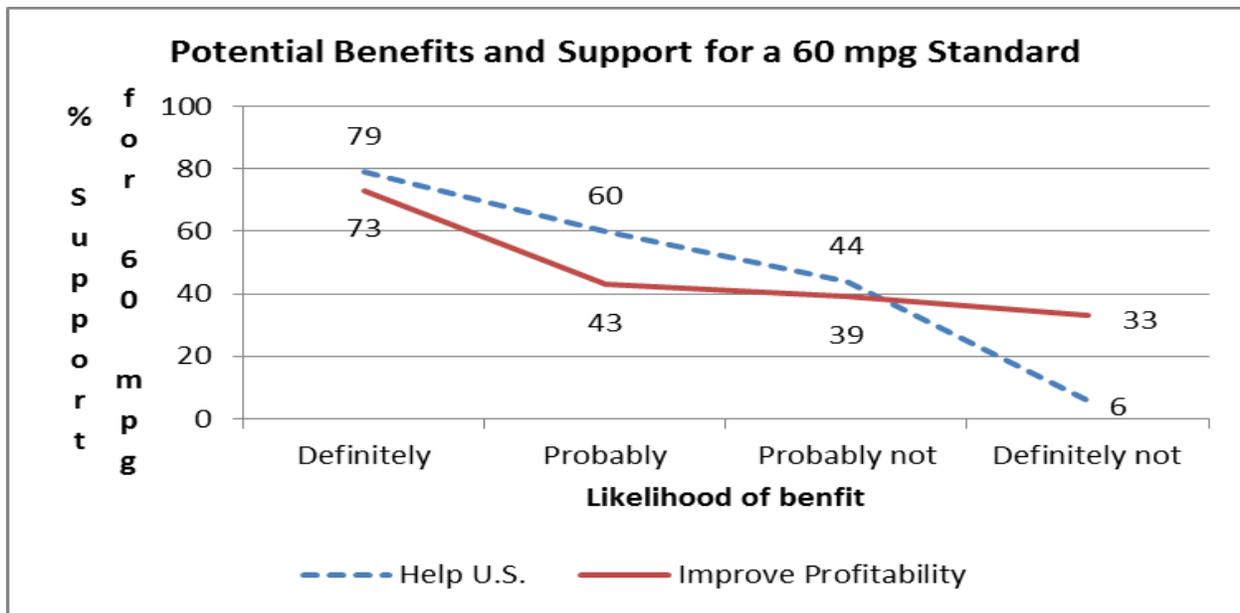
Respondents recognize that fuel economy standards have other benefits. In the current survey, respondents were asked about the impact of higher standards on the nation and automakers.

In your opinion, if U.S. auto companies significantly increased the fuel economy of their cars and trucks, over the long run would this help or hurt the United States?

In your opinion, if U.S. auto companies significantly increased the fuel economy of their cars and trucks, over the long run would these companies be more or less profitable?

77 percent of respondents said it would help the nation (44 percent said greatly help). 60 percent of respondents said automakers would be more profitable (26 percent said much more profitable).

We find a relationship between belief that higher standards will have a positive effect and support for a 60 mpg standard, as shown in the following figure.



Source: In your opinion, if U.S. auto companies significantly increased the fuel economy of their cars and trucks, over the long run would this help or hurt the United States? In your opinion, if U.S. auto companies significantly increased the fuel economy of their cars and trucks, over the long run would these companies be more or less profitable. Automaker Chi Square = 123.3,  $p < .001$ ; U.S. = 137.3,  $p < .001$

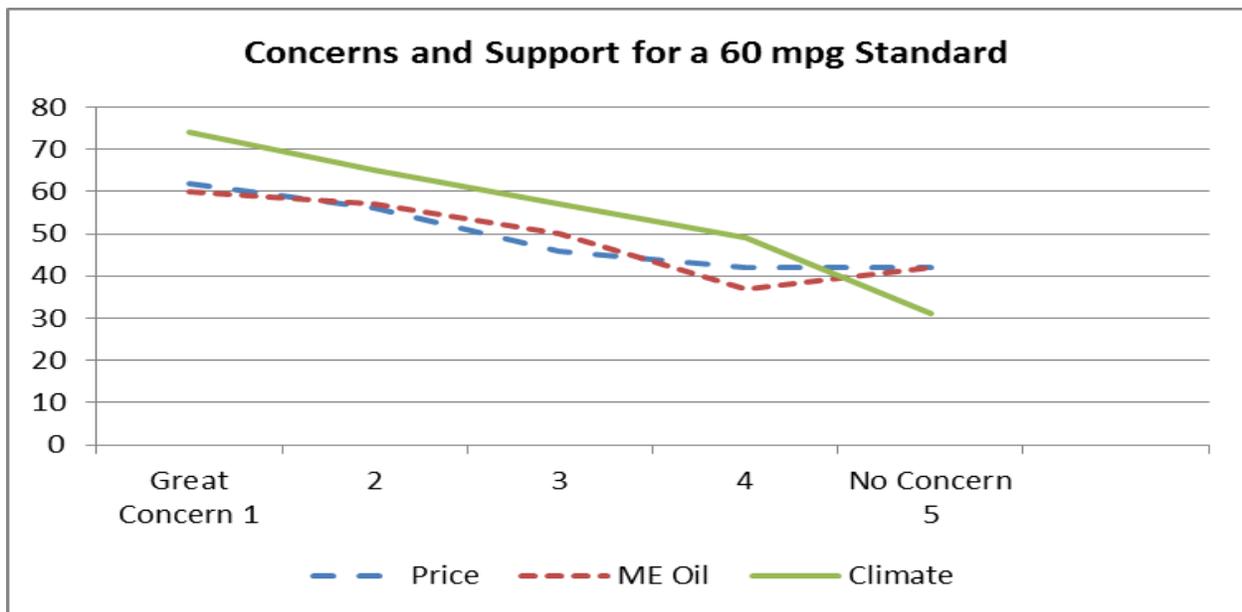
Among those who felt it would help the United States greatly, 79 percent supported the 60 mpg standard. Among those who felt it would help somewhat, 60 percent supported the 60 mpg standard. As the perceived benefit to the nation declines, support for the 60 mpg standard also declines. The relationship between perceived benefits for automakers and a higher standard is weaker. Those who think it will greatly improve the profitability of automakers are strongly supportive of a higher standard, all others respondents are less supportive.

Over the six year period, we have asked a standard question about the level of concern about three aspects of the energy situation:

Thinking about the next five years, how concerned, personally, are you about the following three issues? Gasoline Prices, U.S. dependence on Mid-Eastern oil, Global Warming.

We have found a substantial majority is concerned about prices and Mid-Eastern oil. In the most recent survey, 73 percent of respondents said they were concerned about gasoline prices (55 percent great concern). Similarly, 73 percent said they were concerned about Mid-Eastern oil (52 percent great concern). Concern about climate change has been more evenly split, with 49 percent expressing concern (33 percent great concern).

Again, we find a relationship between the expression of concern and support for a 60 mpg, standard as shown in the following figure.

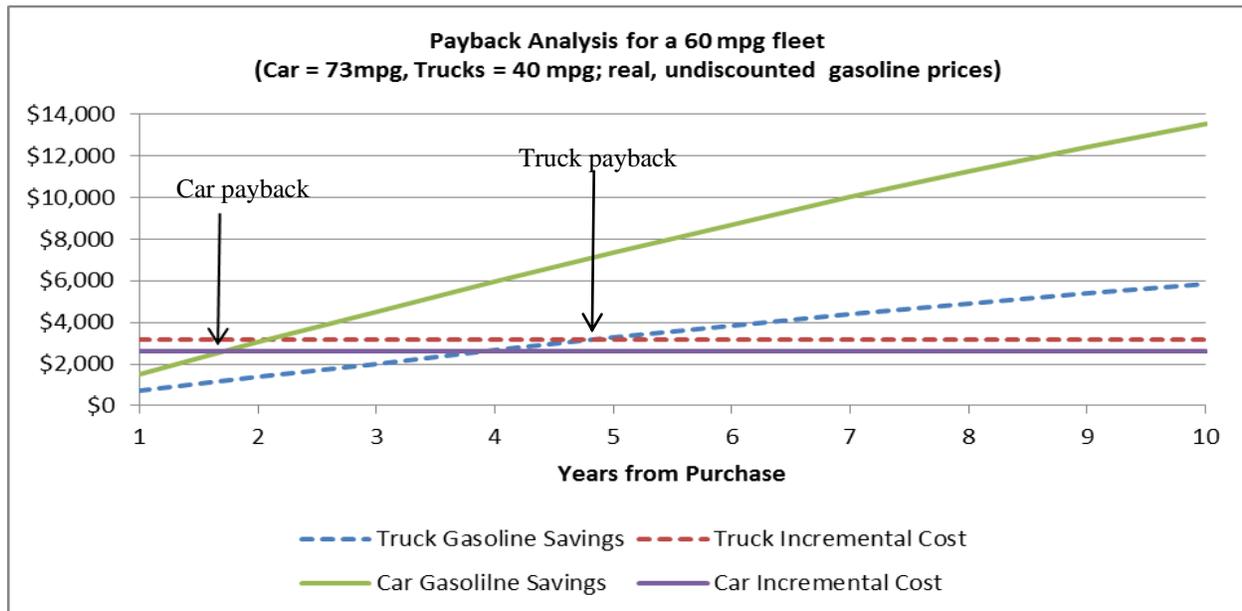


Source: Thinking about the next five years, how concerned, personally, are you about the following three issues? Gasoline Prices, U.S. dependence on Mid-Eastern oil, Global Warming. Price Chi Square = 27.5,  $p < .002$ ; ME Oil = 21.9,  $p < .02$ ; Climate = 143.2,  $p < .001$

## Financial Analysis

In a recent national cost benefit analysis based on studies from MIT and the National Academy of Sciences, we concluded that an average fleetwide fuel economy standard of 60 mpg for cars and light trucks (cars at about 73 mpg and trucks at about 40) by 2025 is economically justified and technologically achievable. In that study, we used a consumer pocketbook (cash flow approach). Assuming that consumers finance their auto purchase with a 5 year, 7% auto loan, we found that the savings from lower gasoline expenditures exceeded the increase in the auto loan payment in the first year for cars and in the third year for trucks, and, by the end of the auto loan, consumers had substantial net cash savings for both cars and trucks.

Applying the simple payback approach taken in this survey's question, we again find that a 60 mpg fleet is consumer-friendly. The cost of increasing the fuel economy of cars is paid back in 1 year and eight months, as shown in the figure below. The cost of a more fuel efficient truck is paid back in 4 years and 11 months. Combined, the fleet pays back the cost of increased fuel efficiency in 2 years and seven months. As noted above, a substantial majority of respondents is willing to incur the cost of greater fuel efficiency with these payback periods.



## Statistical Analyses

Looking more deeply at this data provides strong evidence that a 60 mpg standard is appropriate. For example, combining the survey responses with the financial analysis, which shows that a 60 mpg standard provides a framework for describing the prospects for a 60 mpg standard. Only 16 percent of the respondents said that they were neither willing to accept a 5-year payback nor did they support a 60 mpg standard. Almost three times as many respondents (46 percent) said they supported the 60 mpg standard and are willing to accept a five-year payback. 84 percent of respondents said they supported a 60 mpg standard or were willing to pay accept a five-year payback, which is considerably longer than the payback necessary to get to 60 mpg.

Another perspective is gained by building a regression model to explain support for 60 mpg, as shown in the following table. Four of the attitudinal variables we have examined have a statistically significant relationship to indicate support for a 60 mpg standard. Willingness to pay is the most important, followed by environmental concern. The greater the willingness to pay or the greater the concern with the environment, the more likely the respondent is to support the 60 mpg standard. Belief that higher fuel economy will help the nation and the automakers is also associated with higher support for a 60 mpg standard. Higher income is weakly associated with greater support for a 60 mpg standard. These results are consistent across various specifications of the model. In the linear regression, this five variable model explains over one-quarter of the variance in support for the 60 mpg standard, while in the ordinal probit model, it explains over

one-fifth, which is quite high for this type of attitudinal data.

<b>Regression Model of Support for a 60 mpg Standard</b>							
<b>Linear Variable</b>	<b>Beta Coeff.</b>	<b>t-Stat</b>	<b>Sig. (p &lt;)</b>	<b>Ordinal Probit Variable</b>	<b>Reg. Coeff.</b>	<b>t-Stat</b>	<b>Sig. (p &lt;)</b>
<b>Willingness to Pay</b>	<b>.27</b>	<b>6.2</b>	<b>.001</b>	<b>Willingness to Pay</b>	<b>.31</b>	<b>7.4</b>	<b>.001</b>
<b>Climate Concern</b>	<b>.22</b>	<b>4.8</b>	<b>.001</b>	<b>Climate Concern</b>	<b>.24</b>	<b>6.4</b>	<b>.001</b>
<b>Automaker Benefit</b>	<b>.17</b>	<b>3.4</b>	<b>.001</b>	<b>Automaker Benefit</b>	<b>.23</b>	<b>4.4</b>	<b>.001</b>
<b>U.S. Benefit</b>	<b>.15</b>	<b>2.9</b>	<b>.004</b>	<b>U.S. Benefit</b>	<b>.15</b>	<b>3.1</b>	<b>.002</b>
<b>Income</b>	<b>.06</b>	<b>1.4</b>	<b>.17</b>	<b>Income</b>	<b>.00</b>	<b>2.9</b>	<b>.004</b>
<b>Adjusted R<sup>2</sup> = .28</b>				<b>pseudo R<sup>2</sup> = .21</b>			

## Conclusion

Gasoline consumption is one of the most important challenges for a U.S. energy policy from the point of view of the consumer pocketbook, national energy security and the environment.<sup>5</sup> The technologies to dramatically increase fuel economy and decrease consumption of oil are in hand. The public supports setting high fuel economy standards that will put the auto industry onto a trajectory to achieve a 60 mpg fleet by 2025. Setting a long term target gives the auto industry time to adjust, but the smart companies will move more rapidly to raise their fuel economy, to the benefit of their bottom lines, the consumer pocketbook and the U.S. energy situation. Consumers believe and the economic evidence supports that conclusion. At this moment in the nation's history, the Administration has the opportunity to set an ambitious target in the next round of fuel economy standards and send a strong signal that the U.S. is taking a leadership position in global energy policy.

## Endnotes

<sup>1</sup> <http://www.consumerfed.org/pdfs/60mpg-Obama-PR.pdf>

<sup>2</sup> [http://www.consumerfed.org/elements/www.consumerfed.org/file/Gas\\_Oil\\_Survey\\_Oil\\_Spill\\_PR\\_5\\_18\\_10.pdf](http://www.consumerfed.org/elements/www.consumerfed.org/file/Gas_Oil_Survey_Oil_Spill_PR_5_18_10.pdf),

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<http://www.consumerfed.org/elements/www.consumerfed.org/file/energy/GasQtrReportSurveyPR4-21-08.pdf>,

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<sup>3</sup> [http://www.consumerfed.org/pdfs/60mpg\\_Study090210.pdf](http://www.consumerfed.org/pdfs/60mpg_Study090210.pdf),

[http://www.consumerfed.org/elements/www.consumerfed.org/file/Arizona\\_Clean\\_Cars\\_Report.pdf](http://www.consumerfed.org/elements/www.consumerfed.org/file/Arizona_Clean_Cars_Report.pdf),

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<sup>4</sup> [http://www.consumerfed.org/elements/www.consumerfed.org/file/energy/Fuel\\_Economy\\_and\\_Auto\\_Sales\\_press\\_release\\_8-4-08.pdf](http://www.consumerfed.org/elements/www.consumerfed.org/file/energy/Fuel_Economy_and_Auto_Sales_press_release_8-4-08.pdf),

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