National Highway Traffic Safety Administration

Notice of Proposed Rulemaking; Docket;	**)**	
Average Fuel Economy Standards, Passenger	**)**	**No. NHTSA 2008-0060**
Cars and Light Trucks; Model Years 2011-2015	**)**	

COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

of

AkPIRG, Arizona Consumers Council, Arizona PIRG, CALPIRG, Citizens' Utility Board of Oregon, Consumer Action, Consumer Assistance Council of Cape Cod, Consumer Federation of America, Consumer Federation of the Southeast, Consumers for Auto Reliability and Safety, Consumers Union, Democratic Processes Center, Empire State Consumer Association, Florida Consumer Action Network, Florida PIRG, Illinois PIRG, Maryland Consumer Rights Coalition, Maryland PIRG, Massachusetts Consumers Council, New Jersey Citizen Action, New Mexico PIRG, NYPIRG, The Consumer Alliance, USPIRG, Utility Consumers Action Network, Victims Committee for Recall of Defective Vehicles, Virginia Citizens Consumer Council, VPIRG, Wisconsin Consumers League

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August 18, 2008

The Consumer Federation of America and 27 of its member groups appreciate the opportunity to file comments in the above captioned docket. The groups filing these comments are from fifteen states and focus on a wide range of public policy issues, but they all recognize the vital importance of fuel economy standards for America's energy future. We believe that raising fuel economy standards must play a critical role in reducing the nation's oil addiction, enhancing national security and protecting the environment. We are deeply disappointed by the failure of the National Highway Traffic Safety Administration (NHTSA) to raise the standards to a level that reflects the severe energy situation and the current auto market reality in the United States. NHTSA has failed to set standards at the maximum feasible level, denying consumers and the nation over 150 billions of gallons of gasoline savings in the next decade. As the attached study prepared by one of the consumer groups shows, NHTSA has completely misjudged the consumer and the auto marketplace and proposed a standard that is far too low. The draft environmental impact statement suffers from the same basic flaws that afflict the proposed rule.

Many of the issues discussed below have been addressed in prior comments filed in this rulemaking, but recent events have made the flaws in NHTSA's analysis and framework so much more obvious that we feel obliged to restate our objections to the proposed rule and incorporate that new evidence into the record. Our recommendations mirror earlier recommendations of consumer advocates in this proceeding. In order to propose a reasonable standard that fulfills the goals of the statute, NHTSA must:

- Raise the proposed standards for 2011 and 2012; and
- Withdraw the proposed standards for 2013 through 2015, so it can fix its faulty analytical framework and economic assumptions.

In light of the new evidence on the swift changes by consumers to embrace more fuel-efficient vehicles, we believe that the standard should be set at the highest level in NHTSA's analysis that was economically practicable.[1] This would raise the standard for 2011 to 30.6 miles per gallon, from the proposed level of 27.8 mpg. The attached report shows that consumers are more than willing to purchase such vehicles and the dramatic changes that the automakers have announced in their product plans indicate they can deliver the vehicles necessary to achieve this level of fuel economy.

THE PROPOSED RULE AND ITS ENVIRONMENTAL IMPACT STATEMENT FAIL TO ACHIEVE THE GOALS OF NEPA AND EPCA

There are two problems in the draft environmental impact statement that render it woefully inadequate to address the public policy goals of the National Energy Policy Act and the Energy Policy Conservation Act.

First, the analysis underlying the proposed rules is so fundamentally flawed that the agency has not considered an appropriate range of policy options, for which the environmental impact should be evaluated. Erroneous assumptions about market fundamentals have led NHTSA to center its analyses on a level of fuel economy that is so low that it sheds little light on what the environmental impact of a reasonable fuel economy standard would be. NHTSA has based the proposed rule on flawed assumptions and data on:

- Consumer behavior and attitudes toward fuel economy;
- Automaker capabilities to incorporate fuel savings technologies; and
- The price and value of energy.

[1] This is the point in the initial analysis where total benefits equal total costs. When NHTSA corrects the many flaws in its approach benefits from this level of fuel economy will far exceed the costs

NHTSA's approach to setting fuel economy standards is to start with automaker product plans, assert that consumers undervalue fuel economy by demanding unrealistic economic returns from fuel saving technologies and assume that automakers are severely constrained in their ability to incorporate new fuel-saving technology into the vehicle fleet. Neither the product plans, nor the assumptions about consumer and automaker behavior relied on in NHTSA's analysis bear any relationship to reality.

- Consumers are looking for higher mileage in the new vehicles today than NHTSA has mandated for seven years from now.
- The product plans on which NHTSA based its rule seven years into the future have already been torn up by the automakers who have belatedly recognized the strong shift in consumer behavior.
- The mix of cars and trucks that NHTSA projects bears no relationship to the vehicles that consumers are buying.
- Not only did NHTSA assume that consumers are unwilling to buy fuel economy beyond a very narrow economic assumption, but it also assumed that higher fuel economy has no value in the marketplace (particularly in resale value), which is contrary to what is happening in the market.

Our market behavior analysis and public opinion polling show that consumers want more fuel-efficient cars than the automakers are offering them. The crucial role of a higher fuel economy standard is to push the automakers to deliver what the public wants and deliver the maximum feasible fuel economy, but NHTSA has failed to do so.

The second problem in the Draft Environmental Impact Statement stems from the fact that NHTSA takes a fundamentally flawed approach to its externality analysis. This was evident in the analysis of the military and strategic externalities in the proposed rule, where NHTSA engaged in reasoning that can, at best, be described as blind incrementalism.

- Rather than see improvements in fuel economy as a part of a broader solution to the national oil addiction, NHTSA argues that because this rule alone cannot solve the problem, it does not deserve to be counted as making a contribution to the solution.

- Implementing a law entitled the Energy Independence and Security Act, NHTSA concluded that oil consumption has no military or strategic value whatsoever.

The analysis of environmental impacts suffers from the same affliction. Because improvements in fuel economy alone do not solve the climate change problem, they are shown to have zero effect on the damage that global warming will do. Yet, every reasonable analysis of the big picture and the global impacts of greenhouse gas emissions recognizes that reductions of emissions in the transportation sector must play a large role in the overall solution to the problem.[2]

- Indeed, because of the nature of the sector, it is vital to get the maximum possible contribution to reductions from this sector to achieve a solution.
- Because no individual policy can solve the problem, this approach will reject every policy measure individually, even though taken together they can actually solve the problem.

Unfortunately, in NHTSA's approach, the whole is not even equal to the sum of its parts. NHTSA's approach embodies a myopic bias against action. NHTSA should start from an estimate of what the value of a solution to the national energy problem would be worth, and then give increases in fuel economy credit for their role in that solution.

The Draft Environmental Impact Statement is essentially meaningless because the underlying analysis is so fundamentally flawed that the agency has not considered an appropriate range of policy options for which the environmental impact should be evaluated, and the environmental impacts are not set in the proper context of the problem that needs to be addressed. The challenge of national security and environmental impact that emanates

[2] Raymond Kopp and William A. Pizer, *Assessing U.S. Climate Policy Options* (Resources for the Future: November 2007), estimate that the transportation sector is the second largest source of greenhouse gas emissions and "vehicle use alone accounts for roughly 16 percent of total U.S. emissions and that emissions from this sector have been growing fifty percent faster than the economy-wide rate of growth of emissions (pp. 24, 162). Moreover, McKinsey and Company and The Conference Board, *Reducing U.S. Greenhouse Gas Emissions: How Much at What Cost?* (December 2007), shows vehicle fuel economy as one of the lowest costs options for reducing greenhouse gas emissions

from the nation's addiction to oil are global and multifaceted, and the analytic framework must recognize that fuel economy standards are one important part of a broader solution.

NHTSA'S PROPOSED RULE DOES NOT REFLECT THE AUTO MARKET REALITY

The attached study of consumer attitudes and auto market behavior prepared by the Consumer Federation of America has a series of findings that call into question the fundamental approach that NHTSA took to set the standard and compel NHTSA to thoroughly reconfigure its analytic approach before it issues a final rule.

Consumers are deeply concerned about rising gasoline costs and the national security implications of our dependence on foreign oil and are prepared to take actions to remedy these problems. Neither the auto industry in its marketing plans nor NHTSA in its proposed rule has fully comprehended the current state of consumer attitudes toward fuel efficiency and the state of the auto market.

- Eighty-four percent of respondents say they are concerned about rising gasoline prices (70 percent very concerned) and eighty-four percent say this rise in price has placed a financial burden on their household budgets (63 percent say severe).
- Seventy-four percent of respondents say they are concerned about Mid Eastern oil imports (57 percent very concerned).
- Among those who drive and intend to purchase a vehicle, the current average fuel economy of their vehicle is reported at about 24.1 mpg, but they intend to get 32.7 mpg in their next vehicle.
- Thus, the average goal for consumers in the market <u>today</u> is 32.7 mpg above the standard of 31. 6 mpg that NHTSA has set for 2015.
- There is a huge mismatch between consumer demand and models offered by automakers in 2008. Whereas 59 percent of the respondents say they want to get more than 35 mpg in their next vehicle, only 1 percent of the models offered by automakers in the first half of 2008 achieve that mileage.

- About 60 percent of the poll respondents say they are willing to consider major changes to achieve higher fuel economy, including switching to four cylinder engines, small cars and hybrids.

Moreover, as the attached report shows, consumers are not merely considering these measures to achieve higher fuel economy; they are acting on their attitudes.

- Four cylinder engines have increased their market share dramatically.
- Smaller cars are in exceptionally high demand, while trucks and SUVs languish on the lots.
- Hybrids are flying out of the show rooms.

However, in direct contradiction to these market trends, NHTSA's proposed rule restricts the level of the standard because it makes assumptions about consumer behavior or automaker ability to incorporate fuel-saving technology that fail to reflect this market reality. NHTSA refuses to consider vehicle downsizing or different performance characteristics as a means of increasing fuel efficiency. NHTSA's underlying assumptions are so out of touch with reality that they are arbitrary and capricious, resulting in a rule that is unreasonable.

The change in consumer attitudes and purchasing patterns has deeply affected the resale value of vehicles, yet NHTSA's proposed rule does not recognize the impact of fuel economy on the resale value of vehicles. NHTSA erroneously assumes that a gas guzzling SUV has the same resale value (as a percentage of the original purchase price) as a fuel sipping small car.

- Contrary to this assumption, SUVS and pickups are piling up on dealer lots across the country.
- SUVs and trucks, both new and used, have plummeted in value, while small cars have increased sharply.
- The Big 3 U.S. automakers announced plans to discontinue leasing these vehicles precisely because the value at the end of a lease is so much lower than the price they have to pay.

The faulty assumptions on resale value play a critical role in NHTSA's analysis by undervaluing fuel efficiency in its consumer payback analysis and preventing NHTSA from including more fuel savings in the fleet in its evaluation of standards.

The analysis of auto market behavior in the attached report shows that these consumer attitudes and trends were not a sudden development in the early part of 2008. They have been evident and progressing for several years. The auto industry and NHTSA have simply ignored the clear evidence.

- The shift in sales was not sudden, nor is it only the result of a shift from trucks to cars. Consumers have also been demanding greater fuel economy within vehicle categories.
- The structural shift to fuel economy occurred in 2004 for trucks and 2006 for cars.
- The effect has built over time so that by the first half of 2008, the level of fuel economy of a car model accounts for over 40 percent of the variance in the change in sales.
- Simply put, it did not take $4/gallon gas to cause the change in consumer behavior, it started at least three years ago when gas was $2.50 per gallon and has been growing progressively.

The automakers not only missed the shift in consumer behavior, they actually tried to resist it by continuing to pump out gas-guzzlers and trying to bribe consumers to buy them with rebates and low interest. However, the trend has proven too powerful and fundamental to resist. Now that the automakers have recognized that they must change, they are rapidly shifting their operations, retooling plants and adopting new technologies at a pace that is far greater than NHTSA had assumed possible. Thus, NHTSA's auto market model erroneously assumes a slow incorporation of fuel savings technology into the vehicle fleet for several reasons. Not only were the product plans on which NHTSA based its proposed rule thoroughly outdated, but also the ability of automakers to change was vastly underestimated

by NHTSA. A rule based on data that is so out of touch with reality is arbitrary and capricious and unreasonable.

THE FLAWS IN THE ANALYTIC FRAMEWORK

The failure of NHTSA's proposed rule to reflect the auto market reality is magnified by an analytic structure and economic assumptions that are equally flawed. As described in earlier comments in this proceeding, **NHTSA has inexplicably undervalued the benefits of increased vehicle fuel economy**. In its economic assumptions, NHTSA has chosen to grossly undervalue gasoline consumption and therefore undervalues the fuel savings that will flow from a higher fuel economy standard. To arrive at the proposed rule, NHTSA:

- Used gasoline prices that are far too low – a price of only $2.45 per gallon for 2015 (in 2008 dollars);
- Discounted the value of fuel savings at an unnecessarily high rate; i.e. after identifying two possible discount rates: 1) a high rate based on the automaker view of capital costs and 2) a low rate based on the consumer view of consumption expenditures. NHTSA failed to choose a rate between the two, instead applying the high "capital" rate.
- Assumed that consumers irrationally burn up their fuel savings on increased driving, rather than using it to buy other goods and services, and applied this excessive "rebound" effect to analyses where it should not play a role.

Combined, these overt flaws in NHTSA's economic assumptions have led the Administration to value gasoline savings at less than half of what would be a reasonable estimate.

NHTSA failed to give the "need to conserve energy" proper consideration in light of the clear, obvious, and painful national energy crisis currently facing all Americans. In speaking for the American public, Congress was very clear in its requirement that NHTSA set the fuel economy standard at the "maximum feasible level." In doing so, NHTSA was to

take into consideration "the four statutory factors underlying maximum feasibility (technological feasibility, economic practicability, the effect of other standards on fuel economy, and the need of the nation to conserve energy)." NHTSA completely failed to give proper consideration to this last and most fundamental reason for the Act: "the need of the nation to conserve energy."

In its analysis, NHTSA identified two alternatives that bracket the range of possibilities that are economically practicable. One alternative – the "total benefit equals total cost (TB=TC)" alternative would maximize fuel savings at no net cost to society, by including fuel savings technologies until the total cost equals the total benefit. The other economic extreme, which HNTSA called the "optimized" approach, would maximize the economic return of investments in fuel economy by including fuel savings technology only up to the point where marginal benefits equal marginal costs.

- We believe that the TB=TC approach is the proper way to recognize "the need of the nation to conserve energy.
- At a minimum, an approach that would reasonably consider "the need to conserve energy" would balance the economic and conservation concerns and set the standard between the two extremes.
- NHTSA did not do so. It simply chose to set the standard at the lower level with no consideration of the enormous energy conservation cost of that decision.

NHTSA chose to define "feasibility" and "practicability" in a manner that lets the least fuel-efficient automakers drive down the standard. It protects the least capable automakers rather than requiring them to rise up to the level that the industry as a whole could achieve. Ironically, by setting a lower standard, in the face of dramatically rising consumer expectations, the Administration is creating an environment of failure for those companies

who are driving down the standard. NHTSA allows the laggards in the industry, who have been trailing farthest behind the shift in consumer behavior, to pull the standard down.

NHTSA SET UNREASONABLY LOW STANDARDS FOR AN UNREASONABLY LONG PERIOD

Throughout its analysis, NHTSA indicates that certain assumptions were made with incomplete data and without critically important information about the auto market. Nevertheless, for no apparent reason, NHTSA set this low standard for the maximum period allowable under the law. NHTSA excuses the failure to obtain complete and accurate data for its assumptions with a claim that it must promulgate a standard for model year 2011 by mid-2009 in order to give automakers proper advanced notice. While that is correct, **there was no need to rush to promulgate standards for later model years, certainly not 2013 through 2015.** With numerous important issues still under study, it was incredibly irresponsible for NHTSA to write rules for years that do not require an expedited process, when additional time would afford a much more informed rulemaking. Critical information missing from NHTSA's analysis includes:

- The effectiveness of available technologies for improving fuel economy;
- The cost of technologies for improving fuel economy;
- Market shares of various models in the vehicle fleet; and
- The value of reduced emissions of greenhouse gases.

Unbelievably, NHTSA fully recognized that it did not have reliable and accurate information in these areas and would obtain that information only after the rule was promulgated. Additional and critical information missing from the Administration's analysis resulted in NHTSA making projections that were way ahead of the data available to them. This is, however, data that could be obtained, which would provide a much firmer basis for

developing a rule that applies to 2013 vehicles and beyond. Without this critical data, NHTSA's conclusions:

- Relied on old sales data and projections in a time of rapid change in the industry;
- Failed to consider the impact of vehicle mix on safety;
- Did not incorporate technology adoption strategies ("pull ahead") that speed penetration of fuel-saving technology into the vehicle fleet;
- Ignored recent changes in fuel economy and the practices of automakers in adopting fuel economy technologies; and
- Overlooked changes in vehicle usage patterns across time.

Some underlying data used by NHTSA is suspect and would benefit greatly from even a small amount of further research and disclosure by the automakers, including:

- The production plans of automakers;
- Market share and price data;
- The validity of the speed of adoption of technology (phase-in caps) in light of dramatic changes in auto market behavior; and
- Assumptions about the compliance strategies of auto manufacturers.

There is no question that NHTSA needed to get the rulemaking started for 2011, and perhaps 2012, so it could complete the process eighteen months before the model year, as mandated by the new statute, but going beyond that, in light of the incredible importance of this regulation and the woeful lack of knowledge of critical aspects of the analysis, was irresponsible. NHTSA certainly could have moved forward with this rulemaking in light of these uncertainties by providing the minimum notice necessary, thereby keeping its options open for writing fuel economy standards for later years based on better information.

By rushing ahead with imperfect knowledge, faulty assumptions and a bias against fuel savings, NHTSA's approach denies the critical benefits of reduced gasoline and oil consumption to individual consumers and the nation as a whole. Therefore, it was

unreasonable for NHTSA to set standards that run so far ahead of its knowledge. Adopting proposed standards for 2013 to 2015 based on such faulty data is arbitrary and capricious and leads to standards that are unreasonable.

The damage of NHTSA's proposed rule goes beyond the immediate impact of lost savings. By relying on a flawed analytic framework and flawed empirical specifications, this rulemaking undermines future rulemakings in two ways.

- First, procedurally, once this framework is set, it will be difficult to change. Inertia and judicial deference make it difficult to reverse agency decisions.
- Second, setting a low standard makes it far more difficult for the industry to meet higher future standards. Requiring large jumps in improvements is always more expensive than gradual improvements toward a goal, so fixing the mistakes later is harder because the industry is farther behind.

Because of the enormous importance of this particular rulemaking, it is critical for NHTSA to get the fundamental framework correct from the start and to set the standard at a reasonable and achievable level.

RECOMMENDATIONS

Based on our review of the proposed rule, it is clear that NHTSA's analysis is riddled with flaws. The result is a set of proposed fuel economy standards for the period 2011-2015 that is unreasonably low, covers a period that is unreasonably long, and is inadequately documented. NHTSA's proposal meets neither the spirit nor the intent of the Energy Independence and Security Act of 2007. Its flawed analysis and failure to obtain the data necessary to promulgate a reasonable rule violates the Administrative Procedures Act.

Due to the extraordinary urgency needed to respond to the current energy crisis, we recommend the following:

1. NHTSA should explicitly correct the conceptual flaws in its model and establish clear tests and analytic approaches to evaluate standards, independent of the level at which they are set in any given proceeding. NHTSA needs to distinguish more precisely between the "ruler" by which standards will be measured and the "rule," which prescribes the standard at a given moment in time.
2. NHTSA should set the standards for 2011-2012 at a level substantially higher than it has proposed. It should set the standard for 2011 according to the total benefit equals total costs level – 30.6 mpg not 27.8.
3. NHTSA should rescind the standards for 2013-2015, complete the gathering of the critical information that is needed to make an informed recommendation, and develop recommendations based on that information.

These reasonable suggestions, which have been incorporated into detailed comments and submitted to NHTSA on its proposed fuel economy standards, will enable NHTSA to meet its statutory requirements in the short run and do the best possible job of securing America's energy future in the long run. It will also bring NHTSA into compliance with the Energy Independence and Security Act of 2007. This is an extraordinary opportunity to dramatically set our country on the right course toward much needed and long overdue improvements in fuel economy. We trust that the points we have made are compelling and that the Administration will do what is in the country's best interest and adopt our recommendations.

Consumer Federation of America

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FUEL ECONOMY AND AUTO SALES: AUTOMAKERS AND THE NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION IGNORE MARKET SIGNALS

MARK COOPER

AUGUST 2008

EXECUTIVE SUMMARY

This analysis explores important and fundamental flaws in the underlying economic assumptions made by the National Highway Traffic Safety Administration (NHTSA) in proposing its 2011-2015 fuel economy standards for autos and light trucks that render the draft environmental impact statement (DEIS) insufficient. NHTSA's proposed fleet wide standards that reach a mere 31.7 miles per gallon in 2015 and are grossly inadequate, robbing consumers and the nation of multiple billions of gallons of vital gasoline savings over the next decade. As a result, the DEIS measures the wrong alternatives and reaches the wrong conclusions about environmental impacts.

NHTSA's approach to setting fuel economy standards is

- to start with automaker product plans,
- assert that consumers undervalue fuel economy by demanding unrealistic economic returns from fuel saving technologies and
- assume that automakers are severely constrained in their ability to apply new fuel saving technology.

Neither the product plans nor the assumptions about consumer and automaker behavior relied on in NHTSA's analysis bear any relationship to auto market reality.

- Consumers are looking for higher mileage today than NHTSA has mandated for seven years from now.
- The product plans on which NHTSA based its rule seven years in the future have already been torn up by the automakers, who have belatedly recognized the shift in consumer behavior toward greater fuel economy.
- The mix of cars and trucks that NHTSA projects bears no relationship to the vehicles that consumers are buying.

Relying on auto industry judgment in product plans, which are out of touch with the market reality, NHTSA has proposed fuel economy standards that are far too low. Not only did NHTSA assume that consumers are unwilling to buy fuel economy beyond a very narrow economic assumption, but it also assumed that higher fuel economy has no value in the marketplace (particularly in resale value). Our market behavior analysis and public opinion polling shows that consumers want more fuel-efficient cars than the automakers are offering them. The crucial role of a higher fuel economy standard is to push the automakers to deliver what the public wants, but NHTSA has failed to do so.

CFA made many of these points in its July comments filed in the rulemaking, but recent events have made the flaws in NHTSA's analysis and framework so much more obvious that we feel obliged to restate our objections to the proposed rule and incorporate new evidence into the record. Our earlier recommendations are all the more compelling in light of

the mounting evidence that NHTSA has failed to propose a reasonable standard. NHTSA must:

- Raise the standards for 2011 and 2012; and
- Withdraw the proposed standards for 2013 through 2015, so it can fix its analytical framework and economic assumptions before promulgating fuel standards for those distant years.

The anecdotal evidence of the dramatic changes in the auto market is everywhere. In the past month, the Big Three have announced (or leaked) plans to abandon or slash their leasing businesses because the value of their gas-guzzlers at the end of the lease term is so low that the economics of leasing no longer makes sense. Clearly, fuel economy is a key determinant of the resale value, but NHTSA's analysis assumes that fuel economy has no impact on resale value of vehicles whatsoever.

While data on auto sales for the first half of 2008 make it clear that consumers are highly sensitive to fuel economy in their purchase decisions, our analysis shows that this shift in consumer behavior has been evident for three years. In addition, our analysis reveals that it is not just a shift between trucks (SUVs) and cars, but that it is has also been evident within the car and truck categories.

The automakers were slow to recognize this market change. They chose to continue to produce gas-guzzlers, trying to bribe consumers to purchase them with discounts, rebates and low interest financing. It was a fool's game, and the jig is up. In the past month, the big 3 U.S. automakers have declared their intention to dramatically alter its vehicle mix in the next few years, yet NHTSA assumes that automakers cannot make such changes rapidly. Assuming that vehicle manufacturers are unable to make such changes causes NHTSA to severely underestimate the fuel savings technologies that could be included in new vehicles. Pushing automakers to close the gap is precisely the role of fuel economy standards. The technologies exist to achieve almost twice the fuel savings that NHTSA's proposed rule achieve, but NHTSA has incorrectly assumed that consumers lack the desire and automakers lack the ability to get these technologies into the fleet.

Dramatic changes in the marketplace reflect a greater willingness of consumers to buy more fuel-efficient vehicles (new and used). However, at the core of NHTSA's analysis are assumptions that restrict the inclusion fuel saving technologies in new vehicles. NHTSA's base case fuel economy levels and vehicle mix simply do not reflect the reality of the auto market. Our survey evidence analyzed below demonstrates the motivation and willingness of consumers to purchase more fuel-efficient vehicles and reveals a shocking mismatch between what consumers want and what automakers have been offering.

The remainder of this report examines the increasing responsiveness of the auto market to fuel economy, which was not fully reflected in NHTSA's modeling. NHTSA has based its proposed rule on automaker product plans that are completely outdated. It did not have to set standards beyond 2012 in the current rulemaking and the choice to do so, despite

clear evidence that the product plans do not reflect reality, violates the letter and spirit of the Energy Policy Conservation Act (EPCA) as recently amended by the Energy Independence and Security Act of 2007. Instead of proposing rules that achieve the maximum feasible increases in fuel economy, as obligated under the EPCA, NHTSA has proposed rules that are much closer to the minimum allowable.

In our initial comments we demonstrated that if NHTSA repaired the analytic framework and corrected its economic assumptions, it could easily go to a much higher standard that would push the fleet average for 2015 from 31.6 mpg to 34.5 mpg. Given the dynamic developments in the marketplace, NHTSA should certainly consider even higher levels for 2013 to 2015. The highest level of fuel economy that NHTSA considered, called the "technology exhaustion" standard, was based on erroneous assumptions about the inability of automakers to improve fuel economy. The technology exhaustion alternative, which would move the fleet to 41.4 mpg by 2015, is certainly technologically feasible and, under realistic assumptions about the value of oil and externalities, would not only save 50 billion gallons more gasoline, but also produce $30 billion more in net total benefits. With so much potential gain for consumers and the nation, NHTSA must adopt a more realistic model of consumer and automaker behavior, adjust the economic assumption and consider much higher levels of fuel economy.

This report is divided into three sections:

- Consumer Attitudes
- Fuel Economy and Year-Over-Year Changes in Auto Sales
- Changes in Consumer Behavior in Gasoline and Auto Markets

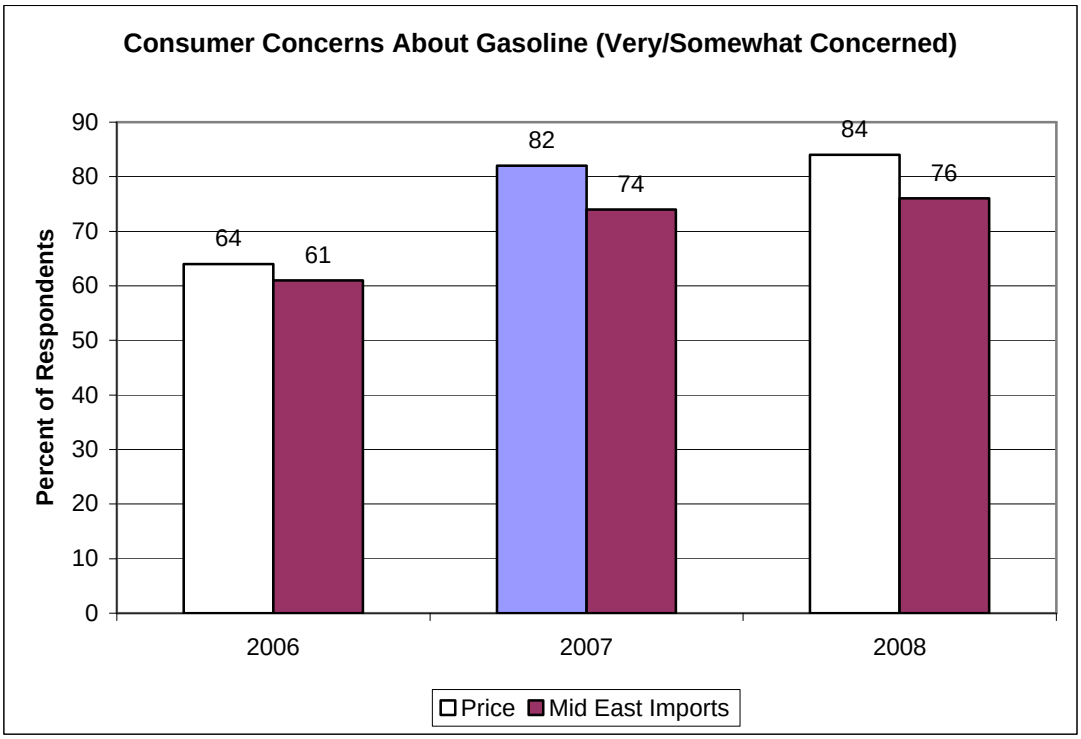
The next section presents a discussion of recent survey evidence on the shift in consumer and market behavior, which must inform NHTSA's analysis. We then analyze year-over-year changes in sales and fuel economy to ascertain when the shift in consumer behavior occurred. Finally, we review long run trends and present an econometric analysis of fuel economy over the past half-decade.

CONSUMER ATTITUDES

Our survey evidence demonstrates the motivation and willingness of consumers to purchase more fuel-efficient vehicles (see Exhibit 1).

- Eighty-four percent of respondents say they are concerned about rising gasoline prices (70 percent very concerned).[3]
- Seventy- six percent of respondents says they are concerned about Mid Eastern oil imports (57 percent very concerned).
- Both of these figures have been rising steadily since we began asking the question about two years ago.

Exhibit 1:



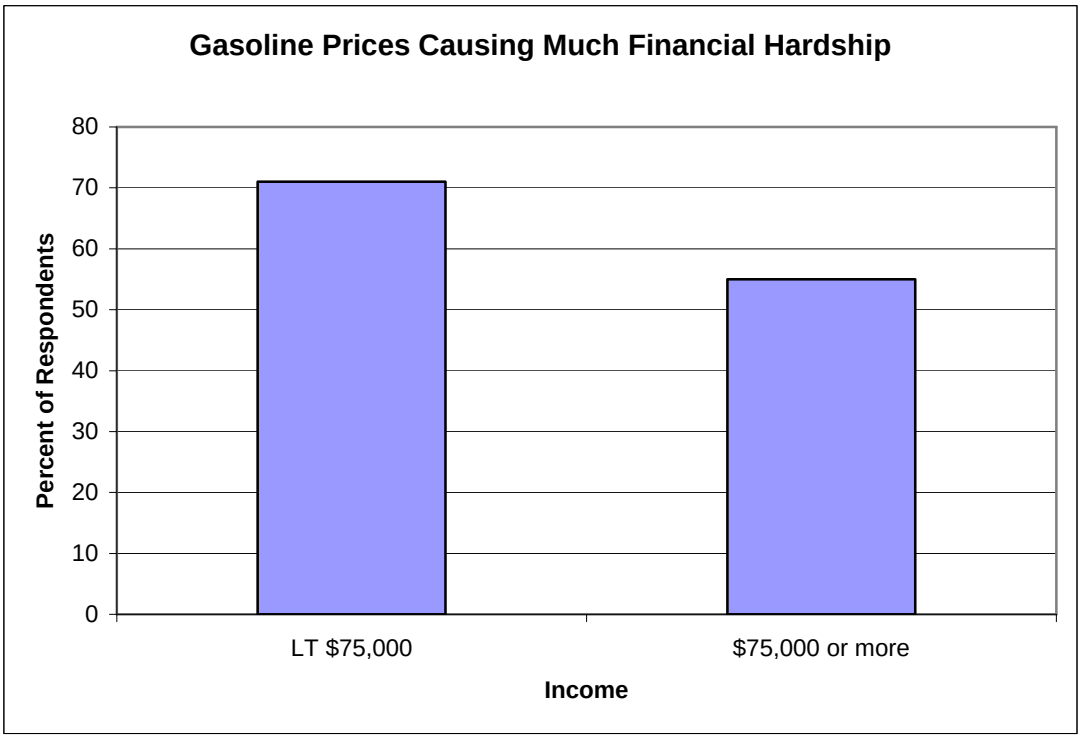
Source: National opinion polls conducted for the Consumer Federation of America by the Opinion Research Corporation. 2008, July 17-20; 2007, see Consumer Federation of America, *No Time to Waste*, available at http://www.consumerfed.org/pdfs/No_Time_To_Waste.pdf 2006 see Consumer Federation of America, *Consumers Still Greatly Concerned About Better Gas Mileage and Oil Imports Despite Falling Gas Prices, available at http://www.consumerfed.org/pdfs/Gas_Mileage_Consumer_Attitudes_Manu_Performance_Press_Release111306.pdf*

[3] "Thinking about the next five years, how concerned personally are you about gasoline prices, U.S. dependency on Mid Eastern oil, and global warming?"

There are no significant differences in these concerns across various demographic categories (age, income, education, gender) with one exception. Households with incomes of $35,000 per year or more are more likely to be concerned about Mid East imports (81 percent) than those with incomes below $35,000 (69 percent).

The concern about gasoline prices reflects the impact that rising gasoline prices are having on the respondents. Eighty-four percent of respondents say that rising gasoline prices have placed a financial burden on their household budgets (63 percent a severe burden). Not surprisingly (see Exhibit 2), households with incomes of $75,000 or more are less likely to say they have suffered much financial hardship (55 percent) than households with incomes below $75,000 (71 percent.) Also, rural households (those living outside of metropolitan areas) are more likely to say they have suffered much financial hardship as a result of gasoline costs (35 percent) compared to those living in urban areas (26 percent).

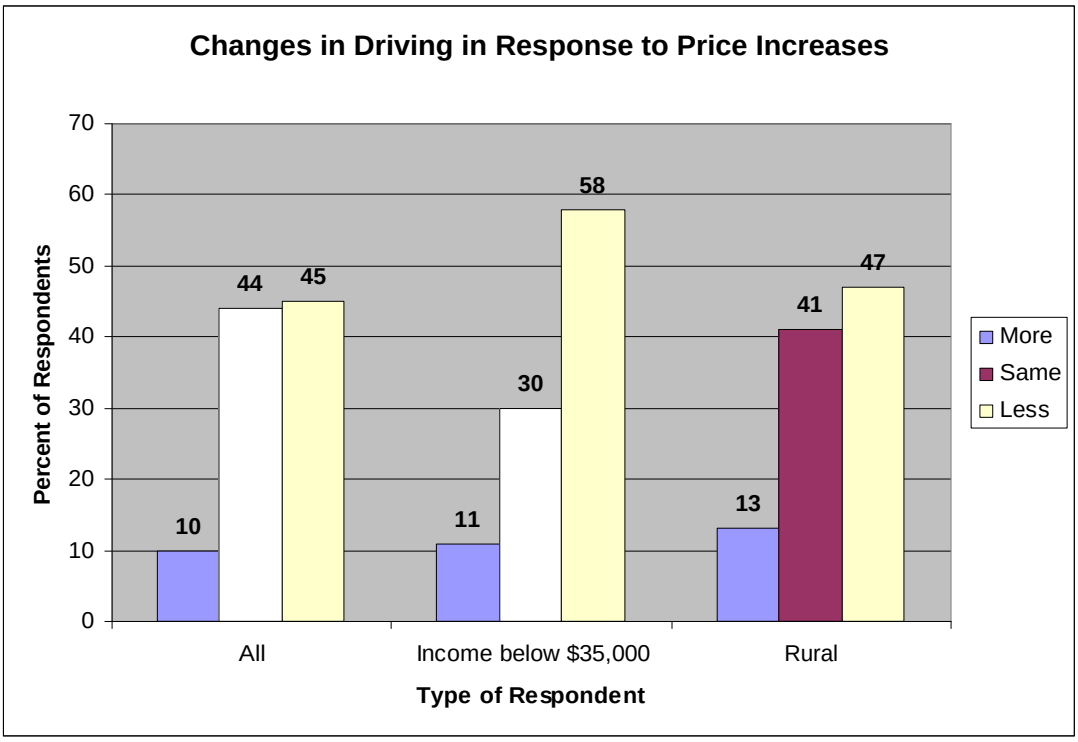
Exhibit 2:



Source: National opinion poll conducted for the Consumer Federation of America by the Opinion Research Corporation. 2008, July 17-20

Our April 2008 survey also helped reveal how Americans are responding to this hardship.[4] When asked (whether they were driving more or less than a year ago, 45 percent of respondents said less, and only 10 percent said more (see Exhibit 3). Lower income households were more likely to say that they were driving less (58 percent compared to 45 percent for all respondents).

Exhibit 3



Source: See Mark Cooper, *Ending America's Oil Addiction* (Washington, D.C.: Consumer Federation of America, April 2008). http://www.consumerfed.org/pdfs/First_Quarterly_Gas_Report_2008.pdf

The most striking result of the most recent survey can be found in responses to questions about the fuel economy of the vehicles consumers currently drive compared to the fuel economy they would like to get in their next vehicles.

- Among those who drive and intend to purchase a new vehicle, the current average fuel economy is reported at about 24.1 miles per gallon.
- These respondents say they want to get 32.7 miles per gallon in the vehicle they purchase.

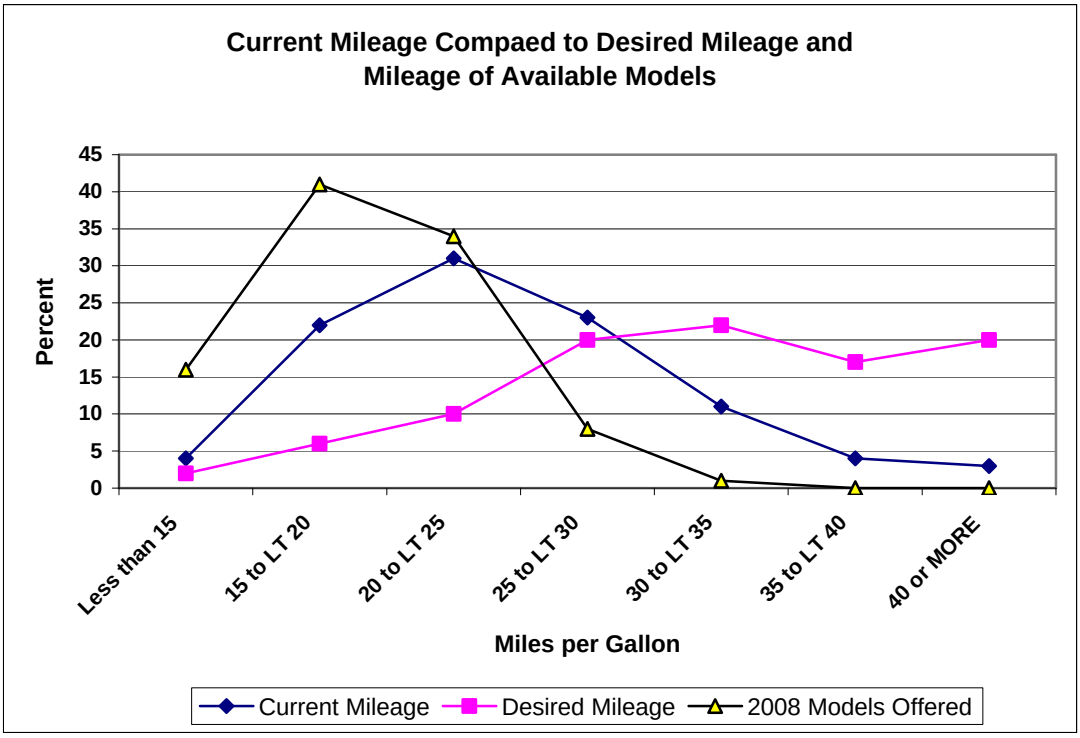
[4] See Mark Cooper, Ending America's Oil Addiction (Washington, D.C.: Consumer Federation of America, April 2008).

http://www.consumerfed.org/pdfs/First_Quarterly_Gas_Report_2008.pdf

There is also a clear mismatch between the desires of consumers and the models that the automakers offered in 2008 (see Exhibit 4).

- Whereas 59 percent of the respondents say they want to get more than 35 miles per gallon in the next vehicle they purchase, only 1 percent of the 2008 models offered by automakers achieve that mileage.
- The average goal for consumers in the market today is 32.7 miles per gallon, well above the standard of 31.6 miles per gallon that NHTSA has set for 2015.

Exhibit 4:

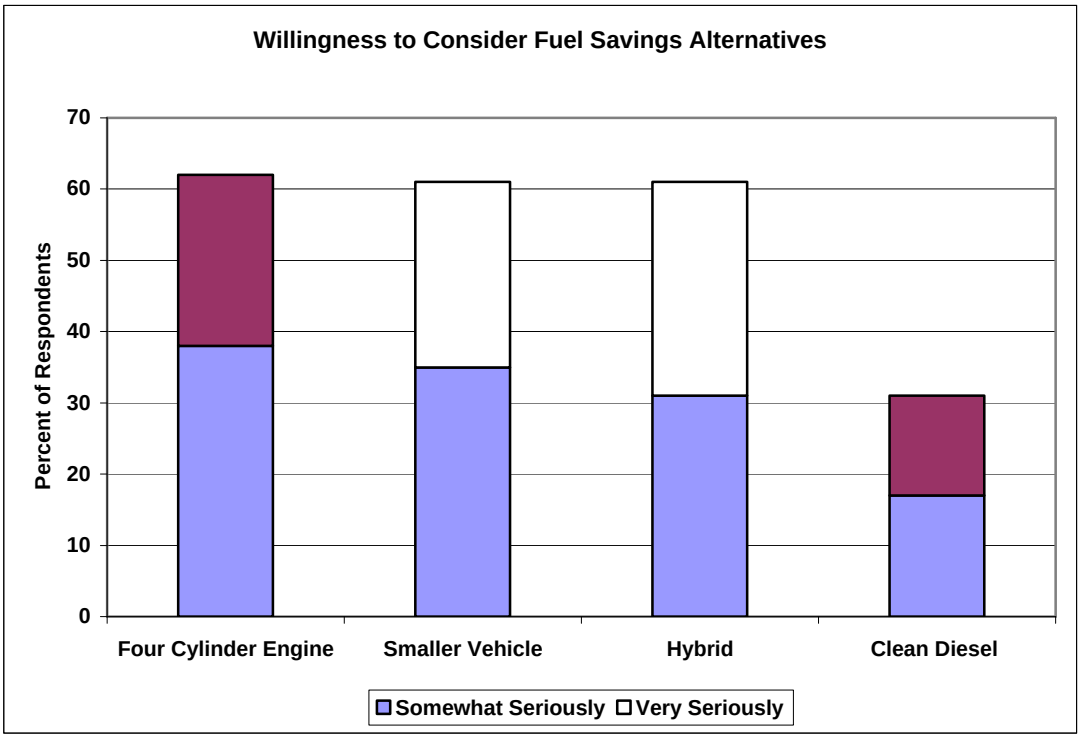


Source: National opinion poll conducted for the Consumer Federation of America by the Opinion Research Corporation. 2008, July 17-20; CFA database on miles per gallon.

Consumers back up their desire to achieve higher fuel economy in their next vehicles with a willingness to consider alternatives that would lower fuel economy (see Exhibit 5.) When asked about four major ways to improve fuel economy, about 60 percent of respondents said they would very or somewhat seriously consider four cylinder engines, hybrids and small vehicles. Clean diesel engines would be considered by about one-third of respondents. There were few differences across demographic categories, with two exceptions. Respondents with incomes above $50,000 were more willing to consider a hybrid (68 percent) than those with incomes

below $50,000 (57 percent). Younger (age 18-24) and older respondents (age 65 or more) were less likely (50 percent) to say they would consider a hybrid than respondents with ages between 25 and 65 (70 percent).

Exhibit 5:



Source: National opinion poll conducted for the Consumer Federation of America by the Opinion Research Corporation. 2008, July 17-20;

These attitudes are impacting behavior in the marketplace. Consumers do not just say they are feeling the pinch of rising gasoline prices, or claim to alter their behaviors in reaction to higher gasoline prices, or just express a desire to have more fuel efficient vehicles, the evidence on auto sales suggests that they are taking action. Consumers are switching to smaller vehicles[5] with smaller engines.[6] Large vehicles are piling up on lots and losing value both as new and used vehicles.[7] Automakers are dramatically retooling their production plans in response to consumer behavior.[8]

[5] David Shephardsom, "U.S. Auto Fleet Hits MPG Record," *Detroit News*, August 13, 2008, " By year's end, when actual car sales are tabulated, the fuel efficiency numbers are expected to be even higher because consumers are responding to high oil and gas prices by buying smaller vehicles, Beth Lowery, General Motor's vice president for the environment said."

[6] Ron Lieber and Tara Siegel Bernard, "Ditch the Gas Guzzler? Well, Maybe Not Just Yet," *New York Times*, August 2, 2008, p. B-4, "Sales of vehicles with four-cylinder engines represented 47.2 percent of all new vehicle sales during June, up from 38.4 percent of all new sales compared to the year-earlier period. "They would be even higher if they were available," said Charlie Vogelheim, vice president of automotive development at J.D. Power and Associates.

[7] Nick Bunkley, "An SUV Traffic Jam," *New York Times*, August 13, 2008, p. C-1.

[8] See University of Michigan Transportation Research Institute, Automotive Analysis Division, "Auto Consumers Restructuring the Auto Industry's Restructuring," *Auto New Service*, Issue 53, for compilation of the announcements and related press.

FUEL ECONOMY AND YEAR-OVER-YEAR CHANGES IN AUTO SALES

While the headlines describing the current woes of the automakers point to a sudden shift in consumer purchasing patterns, a shift from light trucks and large SUVs to more fuel-efficient cars, a close look at the data indicates that:

- There was nothing sudden about the shift.
- It involves much more than a shift from trucks and SUVs to cars (higher fuel economy within vehicle types sells more vehicles).
- Simply put, it did not take $4 gas to cause the change in consumer behavior, it started at least three years ago when gas was $2.50 per gallon and has been growing progressively.

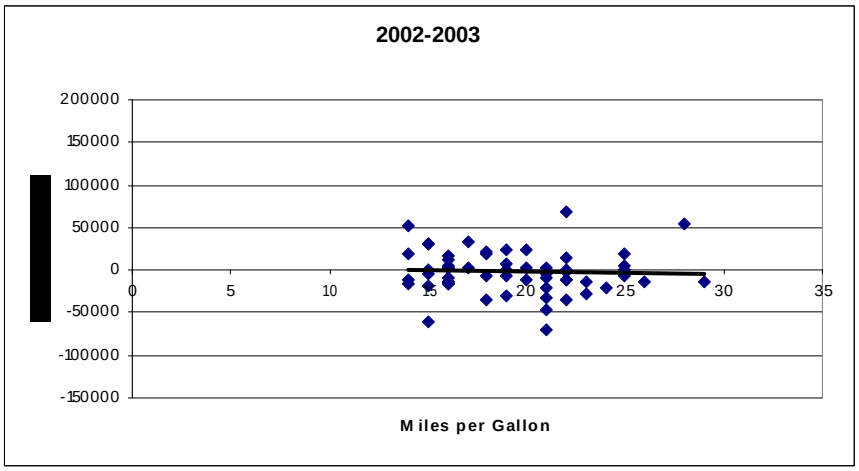
The automakers not only missed the shift in consumer behavior, they actually tried to resist it by continuing to pump out gas-guzzlers and trying to bribe consumers to buy them with rebates and low interest.[9] To examine this issue we compiled a database of the top fifty models in each year and charted their sales (reported by Automotive News) and EPA mileage ratings across time. There is an average of 61 models in each year-to-year comparison (because different models will be included in the top fifty in one year, but not the next). A total of 83 models occurred in the top fifty over this period for which we had sales and mileage data. These models represent an average of approximately two-thirds of all units sold over the period.

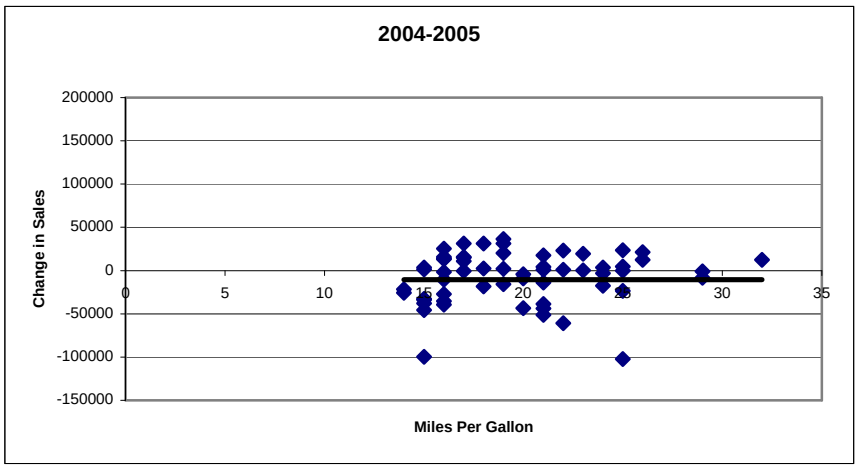
Exhibit 6 shows the sales for the top sixty models, plotting EPA mileage ratings (all based on the new method) against the change in sales. From 2003-2005, there was no relationship between fuel economy and sales; the regression line was flat. Starting with the 2005-2006 comparison, there is a relationship; vehicles that got higher mileage fared better in the marketplace. The relationship persisted in 2006-2007 and through the first half of 2008. While the direction of the relationship remained about the same (i.e. the slope of the line did not change much) the relationship became much stronger (the scatter of the observations around the line became smaller in magnitude). In the first half of 2008, the level of fuel economy of the model accounts for over 40 percent of the variance in the change in sales.

The graphs in Exhibit 5 exclude the Prius, which is the only hybrid to be ranked in the top fifty over this period and has been so popular that there have been delivery delays. (It is an outlier and its "poor" performance in recent years is not the result of a lack of demand but, rather, the result of a lack of supply. This is a circumstance that is radically different than that faced by vehicles with conventional engines).

[9] While the discounting practices are obvious, blasted incessantly across TV screens and in newspaper advertising, rigorous analysis is rare. One early analysis (Walter McManus, "The Link Between Gasoline Prices and Vehicle Sales," *Business Economics*, January 2007) shows that the shift in pricing occurred in early 2005.

Exhibit 6: Fuel Economy Affects Changes in Sales





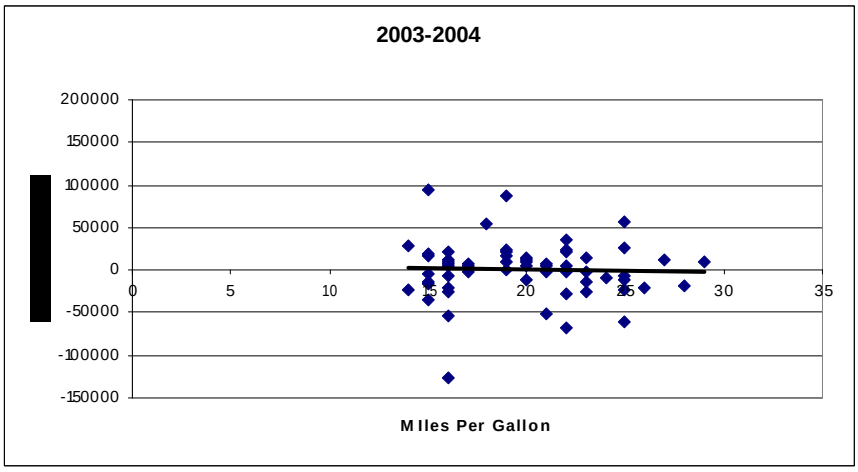
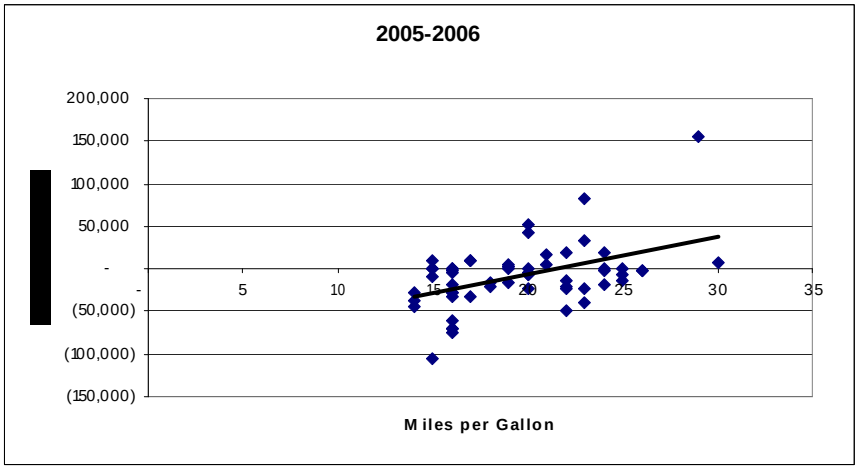
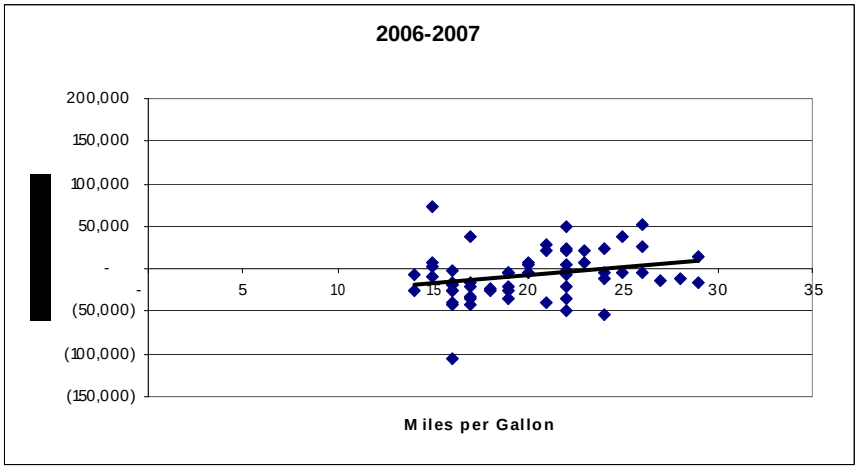
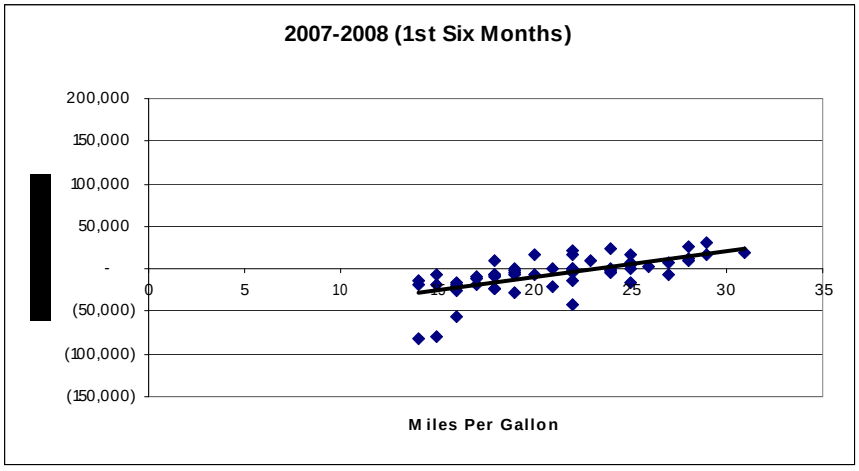


Exhibit 5 (cont'd):



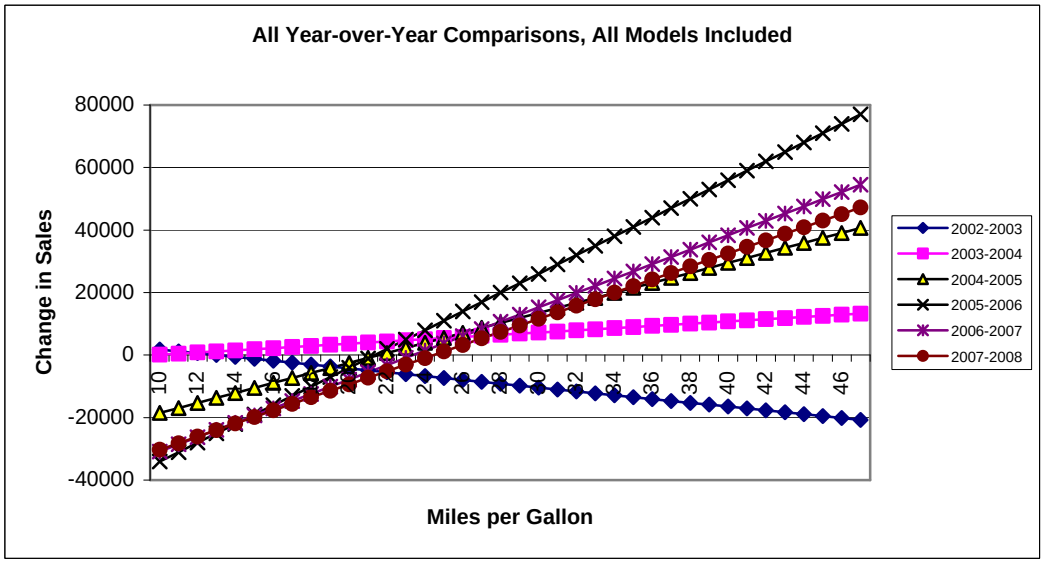


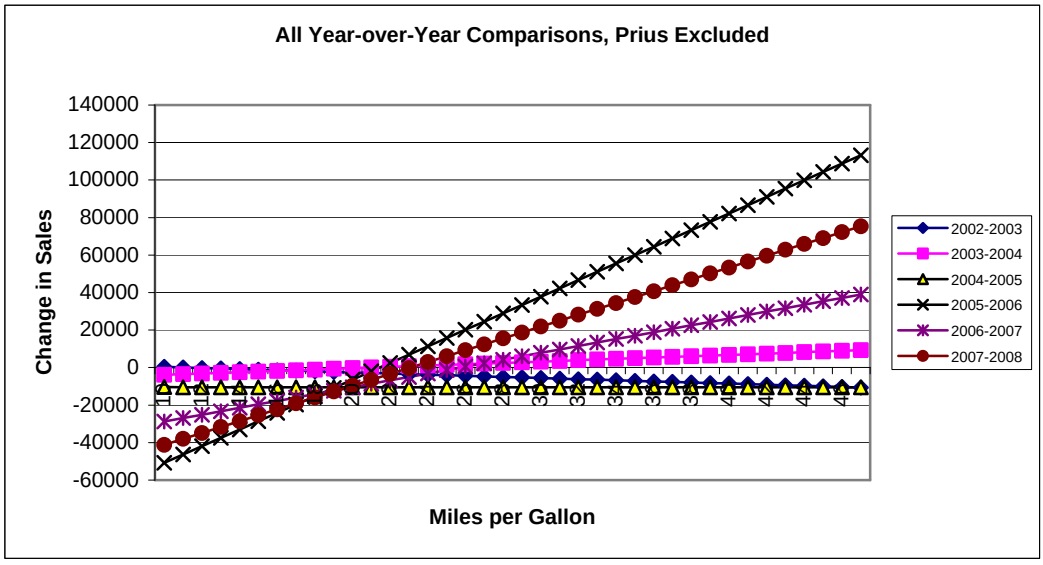


Source: CFA Data Base

Exhibit 7 shows the individual regression lines (without the data points) for all vehicles and vehicles with conventional engines. The graphs show that the shift in the market took place well before the first half of 2008. Including the Prius does not change that conclusion; it merely pushes the data of the market structural change back one year.

Exhibit 7





Source: CFA Data Base

The above analysis concludes that fuel economy played a key part in determining sales in recent years. We explored alternative explanations that might account for the shift in

buying patterns. One obvious possibility is a shift in preference away from truck and SUVs. Exhibit 8 shows that the structural shift is not the result of a shift from trucks to cars. We examined this in two ways. In one set of regressions, we introduced trucks as a covariate, to control for the effect of being a truck model as opposed to a car model. Even controlling for the type of vehicle (car v. truck) fuel economy is an important determinant of the change in sales. A second approach is to examine the relationship between fuel economy and sales separately for cars and trucks. Our conclusion that the structural shift occurred well before the first half of 2008 is confirmed and strengthened. The structural shift occurred in 2006 for cars and somewhat earlier (2005) for trucks.

Exhibit 8: Regression Results: Fuel Economy as a Predictor of Sales

Year	All Light Duty Vehicles			All Light Duty Vehicles (Truck Covariate)			Cars Only			Truck Only		
	B	Sig.	R2	B	Sig.	R2	B	Sig.	R2	B	Sig	R2
2002-2003	-297	*	0	1697		3	4511	*	7	-179		0
2003-2004	-354		0	68		0	-624		0	2842		0
2004-2005	-4		0	1036		0	-940		0	4535	**	9
2005-2006	4429	***	21	5463	**	20	3020	*	0	3738		5
2006-2007	1833		2	4487	**	6	4191		6	4878	*	9
2007-2008	3150	***	42	3124	***	41	2752	***	31	3778	**	17

*** p< .10, ** p < .0,*** p < .01**

We also examined the issue of whether the change in mileage for a specific model, year over year, affected change in sales. While all of the coefficients were positive, indicating better mileage was associated with better sales performance, none was statistically significant and all were small. This should not be surprising because the improvement in fuel economy within models was quite small, only 1 mile per gallon, on average, over the five year period from 2002-2005. It is the much larger differences in mileage between models that are having the effect.

CHANGES IN CONSUMER BEHAVIOR IN GASOLINE AND AUTO MARKETS

Thus far we have seen that public opinion and new car sales indicate a clear shift in consumer attitudes toward fuel economy. A recent Congressional Budget Office Study[10] (CBO) explores similar issues and reinforces our findings. What are the effects of high prices on consumption patterns? After four years of rising prices (2002-06), CBO found that when gasoline prices rise significantly, people will:

- Use less gasoline;
- Drive less if they can;
- Drive more slowly;
- Use mass transit where it is available; and
- Buy more fuel-efficient cars, if they can find them.

The formal expression of this relationship in economic analysis is the price elasticity of demand. How much does a particular behavior change in response to a price change? The price elasticity of demand is usually calculated in percentages. A one-percentage point increase in prices that results in a one-percentage decline in the behavior is said to be an elasticity of -1 (-.01/+.01 = -1). CBO studied a variety of behaviors and calculated the elasticity of demand – the percentage change in a particular behavior in response to a change in gasoline prices. As Exhibit 9 shows, there is a small, negative price elasticity. The short-run elasticities are considerably less than -.1. A one percent increase in price leads to a reduction in consumption or changes in behavior that reduce consumption of less than one-tenth of one percent. In the long run, the elasticities are somewhat higher -.2 to -.4, but still quite low compared to other commodities. Moreover, the elasticity of demand has declined over time and is likely to continue to do so.

> For a variety of reasons, consumers are currently only about one-fifth as responsive to short-run changes in gasoline prices as they were several decades ago. That decline in sensitivity has been attributed to growth in real income, which has rendered gasoline a smaller share of consumers' purchases from disposable income. Price sensitivity has also declined because a gallon of gasoline takes a car farther than it did in the past, in part because of fuel economy standards. The development of distant suburbs also has contributed by making consumers more reliant on the automobile. The longer commutes are balanced by lower housing costs.[11]

[10] Congressional Budget Office, *Effects of Gasoline Prices on Driving Behavior and Vehicle Markets*, January 2008.
[11] CBO, Effects of Gasoline Prices, pp. x-xi.

Exhibit 9: Price Elasticities of Demand for Various Gasoline Consumption-Related Behaviors Compared to Selected Other Products

Product	Study Trait	Period of Impact Short-terms	Long-term
Gasoline Related[a]			
Consumption	CFA (1997-2005 Expenditures)		-.28
	Recent	-.06	-.40
	1994-2006	-.02 to -.04	
	Higher prices	-.066 to -.074	
	1974-1989	-.05 to -.08	
	Older		-.38 to -.43
Travel Speed	CBO	-.06	
	Recent	-.05	
	Older		-.35
Miles Traveled	CBO	-.035	
	Recent	-.02 to -.03	-.11 to -.15
	Older	-.1 to -.16	-.26 to -.31
New Vehicle Fuel Economy (improvement)	CBO truck-car Switch to cars	.28	
	CFA Implicit mpg	.1	
	CFA	.1	
Other Commodities[b]			
Eggs			- .1
Gasoline			- .2
Shoes			- .9
Foreign Travel			-1.2
Alcoholic Beverages			-1.5
Jewelry			-2.6

a) Congressional Budget Office, Effects of Gasoline Prices on Driving Behavior and Vehicle Markets (Washington, D.C.: January 2008).
b) Jon B. Taylor, *Economics* (Boston: Houghton Mifflin, 1998), *p*. 99.

To track the trends in vehicle fuel economy, the CBO relied on Environmental Protection Agency (EPA) mileage estimates and auto sales from *Automotive News.* CFA compiled a database on fuel economy and sales using NHTSA data.[12] Our analysis includes more recent data than was used by the CBO, allowing us to extend some analyses to 2007 with preliminary sales data. We find similar patterns of shifts to more fuel-efficient vehicles in consumer purchasing behavior, and with these data,

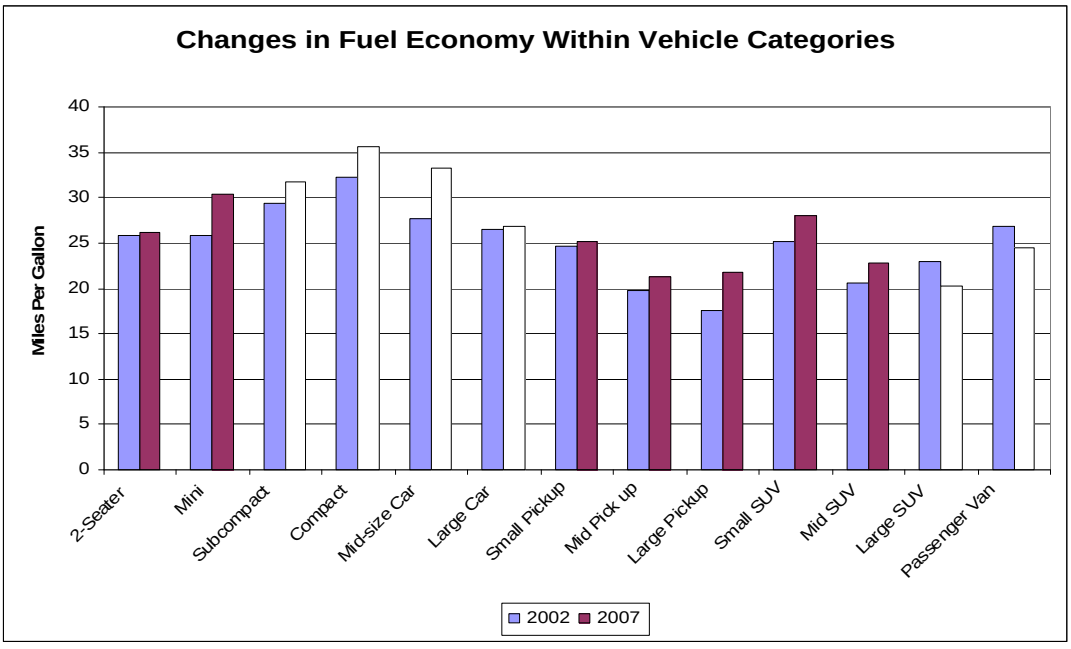
[12] Jack Gillis and Mark Cooper, *Still Stuck in Neutral: America's Continued Failure to Improve Motor Vehicle Fuel Efficiency: 1996:2005,* July, 2007, available at http://www.consumerfed.org/pdfs/Still_Stuck.pdf; Jack Gillis, Stuck *in Neutral: America's Failure to Improve Motor Vehicle Fuel Efficiency: 1996-2005*, November 2006; available at http://www.consumerfed.org/pdfs/Stuck_in_Neutral.pdf.

we can explore some important aspects of the automotive market in greater detail.

As gasoline prices rise, people switch from less fuel-efficient trucks to cars. As the CBO noted, "Price spikes in the spring of 2005, in October 2005 (after Hurricane Katrina), and in the spring of 2006 all coincided with sharp increases in the new-car market share. Market shares for leading categories of light trucks – especially SUVs – went the opposite way, dipping as gasoline prices rose."[13] In our data, with annual sales, the shift is 2.3 percent. Applying the shift coefficient calculated by CBO to the average difference between cars and trucks in our data, we find that the switch results in an improvement of fuel economy of about .1 percent for every 1 percent increase in gasoline prices. We arrive at a similar estimate by calculating the change in the fleet average fuel economy compared to the average real price of gasoline.

One of the key findings of the CBO study is that fuel economy improved both because consumers shifted their purchases away from less fuel-efficient types of vehicles (trucks and large SUVs) and because "the average fuel economy of cars and light trucks alike have been increasing since 2002."[14] Our data shows (see Exhibit 10)

Exhibit 10:



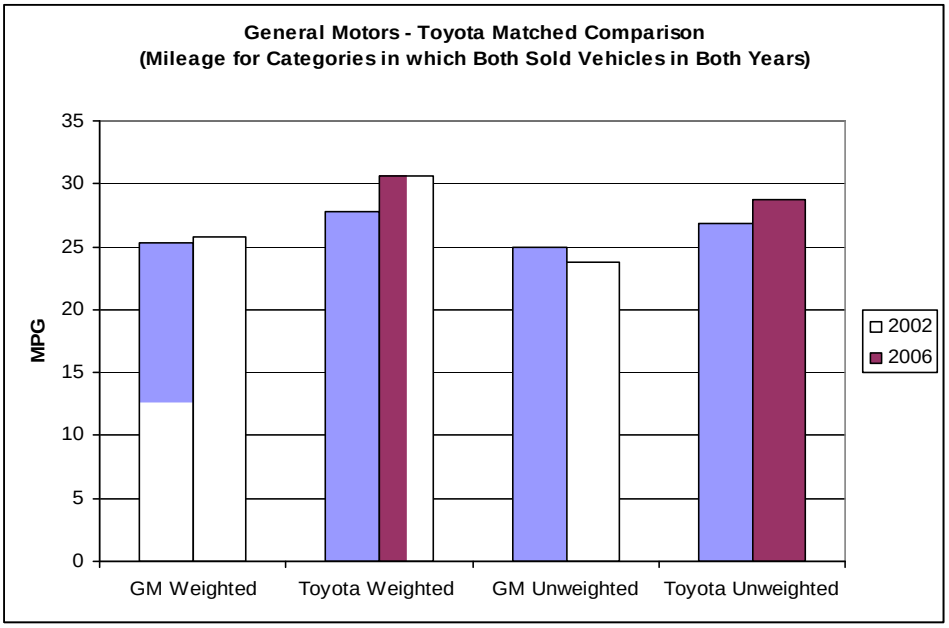
Source: Mark Cooper, *Ending America's Oil Addiction* (Washington, D.C.: Consumer Federation of America, April 2008).
http://www.consumerfed.org/pdfs/First_Quarterly_Gas_Report_2008.pdf

[13] CBO, Effects of Gasoline Prices, p. 16.
[14] CBO, Effects of Gasoline Prices, p. 20.

that the overall improvement in fuel economy was just under one mile per gallon (for 2002-2006) and 2 miles per gallon for 2002-2007; much less than consumers now say they want (8 mpg). And, the improvement in the fuel economy within the individual categories of cars and light trucks is uneven. The largest improvements came in minis, compacts, and mid-sized cars. Passenger vans and large SUVs did not improve much (which is why sales plummeted). While many consumers shifted to smaller more fuel-efficient vehicles, those who required larger vehicles could not find the fuel-efficiency they needed and wanted.

Fuel economy improvement was also very uneven across auto manufacturers. One of the more dramatic aspects of the past half-decade has been the competition between General Motors (GM) and Toyota for the top spot as the leader in sales in the American auto market. The following figure shows the average fuel economy for GM and Toyota based only on categories of cars in which both had sales in 2002 and 2007 (see Exhibit 11). This graph matches the two automakers by categories of product sold for which they compete head-to-head. It shows both the sales-weighted average fuel economy (mpg) and the unweighted average of the individual models they marketed. For Toyota, both the weighted and unweighted fuel economy averages improved. Toyota's mileage improved both because consumers shifted their purchases to more fuel-efficient categories of vehicles and Toyota offered, on average, significantly more fuel-efficient models. GM's average fuel economy improved because consumers shifted their sales between categories, but GM did not offer, on average, a significantly more fuel-efficient slate of models.

Exhibit 11:



Source: Mark Cooper, *Ending America's Oil Addiction* (Washington, D.C.: Consumer Federation of America, April 2008). http://www.consumerfed.org/pdfs/First_Quarterly_Gas_Report_2008.pdf

We were able to test the proposition that fuel economy became more important to consumers over the period since 2002 with an econometric model of fuel economy (see Exhibit 12). After controlling for the key vehicle characteristics that affect fuel economy (vehicle weight, engine traits like horsepower, displacement, number of cylinders, transmission type, drive ratio, dynamometer setting, wheel base, interior volume), each year after 2002, there was a statistically significant, though small, improvement in the fuel economy of cars. For cars, the effect became steadily larger over time. A car sold in 2006 got 2.377 more miles per gallon than one built in 2002, controlling for all the other factors included; for trucks, the increase was .879 miles per gallon.

Exhibit 12: Linear Regressions to Examine Factors Affecting Fuel Economy
(Unit of Analysis is the Sales Weighted Model)
(Regression Coefficients, All Statistically Significant at the .001 level)

Variable	Cars		Trucks	
	Fuel Economy	Product Sales	Fuel Economy	Product Sales
2003	.0662	15456	.982	10120
2004	1.084	-148	.482	-5090
2005	1.758	16763	.869	-16488
2006	2.377	3936	.879	-24092
Fuel Economy	na	945	na	.823
R^2	.56	.32	.24	.12

Control variables: engine (horsepower, displacement, cylinders), body weight, wheel base, interior volume); transmission type, drive ratio, dynamometer setting;
all coefficients are significant at the .05 level or higher

Truck sales were down 24,092 in 2006, compared to 2002; controlling for all the other factors, car sales were up 3,936. For trucks, the effect was large in 2003, declined in 2004 and rebounded in 2005 and 2006. We also find that fuel economy was positively related to product sales. We find the negative effect on truck/SUV sales in 2004, 2005, and 2006, with the effect growing larger over time. This is consistent with the CBO findings. In addition to the shift from trucks to cars and after controlling for all the other factors, a one mile per gallon increase in fuel economy resulted in an additional sale of just under 1,000 more cars and trucks for each model.

CONCLUSION

Over the past three or four years there has been a dramatic shift in the auto market, a shift that is not, but should be, reflected in NHTSA's approach to setting fuel economy standards. The automakers and NHTSA are looking backward, but consumers are looking forward. If the desire and willingness of consumers to purchase more fuel efficient vehicles were fully recognized in NHTSA's analysis, it would have proposed a much higher standard because erroneous assumptions about consumer attitudes constrain the extent to which fuel savings technologies influence the standard. Correcting underlying economic assumptions of the proposed fleet wide fuel economy rules for 2011-2015 would result in a higher range of alternatives examined in the DEIS, and greater environmental benefits as a result.

In our comments in this proceeding, we concluded that NHTSA should raise the standard to its "optimized plus 50" alternative, which we call the "50-50 standard."[15] With the economic flaws corrected, we concluded that the benefits to the nation of higher standards required NHTSA to move to at least that level. It was a close call between that level and the even higher level of total benefit equals total cost (TB=TC). Although we argued that total benefit equals total cost standard is economically practicable by definition, there were two considerations that suggested the "50-50 standard" was preferable. First, for 2011, NHTSA's estimate of the level of fuel economy that would be achieved (as opposed to the level at which the standard would be set) under the "TB=TC" and the "50-50" approaches was not very different. Second, this was the case because there was a higher level of individual auto manufacturer failure to achieve the higher standard (70% v. 50%).

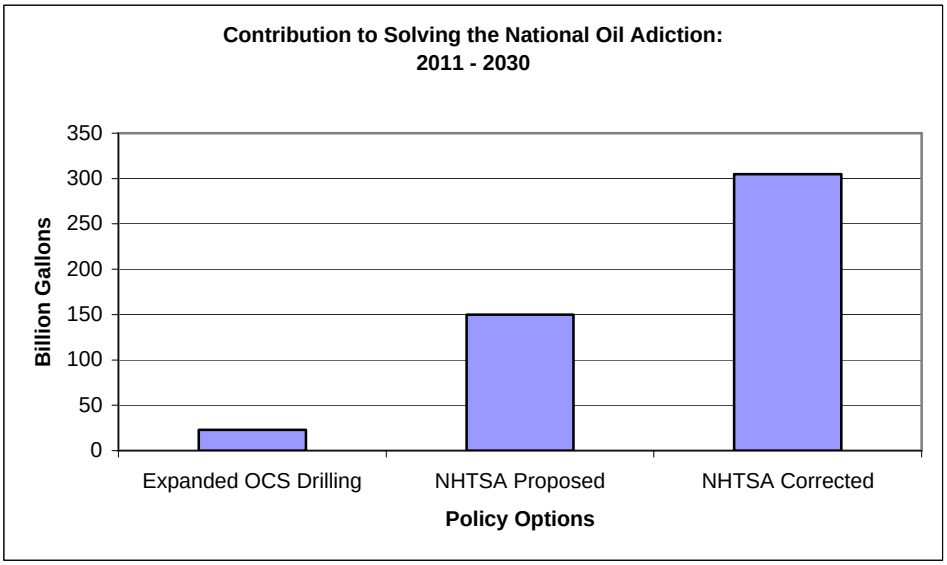
In light of the recent evidence on consumer and automaker behavior, we no longer believe that those two considerations are valid. Given the strong consumer interest in higher fuel economy and the dramatic changes in auto industry plans, if NHTSA sets a standard to lead the industry to higher level of fuel economy as it is required to do under the law, higher levels of fuel economy will be achieved and fewer auto makers will fail the "TB=TC" standard than previously anticipated by NHTSA. Indeed, when NHTSA revisits the fundamental assumptions in its model that slow the inclusion of fuel savings technology in the vehicle fleet, which have been called into question by developments in the market, it will arrive at a much higher level for standards across the board, but particularly for the "technology exhaust" and "TB=TC" scenarios. The old "TB=TC" level will become the new "50-50" standard.

There is no doubt that moving the standard to the higher level that we recommend is well worth the effort. To appreciate the importance of making such an improvement, we can put the impact of a higher fuel economy standard into context. The intense debate over expanded drilling on the Outer Continental Shelf (OCS) provides a useful context for understanding how important the setting of fuel economy standards is to the overall solution to the nation's oil addiction.

[15] Consumer Federation of America, "Comments and Technical Appendices," in National Highway Traffic Safety Administration, Notice of Proposed Rulemaking, Average Fuel Economy Standards, Passenger Cars and Light Trucks: Model Years 2011-2015, Docket No. HNTSA 2008-0089, RIN 2127-AK29, July 1, 2008.

Last year, the Energy Information Administration analyzed the increase in oil production that would result from allowing drilling in areas of the OCS that are currently unavailable for drilling.[16] EIA reckoned that production would not start until 2012 and would increase overall domestic production by 1.6 percent in the period between 2012-2030, which is .7 percent of the total consumed over the period. This is equal to approximately 23 billion gallons (see Exhibit 13).

Exhibit 13



Source: Calculated by author, based on Energy Information Administration, *Impacts of Increased Access to Oil and Natural Gas Resources in the Lower 48 Federal Outer Continental Shelf*, (available at http://www.eia.doe.gov/oiaf/aeo/otheranalysis/ongr.html); Office of Regulatory Analysis and Evaluation, *Corporate Average Fuel Economy for MY 2011-2015: Passenger Cars and Light Trucks* (National Highway Traffic Safety Administration, April 2008.

The level at which NHTSA should set the standard TB=TC would yield energy savings of over 300 billion gallons of gasoline between 2011 and 2030. NHTSA's proposed "optimized" standard would about half that.[17] Thus, a vigorous fuel economy standard would save 13 times as much oil as expanded drilling in the OCS. NHTSA's weak standard leaves a massive amount of oil savings on the table. Setting fuel economy standards to maximize fuel savings must be the cornerstone of ending our addiction to oil, but the Administration has failed in this vital part national energy policy.

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[16] Energy Information Administration, *Impacts of increased Access to Oil and Natural Gas Resources in the Lower 48 Federal Outer Continental Shelf*, (available at http://www.eia.doe.gov/oiaf/aeo/otheranalysis/ongr.html)

[17] Office of Regulatory Analysis and Evaluation, *Corporate Average Fuel Economy for MY 2011-2015: Passenger Cars and Light Trucks* (National Highway Traffic Safety Administration, April 2008. Vehicle miles traveled (pp. VIII-15, VIII-16) are used to extent the analysis to 2030 assuming fuel savings in each year is proportionate to the weighted average of the vintaged fleet miles traveled by the fleet in existence in 2015. Fuel savings scenarios, p. VIII-51