

# JOINT ECONOMIC COMMITTEE

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# MONEY IN THE BANK – NOT IN THE TANK

*Raising Fuel Economy Standards Would Save American  
Families Thousands*



MEMORIAL DAY WEEKEND 2007

## Raising Fuel Economy Standards Would Bring Real Savings to American Families

In the past week, retail gasoline prices have surged to their highest levels ever to a national average of over \$3.22 a gallon. As the Memorial Day weekend kicks off the summer driving season, many industry analysts expect that gas prices will only continue to rise.

There are a number of reasons that gasoline prices have hit these unprecedented levels, including increased demand, reduced refinery capacity, and the impact of consolidation in the petroleum industry. As gas prices rise, the costs to American families become more onerous. This year alone, families with children can expect to spend an average of \$3,180 to fill up their tanks. This is money that would be better spent on education, health care, and saving for retirement, but instead it ends up in our nation's gas tanks.

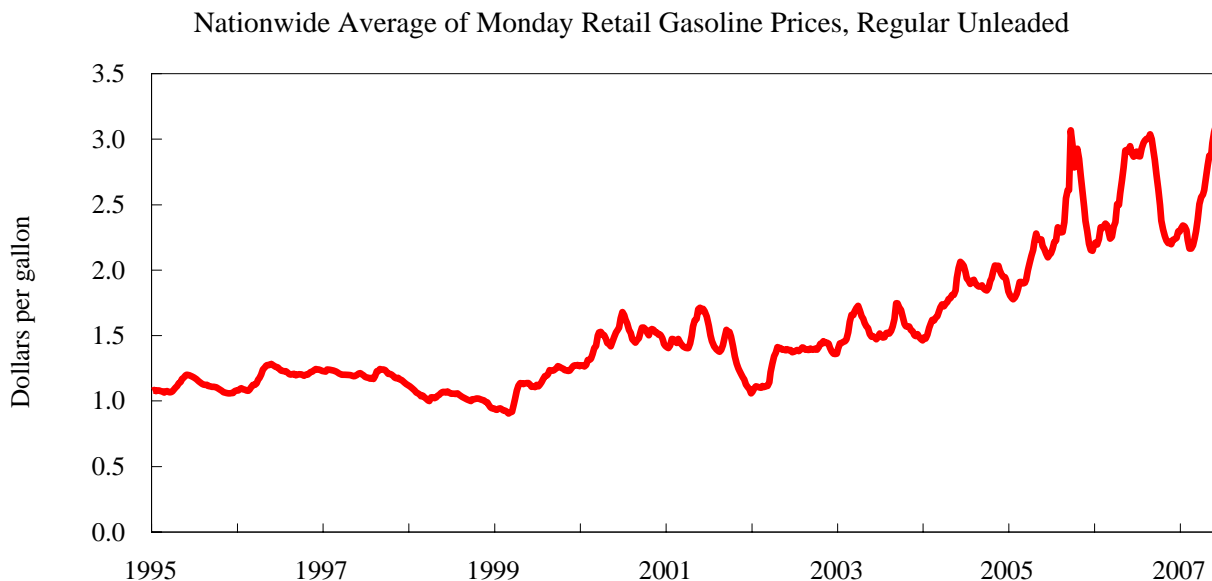
There is little question that the long-term solution to our energy problems lies with encouraging the production and use of alternative fuels. But it will take a long time to achieve such basic shifts in energy use. In the near-term, American families need policy solutions that will provide them with real savings:

- On the supply-side, for example, policymakers can more closely scrutinize the impact of consolidation in the U.S. petroleum industry, which has been found to be a contributing factor to higher gas prices in many regions.<sup>1</sup>
- On the demand-side, raising fuel efficiency standards—the mileage per gallon requirements for cars and light trucks—would lead to both increased efficiency in the consumption of gasoline and lower gas bills for American families. In fact, increasing fuel efficiency standards to 35 miles per gallon could save families with children \$3,500 over five years, assuming no further increase in gas prices. The savings would be even more substantial if gas prices continue their upward trend.

### GASOLINE PRICES CONTINUE TO CLIMB

Gasoline prices rose to their highest levels on record last week and are expected to remain high through the summer driving season. Gasoline prices have more than doubled since 2001.<sup>2</sup> (See Chart 1 below.)

**Chart 1: Gas Prices Continue on Their Upward Trend**



Source: Energy Information Administration, U.S. Department of Energy.

### THE UNITED STATES IS FAR BEHIND ON THE FUEL EFFICIENCY FRONT

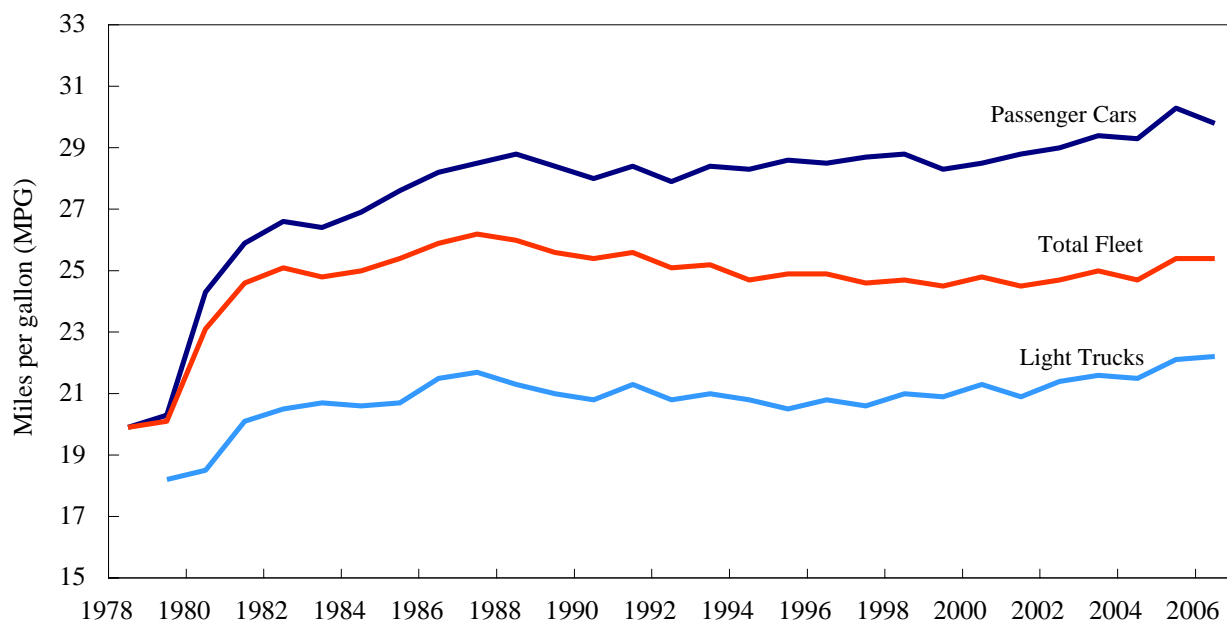
An effective policy to lower gas prices in the short-term is to decrease demand by raising the fuel efficiency standards of the vehicles that American families drive. Fuel efficiency in vehicles is defined as how far the vehicle can travel on one gallon of gasoline. A passenger car with a fuel efficiency of 20 miles per gallon (mpg) would use twice as much gas to travel the same distance as a car with a fuel efficiency of 40 mpg. Today, the average fuel efficiency of the typical vehicle driven in the U.S. is 25.4 mpg.<sup>3</sup>

The federal government has done little to increase fuel efficiency among passenger vehicles since passing the Energy Policy and Conservation Act of 1975 (EPCA). The EPCA increased the corporate average fuel economy (CAFE) standards by 53 percent, from 18 mpg in 1975 to 27.5 mpg in 1985. It has remained there since – the current model year (2007) CAFE standard for passenger cars is still just 27.5 mpg, with no scheduled increase before 2011, when the standards expire.

The 1975 Energy Policy and Conservation Act also gave the National Highway Traffic Safety Administration (NHTSA) the authority to set fuel economy standards for light trucks, which includes sport utility vehicles (SUVs) and mini-vans, beginning with model year 1979. NHTSA set standards that increased the average fuel economy from 17.2 mpg for two-wheel drive trucks in 1979 to 20.7 mpg for the entire light-truck fleet in 1996. The standard remained at 20.7 mpg through 2004 and is 22.2 mpg for 2007.<sup>4</sup> In April 2006, NHTSA released a final rulemaking that sets standards for light trucks based on a vehicle's size beginning in 2008. This will allow for variation across the light truck category, instead of the current single average for all light trucks.<sup>5</sup>

Despite the standards of 27.5 mpg and 22.2 mpg for passenger cars and light trucks, respectively, the average fuel efficiency for the entire fleet of U.S. passenger vehicles hovers at 25.4 mpg.<sup>6</sup> The average peaked in 1987 at 26.2 mpg, but has dropped since due to the increasing popularity of less fuel-efficient SUVs. That means our fleet of cars and trucks is less fuel-efficient now than it was twenty years ago.<sup>7</sup> (See Chart 2 below.)

Chart 2: Average Fuel Efficiency Has DECREASED Since 1980s



Source: National Highway Traffic Safety Administration, U.S. Department of Transportation.

The U.S. ranks near the bottom of the industrialized world when it comes to fuel efficiency. As of 2002, when the U.S. average fuel efficiency was 24.1 mpg, the average fuel efficiency across the European Union's (EU) fleet was the equivalent of 37.2 mpg. The EU has proposed to raise its fuel efficiency standards to 51.5 by 2012. Canada's fuel efficiency averaged 25.6 mpg in 2002, and Canada has proposed raising its standard to 32.0 mpg by 2010. Australia's fuel efficiency averaged 29.1 mpg and is expected to rise to 34.4 mpg by 2010. Japan's fuel efficiency averaged 46.3 mpg, and may go as high as 48.0 mpg by 2010. And China's fleet fuel efficiency averaged 29.3 mpg in 2002, and is projected to reach 36.7 mpg by 2008.<sup>8</sup>

### AMERICAN FAMILIES HAVE HAD ENOUGH OF HIGH GAS PRICES

American drivers are spending a rising share of their household budget on gasoline. In 1992, the average household spent about \$973 a year (or 3.26 percent of its budget) on gasoline and motor oil. In every year since 1992, annual average household spending on gasoline has increased faster than the rate of inflation. This year, the average household can expect to spend about \$2,450 on gas, based on the Department of Energy's projected average gas price of \$2.72 per gallon for 2007.<sup>9</sup>

**Table 1: Estimated Family Savings From Increased Fuel Efficiency Standards Using Average Fuel Efficiency For All Vehicles**

Household Characteristics	Average # of Vehicles	Average Fuel Efficiency	Miles Traveled Per Year	Annual Fuel Expenditure	Annual Household Savings			Five-Year Household Savings		
					Fuel Efficiency = 35 mpg	Fuel Efficiency = 40 mpg	Fuel Efficiency = 50 mpg	Fuel Efficiency = 35 mpg	Fuel Efficiency = 40 mpg	Fuel Efficiency = 50 mpg
All households	1.9	25.4	12,000	\$2,442	\$536	\$713	\$961	\$2,679	\$3,565	\$4,805
Households without children	1.8	25.4	10,900	\$2,101	\$461	\$614	\$827	\$2,305	\$3,068	\$4,135
Households with children	2.2	25.4	13,500	\$3,180	\$698	\$929	\$1,252	\$3,489	\$4,643	\$6,259
Young children	2.0	25.4	13,700	\$2,934	\$644	\$857	\$1,155	\$3,219	\$4,284	\$5,774
School-aged children	2.1	25.4	13,500	\$3,036	\$666	\$886	\$1,195	\$3,331	\$4,432	\$5,975
Teen/college-aged children	2.9	25.4	12,700	\$3,944	\$865	\$1,152	\$1,552	\$4,327	\$5,758	\$7,762

Source: Joint Economic Committee analysis based on data from the Department of Transportation and Department of Energy.

**Table 2: Estimated Family Savings From Increased Fuel Efficiency Standards Using Average Fuel Efficiency For SUVs**

Household Characteristics	Average # of Vehicles	Average Fuel Efficiency	Miles Traveled Per Year	Annual Fuel Expenditure	Annual Household Savings			Five-Year Household Savings		
					Fuel Efficiency = 35 mpg	Fuel Efficiency = 40 mpg	Fuel Efficiency = 50 mpg	Fuel Efficiency = 35 mpg	Fuel Efficiency = 40 mpg	Fuel Efficiency = 50 mpg
All households	1.9	22.2	12,000	\$2,794	\$817	\$994	\$1,243	\$4,087	\$4,972	\$6,213
Households without children	1.8	22.2	10,900	\$2,404	\$703	\$856	\$1,069	\$3,517	\$4,279	\$5,346
Households with children	2.2	22.2	13,500	\$3,639	\$1,065	\$1,295	\$1,619	\$5,323	\$6,477	\$8,093
Young children	2.0	22.2	13,700	\$3,357	\$982	\$1,195	\$1,493	\$4,911	\$5,976	\$7,466
School-aged children	2.1	22.2	13,500	\$3,474	\$1,016	\$1,237	\$1,545	\$5,081	\$6,183	\$7,725
Teen/college-aged children	2.9	22.2	12,700	\$4,513	\$1,320	\$1,606	\$2,007	\$6,601	\$8,032	\$10,036

Source: Joint Economic Committee analysis based on data from the Department of Transportation and Department of Energy.

Annual household spending on gasoline varies with household size and type, miles driven, number of vehicles a household owns, and the fuel efficiency of those vehicles. Households without children tend to own fewer vehicles and drive each vehicle less than households with children. Households with children drive about 2,600 more miles each year on average pre vehicle than households without children, tend to own more cars, and can expect to spend approximately \$3,180 in gas this year alone. The cost is even higher for families with teenage or college-age children, who own approximately three vehicles on average, and are projected to spend nearly \$3,950 this year at the pump. (See Table 1 on Page 3.)

### THE ECONOMIC CASE FOR HIGHER FUEL EFFICIENCY STANDARDS

With \$3.00 a gallon gas becoming all-too-common, higher fuel efficiency can mean big savings for American families. Just how big those savings can be will depend on how much we increase fuel efficiency standards. Research suggests that increases in the fuel economy of their vehicles may cause consumers to drive more, resulting in about a two percent increase in miles traveled for every ten percent increase in fuel efficiency.<sup>10</sup> But these increases are not enough to offset the potential monetary savings from driving a more fuel efficient car.

Improvements in fuel efficiency of vehicles have a meaningful impact on family budgets. Across the board, households who increase their average fuel efficiency to 35 mpg would save 22 percent of their current expenditures on fuel, and those increasing their average fuel economy to 40 mpg would save around 30 percent. Based on the Department of Energy's projected average annual gas price of \$2.72 for 2007, families with teenagers can save \$865 a year, or about \$4,330 over five years, by upgrading to vehicles with a 35 mpg fuel efficiency; the same families could save \$1,150 a year, or \$5,760 over five years, by driving vehicles with 40 mpg fuel efficiency. Savings would be even more substantial for families who upgrade from SUVs to more fuel-efficient vehicles. These savings only increase in value as gas prices rise.<sup>11</sup> (See Tables 1 and 2 on Page 3.)

Vehicles today have an average life of 13 years, and with no significant relief expected in the future from the high gas prices we have seen, deciding which vehicle to purchase can have huge benefits. Given the choice between purchasing a new vehicle that averages 35 mpg and one that averages a mere 22 mpg, a family choosing the more fuel efficient vehicle has the potential to save more than \$10,600 on gasoline over the life of the car. (See Table 3 for a list of the most and least fuel-efficient vehicle models for 2007.)

**Table 3: Top 10 Best and Worst Fuel-Efficient Vehicles 2007**

MOST FUEL-EFFICIENT			LEAST FUEL-EFFICIENT		
Ranking	Make/Model	Overall Miles per Gallon	Ranking	Make/Model	Overall Miles per Gallon
1	Toyota Prius	44	1	Dodge Durango Limited	12
2	Honda Civic Hybrid	37	2	Cadillac Escalade	13
3	Toyota Camry Hybrid	34	3	Jeep Commander Limited 5.7	13
4	Toyota Yaris Liftback	34	4	Land Rover LR3 SE	13
5	Honda Fit Sport	34	5	Nissa Armada LE	13
6	Toyota Yaris Sedan	33	6	Chrysler 300C	16
7	Scion xB	32	7	Mercury Grand Marquis LSE	16
8	Honda Fit Base	32	8	Audi A8 L	17
9	Honda Civic EX	31	9	Cadillac CTS-V	17
10	Scion xA	31	10	Cadillac DTS Luxury II	17

Source: Consumer Reports, Best & Worst in Fuel Economy, April 2007.

Note: Overall Miles per Gallon based on Consumer Reports use-based calculation.



### THE ENVIRONMENT AND HEALTH BENEFITS OF INCREASED FUEL EFFICIENCY STANDARDS

Significant financial savings are not the only benefits of more efficient vehicles that use less gas. Reducing air pollution from vehicle emissions translates into social benefits such as cleaner, healthier air. Automobile exhaust contains harmful compounds such as carbon monoxide, hydrocarbons, and nitrogen oxides that make up smog, or ozone. The Environmental Protection Agency (EPA) has found that over half of the carbon monoxide in the air, 29 percent of hydrocarbons, and 34 percent of nitrogen oxides come from on-road mobile sources.<sup>12</sup>

Furthermore, in many cities, vehicle emissions are the primary cause of air pollution that has been linked to

illness.<sup>13</sup> Ozone, a contributor to global warming, is known to cause respiratory problems, including irritation of the lungs and reduced lung function.<sup>14</sup> Even more significantly, ozone is a major contributor to both adult and childhood asthma. Each summer, smog triggers millions of asthma attacks which send hundreds of thousands of Americans to the emergency room.<sup>15</sup>

### THE COMPETITIVE BENEFITS OF INCREASED FUEL EFFICIENCY STANDARDS

Without a mandate, domestic automobile manufacturers have shown that they have little incentive to increase the fuel economy of their vehicles. In fact, not one U.S.-made vehicle is in the Consumer Report's top ten list for most fuel-efficient cars. (See Table 3 on

**Table 4: CAFE Legislation in the 110th Congress**

Sponsor	Bill Number	CAFE Provisions
Sen. Dianne Feinstein (D-CA)	S. 357 (original)	Increases the CAFE standard for all passenger vehicles weighing less than 10,000 pounds to 35 miles per gallon by 2020; calls for 4 percent annual increases in standard thereafter
Sen. Daniel Inouye (D-HI); Sen. Ted Stevens (R-AK)	S. 357 (reported out of Senate Energy Committee)	Increases the combined fleet-wide standards for cars and light trucks from 25 miles per gallon to 35 miles per gallon by model year 2020, subject to cost-effectiveness loophole
Sen. Richard Lugar (R-IN)	S. 162	Increases CAFE standard to 27.5 miles per gallon for combined passenger car and light truck fleet by 2013; 4 percent annual increase thereafter
Sen. Ted Stevens (R-AK)	S. 183	Increases standard to 40 miles per gallon for passenger cars only by 2017; prohibits any annual fixed percent increase in standard
Sen. Barack Obama (D-IL)	S. 767/S. 768	Increases CAFE standard to 27.5 miles per gallon for combined passenger car and light truck fleet by 2013; 4 percent annual increase thereafter
Rep. Ed Markey (D-MA)	H.R. 1506	Increases "projected level of average fuel economy" to at least 27.5 miles per gallon for all vehicles weighing less than 10,000 pounds beginning in 2012, increases to 35 miles per gallon in 2018
Rep. Dave Reichert (R-WA)	H.R. 656	Increases standard to 33 miles per gallon by 2017, with interim standards set by Sec. of Transportation beginning in 2010
Rep. Shelley Berkely (D-NV)	H.R. 1133	Increases standard to 33 miles per gallon by 2016, with interim standards set by Sec. of Transportation beginning in 2010
Rep. Peter DeFazio (D-OR)	H.R. 1500	Increases standard to 37 miles per gallon by 2018 and 40 miles per gallon by 2023, with interim standards set by Sec. of Transportation beginning in 2010

Source: Congressional Research Service, *Corporate Average Fuel Economy (CAFE)*, RL 3392, May 1, 2007.

Page 4.) But in an environment of already high gas prices that continue to rise, the strain on family budgets is creating a greater demand for fuel-efficient cars. In the U.S., sales of hybrid vehicles continue to grow. New registrations of hybrids in 2006 grew 28 percent from the previous year to 254,545, after growing by 139 percent in 2005 and 81 percent in 2004. Toyota and Honda dominate the hybrid market with numerous fuel efficient models to choose from.<sup>16</sup> Last quarter, Toyota surpassed General Motors in quarterly worldwide sales for the first time.<sup>17</sup> Demand for more fuel efficient vehicles is expected to rise further as gas prices continue their upward trend.

## CONCLUSION

It is critical that the United States act now to improve the fuel efficiency of its passenger cars and trucks. With growth in real household income roughly stagnant over the past five years, increases in spending on fuel are eating into other important expenditures and into household savings. American families are ready for real relief from the high price of gas and the real savings that come from increasing fuel efficiency.

## ENDNOTES

<sup>1</sup> Government Accountability Office, *Energy Markets: Mergers and Other Factors That Influence Gasoline Prices*, Statement of Thomas McCool, May 23, 2007.

<sup>2</sup> Department of Energy, Energy Information Administration, *Historical Gas Prices*, as of May 21, 2007.

<sup>3</sup> U.S. Department of Transportation, *Summary of Fuel Economy Performance*, NHTSA, NVS-220, October 2006, at p. 4, available at [http://dmses.dot.gov/docimages/pdf99/426721\\_web.pdf](http://dmses.dot.gov/docimages/pdf99/426721_web.pdf).

<sup>4</sup> U.S. Department of Transportation, *Summary of Fuel Economy Performance*, NHTSA, NVS-220, October 2006, at p. 4, available at <http://dmses.dot.gov/docimages/>

[pdf99/426721\\_web.pdf](http://dmses.dot.gov/docimages/pdf99/426721_web.pdf); Congressional Research Service, RL33414, *Automobile and Light Truck Fuel Economy: The CAFE Standards*, updated May 11, 2007.

<sup>5</sup> National Highway Traffic Safety Administration website, at <http://www.nhtsa.dot.gov/cars/rules/cape/overview.htm>.

<sup>6</sup> U.S. Department of Transportation, *Summary of Fuel Economy Performance*, NHTSA, NVS-220, October 2006, at p. 4, available at [http://dmses.dot.gov/docimages/pdf99/426721\\_web.pdf](http://dmses.dot.gov/docimages/pdf99/426721_web.pdf).

<sup>7</sup> *Ibid.*

<sup>8</sup> Pew Center on Global Climate Change, *Comparison of Passenger Vehicle Fuel Economy and Greenhouse Gas Emission Standards Around the World*, December 2004, at p. 24, available at [http://www.pewclimate.org/docUploads/Fuel%20Economy%20and%20GHG%20Standards\\_010605\\_110719.pdf](http://www.pewclimate.org/docUploads/Fuel%20Economy%20and%20GHG%20Standards_010605_110719.pdf).

<sup>9</sup> Department of Energy, Energy Information Administration, *Short-Term Energy Outlook*, as of May 8, 2007, available at [http://www.eia.doe.gov/emeu/steo/pub/contents.html#US\\_Petroleum\\_Markets](http://www.eia.doe.gov/emeu/steo/pub/contents.html#US_Petroleum_Markets).

<sup>10</sup> Congressional Budget Office, *Reducing Gasoline Consumption: Three Policy Options*, November 2002.

<sup>11</sup> Department of Energy, Energy Information Administration, *Short-Term Energy Outlook*, as of May 8, 2007, available at [http://www.eia.doe.gov/emeu/steo/pub/contents.html#US\\_Petroleum\\_Markets](http://www.eia.doe.gov/emeu/steo/pub/contents.html#US_Petroleum_Markets).

<sup>12</sup> Environmental Protection Agency's Mobile Source Emissions – Past, Present, and Future <http://www.epa.gov/otaq/inventory/overview/pollutants/index.htm>.

<sup>13</sup> *Ibid.*

<sup>14</sup> <http://airnow.gov/index.cfm?action=health2.smog1#3>.

<sup>15</sup> Clear the Air, October 5, 1999. See <http://www.cleartheair.org/proactive/newsroom/release.vtml?id=17440>.

<sup>16</sup> R.L. Polk & Co. 2005, 2006, 2007 News releases on new vehicle registrations, See <http://usa.polk.com/News/LatestNews/>.

<sup>17</sup> Amy Chozick and Norihiko Shirouzu, "GM Slips Into Toyota Rearview Mirror; Japanese Firm Passes U.S. Rival for First Time in Quarterly Global Sales," *Wall Street Journal*, April 25, 2007.