



The Facts on Vehicle Fuel Economy and Safety: What We Know Now

The Big Picture: Auto Crashes Cost Americans Pain and Lives

- Nearly 6.3 million motor vehicle crashes occurred in the United States in 2001-- one crash every 5 seconds. On average, a person was injured every 10 seconds, and killed every 12 minutes.
- Motor vehicle crashes are the leading cause of death and disability for all Americans under age 35. While they cause 95% of transportation-related deaths and 99% of transportation-related injuries each year, NHTSA receives only 1% of the total DOT budget.
- The total economic costs for motor vehicle crashes in 2000 were more than \$230 billion, or the equivalent of \$800 for every man, woman and child living in the U.S. These numbers exclude the inestimable toll on families and friends.
- Current funding for NHTSA's motor vehicle safety and consumer information programs is only \$107.9 million, less than the amount NHTSA calculates as the economic cost of 110 highway deaths.

Big Picture: Oil and Emissions

Impacts of Transportation

- Light vehicles account for 40 percent of all U.S. oil consumption.
- Crude oil, the source of nearly all fuels, is a finite resource.
- Fuel economy is directly related to CO₂ emissions.
- Light vehicles contribute about 20 percent of all U.S. CO₂ emissions.

What is Corporate Average Fuel Economy (CAFE)?

- Based on a sales-weighted average, automakers must meet fuel economy standard for a particular year on a fleetwide basis.
- Vehicle fleet divided into 2 fleets: passenger cars and “light trucks.”
- 1975 legislation set car standards through 1985; gave NHTSA authority to set light truck standards.
- Light trucks are vans, minivans, sport utility vehicles (SUVs) and pickup trucks up to 8,500 lbs.

Why Regulate Fuel Economy?

- Decrease dependence on finite fossil fuels;
- Improve national security by reducing reliance on foreign oil;
- Save consumers money at pump;
- Help to insulate auto industry from effect of gas and oil price fluctuations;
- Reduce CO2 emissions and other greenhouse gases;
- Reduce asthma and cancer-causing pollution;
- Move towards a more socially responsible vehicle;
- Absorb improvements in efficiency technology to discourage harmful upweighting of large vehicles.

CAFE Accomplishments...

CAFE doubled car fuel economy from 14 mpg in 1975 to 27.5 mpg in 1985.

- CAFE currently saves us 118 million gallons of gasoline every day, which is 913 million barrels of oil each year, or about the total imported annually from the Persian Gulf.
 - National Environmental Trust, *America, Oil, and National Security*, (2001) 40.

... But U.S. Oil Consumption and Emissions Are Growing

- Passenger vehicles consumer 8 million barrels of oil every day; about 40 percent of all U.S. oil consumption.
- Between 1990 and 1999, oil consumption in the U.S. rose 15 percent; American oil imports rose 40 percent. If those trends hold, 64 percent of oil used in the U.S. will be imported.
- The U.S. currently spends almost \$200,000 per minute to purchase foreign oil.
- U.S. passenger vehicles alone produce more carbon dioxide pollution than all but three countries worldwide (China, Russia, and Japan) – amounting to almost 5 percent of total worldwide CO₂ emissions.

Two Major Loopholes in CAFE

- **Standards for cars** were set in original statute passed in 1975.
- **Standards for light trucks** were delegated initially to NHTSA because light trucks were considered work vehicles. Standards for light trucks have remained minimal.
- **Flexible fuel provision** allows credits for vehicles that *can* run on alternative fuels despite low actual fuel use. Program allows manufacturers to claim credits without reducing oil use or pollution.

Current Statute Provides Adequate Authority for NHTSA

- Existing criteria already require NHTSA to consider:
 - technological feasibility,
 - economic practicability,
 - the effect of other motor vehicle standards of the government on fuel economy,
 - and the need of the U.S. to conserve energy.
- A Levin-Bond Amendment similar to last year would merely impose “paralysis by analysis.”
- Congress should instead set meaningful standards for both cars and light trucks.

Enforcement of CAFE Standards

- Domestic manufacturers peg the design of vehicles to meet the standard, as averaged over their large fleets of cars and light trucks.
- The Big Three have never paid a single dollar in penalties for violation of CAFE.
- Luxury high-performance foreign manufacturers (e.g., Ferrari, Mercedes) pay penalties as a cost of doing business.

Average Fuel Economy Has Stagnated

- Declining trend in fuel economy since 1988.
- CAFE: 27.5 for cars; 20.7 for light trucks.
- Average real-world fuel economy for all model year 2003 light vehicles is **20.8 mpg** -- six percent lower than the peak value of 22.1 mpg in 1987/88.
- Average real-world model year 2003 fuel economy for **cars is 24.8 mpg** and is **17.7 mpg for light trucks.**

Model year 2003 Fuel Economy

EPA Real-World Estimates

By Vehicle Type

Cars : 24.8 mpg

Vans: 19.6 mpg

SUVs: 17.8 mpg

Pickups: 16.8 mpg

Minimal New Light Truck Fuel Economy Rule

In April 2003, NHTSA announced a new standard for light trucks for model years 2005-2007:

Current standard: 20.7

2005: 21.0

2006: 21.6

2007: 22.2

NHTSA's Do-Nothing Rule

**2007 Standard Requires Minimal Increase
For Big Three Over
2000 Light Truck
Fuel Economy Levels**

	2000	2007	Change in MPG from 2000 CAFE
NHTSA standard	20.7	22.2	1.5
General Motors	21.0		1.2
Daimler/Chrysler	21.4		.8
Ford	21.0		1.2

• • NHTSA Needs Congressional Guidance on Standards

- 65,000 comments filed to agency docket on light truck average fuel economy, many by citizens pleading for higher standards.
- Industry filed hundreds of pages of protests.
- The result? NHTSA issued tentative, *de minimus* new standard that accommodates plans by auto industry to backslide on future fuel economy commitments.

Big 3 Break Promises to Improve SUV Fuel Economy

- To stave off Congressional action on fuel economy, in July 2000, Ford, General Motors and DaimlerChrysler made a highly publicized new commitment to improve the fuel economy of their SUVs.
- Ford announced it would increase the fuel economy of its SUV fleet by 25 percent over five years. General Motors and DaimlerChrysler echoed Ford's pledge.
- If these promises had not been broken, this would have resulted in a 1.8 mile- per-gallon increase in Ford's entire light truck fuel economy by 2005 – six times the increase required by NHTSA's new standard for that year.

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Auto Industry Influence

- Automakers gave large amounts in campaign finance contributions for election cycles from 1990 through 2002.

Auto industry contributions:

- Given to Members of Congress: \$81,841,276
- Given to Members of Senate: \$9,833,110
- Source: <http://www.opensecrets.org>

Auto Industry Spends Big on Advertising SUVs

- The auto industry spends more per year on advertising than any other industry in the U.S. In 1990, manufacturers spent \$172.5 million on SUV advertising. In 2000 they spent an incredible \$1.51 billion promoting SUVs.
- The Big Three ranked #1 (General Motors), #3 (Ford), and #6 (Daimler/Chrysler) among corporate spenders for total advertising spending in 2001.
- Over the last decade, manufacturers spent over \$9 billion to advertise the highly profitable SUV.

Auto Industry Has Huge Stake in SUV Sales

- Cut-rate designs based on pickup trucks and low fuel economy standards generate high profit margins on SUVs.
- While manufacturers make only a 3 percent profit on cars, they make 15 to 20 percent profit on SUVs. This means that while manufacturers reap around \$1,500 in profit for a compact sedan, they make about \$10,000 on SUVs.
- SUV and pickup truck sales account for nearly all of the profits of the Big Three. For example, in 2002 General Motors generated 90 percent of its profits from SUVs and pickups.

Many Factors Distort and Enlarge Market for SUVs

- Domestic manufacturers were protected until the mid-1990s by an SUV tariff that imposed costs on foreign manufacturers.
- The largest SUVs receive special breaks on key safety laws, helping to generate more profit.
- SUVs above 6,000 lbs. receive extra tax breaks, now up to \$100,000 for small businesses.
- Deceptive advertising about SUVs feeds their popularity and misleads consumers on safety: In April 2003, 40 state Attorneys General asked SUV manufacturers to stop claiming that SUVs have the same handling as passenger cars, or that SUVs can handle emergency procedures safely at fast speeds.

Light Truck (SUV) Explosion I

- Sales of light trucks are now 48% of market.
- This is more than 2 times the market share for all light trucks in 1983.
- SUV market share rose from 1975 to 2003 by more than a factor of 10 to become 24% of the new vehicle market.
- Over the same period, market share for vans rose 80%, while the market share for pickups was relatively constant.

Light Truck (SUV) Explosion II

New Vehicle Sales: Fraction of Sales by Vehicle Type			
	MY 1975	MY 1988	MY 2003
Cars	71.2%	66.1%	48.4%
Wagons	9.4%	4.1%	4.0%
Vans	4.5%	7.5%	8.1%
SUVs	1.8%	6.4%	23.4%
Pickups	13.1%	16.1%	16.0%

SUV sales rose by more than a factor of 10 from 1975 to 2003, from 1.8% of new vehicle sales to 23.4%.

Stuck in Reverse on Fuel Economy with SUV Boom

2003 EPA Trends Report, p. iv:

“The increasing market share of light trucks, which in recent years has averaged more than 6 mpg less than cars, accounts for much of the decline in fuel economy of the overall new light vehicle fleet.”

SUVs Are Cause of Backward Slide in Fuel Economy:

Id., p. 31:

SUV market share rose 17% from 1988 to 2003, while pickup market share decreased slightly (.1%) and overall market share for vans rose a mere .6%.

Stuck in Reverse on Safety with SUV Boom

“The increase in SUV and pickup truck rollover crash fatalities accounted for 46% of the increase in all occupant fatalities and 78% of the increase in passenger vehicle rollover fatalities.”

- National Highway Traffic Safety Administration, 2002 Early Assessment of Motor Vehicle Crashes (April 2003), p. 51.
- Rolling back the clock on safety: NHTSA data shows that number of people killed in traffic crashes in 2002 was the highest since 1990.
- Model year 2003 SUVs again did poorly in government rollover ratings. None received a four- or five-star rollover rating and the fleet showed little improvement from the 2001 model year.

Blaming the Victim Won't Solve the Problems With SUVs

- Automakers responded to the data from NHTSA on high SUV death rates blamed consumer belt and alcohol use. But these excuses do not explain deaths in SUVs:
 - 78 % of people in SUVs and vans and 77% of car occupants wear safety belts.
 - In fatal rollovers, SUV and passenger car belt-use rates are virtually identical, yet these crashes are 61% of SUV occupant deaths but 24% of car occupant deaths.
 - Percentage of alcohol-related deaths in SUVs and cars was virtually the same in 2002 – 40.9% and 40.0%, respectively.

What We Know Now:

SUVs are Problem, Not Solution

- As currently designed, SUVs are poor performers on safety for occupants, dangerous for other drivers on road and are guzzling gas at an unchecked rate.
- SUVs are case study in key lesson that bigger vehicles are not necessarily safer vehicles for drivers and others on the road.

- For a great new resource, *see*: Bradsher, Keith, [High and Mighty: SUVs- The World's Most Dangerous Vehicles and How They Got That Way](#), 2002.

• • What Are the Key Arguments on Safety and CAFE?

- 1) Opponents of CAFE argue that higher standards will cause automakers to downsize and downweight vehicles.
- 2) Opponents argue that smaller and lighter vehicles are always less safe than larger, heavier ones.

The Sky is Falling: Automakers Protest CAFE Standards in 1974

Ford in 1974:

“This proposal would require a Ford product line consisting of either all sub-Pinto-sized vehicles or some mix of vehicles ranging from a sub-sub-compact to perhaps a Maverick.”

Ford Motor Company Statement on S. 1903 Hearing on Energy Conservation Working Paper Before the Senate Comm on Commerce, 93rd Cong. 2nd Sess. (p. 177).

Chrysler in 1974:

“In effect, this bill would outlaw a number of engines and car models, including most full-size sedans and station wagons. It would restrict the industry to producing sub-compact size cars -- or even smaller ones.”

S. 1903 op. cit., testimony of Alan G. Loofbourrow. Vice President Advance Product and Operations Planning, Chrysler Motors Corporation. (p. 141).

The More Things Change...

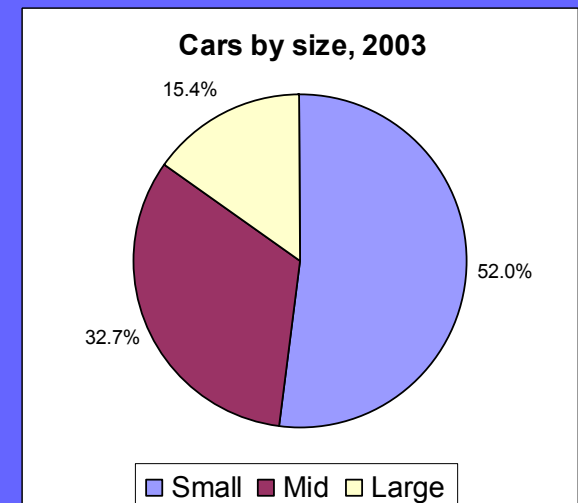
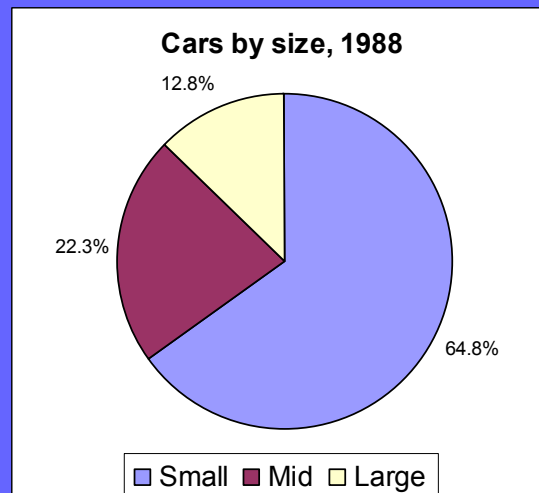
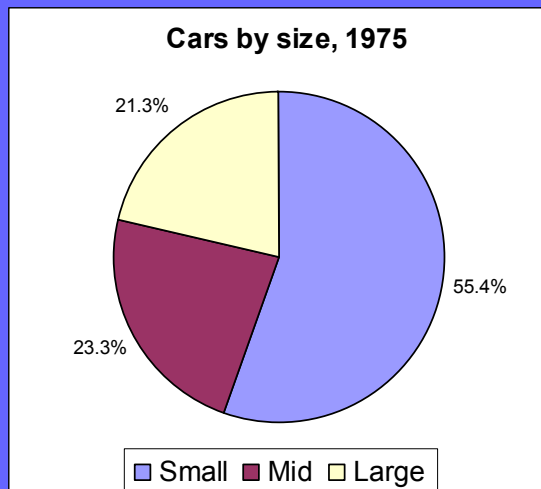
CAFE Protests in 2002

“We should not have the Federal Government saying you are going to drive the purple people eater shown here. I am not picking on this manufacturer. In fact, purposely I wanted to have a car that is hard to identify. This is basically in Europe. And when I was over there, I saw these little cars. I saw people pick them up and set them over into parking spaces. I also was trying to figure out how I was going to get my 6 foot 2 1/2 inch frame in this automobile.”

- March 13, 2002 Senate floor debate on the “National Laboratories Partnership Improvement Act of 2001.”
Congressional record page S1825.

What Actually Happened to the Vehicle Size of Cars Under CAFE, 1975-2003?

**Small Cars Did Not Take Over Fleet:
Minimal Increase in Number of Small Cars in 1988, but
Size Distribution Within Car Vehicle Fleet
Nearly Identical in 1975 and 2003**



Historical CAFE Improvements Were Mainly from Technology

- 85% of historical fuel economy gains were from technologies with no impact on vehicle weight or size.
- There was no proliferation of tiny cars; mini-cars actually dropped out of vehicle mix while mid-size cars became safer.
- Largest change was in reduction of number of large cars; number of mid-size cars increased.

Weight Changes from CAFE Were Not Uniform

Economic Factors Drive Automakers to Concentrate Weight Changes in Heaviest, not the Lightest, Vehicles

- Because automakers get more fuel savings from reducing weight in the heaviest vehicles, it is cost-effective to target behemoths first.
- **Historically, while the heaviest vehicles lost roughly 1000 lbs., there was no reduction in safety.**
- **The Honda Civic gained 800 pounds and went from failing NHTSA crash tests to the best rating – 5 stars.**
- **The notorious Ford Pinto and Chevy Chevette were replaced by the safer Ford Escort and Chevy Nova.**

Exploring the Safety/ Fuel Economy Myth I

Weight is NOT a good predictor of safety.

- Smaller, lighter vehicles are less safe than larger ones in two-vehicle crashes *with a large vehicle*.
- But larger vehicles may be more dangerous in single-vehicle crashes, such as rollovers.
- Example: SUVs are so likely to roll over, and so deadly when they do roll over, that *the overall death rate for SUVs is the same as cars*.

Exploring the Safety/ Fuel Economy Myth II

Design, not weight or size, is the most crucial factor for a vehicle's overall safety.

- The Chevrolet Blazer SUV has a per million vehicle year driver death rate that is more than three times higher than the Honda Civic's. Driver death rates vary widely within vehicle classes.
 - Insurance Institute for Highway Safety, "Driver Death Rates," Status Report Vol. 35, No. 7 (August 19, 2000) 4-5.

Exploring the Safety/ Fuel Economy Myth III

Automakers' decisions control crash outcomes and safety: poor design results in unsafe vehicles regardless of size or weight.

There is no correlation between vehicle weight for passenger cars and a car's crash test ratings in NHTSA's consumer information program.

- Greene, David L., "Fuel Economy, Weight and Safety: Its What You Think You Know That Just Isn't So," for Oak Ridge National Laboratory, presentation at the Automotive Composites Conference, Society of Plastics Engineers, Sept. 19, 2001.

Exploring the Safety/ Fuel Economy Myth IV

In fact, larger vehicles such as SUVs face special risks, and vehicle safety design has not been updated to counteract these risks.

- 61% of SUV deaths occur in rollover crashes, versus 22% of deaths in cars.
- The 2001 Blazer SUV received only one star on NHTSA's rollover resistance rating system, while the 2001 Toyota Corolla, a small car, received a high score of four stars, and the midsize Chrysler Sebring received five stars. Based on these ratings, the Blazer is four times as likely to roll over in an emergency maneuver than the Sebring.

Exploring the Safety/ Fuel Economy Myth V

Lack of adequate fuel economy rules for light trucks allows automakers to increase vehicle weight, with devastating safety consequences.

Light Truck Weight Up Since 1988

Year	Light Truck Inertial Weight Average (lbs.)
1975	4072
1988	3841
2003	4595

Aggressivity

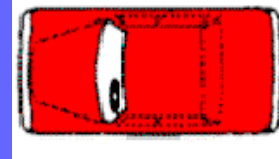
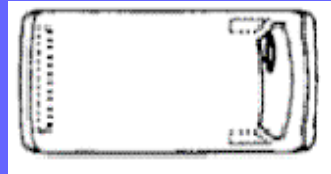
- A vehicle's aggressiveness in multiple-vehicle collisions is a function of weight (mass), stiffness, and geometry.
- The goal is to manage crash forces so that both vehicles bear them equally and so that impacts are distributed where they will do the least damage to occupants.
- Growing aggressivity of vehicles means we should look at safety from a whole-fleet perspective, not just from the point of view of occupants.
- Lawmakers and policymakers must look at effect of policies on the total vehicle fleet, and not perpetuate "highway arms race."

Weight Mismatch Between Cars and Trucks Is Growing

- In model year 1990, the average weight difference between light trucks and passenger cars was 830 lbs.
- In model year 2001, the weight difference between cars and light trucks had increased to 1,130 lbs.
- The lack of a meaningful CAFE standard for trucks has allowed the auto industry to increase the weight of light trucks.
- This increases the divergence of vehicle weights in the fleet on the highway, with devastating results.

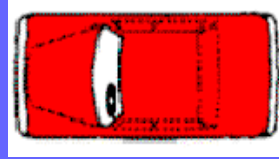
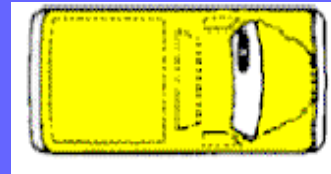
Weight Kills: Driver Fatality Ratios in Frontal Crashes

Full Size Van



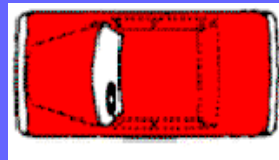
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Full Size Pickup



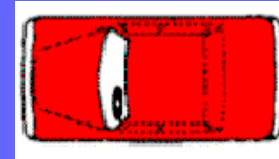
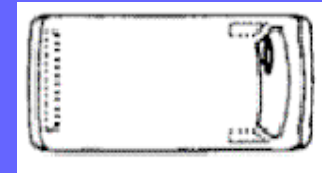
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Sport Utility Vehicle (all)



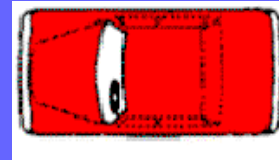
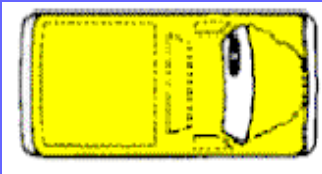
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Minivan



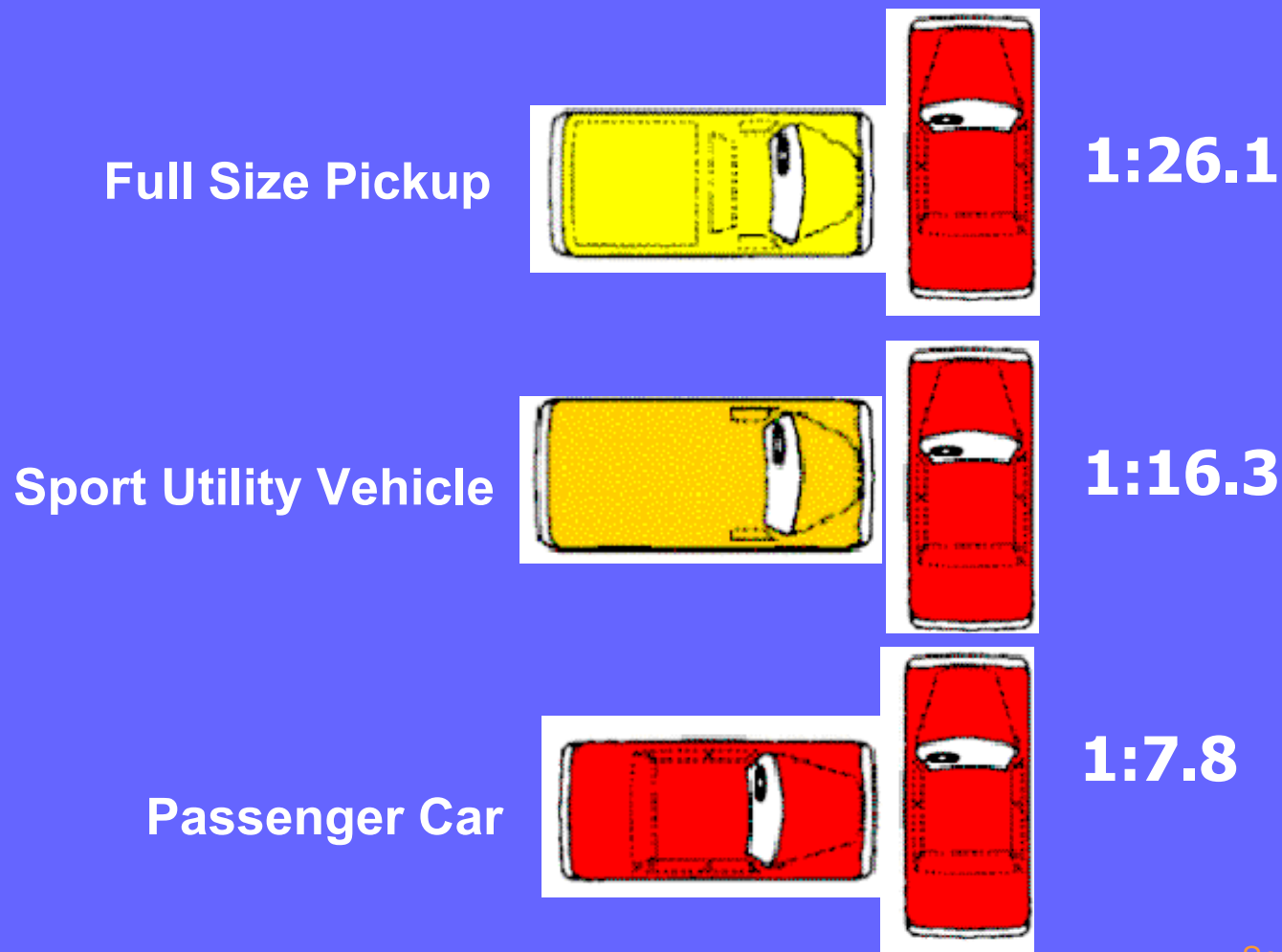
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Compact Pickup



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Weight Kills: Driver Fatality Ratios in Near-Side Crashes



SUVs and Pickups Are the Real People Eaters

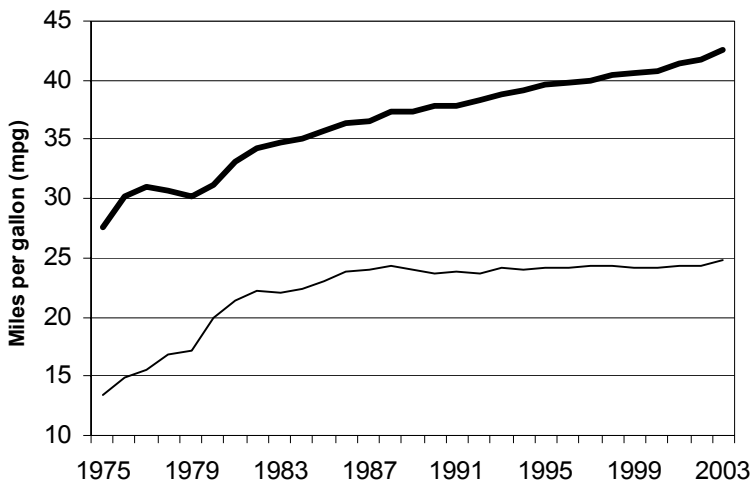
Ross and Wenzel Top 20 Most Risky Vehicles for Other Drivers 1997-2001			
<i>Risk ranking includes the fatality risk to other drivers per million vehicles sold</i>			
	Type of Vehicle	Make and Model	Risk to Other Drivers
1	Pickup Truck	Dodge Ram	137
2	Pickup Truck	Ford F-Series	128
3	Pickup Truck	Dodge Dakota	110
4	Pickup Truck	Chevrolet C/K series	99
5	Pickup Truck	GMC C/K- series	92
6	Pickup Truck	Ford Ranger	78
7	SUV	Chevrolet Tahoe	74
8	Minivan	Chevrolet Astro Van	61
9	SUV	Ford Explorer	60
10	Pickup Truck	Toyota Tacoma	59
11	SUV	Chevrolet Suburban	59
12	SUV	Jeep Wrangler	58
13	SUV	Ford Expedition	57
14	Pickup Truck	Chevrolet S-10	55
15	SUV	Chevrolet Blazer	50
16	Compact Car	Nissan Altima	49
17	Large Car	Lincoln Town Car	47
18	Large Car	Dodge Intrepid	45
19	Subcompact Car	Pontiac Sunfire	44
20	SUV	Jeep Grand Cherokee	44

Fuel Efficiency Versus Fuel Economy

- Fuel *efficiency* increased by about 1.9% every year since 1987, due to technological advances.
- However, these efficiency gains were used to increase vehicle acceleration and horsepower, and to maintain near-constant mpg despite increases in vehicle weight, not to improve fuel economy.
- If standards had tracked predictable progress in fuel efficiency, the fuel economy of both cars and trucks would be far higher today.

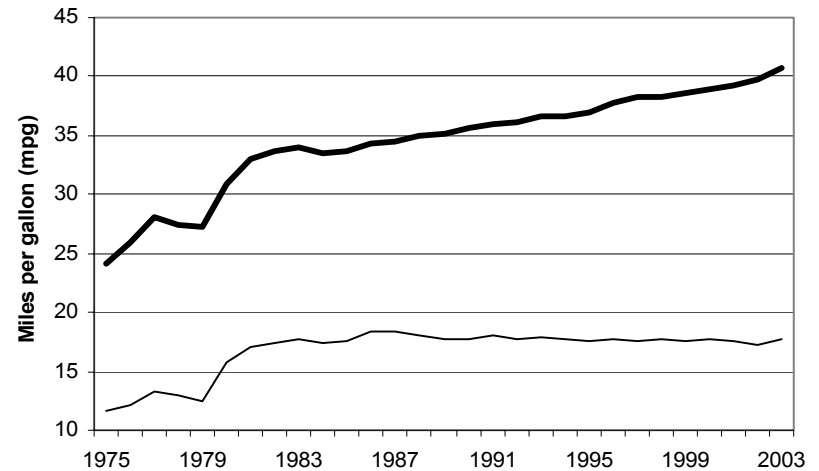
Engine Efficiency Improves While Fuel Economy Stagnates

Cars



— EPA Adjusted Real-World mpg
— Ton mpg- Vehicle Adjusted mpg multiplied by inertial weight in tons

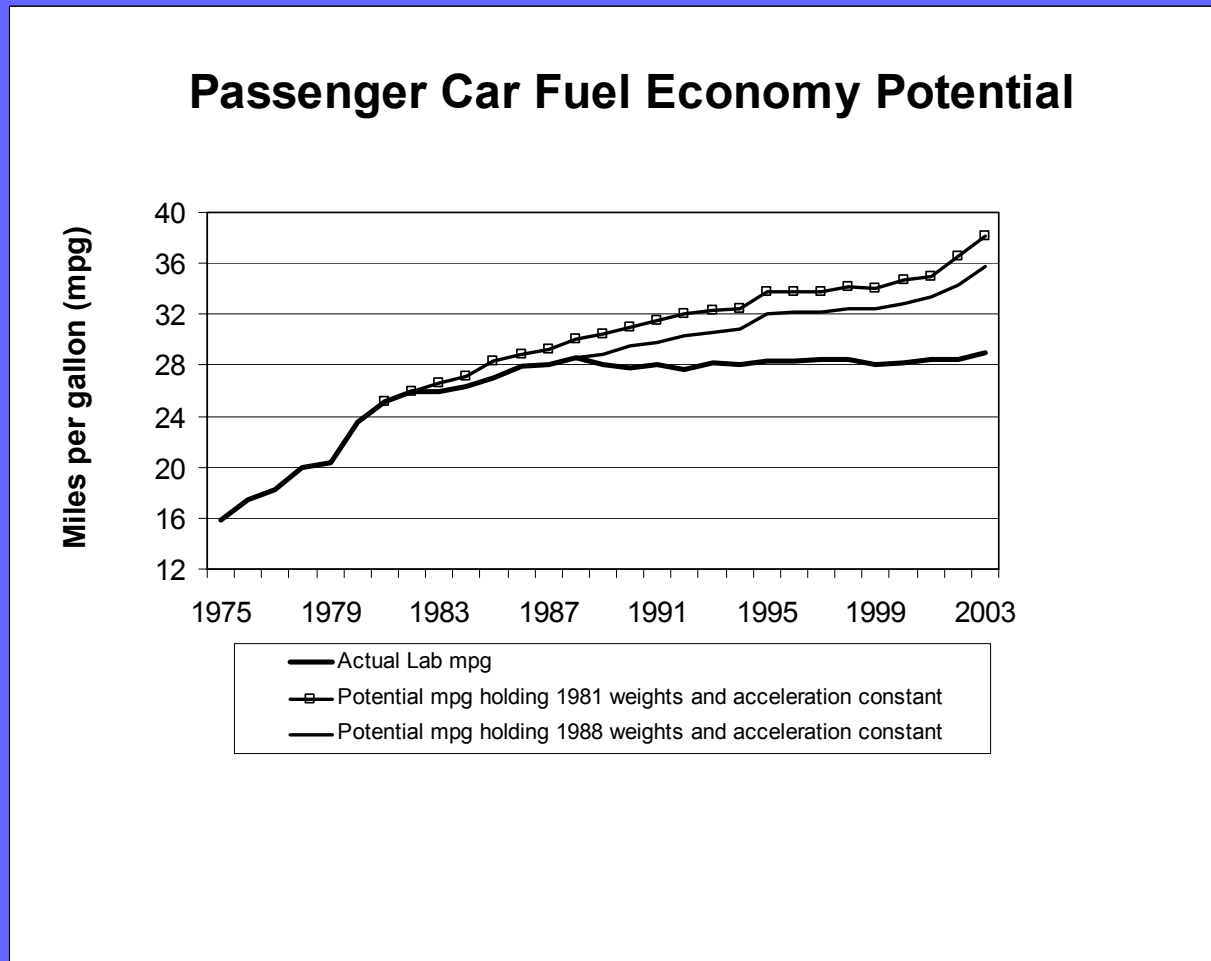
Light Trucks



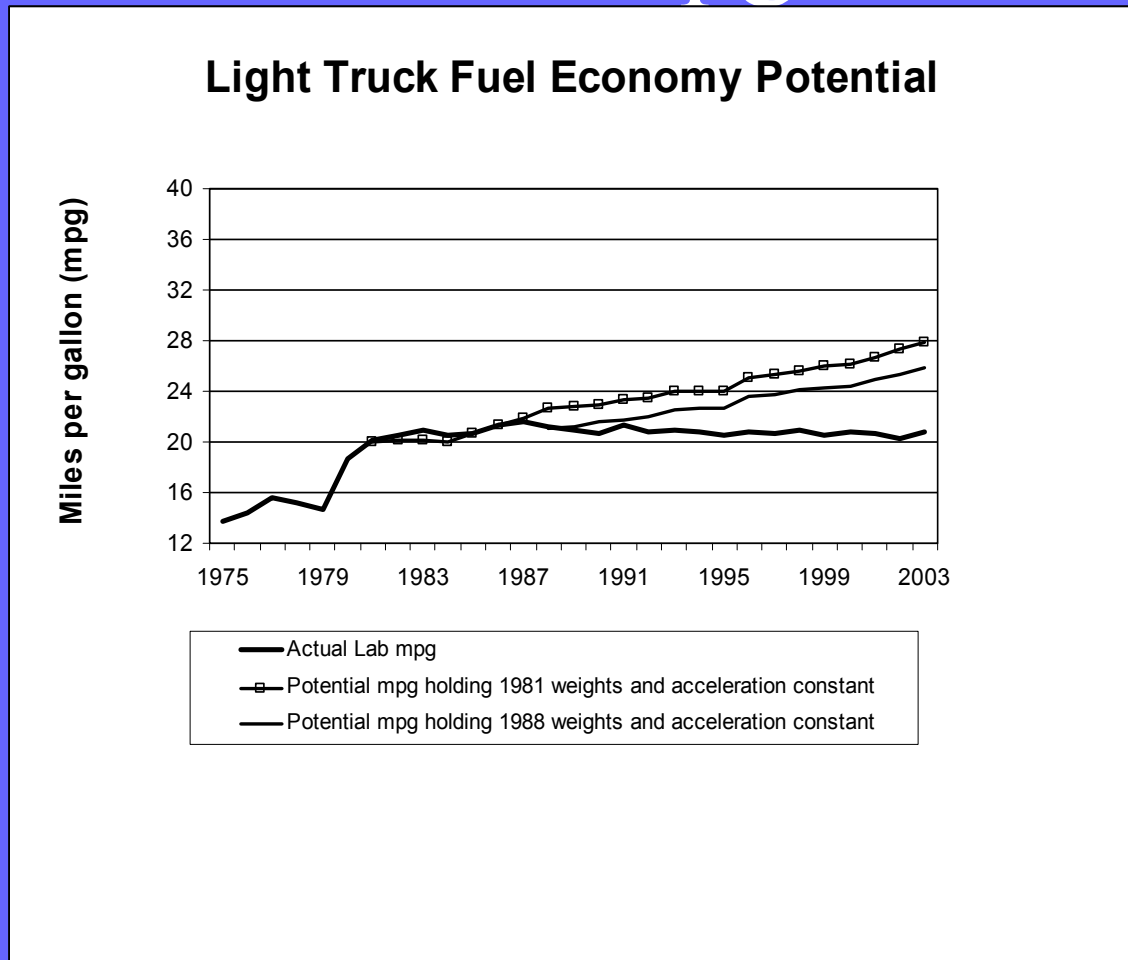
— EPA Adjusted Real-World mpg
— Ton mpg- Vehicle Adjusted mpg multiplied by inertial weight in tons

Ton-mpg provides an indication of a vehicle's ability to move weight (its own plus a nominal payload).

Lost Chances for Fuel Economy: 2003 Cars Could Get 38.1 mpg



Lost Chances for Fuel Economy: 2003 Light Trucks Could Get 27.9 mpg



What Did the NAS Actually Say?

A 2002 study by the NAS found that increasing light truck fuel economy would *improve* — not harm — safety.

- **Finding 13:** “Any adverse safety impact [of fuel economy standards] could be minimized, or even reversed, if weight and size reductions were limited to heavier vehicles (above 4000 lbs.). Larger vehicles would be less damaging (aggressive) in crashes with all other vehicles and thus pose less risk to other drivers on the road.”

More Consensus Findings by the NAS

- “Cost efficient fuel economy increases of 12 to 27 percent for cars and 25 to 42 percent for light trucks were estimated to be possible without any loss of performance characteristics . . . [or] degradation of safety.”
 - National Research Council, *Effectiveness and Impact of Corporate Average Fuel Economy (CAFE) Standards*, Washington, D.C.: National Academy Press, 2002, p. 76.

• The NAS Agreed: Future CAFE Increases Could Benefit Safety

- All panel members agreed that the *future* design of CAFE standards, if directed at light trucks, could improve safety.
- **The reason?** Disparities among vehicle weight and sizes cause devastating crashes between cars and SUVs. Any convergence in vehicle weight from better fuel economy standards actually improves safety.

NAS Controversy Over Safety

- **Members of the panel disagreed about a study purporting to describe the *historical* effects of CAFE upon safety.**
- **Two members of the panel wrote a detailed, strongly worded dissent on that issue alone, to spell out their objections.**

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The Dissent Was Right: NAS Majority Relied on Unsound Science

- The NAS majority relied on a deeply flawed study by researcher Charles Kahane. In his study, Kahane applied a totally hypothetical formula, reducing all vehicles on the road by 100 lbs., and shrinking vehicle parameters like wheelbase and track width to match.
- The hitch? **This kind of across-the-board weight and size reduction was not the manufacturers' actual response to CAFE standards.**
- **Why not look at historical record instead?**

•
• “Honey, I Shrunk the Vehicle:”

Kahane Is Wrong on the Facts

- Manufacturers only reduced weight in heaviest vehicles, not across-the-board.
- A 2002 study by Dynamic Research, Inc. (DRI), for Honda, applying Kahane’s methods to more recent crash and vehicle data, found that **fuel economy standards did not harm safety**.
- A more recent, 2003 study by DRI concluded that weight reductions improve safety, while wheelbase reductions harm safety. Kahane’s assumption confuses these factors, producing wrong result: Size and design, not weight, matters most for safety.

Vehicle Design is Key for Safety

SUVs and Pickups Are Among the Most Risky Types of Vehicles

Ross and Wenzel Fatality Risk* by Vehicle Type

*Source: Mark Ross and Tom Wenzel Fatality Risk Chart printed in the Los Angeles Times:
"Study Questions SUV Safety" Feb. 18, 2003.*

	Combined risk	Risk to driver	Risk to other drivers
Sports Car	225	175	50
Pickup	211	108	103
Subcompact	141	109	33
SUV	132	79	53
Compact	128	90	38
Large Car	112	74	38
Mid-Size Car	97	66	32
Minivan	80	40	40
Luxury Import	60	40	20

**Risk ranking includes the driver risk and risk to other drivers per million vehicles sold 1997-1999*

GAO Agrees: No Safety Compromise from Fuel Economy

- “Despite potential safety concerns associated with a rapid increase in CAFE standards, there is general agreement that any negative safety effects of higher CAFE standards could be mitigated with appropriate automotive design, adequate time, and technical changes.”
 - U.S. General Accounting Office, *Automobile Fuel Economy: Potential Effects of Increasing the Corporate Average Fuel Economy Standards*, August 2000, p. 18.

• Safety Concerns Should Prompt Safety Solutions

- If concerns over fuel economy and safety persist, Congress should transform these into a win-win for both safety and fuel economy by upgrading vehicle safety standards and fuel economy at the same time.
- Any reductions in weight would occur in the heaviest vehicles, which reduces aggressivity.
- Redesign cost structures also make it cheaper to improve both at the same time.

SUVs Need Rollover Crash Standards

Congress should:

- **Require NHTSA action and issuance of a final rule on a rollover crashworthiness standard that includes:**
 - **Improved roof crush strength and added roof padding;**
 - **Stronger windshield bonding;**
 - **Better door locks and latches to prevent ejection;**
 - **Installation of side air bags;**
 - **Integrated seating systems with stronger seat backs and tracks and seat belt pretensioners and load-limiters;**
 - **Advanced head restraints.**
- **Require NHTSA action and issuance of a final rule on a crash avoidance standard to prevent rollover.**

SUVs Need Aggressivity Reduction Standards

Congress should:

- **Require NHTSA to improve vehicle compatibility by reducing the aggressivity of larger vehicles, while improving the front and side impact protection of occupants of small and mid-sized passenger vehicles.**
- **Require NHTSA to develop countermeasures for large vans, pickup trucks and SUVs to ensure better management and distribution of crash forces.**
- **Give NHTSA better funding for crash databases to collect real-world evidence of vehicle incompatibilities.**

The SUV That Could Be

Using Available Safety and Fuel Economy Technology

