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AUTOMOTIVE FUEL ECONOMY PROGRAM

ANNUAL UPDATE

CALENDAR YEAR 2001

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SECTION I: INTRODUCTION

The Automotive Fuel Economy Program Annual Update summarizes the fuel economy performance of the vehicle fleet and the activities of the National Highway Traffic Safety Administration (NHTSA) during 2001. Included in this report is a section summarizing rulemaking activities during 2001.

The Secretary of Transportation is required to administer a program for regulating the fuel economy of new passenger cars and light trucks in the United States market. The authority to administer the program was delegated by the Secretary to the Administrator of NHTSA, 49 C.F.R. 1.50(f).

NHTSA's responsibilities in the fuel economy area include:

- (1) establishing and amending average fuel economy standards for manufacturers of passenger cars and light trucks, as necessary;
- (2) promulgating regulations concerning procedures, definitions, and reports necessary to support the fuel economy standards;
- (3) considering petitions for exemption from established fuel economy standards by low volume manufacturers (those producing fewer than 10,000 passenger cars annually worldwide) and establishing alternative standards for them;
- (4) enforcing fuel economy standards and regulations; and
- (5) responding to petitions concerning domestic production by foreign manufacturers, and other matters.

Passenger car fuel economy standards were established by Congress for Model Year (MY) 1985 and thereafter at a level of 27.5 miles per gallon (mpg). NHTSA is authorized to amend the standard above or below that level. The agency has established light truck standards each year, but Congress mandated through the DOT Appropriations Acts for fiscal years 1996 through 2001, no increase from the MY 1996 value of 20.7 mpg for MYs 1998 through 2003. The Congressional freeze on CAFE was repealed in mid-December 2001. All fuel economy standards through MY 2003 are listed in Table I-1.

Corporate Average Fuel Economy (CAFE) is the sales weighted average fuel economy, expressed in mpg, of a manufacturer's fleet of passenger cars or light trucks with a gross vehicle weight rating (GVWR) of 8,500 lbs. or less, manufactured for sale in the United States, for any given model year. Fuel economy is defined as the average mileage traveled by an automobile per gallon of gasoline (or equivalent amount of other fuel) consumed as measured in accordance with the testing and evaluation protocol set forth by Environmental Protection Agency (EPA).

Manufacturers perform their own fuel economy tests of new car models and submit the results to EPA. EPA is responsible for conducting its own tests or verifying the manufacturers' dynamometer tests. EPA also is responsible for compiling the production data from manufacturers' reports and furnishing CAFE results to NHTSA.

Fuel economy test data from the manufacturers and EPA serves as the starting point for both CAFE values and real world fuel economy projections. For CAFE, the test data is adjusted

upward to account for any credits for dual fuel and dedicated alternative fuel vehicles, and for passenger cars only, is also adjusted upward for credits available to manufacturers to account for test procedure changes since the CAFE program was established.

The Federal government provides real world fuel economy projections to consumers in several ways: on new vehicle labels, in the *Fuel Economy Guide*, and on EPA and Department of Energy (DOE) websites. The *Fuel Economy Guide* is published and distributed by DOE based on EPA data. The *Fuel Economy Guide* lists the city and highway fuel economy estimates that are included on the Fuel Economy label on new vehicles. A downloadable version of the *Fuel Economy Guide* can be found at www.fueleconomy.gov. These estimates are derived from the same dynamometer test values used for CAFE calculation, mentioned above. EPA adjusts these laboratory test results to account for the difference between controlled laboratory conditions and actual driving on the road. The laboratory fuel economy results are adjusted downward to derive the estimates in the *Fuel Economy Guide* and on new passenger cars and light trucks labels. The city test value is lowered by 10 percent and the highway test value is reduced by 22 percent. Thus, the city and highway fuel economy estimates used to calculate CAFE differ from the numbers in the *Fuel Economy Guide* and on the new car and light truck window labels.

Table I-1

Fuel Economy Standards for Passenger Cars and Light Trucks Model Years 1978 through 2003 (in MPG)				
Model Year	Passenger Cars	Light Trucks ⁽¹⁾		
		Two-wheel Drive	Four-wheel Drive	Combined ^{(2), (3)}
1978	18.0 ⁽⁴⁾
1979	19.0 ⁽⁴⁾	17.2	15.8	...
1980	20.0 ⁽⁴⁾	16.0	14.0	... ⁽⁵⁾
1981	22.0	16.7 ⁽⁶⁾	15.0	... ⁽⁵⁾
1982	24.0	18.0	16.0	17.5
1983	26.0	19.5	17.5	19.0
1984	27.0	20.3	18.5	20.0
1985	27.5 ⁽⁴⁾	19.7 ⁽⁷⁾	18.9 ⁽⁷⁾	19.5 ⁽⁷⁾
1986	26.0 ⁽⁸⁾	20.5	19.5	20.0
1987	26.0 ⁽⁹⁾	21.0	19.5	20.5
1988	26.0 ⁽⁹⁾	21.0	19.5	20.5
1989	26.5 ⁽¹⁰⁾	21.5	19.0	20.5
1990	27.5 ⁽⁴⁾	20.5	19.0	20.0
1991	27.5 ⁽⁴⁾	20.7	19.1	20.2
1992	27.5 ⁽⁴⁾	20.2
1993	27.5 ⁽⁴⁾	20.4
1994	27.5 ⁽⁴⁾	20.5
1995	27.5 ⁽⁴⁾	20.6
1996	27.5 ⁽⁴⁾	20.7
1997	27.5 ⁽⁴⁾	20.7
1998	27.5 ⁽⁴⁾	20.7
1999	27.5 ⁽⁴⁾	20.7
2000	27.5 ⁽⁴⁾	20.7
2001	27.5 ⁽⁴⁾	20.7
2002	27.5 ⁽⁴⁾	20.7
2003	27.5 ⁽⁴⁾	20.7

- Standards for MY 1979 light trucks were established for vehicles with a gross vehicle weight rating (GVWR) of 6,000 pounds or less. Standards for MY 1980 and beyond are for light trucks with a GVWR of 8,500 pounds or less.
- For MY 1979, light truck manufacturers could comply separately with standards for four-wheel drive, general utility vehicles and all other light trucks, or combine their trucks into a single fleet and comply with the standard of 17.2 mpg.
- For MYs 1982-1991, manufacturers could comply with the two-wheel and four-wheel drive standards or could combine all light trucks and comply with the combined standard.
- Established by Congress in Title V of the Motor Vehicle Information and Cost Savings Act.
- A manufacturer whose light truck fleet was powered exclusively by basic engines which were not also used in passenger cars could meet standards of 14 mpg and 14.5 mpg in MYs 1980 and 1981, respectively.
- Revised in June 1979 from 18.0 mpg.
- Revised in October 1984 from 21.6 mpg for two-wheel drive, 19.0 mpg for four-wheel drive, and 21.0 mpg for combined.
- Revised in October 1985 from 27.5 mpg.
- Revised in October 1986 from 27.5 mpg.
- Revised in September 1988 from 27.5 mpg.

SECTION II: VEHICLE FUEL ECONOMY PERFORMANCE AND CHARACTERISTICS

A. FUEL ECONOMY PERFORMANCE BY MANUFACTURER

The fuel economy performance for domestic and foreign-based manufacturers in MY 2001 were updated to include final EPA calculations, where available, since the publication of the Automotive Fuel Economy Program, Annual Update Calendar Year 2000. These fuel economy levels and current projected data for MY 2001 are listed in Tables II-1 and II-2.

Overall CAFE_f for passenger cars was 28.6 mpg in MY 2001, an increase of 0.1 mpg from the MY 2000 level. For MY 2001, CAFE values increased above MY 2000 levels for 12 of 22 passenger car manufacturers' fleets. (See Table II-1.) These 12 companies accounted for more than 66 percent of the total MY 2001 passenger cars production. Manufacturers continued to introduce new technologies and more fuel-efficient models, and some larger, heavier, or more powerful less fuel-efficient models. For MY 2001, the overall domestic manufacturers' passenger car fleet average CAFE_f was 28.8 mpg. For MY 2001, General Motors, Honda, and Toyota domestic passenger car CAFE values rose 0.2 mpg, 4.9 mpg, and 0.9 mpg, respectively, from their MY 2000 levels, while DaimlerChrysler, Ford, and Nissan domestic passenger car CAFE values fell 0.2 mpg, 0.8 mpg, and 0.4 mpg, respectively, from their MY 2000 level. Overall, the domestic manufacturers' combined MY 2001 CAFE increased 0.1 mpg above the MY 2000 level.

Table II-1

PASSENGER CAR FUEL ECONOMY PERFORMANCE BY MANUFACTURER MODEL YEARS 2000 AND 2001		
MANUFACTURER	MODEL YEAR CAFE (MPG)	
	2000	2001
DOMESTIC		
DaimlerChrysler*	27.9	27.7
Ford*	28.3	27.5
General Motors*	27.9	28.1
Honda.....	31.4	36.3
Nissan	28.1	27.7
Toyota.....	33.3	34.2
Sales Weighted Average (Domestic)	28.7	28.8
IMPORT		
BMW	24.8	25.1
Daewoo	28.6	29.7
DaimlerChrysler	25.3	27.1
Fiat	13.6	13.7
Ford	27.4	27.8
General Motors.....	25.4	26.5
Honda	29.3	29.3
Hyundai	30.7	31.4
Kia	30.0	30.4
Lotus	20.7	20.6
Mitsubishi	29.4	...
Nissan	28.3	28.3
Porsche.....	24.3	24.2
Subaru.....	28.0	27.8
Suzuki	35.0	35.2
Toyota.....	28.9	28.9
Volkswagen	28.8	28.1
Sales Weighted Average (Import)	28.3	28.4
TOTAL FLEET AVERAGE	28.5	28.6
FUEL ECONOMY STANDARDS	27.5	27.5

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NOTE: In April 2000, DaimlerChrysler acquired a controlling 34 percent stake of Mitsubishi Motor Corporation. Starting with MY 2001, all Mitsubishi passenger cars are included in DaimlerChrysler's import passenger car fleet.

*DaimlerChrysler, Ford, and General Motors domestic passenger car fleets CAFE levels were 27.4 mpg, 27.2 mpg, and 28.0 mpg, respectively, for MY 2001. These manufacturers earned CAFE incentives for the sale of alternative fuel vehicles. These incentives raised their CAFE values to the figures shown above.

Table II-2

LIGHT TRUCK FUEL ECONOMY PERFORMANCE BY MANUFACTURER MODEL YEARS 2000 AND 2001		
MANUFACTURER	MODEL YEAR CAFE (MPG)	
	Combined	
	2000	2001
BMW	17.5	19.2
DaimlerChrysler*	21.4	20.7
Ford*	21.0	20.5
General Motors*	21.0	20.5
Honda	25.4	24.9
Hyundai .....	...	25.2
Isuzu	20.9	21.1
Kia	23.5	22.9
Land Rover	16.8	...
Mitsubishi	21.5	...
Nissan	20.8	20.7
Suzuki	23.0	22.0
Toyota	21.8	22.1
Volkswagen	18.9	20.5
TOTAL FLEET AVERAGE	21.3	20.9
FUEL ECONOMY STANDARDS	20.7	20.7

NOTES: In April 2000, DaimlerChrysler acquired a controlling 34 percent stake of Mitsubishi Motor Corporation. Starting with MY 2001, all Mitsubishi light trucks are included in DaimlerChrysler's light truck fleet.

In May 2000, Ford purchased Land Rover from BMW. Starting with MY 2001, all Land Rovers are included in Ford's light truck fleet.

The MY 2001 light truck CAFE for DaimlerChrysler, Ford, and General Motors light truck fleets were 19.9 mpg, 20.3 mpg, and 20.0 mpg, respectively. These manufacturers earned CAFE incentives for the sale of alternative fuel vehicles. These incentives raised their CAFE values to the figures shown above.

In MY 2001, Hyundai began importing light trucks to the United States.

In MY 2001, the fleet average CAFE for import passenger cars increased by 0.1 mpg above the MY 2000 CAFE level to 28.4 mpg. Nine of the 16 import car manufacturers increased their CAFE values between MYs 2000 and 2001. Figure II-1 illustrates the changes in total new passenger car fleet CAFE from MY 1978 to MY 2001.

The total light truck fleet CAFE decreased 0.4 mpg below the MY 2000 CAFE level of 21.3 mpg (see Table II-2). For MY 2001, CAFE values increased above MY 2000 values for four of 12 light truck manufacturers' fleets. These four companies accounted for 11.6 percent of the total MY 2001 light truck production. Figure II-2 illustrates the trends in total light truck fleet CAFE from MY 1979 to MY 2001.

Six passenger car (BMW, DaimlerChrysler import, Fiat, General Motors import, Lotus, and Porsche) and four light truck manufacturers (BMW, Ford, General Motors, and Volkswagen) are projected to fail to achieve the levels of the MY 2001 CAFE standards. Some MY 2001 CAFE values may change when final figures are provided to NHTSA by EPA in mid-2002. In addition, several manufacturers are not expected to pay civil penalties because the credits they earned by exceeding the fuel economy standards in earlier years offset later shortfalls. Other manufacturers may file carryback plans to demonstrate that they anticipate earning credits in future model years to offset current deficits.

Figure II-1

CAFÉ PERFORMANCE PASSENGER CARS

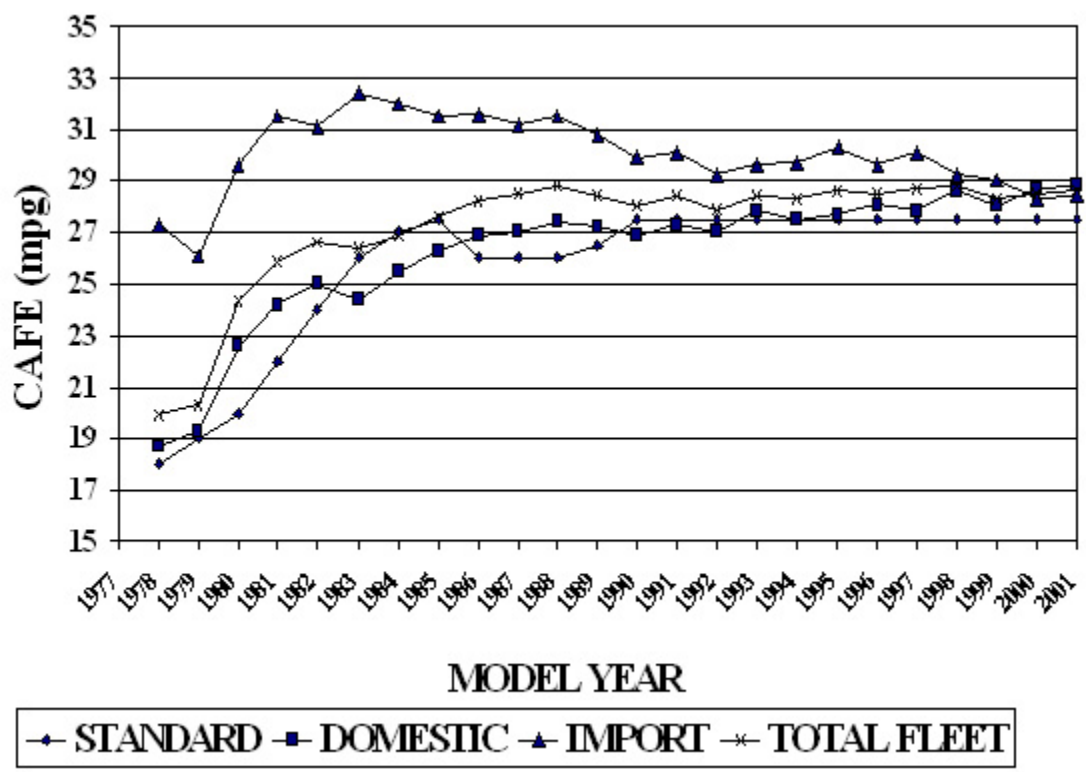
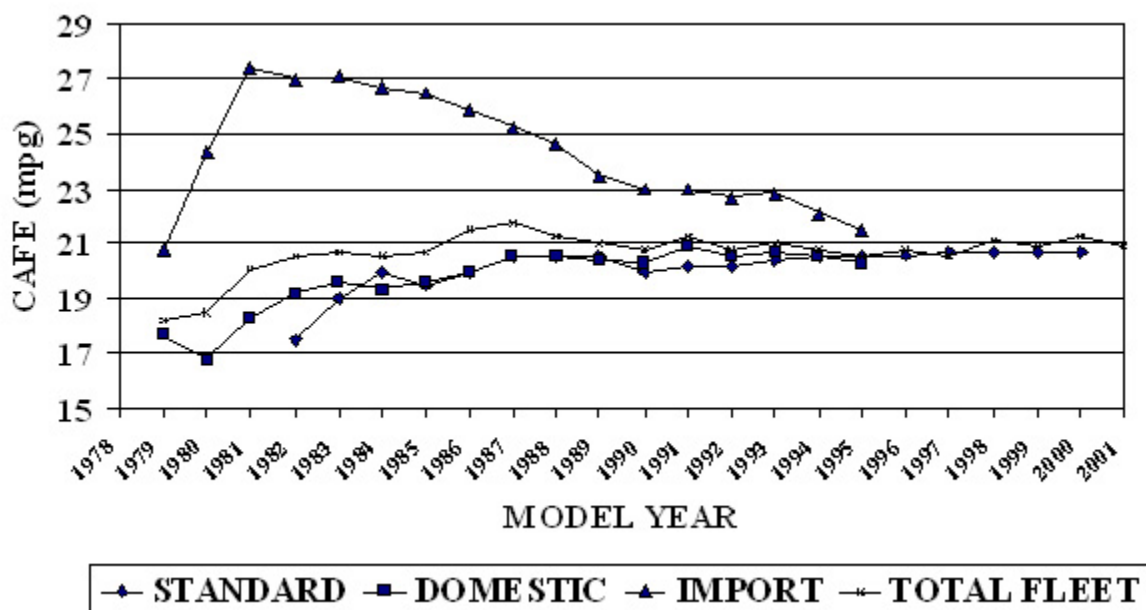


Figure II-2

CAFÉ PERFORMANCE LIGHT TRUCKS



CAFE levels may be impacted as a result of changes made to a manufacturer's vehicle fleet. Changes that occur such as corporate acquisitions, an increase or decrease in vehicle weights, manufacturer's use of materials like high- and medium-strength steel, plastic and plastic composites, or aluminum to build its vehicles, market-mix shifts due to changes in consumer demand, and the use of advanced technology may potentially impact CAFE levels.

B. Characteristics of the MY 2001 Passenger Car Fleet

The characteristics of the MY 2001 passenger car fleet reflect a continuing trend toward satisfying consumer demand for larger cars. (See Table II-3.) Compared with MY 2000, the average curb weight for MY 2001 increased by 12 pounds for the domestic fleet and 39 pounds for the import fleet. The average curb weight for the total fleet of passenger cars increased from 3,126 pounds in MY 2000 to 3,148 pounds in MY 2001, primarily because of the average curb weight increase for the import fleet. Average engine displacement decreased from 177 to 175 cubic inches for domestic passenger cars and increased from 148 to 150 cubic inches for import passenger cars from MY 2000 to MY 2001. From MY 2000 to MY 2001, horsepower/100 pounds, a measure of vehicle performance, decreased from 5.26 to 5.25 for domestic passenger cars and from 5.30 to 5.04 for import passenger cars. The total fleet average for passenger cars decreased from 5.27 horsepower/100 pounds in MY 2000 to 5.16 in MY 2001.

The 0.1 mpg CAFE improvement for the MY 2001 domestic passenger car fleet may be attributed in part to improved engine technology and the increased use of automatic transmissions with four or more speeds.

Table II-3

PASSENGER CAR FLEET CHARACTERISTICS FOR MYs 2000 AND 2001						
CHARACTERISTICS	TOTAL FLEET		DOMESTIC FLEET		IMPORT FLEET	
	2000	2001	2000	2001	2000	2001
Fleet Average Fuel Economy, mpg	28.5	28.6	28.7	28.8	28.3	28.4
Fleet Average Curb Weight, lbs.	3126	3148	3132	3144	3115	3154
Fleet Average Equivalent Test Weight, lbs.	3433	3446	3436	3438	3428	3457
Fleet Average Engine Displacement, cu. in.	167	165	177	175	148	150
Fleet Average Horsepower/Weight ratio, HP/100 lbs.	5.27	5.16	5.26	5.25	5.30	5.04
% of Fleet	100	100	64.8	59.4	35.2	40.6
Segmentation by EPA Size Class, %						
Two-Seater	1.7	1.5	1.1	0.7	2.7	2.6
Minicompact	0.4	1.0	0.0	0.0	1.1	2.5
Subcompact*	14.3	8.9	15.9	7.6	11.5	10.8
Compact*	33.3	39.5	31.6	39.6	36.6	39.3
Mid-Size*	35.5	32.1	29.4	24.7	46.5	42.9
Large*	14.8	17.0	22.0	27.4	1.6	1.9
Diesel Engines	0.2	0.3	0.0	0.0	0.7	0.7
Turbo or Supercharged Engines	6.0	6.2	4.4	4.0	9.1	9.4
Fuel Injection	100	100	100	100	100	100
Front-Wheel Drive	85.3	84.0	89.5	89.7	77.7	75.8
Automatic Transmissions	87.0	87.4	90.6	92.2	80.3	80.4
Automatic Transmissions with Lockup Clutches	99.8	99.3	99.9	99.6	99.7	98.8
Automatic Transmissions with Four or more Forward Speeds	93.4	95.5	90.3	93.2	99.9	99.3
% Electric	0.0	0.0	0.0	0.0	0.0	0.0

*Includes associated station wagons.

The size/class breakdown shows an increased trend primarily toward minicompact, compact, and large passenger cars with the reduction of two-seater, subcompact, and mid-size passenger cars for the overall fleet. The size/class mix in the domestic fleet showed an increase in compact and large passenger cars and a decrease in two-seater, subcompact, and mid-size passenger cars. The size/class mix in the import fleet showed an increase in minicompact, compact, and large passenger cars and a decrease in two-seater, subcompact, and mid-size passenger cars. The import share of the passenger car market increased by 5.4 percentage points in MY 2001.

The import fleet rose above its MY 2000 level in the share of turbocharged and supercharged engines. Diesel engines were offered on certain Mercedes and Volkswagen models during MY 2001. Although the share of diesel engines in the import fleet remained constant from MY 2000 to MY 2001, the overall diesel share rose due to the increased sales of import passenger cars in MY 2001.

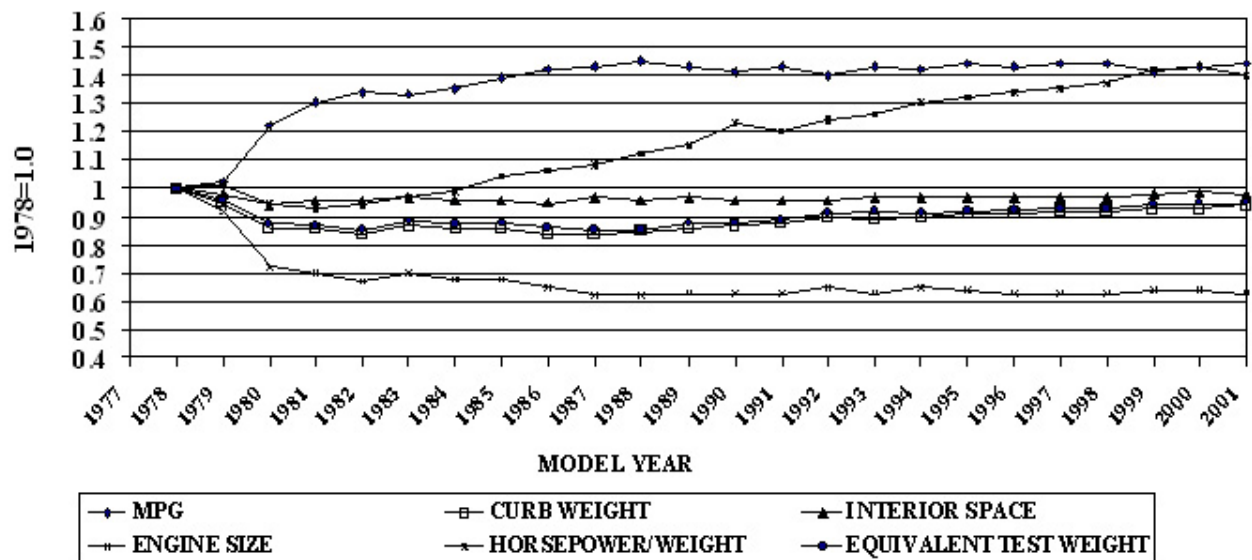
Passenger car fleet average characteristics have changed significantly since MY 1978 (the first year of fuel economy standards). (See Table II-4.) After substantial initial weight loss (from MY 1978 to MY 1982, the average passenger car fleet curb weight decreased from 3,349 to 2,808 pounds), the curb weight stabilized between 2,800 and 3,148 pounds. However, since MY 1993, the average passenger car fleet curb weight has steadily increased and has reached a level only exceeded by the initial two years of the CAFE program. Table II-4 shows that the MY 2001 passenger car fleet has nearly equal interior volume and more than 43 percent better CAFE than the MY 1978 fleet. (See Figure II-3.)

Table II-4

New Passenger Car Fleet Average Characteristics Model Years 1978-2001						
Model Year	Fuel Economy (mpg)	Curb Weight (lbs.)	Equivalent Test Weight (lbs.)	Interior Space (cu. ft.)	Engine Size (cu. in.)	Horsepower/Weight (hp/100 lb.)
1978	19.9	3349	3627	112	260	3.68
1979	20.3	3180	3481	110	238	3.72
1980	24.3	2867	3162	105	187	3.51
1981	25.9	2883	3154	108	182	3.43
1982	26.6	2808	3098	107	173	3.47
1983	26.4	2908	3204	109	182	3.57
1984	26.9	2878	3170	108	178	3.66
1985	27.6	2867	3177	108	177	3.84
1986	28.2	2821	3127	106	169	3.89
1987	28.5	2805	3100	109	162	3.98
1988	28.8	2831	3100	107	161	4.11
1989	28.4	2879	3181	109	163	4.24
1990	28.0	2908	3192	108	163	4.53
1991	28.4	2934	3228	108	164	4.42
1992	27.9	3007	3307	108	169	4.56
1993	28.4	2971	3328	109	164	4.62
1994	28.3	3011	3317	109	169	4.79
1995	28.6	3047	3335	109	166	4.87
1996	28.5	3047	3352	109	164	4.92
1997	28.7	3071	3364	109	164	4.95
1998	28.8	3075	3372	109	161	5.05
1999	28.3	3116	3418	110	166	5.21
2000	28.5	3126	3433	111	167	5.27
2001	28.6	3148	3446	110	165	5.16

Figure II-3

PASSENGER CAR FLEET AVERAGE CHARACTERISTICS



C. Characteristics of the MY 2001 Light Truck Fleet

The characteristics of the MY 2001 light truck fleet are shown in Table II-5. Unlike passenger cars, light truck manufacturers are not required to divide their fleets into domestic and import fleets. For comparison purposes, Table II-5 subdivides the light truck fleet into two-wheel drive and four-wheel drive classifications.

The MY 2001 average equivalent test weight of the total light truck fleet decreased by 9 pounds over that for MY 2000. The average CAFE of the fleet decreased by 0.4 mpg to 20.9 mpg. Diesel engine usage remained stable in light trucks at 0.06 percent in MY 2001. The share of the MY 2001 two-wheel drive fleet decreased by 0.5 percentage points below the MY 2000 level of 57.5 percent; thus the share of the MY 2001 four-wheel drive fleet increased by 0.5 percentage points above the MY 2000 level of 42.5 percent.

CAFE levels increased from 18.5 mpg in MY 1980 to 21.7 mpg in MY 1987, before declining to 20.9 mpg in MY 2001, influenced by an increase in performance and weight. Light truck production increased from 1.9 million units in MY 1980 to 7.3 million units in MY 2001. Light trucks comprised 47 percent of the total light duty vehicle fleet production in MY 2001, nearly 2.8 times more than its share in MY 1980.

The size/class breakdown shows an increased trend primarily toward large pickup and special purpose (both two-wheel drive and four-wheel drive) vehicles, with a reduction of passenger vans, cargo vans, and small pickups for the overall fleet. The size/class mix in the two-wheel drive showed an increase in large pickup and special purpose vehicles and a decrease in passenger vans, cargo vans, and small pickups. The size/class mix in the four-wheel drive showed an increase in large pickup and special purpose vehicles and a decrease in passenger van and cargo van vehicles.

Table II-5

LIGHT TRUCK FLEET CHARACTERISTICS FOR MYs 2000 AND 2001						
CHARACTERISTICS	TOTAL FLEET		Two-wheel Drive		Four-wheel Drive	
	2000	2001	2000	2001	2000	2001
Fleet Average Fuel Economy, mpg	21.3	20.9	22.7	22.1	19.5	19.3
Fleet Average Equivalent Test Weight, lbs.	4510	4501	4349	4328	4728	4737
Fleet Average Engine Displacement, cu. in.	244	242	231	232	263	255
Fleet Average Horsepower/ Weight ratio, HP/100 lbs.	4.31	4.37	4.20	4.45	4.24	4.26
% of Fleet	100	100	57.5	57.0	42.5	43.0
% of Fleet from Foreign-based Manufacturers	19.6	22.9	18.0	18.5	20.1	28.8
Segmentation by Type, %						
Passenger Van	17.8	13.9	30.1	23.8	1.3	0.9
Cargo Van	2.8	1.8	4.7	3.1	0.2	0.1
Small Pickup	3.5	2.5	6.0	4.0	0.0	0.0
Large Pickup						
Two-Wheel Drive	18.7	19.8	32.5	34.7	0.0	0.0
Four-Wheel Drive	13.9	14.0	0.0	0.0	32.7	33.1
Special Purpose						
Two-Wheel Drive	15.3	19.5	26.7	34.3	0.0	0.0
Four-Wheel Drive	28.0	28.3	0.0	0.0	65.8	65.9
Diesel Engines	0.06	0.06	0.1	0.0	0.0	0.13
Turbo/Supercharged Engines	1.5	0.4	0.1	0.0	3.4	0.9
Fuel Injection	100	100	100	100	100	100
Automatic Transmissions	91.8	93.5	91.1	92.8	92.7	94.5
Automatic Transmissions with Lockup Clutches	99.7	99.7	99.5	99.4	100	100
Automatic Transmissions with Four or More Forward Speeds	98.3	99.0	98.0	99.0	98.7	99.0
% Electric	0.01	0.003	0.02	0.005	0.00	0.00

D. Passenger Car and Light Truck Fleet Economy Averages

Passenger car CAFE increased substantially between 1978 and 1988, from 19.9 mpg to 28.8 mpg, but has remained relatively constant since (see Figure II-4 and Table II-6). Light truck CAFE increased from 18.5 mpg in 1980 to a high of 21.7 mpg in 1987. Since 1987, the light truck average has never been greater than 21.3 mpg.

Figure II-4 illustrates an increase in the light duty fleet (combined passenger cars and light trucks) average CAFE through MY 1987, followed by a gradual decline. (Also, see Table II-6.) The shift to light trucks for general transportation has had a significant effect on fuel consumption, and may continue to do so in the future if sales of light trucks remain relatively constant or increase. In fact, due largely to the increasing proportion of light trucks in the fleet, the overall light vehicle fleet CAFE average of 24.4 mpg in MY 2001 was the lowest since MY 1980.

Figure II-4

CAFÉ PERFORMANCE TOTAL FLEET

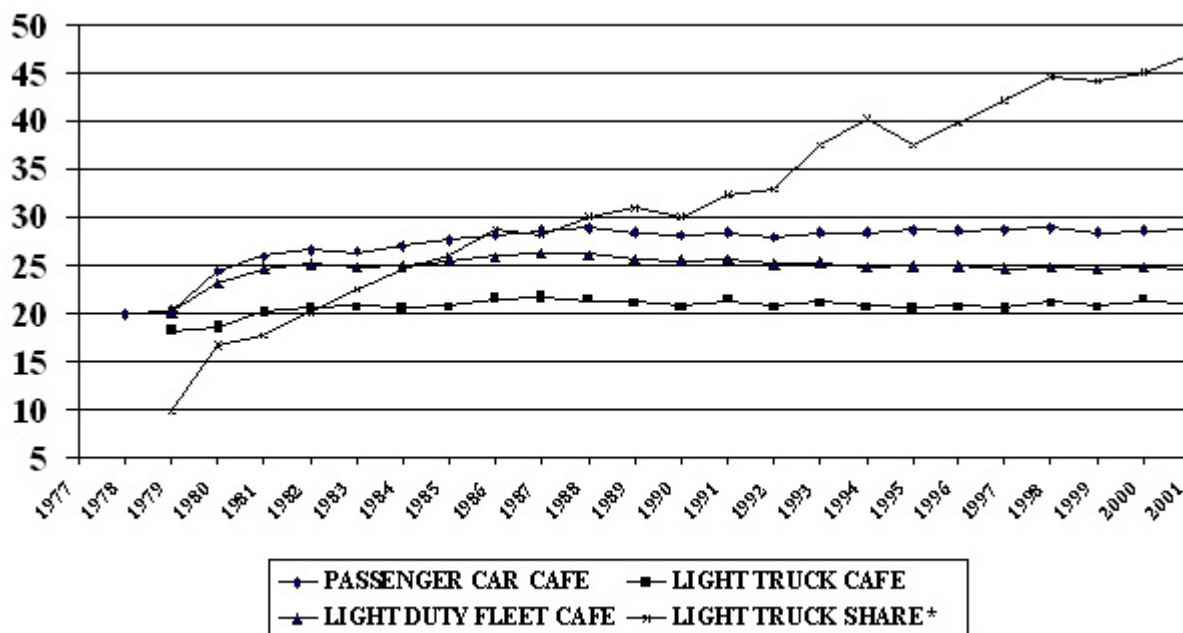


Table II-6

DOMESTIC AND IMPORT PASSENGER CAR AND LIGHT TRUCK FUEL ECONOMY AVERAGES FOR MODEL YEARS 1978-2001 (in MPG)										
Model Year	Domestic			Import			All Cars	All Light Trucks	Total Fleet	Light Truck Share of Fleet (%)
	Car	Light Truck	Combined	Car	Light Truck*	Combined				
1978	18.7	...	...	27.3	...	...	19.9	...	...	...
1979	19.3	17.7	19.1	26.1	20.8	25.5	20.3	18.2	20.1	9.8
1980	22.6	16.8	21.4	29.6	24.3	28.6	24.3	18.5	23.1	16.7
1981	24.2	18.3	22.9	31.5	27.4	30.7	25.9	20.1	24.6	17.6
1982	25.0	19.2	23.5	31.1	27.0	30.4	26.6	20.5	25.1	20.1
1983	24.4	19.6	23.0	32.4	27.1	31.5	26.4	20.7	24.8	22.5
1984	25.5	19.3	23.6	32.0	26.7	30.6	26.9	20.6	25.0	24.4
1985	26.3	19.6	24.0	31.5	26.5	30.3	27.6	20.7	25.4	25.9
1986	26.9	20.0	24.4	31.6	25.9	29.8	28.2	21.5	25.9	28.6
1987	27.0	20.5	24.6	31.2	25.2	29.6	28.5	21.7	26.2	28.1
1988	27.4	20.6	24.5	31.5	24.6	30.0	28.8	21.3	26.0	30.1
1989	27.2	20.4	24.2	30.8	23.5	29.2	28.4	21.0	25.6	30.8
1990	26.9	20.3	23.9	29.9	23.0	28.5	28.0	20.8	25.4	30.1
1991	27.3	20.9	24.4	30.1	23.0	28.4	28.4	21.3	25.6	32.2
1992	27.0	20.5	23.8	29.2	22.7	27.9	27.9	20.8	25.1	32.9
1993	27.8	20.7	24.2	29.6	22.8	28.1	28.4	21.0	25.2	37.4
1994	27.5	20.5	23.5	29.7	22.0	27.8	28.3	20.8	24.7	40.2
1995	27.7	20.3	23.8	30.3	21.5	27.9	28.6	20.5	24.9	37.4
1996	28.1	20.5	24.1	29.6	22.2	27.7	28.5	20.8	24.9	39.7
1997	27.8	20.2	23.3	30.1	22.1	27.5	28.7	20.6	24.6	42.1
1998	28.6	20.5	23.3	29.2	22.9	27.6	28.8	21.1	24.7	44.5
1999	28.0	...	...	29.0	...	...	28.3	20.9	24.5	44.0
2000	28.7	...	...	28.3	...	...	28.5	21.3	24.8	44.6
2001	28.8	...	...	28.4	...	...	28.6	20.9	24.4	46.7

*Light trucks from foreign-based manufacturers. NOTE: Beginning with MY 1999, the agency ceased categorizing the total light truck fleet by either domestic or import fleets.

E. Domestic and Import Fleet Fuel Economy Averages

Domestic and import passenger car fleet average CAFE values have improved since MY 1978, although the increase is far more dramatic for the domestic fleet. In MY 2001, the domestic passenger car fleet average CAFE improved to an all-time high of 28.8 mpg. The import passenger car fleet average CAFE was 28.4 mpg, which is the fourth lowest level since CAFE inception. Compared with MY 1978, this reflects an increase of 10.1 mpg for domestic cars and 1.1 mpg for import cars.

The disparity between the average CAFEs of the import and domestic manufacturers has declined in recent years as domestic manufacturers have maintained relatively stable CAFE values and vehicle offerings, while the import manufacturers have introduced new vehicle offerings that feature larger passenger cars and light trucks to the market.

SECTION III: 2001 ACTIVITIES

A. Light Truck CAFE Standards

On April 2, 2001, NHTSA published a final rule establishing a combined standard of 20.7 mpg for light trucks for MY 2003 (66 FR 17513). The Department of Transportation and Related Agencies Appropriations Act for Fiscal Year 2001 (Pub. L. 106-346) precluded the agency from setting the MY 2003 standard at a level other than the level set for MY 2002. On December 18, 2001, Congress repealed the freeze on CAFE standards.

B. Low Volume Petitions

49 U.S.C. 32902(d) provides that a low volume manufacturer of passenger cars may be exempted from the generally applicable passenger car fuel economy standards if these standards are more stringent than the maximum feasible average fuel economy for that manufacturer and if NHTSA establishes an alternative standard for that manufacturer at its maximum feasible level. A low volume manufacturer is one that manufactured fewer than 10,000 passenger cars worldwide, in the model year for which the exemption is sought (the affected model year) and in the second model year preceding that model year. In 2001, NHTSA did not act on any low volume petitions.

C. Enforcement

49 U.S.C. 32912(b) imposes a civil penalty of \$5.50 for each tenth of a mpg by which a manufacturer's CAFE level falls short of the standard, multiplied by the total number of passenger automobiles or light trucks produced by the manufacturer in that model year. Credits earned for exceeding the standard in any of the three model years immediately prior to or subsequent to the model years in question can be used to offset the penalty.

Table III-1 shows CAFE fines paid by manufacturers in calendar year 2001. In calendar year 2001, manufacturers paid civil penalties totaling \$33,407,132 for failing to comply with the CAFE standards of 27.5 mpg for passenger cars and 20.7 mpg for light trucks in MYs 1999 and 2000.

Table III-1			
CAFE FINES COLLECTED DURING CALENDAR YEAR 2001			
Model Year	Manufacturer	Amount Fined	Date Paid
1999	Volkswagen of America, Inc.	\$224,840	02/01
	Fiat Motors of North America	1,066,395	04/01
	Lotus Cars USA, Inc.	51,909	12/01
2000	BMW of North America ¹	26,408,646	06/01
	BMW of North America ²	971,696	06/01
	Porsche Cars North America, Inc.	3,720,816	06/01
	Volkswagen of America, Inc.	276,309	08/01
	Fiat Motors of North America	686,521	12/01

¹BMW passenger car fleet

²BMW light truck fleet

D. Carryback Plans

49 U.S.C. 32903 allows an automobile manufacturer to earn fuel economy credits during any model year in which the manufacturer's fleet exceeds the established CAFE standard. The amount of credits a manufacturer earns is determined by multiplying the number of tenths of a mile per gallon by which the average fuel economy of the manufacturer's fleet in the model year exceeds the standard by the total number of vehicles in the manufacturer's fleet for the model year.

Already earned CAFE credits are carried forward by the agency (with affected manufacturers given an opportunity to comment on the agency's allocation of credits), and distributed to any of the three succeeding model years in which the manufacturer's fleet falls below the CAFE standard. For example, credits earned in MY 1998 may be used to offset deficiencies in MYs 1999, 2000, and/or 2001. A manufacturer also may submit to the agency a carryback plan, which demonstrates that it will earn sufficient credits within the following three model years which can be allocated to offset penalties in the model year involved.

Ford submitted a carryback plan dated March 12, 2001 to the agency for its MY 1998 import passenger car fleet CAFE compliance, using credits earned in MY 1999 to offset its MY 1998 shortfall liability caused by Ford's acquisition of Volvo. Ford's carryback plan was approved July 25, 2001.

E. National Energy Policy

On May 17, 2001, the Energy Policy Development Group, led by Vice President Cheney, issued its National Energy Policy. This report made recommendations to President Bush regarding the path that the administration's energy policy should take and included specific recommendations regarding vehicle fuel economy and CAFE. The report recommends that the President direct the Secretary of Transportation to:

- Review and provide recommendations on establishing Corporate Average Fuel Economy (CAFE) standards with due consideration of the National Academy of Sciences study to be released in July 2001. Responsibly crafted CAFE standards should increase efficiency without negatively impacting the U.S. automotive industry. The determination of future fuel economy standards must therefore be addressed analytically and based on sound science.
- Consider passenger safety, economic concerns, and disparate impact on the U.S. versus foreign fleet of automobiles.
- Look at other market-based approaches to increasing the national average fuel economy of new motor vehicles.

F. The National Academy of Sciences Study

In the Department of Transportation Appropriations Act for fiscal year 2001, Congress requested that the National Academy of Sciences (NAS), in consultation with the Department of Transportation, conduct a study to evaluate the effectiveness and impacts of CAFE standards. The Department of Transportation developed the work statement with emphasis on the committee's (National Research Council's Committee on Impact and Effectiveness of Corporate Average Fuel Economy Standards) work directed toward recent

experience with CAFE standards, the impact of possible changes, and the stringency and/or structure of the CAFE program in future years. The committee documented its conclusions and recommendations in a written report titled, “Effectiveness and Impact of Corporate Average Fuel Economy (CAFE) Standards.” In July 2001, the report was delivered to Congress, as required by the congressional appropriations language.

