

Chapter 9

Fleet Vehicles and Characteristics

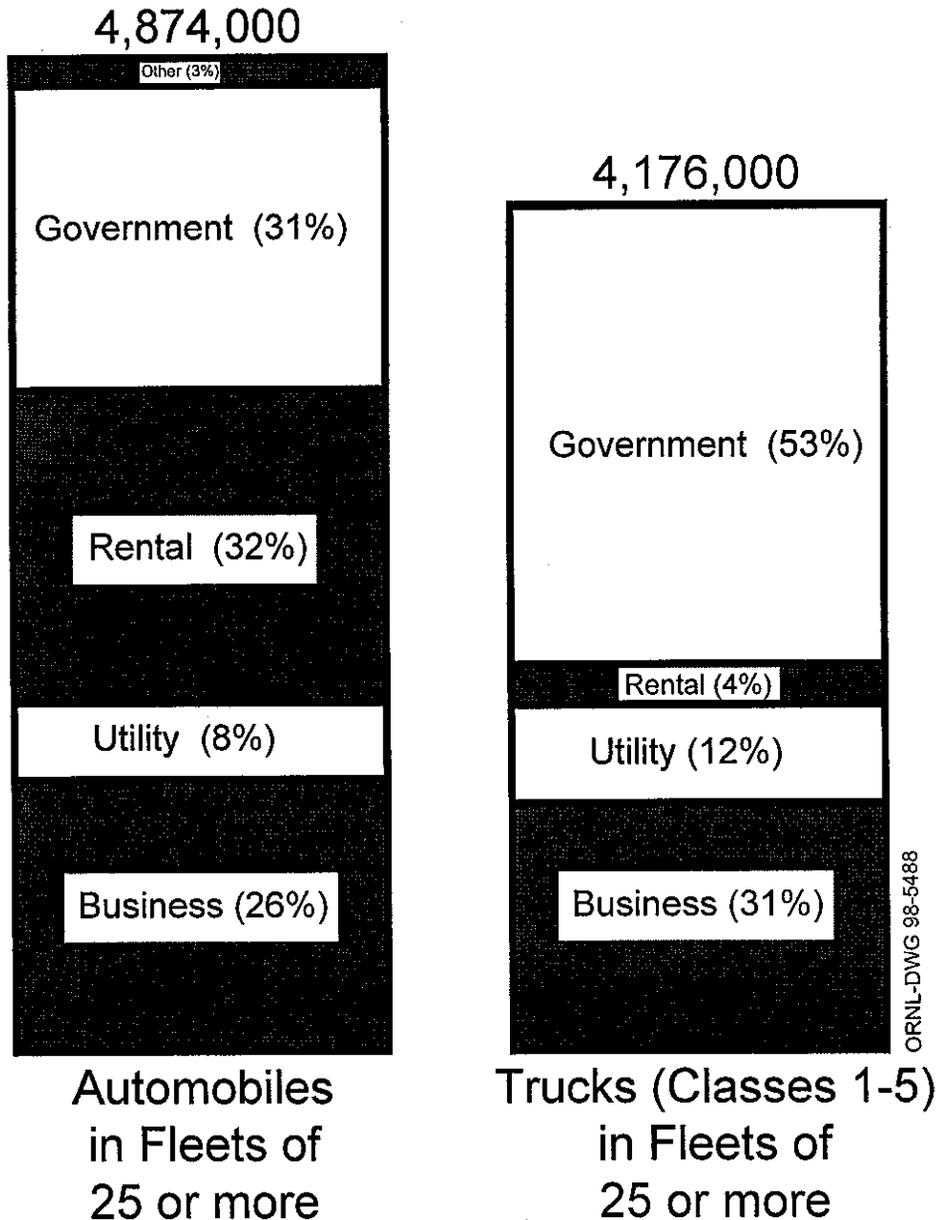
Summary Statistics

Table/Figure		
F 9.1	Fleet automobiles, 1997	4,874,000
F 9.1	Fleet Class 1-5 Trucks, 1997	4,176,000
T 9.3	Average annual miles per automobile	
	<i>Business fleets</i>	29,200
	<i>Utility fleets</i>	14,500
	<i>Government fleets</i>	13,700
T 9.4	Federal Government vehicles, FY 1996	550,373
	<i>Automobiles</i>	113,366
	<i>Buses</i>	6,376
	<i>Light trucks</i>	381,525
	<i>Medium trucks</i>	32,281
	<i>Heavy trucks</i>	16,825



Significant changes have been made in recent years to fleet vehicle estimations. Newly available data improve the accuracy of fleet vehicle estimates but, at the same time, make it impossible to compare the data historically. Therefore, only the 1997 data are presented here.

Figure 9.1. Fleet Vehicles in Service as of January 1, 1997



ORNL-DWG 98-5488

Source:

Bobit Publishing Company, Automotive Fleet Research Department, *Automotive Fleet Factbook 1997*, Redondo Beach, CA, 1997. (Additional resources: <http://www.fleet-central.com>)

Note:

Truck classes 1-5 are 19,500 lbs. and less.



Table 9.1
Fleet Vehicle Composition by Vehicle Type
(percent)

Fleet type	Cars	Light trucks ^a and vans	Medium trucks ^b	Heavy trucks ^c	Total
Business	24.2%	21.1%	45.8%	8.9%	100%
Utility	22.6%	39.0%	15.0%	23.4%	100%
Government	48.5%	42.8%	6.8%	1.8%	100%

Table 9.2
Average Length of Time Fleet Vehicles are Kept Before Sold to Others
(months)

	Business	Utility	Government
Cars	35	68	81
Light trucks ^a	56	60	82
Medium trucks ^b	83	86	96
Heavy trucks ^c	103	132	117

Table 9.3
Average Annual and Daily Vehicle-Miles of Travel for Fleet Vehicles

Vehicle type	Business		Utility		Government	
	Miles/year (thousands)	Miles/day @250 days/year	Miles/year (thousands)	Miles/day @250 days/year	Miles/year (thousands)	Miles/day @250 days/year
Cars	29.2	117	14.5	58	13.7	55
Light trucks ^a	26.6	106	17.5	70	13.9	56
Medium trucks ^b	17.5	70	11.8	47	11.9	48
Heavy trucks ^c	64.4	258	13.8	55	10.7	43

Source:

Miaou, S. P., et. al., *Fleet Vehicles in the United States: Composition, Operating Characteristics, and Fueling Practices*, (ORNL-6717), Oak Ridge National Laboratory, Oak Ridge, TN, May 1992.

(Additional resources: <http://www-cta.ornl.gov>)

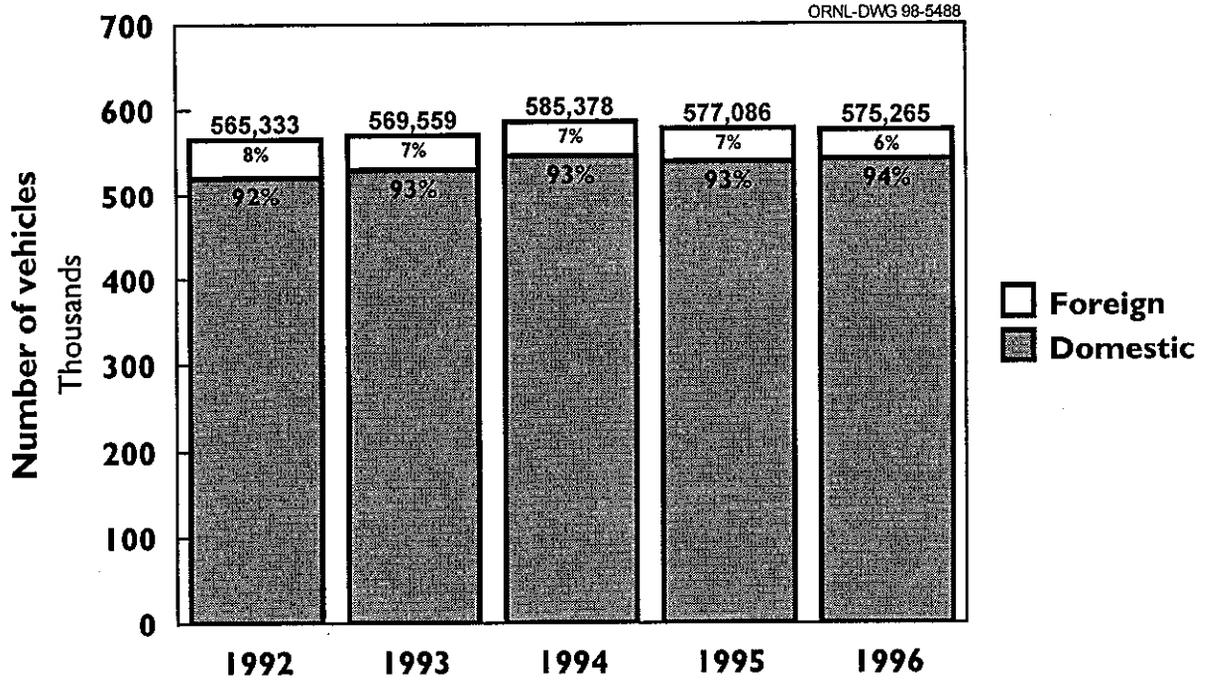
^aIn this study, light trucks are <8,500 lbs gross vehicle weight.

^bIn this study, medium trucks are between 8,500–26,000 lbs gross vehicle weight.

^cIn this study, heavy trucks are >26,000 lbs gross vehicle weight.



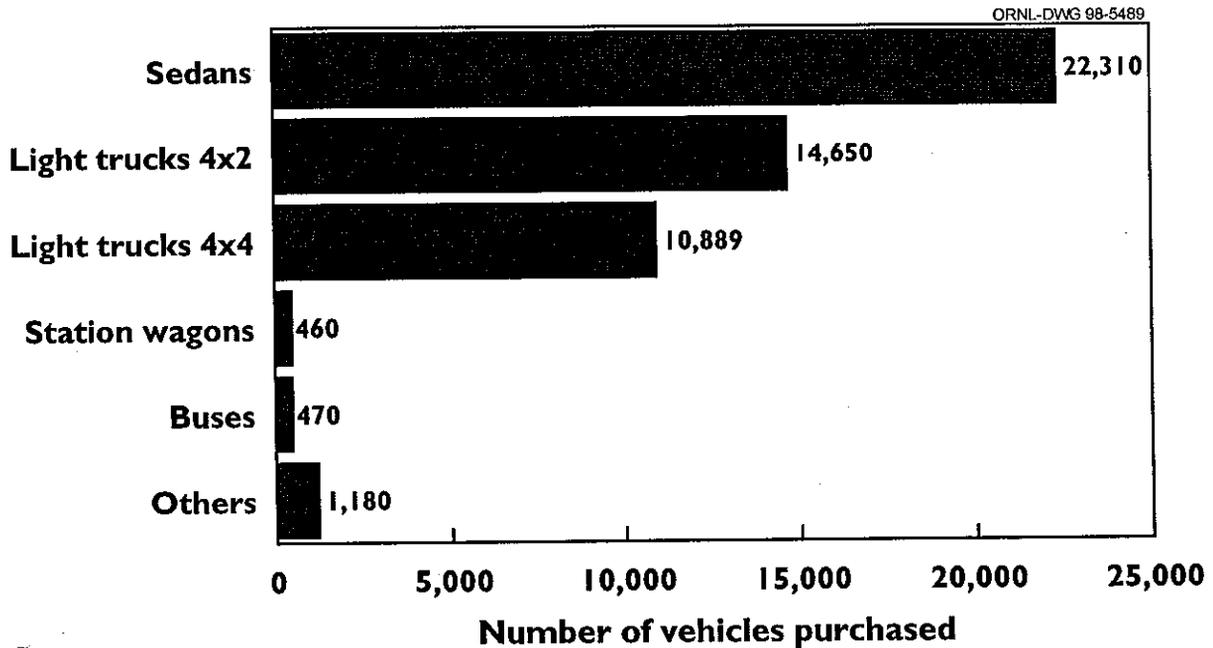
Figure 9.2. Worldwide Federal Inventory, 1991-96



Source:

U.S. General Services Administrations, Federal Supply Service, Federal Motor Fleet Report, Washington, DC, 1998. (Additional resources: <http://policyworks.gov/main/mt/homepage/mtv/mtvhp.htm>)

Figure 9.3. Federal Vehicle Purchases by Vehicle Type, 1996



Source:

U.S. General Services Administrations, Federal Supply Service, Federal Motor Fleet Report, Washington, DC, 1998. (Additional resources: <http://policyworks.gov/main/mt/homepage/mtv/mtvhp.htm>)



Table 9.4
Federal Government Vehicles by Agency, Fiscal Year 1996^a

Department or Agency	Autos	Buses	Light trucks ^b	Medium trucks ^c	Heavy trucks ^d	Total
Department of Agriculture	3,292	91	24,477	5,280	601	33,741
Department of Commerce	133	2	399	205	29	768
Department of Education	1	0	1	0	0	2
Department of Energy	807	209	3,447	1,001	402	5,866
Department of Health & Human	84	8	300	113	54	559
Department of Housing & Urban Dev.	3	0	1	0	0	4
Department of Justice	19,473	294	10,152	1,239	0	31,158
Department of Labor	19	1	151	14	3	188
Department of State	112	0	63	3	8	186
Department of Interior	1,553	126	9,605	4,283	1,911	17,478
Department of Treasury	11,148	21	3,661	388	26	15,244
Department of Transportation	42	17	385	80	38	562
Department of Veterans Affairs	452	122	1,152	223	102	2,051
Environmental Protection Agency	108	0	262	193	2	565
Federal Communications Comm	62	0	62	2	0	126
Federal Emergency Mgmt Agency	28	5	261	25	0	319
General Services Administration	53,127	2,856	87,983	3,635	3,745	151,346
Natl Aeronautics & Space Admin.	92	18	636	237	52	1,035
Small Business Administration	137	0	0	0	0	137
Tennessee Valley Authority	1,535	2	1,125	1,067	232	3,961
Others	91	17	540	79	38	765
CIVILIAN AGENCIES	92,299	3,789	144,663	18,067	7,243	266,061
U.S. POSTAL SERVICE	10,708	11	176,888	8,179	4,874	200,660
Department of the Air Force	3,582	1,342	25,896	2,242	1,688	34,750
Department of the Army	414	102	1,209	418	255	2,398
Department of the Navy	3,424	733	24,393	1,999	2,124	32,673
Other Defense Agencies	2,056	3	639	78	98	2,874
Corps of Engineers	268	4	3,342	697	221	4,532
U.S. Marine Corps	615	392	4,495	601	322	6,425
MILITARY AGENCIES	10,359	2,576	59,974	6,035	4,708	83,652
TOTAL	113,366	6,376	381,525	32,281	16,825	550,373

Source:

U.S. General Services Administration, Federal Supply Service, *Federal Motor Fleet Report*, Washington, DC, 1998.
(Additional resources: <http://policyworks.gov/org/main/mt/homepage/mtv/mtvhp.htm>)

^a Federally-owned and commercially-leased vehicles.

^b Less than 8,500 lbs GVWR. Includes ambulances.

^c 8,501–23,999 lbs GVWR.

^d 24,000 lbs. Or more GVWR.



Table 9.5
Operating and Cost Data for Large Domestic Federal Fleets, 1986-96^a

Fiscal year	Number of vehicles	Miles operated (thousands)	Average annual miles per vehicle	Fleet average cost per mile (dollars)
Sedans				
1986	86,069	1,130,843	13,139	\$0.21
1987	89,894	1,069,124	11,893	\$0.20
1988	85,928	1,119,343	13,027	\$0.19
1989	90,254	1,170,370	12,968	\$0.20
1990	93,510	1,226,674	13,118	\$0.22
1991	98,259	1,297,651	13,206	\$0.23
1992	97,680	1,261,954	12,940	\$0.20
1993	98,144	1,251,348	12,750	\$0.23
1994	96,386	1,216,385	12,620	\$0.18
1995	97,777	1,214,877	12,425	\$0.21
1996	97,588	1,214,579	12,446	\$0.23
Trucks				
1986	292,256	2,095,079	7,168	\$0.43
1987	303,275	2,195,017	8,238	\$0.45
1988	316,443	2,242,075	7,085	\$0.44
1989	336,617	2,292,593	6,811	\$0.43
1990	354,392	2,423,131	6,837	\$0.44
1991	366,471	2,498,190	6,818	\$0.45
1992	381,721	2,645,979	6,932	\$0.40
1993	392,796	2,627,759	6,690	\$0.41
1994	400,564	2,659,631	6,640	\$0.40
1995	413,328	2,754,750	6,665	\$0.37
1996	413,704	2,713,467	6,566	\$0.44
All Vehicles^b				
1986	403,855	3,477,730	8,611	\$0.36
1987	414,575	3,461,332	8,349	\$0.37
1988	424,286	3,576,421	8,429	\$0.36
1989	448,836	3,681,314	8,202	\$0.35
1990	467,678	3,855,984	8,245	\$0.38
1991	484,552	3,984,175	8,222	\$0.38
1992	495,257	4,061,255	8,200	\$0.35
1993	504,877	4,010,354	7,943	\$0.36
1994	509,483	3,995,161	7,842	\$0.34
1995	522,959	4,076,990	7,796	\$0.34
1996	523,600	4,032,247	7,701	\$0.38

Source:

U.S. General Services Administrations, Federal Supply Service, *Federal Motor Fleet Report*, Washington, DC, 1998. (Additional resources: <http://policyworks.gov/main/mt/homepage/mtv/mtvhp.htm>)

^aAgencies or bureaus with 2,000 or more vehicles.

^bIncludes sedans, station wagons, ambulances, buses, and all trucks.



The Energy Policy Act of 1992 (EPACT) set alternative fuel vehicle purchase requirements for Federal and State Governments, fuel providers and the private sector. Additional rule making has adjusted the original purchase requirements. State government and fuel providers requirements begin in 1997.

Table 9.6
Energy Policy Act Purchase Requirements of Light-Duty Alternative Fuel Vehicles

Year	Federal	State	Fuel providers	Private ^a
1993	5,000	-	-	-
1994	7,500	-	-	-
1995	10,000	-	-	-
1996	25%	-	-	-
1997	33%	10%	30%	-
1998	50%	15%	50%	-
1999	75%	25%	70%	-
2000	75%	50%	90%	-
2001	75%	75%	90%	-
2002	75%	75%	90%	20%
2003	75%	75%	90%	40%
2004	75%	75%	90%	60%
2005	75%	75%	90%	70%
2006-on	75%	75%	90%	70%

Source:

Final rule for the alternative fuels transportation programs, *Federal Register*, Vol. 61, p. 10622, March 14, 1996.

Private alternative fueled vehicle acquisition requirements for private and local government fleets, *Federal Register*, vol. 62, p. 19701, April 23, 1997.

Note:

The Department of Energy has provided an Alternative Fuel Vehicles Acquisitions and Credits Database on the Internet to provide fleet managers with a convenient way to report their compliance with this mandate. (<http://www.ott.doe.gov/credits>)

^aAdditional rule making is required by January 1, 2000, for private AFV requirements to take effect.



"Section 501 of the Energy Policy Act mandates that certain percentages of new light-duty vehicles acquired by alternative fuel providers be alternative fuel vehicles (AFV). The first step in estimating the effects of these mandates entails identifying affected fleets that are covered by the Act. This assessment concludes that a limited number of companies in the methanol, ethanol, propane, and hydrogen industries are likely to be covered by this mandate. On the other hand, many of the large crude oil producers, petroleum refiners, natural gas producers and transporters, and natural gas and electric utilities are likely to be subject to this mandate."

Table 9.7
Summary of EPACT Section 501 Coverage by Industry, 1994

Fuel	Percentage of companies likely to be "covered"	Estimated number of light-duty vehicles "covered"	Current AFV percentage of total "covered" light-duty vehicles
Methanol	10%	60	0%
Ethanol	0%	0	0%
Natural gas	23%	73,000 ^a	20%
Propane ^b	8%	420	78%
Electricity	5%	59,000	2%
Petroleum ^c	30%	11,000	0.4%
Hydrogen	0%	0	0%

Source:

P. Hu, M. Wang, A. Vyas, M. Mintz, and S. Davis, *Transportation Research Record No. 1520*, Washington, DC, 1996, p. 155.

^aAmong these vehicles, 30,000 are owned/operated by gas-only companies, 33,000 by dual utilities and 10,000 by gas producers and transporters.

^bOf the top 35 propane providers only.

^cThose with production capability of at least 50,000 barrels per day.

