

Chapter 5

Transportation and the Economy

Summary Statistics from Tables/Figures in this Chapter

Source		
Figure 5.1	Share of gasoline cost attributed to taxes, 1999	
	<i>Canada</i>	49%
	<i>France</i>	79%
	<i>Germany</i>	76%
	<i>Japan</i>	60%
	<i>United Kingdom</i>	76%
	<i>United States</i>	33%
Table 5.11	Average price of a new car, 1999 (current dollars)	21,022
	<i>Domestic</i>	18,725
	<i>Import</i>	30,350
Table 5.12	Automobile operating costs, 2000	
	<i>Variable costs (constant 1999 dollars per 10,000 miles)</i>	1,219
	<i>Fixed costs (constant 1999 dollars per 10,000 miles)</i>	4,376
Table 5.18	Transportation sector share of total employment	
	<i>1960</i>	13.5%
	<i>1980</i>	11.4%
	<i>1999</i>	11.0%

Table 5.1
Gasoline Prices for Selected Countries, 1978–2000

	Current dollars per gallon								Average annual percentage change	
	1978 ^a	1982 ^a	1986 ^a	1990 ^b	1994 ^b	1996 ^b	1999 ^b	2000 ^b	1978–2000	1990–2000
China	c	c	c	c	c	0.93	1.05	1.44	c	c
India	c	c	c	1.92	2.28	2.25	2.48	c	c	c
Japan	2.00	2.60	2.79	3.05	4.14	3.77	3.13	3.65	2.8%	1.8%
France	2.15	2.56	2.58	3.40	3.31	4.41	3.79	4.01	2.9%	1.7%
United Kingdom	1.22	2.42	2.07	2.55	2.86	3.47	3.97	5.13	6.7%	7.2%
Germany	1.75	2.17	1.88	2.72	3.34	4.32	3.36	3.78	3.6%	3.3%
Canada	0.69	1.37	1.31	1.92	1.57	1.80	1.54	2.04	5.1%	0.6%
United States ^d	0.66	1.32	0.93	1.04	1.24	1.28	1.13	1.47	3.7%	3.5%

	Constant 1999 dollars ^c per gallon								Average annual percentage change	
	1978 ^a	1982 ^a	1986 ^a	1990 ^b	1994 ^b	1996 ^b	1999 ^b	2000 ^b	1978–2000	1990–2000
China	c	c	c	c	c	0.99	1.05	1.39	c	c
India	c	c	c	2.45	2.56	2.39	2.48	c	c	c
Japan	5.11	4.49	4.24	3.89	4.65	4.00	3.13	3.53	-1.7%	-1.0%
France	5.49	4.42	3.92	4.33	3.72	4.68	3.79	3.88	-1.6%	-1.1%
United Kingdom	3.12	4.18	3.15	3.25	3.22	3.68	3.97	4.96	2.1%	4.3%
Germany	4.47	3.75	2.86	3.47	3.75	4.59	3.36	3.66	-0.9%	0.5%
Canada	1.76	2.37	1.99	2.45	1.76	1.91	1.54	1.97	0.5%	-2.2%
United States ^d	1.69	2.28	1.41	1.33	1.39	1.36	1.13	1.42	-0.8%	0.7%

Source:

U.S. Department of Energy, Energy Information Administration, *International Energy Annual 1999*, Washington, DC, February 2001, Table 7.2 and annual.

(Additional resources: www.eia.doe.gov)

Note:

Comparisons between prices and price trends in different countries require care. They are of limited validity because of fluctuations in exchange rates; differences in product quality, marketing practices, and market structures; and the extent to which the standard categories of sales are representative of total national sales for a given period.

^a Prices represent the retail prices (including taxes) for premium leaded gasoline. Prices are representative for each country based on quarterly data averaged for the year.

^b Regular gasoline.

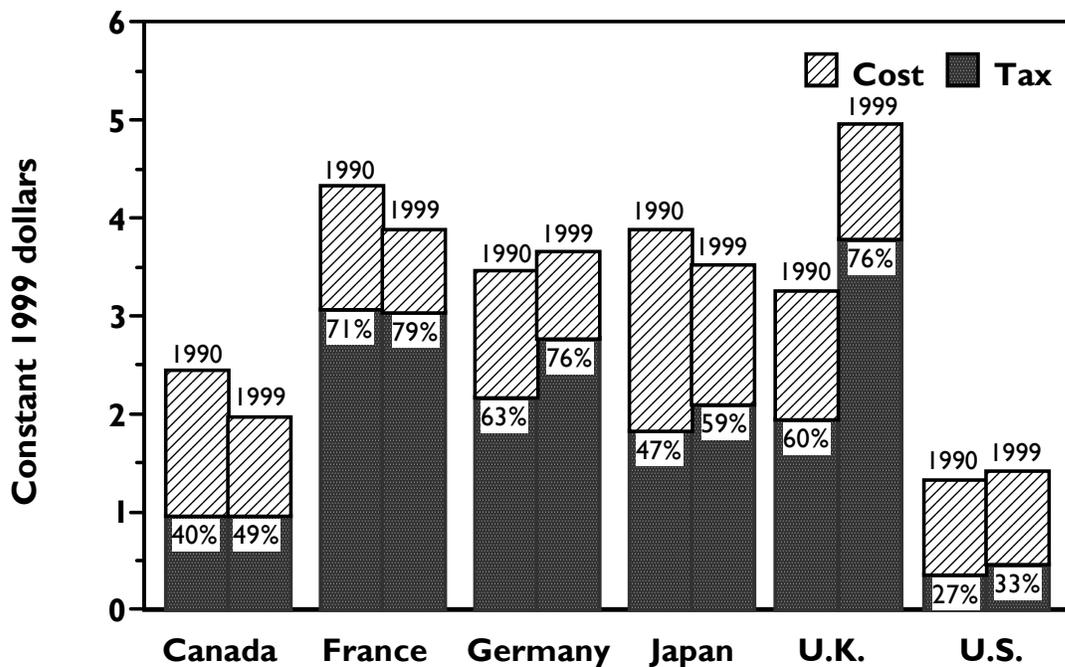
^c Data are not available.

^d These estimates are for international comparisons only and do not necessarily correspond to gasoline price estimates in other sections of the book.

^e Adjusted by the U.S. Consumer Price Inflation Index.

In 1998 more than seventy percent of the cost of gasoline in France, Germany, and the United Kingdom went for taxes. Of these countries, the U.S. has the lowest percentage of taxes.

Figure 5.1. Gasoline Prices for Selected Countries, 1990 and 1999



Source:

Table 5.1 and International Energy Agency, *Energy Prices and Taxes, Fourth Quarter 1999*, Paris, France, 2000. (Additional resources: www.iea.org)

Table 5.2
Diesel Fuel Prices for Selected Countries, 1978–2000^a

	Current dollars per gallon								Average annual percentage change	
	1978	1982	1986	1990	1994	1996	1999	2000	1978–2000	1990–2000
China	^b	^b	^b	^b	^b	0.88	2.73	1.30	^b	^b
India	^b	^b	^b	0.78	0.74	0.92	1.15	^b	^b	^b
Japan	^b	1.78	1.90	1.75	2.48	2.51	1.95	2.89	^b	5.5%
France	1.30	1.88	1.69	1.78	2.10	3.10	2.23	3.05	4.0%	8.9%
United Kingdom	1.24	2.05	1.71	2.04	2.46	3.26	3.47	4.77	6.3%	0.6%
Germany	1.48	1.81	1.51	2.72	2.16	3.02	2.03	2.90	3.1%	0.8%
Canada	^b	1.27	1.27	1.55	1.47	1.43	1.32	1.68	^b	0.8%
United States ^c	0.54	1.16	0.94	0.99	0.96	1.15	0.97	1.36	4.3%	3.2%

	Constant 1999 dollars ^d per gallon								Average annual percentage change	
	1978	1982 ^a	1986 ^a	1990 ^b	1994 ^b	1996 ^b	1999 ^b	2000 ^b	1978–2000	1990–2000
China	^b	^b	^b	^b	^b	0.93	2.73	1.26	^b	^b
India	^b	^b	^b	0.99	0.83	0.98	1.15	^b	^b	^b
Japan	^b	3.07	2.89	2.23	2.79	2.67	1.95	2.80	^b	2.3%
France	3.32	3.25	2.57	2.27	2.36	3.29	2.23	2.95	-0.5%	2.7%
United Kingdom	3.17	3.54	2.60	2.60	2.77	3.46	3.47	4.61	1.7%	5.9%
Germany	3.78	3.12	2.30	3.47	2.43	3.21	2.03	2.81	-1.3%	-2.1%
Canada	^b	2.19	1.93	1.98	1.65	1.52	1.32	1.63	^b	-1.9%
United States ^c	1.38	2.00	1.43	1.26	1.08	1.22	0.97	1.32	-0.2%	-0.4%

Source:

U.S. Department of Energy, Energy Information Administration, *International Energy Annual 1999*, Washington, DC, February 2001, Table 7.2 and annual.

(Additional resources: www.eia.doe.gov)

Note:

Comparisons between prices and price trends in different countries require care. They are of limited validity because of fluctuations in exchange rates; differences in product quality, marketing practices, and market structures; and the extent to which the standard categories of sales are representative of total national sales for a given period.

^a Prices represent the retail prices (including taxes) for diesel fuel. Prices are representative for each country based on quarterly data averaged for the year or on data as of January 1.

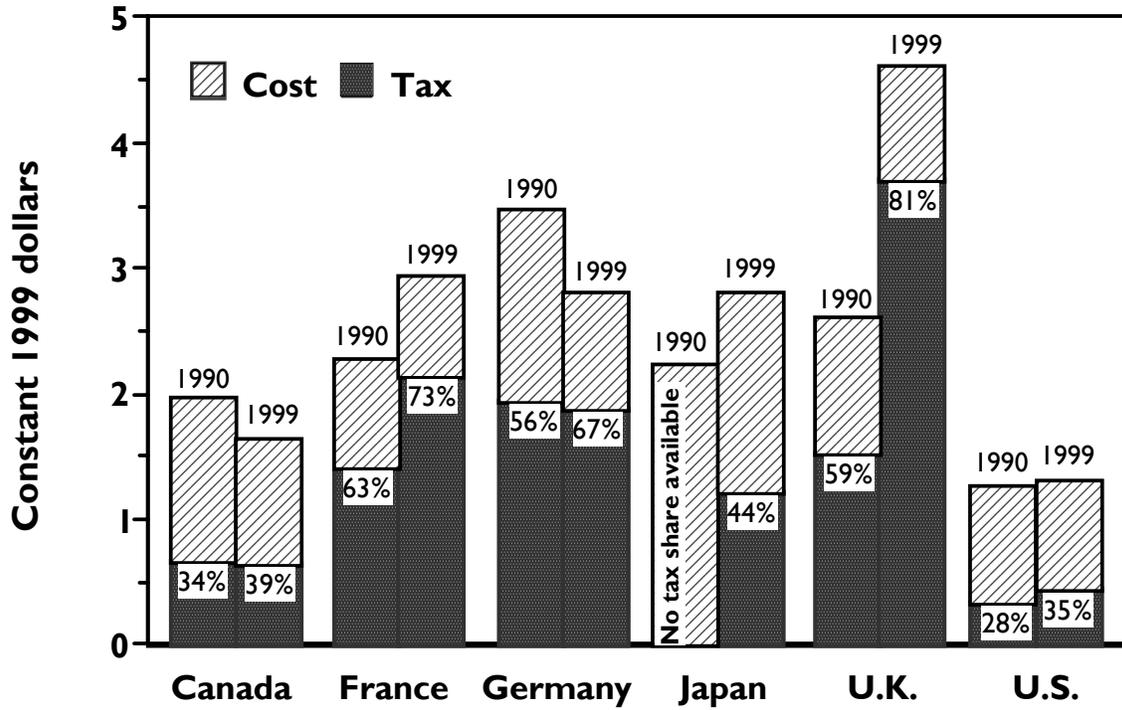
^b Data are not available.

^c These estimates are for international comparisons only and do not necessarily correspond to gasoline price estimates in other sections of the book.

^d Adjusted by the U.S. Consumer Price Inflation Index.

Diesel fuel is taxed heavily in the European countries shown here. The U.S. diesel fuel tax share is the lowest of the listed countries.

Figure 5.2. Diesel Prices for Selected Countries, 1990 and 1999



Source:

Table 5.2 and International Energy Agency, *Energy Prices and Taxes, Fourth Quarter 1999*, Paris, France, 2000. (Additional resources: www.iea.org)

Though the cost of crude oil certainly influences the price of gasoline, it is not the only factor which determines the price at the pump. Processing cost, transportation cost, and taxes also play a major part of the cost of a gallon of gasoline. The average price of a barrel of crude oil (in constant 1999 dollars) more than doubled from 1998 to 2000, while the average price of a gallon of gasoline increased only 33% in this same time period.

Table 5.3
Prices for a Barrel of Crude Oil and a Gallon of Gasoline, 1978–2000

Year	Crude oil ^a (dollars per barrel)		Gasoline ^b (cents per gallon)		Ratio of gasoline to crude oil	
	Current	Constant 1999 ^c	Current	Constant 1999 ^c		
1978	12.5	31.8	65.2	166.5	219.8	
1979	17.7	40.7	88.2	202.4	209.1	
1980	28.1	56.8	122.1	246.9	182.7	
1981	35.2	64.6	135.3	247.9	161.3	
1982	31.9	55.0	128.1	221.1	168.8	
1983	29.0	48.5	122.5	204.9	177.5	
1984	28.6	45.9	119.8	192.2	175.7	
1985	26.8	41.4	119.6	185.2	187.8	
1986	14.6	22.1	93.1	141.5	268.7	
1987	17.9	26.2	95.7	140.3	224.5	
1988	14.7	20.7	96.3	135.6	275.7	
1989	18.0	24.2	106.0	142.5	247.7	
1990	22.2	28.3	121.7	155.2	230.0	
1991	19.1	23.3	119.6	146.3	263.5	
1992	18.4	21.9	119.0	141.3	271.2	
1993	16.4	18.9	117.3	135.3	300.2	
1994	15.6	17.5	117.4	131.9	316.3	
1995	17.2	18.8	120.5	131.7	293.7	
1996	20.7	22.0	128.8	136.8	261.2	
1997	19.0	19.8	129.1	134.0	284.8	
1998	12.5	12.8	111.5	113.9	372.6	
1999	17.5	17.5	122.1	121.1	291.3	
2000	28.2	27.3	156.3	151.2	232.5	
		<i>Average annual percentage change</i>				
1978–2000	3.8%	-0.7%	4.1%	-0.4%		
1990–2000	2.4%	-0.4%	2.5%	-0.3%		

Sources:

Crude oil - U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review*, March 2001, Washington, DC, Table 9.1.

Gasoline - U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review*, March 2001, Washington, DC, Table 9.4. (Additional resources: www.eia.doe.gov)

^aRefiner acquisition cost of composite (domestic and imported) crude oil.

^bAverage for all types. These prices were collected from a sample of service stations in 85 urban areas selected to represent all urban consumers. Urban consumers make up about 80% of the total U.S. population.

^cAdjusted by the Consumer Price Inflation Index.

In constant terms, the price of gasoline and diesel fuel were slightly less expensive in 2000 than in 1990. In current dollars, however, the U.S. is seeing a significant increase in gasoline and diesel prices.

Table 5.4
Retail Prices for Motor Fuel, 1978–2000
(cents per gallon, including tax)

Year	Diesel fuel ^a		Average for all gasoline types ^b	
	Current	Constant 1999 ^c	Current	Constant 1999 ^c
1978	^d	^d	65	167
1979	^d	^d	88	202
1980	101	204	122	247
1981	118	216	135	248
1982	116	200	128	221
1983	120	201	123	205
1984	122	196	120	192
1985	122	189	120	185
1986	94	143	93	142
1987	96	141	96	140
1988	95	134	96	136
1989	102	137	106	142
1990	107	136	122	155
1991	91	111	120	146
1992	106	126	119	141
1993	98	113	117	135
1994	96	108	117	132
1995	97	106	121	132
1996	115	122	129	137
1997	129	134	129	134
1998	112	114	112	114
1999	97	97	122	122
2000	136	132	156	151
	<i>Average annual percentage change</i>			
1978–2000	1.5% ^e	1.3% ^e	4.5%	-0.5%
1990–2000	2.4%	-0.3%	2.5%	-0.3%

Source:

Gasoline - U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review*, 2001, Washington, DC, Table 9.4.

Diesel - U.S. Department of Energy, Energy Information Administration, *International Energy Annual 1999*, Washington, DC, February 2001, Table 7.2.

(Additional resources: www.eia.doe.gov)

^aCollected from a survey of prices on January 1 of the current year.

^bThese prices were collected from a sample of service stations in 85 urban areas selected to represent all urban consumers. Urban consumers make up about 80% of the total U.S. population.

^cAdjusted by the Consumer Price Inflation Index.

^dData are not available.

^eAverage annual percentage change is from the earliest year possible to 2000.

The fuel prices shown here are **refiner sales prices** of transportation fuels to end users, excluding tax. Sales to end users are those made directly to the ultimate consumer, including bulk consumers. Bulk sales to utility, industrial, and commercial accounts previously included in the wholesale category are now counted as sales to end users.

Table 5.5
Refiner Sales Prices for Propane and No. 2 Diesel, 1978–2000
(cents per gallon, excluding tax)

Year	Propane ^a		No. 2 diesel fuel	
	Current	Constant 1999 ^b	Current	Constant 1999 ^b
1978	33.5	85.6	37.7	96.3
1979	35.7	81.9	58.5	134.2
1980	48.2	97.5	81.8	165.4
1981	56.5	103.6	99.5	182.4
1982	59.2	102.2	94.2	162.6
1983	70.9	118.6	82.6	138.2
1984	73.7	118.2	82.3	132.0
1985	71.7	111.0	78.9	122.2
1986	74.5	113.2	47.8	72.7
1987	70.1	102.8	55.1	80.8
1988	71.4	100.6	50.0	70.4
1989	61.5	82.6	58.5	78.6
1990	74.5	95.0	72.5	92.4
1991	73.0	89.3	64.8	79.3
1992	64.3	76.4	61.9	73.5
1993	67.3	77.6	60.2	69.4
1994	53.0	59.6	55.4	62.3
1995	49.2	53.8	56.0	61.2
1996	60.5	64.2	68.1	72.3
1997	55.2	57.3	64.2	66.6
1998	40.5	41.4	49.4	50.5
1999	45.8	45.8	58.4	58.4
2000	60.3	58.3	93.5	90.5
<i>Average annual percentage change</i>				
1978–2000	2.7%	-1.7%	4.2%	-0.3%
1990–2000	-2.1%	-4.8%	2.6%	-0.2%

Source:

U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review*, March 2001, Washington, DC, Table 9.7.

(Additional resources: www.eia.doe.gov)

^aConsumer grade.

^bAdjusted by the Consumer Price Inflation Index.

Jet fuel prices jumped more than 30 cents per gallon from 1999 to 2000.

Table 5.6
Refiner Sales Prices for Aviation Gasoline and Jet Fuel, 1978–2000
 (cents per gallon, excluding tax)

Year	Finished aviation gasoline		Kerosene-type jet fuel	
	Current	Constant 1999 ^a	Current	Constant 1999 ^a
1978	51.6	131.8	38.7	98.9
1979	68.9	158.1	54.7	125.5
1980	108.4	219.2	86.6	175.1
1981	130.3	238.8	102.4	187.7
1982	131.2	226.5	96.3	166.3
1983	125.5	209.9	87.8	146.9
1984	123.4	197.9	84.2	135.0
1985	120.1	186.0	79.6	123.2
1986	101.1	153.7	52.9	80.4
1987	90.7	133.0	54.3	79.6
1988	89.1	125.5	51.3	72.2
1989	99.5	133.7	59.2	79.5
1990	112.0	142.8	76.6	97.6
1991	104.7	128.1	65.2	79.8
1992	102.7	122.0	61.0	72.4
1993	99.0	114.1	58.0	66.9
1994	95.7	107.6	53.4	60.0
1995	100.5	109.9	54.0	59.0
1996	111.6	118.0	65.1	69.1
1997	112.8	117.1	61.3	63.6
1998	97.5	99.7	45.2	46.2
1999	105.9	105.9	54.3	54.3
2000	132.9	128.6	89.8	86.9
		<i>Average annual percentage change</i>		
1978–2000	4.4%	-0.1%	3.9%	-0.6%
1990–2000	1.7%	-1.0%	1.6%	-1.2%

Source:

U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review*, March 2001, Washington, DC, Table 9.7.

(Additional resources: www.eia.doe.gov)

^aAdjusted by the Consumer Price Inflation Index.

Table 5.7
State Taxes on Motor Fuels, 2000
(dollars per gallon or gasoline equivalent gallon)
 (Footnotes for this table appear on next page)

State	Gasoline	Diesel fuel	CNG	Propane	Methanol	Ethanol
Alabama	0.18	0.19	a	a	0.16 ^b	0.16 ^b
Alaska	0.08	0.08	0.08	0.00	0.08 ^b	0.04
Arizona	0.18	0.27	0.00	0.00	0.00	0.00
Arkansas	0.186	0.186	0.05 ^c	a	0.186	0.186
California	0.18	0.18	a	a	0.09	0.09
Colorado	0.22	0.205	a	a	0.205	0.17 ^b
Connecticut	0.36	0.18	0.18	0.18	0.37 ^b	0.35
Delaware	0.23	0.22	0.22	0.22	0.22	0.23
District of Columbia	0.20	0.20	0.20	0.20	0.20	0.20
Florida	0.13	0.25	a	a	0.04 ^b	0.04 ^b
Georgia	0.075	0.075	0.075	0.075	0.075	0.075
Hawaii	0.16	0.16	0.16	0.16	0.16	0.16
Idaho	0.25	0.25	0.197 ^d	0.181	0.25 ^b	0.23 ^b
Illinois	0.19	0.215	0.19	0.19	0.19 ^b	0.19 ^b
Indiana	0.15	0.16	a	a	0.15	0.15
Iowa	0.20	0.225	0.16 ^c	0.20	0.19 ^b	0.19 ^b
Kansas	0.18	0.20	0.17	0.17	0.20	0.20
Kentucky	0.164	0.134	0.15	0.15	0.15	0.15
Louisiana	0.20	0.20	a	a	0.20 ^b	0.20 ^b
Maine	0.19	0.20	0.18	0.18	0.18	0.18
Maryland	0.235	0.2425	0.235	0.235	0.235	0.235
Massachusetts	0.21	0.21	0.10	0.10	0.21	0.21
Michigan	0.19	0.15	0.0	0.15	0.15 ^b	0.025 ^b
Minnesota	0.20	0.20	0.174	0.15	0.114	0.142
Mississippi	0.184	0.184	0.184 ^c	0.17	0.18 ^b	0.18 ^b
Missouri	0.17	0.17	a	a	0.17 ^b	0.17 ^b
Montana	0.27	0.2775	0.07 ^e	a	0.27	0.27
Nebraska	0.246	0.246	a	a	a	a
Nevada	0.2475	0.2775	0.21	0.2475 ^c	0.2475	0.2475
New Hampshire	0.195	0.195	0.195	0.195	0.195 ^b	0.195 ^b
New Jersey	0.105	0.135	0.0525	0.0525	0.105 ^b	0.105 ^b
New Mexico	0.188	0.198	a	a	0.22 ^b	0.22 ^b
New York	0.10 ^f	0.10 ^f	0.08 ^f	0.08 ^f	0.08 ^f	0.08 ^f
North Carolina	0.223	0.223	0.223	0.223	0.223	0.223
North Dakota	0.20	0.20	0.20	0.20	0.20 ^b	0.20 ^b
Ohio	0.22	0.22	0.22	0.22	0.22 ^b	0.21 ^b

Table 5.7 (continued)
State Taxes on Motor Fuels, 2000
(dollars per gallon or gasoline equivalent gallon)

State	Gasoline	Diesel fuel	CNG	Propane	Methanol	Ethanol
Oklahoma	0.17	0.14	^a	^a	0.16 ^b	0.16 ^b
Oregon	0.24	0.24	0.24	0.24	0.24	0.24
Pennsylvania	0.12 ^g					
Rhode Island	0.29	0.29	0.0	0.29	0.29	0.29
South Carolina	0.16	0.16	0.16	0.16	0.16	0.16
South Dakota	0.21	0.21	0.06	0.16	0.06	0.19
Tennessee	0.20	0.17	0.13	0.17	0.17	0.17
Texas	0.20	0.20	^a	^a	0.20 ^b	0.20 ^b
Utah	0.245	0.245	0.04	0.04	0.04	0.04
Vermont	0.20	0.17	0.20	^a	0.20	0.20
Virginia	0.18	0.16	0.10	0.10	0.18 ^b	0.18 ^b
Washington	0.23	0.23	^a	^a	0.23	0.23
West Virginia	0.2535	0.2535	0.2535	0.2535	0.2535	0.2535
Wisconsin	0.238	0.238	0.203	0.186	0.238	0.238
Wyoming	0.09	0.09	0.00	0.00	0.09 ^b	0.09 ^b

Source:

Energy Futures, Inc., *The Clean Fuels and Electric Vehicles Report*, Boulder, CO, December 2000, pp. 154–155.

^a Annual flat fee.

^b Blends with gasoline only.

^c Per 100 ft³.

^d Per therm.

^e Per 120 ft³.

^f Plus a petroleum business tax; the amount varies but is usually in the ballpark of \$0.12–\$0.14.

^g Plus 0.1035 oil franchise tax.

As of January 2000, only five states offered tax exemptions to encourage the use of gasohol for transportation purposes. This list is quite short compared to the 30 states which offered gasohol tax exemptions twenty years ago. Still, the Federal Government encourages gasohol use via a difference in the Federal tax rates of gasoline and gasohol.

Table 5.8
State Tax Exemptions for Gasohol, December 1, 2000

State	Exemption (Cents/gallon of gasohol)
Connecticut	1.0
Idaho	2.5
Iowa	1.0
South Dakota	2.0

Source:

U.S. Department of Transportation, Federal Highway Administration, "Monthly Motor Fuel Reported by the States, October 1999," February 2000, Washington, DC, Table MF-121T. (Additional resources: www.fhwa.dot.gov)

Table 5.9
Federal Excise Taxes on Motor Fuels

Fuel		Cents per gallon
Gasoline		18.30
Diesel ^a		24.30
Gasohol	10% Ethanol	13.00
	7.7% Ethanol	14.24
	5.7% Ethanol	12.85
Gasohol	10% Methanol	12.40
	7.7% Methanol	13.78
	5.7% Methanol	14.98
Methanol	Qualified ^b	12.85
	Partially exempt ^c	9.20
Ethanol	Qualified ^b	12.85
	Partially exempt ^c	9.25
CNG		48.54/mcf ^d
LNG		18.30
Propane		13.60

Source:

Energy Futures, Inc., *The Clean Fuels and Electric Vehicles Report*, Boulder, CO, December 2000, p. 155.

^a Reduced diesel rates are specified for marine fleets, trains and certain intercity buses. Diesel rates are also reduced for diesel/alcohol blends. Diesel used exclusively in state and local government fleets, non-profit organization vehicles, school buses and qualified local buses is exempt from Federal taxes.

^bQualified - contains at least 85 percent methanol or ethanol or other alcohol produced from a substance other than petroleum or natural gas.

^cPartially exempt - 85 percent alcohol and produced from natural gas.

^dThousand cubic feet.

These states currently offer extra incentives for ethanol production or consumption. In addition to these tax incentives, many states have regulations in place that State-owned vehicles must fuel with E10 (gasohol) whenever possible.

Table 5.10
States With Ethanol Tax Incentives

State	Ethanol tax incentives
AK	\$0.08/ethanol gallon (blender)
AR	Income tax credit for manufacturers of advanced biofuels—ethanol, methanol or any derivatives which are produced through biological means other than direct fermentation of a food crop
CA	E85 and M85 excise tax is half of the gasoline tax. Neat alcohol fuels are exempt from fuel taxes.
FL	County governments receive waste reduction credits for using yard trash, wood, or paper waste as feed stocks for fuel.
HI	4% ethanol sales tax exemption
ID	\$0.25 excise tax exemption for ethanol or biodiesel
IN	10% gross income tax deduction for improvements to ethanol producing facilities.
IL	Rebate offer for purchase of E85.
IA	\$0.01 (blender)
MN	\$0.20 (producer), \$0.058 excise tax exemption
MO	\$0.20 (producer), \$0.02 excise tax exemption
MT	\$0.30 (producer)
NE	\$0.20 (producer)
NC	Individual income and corporate tax credit of 20% for the construction of an ethanol plant using agricultural or forestry products; an additional 10% if the distillery is powered with alternative fuels.
ND	\$0.40 (producer), income tax credit for the construction of new fuel ethanol plants
OH	\$0.01 (blender), income tax credit
SD	Reduced fuel tax for alternative fuels
WY	\$0.40 (producer)

Source:

U.S. Department of Energy, *Clean Cities Guide to Alternative Fuel Vehicle Incentives and Laws*, 2nd edition, Washington, DC, November 1996 and updates from [www.fleets.doe.gov/fleet-tool.cgi?\\$\\$](http://www.fleets.doe.gov/fleet-tool.cgi?$$), benefits,1.
(Additional resources: www.cities.doe.gov)

In current dollars, import cars, on average, were less expensive than domestic cars until 1982. Since then, import prices have nearly tripled, while domestic prices have nearly doubled (current dollars).

Table 5.11
Average Price of a New Car, 1970–99

Year	Domestic ^a		Import		Total	
	Current dollars	Constant 1998 dollars ^b	Current dollars	Constant 1998 dollars ^b	Current dollars	Constant 1998 dollars ^b
1970	3,708	15,568	2,648	11,118	3,542	14,872
1975	5,084	15,400	4,384	13,280	4,950	14,994
1980	7,609	15,055	7,482	14,803	7,574	14,985
1981	8,912	15,976	8,896	15,947	8,910	15,972
1982	9,865	16,662	9,957	16,818	9,890	16,727
1983	10,516	17,208	10,868	17,784	10,606	17,356
1984	11,079	17,390	12,336	19,362	11,375	17,854
1985	11,589	17,563	12,853	19,479	11,838	17,941
1986	12,319	18,317	13,670	20,326	12,652	18,812
1987	12,922	18,536	14,470	20,757	13,386	19,202
1988	13,418	18,493	15,221	20,978	13,932	19,201
1989	13,936	18,327	15,510	20,397	14,371	18,899
1990	14,489	18,076	16,640	20,760	15,042	18,766
1991	15,192	18,182	16,327	19,540	15,475	18,521
1992	15,644	18,175	18,593	21,601	16,336	18,979
1993	15,976	18,029	20,261	22,864	16,871	19,039
1994	16,930	18,619	21,989	24,183	17,903	19,689
1995	16,864	18,035	23,202	24,813	17,959	19,206
1996	17,468	18,152	26,205	27,231	18,777	19,512
1997	17,838	18,116	28,193	28,633	19,551	19,856
1998	18,579	18,579	31,986	31,986	20,849	20,849
1999	18,725	18,323	30,350	29,699	21,022	20,571
	<i>Average annual percentage change</i>					
1970–99	5.7%	0.6%	8.8%	3.4%	6.3%	1.1%
1989–99	3.0%	0.0%	6.9%	3.6%	3.9%	0.9%

Source:

U.S. Department of Commerce, Bureau of Economic Analysis, *National Income and Product Accounts*, underlying detail estimates for Motor Vehicle Output, Washington, DC, 2000.

(Additional resources: www.stat-usa.gov)

^aIncludes transplants.

^bAdjusted by the Consumer Price Inflation Index.

The total cost of operating an automobile is the sum of the fixed cost (depreciation, insurance, finance charge, and license fee) and the variable cost (gas and oil, tires, and maintenance), which is related to the amount of travel. The cost of operating a car in 2000 was lower than 1999 despite rising gasoline prices; the fixed cost was lower.

Table 5.12
Automobile Operating Cost per Mile, 1985–2000

Model year	Constant 1999 dollars per 10,000 miles ^a			Total cost per mile ^b (constant 1999 cents ^a)	Percentage gas and oil of total cost
	Variable cost	Fixed cost	Total cost		
1985	1,245	2,967	4,213	42.13	22.6%
1986	991	3,505	4,496	44.96	15.1%
1987	1,055	3,729	4,785	47.85	14.7%
1988	1,113	4,267	5,380	53.80	13.6%
1989	1,062	4,072	5,134	51.34	13.6%
1990	1,071	4,151	5,222	52.22	13.2%
1991	1,199	4,139	5,337	53.37	15.4%
1992	1,080	4,354	5,434	54.34	13.1%
1993	1,072	4,133	5,206	52.06	13.3%
1994	1,034	4,209	5,243	52.43	12.0%
1995	1,093	4,252	5,345	53.45	12.3%
1996	1,073	4,389	5,461	54.61	11.5%
1997	1,121	4,388	5,509	55.09	12.4%
1998	1,104	4,499	5,603	56.03	11.5%
1999	1,070	4,730	5,800	58.00	9.8%
2000	1,219	4,376	5,595	55.95	12.6%
	<i>Average annual percentage change</i>				
1985–2000	-0.1%	2.6%	1.9%	1.9%	

Source:

American Automobile Association, *Your Driving Costs*, 2000 Edition, Heathrow, FL, and annual.
(Additional resources: www.aaa.com, www.runzheimer.com)

^a Adjusted by the Consumer Price Inflation Index.

^b Based on 10,000 miles per year.

While the previous table shows costs per *mile*, this table presents costs per *year* for fixed costs associated with automobile operation. For 2000 model year autos, the fixed cost is more than \$14 per day.

Table 5.13
Fixed Automobile Operating Costs per Year, 1975–2000
(constant 1999 dollars)^a

Model year	Fire & theft ^b	Collision ^c	Property damage & liability ^d	License, registration & taxes	Depreciation	Finance charge	Total	Average fixed cost per day
1975	164	437	585	93	2,394	^e	3,673	10.06
1980	142	348	501	166	2,099	855	4,110	11.26
1985	142	307	330	178	1,940	883	3,779	10.36
1986	131	290	353	198	2,006	968	3,946	10.81
1987	128	287	370	205	2,209	881	4,080	11.18
1988	121	286	400	196	2,512	796	4,311	11.82
1989	146	329	415	203	2,813	841	4,748	13.01
1990	140	315	405	210	3,004	867	4,942	13.54
1991	141	316	432	207	3,111	953	5,158	14.13
1992	134	310	443	213	3,301	988	5,389	14.76
1993	123	267	444	211	3,324	802	5,172	14.17
1994	102	232	450	229	3,359	781	5,153	14.12
1995	104	231	448	231	3,388	797	5,198	14.24
1996	116	262	452	243	3,406	826	5,306	14.54
1997	110	313	416	228	3,392	823	5,283	14.48
1998	118	268	490	228	3,367	820	5,289	14.49
1999	123	278	484	223	3,355	812	5,275	14.45
2000	120	271	465	211	3,297	800	5,164	14.14
<i>Average annual percentage change</i>								
1975–2000	-2.1%	-3.1%	-1.5%	5.6%	2.2%	^e	2.3%	2.3%
1990–2000	-1.5%	-1.5%	1.4%	0.0%	0.9%	-0.8%	0.4%	0.4%

Source:

American Automobile Association, "Your Driving Costs," 2000 Edition, Heathrow, FL, and annual. (Additional resources: www.aaa.com, www.runzheimer.com)

^a Adjusted by the Consumer Price Inflation Index.

^b \$50 deductible 1975 through 1977; \$100 deductible 1978 through 1992; \$250 deductible for 1993 – on.

^c \$100 deductible through 1977; \$250 deductible 1978 through 1992; \$500 deductible for 1993 – on.

^d Coverage: \$100,000/\$300,000.

^e Data are not available.

Table 5.14
Economic Indicators, 1970–2000
(billion dollars)

Year	Gross National Product		Total transportation outlays		Transportation as a percent of GNP
	Current	Constant 1999 ^a	Current	Constant 1999 ^a	
1970	1,015.5	4,194.0	192.8	809.5	19.0%
1980	2,732.0	5,327.4	533.0	1,054.6	19.5%
1990	5,567.8	6,848.4	951.0	1,186.4	17.1%
1999	9,288.2	9,288.2	1,480.9	1,480.9	15.9%
	Personal Consumption Expenditures		Transportation Personal Consumption Expenditures ^b		Transportation PCE as a percent of total PCE
1970	640.0	2,687.1	81.5	342.2	12.7%
1980	1,732.6	3,428.0	238.5	471.9	13.8%
1990	3,761.2	4,692.4	453.9	566.3	12.1%
2000	6,757.3	6,537.6	775.8	750.6	11.5%

Sources:

GNP - U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, April 2001, Table 1.9, p. D-4, and annual. (Additional resources: www.bea.doc.gov)

Transportation outlays - Eno Transportation Foundation, *Transportation in America 2000*, Eighteenth Edition, Lansdowne, VA, 2001, p. 1.

PCE - U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, April 2001, Table 2.2 and annual. (Additional resources: www.bea.doc.gov/bea/scbinf.html)

Table 5.15
Consumer Price Indices, 1970–2000
(1970 = 1.000)

Year	Consumer Price Index	Transportation Consumer Price Index ^c	New car Consumer Price Index	Used car Consumer Price Index	Gross National Product
1970	1.000	1.000	1.000	1.000	1.000
1980	2.122	2.216	1.667	1.995	2.690
1990	3.365	3.213	2.283	3.769	5.483
2000	4.435	4.088	2.694	4.994	9.807

Source:

Bureau of Labor Statistics, Consumer Price Index Table 1A for 2000, and annual. [GNP—see above.] (Additional resources: stats.bls.gov/cpihome.htm)

^a Adjusted by the implicit GNP price deflator.

^b Transportation Personal Consumption Expenditures include user operating expenses (new and used auto purchases, gas and oil, repair, greasing, washing, parking, storage, rental, other motor vehicles, insurance premiums, tires, tubes and other parts); purchased intercity transportation; and purchased local transportation.

^c Transportation Consumer Price Index includes new and used cars, gasoline, auto insurance rates, intracity mass transit, intracity bus fare, and airline fares.

In 1999 there were 7.7 employees for every hundred vehicles sold in the U.S., according to estimates based on domestic light vehicle sales. Using the average domestic automobile price, estimates show 4.1 employees for every million dollars spent on light vehicles. This includes employees of motor vehicle parts manufacturers and tire manufacturers.

Table 5.16
Motor Vehicle Manufacturing Employment Statistics, 1970–99

Year	Motor vehicles, parts and tires manufacturing employees (thousands)	Sales of domestic light vehicles ^a (thousands)	Employees per hundred vehicles sold	Employees per million dollar expenditure (current)	Employees per million dollar expenditure (constant 1999 ^b)
1970	914	8,516	10.7	28.9	8.0
1975	892	9,106	9.8	19.3	7.4
1980	904	8,540	10.6	13.9	7.6
1981	841	7,954	10.6	11.9	7.1
1982	792	7,821	10.1	10.3	6.5
1983	875	9,313	9.4	8.9	5.9
1984	968	11,209	8.6	7.8	5.3
1985	964	11,896	8.1	7.0	4.9
1986	931	11,886	7.8	6.4	4.6
1987	928	10,866	8.5	6.6	4.9
1988	964	11,721	8.2	6.1	4.7
1989	941	11,181	8.4	6.0	4.8
1990	946	10,845	8.7	6.0	5.0
1991	870	9,732	8.9	5.9	5.0
1992	894	10,510	8.5	5.4	4.8
1993	919	11,729	7.8	4.9	4.4
1994	988	12,893	7.7	4.5	4.2
1995	1,051	12,792	8.2	4.9	4.6
1996	1,047	13,342	7.8	4.5	4.3
1997	1,063	13,143	8.1	4.5	4.4
1998	1,074	13,445	8.0	4.3	4.2
1999	1,098	14,289	7.7	4.1	4.1
<i>Average annual percentage change</i>					
1970–99	0.6%	1.8%	-1.1%	-6.5%	-2.3%
1989–99	1.6%	2.5%	-0.9%	-3.7%	-1.6%

Source:

Employees - Eno Transportation Foundation, *Transportation in America 2000*, Eighteenth Edition, Lansdowne, VA, 2001, pp. 32-35.
Sales - See Table 6.4. Expenditures - See Table 5.11.

^a Vehicles produced in North America.

^b Adjusted by the implicit Gross National Product price deflator.

Employees of motor vehicle and related industries comprise 8.2% of the labor force. For employment in the entire transportation industry, see the next table.

Table 5.17
Employees of Motor Vehicle and Related Industries, 1998

	1998 Employees	Percent of total motor vehicle	Percent of total U.S. employment
Motor vehicle and equipment manufacturing	1,314,317	14.8%	1.2%
<i>Motor vehicles and equipment</i>	235,483	2.7%	0.2%
<i>Motor vehicle body & trailer</i>	128,687	1.5%	0.1%
<i>Motor vehicle parts</i>	801,461	9.0%	0.7%
<i>Storage batteries</i>	22,745	0.3%	0.0%
<i>Tires</i>	65,298	0.7%	0.1%
<i>Rolled steel shape</i>	14,169	0.2%	0.0%
<i>Other transportation equipment</i>	46,474	0.5%	0.0%
Highway, street, bridge, and tunnel construction	267,142	3.0%	0.2%
Motor freight transportation and related services	2,227,195	25.1%	2.1%
<i>Trucking and courier services, except by air or by the U.S. Postal Service</i>	1,866,637	21.1%	1.7%
Petroleum refining and wholesale distribution	227,887	2.6%	0.2%
Passenger transportation	936,025	10.6%	0.9%
Automotive sales and servicing	3,888,265	43.9%	3.6%
Total of motor vehicle and related industries	8,860,831	100.0%	8.2%
U.S. Total ^a	108,117,731		100.0%

Source:

U.S. Department of Commerce, Bureau of the Census, County Business Patterns web site: tier2.census.gov/cbp/, April 2001. (Additional resources: www.census.gov)

^a Data for employees of establishments totally exempt from FICA are excluded, as are self-employed persons, domestic service workers, railroad employees, agricultural production workers and most government employees.

Eleven percent of employed civilians in 1999 worked in transportation or transportation-related industries; truck drivers and deliverymen made up 20% of that employment.

Table 5.18
Employment in Transportation and Related Industries, 1960–99
(persons in thousands)

	1960	1965	1970	1975	1980	1985	1990	1995	1999
<u>Transportation Service</u>									
Air transport	191	229	351	362	453	537	968	1,068	1,227
Bus, intercity	41	42	43	39	38	36	26	24	21
Local transport	101	83	77	69	79	90	141	203	240
Railroads	885	735	627	538	532	346	279	238	230
Oil pipeline	23	20	18	17	21	19	19	15	13
Taxi	121	110	107	83	53	38	32	31	31
Trucking & truck materials	770	882	998	996	1,280	1,361	1,395	1,587	1,804
Water	232	230	215	190	211	185	177	175	187
Total	2,364	2,331	2,436	2,294	2,667	2,598	3,036	3,340	3,753
<u>Transportation Equipment Manufacturing</u>									
Aircraft & parts	646	624	669	514	652	647	712	451	495
Motor vehicles, equipment, tires	829	945	914	892	904	964	946	1,051	1,098
Railroad equipment	43	56	51	52	71	34	33	38	38
Ship & boat building & repair	141	160	170	194	221	193	188	160	162
Other transportation equipment	33	57	111	115	149	130	45	53	51
Total	1,692	1,842	1,915	1,767	1,997	1,968	1,924	1,752	1,844
<u>Transportation Related Industries</u>									
Automotive/accessory retail dealers	807	902	996	1,076	1,048	1,185	1,292	1,388	1,377
Automotive wholesalers	215	255	320	367	418	433	456	492	520
Automotive service & garages	251	324	384	400	571	730	926	981	1,341
Gasoline service stations	461	522	614	616	561	611	647	649	675
Highway & street construction	294	324	331	297	268	264	239	228	250
Petroleum ^a	311	292	333	390	533	568	513	429	445
Other industries									
Truck drivers & deliverymen	1,477	1,521	1,565	1,796	1,931	2,050	2,148	2,861	3,116
Freight handlers	365	411	456	613	622	574	504	536	625
Total	4,181	4,551	4,999	5,545	5,952	6,415	6,725	7,564	8,349
<u>Government Transportation Employees</u>									
U.S. Department of Transportation	38	45	66	75	72	61	67	63	64
Highways, state & local	499	550	568	569	532	549	569	560	543
U.S. Postal Service ^b	83	83	103	98	92	104	115	110	113
Other ^c	18	16	12	13	13	11	11	11	12
Total	638	694	749	755	709	725	762	744	732
Total transportation employment	8,875	9,418	10,099	10,361	11,325	11,706	12,447	13,400	14,678
Total employed civilians	65,778	71,088	78,627	85,783	99,303	107,150	118,793	124,900	133,488
Transportation percent of total	13.5%	13.2%	12.8%	12.1%	11.4%	10.9%	10.5%	10.7%	11.0%

Source:

Eno Transportation Foundation, *Transportation in America 2000*, Eighteenth Edition, Lansdowne, VA, 2001, pp. 32-35.

^a Estimated by assuming transport share of total petroleum industry employment is same as transport share of petroleum domestic demand.

^b Estimated share (approximately 14%) of total employees engaged in transportation work.

^c Agencies include Civil Aeronautics Board (sunset in 1985), Federal Maritime Commission, Federal Energy Regulatory Commission, Interstate Commerce Commission, Railroad Retirement Board, and Panama Canal Commission.