Part III
Environmental Data and Trends

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Table 1. Total U.S. Population and Population Growth Rate, 1903-1995

Year	Population	Growth rate	Year	Population	Growth rate	Year	Population	Growth rate
	millions	*%*		*millions*	*%*		*millions*	*%*
1903	80.63	1.9	1934	126.49	0.7	1965	194.30	1.2
1904	82.17	1.9	1935	127.36	0.7	1966	196.56	1.1
1905	83.82	2.0	1936	128.18	0.6	1967	198.71	1.1
1906	85.45	1.9	1937	128.96	0.7	1968	200.71	1.0
1907	87.01	1.8	1938	129.97	0.8	1969	202.68	1.0
1908	88.71	2.0	1939	131.03	0.8	1970	205.05	1.3
1909	90.49	2.0	1940	132.59	0.9	1971	207.66	1.2
1910	92.41	2.1	1941	133.89	1.0	1972	209.90	1.0
1911	93.86	1.6	1942	135.36	1.3	1973	211.91	0.9
1912	95.34	1.6	1943	137.25	1.3	1974	213.85	0.9
1913	97.23	2.0	1944	138.92	1.2	1975	215.97	1.0
1914	99.11	1.9	1945	140.47	1.0	1976	218.04	1.0
1915	100.55	1.4	1946	141.94	1.5	1977	220.24	1.0
1916	101.96	1.4	1947	144.70	1.8	1978	222.59	1.1
1917	103.41	1.4	1948	147.21	1.7	1979	225.06	1.1
1918	104.55	1.1	1949	149.77	1.7	1980	227.73	1.2
1919	105.06	0.5	1950	152.27	1.7	1981	229.97	1.0
1920	106.46	1.3	1951	154.88	1.7	1982	232.19	1.0
1921	108.54	2.0	1952	157.55	1.7	1983	234.31	0.9
1922	110.05	1.4	1953	160.18	1.7	1984	236.35	0.9
1923	111.95	1.7	1954	163.03	1.8	1985	238.47	0.9
1924	114.11	1.9	1955	165.93	1.8	1986	240.65	0.9
1925	115.83	1.5	1956	168.90	1.8	1987	242.80	0.9
1926	117.40	1.4	1957	171.98	1.7	1988	245.02	0.9
1927	119.04	1.4	1958	174.88	1.7	1989	247.34	0.9
1928	120.51	1.2	1959	177.83	1.7	1990	249.91	1.0
1929	121.77	1.0	1960	180.67	1.6	1991	252.65	1.1
1930	123.19	0.9	1961	183.69	1.6	1992	255.42	1.1
1931	124.15	0.7	1962	186.54	1.5	1993	258.14	1.1
1932	124.95	0.6	1963	189.24	1.4	1994	260.66	1.0
1933	125.69	0.6	1964	191.89	1.3	1995	263.03	0.9

Sources: U.S. Department of Commerce, Bureau of the Census, *Estimates of the Population of the United States to December 31, 1995* (GPO, Washington, DC, 1995).

--, U.S. Population Estimates by Age, Sex, Race, and Hispanic Origin: 1990 to 1995 (GPO, Washington, DC, 1996).

Notes: The population estimates shown here are based on the April 1, 1990, population as enumerated in the 1990 census. Estimates for dates prior to April 1, 1990, have been revised. Annual population estimates are for July 1 of each year. Total population for the years 1900-1916 and 1920-1929 are resident population. Total population for the years 1917-1919, 1930-1939, and 1940-1995 are resident population plus armed forces overseas. All years 1903-1939 exclude Alaska and Hawaii.

Table 2. Components of Total U.S. Population Change, 1940-1994

Year	Births	Deaths	Net civilian immigration	Net change
		millions		
1940	2.570	1.432	0.077	1.221
1945	2.873	1.549	0.162	1.462
1950	3.645	1.468	0.299	2.486
1955	4.128	1.537	0.337	2.925
1960	4.307	1.708	0.328	2.901
1965	3.801	1.830	0.373	2.315
1970	3.739	1.927	0.438	2.617
1975	3.144	1.894	0.449	2.165
1980	3.612	1.990	0.845	2.510
1985	3.761	2.086	0.649	2.171
1990	4.148	2.155	0.576	2.569
1994	3.949	2.291	0.816	2.471

Source: U.S. Department of Commerce (DOC), Bureau of the Census (BOC), *U.S. Population Estimates, by Age, Sex, Race, and Hispanic Origin*, Current Population Reports, Series P-25, No. 1045 (1990) and No. 1095 (1993) (GPO, Washington, DC) and Population Paper Listings, PPL-21 (DOC, BOC, Washington, DC, 1995).

Table 3. Age Structure of the U.S. Population, including Armed Forces Overseas, 1940-1995

	Age classes, in years							
Year	< 5	5-14	15-24	25-34	35-44	45-54	55-64	> 64
				millions				
1940	10.6	22.3	24.0	21.5	18.4	15.6	10.7	9.0
1955	16.3	24.5	22.3	23.9	21.6	17.4	13.4	12.4
1960	20.3	35.7	24.6	22.9	24.2	20.6	15.6	16.7
1970	17.2	40.7	36.5	25.3	23.1	23.3	18.7	20.1
1980	16.5	34.8	42.8	37.6	25.9	22.7	21.8	25.7
1985	17.8	33.7	40.2	41.9	31.8	22.5	22.1	28.4
1990	18.9	35.3	36.9	43.1	37.8	25.2	21.1	31.2
1995	19.6	38.1	35.9	41.0	42.5	31.1	21.1	33.5

Sources: U.S. Department of Commerce, Bureau of the Census, *Historical Statistics of the United States: Colonial Times to 1970*, Part I, Series A 30-37 (GPO, Washington, DC, 1975).

--, U.S. Population Estimates, by Age, Sex, Race, and Hispanic Origin, Current Population Reports, Series P-25, No. 1045 (1990) and No. 1095 (1993) (GPO, Washington, DC) and Population Paper Listings, PPL-21 (DOC, BOC, Washington, DC, 1995).

Note: Annual population estimates are for July 1 of each year.

Table 4. U.S. Population in Urban, Suburban, and Rural Areas, 1950-1994

Year	Urban population		Suburban population		Rural population	
	millions	*%*	*millions*	*%*	*millions*	*%*
1950	49.661	32.8	35.193	23.3	66.472	43.9
1960	58.004	32.3	54.881	30.6	66.438	37.0
1970	63.797	31.4	75.622	37.2	63.793	31.4
1980	67.949	30.0	101.481	44.8	57.115	25.2
1990	77.844	31.3	114.882	46.2	55.984	22.5
1994	75.591	29.4	129.063	50.1	52.687	20.5

Source: U.S. Department of Commerce, Bureau of the Census, *Population Censuses Number of Inhabitants, U.S. Summary, 1950-1990* (GPO, Washington, DC) and updates by agency.

Notes: Urban refers to population inside central cities of metropolitan areas (MAs). Suburban refers to MA population in suburbs outside central cities. Rural refers to nonmetropolitan population. MAs are defined for each population census.

Table 5. U.S. Population by Region, 1900-1994, and Net U.S. Population Migration by Region, 1960-1994

Year	Northeast	Midwest	South	West
	regional population, in millions			
1900	21.047	26.333	24.524	4.309
1910	25.869	29.889	29.389	7.082
1920	29.662	34.020	33.126	9.214
1930	34.427	38.594	37.858	12.324
1940	35.977	40.143	41.666	14.379
1950	39.478	44.461	47.197	20.190
1960	44.678	51.619	54.973	28.053
1970	49.061	56.590	62.813	34.838
1980	49.137	58.867	75.367	43.171
1990	50.809	59.669	85.446	52.786
1994	51.396	61.394	90.692	56.859

Region	1960-1970	1970-1980	1980-1990	1990-1994
	migration gains and losses, in millions			
Northeast	0.324	-2.888	-0.592	-0.616
Midwest	-0.752	-2.703	-2.293	0.154
South	0.593	5.992	5.143	2.626
West	2.855	4.115	4.568	1.513

Sources: U.S. Department of Commerce, Bureau of the Census, *1990 Census of Population and Housing,* CPH-2-1 (GPO, Washington, DC, 1993).

--, *Estimates of the Population of States: July 1, 1990 to July 1, 1994*, CB94-204 (GPO, Washington, DC, 1994).

--, Current Population Reports, Series P-25, No. 460, 957, 1106, and 1127 (GPO, Washington, DC).

Note: Migration is that portion of population change not attributed to births and deaths.

Table 6. U.S. Population Density, 1960-1994

Year	Total United States	Counties in coastal regions				Interior of U.S.
		Pacific	Gulf of Mexico	Atlantic	Great Lakes	
	Land area, in thousands of square miles					
1994	3,536.3	509.9	114.5	147.8	115.4	2,648.7
	Population, in millions					
1960	179.3	17.9	8.4	44.5	23.7	84.8
1970	203.3	22.8	10.0	51.1	26.0	93.3
1980	226.5	27.0	13.1	53.7	26.0	106.7
1990	248.7	33.2	15.2	59.0	26.9	115.3
1994	260.3	35.1	16.3	60.7	26.4	121.8
	Population per square mile					
1960	50.7	35.1	73.4	301.1	205.4	32.0
1970	57.5	44.7	87.3	345.7	225.3	35.2
1980	64.0	53.0	114.4	363.3	225.6	40.3
1990	70.3	66.1	136.2	399.2	224.8	43.5
1994	73.6	68.8	142.9	410.7	228.8	46.0

Source: U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States, 1995* (GPO, Washington, DC, 1996), data from the 1990 Census of Population and Housing, and updates by agency.

Notes: Coastal area includes 672 counties and independent cities with at least 15 percent of their land area either in a coastal watershed or in a coastal cataloging unit defined in 1992 by the National Oceanic and Atmospheric Administration.

Table 7. U.S. Population Below Poverty Level by Race, Residence, and Region, 1969-1994

	Total		Race			Residence			Region			
Year	Number	Rate	White	African American	Hispanic origin	MA central city	MA suburb	Rural	Northeast	Midwest	South	West
	millions	*%*					*millions*					
1969	24.15	12.1	16.66	7.10	na	7.99	5.09	11.06	4.11	5.42	11.09	3.53
1970	25.42	12.6	17.48	7.55	na	8.12	5.20	12.10	na	na	11.48	na
1971	25.56	12.5	17.78	7.40	na	8.91	5.65	10.99	4.51	5.77	11.18	4.10
1972	24.46	11.9	16.20	7.71	na	9.18	5.33	9.95	4.27	5.26	10.93	4.01
1973	22.97	11.1	15.14	7.39	2.37	8.59	5.17	9.21	4.21	4.86	10.06	3.84
1974	23.37	11.2	15.74	7.18	2.58	8.37	5.48	9.52	4.47	4.99	10.76	4.04
1975	35.88	12.3	17.77	7.55	2.99	9.09	6.26	10.53	4.90	5.46	11.06	4.45
1976	24.98	11.8	16.71	7.60	2.78	9.48	5.75	9.75	4.95	5.66	10.35	4.02
1977	24.72	11.6	16.42	7.73	2.70	9.20	5.66	9.86	4.96	5.59	10.25	3.93
1978	24.50	11.4	16.26	7.63	2.61	9.29	5.81	9.41	5.05	5.19	10.26	4.00
1979	26.07	11.7	17.21	8.05	2.92	9.72	6.42	9.94	5.03	5.59	10.63	4.10
1980	29.27	13.0	19.70	8.58	3.49	10.64	7.38	11.25	5.37	6.59	12.36	4.96
1981	31.82	14.0	21.55	9.17	3.71	11.23	8.12	12.48	5.82	7.14	13.26	5.61
1982	34.40	15.0	23.52	9.70	4.30	12.70	8.55	13.15	6.36	7.77	13.97	6.30
1983	35.30	15.2	23.98	9.88	4.63	12.87	8.88	13.52	6.56	8.54	13.48	6.68
1984	33.70	14.4	22.96	9.49	4.81	na	na	na	6.53	8.30	12.79	6.07
1985	33.06	14.0	22.86	8.93	5.24	14.18	9.10	9.79	5.75	8.19	12.92	6.20
1986	32.37	13.6	22.18	8.98	5.12	13.30	9.36	9.71	5.21	7.64	13.11	6.41
1987	32.22	13.4	21.20	9.52	5.42	13.70	9.36	9.17	5.48	7.50	13.29	6.29
1988	31.75	13.0	20.72	9.36	5.36	13.62	9.44	8.69	5.09	6.80	13.53	6.32
1989	31.53	12.8	20.79	9.30	5.43	13.60	9.33	8.61	5.06	7.04	12.94	6.48
1990	33.59	13.5	22.33	9.84	6.01	14.25	10.26	9.08	5.79	7.46	13.46	6.88
1991	35.71	14.2	23.75	10.24	6.34	15.31	11.51	8.88	6.18	7.90	13.78	7.76
1992	38.01	14.8	25.26	10.83	7.59	16.35	12.03	9.63	6.41	8.06	15.20	8.34
1993	39.27	15.1	26.23	10.88	8.13	16.81	12.81	9.65	6.84	8.17	15.38	8.88
1994	38.06	14.5	25.38	10.20	8.42	16.10	13.51	8.45	6.60	7.97	14.73	8.77

Sources: U.S. Department of Commerce, Bureau of the Census, *Income, Poverty, and Valuation of Noncash Benefits: 1994,* Current Population Reports, P60-189 (GPO, Washington, DC, 1996).

--, *Income and Poverty: 1993*, Current Population Survey, March 1994, Annual Demographic Files on CD-ROM (Bureau of the Census, Washington, DC, 1995).

Notes: Total includes other races not shown separately. Persons of Hispanic origin may be of any race. Poverty rate (percent of persons below poverty level) for all races for years not shown are: 1959, 22.4; 1960, 22.2; 1961, 21.9; 1962, 21.0; 1963, 19.5; 1964, 19.0; 1965, 17.3; 1966, 14.7; 1967, 14.2; and 1968, 12.8. Poverty thresholds are updated annually to reflect changes in the consumer price index.

Table 8. Employment and Revenues in U.S. Environmental Industries, 1980 to 1994

Industry	Employment			Revenues		
	1980	1990	1994	1980	1990	1994
	thousands			*billions of dollars*		
Analytical services	6	20	20	0.4	1.5	1.6
Water treatment works	54	95	114	9.2	19.8	25.7
Solid waste management	83	210	230	8.5	26.1	31.0
Hazardous waste management	7	57	53	0.6	6.3	6.4
Remediation/industrial services	7	107	100	0.4	8.5	8.6
Consulting & engineering	21	144	163	1.5	12.5	15.3
Water equipment & chemicals	62	98	101	6.3	12.1	13.5
Instrument manufacturing	3	19	25	0.2	1.6	1.9
Air pollution control equipment	28	83	83	3.0	3.7	3.7
Waste management equipment	42	89	88	4.0	10.4	11.2
Process & prevention technology	2	9	15	0.1	0.4	0.8
Water utilities	77	105	118	11.9	19.8	24.2
Resource recovery	49	118	128	4.4	13.1	15.4
Environmental energy sources	22	21	24	1.5	1.8	2.2
Total	463	1,174	1,262	52.0	137.7	161.5

Source: Environmental Business International, Inc. *Environmental Business Journal*, (Environmental Business International, Inc., San Diego, CA, monthly).

Notes: Environmental industries covers approximately 59,000 private and public companies engaged in environmental activities. Analytical services covers environmental laboratory testing and services. Solid waste management covers activities such as collection, transportation, transfer stations, disposal, landfill ownership, and management for solid waste.

Economy and the Environment

Table 9. U.S. Gross Domestic Product, 1959-1995

Year	Gross domestic product		Price deflators for GDP
	Current dollars	Chained (1992) dollars	
	..... *billions*		*(1992=100)*
1959	507.2	2,212.3	22.9
1960	526.6	2,261.7	23.3
1961	544.8	2,309.8	23.6
1962	585.2	2,449.1	23.9
1963	617.4	2,554.0	24.2
1964	663.0	2,702.9	24.5
1965	719.1	2,874.8	25.0
1966	787.8	3,060.2	25.7
1967	833.6	3,140.2	26.5
1968	910.6	3,288.6	27.7
1969	982.2	3,388.0	29.0
1970	1,035.6	3,388.2	30.6
1971	1,125.4	3,500.1	32.2
1972	1,237.3	3,690.3	33.5
1973	1,382.6	3,902.3	35.4
1974	1,496.9	3,888.2	38.5
1975	1,630.6	3,865.1	42.2
1976	1,819.0	4,081.1	44.6
1977	2,026.9	4,279.3	47.4
1978	2,291.4	4,493.7	51.0
1979	2,557.5	4,624.0	55.3
1980	2,784.2	4,611.9	60.4
1981	3,115.9	4,724.9	65.9
1982	3,242.1	4,623.6	70.1
1983	3,514.5	4,810.0	73.1
1984	3,902.4	5,138.2	75.9
1985	4,180.7	5,329.5	78.4
1986	4,422.2	5,489.9	80.6
1987	4,692.3	5,648.4	83.1
1988	5,049.6	5,862.9	86.1
1989	5,438.7	6,060.4	89.7
1990	5,743.8	6,138.7	93.6
1991	5,916.7	6,079.0	97.3
1992	6,244.4	6,244.4	100.0
1993	6,550.2	6,383.8	102.6
1994	6,931.4	6,604.2	104.9
1995	7,247.7	6,740.8	107.6

Sources: U.S. Department of Commerce, Bureau of Economic Analysis, "Summary National Income and Product Series, 1959-94," *Survey of Current Business* 76:107-118 (GPO, Washington, DC, January/February 1996) and Tables 2 and 3, Gross Domestic Product Press Release, February 23, 1996.

Table 10. U.S. Pollution Abatement and Control Expenditures by Function, 1972-1994

Year	Pollution abatement		Regulation & monitoring		Research & development		Total	
	billion dollars	*price index*	*billion dollars*	*price index*	*billion dollars*	*price index*	*billion dollars*	*price index*
1972	15.45	31.5	0.37	31.6	0.82	30.0	16.64	31.5
1973	17.93	34.5	0.49	33.8	0.90	31.9	19.33	34.5
1974	21.85	40.6	0.60	37.6	0.99	35.4	23.43	40.4
1975	26.55	43.8	0.65	40.2	1.10	39.2	28.30	43.6
1976	29.80	46.3	0.73	42.4	1.28	41.8	31.80	46.2
1977	32.79	49.4	0.83	45.9	1.48	44.8	35.10	49.3
1978	36.90	53.2	0.95	49.0	1.65	48.6	39.50	53.0
1979	42.43	61.0	1.07	52.9	1.78	53.2	45.27	59.8
1980	47.75	67.9	1.26	58.9	1.75	59.8	50.76	67.4
1981	51.39	74.8	1.31	64.7	1.71	66.4	54.41	74.3
1982	52.99	77.8	1.32	69.7	1.64	71.5	55.95	77.5
1983	56.23	80.3	1.30	73.0	1.60	74.8	59.12	80.0
1984	63.26	82.8	1.29	75.7	1.51	77.6	66.06	82.5
1985	68.73	85.2	1.25	78.5	1.38	79.5	71.36	84.9
1986	72.91	84.8	1.46	81.4	1.67	80.5	76.04	84.6
1987	75.61	86.8	1.65	84.2	1.69	82.3	78.95	86.6
1988	80.55	89.3	1.66	86.4	1.54	86.3	83.75	89.2
1989	85.10	92.8	1.73	89.5	1.68	90.0	88.51	92.7
1990	91.61	96.1	1.79	92.9	1.42	93.0	94.82	95.9
1991	93.75	98.3	2.29	97.3	1.87	96.6	97.90	98.2
1992	100.46	100.0	2.60	100.0	1.56	100.0	103.83	100.0
1993	105.84	102.6	2.34	101.9	1.87	102.9	110.05	102.6
1994	117.62	106.0	2.20	101.5	1.99	103.2	121.81	105.8

Source: C.R. Vogan, "Pollution Abatement and Control Expenditures, 1972-94," *Survey of Current Business* (GPO, Washington, DC, September 1996).

Notes: Dollars=current dollars. Price index=chained-type price index, 1992=100. Expenditures are for goods and services that U.S. residents use to produce cleaner air and water and to manage solid waste. Pollution abatement directly reduces emissions by preventing the generation of pollutants, by recycling the pollutants, or by treating the pollutants prior to discharge. Regulation and monitoring are government activities that stimulate and guide action to reduce pollutant emissions. Research and development by business and government not only support abatement but also help increase the efficiency of regulation and monitoring. Estimates do not include interest costs. Totals may not agree with sum of components due to independent rounding.

Table 11. U.S. Pollution Abatement and Control Expenditures by Type, 1972-1994

Year	Air		Water		Solid waste		Other	
	billion dollars	*price index*	*billion dollars*	*price index*	*billion dollars*	*price index*	*billion dollars*	*price index*
1972	6.43	32.5	7.21	32.1	3.18	30.4	-0.19	38.3
1973	7.68	34.9	8.21	36.0	3.59	32.7	-0.15	49.8
1974	9.68	43.3	9.77	40.9	4.18	36.5	-0.19	72.0
1975	11.92	47.3	12.07	43.7	4.52	39.2	-0.22	76.2
1976	13.03	49.4	14.06	46.7	5.00	41.7	-0.28	77.3
1977	14.72	52.6	14.96	50.2	5.72	44.1	-0.29	79.1
1978	16.38	56.1	17.10	54.8	6.51	46.6	-0.39	85.8
1979	19.40	65.0	19.19	60.7	7.28	51.6	-0.59	103.9
1980	22.35	76.5	20.64	66.4	8.52	56.4	-0.75	122.2
1981	25.42	84.0	20.15	72.5	9.69	64.0	-0.86	130.6
1982	25.96	86.1	20.70	76.1	9.80	68.4	-0.52	120.3
1983	26.68	87.3	21.71	79.9	11.12	70.9	-0.39	111.1
1984	29.42	88.9	24.18	83.1	13.03	74.0	-0.56	111.9
1985	30.68	88.9	26.17	86.2	15.18	76.7	-0.66	103.2
1986	31.43	87.4	28.23	86.9	17.06	79.1	-0.69	92.7
1987	29.36	89.5	30.76	88.5	19.43	81.7	-0.61	96.8
1988	31.33	91.6	31.29	91.1	22.43	85.0	-1.30	102.7
1989	29.34	94.8	33.68	94.2	26.66	89.4	-1.17	108.3
1990	28.33	97.3	37.13	96.7	30.64	94.2	-1.28	111.1
1991	27.79	98.7	37.92	98.9	32.83	97.3	-0.63	104.0
1992	29.79	100.0	39.07	100.0	36.58	100.0	-0.81	100.0
1993	32.48	101.6	39.38	103.8	38.37	102.2	-0.18	0.97
1994	37.60	104.6	42.38	108.1	41.74	104.6	-0.09	-0.91

Source: C.R. Vogan, "Pollution Abatement and Control Expenditures, 1972-94," *Survey of Current Business* (GPO, Washington, DC, September 1996).

Notes: Dollars=current dollars. Price index=chained-type price index, 1992=100. Expenditures cover most, but not all, pollution abatement and control activities, which are defined as those resulting from rules, policies and conventions, and formal regulations restricting the release of pollutants into common-property media such as the air and water. Solid waste management includes the collection and disposal of solid waste and the alteration of production processes that generate less solid waste. Other consists of the value of reclaimed materials and energy that can not be assigned to a specific media category. Estimates do not include interest costs.

Table 12. U.S. Pollution Abatement Expenditures by Sector, 1972-1994

Year	Personal consumption		Business		Government	
	billion dollars	*price index*	*billion dollars*	*price index*	*billion dollars*	*price index*
1972	1.35	32.3	10.69	30.9	3.41	32.0
1973	1.86	34.4	12.20	34.1	3.86	34.7
1974	2.33	43.0	14.59	40.1	4.93	39.5
1975	3.25	46.2	16.41	44.0	6.89	41.1
1976	3.81	48.6	18.38	46.4	7.62	43.8
1977	4.34	51.3	21.04	49.6	7.41	46.8
1978	4.85	54.3	23.40	53.3	8.65	53.1
1979	5.52	65.5	26.97	59.7	9.94	51.6
1980	6.65	79.8	29.99	67.4	11.11	65.3
1981	8.20	86.5	32.51	74.7	10.68	67.4
1982	8.36	86.6	33.54	78.4	11.09	70.4
1983	9.76	86.9	35.02	80.9	11.45	74.1
1984	11.04	88.0	39.36	83.7	12.86	76.9
1985	12.16	90.1	42.04	85.6	14.54	80.9
1986	12.68	86.4	44.11	85.3	16.11	82.7
1987	11.34	89.5	46.74	87.0	18.54	84.7
1988	12.48	91.2	48.40	89.5	19.67	88.1
1989	11.09	94.0	52.23	93.2	21.77	91.1
1990	9.33	96.2	58.30	96.6	23.99	94.5
1991	7.43	97.5	61.09	98.6	25.23	97.9
1992	7.90	100.0	65.93	100.0	26.64	100.0
1993	8.44	102.5	69.01	102.7	28.39	102.5
1994	9.76	106.0	76.63	106.2	31.23	105.6

Source: C.R. Vogan, "Pollution Abatement and Control Expenditures, 1972-94," *Survey of Current Business* (GPO, Washington, DC, September 1996).

Notes: Dollars=current dollars. Price index=chained-type price index, 1992=100. Expenditures are attributed to the sector that performs the air or water pollution abatement or solid waste collection and disposal. Personal consumption refers to expenditures to purchase and operate motor vehicle emission abatement devices. Government refers to pollution abatement expenditures by federal, state, and local governments and to government enterprise fixed capital for publicly-owned electric utilities and public sewer systems. Data do not include interest costs.

Table 13. U.S. Pollution Abatement Expenditures by Industry, 1973-1994

Year	Chemicals and allied products								
	Capital expenditures				Operating costs				
	Air	Water	Solid waste	Total	Air	Water	Solid waste	Total	Cost offsets
	millions of current dollars								
1973	164.4	214.6	16.8	395.9	174.1	247.6	80.2	502.3	83.1
1974	250.6	264.4	24.1	539.2	203.8	335.6	104.0	643.3	104.5
1975	359.5	387.7	35.0	780.2	249.9	430.9	126.7	807.4	140.7
1976	319.8	577.4	44.7	942.0	295.6	514.7	173.2	983.5	188.7
1977	339.9	593.1	49.6	982.5	335.5	685.2	217.6	1,238.3	206.4
1978	376.3	385.9	65.1	827.5	398.8	794.1	280.1	1,473.0	231.3
1979	314.6	360.7	95.6	770.9	485.3	895.2	287.0	1,667.5	230.4
1980	325.9	350.0	104.8	780.7	539.9	942.9	368.8	1,851.8	305.9
1981	335.0	322.2	95.6	752.8	571.7	1,069.1	406.9	2,047.8	341.1
1982	272.8	256.5	98.3	627.6	556.1	1,112.3	438.2	2,106.5	345.2
1983	159.0	187.4	49.0	395.4	624.9	1,106.0	467.4	2,198.2	297.4
1984	142.9	212.4	32.7	418.1	622.0	1,206.3	517.1	2,345.4	357.5
1985	193.7	271.5	272.5	738.1	672.9	1,267.7	599.4	2,540.0	268.6
1986	197.8	325.5	101.0	624.4	646.5	1,301.8	705.9	2,654.3	336.4
1988	370.7	487.8	236.5	1,095.0	706.4	1,428.5	940.1	3,074.9	443.8
1989	380.3	598.6	215.9	1,194.8	794.0	1,613.8	1,101.4	3,509.2	395.9
1990	596.2	995.0	260.9	1,852.1	841.9	1,799.0	1,302.5	3,943.4	405.7
1991	816.4	942.3	307.5	2,066.1	879.6	1,786.9	1,380.5	4,046.9	353.7
1992	774.5	1,017.3	329.1	2,120.9	1,026.9	1,946.8	1,451.3	4,425.1	511.2
1993	767.5	937.9	252.5	1,957.9	1,013.6	1,957.0	1,377.6	4,348.2	362.1
1994	676.9	1,005.6	248.4	1,931.0	1,138.7	1,996.7	1,431.5	4,566.9	321.0
	Petroleum and coal products								
1973	222.5	96.1	3.2	321.8	192.5	125.4	19.9	337.8	44.3
1974	341.3	119.7	1.3	462.3	238.3	153.3	28.5	420.1	83.5
1975	398.2	155.7	1.7	555.7	339.4	192.1	31.7	563.1	137.7
1976	236.5	199.8	5.2	441.4	466.1	263.3	45.3	774.8	183.8
1977	167.7	195.6	5.3	368.5	601.3	289.3	57.4	948.0	238.4
1978	311.2	100.5	7.6	419.3	636.4	304.1	57.0	997.4	261.8
1979	397.8	119.4	17.1	534.3	750.7	370.8	25.3	1,173.8	324.1
1980	402.3	114.2	15.4	531.9	910.1	406.9	101.0	1,418.0	506.7
1981	440.8	131.7	18.2	590.6	1,118.0	437.2	130.2	1,685.5	565.6
1982	533.2	165.7	13.1	712.1	1,195.1	472.0	133.7	1,800.8	335.3
1983	308.2	164.7	12.0	485.0	1,203.6	552.3	137.9	1,893.7	524.9
1984	195.1	96.8	19.8	311.7	1,327.9	583.8	171.1	2,083.5	552.8
1985	175.0	88.4	27.0	290.4	1,278.5	586.5	198.5	2,063.4	500.0
1986	273.6	121.5	29.2	424.3	1,230.9	578.0	196.4	2,005.2	498.2
1988	208.2	203.7	70.8	482.8	1,175.8	561.7	268.0	2,005.5	480.0
1989	146.5	230.4	40.7	417.6	1,258.2	578.7	333.0	2,170.0	523.1
1990	425.7	400.8	90.3	916.8	1,472.2	701.9	530.8	2,704.9	562.0
1991	996.7	373.3	92.5	1,462.5	1,464.7	793.9	590.4	2,849.0	480.5
1992	2,079.8	492.6	112.6	2,685.0	1,428.9	742.8	413.7	2,585.4	475.9
1993	1,974.7	567.2	106.6	2,648.5	1,585.3	685.2	377.4	2,647.9	419.4
1994	1,982.3	466.9	122.9	2,572.0	1,742.0	755.7	417.2	2,914.9	337.8

See next page for continuation of table.

Table 13. U.S. Pollution Abatement Expenditures by Industry, 1973-1994 (continued)

Year	Capital expenditures				Operating costs				Cost offsets
	Air	Water	Solid waste	Total	Air	Water	Solid waste	Total	
	millions of current dollars								
Primary metal industries									
1973	397.2	84.7	16.8	498.6	264.7	148.3	53.8	466.8	51.5
1974	510.5	132.7	12.5	646.8	339.6	181.2	69.5	590.2	76.9
1975	640.6	187.5	5.4	833.5	429.9	209.4	75.9	715.2	95.3
1976	632.5	197.8	3.4	833.7	575.7	229.5	90.7	895.8	100.7
1977	616.0	250.2	8.4	874.6	721.6	268.3	132.3	1,122.3	126.3
1978	563.3	219.1	9.4	791.8	809.6	333.0	178.9	1,321.4	141.7
1979	588.8	227.3	6.9	823.1	981.7	442.0	163.5	1,587.2	241.8
1980	539.7	180.7	19.6	740.0	998.2	463.2	215.3	1,677.3	169.5
1981	567.2	144.1	16.9	728.2	1,111.9	549.2	250.7	1,911.8	189.7
1982	423.1	133.7	13.0	569.8	897.2	448.4	167.6	1,513.6	148.5
1983	147.6	100.2	7.5	225.3	904.3	454.6	256.7	1,615.6	95.4
1984	175.2	72.9	26.0	274.0	1,017.3	450.7	301.7	1,769.7	171.6
1985	142.9	84.3	25.6	252.9	1,067.0	517.4	278.7	1,863.0	136.8
1986	102.8	74.6	48.4	225.9	968.5	509.4	264.1	1,721.9	184.6
1988	167.3	100.6	41.8	309.8	965.8	516.1	327.2	1,809.0	189.8
1989	216.3	138.7	52.1	407.0	883.1	574.3	473.7	1,931.1	190.4
1990	278.6	166.8	53.7	499.1	943.7	565.4	516.4	2,025.5	206.3
1991	499.2	131.9	42.2	673.4	911.7	564.0	526.9	2,002.6	185.1
1992	342.6	123.5	59.5	525.7	933.1	575.0	485.3	1,993.4	164.2
1993	280.7	92.0	69.5	442.2	944.5	598.2	474.6	2,017.2	136.4
1994	290.1	98.5	39.4	428.0	982.1	692.2	537.2	2,211.5	133.8
Transportation equipment									
1973	52.6	41.7	6.9	101.2	35.2	51.1	43.4	129.8	20.1
1974	52.7	41.5	9.2	103.4	44.8	59.5	50.5	154.8	13.6
1975	32.1	36.4	6.8	75.4	52.2	66.4	49.7	168.3	13.4
1976	21.1	53.6	3.8	78.5	56.9	83.5	57.6	197.9	14.5
1977	36.9	39.4	6.3	82.6	60.6	97.3	76.1	233.9	13.5
1978	71.0	57.9	10.7	139.5	77.3	110.2	93.0	280.5	16.6
1979	120.1	59.5	9.9	189.5	96.4	126.3	109.1	331.8	36.9
1980	201.4	60.7	12.9	275.0	110.7	137.4	153.2	401.5	24.6
1981	209.2	60.0	14.2	283.3	117.5	150.7	157.7	426.1	19.3
1982	59.7	36.5	12.1	108.3	105.6	153.5	137.6	396.5	18.2
1983	33.0	55.0	10.2	98.3	157.5	224.2	178.6	560.3	22.3
1984	71.3	116.9	19.4	207.6	192.9	280.1	212.6	685.6	22.7
1985	254.5	165.1	36.9	456.5	194.5	283.9	260.3	738.8	23.7
1986	432.4	81.8	26.8	541.1	195.7	338.5	304.9	839.0	28.2
1988	87.6	80.4	42.2	210.2	215.7	299.2	459.5	974.4	38.7
1989	156.0	84.6	46.2	286.8	212.2	318.1	470.1	1,000.3	43.1
1990	206.6	142.6	46.1	395.3	247.3	373.1	611.6	1,232.0	41.2
1991	175.8	94.7	30.8	301.4	254.7	319.6	544.0	1,118.3	45.9
1992	179.4	69.2	32.5	281.0	298.5	347.0	526.2	1,171.7	68.7
1993	178.7	67.1	31.8	277.6	302.4	350.9	541.2	1,194.4	64.1
1994	244.8	60.8	31.3	336.9	293.7	342.5	480.2	1,116.4	71.4

See next page for continuation of table.

Table 13. U.S. Pollution Abatement Expenditures by Industry, 1973-1994 (continued)

Year	Capital expenditures				Operating costs				Cost offsets
	Air	Water	Solid waste	Total	Air	Water	Solid waste	Total	
	millions of current dollars								
Food and kindred products									
1973	77.6	104.8	14.3	196.7	39.1	110.4	53.6	203.1	32.6
1974	73.4	111.7	14.3	199.2	48.8	143.5	76.8	268.9	52.2
1975	75.6	93.9	11.4	180.9	53.2	153.7	87.7	294.2	62.6
1976	102.5	97.6	7.4	207.5	57.7	187.5	100.5	345.9	63.7
1977	67.9	103.6	12.5	183.9	56.2	211.6	89.5	357.1	53.3
1978	67.7	94.4	12.9	175.0	69.4	243.2	99.4	412.0	57.1
1979	57.9	111.1	13.6	182.7	91.0	297.9	115.3	504.2	80.3
1980	61.7	133.0	13.5	208.2	81.6	314.3	123.6	519.4	79.5
1981	53.9	104.8	14.8	173.5	78.3	343.3	157.5	579.1	91.2
1982	47.4	110.9	11.0	169.3	77.1	328.1	116.2	522.1	51.1
1983	37.7	105.1	10.9	153.8	96.1	402.3	151.3	649.6	32.7
1984	50.6	91.8	12.2	154.5	101.3	458.1	155.0	714.4	43.7
1985	66.2	77.4	11.7	155.1	106.3	525.2	201.0	832.1	33.4
1986	61.9	108.2	15.7	185.8	126.0	559.9	246.1	932.1	w/h
1988	100.2	91.0	19.8	211.0	157.8	673.3	328.9	1,160.0	110.6
1989	51.7	183.6	25.2	260.6	137.4	663.5	255.3	1,056.2	82.0
1990	64.6	163.3	21.1	249.0	145.9	692.4	270.4	1,108.8	87.0
1991	94.6	359.5	27.7	481.8	149.6	788.5	316.1	1,254.2	71.6
1992	85.1	202.6	29.1	316.8	162.7	835.7	313.6	1,312.0	82.2
1993	73.9	113.6	32.4	219.9	156.1	857.8	325.4	1,339.3	65.1
1994	105.9	152.8	15.5	274.3	172.4	940.5	334.7	1,447.6	91.5
Paper and allied products									
1973	166.4	161.0	12.1	339.6	59.2	118.1	43.2	220.5	54.6
1974	270.8	193.2	12.9	476.9	81.2	152.0	55.7	289.0	84.8
1975	323.0	266.0	16.3	605.3	100.9	185.5	57.5	344.0	112.2
1976	180.6	278.6	27.3	486.6	123.3	239.1	67.3	430.3	137.6
1977	134.1	261.7	31.6	427.4	133.5	309.0	86.4	529.0	150.8
1978	123.9	189.0	28.7	341.6	158.4	357.6	105.6	622.0	175.6
1979	207.0	180.6	38.8	426.4	176.6	400.5	121.1	698.2	161.5
1980	197.4	111.2	31.0	339.6	196.2	436.7	129.1	762.1	248.1
1981	168.0	86.5	31.1	285.5	211.8	469.9	148.0	829.7	298.5
1982	190.0	93.7	29.7	313.4	206.7	455.2	134.1	796.0	213.7
1983	122.3	65.9	27.9	216.1	226.5	508.9	183.6	919.1	255.3
1984	151.9	68.2	42.1	262.3	280.7	566.1	213.2	1,060.1	118.4
1985	190.9	106.0	35.6	332.4	313.0	573.4	234.4	1,120.8	107.3
1986	137.1	96.9	37.3	271.3	319.2	565.7	269.7	1,154.6	133.8
1988	233.4	97.2	87.1	417.7	372.4	627.7	343.2	1,343.3	245.6
1989	392.4	261.0	154.9	808.2	388.1	686.8	374.2	1,449.0	264.9
1990	414.0	509.6	151.7	1,075.2	397.5	788.3	421.0	1,606.8	266.4
1991	480.8	552.7	199.0	1,232.6	400.8	790.7	443.5	1,635.0	170.4
1992	396.7	373.4	234.5	1,004.6	535.6	822.7	502.4	1,860.7	254.6
1993	307.3	289.2	119.2	715.6	511.2	852.7	537.5	1,901.5	234.0
1994	241.9	195.9	198.1	635.9	536.9	829.5	513.1	1,879.5	285.1

See next page for continuation of table.

Table 13. U.S. Pollution Abatement Expenditures by Industry, 1973-1994 (continued)

Rubber and miscellaneous plastic products

Year	Capital expenditures				Operating costs				Cost offsets
	Air	Water	Solid waste	Total	Air	Water	Solid waste	Total	
	millions of current dollars								
1973	13.5	7.3	3.3	24.2	12.2	10.1	20.4	42.6	4.6
1974	22.2	13.5	2.2	37.9	15.7	15.1	28.2	58.8	19.5
1975	22.2	6.6	3.1	31.9	20.7	18.4	25.7	64.8	12.5
1976	24.2	10.0	3.1	37.4	22.3	24.0	34.0	80.3	15.8
1977	17.4	13.8	5.4	36.6	19.8	18.9	35.1	73.8	7.7
1978	18.7	5.5	3.4	27.7	17.7	23.9	43.3	84.9	8.0
1979	12.9	9.3	2.9	25.1	32.2	29.6	49.9	111.7	13.6
1980	12.6	6.9	2.3	21.7	30.4	27.6	50.2	108.2	18.1
1981	15.3	5.9	6.5	21.8	29.8	29.4	58.8	118.3	14.0
1982	14.8	7.7	2.7	25.2	22.2	28.2	39.8	90.2	7.0
1983	12.0	3.8	7.8	23.6	50.9	52.8	62.0	165.8	6.6
1984	20.5	7.0	5.8	33.4	51.1	48.7	68.1	168.0	9.9
1985	21.3	3.2	5.2	29.7	46.7	55.6	90.8	193.1	10.0
1986	20.1	9.7	6.2	36.0	50.9	52.0	123.3	226.2	15.1
1988	21.7	11.3	7.8	40.7	62.5	62.2	153.3	277.9	18.7
1989	50.3	16.0	12.0	78.2	85.3	99.6	218.4	403.3	25.6
1990	68.9	11.0	13.9	93.8	96.6	113.4	217.6	427.6	24.3
1991	50.8	18.8	12.2	81.7	121.0	76.9	243.0	440.9	29.4
1992	71.1	18.2	7.3	96.7	105.7	73.3	200.5	379.6	26.7
1993	44.0	11.6	7.6	63.3	104.6	83.5	197.1	385.2	24.9
1994	52.4	17.2	5.6	75.2	119.2	90.7	229.8	439.6	35.5

Source: U.S. Department of Commerce, Bureau of the Census, *Pollution Abatement Costs and Expenditures*, Current Industrial Reports (GPO, Washington, DC, annual).

Notes: Data for 1987 not available. w/h=withheld by industry. Data are for selected industries; do not include all industries covered in the survey.

Public Lands and Recreation

Table 14. U.S. Federal Lands, 1900-1995

Year	National Park System	National Wildlife Refuge System	National Forest System	Other federal lands	Total
			million acres		
1900	4.1	na	46.5	850.0	900.6
1910	7.9	na	168.0	423.9	599.8
1920	9.9	na	165.0	324.0	498.9
1930	10.8	na	160.1	324.1	495.0
1940	22.3	na	174.8	215.9	413.0
1950	24.6	17.5	179.7	190.2	412.0
1960	26.2	17.9	180.8	546.6	771.5
1970	29.6	30.7	182.6	518.4	761.3
1980	77.0	71.9	183.1	387.5	719.5
1990	80.1	90.6	187.1	292.0	649.8
1993	80.3	91.5	187.2	291.3	650.3
1995	83.2	92.3	187.3	287.5	na

Sources: U.S. Department of Agriculture (USDA), Forest Service (FS), *Land Areas of the National Forest System* (USDA, FS, Washington, DC, annual).

U.S. Department of the Interior (DOI), Fish and Wildlife Service (FWS), *Lands Under the Control of the Fish and Wildlife Service* (DOI, FWS, Washington, DC, annual).

U.S. Department of the Interior (DOI), National Park Service (NPS), *Areas Administered by the National Park Service: Information Tables* (DOI, NPS, Washington, DC, annual).

U.S. General Services Administration (GSA), *Inventory Report of Real Property Owned by the United States Throughout the World* (GSA, Washington, DC, annual).

Notes: na=not available. Data reflect year-end cumulative totals. Prior to 1950, estimated from imperfect data. Prior to 1960, excludes Alaska and Hawaii.

Table 15. National Wilderness Preservation System and National Wild and Scenic River System, 1968-1995

Year	National Wilderness Preservation System	National Wild and Scenic River System
	million acres	*river miles*
1968	10.03	773
1969	10.19	773
1970	10.40	868
1971	10.40	868
1972	11.03	895
1973	11.03	961
1974	11.38	1,018
1975	12.72	1,145
1976	14.45	1,610
1977	14.49	1,610
1978	19.00	2,299
1979	19.00	2,299
1980	79.71	5,662
1981	79.84	6,908
1982	79.88	6,908
1983	80.21	6,908
1984	88.55	7,217
1985	88.70	7,224
1986	88.80	7,363
1987	88.99	7,709
1988	90.81	9,264
1989	91.46	9,281
1990	94.97	9,318
1991	95.03	9,463
1992	95.39	10,506
1993	95.44	10,516
1994	103.72	10,616
1995	na	10,734

Sources: U.S. Department of Agriculture, Forest Service, National Wilderness Preservation System Fact Sheet, unpublished, Washington, DC, annual.

U.S. Department of the Interior, National Park Service, River Mileage Classifications for Components of the National Wild and Scenic River System, unpublished, Washington, DC, annual.

Notes: na=not available. Data reflect year-end cumulative totals.

Table 16. National Estuarine Research Reserves and National Marine Sanctuaries, 1975-1995

Year	Estuarine Research Reserves		Marine Sanctuaries	
	number	*acres*	*number*	*sq. nmi.*
1975	1	4,700	2	101.0
1976	3	14,205	2	101.0
1977	3	14,205	2	101.0
1978	4	22,605	2	101.0
1979	5	216,363	2	101.0
1980	9	223,426	3	1,353.0
1981	11	229,652	6	2,323.0
1982	14	240,571	6	2,323.0
1984	15	242,121	6	2,323.0
1986	16	245,149	7	2,323.3
1987	16	245,149	7	2,323.3
1988	17	247,348	7	2,323.3
1989	18	253,477	8	2,720.3
1990	18	259,945	9	5,320.3
1991	19	399,302	9	5,320.3
1992	21	400,559	13	11,324.3
1993	22	401,570	13	11,324.3
1994	22	433,864	14	13,824.3
1995	22	433,865	14	13,824.3

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service, Office of Ocean and Coastal Resources Management, Sanctuaries and Reserves Division, unpublished, Washington, DC, 1996.

Notes: sq. nmi.=square nautical miles. Data are year-end cumulative totals.

Table 17. National Register of Historic Places, 1967-1995

Year	Properties listed	Properties removed	Year	Properties listed	Properties removed
	number			number	
1967	873	2	1982	29,999	420
1968	903	3	1983	35,112	434
1969	1,106	4	1984	39,121	440
1970	1,888	19	1985	42,538	445
1971	3,026	51	1986	45,936	452
1972	4,376	93	1987	48,254	525
1973	6,646	144	1988	51,286	574
1974	8,247	188	1989	53,838	635
1975	10,805	231	1990	56,688	651
1976	12,561	265	1991	58,209	683
1977	14,203	290	1992	60,500	716
1978	16,575	338	1993	62,095	749
1979	20,589	366	1994	63,710	792
1980	24,680	403	1995	65,255	810
1981	26,499	406			

Source: U.S. Department of the Interior, National Park Service, The National Register of Historic Places, unpublished, Washington, DC, 1996.

Note: Data are year-end cumulative totals.

Table 18. Recreational Fishing and Hunting in the United States, 1955-1991

Year	Fishermen			Hunters				Total sportsmen
	Freshwater	Saltwater	Total	Small game	Big game	Waterfowl	Total	
	millions							
1955	18.42	4.56	20.81	9.82	4.41	1.99	11.78	24.92
1960	21.68	6.29	25.32	12.11	6.28	1.96	14.64	30.44
1965	23.96	8.31	28.34	10.58	6.57	1.65	13.58	32.88
1970	29.36	9.46	33.15	11.67	7.77	2.89	14.34	36.28
1975	36.60	13.74	41.29	14.18	11.04	4.28	17.09	45.77
1980	35.78	11.97	41.87	12.50	11.05	3.18	16.76	46.97
1985	39.12	12.89	45.35	11.13	12.58	3.20	16.34	49.83
1991	31.04	8.89	39.93	7.64	10.75	3.01	22.81	62.74

Year	Fishing days			Hunting days				Total sporting days
	Freshwater	Saltwater	Total	Small game	Big game	Waterfowl	Total	
	millions							
1955	338.83	58.62	397.45	118.63	30.83	19.96	169.42	566.87
1960	385.17	80.60	465.77	138.19	39.19	15.16	192.54	658.31
1965	426.92	95.84	522.76	128.45	43.85	13.53	185.82	708.58
1970	592.49	113.69	706.19	124.04	54.54	25.11	203.69	909.88
1975	890.58	167.50	1,050.08	269.65	100.60	31.22	401.48	1,459.55
1980	788.39	164.04	952.42	225.79	117.41	26.18	348.54	1,300.98
1985	895.03	171.06	1,064.99	214.54	135.45	25.93	350.39	1,415.38
1991	439.54	74.70	514.24	77.13	128.41	22.24	227.78	761.33

Source: U.S. Department of the Interior (DOI), Fish and Wildlife Service (FWS), *National Survey of Fishing, Hunting, and Wildlife-Associated Recreation* (DOI, FWS, Washington, DC, 1993).

Notes: Number of fishermen and hunters includes persons 12 years and older. Totals may not agree with sum of components due to independent rounding and where sportsmen participate in more than one activity per outing. The 1991 data are not strictly comparable with previous years' data due to changes in survey methodology.

Table 19. U.S. Marine Recreational Fishing, 1979-1995

Year	Atlantic and Gulf Coasts		Pacific Coast	
	Number of fish caught	Number of angler trips	Number of fish caught	Number of angler trips
	millions			
1979	439	63	49	8
1980	463	74	84	15
1981	331	52	51	11
1982	371	61	53	11
1983	398	69	45	11
1984	356	62	47	10
1985	382	71	43	10
1986	407	62	55	11
1987	272	51	46	10
1988	291	59	51	12
1989	249	49	41	9
1990	250	46	na	na
1991	385	58	na	na
1992	292	53	na	na
1993	284	51	31	7
1994	331	58	31	8
1995	312	58	28	8

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, *Fisheries of the United States 1995*(GPO, Washington, DC, 1996).

Notes: na=not available. No data available for the Pacific Coast for 1990, 1991, and 1992. The 1993-1995 data for the Pacific Coast do not include Washington. Data for 1995 are preliminary.

Table 20. Visits to U.S. Federal Recreation Areas, 1977-1993

Year	National Park Service	U.S. Fish and Wildlife Service	Bureau of Reclamation	National Forest System	Army Corps of Engineers	Bureau of Land Mgt.
	million visits	*million visitors*			*million visitor days*	
1977	na	27	55	205	424	na
1978	na	26	63	219	439	na
1979	na	25	59	220	449	na
1980	198	23	60	234	457	na
1981	211	26	69	236	469	64
1982	214	24	63	233	480	40
1983	217	22	66	228	480	42
1984	218	23	76	228	482	34
1985	216	24	76	225	502	31
1986	237	25	80	237	506	36
1987	246	25	80	239	181	64
1988	250	26	82	242	191	57
1989	256	26	84	253	191	50
1990	263	27	80	263	190	70
1991	268	28	80	279	192	68
1992	275	28	83	287	203	65
1993	273	28	84	296	200	39

Sources: U.S. Army Corps of Engineers, Directorate of Civil Works, Operations, Construction and Readiness Division, Natural Resources Management Branch, Visitation to Corps Recreation Areas, unpublished, Washington, DC, 1994.

U.S Department of Agriculture, Forest Service, Recreation Information Management System, unpublished, Washington, DC, 1994.

U.S. Department of the Interior (DOI), Bureau of Land Management (BLM), *Public Land Statistics* (DOI, BLM, Washington, DC, annual).

U.S. Department of the Interior, Bureau of Reclamation, Utilization of Recreation Areas on Reclamation Projects, unpublished, Denver, CO, 1994.

U.S. Department of the Interior, Fish and Wildlife Service, Refuge Division, Public Use Statistics Through 1987, With Estimates for 1988-1993, unpublished, Washington, DC, 1994.

U.S. Department of the Interior (DOI), National Park Service (NPS), Statistical Office, *National Park Statistical Abstract*, (DOI, NPS, Denver, CO, annual).

Ecosystems and Biodiversity

Table 21. Trends in Selected U.S. Resident and Neotropical Migrant Birds, 1966-1994, 1966-1979, and 1980-1994

Common name	Resident birds: Long-term trend (1966-1994)	Mid-term trend (1966-1979)	Short-term trend (1980-1994)
	% change per year		
Northern bobwhite	- 2.4	- 1.0	- 2.8
Great horned owl	1.8	3.1	na
Downy woodpecker	- 0.3	0.1	- 0.3
Hairy woodpecker	- 0.2	1.9	- 0.3
Pileated woodpecker	1.3	1.0	1.1
Red-cockaded woodpecker	- 1.5	8.6	- 13.0
Black-capped chickadee	1.7	1.6	0.2
Carolina chickadee	- 0.8	- 0.8	- 1.7
Tufted titmouse	0.8	- 1.9	2.4
Brown-headed nuthatch	- 1.7	- 2.0	- 2.1
Carolina wren	0.9	0.1	3.0
American robin	0.9	0.7	0.8
Eastern bluebird	2.4	- 4.9	4.7
Northern mockingbird	- 1.0	- 2.0	0.5
Northern cardinal	- 0.1	- 0.8	0.9
House sparrow	- 1.8	- 0.7	- 3.5

Common name	Neotropical migrant birds: Long-term trend (1966-1994)	Mid-term trend (1966-1979)	Short-term trend (1980-1994)
	% change per year		
Yellow-billed cuckoo	- 1.4	3.2	- 3.2
Chuck-will's-widow	- 1.4	- 1.0	- 0.3
Whip-poor-will	- 1.2	- 2.0	na
Ruby-throated hummingbird	1.2	1.2	1.7
Eastern wood pewee	- 1.7	- 2.1	- 1.2
Least flycatcher	- 1.6	- 2.3	- 0.5
Olive-sided flycatcher	- 4.1	- 2.3	- 3.7
Yellow-bellied flycatcher	0.1	2.6	5.3
Great-crested flycatcher	0.2	0.6	na
Veery	- 1.1	0.8	- 1.8
Wood thrush	- 1.7	0.5	- 1.0
Gray catbird	- 0.2	0.5	0.3
White-eyed vireo	- 0.0	0.2	0.7
Red-eyed vireo	1.0	2.2	1.4
Solitary vireo	3.3	3.2	4.3
Golden-winged warbler	- 3.6	- 3.2	0.1
Tennessee warbler	6.3	8.3	11.7
Northern parula	0.1	0.4	- 0.3

See next page for continuation of table.

Table 21. Trends in Selected U.S. Resident and Neotropical Migrant Birds, 1966-1994, 1966-1979, and 1980-1994 (continued)

	Neotropical migrant birds		
Common name	Long-term trend (1966-1994)	Mid-term trend (1966-1979)	Short-term trend (1980-1994)
	% change per year		
Cape May warbler	- 7.9	15.1	-16.4
Blue-winged warbler	0.4	1.4	- 0.8
Prairie warbler	- 2.7	- 5.3	- 1.2
Cerulean warbler	- 4.3	- 5.7	- 0.6
Blackpoll warbler	- 0.2	9.7	- 1.0
Chestnut-sided warbler	- 0.4	0.2	- 0.6
Wilson's warbler	0.2	- 2.0	- 1.8
Nashville warbler	1.1	- 2.8	- 0.2
Kentucky warbler	- 1.0	0.2	- 2.0
American redstart	- 0.7	- 1.2	- 0.3
Prothonotary warbler	- 1.6	1.0	- 2.3
Ovenbird	1.2	0.7	1.7
Northern waterthrush	0.0	4.7	- 2.6
Louisiana waterthrush	0.3	0.6	- 1.1
Common yellowthroat	- 0.2	0.7	- 0.9
Yellow-breasted chat	- 0.5	- 3.5	1.1
Scarlet tanager	0.2	3.3	- 0.6
Summer tanager	- 0.2	0.2	- 0.6
Baltimore oriole	- 0.4	2.0	- 2.2
Orchard oriole	- 1.9	- 2.6	- 1.1
Rose-breasted grosbeak	0.0	3.3	- 1.9
Indigo bunting	- 0.7	0.1	- 1.1

Source: U.S. Department of the Interior, National Biological Service, Breeding Bird Survey, unpublished, Laurel, MD, 1996.

Table 22. North American Duck Population Estimates, 1955-1995

Year	Northern pintail	Mallard	Canvasback	Redhead	Gadwall	Green wing teal	Blue wing teal	Scaup	Am. widgeon	No. shoveler	Black duck (Atl)	Black duck (Miss)
						millions						
1955	9.78	8.78	0.59	0.54	0.65	1.81	5.31	5.62	3.32	1.64	0.58	0.18
1956	10.37	10.45	0.70	0.76	0.77	1.53	5.00	5.99	3.15	1.78	0.42	0.21
1957	6.61	9.30	0.63	0.51	0.67	1.10	4.30	5.77	2.92	1.48	0.42	0.23
1958	6.04	11.23	0.75	0.46	0.50	1.35	5.46	5.35	2.56	1.38	0.28	0.26
1959	5.87	9.02	0.49	0.60	0.59	2.65	5.10	7.04	3.79	1.58	0.31	0.18
1960	5.72	7.37	0.61	0.60	0.78	1.43	4.29	4.87	2.99	1.83	0.34	0.17
1961	4.22	7.33	0.44	0.32	0.65	1.73	3.66	5.38	3.05	1.38	0.32	0.16
1962	3.62	5.54	0.36	0.51	0.91	0.72	3.01	5.29	1.96	1.27	0.34	0.11
1963	3.85	6.75	0.51	0.41	1.06	1.24	3.72	5.44	1.83	1.40	0.33	0.14
1964	3.29	6.06	0.64	0.53	0.87	1.56	4.02	5.13	2.59	1.72	0.37	0.22
1965	3.59	5.13	0.52	0.60	1.26	1.28	3.60	4.64	2.30	1.42	0.33	0.16
1966	4.81	6.73	0.66	0.71	1.68	1.62	3.73	4.44	2.32	2.15	0.30	0.15
1967	5.28	7.51	0.50	0.74	1.38	1.59	4.49	4.93	2.33	2.32	0.29	0.21
1968	3.49	7.09	0.56	0.50	1.95	1.43	3.46	4.41	2.30	1.69	0.34	0.14
1969	5.90	7.53	0.50	0.63	1.57	1.49	4.14	5.14	2.94	2.16	0.33	0.15
1970	6.39	9.99	0.58	0.62	1.61	2.18	4.86	5.66	3.47	2.23	0.28	0.14
1971	5.85	9.42	0.45	0.53	1.61	1.89	4.61	5.14	3.27	2.01	0.26	0.13
1972	7.00	9.27	0.43	0.55	1.62	1.95	4.28	8.00	3.20	2.47	0.27	0.14
1973	4.36	8.08	0.62	0.50	1.25	1.95	3.33	6.26	2.88	1.62	0.27	0.15
1974	6.60	6.88	0.51	0.63	1.59	1.87	4.98	5.78	2.67	2.01	0.25	0.08
1975	5.90	7.73	0.60	0.83	1.64	1.67	5.89	6.46	2.78	1.98	0.24	0.12
1976	5.48	7.93	0.61	0.67	1.25	1.55	4.75	5.82	2.51	1.75	0.28	0.15
1977	3.93	7.40	0.66	0.63	1.30	1.29	4.46	6.26	2.58	1.45	0.26	0.10
1978	5.11	7.43	0.37	0.73	1.56	2.17	4.50	5.98	3.28	1.98	0.27	0.09
1979	5.38	7.88	0.58	0.70	1.76	2.07	4.88	7.66	3.11	2.41	0.24	0.08
1980	4.51	7.71	0.74	0.73	1.39	2.05	4.90	6.38	3.60	1.91	0.20	0.08
1981	3.48	6.41	0.62	0.60	1.40	1.91	3.72	5.99	2.95	2.33	0.24	0.08
1982	3.71	6.41	0.51	0.62	1.63	1.54	3.66	5.53	2.46	2.15	0.24	0.07
1983	3.51	6.46	0.53	0.72	1.52	1.88	3.37	7.17	2.64	1.88	0.20	0.09
1984	2.97	5.42	0.53	0.67	1.52	1.41	4.00	6.02	3.20	1.62	0.23	0.06
1985	2.52	4.96	0.38	0.58	1.30	1.86	3.50	5.10	2.05	1.70	0.22	0.06
1986	2.74	6.12	0.44	0.56	1.55	1.68	4.48	5.24	1.74	2.13	0.23	0.10
1987	2.63	5.79	0.45	0.50	1.31	2.01	3.53	4.86	2.01	1.95	0.20	0.07
1988	2.01	6.37	0.44	0.44	1.35	2.06	4.01	4.67	2.21	1.68	0.23	0.11
1989	2.11	5.65	0.48	0.51	1.42	1.84	3.13	4.34	1.97	1.54	0.24	0.07
1990	2.26	5.45	0.54	0.48	1.67	1.80	2.78	4.29	1.86	1.76	0.23	0.01
1991	1.80	5.45	0.49	0.45	1.58	1.56	3.77	5.26	2.25	1.72	0.23	0.05
1992	2.10	5.98	0.48	0.60	2.03	1.77	4.33	4.64	2.21	1.95	0.20	0.08
1993	2.05	5.71	0.47	0.49	1.76	1.70	3.19	4.08	2.05	2.05	0.21	0.08
1994	2.97	6.98	0.53	0.65	2.32	2.11	4.62	4.53	2.38	2.91	0.22	0.08
1995	2.76	8.27	0.77	0.89	2.84	2.30	5.14	4.45	2.62	2.86	0.22	0.09

Source: U.S. Department of the Interior (DOI), Fish and Wildlife Service (FWS), Office of Migratory Bird Management in Conjunction with the Canadian Wildlife Service, *Status of Waterfowl and Fall Flight Forecast* (DOI, FWS, Washington, DC, annual).

Notes: No.=Northern. Am.=American. Alt=Atlantic Flyway. Miss=Mississippi River Flyway.

Table 23. North American Goose and Swan Population Estimates, 1970-1995

Year	Canada goose	Snow goose	Greater white-fronted goose	Brant	Tundra swan	
					Eastern	Western
	millions		*thousands*			
1970	1.608	0.818	50.6	141.7	55	31
1971	1.653	1.116	39.3	300.2	58	99
1972	1.733	1.413	45.8	197.8	63	83
1973	1.841	1.084	43.0	166.0	57	34
1974	1.838	1.285	43.2	218.7	64	70
1975	1.850	1.167	40.2	211.4	67	54
1976	2.372	1.679	53.4	249.0	79	51
1977	2.417	1.311	50.4	221.0	76	47
1978	2.158	2.072	53.1	208.9	70	46
1979	2.088	1.415	49.3	173.4	79	54
1980	2.170	1.525	132.1	215.4	64	65
1981	2.461	1.524	161.0	291.2	93	84
1982	2.192	1.916	182.1	227.0	73	91
1983	2.488	1.871	153.7	233.3	87	67
1984	2.262	1.642	183.2	260.4	81	62
1985	2.557	2.209	181.5	290.8	94	49
1986	2.708	1.615	172.4	246.2	91	66
1987	2.714	2.079	178.6	219.9	95	53
1988	2.848	1.995	207.3	278.0	77	59
1989	3.097	2.222	278.0	273.2	91	79
1990	3.706	1.994	322.1	287.0	90	40
1991	3.880	2.439	376.5	279.4	97	49
1992	3.574	2.386	409.4	302.5	110	64
1993	3.020	1.971	330.1	225.0	76	62
1994	3.487	2.505	449.4	287.2	84	79
1995	3.441	3.225	459.2	281.9	81	53

Source: U.S. Department of the Interior (DOI), Fish and Wildlife Service (FWS), Office of Migratory Bird Management in Conjunction with the Canadian Wildlife Service, *Status of Waterfowl and Fall Flight Forecast* (DOI, FWS, Washington, DC, annual).

Notes: Data for Canada goose are aggregate population totals for 13 separate populations that nest in North America. Data for snow goose are aggregate population totals for the greater snow goose, lesser snow goose, and Ross' goose populations. The 1995 survey of the western tundra swan population was incomplete.

Table 24. Status of Marine Mammal Stocks in U.S. Waters, 1995

Marine mammals of the Pacific					
Species	Stock area	Nmin	PBR	Total annual mortality	Trend
Pygmy killer whale	Hawaii	na	na	na	U
Pilot whale (short finned)	Hawaii	na	na	na	U
Risso's dolphin	Hawaii	na	na	na	U
Killer whale	Hawaii	na	na	0.0	U
Melon-headed whale	Hawaii	na	na	0.0	U
False killer whale	Hawaii	na	na	na	U
Pantropical spotted dolphin	Hawaii	na	na	na	U
Stripped dolphin	Hawaii	na	na	na	U
Spinner dolphin	Hawaii	677	6.8	1.0	U
Rough-toothed dolphin	Hawaii	na	na	na	U
Bottlenose dolphin	Hawaii	na	na	0.0	U
Pygmy sperm whale	Hawaii	na	na	na	U
Dwarf sperm whale	Hawaii	na	na	0.0	U
Sperm whale	Hawaii	na	na	na	U
Cuvier's beaked whale	Hawaii	na	na	0.0	U
Blainville's beaked whale	Hawaii	na	na	0.0	U
California sea lion	U.S.	84,195	5,052	2,434	I
Harbor seal	California	32,800	1,968	729	I
Harbor seal	WA inland	13,053	783	14	I
Harbor seal	OR/WA	28,322	850	233	I
Northern elephant seal	CA breeding	42,000	1,743	166	I
Northern fur seal	San Miguel Is.	10,536	227	0	I
Guadalupe fur seal	Mexico to CA	3,028	104	0	I
Hawaiian monk seal	Hawaii	1,300	4.6	1	D
NE spotted dolphin	E. Trop. Pacific	648,900	6,489	934	D
W/S offshore spotted dolphin	E. Trop. Pacific	1,145,100	11,451	1,226	S
Eastern spinner dolphin	E. Trop. Pacific	518,500	5,185	743	S
Whitebelly spinner dolphin	E. Trop. Pacific	872,000	8,720	619	S
Common dolphin (northern)	E. Trop. Pacific	3,531,000	3,531	101	S
Common dolphin (central)	E. Trop. Pacific	297,400	2,974	151	S
Common dolphin (southern)	E. Trop. Pacific	1,845,600	18,456	0	S
Stripped dolphin	E. Trop. Pacific	1,745,900	17,459	11	S
Coastal spotted dolphin	E. Trop. Pacific	22,500	225	na	S
Central Am. spinner dolphin	E. Trop. Pacific	na	na	11	S
Sea otter	Central CA	na	na	na	I
Sea otter	WA	na	na	na	I

See next page for continuation of table.

Table 24. Status of Marine Mammal Stocks in U.S. Waters, 1995 (continued)

Atlantic and Gulf of Mexico					
Species	Stock area	Nmin	PBR	Total annual mortality	Trend
No. Atlantic right whale	W. No. Atlantic	395	0.4	2.5	I
Humpback whale	W. No. Atlantic	4,848	9.7	1	U
Fin whale	W. No. Atlantic	1,704	3.4	na	U
Sei whale	W. No. Atlantic	155	0.3	0.3	U
Minke whale	E. Coast Canada	2,053	21.0	2.5	U
Blue whale	W. No. Atlantic	na	na	0.0	U
Sperm whale	W. No. Atlantic	226	0.5	1.6	U
Dwarf sperm whale	W. No. Atlantic	na	na	na	U
Pygmy sperm whale	W. No. Atlantic	na	na	na	U
Killer whale	W. No. Atlantic	na	na	0	U
Pygmy killer whale	W. No. Atlantic	6	0.1	0	U
Northern bottlenose whale	W. No. Atlantic	na	na	0	U
Cuvier's beaked whale	W. No. Atlantic	na	na	34	U
True's beaked whale	W. No. Atlantic	na	na	34	U
Gervais beaked whale	W. No. Atlantic	na	na	34	U
Blainville's beaked whale	W. No. Atlantic	na	na	34	U
Sowerby's beaked whale	W. No. Atlantic	na	na	34	U
Risso's dolphin	W. No. Atlantic	11,140	111	68	U
Pilot whale (long-finned)	W. No. Atlantic	3,537	28	109	U
Pilot whale (short-finned)	W. No. Atlantic	457	3.7	109	U
Atlantic white-sided dolphin	W. No. Atlantic	12,538	125	127	U
White-beaked dolphin	W. No. Atlantic	na	na	0.0	U
Common dolphin	W. No. Atlantic	3,233	32	449	U
Atlantic spotted dolphin	W. No. Atlantic	4,885	9.8	31	U
Pantropical spotted dolphin	W. No. Atlantic	na	na	31	U
Stripped dolphin	W. No. Atlantic	9,165	73	63	U
Spinner dolphin	W. No. Atlantic	na	na	1.0	U
Bottlenose dolphin	Mid-Atl. offshore	9,195	92	128	U
Bottlenose dolphin	Mid-Atl. coastal	2,482	25	29	S
Harbor porpoise	Gulf of Maine*	40,279	403	1,876	U
Harbor seal	W. No. Atlantic	28,810	1,729	476	I
Gray seal	N. W. No. Atlantic	2.035	122	4.5	I
Harp seal	N. W. No. Atlantic	na	na	0	I
Hooded seal	N. W. No. Atlantic	na	na	0	I
Sperm whale	N. Gulf of Mexico	411	0.8	0	U
Bryde's whale	N. Gulf of Mexico	17	0.2	0	U
Cuvier's beaked whale	N. Gulf of Mexico	20	0.2	0	U
Blainsville's beaked whale	N. Gulf of Mexico	na	na	0	U
Gervais' beaked whale	N. Gulf of Mexico	na	na	0	U
Bottlenose dolphin	G. of Mexico OCS	43,233	432	5	U
Bottlenose dolphin	G. of Mexico S&S	4,530	45	5	U
Bottlenose dolphin	W. G. of Mexico coast	2,938	29	13	U
Bottlenose dolphin	E. G. of Mexico coast	8,963	90	8	U
Bottlenose dolphin	G. of Mexico inland**	na	39.7	30	U

See next page for continuation of table.

Table 24. Status of Marine Mammal Stocks in U.S. Waters, 1995 (continued)

Atlantic and Gulf of Mexico					
Species	Stock area	Nmin	PBR	Total annual mortality	Trend
Atlantic spotted dolphin	N. Gulf of Mexico	2,555	23	1.5	U
Pantropical spotted dolphin	N. Gulf of Mexico	26,510	265	1.5	U
Stripped dolphin	N. Gulf of Mexico	3,409	34	0	U
Spinner dolphin	N. Gulf of Mexico	4,465	45	0	U
Rough-toothed dolphin	N. Gulf of Mexico	660	6.6	0	U
Clymene dolphin	N. Gulf of Mexico	4,120	41	0	U
Fraser's dolphin	N. Gulf of Mexico	66	0.7	0	U
Killer whale	N. Gulf of Mexico	197	2	0	U
False killer whale	N. Gulf of Mexico	236	2.4	0	U
Pygmy killer whale	N. Gulf of Mexico	285	2.8	0	U
Dwarf sperm whale	N. Gulf of Mexico	na	na	0	U
Pygmy sperm whale	N. Gulf of Mexico	na	na	0	U
Melon-headed whale	N. Gulf of Mexico	2,888	29	0	U
Risso's dolphin	N. Gulf of Mexico	2,199	22	19	U
Pilot whale (short-finned)	N. Gulf of Mexico	186	1.9	0.3	U
West Indian manatee	Florida	na	na	na	D
West Indian manatee	Antillean	na	na	na	D

Source: U.S. Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS), *Our Living Oceans, Report on the Status of U.S. Living Marine Resources, 1995*, NOAA Technical Memorandum NMFS-F/SPO-19 (DOC, NOAA, NMFS, Washington, DC, 1996).

Notes: N_{min}=minimum population. PBR=potential biological removal. Trend is increasing (I), decreasing (D), stable (S), and unknown (U). na=not available. *Also includes the Bay of Fundy. **Represents at least 33 individually recognized stocks of bottlenose dolphin in U.S. Gulf of Mexico bays, sounds, and other estuaries. OCS=Outer Continental Shelf. S&S=Shelf and Slope. Three species of marine mammals in the Pacific have Endangered Species Act status: Sperm whale (endangered); Guadalupe fur seal (threatened); and Hawaiian monk seal (endangered). Two species of marine mammals in the Pacific have Marine Mammal Protection Act status: Northeastern spotted dolphin (depleted) and Eastern spinner dolphin (depleted). Nine species of marine mammals in the Atlantic and Gulf of Mexico have Endangered Species Act status: North Atlantic right whale (endangered); Humpback whale (endangered); Fin whale (endangered); Sei whale (endangered); Blue whale (endangered); W. North Atlantic Sperm whale (endangered); Gulf of Mexico Sperm whale (endangered); Florida West Indian manatee (endangered); and Antillean West Indian manatee (endangered). One marine mammal species in the Atlantic and Gulf of Mexico has Marine Mammal Protection Act status: Mid-Atlantic Coastal Bottlenose dolphin (depleted).

Table 25. Status of Sea Turtle Stocks in U.S. Waters, 1995

Region/ Species (ESA status)	Historic level	Current level	Current trend
		number of nesting females	
Atlantic			
Loggerhead (T)	Unknown	20,000 to 28,000[1]	Stable[2]
Green (T,E[3])	Unknown	500 to 500[1]	Increasing
Kemp's ridley (E)	40,000	700 to 800[4]	Stable[2]
Leatherback (E)	Unknown	Unknown	Unknown
Hawksbill (E)	Unknown	Unknown	Declining
Pacific			
Loggerhead (T)	Unknown	Unknown	Declining
Green (T)	10,000	500[5]	Increasing[6]
Olive ridley (T)	Unknown	Unknown	Unknown
Leatherback (E)	Unknown	Unknown	Unknown
Hawksbill (E)	Unknown	>75[7]	Unknown

Source: U.S. Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS), *Our Living Oceans, Report on the Status of U.S. Living Marine Resources, 1995*, NOAA Technical Memorandum NMFS-F/SPO-19 (DOC, NOAA, NMFS, Washington, DC, 1996).

Notes: [1]Using 2.5 nests per female. [2]Stable, but critically low. [3]Listed as endangered in Florida; threatened in the U.S. Atlantic and Pacific. [4]Using 1.5 nests per female. Kemp's ridley turtles nest only on one Mexican beach. [5]Historic level for Hawaii only. Estimated 1995 total adult female population is 1,500 in Hawaii; 100-300 in American Samoa; current level in Guam is unknown. [6]Trend in Hawaii only, monitored at French Frigate Shoals; however, great concern exists over increasing frequency of fibropapilloma disease in all Hawaiian green turtles. [7]Estimated total adult population in Hawaii; average number of female hawksbills nesting annually in Hawaii is about 15. Current abundance in Guam and American Samoa is unknown.

Table 26. U.S. Threatened and Endangered Plant and Animal Groups, 1980-1995

	Threatened animal groups											
	Mammals	Birds	Reptiles	Amphibians	Fish	Crustaceans	Snails	Insects	Arachnids	Clams	Threatened plants	Total
	number of species											
1980	3	3	10	3	12	0	5	6	0	0	7	49
1981	3	3	8	3	12	0	5	4	0	0	7	45
1982	3	3	8	3	12	1	5	4	0	0	8	47
1983	3	3	12	3	12	1	5	6	0	0	10	55
1984	3	3	8	3	12	1	5	4	0	0	9	48
1985	4	3	8	3	14	1	5	4	0	0	10	52
1986	4	4	11	3	21	1	5	5	0	0	23	77
1987	7	10	18	4	30	1	5	7	0	0	44	126
1988	3	7	14	4	25	1	5	7	0	0	31	97
1989	6	7	14	4	25	1	6	7	0	0	42	112
1990	5	7	13	4	25	1	6	7	0	0	46	114
1991	8	12	18	5	34	2	6	9	0	2	61	157
1992	6	7	14	4	30	2	6	9	0	2	62	142
1993	6	8	14	4	31	2	7	9	0	5	69	155
1994	6	8	15	4	30	3	7	9	0	6	76	164
1995	9	16	19	5	40	3	7	9	0	6	92	206

	Endangered animal groups											
	Mammals	Birds	Reptiles	Amphibians	Fish	Crustaceans	Snails	Insects	Arachnids	Clams	Endangered plants	Total
	number of species											
1980	32	66	3	5	34	1	2	7	0	23	51	234
1981	15	52	7	5	29	1	2	7	0	23	48	189
1982	15	52	8	5	28	2	3	7	0	23	55	198
1983	33	66	14	5	33	2	3	7	0	23	55	241
1984	15	52	8	5	30	3	3	7	0	22	60	205
1985	20	59	8	5	30	3	3	8	0	22	67	225
1986	45	72	12	5	46	3	3	8	0	24	87	305
1987	50	76	15	5	47	7	3	10	3	30	158	404
1988	28	61	8	5	41	5	3	8	0	29	139	327
1989	32	61	9	6	49	8	3	10	3	34	163	378
1990	33	60	8	6	49	8	3	10	3	35	163	378
1991	55	73	16	6	54	8	7	13	3	40	229	504
1992	37	57	8	6	52	8	7	13	3	40	274	505
1993	37	57	8	6	55	11	12	13	5	51	317	572
1994	36	58	8	6	62	14	14	16	4	50	404	672
1995	55	74	14	7	65	14	15	20	5	51	434	754

Source: U.S. Department of the Interior (DOI), Fish and Wildlife Service (FWS), *Endangered Species Bulletin* (DOI, FWS, Washington, DC, annual December issue).

Notes: Separate populations of a species listed both as Threatened and Endangered are tallied twice. Those species are the grizzly bear, gray wolf, bald eagle, piping plover, roseate tern, green sea turtle, and olive ridley sea turtle.

Air Quality and Climate

Table 27. U.S. Emissions of Six Criteria Air Pollutants by Source, 1940 through 1994

	Carbon monoxide								
	Fuel combustion				Transportation			Miscellaneous	
Year	Electric utilities	Industrial	Other	Total	Highway vehicles	Off-highway vehicles	Total	Wildfires	Other combustion
	million tons								
1940	0.004	0.435	14.890	15.329	30.121	8.051	38.172	25.130	na
1950	0.110	0.549	10.656	11.315	45.196	11.610	56.806	11.159	3.976
1960	0.110	0.661	6.250	7.021	64.266	11.575	75.841	4.487	6.523
1970	0.237	0.770	3.625	4.632	88.034	10.605	98.639	5.620	2.289
1980	0.322	0.750	6.230	7.302	78.049	12.681	90.730	5.396	2.948
1985	0.292	0.670	7.525	8.486	77.387	13.706	91.094	2.957	4.983
1986	0.291	0.650	6.607	7.548	73.347	13.984	87.330	2.271	4.983
1987	0.300	0.649	6.011	6.960	71.250	14.131	85.381	3.795	5.025
1988	0.313	0.669	6.390	7.372	71.081	14.500	85.581	10.709	5.156
1989	0.319	0.672	6.450	7.441	66.050	14.518	80.568	3.009	5.112
1990	0.314	0.677	4.072	5.064	62.858	14.642	77.500	6.079	5.094
1991	0.315	0.667	4.373	5.356	62.074	14.601	76.675	3.439	5.091
1992	0.313	0.672	4.616	5.601	59.859	14.900	74.759	1.674	5.100
1993	0.323	0.670	3.961	4.954	60.202	15.269	75.471	1.586	5.114
1994	0.325	0.671	3.888	4.884	61.070	15.657	76.727	4.115	5.130

	Industrial processes								
Year	Chemical industries	Metals processing	Petroleum industries	Other industries	Solvent utilization	Storage and transport	Waste disposal and recycling	Total	Grand total
	million tons								
1940	4.190	2.750	0.221	0.114	na	na	3.630	10.905	93.615
1950	5.844	2.910	2.651	0.231	na	na	4.717	16.353	102.609
1960	3.982	2.866	3.086	0.342	na	na	5.597	15.873	109.745
1970	3.397	3.644	2.179	0.620	na	na	7.059	16.899	128.079
1980	2.151	2.246	1.723	0.830	na	na	2.300	9.250	115.625
1985	1.845	2.223	0.462	0.694	0.002	0.049	1.941	7.216	114.690
1986	1.853	2.079	0.451	0.715	0.002	0.051	1.916	7.067	109.199
1987	1.798	1.984	0.455	0.713	0.002	0.050	1.850	6.851	108.012
1988	1.917	2.101	0.441	0.711	0.002	0.056	1.806	7.034	115.849
1989	1.925	2.132	0.436	0.716	0.002	0.055	1.747	7.013	103.144
1990	1.940	2.080	0.435	0.717	0.002	0.055	1.686	6.914	100.650
1991	1.944	1.992	0.412	0.710	0.002	0.054	1.701	6.815	97.376
1992	1.964	2.044	0.410	0.719	0.002	0.055	1.717	6.909	94.043
1993	1.998	2.091	0.398	0.732	0.002	0.056	1.732	7.009	94.133
1994	2.048	2.166	0.390	0.751	0.002	0.058	1.746	7.160	98.017

See next page for continuation of table.

Table 27. U.S. Emissions of Six Criteria Air Pollutants by Source, 1940 through 1994 (continued)

	Lead								
	Fuel combustion				Transportation			Miscellaneous	
Year	Electric utilities	Industrial	Other	Total	Highway vehicles	Off-highway vehicles	Total	Wildfires	Other combustion
	thousand tons								
1970	0.327	0.237	10.052	10.616	171.961	8.340	180.301	na	na
1975	0.230	0.075	10.042	10.347	130.206	5.012	135.218	na	na
1980	0.129	0.060	4.111	4.299	62.189	3.320	65.509	na	na
1985	0.064	0.030	0.421	0.515	15.978	0.229	16.207	na	na
1986	0.069	0.025	0.422	0.516	3.589	0.219	3.808	na	na
1987	0.064	0.022	0.425	0.510	3.121	0.222	3.343	na	na
1988	0.066	0.019	0.426	0.511	2.700	0.211	2.911	na	na
1989	0.067	0.018	0.420	0.505	2.161	0.207	2.368	na	na
1990	0.064	0.018	0.418	0.500	1.690	0.197	1.888	na	na
1991	0.061	0.018	0.416	0.495	1.519	0.186	1.704	na	na
1992	0.059	0.018	0.414	0.491	1.444	0.193	1.637	na	na
1993	0.061	0.015	0.415	0.491	1.401	0.179	1.580	na	na
1994	0.063	0.015	0.415	0.493	1.403	0.193	1.596	na	na

	Industrial processes								
Year	Chemical industries	Metals processing	Petroleum industries	Other industries	Solvent utilization	Storage and transport	Waste disposal and recycling	Total	Grand total
	thousand tons								
1970	0.103	24.224	0.000	2.028	0.000	0.000	2.200	28.555	219.471
1975	0.120	9.923	0.000	1.337	0.000	0.000	1.595	12.975	158.540
1980	0.104	3.026	0.000	0.808	0.000	0.000	1.210	5.148	74.956
1985	0.118	2.097	0.000	0.316	0.000	0.000	0.871	3.402	20.124
1986	0.108	1.820	0.000	0.199	0.000	0.000	0.844	2.972	7.296
1987	0.123	1.835	0.000	0.202	0.000	0.000	0.844	3.004	6.857
1988	0.136	1.965	0.000	0.172	0.000	0.000	0.817	3.090	6.513
1989	0.136	2.088	0.000	0.173	0.000	0.000	0.765	3.161	6.034
1990	0.136	2.169	0.000	0.169	0.000	0.000	0.804	3.278	5.666
1991	0.132	1.975	0.000	0.167	0.000	0.000	0.807	3.081	5.279
1992	0.093	1.775	0.000	0.056	0.000	0.000	0.847	2.771	4.899
1993	0.096	1.887	0.000	0.054	0.000	0.000	0.829	2.866	4.938
1994	0.093	1.873	0.000	0.055	0.000	0.000	0.847	2.868	4.956

See next page for continuation of table.

Table 27. U.S. Emissions of Six Criteria Air Pollutants by Source, 1940 through 1994 (continued)

	Nitrogen oxides								
	Fuel combustion				Transportation			Miscellaneous	
Year	Electric utilities	Industrial	Other	Total	Highway vehicles	Off-highway vehicles	Total	Wildfires	Other combustion
	million tons								
1940	0.660	2.543	0.529	3.732	1.330	0.991	2.321	i	0.990
1950	1.316	3.192	0.647	5.155	2.143	1.538	3.681	i	0.665
1960	2.536	4.075	0.760	7.371	3.982	1.443	5.425	i	0.441
1970	4.900	4.325	0.836	10.061	7.390	1.628	9.018	i	0.330
1980	7.024	3.555	0.741	11.318	8.621	2.423	11.429	i	0.248
1985	6.916	3.209	0.712	10.836	8.089	2.734	10.823	0.142	0.167
1986	6.909	3.065	0.694	10.668	7.773	2.777	10.550	0.089	0.168
1987	7.128	3.063	0.706	10.897	7.651	2.664	10.315	0.182	0.169
1988	7.530	3.187	0.740	11.457	7.661	2.914	10.575	0.554	0.172
1989	7.607	3.209	0.736	11.552	7.682	2.844	10.526	0.121	0.171
1990	7.516	3.256	0.712	11.483	7.488	2.843	10.331	0.203	0.170
1991	7.488	3.175	0.719	11.382	7.373	2.796	10.170	0.112	0.171
1992	7.475	3.216	0.730	11.421	7.440	2.885	10.325	0.078	0.171
1993	7.773	3.197	0.726	11.696	7.510	2.985	10.495	0.047	0.172
1994	7.795	3.206	0.727	11.728	7.530	3.095	10.624	0.203	0.171

	Industrial processes								
Year	Chemical industries	Metals processing	Petroleum industries	Other industries	Solvent utilization	Storage and transport	Waste disposal and recycling	Total	Grand total
	million tons								
1940	0.006	0.004	0.105	0.107	na	na	0.110	0.332	7.374
1950	0.063	0.110	0.110	0.093	na	na	0.215	0.591	10.093
1960	0.110	0.110	0.220	0.131	na	na	0.331	0.902	14.140
1970	0.271	0.077	0.240	0.187	na	na	0.440	1.215	20.625
1980	0.216	0.065	0.072	0.205	na	na	0.111	0.669	23.281
1985	0.262	0.087	0.124	0.327	0.002	0.002	0.087	0.891	22.860
1986	0.264	0.080	0.109	0.328	0.003	0.002	0.087	0.873	22.348
1987	0.255	0.075	0.101	0.320	0.003	0.002	0.085	0.840	22.403
1988	0.274	0.082	0.100	0.315	0.003	0.002	0.085	0.860	23.618
1989	0.272	0.083	0.097	0.311	0.003	0.002	0.084	0.851	23.222
1990	0.276	0.081	0.100	0.306	0.002	0.002	0.082	0.850	23.038
1991	0.278	0.078	0.097	0.297	0.002	0.002	0.083	0.838	22.672
1992	0.284	0.080	0.096	0.305	0.003	0.003	0.083	0.852	22.847
1993	0.286	0.081	0.095	0.315	0.003	0.003	0.084	0.866	23.276
1994	0.291	0.084	0.095	0.328	0.003	0.003	0.085	0.888	23.615

See next page for continuation of table.

Table 27. U.S. Emissions of Six Criteria Air Pollutants by Source, 1940 through 1994 (continued)

	Volatile organic compounds								
	Fuel combustion				Transportation			Miscellaneous	
Year	Electric utilities	Industrial	Other	Total	Highway vehicles	Off-highway vehicles	Total	Wildfires	Other combustion
	million tons								
1940	0.002	0.108	1.867	1.977	4.817	0.778	5.595	3.420	0.659
1950	0.009	0.098	1.336	1.443	7.251	1.213	8.464	1.510	1.020
1960	0.009	0.106	0.768	0.883	10.506	1.215	11.721	0.768	0.805
1970	0.030	0.150	0.541	0.694	12.972	1.542	14.972	0.770	1.101
1980	0.045	0.157	0.848	1.050	8.979	1.869	10.848	0.739	1.134
1985	0.032	0.134	1.403	1.570	9.376	2.008	11.384	0.283	0.279
1986	0.034	0.133	1.230	1.396	8.874	2.039	10.912	0.259	0.285
1987	0.034	0.131	1.117	1.282	8.477	2.038	10.515	0.361	0.291
1988	0.037	0.136	1.188	1.361	8.290	2.106	10.396	0.918	0.309
1989	0.037	0.134	1.200	1.371	7.192	2.103	9.295	0.335	0.304
1990	0.036	0.135	0.749	0.919	6.854	2.120	8.974	0.768	0.301
1991	0.036	0.135	0.807	0.977	6.499	2.122	8.621	0.440	0.301
1992	0.035	0.135	0.853	1.022	6.072	2.159	8.231	0.164	0.302
1993	0.036	0.134	0.729	0.899	6.103	2.206	8.309	0.212	0.304
1994	0.036	0.135	0.715	0.886	6.295	2.255	8.549	0.379	0.306

	Industrial processes								
Year	Chemical industries	Metals processing	Petroleum industries	Other industries	Solvent utilization	Storage and transport	Waste disposal and recycling	Total	Grand total
	million tons								
1940	0.884	0.325	0.571	0.130	1.971	0.639	0.990	5.510	17.161
1950	1.324	0.442	0.548	0.184	3.679	1.218	1.104	8.499	20.936
1960	0.991	0.342	1.034	0.202	4.403	1.762	1.546	10.280	24.459
1970	1.341	0.394	1.194	0.270	7.174	1.954	1.984	14.311	30.646
1980	1.595	0.273	1.440	0.237	6.584	1.975	0.758	12.861	28.893
1985	1.358	0.076	0.703	0.390	5.699	1.747	2.310	12.282	25.798
1986	1.412	0.073	0.666	0.395	5.626	1.673	2.293	12.138	24.991
1987	1.410	0.070	0.655	0.394	5.743	1.801	2.256	12.329	24.778
1988	1.513	0.074	0.645	0.408	5.945	1.842	2.310	12.737	25.719
1989	1.506	0.074	0.639	0.403	5.964	1.753	2.290	12.629	23.935
1990	1.526	0.072	0.643	0.401	5.975	1.759	2.262	12.638	23.599
1991	1.533	0.069	0.634	0.398	5.918	1.720	2.265	12.537	22.877
1992	1.546	0.072	0.638	0.403	6.031	1.745	2.268	12.702	22.420
1993	1.557	0.074	0.631	0.406	6.156	1.757	2.271	12.851	22.575
1994	1.577	0.077	0.630	0.411	6.313	1.773	2.273	13.054	23.174

See next page for continuation of table.

Table 27. U.S. Emissions of Six Criteria Air Pollutants by Source, 1940 through 1994 (continued)

	Sulfur dioxide								
	Fuel combustion				Transportation			Miscellaneous	
Year	Electric utilities	Industrial	Other	Total	Highway vehicles	Off-highway vehicles	Total	Wildfires	Other combustion
	million tons								
1940	2.427	6.060	3.642	12.129	0.003	3.190	0.319	i	0.545
1950	4.515	5.725	3.964	14.204	0.103	2.392	2.495	i	0.545
1960	9.264	3.864	2.319	15.447	0.114	0.321	0.435	i	0.554
1970	17.398	4.568	1.490	23.456	0.411	0.083	0.494	i	0.110
1980	17.469	2.951	0.971	21.391	0.521	0.175	0.696	i	0.011
1985	16.273	3.169	0.579	20.021	0.522	0.208	0.730	0.006	0.006
1986	15.701	3.116	0.611	19.428	0.527	0.221	0.748	0.003	0.006
1987	15.715	3.068	0.662	19.445	0.538	0.233	0.771	0.007	0.006
1988	15.990	3.111	0.660	19.761	0.553	0.253	0.806	0.022	0.006
1989	16.218	3.086	0.624	19.927	0.570	0.267	0.837	0.005	0.006
1990	15.898	3.106	0.595	19.574	0.571	0.265	0.836	0.008	0.006
1991	15.788	2.915	0.592	19.295	0.570	0.266	0.836	0.004	0.006
1992	15.418	3.002	0.599	19.019	0.578	0.273	0.851	0.003	0.006
1993	15.191	2.942	0.599	18.732	0.517	0.278	0.795	0.002	0.006
1994	14.869	3.029	0.599	18.497	0.295	0.283	0.579	0.008	0.006

	Industrial processes								
Year	Chemical industries	Metals processing	Petroleum industries	Other industries	Solvent utilization	Storage and transport	Waste disposal and recycling	Total	Grand total
	million tons								
1940	0.215	3.309	0.224	0.334	na	na	0.003	4.085	19.953
1950	0.427	3.747	0.340	0.596	na	na	0.003	5.113	22.358
1960	0.447	3.986	0.676	0.671	na	na	0.010	5.790	22.227
1970	0.591	4.775	0.881	0.846	0.000	0.000	0.008	7.100	31.161
1980	0.280	1.842	0.734	0.918	0.000	0.000	0.033	3.773	25.905
1985	0.456	1.042	0.505	0.425	0.001	0.004	0.034	2.467	23.230
1986	0.432	0.888	0.469	0.427	0.001	0.004	0.035	2.256	22.442
1987	0.425	0.648	0.445	0.418	0.001	0.004	0.035	1.976	22.204
1988	0.449	0.707	0.443	0.411	0.001	0.005	0.036	2.052	22.647
1989	0.440	0.695	0.429	0.405	0.001	0.005	0.036	1.937	22.785
1990	0.440	0.663	0.440	0.401	0.001	0.005	0.036	1.985	22.433
1991	0.440	0.633	0.442	0.391	0.001	0.005	0.036	1.928	22.068
1992	0.447	0.650	0.417	0.401	0.001	0.005	0.037	1.957	21.836
1993	0.450	0.667	0.409	0.413	0.001	0.005	0.037	1.982	21.517
1994	0.457	0.692	0.406	0.431	0.001	0.005	0.037	2.029	21.118

See next page for continuation of table.

Table 27. U.S. Emissions of Six Criteria Air Pollutants by Source, 1940 through 1994 (continued)

	PM-10 particulates								
	Fuel combustion				Transportation			Natural and Miscellaneous	
Year	Electric utilities	Industrial	Other	Total	Highway vehicles	Off-highway vehicles	Total	Natural (Wind erosion)	Miscellaneous
	million tons								
1940	0.962	0.708	2.338	4.008	0.210	2.480	2.690	na	2.968
1950	1.467	0.604	1.674	3.745	0.314	1.788	2.102	na	1.934
1960	2.117	0.331	1.113	3.561	0.554	0.201	0.755	na	1.244
1970	1.775	0.641	0.455	2.871	0.443	0.223	0.666	na	0.839
1980	0.879	0.679	0.887	2.445	0.397	0.329	0.726	na	0.852
1985	0.284	0.245	1.009	1.538	0.363	0.368	0.731	4.047	*
1986	0.288	0.243	0.888	1.419	0.356	0.372	0.729	10.324	*
1987	0.284	0.238	0.811	1.333	0.360	0.350	0.710	1.577	*
1988	0.279	0.242	0.862	1.383	0.369	0.387	0.756	18.110	*
1989	0.273	0.241	0.869	1.383	0.367	0.372	0.739	12.101	*
1990	0.282	0.240	0.553	1.075	0.357	0.372	0.729	4.362	*
1991	0.248	0.234	0.593	1.076	0.349	0.367	0.717	10.095	*
1992	0.247	0.236	0.626	1.109	0.343	0.379	0.722	4.626	*
1993	0.268	0.234	0.539	1.041	0.321	0.395	0.716	1.978	*
1994	0.266	0.237	0.529	1.033	0.311	0.411	0.722	2.593	*

	Industrial processes								
Year	Chemical industries	Metals processing	Petroleum industries	Other industries	Solvent utilization	Storage and transport	Waste disposal and recycling	Total	Grand total
	million tons								
1940	0.330	1.208	0.366	3.996	na	na	0.392	6.292	15.956
1950	0.455	1.027	0.412	6.954	na	na	0.505	9.353	17.133
1960	0.309	1.026	0.689	7.211	na	na	0.764	9.999	15.558
1970	0.235	1.316	0.286	5.832	na	na	0.999	8.668	13.044
1980	0.148	0.622	0.138	1.846	na	na	0.273	3.027	7.050
1985	0.057	0.142	0.032	0.382	0.002	0.057	0.278	0.952	45.176
1986	0.058	0.132	0.031	0.390	0.002	0.058	0.274	0.945	50.582
1987	0.057	0.126	0.030	0.384	0.002	0.056	0.265	0.921	42.059
1988	0.061	0.136	0.029	0.385	0.002	0.056	0.259	0.929	60.794
1989	0.062	0.137	0.028	0.377	0.002	0.056	0.251	0.913	52.641
1990	0.062	0.136	0.028	0.374	0.002	0.057	0.242	0.900	44.298
1991	0.062	0.130	0.028	0.362	0.002	0.055	0.244	0.881	48.958
1992	0.063	0.133	0.027	0.368	0.002	0.056	0.246	0.894	43.722
1993	0.063	0.136	0.027	0.377	0.002	0.057	0.248	0.910	43.280
1994	0.064	0.141	0.026	0.390	0.002	0.059	0.250	0.932	46.048

See next page for continuation of table. *Detail for miscellaneous PM-10 emissions is presented on next page, but included in grand total above.

Table 27. U.S. Emissions of Six Criteria Air Pollutants by Source, 1940 through 1994 (continued)

	Miscellaneous PM-10 (detail from previous page)						
	Fugitive dust						Wildfires and other combustion
Year	Agricultural tillage	Construction	Mining and quarrying	Unpaved roads	Paved roads	Total fugitive dust	
	million tons						
1985	6.833	12.670	0.337	11.830	5.071	36.742	1.167
1986	6.899	11.825	0.312	11.773	5.257	36.065	1.101
1987	6.996	12.121	0.375	11.184	5.526	36.203	1.315
1988	7.077	11.662	0.344	12.563	5.893	37.539	2.077
1989	6.923	11.269	0.391	11.849	5.767	36.199	1.305
1990	6.983	10.044	0.350	12.311	5.967	25.655	1.578
1991	6.952	9.672	0.367	11.911	5.967	34.870	1.319
1992	6.838	10.543	0.357	11.527	5.942	35.207	1.164
1993	6.837	10.993	0.358	13.215	6.077	37.480	1.157
1994	6.716	12.397	0.372	13.497	6.343	39.325	1.442

Sources: U.S. Environmental Protection Agency (EPA), Office of Air Quality Planning and Standards (OAQPS), *National Air Pollutant Emission Trends, 1900-1994,* Tables 3-1 through 3-6, EPA-454/R-95-011 (EPA, OAQPS, Research Triangle Park, NC, 1995).

--, *National Air Quality and Emissions Trends Report, 1994, Data Appendix,* Tables A-2 through A-8 (EPA, OAQPS, Research Triangle Park, NC, 1995).

Note: na=not applicable. PM-10 refers to particulate matter with a diameter 10 microns or less. Totals may not agree with sum of components due to independent rounding.

Table 28. Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990-1994

Gas/Source	1990	1991	1992	1993	1994
			million metric tons		
Carbon dioxide					
Fossil fuel combustion	1,336	1,320	1,340	1,369	1,390
Other	17	17	17	18	17
Total	1,353	1,336	1,357	1,387	1,408
Forests (sinks)	(125)	(125)	(125)	na	na
Net total	1,228	1,211	1,232	na	na
Methane					
Landfills	66	67	66	67	68
Agriculture	56	57	59	59	61
Coal mining	29	28	27	24	29
Oil and gas systems	22	22	22	22	22
Other	6	7	7	6	6
Total	181	182	182	179	188
Nitrous oxide					
Agriculture	16	17	17	17	19
Fossil fuel combustion	12	12	12	12	12
Industrial processes	8	9	8	9	9
Total	37	37	37	38	41
HFCs and PFCs	18.8	19.3	21.1	19.8	23.5
SF_6	6.4	6.5	6.7	6.8	7.0
Total U.S. emissions	1,595	1,582	1,604	1,630	1,666
Net, including sinks	1,470	1,457	1,479	na	na

Source: U.S. Environmental Protection Agency (EPA), Office of Policy, Planning and Evaluation (OPPE), *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-1994,* EPA-230-R-96-006 (EPA, OPPE, Washington, DC, 1995).

Note: HFCs=hydrofluorocarbons. PFCs=perfluorocarbons. SF6=sulfur hexafluoride. na=not available. Emissions include direct and indirect effects. Other carbon emissions come from fuel production and processing, cement and lime production, limestone consumption, soda ash production and consumption, and carbon dioxide manufacture. Total carbon dioxide does not include emissions from bunker fuels used in international transport activities. U.S. emissions from bunker fuels were approximately 23 million metric tons (carbon-equivalent) in 1994. Other methane emissions come from fuel combustion by stationary and mobile sources and from wastewater facilities.

Table 29. U.S. Precipitation Chemistry by Region, 1985-1994

Year	Ph	Hydrogen ion	Sulfate ion	Nitrate ion	Ammonium ion	Calcium ion	Precipitation
	units	*ug/l*	*milligrams per liter*				*cm*
Eastern United States							
1985	4.43	37.57	2.02	1.25	0.23	0.15	106.7
1986	4.42	38.16	2.14	1.30	0.24	0.13	102.2
1987	4.42	38.06	2.09	1.33	0.26	0.14	100.7
1988	4.43	37.05	2.14	1.33	0.21	0.17	95.9
1989	4.47	34.25	2.01	1.35	0.31	0.15	110.8
1990	4.49	32.71	1.80	1.18	0.27	0.12	122.6
1991	4.47	34.00	1.87	1.27	0.26	0.14	111.0
1992	4.49	32.04	1.77	1.22	0.25	0.12	108.4
1993	4.47	33.64	1.78	1.28	0.26	0.11	113.7
1994	4.48	33.07	1.71	1.24	0.28	013.	111.9
Western United States							
1985	5.13	7.40	0.82	0.71	0.18	0.23	62.0
1986	5.18	6.57	0.78	0.68	0.17	0.19	72.4
1987	5.11	7.82	0.83	0.83	0.24	0.19	62.2
1988	5.10	7.93	0.93	0.83	0.16	0.27	56.6
1989	5.23	5.84	0.87	0.91	0.29	0.25	56.7
1990	5.21	6.22	0.80	0.87	0.29	0.22	66.2
1991	5.20	6.31	0.77	0.80	0.24	0.21	68.4
1992	5.23	5.86	0.77	0.83	0.28	0.18	65.1
1993	5.27	5.41	0.71	0.76	0.23	0.18	74.4
1994	5.07	8.53	0.76	0.92	0.28	0.20	62.0
Entire United States							
1985	4.57	27.07	1.60	1.06	0.21	0.17	91.1
1986	4.57	27.16	1.67	1.08	0.21	0.15	91.8
1987	4.56	27.53	1.65	1.15	0.25	0.15	87.3
1988	4.57	26.91	1.72	1.16	0.19	0.21	82.2
1989	4.61	24.35	1.61	1.20	0.30	0.19	91.9
1990	4.63	23.49	1.45	1.07	0.28	0.16	102.9
1991	4.61	24.36	1.49	1.11	0.26	0.16	96.1
1992	4.64	22.92	1.42	1.09	0.26	0.14	93.3
1993	4.62	23.81	1.41	1.10	0.25	0.14	100.0
1994	4.61	24.53	1.38	1.13	0.28	0.15	94.5

Source: National Trends Network of the National Atmospheric Deposition Program, unpublished, Fort Collins, C0, 1995.

Notes: ug/l=micrograms per liter. cm=centimeters. Data are from 73 sites in the eastern U.S. and 39 sites in the western U.S. Sites included in the computations are those where (1) precipitation amounts are available for at least 90% of the summary period and (2) at least 60% of the precipitation during the summary period is represented by valid samples.

Table 30. U.S. National Composite Mean Ambient Concentrations of Criteria Air Pollutants, 1985-1994

Year	Sulfur dioxide (475 sites)	Carbon monoxide (328 sites)	Ozone (549 sites)	Nitrogen dioxide (205 sites)	PM-10 particulates (748 sites)	Lead (197 sites)
	ppm				*ug/m3*	*ug/m3*
1985	0.0092	6.97	0.124	0.022	na	0.291
1986	0.0090	7.11	0.120	0.022	na	0.180
1987	0.0088	6.69	0.126	0.022	na	0.156
1988	0.0089	6.38	0.136	0.022	33.4	0.110
1989	0.0086	6.34	0.117	0.022	33.2	0.080
1990	0.0080	5.87	0.114	0.020	29.9	0.079
1991	0.0078	5.55	0.116	0.020	29.8	0.058
1992	0.0073	5.18	0.107	0.020	27.3	0.050
1993	0.0072	4.90	0.110	0.019	26.5	0.050
1994	0.0069	5.00	0.109	0.020	26.6	0.040

Source: U.S. Environmental Protection Agency (EPA), Office of Air Quality Planning and Standards (OAQPS), *National Air Quality and Emissions Trends Report, 1994, Data Appendix*, Table A-1 (EPA, OAQPS, Research Triangle Park, NC, 1995).

Notes: ppm=parts per million. ug/m3=micrograms per cubic meter. na=not available. Sulfur dioxide and nitrogen dioxide records are arithmetic means of measurements, Carbon monoxide records are arithmetic means of second maximum readings over 8-hour periods. Ozone records are arithmetic means of second maximum readings over 24-hour periods. Lead records are arithmetic means of maximum quarterly measurements. PM-10 records are weighted arithmetic means. The National Ambient Air Quality Standards for these pollutants are as follows: sulfur dioxide, 0.03 ppm; carbon monoxide, 9 ppm; ozone, 0.12 ppm; nitrogen dioxide, 0.053 ppm; PM-10, 50 ug/m3; and lead, 1.5 ug/m3.

Table 31. Atmospheric Concentrations of Carbon Dioxide Above U.S. Monitoring Stations, 1973-1994

Year	Mauna Loa, Hawaii	South Pole	American Samoa	Pt. Barrow, Alaska
		parts per million by volume		
1973	329.51	327.45	na	na
1974	330.08	328.29	na	na
1975	330.99	329.35	na	333.20
1976	331.98	330.46	na	334.01
1977	333.73	331.87	na	na
1978	335.34	na	na	na
1979	336.68	334.84	na	na
1980	338.52	na	na	na
1981	339.76	338.07	na	340.88
1982	340.96	na	340.43	342.39
1983	342.61	341.02	341.82	343.73
1984	344.25	na	343.66	345.53
1985	345.73	343.62	na	346.74
1986	346.98	345.17	na	348.49
1987	348.76	346.82	347.85	349.73
1988	351.30	348.75	349.91	352.99
1989	352.71	350.28	351.41	355.06
1990	353.99	351.59	352.73	355.82
1991	355.45	na	354.24	357.32
1992	356.28	354.17	355.11	357.70
1993	356.98	355.08	356.02	358.16
1994	358.78	356.32	357.63	359.66

Source: C.D. Keeling, and T.P. Whorf, "Atmospheric CO2 Records from Sites in the SIO Air Sampling Network," in *Trends '93: A Compendium of Data on Global Change*, T.A. Boden, D.P. Kaiser, R.J. Sepanski, and P.Y. Hughes, eds., ORNL/CDIAC-65 (U.S. Department of Energy, Oak Ridge National Laboratory, Carbon Dioxide Information Analysis Center, Oak Ridge, TN, 1994), pp. 16-26, with updates by authors.

Notes: na=not available. Annual mean concentration is reported only when all 12 monthly average concentrations are available.

Table 32. Global Atmospheric Concentrations of Selected Ozone-depleting Chemicals, 1978-1994

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	CFC-11 ALE Network Data											
	parts per trillion by volume											
1978	na	na	na	na	na	na	135.5	137.4	139.0	138.8	141.1	141.3
1979	143.8	144.0	144.2	144.9	145.8	147.1	147.6	148.5	149.5	150.6	151.4	151.6
1980	152.3	153.4	154.4	155.1	157.1	157.9	158.0	158.7	160.4	159.8	161.1	162.2
1981	162.7	161.3	162.5	163.0	164.6	166.0	166.5	na	166.8	na	168.2	168.7
1982	169.3	170.1	171.3	171.9	172.4	174.0	174.6	175.4	176.1	177.3	178.4	178.7
1983	179.2	179.6	179.4	180.0	180.7	181.5	182.4	183.8	184.8	185.6	186.3	187.0
1984	187.2	187.8	188.5	189.9	190.9	191.0	191.9	192.6	193.2	193.4	193.9	194.5
1985	195.0	195.6	196.3	197.7	198.6	198.9	na	na	na	na	na	na
	CFC-11 GAGE Network Data											
Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	parts per trillion by volume											
1981	na	na	na	na	na	na	na	na	na	na	na	170.4
1982	170.6	171.0	171.9	172.8	174.1	174.7	175.4	176.4	176.9	177.1	177.8	178.2
1983	178.5	179.5	180.0	180.8	181.6	182.3	183.2	183.1	182.4	183.5	184.0	184.6
1984	184.9	185.4	186.5	188.6	189.5	190.3	191.2	192.1	192.6	193.3	193.9	194.7
1985	195.6	196.0	197.3	198.6	199.2	199.8	200.7	201.8	202.6	203.1	203.9	204.2
1986	204.4	205.0	206.1	207.5	209.1	209.8	210.8	212.0	212.4	212.4	211.8	212.4
1987	213.1	213.4	na	na	218.1	218.9	na	222.5	222.5	223.7	224.4	224.9
1988	226.0	226.5	228.0	228.6	230.2	230.6	231.7	232.6	233.5	234.2	234.0	234.2
1989	234.8	235.4	236.9	238.1	239.0	239.9	240.3	241.2	242.3	243.1	243.4	243.8
1990	244.2	244.8	245.8	246.8	247.2	249.1	249.6	249.9	250.9	251.5	251.8	252.0
1991	251.4	251.0	251.5	252.2	253.0	254.1	254.4	254.7	255.4	256.1	256.4	257.0
1992	256.8	257.6	260.2	260.5	260.7	261.3	260.8	259.8	260.4	261.0	261.4	260.8
1993	259.5	259.2	259.5	259.7	260.1	259.4	259.5	260.0	260.8	261.3	261.6	261.7
1994	261.8	261.9	260.5	260.9	260.8	260.8	na	na	na	na	na	na
	CFC-12 ALE Network Data											
Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	parts per trillion by volume											
1978	na	na	na	na	na	na	251.0	252.2	255.1	257.0	262.7	262.5
1979	265.7	266.4	267.4	268.7	270.6	272.1	272.9	274.7	276.1	276.2	277.5	278.0
1980	279.1	na	na	na	na	na	na	na	294.7	294.9	296.8	297.3
1981	298.5	297.6	299.9	301.6	303.6	305.3	306.0	na	308.5	308.9	310.5	311.6
1982	312.9	313.8	316.2	317.6	318.0	321.2	322.8	324.5	325.3	328.5	330.9	331.3
1983	332.2	334.2	336.2	337.5	338.8	340.5	342.0	342.7	342.9	344.6	345.9	347.0
1984	347.8	349.0	350.3	353.2	357.1	358.3	360.0	361.1	362.2	363.2	364.4	365.2
1985	366.0	367.7	369.4	371.7	373.1	373.9	na	na	na	na	na	na

See next page for continuation of table.

Table 32. Global Atmospheric Concentrations of Selected Ozone-depleting Chemicals, 1978-1994 (continued)

CFC-12 GAGE Network Data

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	parts per trillion by volume											
1981	na	na	na	na	na	na	na	na	na	na	na	315.5
1982	316.9	317.8	319.5	321.5	324.0	325.2	326.3	328.2	329.3	329.8	331.3	331.9
1983	332.6	335.5	337.7	339.1	340.5	341.6	342.9	343.0	342.2	344.0	345.1	345.8
1984	346.2	347.0	348.0	351.8	354.8	355.8	357.1	358.8	358.9	359.8	362.2	365.3
1985	367.6	368.6	370.5	373.0	374.0	375.1	376.6	378.5	379.6	380.7	382.3	383.6
1986	383.8	385.2	386.9	391.8	393.4	395.1	396.5	397.7	399.2	398.5	398.9	399.8
1987	400.7	400.0	na	na	409.3	410.8	na	415.2	415.5	417.5	418.4	419.0
1988	421.1	422.1	424.7	426.1	433.5	433.3	435.7	437.5	438.7	439.9	440.4	441.1
1989	442.3	443.5	445.6	448.2	450.0	451.4	453.2	454.7	456.2	457.5	459.0	460.6
1990	461.4	463.3	465.1	466.6	467.6	468.7	470.1	471.3	473.0	474.4	475.5	476.0
1991	476.3	476.6	477.8	479.5	481.6	482.4	483.6	485.0	487.1	487.9	488.5	489.7
1992	489.9	491.4	494.8	496.0	497.6	498.4	498.2	496.2	496.8	497.5	498.5	498.8
1993	497.0	497.6	498.4	499.0	500.2	500.6	501.3	502.4	504.4	506.4	507.0	507.7
1994	507.6	508.0	508.4	509.4	510.0	510.3	na	na	na	na	na	na

CH_3CCl_3 ALE Network Data

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	parts per trillion by volume											
1978	na	na	na	na	na	na	56.2	54.5	56.0	57.9	61.2	60.6
1979	59.8	59.8	61.4	62.5	62.7	63.8	63.2	64.3	65.2	66.1	66.6	66.3
1980	65.9	66.2	67.4	67.0	70.2	71.0	71.6	72.5	73.5	74.2	74.0	73.1
1981	73.1	73.3	74.6	75.3	75.9	76.4	76.2	na	76.6	78.7	78.9	78.1
1982	77.8	77.8	78.5	79.9	81.4	82.7	83.6	84.1	84.3	85.2	85.2	84.4
1983	84.0	84.0	84.2	84.4	85.4	85.9	87.2	87.5	87.2	87.6	87.5	86.7
1984	86.3	86.3	86.9	87.4	na	na	na	na	na	93.2	92.5	91.7
1985	91.0	90.8	91.3	92.9	93.8	94.4	na	na	na	na	na	na

CH_3CCl_3 GAGE Network Data

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	parts per trillion by volume											
1981	na	na	na	na	na	na	na	na	na	na	na	80.8
1982	80.2	80.0	80.1	80.7	81.9	82.8	83.2	84.2	84.2	83.9	83.6	83.2
1983	82.6	83.5	84.5	85.2	86.0	86.4	87.2	88.1	88.1	88.3	88.0	87.5
1984	86.8	86.3	86.9	87.5	88.4	89.4	90.2	91.1	91.4	91.0	91.0	90.5
1985	89.7	89.5	90.3	91.6	92.3	92.7	93.7	95.7	96.6	96.1	95.8	94.9
1986	94.0	93.8	94.4	96.6	97.3	98.3	99.1	99.3	99.9	98.7	97.5	96.9
1987	96.3	95.9	96.5	97.6	98.7	99.8	na	102.1	101.9	102.3	101.8	101.3
1988	100.9	100.3	100.8	101.8	104.4	105.1	105.8	106.4	106.7	106.7	106.7	105.9
1989	105.3	105.4	106.2	107.3	108.2	109.0	109.3	109.8	110.3	110.0	109.4	109.5
1990	108.6	108.7	108.7	109.6	na	111.6	112.2	112.8	113.4	113.5	113.2	112.3
1991	111.3	110.7	111.3	112.2	113.8	114.7	115.1	115.8	116.3	117.0	116.7	116.1
1992	115.1	114.9	115.1	115.5	119.1	120.4	119.9	118.9	119.4	119.0	117.4	115.8
1993	114.4	113.5	113.5	113.6	114.0	114.2	114.5	115.0	114.8	111.8	111.3	109.7
1994	108.6	108.0	108.8	108.4	108.4	108.5	na	na	na	na	na	na

See next page for continuation of table.

Table 32. Global Atmospheric Concentrations of Selected Ozone-depleting Chemicals, 1978-1994 (continued)

Year	CCl_4 ALE Network Data											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	parts per trillion by volume											
1978	na	na	na	na	na	na	88.4	87.8	88.3	88.4	88.8	88.4
1979	87.8	87.4	87.7	87.9	87.9	87.7	87.7	87.6	87.6	88.6	88.8	88.9
1980	88.9	89.1	89.5	90.2	90.7	90.6	89.5	89.4	90.1	89.3	90.5	90.4
1981	90.5	89.4	89.8	89.9	90.3	90.8	91.2	na	na	90.5	90.5	90.5
1982	90.8	91.1	91.3	91.5	91.6	92.1	92.1	92.1	92.1	92.6	92.9	92.8
1983	93.0	93.2	93.2	93.3	93.3	93.3	93.3	93.0	92.8	93.0	92.9	93.2
1984	93.2	93.5	93.5	93.8	na	na	na	na	na	95.7	95.5	95.3
1985	95.5	95.4	95.4	95.7	96.0	95.7	na	na	na	na	na	na

Year	CCl_4 GAGE Network Data											
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	parts per trillion by volume											
1981	na	na	na	na	na	na	na	na	na	na	na	92.4
1982	92.1	92.2	92.2	92.4	93.5	93.2	93.3	93.4	93.2	92.9	93.0	92.9
1983	93.0	93.5	93.8	94.0	94.0	93.9	93.9	93.9	93.5	93.6	93.6	93.8
1984	93.9	93.9	94.4	95.2	95.2	95.3	95.3	95.4	95.3	95.4	95.5	95.9
1985	96.2	96.3	96.5	96.8	96.9	96.6	96.7	97.1	97.3	97.2	97.4	97.4
1986	97.4	97.5	97.6	98.3	98.3	98.4	98.5	98.3	98.6	98.6	99.0	99.1
1987	99.2	99.5	99.5	99.5	99.6	99.8	na	100.2	100.1	100.3	100.3	100.4
1988	100.7	100.6	100.7	100.9	100.7	101.0	101.0	100.5	100.4	100.4	100.5	100.6
1989	100.7	100.8	101.0	101.1	101.2	101.1	101.2	101.2	101.1	101.1	101.3	102.0
1990	102.1	102.4	102.6	102.3	102.1	102.5	102.4	102.3	102.4	102.3	102.5	102.4
1991	102.1	102.0	102.1	102.1	102.1	102.2	101.8	101.8	101.7	101.8	101.7	101.9
1992	101.8	101.8	100.8	100.9	100.7	100.7	101.1	101.9	101.8	101.7	101.9	101.9
1993	101.8	101.6	101.5	101.4	101.5	101.3	101.1	101.2	101.1	na	na	na
1994	na	100.6	101.5	101.6	101.3	101.2	na	na	na	na	na	na

Source: R.G. Prinn, R.F. Weiss, F.N. Alyea, D.M. Cunnold, P.J. Fraser,P.G. Simmonds, A.J. Crawford, R.A. Rasmussen, and R.D. Rosen, "Atmospheric CFC-11 (CCl_3F), CFC-12 (CCl_2F_2), and N_2O from the ALE-GAGE Network," in *Trends '93: A Compendium of Data on Global Change*, T.A. Boden, D.P Kaiser, R.J. Sepanski & P.Y. Hughes, eds., ORNL/CDIAC-65, (U.S. Department of Energy, Oak Ridge National Laboratory, Carbon Dioxide Information Analysis Center, Oak Ridge, TN, 1994), pp. 396-420. with updates by authors.

Notes: Data are from the globally-distributed Atmospheric Lifetime Experiment (ALE)/Global Atmospheric Gases Experiment (GAGE) network. The Cape Grim, Tasmania, station is used as the source of data because data from this station are both representative and have the longest time series for the complete ALE-GAGE schedule of trace gases. Data are monthly mean halocarbon mixing ratios expressed as parts per trillion by volume. ALE began in mid-1978 and was succeeded by GAGE in mid-1986, after a period of overlap. Data are comparable even though ALE and GAGE use different instrumentation to measure trace gas concentrations.

Table 33. Air Quality Trends in Selected U.S. Urban Areas, 1985-1994

PMSA	Trend sites	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
	#	number of PSI days greater then 100									
Atlanta	7	9	18	27	21	3	17	6	5	17	4
Baltimore	15	25	23	28	43	9	12	20	5	14	17
Boston	24	3	2	5	15	4	1	3	1	3	1
Chicago	40	9	9	17	22	4	3	8	7	1	8
Cleveland	25	1	2	7	21	6	2	7	1	2	4
Dallas	9	27	9	13	14	7	8	1	3	5	1
Denver	20	38	49	37	19	11	9	7	7	3	2
Detroit	25	2	5	9	17	10	3	8	0	2	8
El Paso	16	32	43	32	16	33	27	10	13	6	10
Houston	28	64	55	67	61	42	61	42	31	26	29
Kansas City	19	3	4	6	4	2	2	1	1	2	0
Los Angeles	37	208	226	201	239	226	178	182	185	146	136
Miami	7	5	4	4	5	4	1	2	0	0	0
Minn/St. Paul	22	14	13	7	1	5	1	0	1	0	3
New York	24	65	58	44	46	18	18	22	4	6	8
Philadelphia	36	31	23	36	35	20	14	25	3	22	6
Phoenix	22	88	88	42	26	30	9	4	9	7	7
Pittsburgh	31	9	8	13	25	9	11	4	2	5	2
San Diego	21	88	70	61	84	90	60	39	37	17	16
San Francisco	11	5	4	1	2	1	1	0	0	0	0
Seattle	13	25	13	14	20	8	5	2	1	0	0
St. Louis	46	10	13	17	18	13	8	6	3	5	11
Wash, DC	32	17	12	26	37	8	5	17	2	13	7
Subtotal	522	778	751	714	791	563	456	416	321	302	280
Other sites	682	878	816	824	1,163	687	552	578	357	374	333
All sites	1,204	1,656	1,567	1,538	1,954	1,250	1,008	994	678	676	613

Source: U.S. Environmental Protection Agency (EPA), Office of Air Quality Planning and Standards (OAQPS), *National Air Quality and Emissions Trends Report, 1994, Data Appendix*, Table A-13 (EPA, OAQPS, Research Triangle Park, NC, 1995).

Notes: PMSA=Primary Metropolitan Statistical Area. PSI=Pollutant Standards Index. Minn=Minneapolis. The PSI index integrates information from many pollutants across an entire monitoring network into a single number which represents the worst daily air quality experienced in an urban area. Only carbon monoxide and ozone monitoring sites with adequate historical data are included in the PSI trend analysis above, except for Pittsburgh, where sulfur dioxide contributes a significant number of days in the PSI high range. PSI index ranges and health effect descriptor words are as follows: 0 to 50 (good); 51 to 100 (moderate); 101 to 199 (unhealthful); 200 to 299 (very unhealthful); and 300 and above (hazardous). The table above shows the number of days when the PSI was greater than 100 (=unhealthy or worse days).

Table 34. Persons Living in U.S. Counties with Air Quality Levels Above National Ambient Air Quality Standards, 1984-1994

Pollutant	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
	millions of persons										
Sulfur dioxide	1.7	2.2	0.9	1.6	1.7	0.1	1.4	5.2	0.0	1.4	0.04
Nitrogen oxide	7.5	7.5	7.5	7.5	8.3	8.5	8.5	8.9	0.0	0.0	0.0
Carbon monoxide	61.3	39.6	41.4	29.4	29.5	33.6	21.7	19.9	14.3	11.6	15.3
Ozone	79.2	76.4	75.0	88.6	111.9	66.7	62.9	69.7	44.6	51.3	50.2
Lead	4.7	4.5	4.5	1.7	1.6	1.6	5.3	14.7	4.7	5.5	4.4
Particulates	32.6	47.8	41.7	21.5	25.6	27.4	18.8	21.5	25.8	9.4	13.1
Any NAAQS	na	na	na	101.8	121.3	84.4	47.4	86.4	53.6	59.1	62.0

Source: U.S. Environmental Protection Agency (EPA), Office of Air Quality Planning and Standards (OAQPS), *National Air Quality and Emissions Trends Report*, EPA-450/F-95-003 (EPA, OAQPS, Research Triangle Park, NC, 1995) and earlier reports.

Notes: Particulates for 1984-1986 refer to total suspended particulates. After 1986, particulates refer to PM-10 (particulate matter with a diameter 10 microns or less).

Aquatic Resources

Table 35. U.S. Precipitation Trends, 1895-1995

Year	Index	Trend	Year	Index	Trend	Year	Index	Trend
	standardized z-score			*standardized z-score*			*standardized z-score*	
1895	-1.03	-0.51	1929	-0.09	-0.43	1963	-1.58	-0.58
1896	-0.12	-0.38	1930	-1.38	-0.60	1964	-0.28	-0.50
1897	-0.06	-0.33	1931	-0.64	-0.63	1965	0.43	-0.37
1898	-0.30	-0.37	1932	0.27	-0.71	1966	-1.11	-0.26
1899	-0.69	-0.47	1933	-1.11	-0.89	1967	-0.11	-0.13
1900	-0.46	-0.54	1934	-2.05	-1.00	1968	0.38	0.02
1901	-0.82	-0.56	1935	-0.40	-0.88	1969	0.38	0.11
1902	-0.27	-0.54	1936	-1.14	-0.59	1970	-0.44	0.18
1903	-0.56	-0.40	1937	0.30	-0.32	1971	0.35	0.33
1904	-1.21	-0.06	1938	0.45	-0.16	1972	0.53	0.52
1905	1.16	0.43	1939	-1.47	0.00	1973	1.47	0.59
1906	1.62	0.75	1940	0.54	0.26	1974	-0.28	0.47
1907	0.75	0.71	1941	1.71	0.40	1975	1.46	0.24
1908	0.26	0.35	1942	0.34	0.31	1976	-1.61	0.10
1909	0.69	-0.07	1943	-1.18	0.19	1977	0.54	0.17
1910	-2.29	-0.29	1944	0.44	0.26	1978	0.51	0.32
1911	0.24	-0.17	1945	1.14	0.40	1979	1.07	0.39
1912	0.59	0.11	1946	0.58	0.39	1980	-0.49	0.48
1913	0.50	0.32	1947	-0.36	0.27	1981	0.03	0.78
1914	-0.23	0.36	1948	0.38	0.16	1982	2.19	1.17
1915	1.30	0.20	1949	0.23	0.10	1983	2.15	1.33
1916	0.35	-0.10	1950	-0.29	-0.03	1984	0.89	1.12
1917	-2.44	-0.27	1951	0.82	-0.31	1985	0.50	0.72
1918	0.41	-0.13	1952	-1.62	-0.69	1986	0.62	0.27
1919	0.57	0.18	1953	-0.83	-1.05	1987	-0.03	-0.14
1920	0.90	0.36	1954	-1.69	-1.24	1988	-1.51	-0.31
1921	-0.25	0.36	1955	-1.03	-1.15	1989	-0.62	-0.09
1922	0.39	0.22	1956	-2.37	-0.77	1990	1.17	0.38
1923	1.22	-0.03	1957	1.41	-0.29	1991	0.92	0.79
1924	-1.74	-0.28	1958	0.13	0.00	1992	1.04	0.98
1925	-0.79	-0.28	1959	-0.03	0.01	1993	1.42	0.98
1926	0.34	-0.08	1960	-0.42	-0.13	1994	0.46	0.90
1927	1.09	0.02	1961	0.22	-0.32	1995	0.85	0.82
1928	-0.74	-0.15	1962	-0.51	-0.51			

Source: U.S. Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Climatic Data Center (NCDC), *Climate Variations Bulletin,* Vol. 7 (DOC, NOAA, NCDC, Asheville, NC, December 1995).

Notes: The U.S. national precipitation index is computed from data from the Cooperative Station Network. The contiguous United States is divided into 344 climate divisions. The monthly precipitation for all stations within each division is averaged to compute a divisional monthly precipitation. The divisional precipitation values are standardized using the gamma distribution over the 1931-90 period. The divisional standardized precipitation index values are then weighted by area to compute a national precipitation index value. A national annual value is computed from the monthly national values. The annual index values are then normalized over the period of record.

Table 36. Severe to Extreme Drought and Wetness in the Conterminous United States, 1896-1995

Year	Severe to extreme drought	Severe to extreme wetness	Year	Severe to extreme drought	Severe to extreme wetness	Year	Severe to extreme drought	Severe to extreme wetness
	% area			*% area*			*% area*	
1896	5.4	7.9	1930	12.9	5.3	1964	20.7	3.2
1897	4.0	6.4	1931	30.0	5.3	1965	7.6	13.7
1898	9.0	4.2	1932	10.2	9.5	1966	10.0	5.8
1899	8.6	2.4	1933	13.6	3.2	1967	7.3	5.2
1900	15.7	5.4	1934	48.8	0.6	1968	3.9	7.6
1901	19.8	3.4	1935	23.4	3.1	1969	0.9	10.8
1902	24.7	5.7	1936	24.7	2.3	1970	0.9	4.4
1903	7.9	11.8	1937	19.6	5.2	1971	5.2	8.7
1904	13.7	7.3	1938	9.3	6.0	1972	4.8	13.3
1905	6.9	17.7	1939	19.4	2.9	1973	3.2	31.2
1906	1.1	22.7	1940	22.2	2.2	1974	4.9	16.1
1907	0.9	26.4	1941	11.6	26.0	1975	0.5	20.8
1908	2.1	12.8	1942	4.2	26.0	1976	6.9	9.2
1909	4.4	16.0	1943	4.2	10.0	1977	22.7	4.7
1910	14.2	5.4	1944	5.9	7.6	1978	2.8	14.0
1911	18.3	3.8	1945	2.7	17.0	1979	1.1	21.9
1912	0.5	14.3	1946	3.4	9.7	1980	5.1	11.6
1913	3.3	13.8	1947	4.7	11.6	1981	13.1	4.5
1914	6.1	14.3	1948	6.1	9.3	1982	1.1	17.5
1915	3.8	24.1	1949	4.8	6.2	1983	0.0	36.0
1916	0.5	26.8	1950	8.4	9.6	1984	2.2	26.3
1917	8.5	14.8	1951	12.3	14.6	1985	2.9	21.0
1918	13.3	1.4	1952	12.7	10.3	1986	4.4	15.1
1919	5.2	11.3	1953	19.9	4.1	1987	7.8	16.5
1920	1.4	18.4	1954	39.5	2.9	1988	22.2	5.8
1921	2.8	6.4	1955	29.4	1.5	1989	18.7	6.9
1922	4.1	3.0	1956	37.0	5.0	1990	19.0	7.2
1923	4.4	8.1	1957	15.5	10.5	1991	9.2	9.0
1924	11.6	8.2	1958	2.7	18.1	1992	10.8	18.3
1925	16.7	0.7	1959	11.1	4.5	1993	1.2	35.1
1926	9.6	4.6	1960	12.3	7.1	1994	6.9	14.8
1927	5.3	15.9	1961	14.6	7.7	1995	1.6	24.9
1928	5.6	12.3	1962	4.4	5.9			
1929	6.8	2.0	1963	18.4	2.0			

Source: U.S. Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Climatic Data Center (NCDC), *Climate Variations Bulletin,* Vol. 7 (DOC, NOAA, NCDC, Asheville, NC, December 1995).

Notes: This table presents the average annual values of the percent area experiencing severe to extreme drought and wet conditions based on the Palmer Drought Severity Index (PDSI). PDSI is based on a water balance model that consists of a hydrologic accounting between water supply and demand. The index values range from negative (indicating drought), to zero (near normal conditions), to positive (wet spell). The index has been calculated on a monthly basis for the contiguous United States since 1896.

Table 37. U.S. Water Use by Source and End-use Sector, 1900-1990

	Source		End-use sector					
Year	Ground water	Surface water	Public supply	Rural domestic & livestock	Irrigation	Thermoelectric utility	Other industrial	Total
	billions of gallons per day							
1900	na	na	3.0	2.0	20.0	5.0	10.0	40.0
1910	na	na	5.0	2.2	39.0	7.0	14.0	67.2
1920	na	na	6.0	2.4	56.0	9.0	18.0	91.4
1930	na	na	8.0	2.9	60.0	18.0	21.0	109.9
1940	na	na	10.0	3.1	71.0	23.0	29.0	136.1
1945	na	na	12.0	3.4	80.0	31.5	35.0	161.9
1950	34.0	150.0	14.0	3.6	89.0	40.0	37.0	183.6
1955	47.6	198.0	17.0	3.6	110.0	72.0	39.0	241.6
1960	50.4	221.0	21.0	3.6	110.0	100.0	38.0	272.6
1965	60.5	253.0	24.0	4.0	120.0	130.0	46.0	324.0
1970	69.0	303.0	27.0	4.5	130.0	170.0	47.0	378.5
1975	83.0	329.0	29.0	4.9	140.0	200.0	45.0	418.9
1980	83.9	361.0	34.0	5.6	150.0	210.0	45.0	444.6
1985	73.7	320.0	37.0	7.8	140.0	190.0	31.0	405.8
1990	80.6	327.2	38.5	7.9	137.0	195.0	29.9	408.8

Sources: U.S. Department of Commerce, Bureau of the Census, *Historical Statistics of the United States: Colonial Times to 1970*, Series J 92-103 (GPO, Washington, DC, 1975).

W.B. Solley, R.R. Pierce and H.A. Perlman, *Estimated Water Use in the United States in 1990*, Circular 1081 (U.S. Department of the Interior, Geological Survey, Reston, VA, 1993) and earlier reports in this series.

Note: na=not available.

Table 38. Designated-use Support in Surface Waters of the United States, 1994

Designated-use support	Rivers and streams	Lakes, ponds and reservoirs	Estuaries
	miles	*acres*	*square miles*
Fully supporting	352,828	8,598,603	15,426
Threatened	43,454	2,184,198	1,651
Partially supporting	135,679	4,845,390	7,261
Not supporting	83,739	1,505,946	2,439
Not attainable	105	16	71
Total surface waters assessed	615,806	17,134,153	26,847
Total surface waters not assessed	2,932,932	23,691,911	7,541
Total surface waters	3,548,738	40,826,064	34,388

Source: U.S. Environmental Protection Agency (EPA), Office of Water (OW), *National Water Quality Inventory: 1994 Report to Congress, Appendixes,* EPA841-R-95-006 (EPA, OW, Washington, DC, 1995).

Table 39. Trends in U.S. Stream Water Quality, 1980-1989

Water quality indicators	NASQAN* stations analyzed	Flow-adjusted concentrations		
		Upward trend	Downward trend	No trend
		number of stations		
Dissolved solids	340	28	46	266
Nitrate	344	22	27	295
Total phosphorus	410	19	92	299
Suspended sediments	324	5	37	282
Dissolved oxygen	424	38	26	360
Fecal coliform	313	10	40	263

Source: R.A. Smith, R.B. Alexander and K.J. Lanfear, "Stream Water Quality in the Conterminous United States -- Status and Trends of Selected Indicators During the 1980's," In: *National Water Summary 1990-91, Hydrologic Events and Stream Water Quality,* R.W. Paulson, E.B. Chase, J.S. Williams and D.W. Moody, Compilers, Water Supply Paper 2400 (U.S. Department of the Interior, Geological Survey, Reston, VA, 1993), Figures 38-43.

Notes: *Analyses were made on data from the U.S. Geological Survey's National Stream Quality Accounting Network (NASQAN) stations. Data for total phosphorus cover the period 1982-1989.

Table 40. Ambient Water Quality in U.S. Rivers and Streams: Violation Rates, 1975-1994

Year	Fecal coliform bacteria	Dissolved oxygen	Total phosphorus	Total cadmium, dissolved	Total lead, dissolved
	percent of all measurements exceeding national water quality criteria				
1975	36	5	5	*	*
1976	32	6	5	*	*
1977	34	11	5	*	*
1978	35	5	5	*	*
1979	34	4	3	4	13
1980	31	5	4	1	5
1981	30	4	4	1	3
1982	33	5	3	1	2
1983	34	4	3	1	5
1984	30	3	4	<1	<1
1985	28	3	3	<1	<1
1986	24	3	3	<1	<1
1987	23	2	3	<1	<1
1988	22	2	4	<1	<1
1989	30	3	2	<1	<1
1990	26	2	3	<1	<1
1991	15	2	2	<1	<1
1992	28	2	2	<1	<1
1993	31	1	2	na	na
1994	29	<1	4	na	na

Source: U.S. Geological Survey, unpublished, Reston, VA, 1995.

Notes: Violation levels are based on the following U.S. Environmental Protection Agency water quality criteria: fecal coliform bacteria—above 200 cells per 100 ml; dissolved oxygen—below 5 mg per liter; total phosphorus—above 1.0 mg per liter; cadmium, dissolved—above 10 ug per liter; lead, dissolved—above 50 ug per liter. *base figure too small to meet statistical standards for reliability of derived figures. na=not available.

Table 41. Estimated Phosphorus Loadings to the Great Lakes, 1976-1991

Year	Lake Superior	Lake Michigan	Lake Huron	Lake Erie	Lake Ontario
			metric tons		
1976	3,550	6,656	4,802	18,480	12,695
1977	3,661	4,666	3,763	14,576	8,935
1978	5,990	6,245	5,255	19,431	9,547
1979	6,619	7,659	4,881	11,941	8,988
1980	6,412	6,574	5,307	14,855	8,579
1981	3,412	4,091	3,481	10,452	7,437
1982	3,160	4,084	4,689	12,349	8,891
1983	3,407	4,515	3,978	9,880	6,779
1984	3,642	3,611	3,452	12,874	7,948
1985	2,864	3,956	5,758	11,216	7,083
1986	3,059	4,981	4,210	11,118	9,561
1987	1,949	3,298	2,909	8,381	7,640
1988	2,067	2,907	3,165	7,841	6,521
1989	2,323	4,360	3,227	8,568	6,728
1990	1,750	3,006	2,639	12,899	8,542
1991	2,709	3,478	4,460	11,113	10,475

Source: Great Lakes Water Quality Board, *Great Lakes Water Quality Surveillance Subcommittee Report to the International Joint Commission*, United States and Canada, (International Joint Commission, Windsor, ON, Canada, biennial).

Notes: The 1978 Great Lakes Water Quality Agreement set target loadings for each lake (in metric tons per year): Lake Superior 3,400; Lake Michigan 5,600; Lake Huron 4,360; Lake Erie 11,000; and Lake Ontario 7,000. Data do not include loadings to the St. Lawrence River.

Table 42. Oil Polluting Incidents Reported In and Around U.S. Waters, 1970-1994

Year	Number	Volume	Year	Number	Volume
	thousands	*million gallons*		*thousands*	*million gallons*
1970	3.71	15.25	1983	7.92	8.38
1971	8.74	8.84	1984	8.26	19.01
1972	9.93	18.81	1985	6.17	8.47
1973	9.01	15.25	1986	4.99	4.28
1974	9.99	15.72	1987	4.84	3.61
1975	9.30	21.52	1988	5.00	6.59
1976	9.42	18.52	1989	6.61	13.48
1977	9.46	8.19	1990	8.18	7.97
1978	10.64	10.86	1991	10.41	2.16
1979	9.83	20.89	1992	4.49	1.88
1980	8.38	12.60	1993	8.97	2.08
1981	7.81	8.92	1994	9.44	19.51
1982	7.48	10.34			

Source: U.S. Department of Transportation, United States Coast Guard, Response Division, G-MRO, Oil Spill Database, unpub lished, Washington, DC, 1996.

Table 43. Shellfish Bed Closures in the U.S. Gulf of Mexico by State, 1985-1995

Year	1985	1990	1995
	thousands of harvested-limited acres		
Florida	610	841	736
Alabama	297	315	408
Mississippi	280	157	113
Louisiana	1,619	1,509	1,359
Texas	376	840	691

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Survey, Ocean Assessments Division, Strategic Assessment Branch, National Shellfish Register, unpublished, Rockville, MD, 1996.

Notes: Harvest-limited acres are shellfish growing waters that are not available for direct marketing at all times. There may be several reasons why an area is classified as harvest-limited, including water quality problems, lack of funding for complete surveying and monitoring, conservation measures, and other management/administrative actions.

Table 44. Status of Stock Levels of U.S. Fisheries, 1992-1994

Fishery	Current status relative to the level producing LTPY				
	Below	Near	Above	Unknown	Total
	number of species				
Northeast demersals	19	3	2	1	25
Northeast pelagics	1	2	3	0	6
Atlantic anadromous	4	0	1	0	5
Northeast invertebrates	0	3	2	1	6
Atlantic highly migratory pelagics	4	4	0	2	10
Atlantic sharks	1	0	1	1	3
Atlantic/Gulf coastal migratory pelagics	1	3	0	3	7
Atlantic/Gulf reef fish	9	2	0	17	28
Southeast drum and croaker	4	0	0	3	7
Southeast menhaden	0	2	0	0	2
Southeast/Caribbean invertebrates	3	6	0	5	14
Pacific coast salmon	2	3	0	0	5
Alaska salmon	1	1	3	0	5
Pacific coast and Alaska pelagics	3	4	0	0	7
Pacific coast groundfish	6	4	4	5	19
Western Pacific invertebrates	1	0	0	0	1
Western Pacific bottomfish*	3	3	0	0	6
Pacific highly migratory pelagics	2	12	0	1	15
Alaska groundfish	6	8	8	3	25
Alaska shellfish	3	0	1	1	5
Subtotal	73	60	25	43	201
Nearshore species	10	14	0	50	74
Total assessed species	83	74	25	93	275

Source: U.S. Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS), *Our Living Oceans, Report on the Status of U.S. Living Marine Resources, 1995*, NOAA Tech. Memo., NMFS-F/SPO-19 (DOC, NOAA, NMFS, Washington, DC, 1996).

Notes: LTPY is long-term potential yield or the maximum long-term average catch that can be achieved from the resource. This term is analogous to the concept of maximum sustainable yield. Stock level relative to LTPY is a measure of stock status. The present abundance level of the stock is compared with the level of abundance which on average would support the LTPY harvest. This level is expressed as below, near, above, or unknown relative to the abundance level that would produce LTPY. Demersal=bottom-dwelling fishes such as flounders, skates, and dogfish. Pelagic=mid-water fishes such as blue fish, anchovies, sardines, and squids. Anadromous=fishes which ascend rivers to spawn, such as salmon, shad, and striped bass. Invertebrates=lobsters, clams, scallops, shrimp, etc. Highly migratory=high-seas (oceanic) fishes such as tunas, swordfish, and billfishes. Coastal migratory=fishes that range from the shore to the outer edge of the U.S. continental shelf, such as king and Spanish mackeral, dolphin fish, and cobia. Reef fish=fishes that prefer coral reefs, artificial structures, and other hard bottom areas, such as snappers, groupers, and amberjacks. Reef fish also include tilefishes that prefer sand bottom areas. *also includes armorhead.

Table 45. Waterborne Disease Outbreaks and Cases in the United States, 1971-1994

Year	Water supply system				Total cases
	Community	Non-community	Individual	Total	
	number of outbreaks				*number*
1971	8	8	4	20	5,184
1972	9	19	2	30	1,650
1973	6	16	3	25	1,762
1974	11	9	5	25	8,356
1975	6	16	2	24	10,879
1976	9	23	3	35	5,068
1977	14	18	2	34	3,860
1978	10	19	3	32	11,435
1979	24	13	8	45	9,841
1980	26	20	7	53	20,045
1981	14	18	4	36	4,537
1982	26	15	3	44	3,588
1983	30	9	4	43	21,036
1984	12	5	10	27	1,800
1985	7	14	1	22	1,946
1986	10	10	2	22	1,569
1987	8	6	1	15	22,149
1988	6	10	1	16	2,169
1989	6	6	1	13	2,670
1990	6	7	2	15	1,748
1991	2	13	0	15	12,960
1992	6	10	3	19	4,504
1993	9	4	5	18	404,190
1994	5	5	2	12	649

Source: M.H. Kramer, B.L. Herwaldt, G.F. Craun, R.L. Calderon and D.D. Juranek, "Surveillance for Waterborne-Disease Outbreaks - United States, 1993-1994," In: *CDC Surveillance Summaries,* April 12, 1996, Morbidity and Mortality Weekly Report 42(SS-5) (U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, Atlanta, GA), pp. 7-8, and earlier reports.

Notes: The number of waterborne disease outbreaks and the number of affected people (=cases) reported to the Centers for Disease Control and Prevention and to the U.S. Environmental Protection Agency represents a fraction of the total number that occur. Therefore, these data should not be used to draw firm conclusions about the true incidence of waterborne disease outbreaks.

Table 46. U.S. Wetlands by Type, Mid-1950s, Mid-1970s, and Mid-1980s

Wetlands type	Mid-1950s	Mid-1970s	Mid-1980s
		million acres	
Estuarine wetlands	5.59	5.53	5.47
Palustrine marshes	33.07	24.31	24.53
Palustrine shrub wetlands	11.00	15.51	15.35
Palustrine forested wetlands	55.09	55.15	51.75
Other palustrine wetlands	2.70	5.35	6.14
Total wetland acreage	107.45	105.85	103.24

Source: T.E. Dahl and C.E. Johnson, *Status and Trends of Wetlands in the Conterminous United States, 1970s to 1980s,* Table 2, p. 8 (U.S. Department of the Interior, Fish and Wildlife Service, Washington, DC, 1991) and earlier reports.

Table 47. Wetlands Losses by Current State Boundaries, 1780s-1980s

State	Total surface area of state	Wetlands area 1780s	Wetlands area 1980s	Wetlands losses
		million acres		*%*
Alabama	33.03	7.57	3.78	50
Alaska	375.30	170.20	170.00	<1
Arizona	72.90	0.93	0.60	36
Arkansas	33.99	9.85	2.76	72
California	101.56	5.00	0.45	91
Colorado	66.72	2.00	1.00	50
Connecticut	3.21	0.67	0.18	74
Delaware	1.32	0.48	0.22	54
Florida	37.48	20.33	11.04	46
Georgia	37.68	6.84	5.30	23
Hawaii	4.12	0.06	0.05	12
Idaho	53.47	0.88	0.39	56
Illinois	36.10	8.21	1.25	85
Indiana	23.23	5.60	0.75	87
Iowa	36.03	4.00	0.42	89
Kansas	52.65	0.84	0.44	48
Kentucky	25.85	1.57	0.30	81
Louisiana	31.05	16.19	8.78	46
Maine	21.26	6.46	5.20	20
Maryland	6.77	1.65	0.44	73
Massachusetts	5.28	0.82	0.59	28
Michigan	37.26	11.20	5.58	50
Minnesota	53.80	15.07	8.70	42
Mississippi	30.54	9.87	4.07	59
Missouri	44.60	4.84	0.64	87
Montana	94.17	1.15	0.84	27
Nebraska	49.43	2.91	1.91	35
Nevada	70.75	0.49	0.24	52

See next page for continuation of table.

Table 47. Wetlands Losses by Current State Boundaries, 1780s-1980s (continued)

State	Total surface area of state	Wetlands area 1780s	Wetlands area 1980s	Wetlands losses
	million acres			*%*
New Hampshire	5.95	0.22	0.20	9
New Jersey	5.02	1.50	0.92	39
New Mexico	77.87	0.72	0.48	33
New York	31.73	2.56	1.03	60
North Carolina	33.66	11.09	5.69	49
North Dakota	45.23	4.93	2.49	49
Ohio	26.38	5.00	0.48	90
Oklahoma	44.75	2.84	0.95	67
Oregon	62.07	2.26	1.39	38
Pennsylvania	29.01	1.13	0.50	56
Rhode Island	0.78	0.10	0.07	37
South Carolina	19.88	6.41	4.66	27
South Dakota	49.31	2.74	1.78	35
Tennessee	27.04	1.94	0.79	59
Texas	171.10	16.00	7.61	52
Utah	54.35	0.80	0.56	30
Vermont	6.15	0.34	0.22	35
Virginia	26.12	1.85	1.07	42
Washington	43.64	1.35	0.94	31
West Virginia	15.48	0.13	0.10	24
Wisconsin	35.94	9.80	5.33	46
Wyoming	62.66	2.00	1.25	38

Source: T.E. Dahl, *Wetlands Losses in the United States 1780s to 1980s, Report to Congress* (U.S. Department of the Interior, Fish and Wildlife Service, Washington, DC, 1991).

Table 48. U.S. Wetlands Conversions, 1954-1992

Post-conversion land use	1954-1974[1]	1974-1983[2]	1982-1992[3]
	thousands of acres per year (average)		
Cropland	600.0	237.5	30.9
Urban use	55.0	14.1	88.6
Other uses	35.0	171.7	36.6
Total	690.0	423.2	156.1
	percent of average annual conversion		
Cropland	87.0	56.1	19.8
Urban use	8.0	3.3	56.7
Other uses	5.1	40.6	23.5
Total	100.0	100.0	100.0

Sources: [1]Frayer, W.E., T.J. Monahan, D.C. Bowden and F.A. Graybill, *Status and Trends of Wetlands and Deepwater Habitats in the Conterminous United States, 1950's to 1970's* (U.S. Department of the Interior, Fish and Wildlife Service, Fort Collins, CO, 1983).

[2]T.E. Dahl and C.E. Johnson, *Status and Trends of Wetlands in the Conterminous United States, 1970s to 1980s,* Table 2, p. 8 (U.S. Department of the Interior, Fish and Wildlife Service, Washington, DC, 1991).

[3]U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), *Wetlands Values and Trends*, NRCS/RCA (Resource Conservation Act) Issue Brief 4 (USDA, NRCS, Washington, DC, 1995).

Notes: Data for 1954-1974 and 1974-1983 exclude Alaska and Hawaii. Data for 1982-1992 include only rural, nonfederal land; exclude Alaska. Other includes forests, rangeland, and deepwater habitat.

Terrestrial Resources

Table 49. Land Use and Ownership in the United States, 1900-1992

	Land use					Ownership	
Year	Crop-land	Grazing land	Forest-land	Other land	Total	Private & other public	Federal
	million acres					%	
1900	319	1,044	366	175	1,904	52.7	47.3
1910	347	814	562	181	1,904	68.5	31.5
1920	402	750	567	185	1,904	73.8	26.2
1930	413	708	607	176	1,904	74.0	26.0
1945	451	660	602	193	1,905	73.7	26.3
1949	478	631	606	189	1,904	73.5	26.5
1954	465	632	615	191	1,904	73.5	26.5
1959	458	633	728	452	2,271	61.0	39.0
1964	444	640	732	450	2,266	60.4	39.6
1969	472	604	723	465	2,264	66.5	33.5
1974	465	598	718	483	2,264	66.5	33.5
1978	471	587	703	503	2,264	67.2	32.9
1982	469	597	655	544	2,265	67.9	32.2
1987	464	591	648	562	2,265	68.1	31.9
1992	460	591	648	564	2,263	71.3	28.7

Sources: A.B. Daugherty, *Major Uses of Land in the United States: 1992*, Table 1, p. 4, Agricultural Economic Report No. 723 (GPO, Washington, DC, 1995) and earlier reports in this series.

U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States* (GPO, Washington, DC, annual).

Notes: Prior to 1959, excludes Alaska and Hawaii. Other changes in total land area result from refinements in measuring techniques. Federal includes original public-domain lands vested in the U.S. government by virtue of its sovereignty as well as lands acquired by the U.S. government by purchase, condemnation, and gift. Historical estimates are based on imperfect data. Other land includes rural transportation areas, areas used primarily for recreation and wildlife purposes, various public installations and facilities, farmsteads and farm roads, urban areas, areas in miscellaneous uses not inventoried, marshes, open swamps, bare rock areas, desert, tundra, and other land generally having low value for agricultural purposes. Land-use and land-ownership estimates are not strictly comparable. Totals may not agree with sum of components due to independent rounding.

Table 50. Special Uses of Land in the United States, 1945-1992

Land use	1945	1949	1959	1969	1974	1978	1982	1987	1992
	million acres								
Transportation	22.6	22.9	25.2	26.0	26.3	26.6	26.7	25.7	25.2
Parks & wildlife	22.6	27.6	46.9	81.3	87.5	98.0	211.0	224.9	228.9
National defense	24.8	21.5	31.2	25.6	25.0	24.9	24.0	20.9	20.5
Urban	15.0	18.3	27.2	31.0	34.8	44.6	50.2	56.6	58.9
Farmsteads	15.1	15.1	11.4	10.3	8.1	8.4	8.0	7.1	6.2
Total	100.0	105.4	141.9	174.2	181.7	202.5	319.9	335.2	393.5

Source: A.B. Daugherty, *Major Uses of Land in the United States: 1992*, Table 14, p. 17, Agricultural Economic Report No. 723 (GPO, Washington, DC, 1995) and earlier reports in this series.

Note: Categories of special-use lands are a subset of those listed as other in Table 49.

Table 51. Number of Farms and Land in Farms in the United States, 1900-1992

	Farm size									
	1 - 49 acres		50 - 499 acres		500 - 999 acres		1,000 + acres		Total	
Year	Number	Acres	Number	Acres	Number	Acres	Number	Acres	Number	Acres
	millions									
1900	1.93	49	3.37	520	0.10	68	0.05	200	5.74	837
1910	2.25	49	3.93	570	0.13	84	0.05	167	6.37	870
1920	2.31	59	3.93	580	0.15	100	0.07	221	6.45	960
1925	2.42	57	3.75	550	0.14	97	0.06	224	6.37	928
1930	2.36	56	3.69	550	0.16	109	0.08	277	6.30	992
1935	2.69	59	3.86	540	0.17	114	0.09	310	6.81	1,023
1940	2.29	50	3.55	540	0.16	112	0.10	366	6.10	1,068
1945	2.25	47	3.32	520	0.17	119	0.11	460	5.86	1,146
1950	1.97	39	3.12	500	0.18	126	0.12	495	5.39	1,160
1954	1.70	32	2.76	460	0.19	132	0.13	531	4.78	1,155
1959	1.06	22	2.32	410	0.20	137	0.14	555	3.71	1,124
1964	0.82	17	1.98	360	0.21	145	0.15	585	3.16	1,107
1969	0.64	14	1.73	320	0.22	148	0.15	578	2.73	1,060
1974	0.51	11	1.44	273	0.21	142	0.16	590	2.31	1,024
1978	0.54	12	1.34	256	0.21	147	0.16	600	2.26	1,015
1982	0.64	13	1.24	233	0.20	141	0.16	600	2.24	987
1987	0.60	12	1.12	212	0.20	139	0.17	602	2.09	965
1992	0.56	11	1.01	190	0.19	129	0.17	615	1.93	945

Sources: U.S. Department of Commerce, Bureau of the Census, *Historical Statistics of the United States: Colonial Times to 1970* (GPO, Washington, DC, 1975).

--, *Census of Agriculture for 1992, Vol. I: Geographic Area Series, Part 51 United States Summary and State Data*, Table 8, p. 18, AC92-A-51 (GPO, Washington, DC, 1994) and earlier census reports.

Table 52. Major Uses of U.S. Cropland, 1945-1995

Year	Cropland used for crops						Cropland diverted from production
	Harvested	Failed	Cultivated summer fallow	Idle cropland	Cropland pasture	Total	
	million acres						
1945	336	9	18	40	47	454	na
1949	352	9	26	22	67	478	na
1954	339	13	28	19	66	465	na
1959	317	10	31	33	66	457	22.5
1964	292	6	37	52	57	444	55.0
1969	286	6	41	51	88	472	57.5
1974	322	8	31	21	83	465	2.7
1978	330	7	32	26	76	471	18.3
1982	347	5	31	21	65	469	11.1
1987	293	6	32	68	65	464	76.2
1992	306	8	24	56	67	460	54.9
1995	304	7	22	na	na	na	50.0

Sources: U.S. Department of Agriculture (USDA), Economic Research Service (ERS), *AREI Updates: 1995 Cropland Use* (USDA, ERS, Washington, DC, 1995).

U.S. Department of Commerce, Bureau of the Census, *Census of Agriculture for 1992, Vol. I: Geographic Area Series, Part 51 United States Summary and State Data*, Table 7, p. 17, AC92-A-51 (GPO, Washington, DC, 1994) and earlier census reports.

Notes: na=not available except for years coinciding with Census of Agriculture. Excludes Alaska and Hawaii. Cropland diversions occur under federal farm programs such as annual commodity programs, Conservation Reserve Program, and Wetlands Reserve Program.

Table 53. Cropland Tillage Practices Used in U.S. Field Crop Production, 1989-1995

	Conventional tillage	Reduced tillage	Conservation tillage
	million acres (percent of planted acres)		
1989	137.3 (49.09%)	70.7 (25.26%)	71.7 (25.65%)
1990	136.7 (48.67%)	71.0 (25.27%)	73.2 (26.07%)
1991	129.8 (46.14%)	72.3 (25.71%)	79.2 (28.14%)
1992	120.8 (42.70%)	73.4 (25.94%)	88.7 (31.35%)
1993	107.9 (38.78%)	73.2 (26.30%)	97.2 (34.92%)
1994	111.4 (39.25%)	73.2 (25.76%)	99.3 (34.98%)
1995	109.7 (39.33%)	70.1 (25.18%)	98.9 (35.47%)

Source: Conservation Technology Information Center (CTIC), *National Crop Residue Management Survey Annual Report* (CTIC, West Lafayette, IN, 1996).

Notes: Definitions of tillage practices are based on the use of specific tillage implements and their residue incorporation rates. Conventional tillage is practiced with or without moldboard plow and leaves less than 15 percent residue after planting. Reduced tillage leaves 15-30 percent residue after planting. Conservation tillage leaves over 30 percent residue after planting. Conservation tillage includes no till (the soil is left undisturbed prior to planting, except for nutrient injection, and planting or drilling is accomplished in a narrow seedbed or slot created by coulters, row openers, disk openers, inrow chisels, or rototillers), ridge till (the soil is left undisturbed prior to planting, except for nutrient injection, and planting is completed in a seedbed prepared on ridges with sweeps, disk openers, coulters, or row cleaners; residue is left on the surface between ridges), and mulch till (the surface is disturbed before planting but 30 percent or more residue remains after planting).

Table 54. Erosion on U.S. Cropland, 1982-1992

Year	Sheet and rill erosion		Wind erosion	
	billion tons per year	*tons per acre per year*	*billion tons per year*	*tons per acre per year*
1982	1.7	4.1	1.4	3.3
1987	1.5	3.7	1.3	3.2
1992	1.2	3.1	0.9	2.5

Source: U.S. Department of Agriculture, National Resource Conservation Service (NRCS), *Summary Report 1992 National Resources Inventory* (USDA, NRCS, Washington, DC, 1995).

Table 55. U.S. Agricultural Productivity Indexes, 1960-1993

Year	Farm input				Farm output			Total productivity
	Purchased input	Labor	Capital	Total	Crops	Livestock	Total	
	index (1982=100)							
1960	77	186	86	99	55	77	63	64
1961	75	181	85	97	56	80	65	66
1962	77	179	84	97	56	81	65	67
1963	79	174	84	98	58	83	67	69
1964	78	164	84	96	56	86	67	70
1965	78	160	85	95	60	83	68	72
1966	84	149	85	96	59	84	68	71
1967	83	142	88	95	62	87	71	75
1968	82	137	88	94	63	87	72	77
1969	85	135	88	95	65	87	73	77
1970	86	133	88	95	63	90	73	77
1971	84	131	90	94	70	92	78	83
1972	86	129	89	95	70	93	78	83
1973	89	129	92	97	75	94	81	84
1974	90	120	95	96	68	92	77	80
1975	87	120	95	95	78	87	81	86
1976	92	118	97	98	77	92	83	85
1977	90	114	97	96	84	93	88	91
1978	103	110	98	101	87	93	89	88
1979	109	106	99	104	95	95	95	91
1980	111	102	102	105	86	99	91	87
1981	106	102	101	103	99	101	100	97
1982	100	100	100	100	100	100	100	100
1983	101	95	94	97	78	102	88	91
1984	99	95	95	97	97	101	99	103
1985	96	91	94	94	102	104	103	109
1986	94	85	90	91	97	104	100	110
1987	94	84	86	89	98	107	102	115
1988	89	86	84	86	86	109	95	111
1989	89	85	84	86	99	109	103	120
1990	96	85	83	89	106	111	108	121
1991	97	87	83	90	104	114	108	121
1992	101	82	82	90	115	116	116	129
1993	104	81	81	90	101	117	108	119

Source: U.S. Department of Agriculture, Economic Research Service, *Agricultural Outlook* (USDA, ERS, Washington, DC, monthly).

Notes: Purchased input includes chemicals, fuels, electricity, feed, seed, and livestock purchases; contract labor and custom machine services; machine and building maintenance and repair; irrigation from public sellers of water; and miscellaneous farm production items. Labor includes both hired and self-employed labor. Capital includes durable equipment and real estate. Livestock output includes meat animals, dairy products, poultry, eggs, wool, mohair, horses, mules, goats, sheep, rabbits, fur animals, aquaculture, honey, and beeswax. Crop outputs include food grains, feed grains, oil crops, sugar crops, cotton, cottonseed, vegetables, fruit trees, nut trees, tobacco, floriculture, ornamentals, Christmas trees, mushrooms, legume seeds, grass seeds, hops, mint, broomcorn, popcorn, hemp, and flax. Productivity=output/input.

Table 56. U.S. Farm Fuel Use, 1974-1994

Year	Gasoline	Diesel	Liquefied petroleum gas
		billion gallons	
1974	3.7	2.6	1.4
1975	4.5	2.4	1.0
1976	3.9	2.8	1.2
1977	3.8	2.9	1.1
1978	3.6	3.2	1.3
1979	3.4	3.2	1.1
1980	3.0	3.2	1.1
1981	2.7	3.1	1.0
1982	2.4	2.9	1.1
1983	2.3	3.0	0.9
1984	2.1	3.0	0.9
1985	1.9	2.9	0.9
1986	1.7	2.9	0.7
1987	1.5	3.0	0.6
1988	1.6	2.8	0.6
1989	1.6	3.2	0.6
1990	1.5	2.7	0.6
1991	1.4	2.8	0.6
1992	1.6	3.1	0.9
1993	1.4	3.3	0.7
1994	1.4	3.5	0.9

Sources: U.S. Department of Agriculture (USDA), Economic Research Service (ERS), *AREI Updates: Farm Energy*, Table 2, p. 2 (USDA, ERS, Washington, DC, 1995).

Notes: Excludes Alaska and Hawaii. Excludes fuel used for household and personal business. Data are based on USDA, National Agricultural Statistics Service, Farm Production Expenditures Survey data.

Table 57. U.S. Commercial Fertilizer Use, 1960-1995

Year	Total quantity	Active ingredients			
		Nitrogen	Phosphate	Potash	Total
	million tons	*million tons*			
1960	24.9	2.7	2.6	2.2	7.5
1961	25.6	3.0	2.6	2.2	7.8
1962	26.6	3.4	2.8	2.3	8.4
1963	28.8	3.9	3.1	2.5	9.5
1964	30.7	4.4	3.4	2.7	10.5
1965	31.8	4.6	3.5	2.8	10.9
1966	34.5	5.3	3.9	3.2	12.4
1967	37.1	6.0	4.3	3.6	14.0
1968	38.7	6.8	4.4	3.8	15.0
1969	38.9	6.9	4.7	3.9	15.5
1970	39.6	7.5	4.6	4.0	16.1
1971	41.1	8.1	4.8	4.2	17.2
1972	41.2	8.0	4.9	4.3	17.2
1973	43.3	8.3	5.1	4.6	18.0
1974	47.1	9.2	5.1	5.1	19.3
1975	42.5	8.6	4.5	4.4	17.6
1976	49.2	10.4	5.2	5.2	20.8
1977	51.6	10.6	5.6	5.8	22.1
1978	47.5	10.0	5.1	5.5	20.6
1979	51.5	10.7	5.6	6.2	22.6
1980	52.8	11.4	5.4	6.2	23.1
1981	54.0	11.9	5.4	6.3	23.7
1982	48.7	11.0	4.8	5.6	21.4
1983	41.8	9.1	4.1	4.8	18.1
1984	50.1	11.1	4.9	5.8	21.8
1985	49.1	11.5	4.7	5.6	21.7
1986	44.1	10.4	4.2	5.1	19.7
1987	43.0	10.2	4.0	4.8	19.1
1988	44.5	10.5	4.1	5.0	19.6
1989	44.9	10.6	4.1	4.8	19.6
1990	47.7	11.1	4.3	5.2	20.6
1991	47.3	11.3	4.2	5.0	20.5
1992	48.8	11.5	4.2	5.0	20.7
1993	49.1	11.4	4.4	5.1	20.9
1994	52.3	12.6	4.5	5.3	22.4
1995	50.7	11.7	4.4	5.1	21.3

Sources: Tennessee Valley Authority, Environmental Research Center, *Commercial Fertilizers, 1994* (TVA, Oak Ridge, TN, 1995), and earlier issues.

The Association of American Plant Food Control Officials (AAPFCO), *Commercial Fertilizers, 1995* (AAPFCO, Lexington, KY, 1996).

U.S. Department of Agriculture, Economic Research Service, *AREI UPDATES: Nutrient Use and Management*, Table 1, p. 2 (USDA, ERS, Washington, DC, 1995).

Notes: Quantity refers to total fertilizer materials. Fertilizer use estimates for 1960-1984 are based on USDA data; those for 1985-1994 are TVA estimates. The 1995 data are from AAPFCO. Includes fertilizer use on farms, lawns, golf courses, home gardens, and other nonfarm lands. Includes Puerto Rico.

Table 58. U.S. Commercial Pesticide Use by Sector and Type, 1979-1993

Year	Agriculture				Industry, commercial, & government			
	Herbicides	Insecticides	Fungicides	Total	Herbicides	Insecticides	Fungicides	Total
	million pounds of active ingredients							
1979	488	302	90	840	84	38	18	140
1980	445	306	95	846	82	47	18	147
1981	456	309	95	860	86	48	19	153
1982	430	295	90	815	86	48	19	153
1983	445	185	103	733	105	40	20	165
1984	545	200	105	850	105	40	20	165
1985	525	225	111	861	115	40	21	176
1986	500	210	110	820	125	45	25	195
1987	505	179	130	814	115	45	40	200
1988	510	185	150	845	120	45	40	205
1989	520	151	135	806	110	45	40	195
1990	516	173	145	834	103	42	38	183
1991	496	175	147	817	108	44	39	191
1992	511	181	147	839	110	43	40	193
1993	481	171	159	811	112	44	41	197

Year	Home & garden				Total			
	Herbicides	Insecticides	Fungicides	Total	Herbicides	Insecticides	Fungicides	Total
	million pounds of active ingredients							
1979	28	38	12	77	560	378	120	1,058
1980	28	42	12	82	555	395	125	1,075
1981	28	48	12	85	570	405	126	1,101
1982	28	48	12	88	544	391	121	1,056
1983	25	30	10	65	575	255	133	963
1984	25	30	10	65	675	270	135	1,080
1985	30	35	10	75	670	300	142	1,112
1986	30	40	11	81	655	395	146	1,096
1987	25	36	12	73	645	260	182	1,087
1988	30	38	12	80	660	268	202	1,130
1989	25	30	14	78	655	226	189	1,070
1990	25	30	14	69	644	245	197	1,086
1991	25	30	14	69	628	249	200	1,077
1992	26	31	14	71	647	255	201	1,103
1993	27	32	14	73	620	247	214	1,081

Source: U.S. Environmental Protection Agency (EPA), Office of Pesticide Programs (OPP), Biological and Economic Analysis Division (BEAD), *Pesticide Industry Sales and Usage: 1992 and 1993 Market Estimates*, Tables 13, p. 26, and Table 14, pp. 27-29 (EPA, OPP, BEAD, Washington, DC, 1994).

Notes: Estimates for total fungicide use also include other pesticides. Totals may not agree with sum of components due to independent rounding.

Table 59. Irrigated U.S. Farmland, Selected Years, 1890-1987, and Annually, 1988-1995

Year	Seventeen Western states	Other states	Total
		million acres	
1890	3.5	0.1	3.5
1900	7.5	0.3	7.8
1910	11.3	0.4	11.7
1920	13.9	0.5	14.5
1930	14.1	0.6	14.7
1940	17.2	0.7	18.0
1950	24.3	1.5	25.8
1959	30.7	2.4	33.2
1964	33.2	3.9	37.1
1969	34.8	4.3	39.1
1974	36.6	4.6	41.2
1978	43.2	7.2	50.3
1982	41.3	7.7	49.0
1987	37.5	8.9	46.4
1988	38.9	9.7	48.6
1989	40.0	9.5	49.5
1990	39.4	9.8	49.2
1991	39.9	10.1	50.0
1992	39.1	10.3	49.4
1993	39.6	10.2	49.8
1994	40.8	11.0	51.8
1995	41.2	10.8	52.0

Sources: U.S. Department of Agriculture (USDA), Economic Research Service (ERS), *Agricultural Resources and Environmental Indicators* (USDA, ERS, Washington, DC, 1994).

U.S. Department of Commerce, Bureau of the Census. *Census of Agriculture for 1992, Vol. I: Geographic Area Series, Part 51 United States Summary and State Data*, Table 9, p. 18, AC92-A-51 (GPO, Washington, DC, 1994) and earlier census reports.

Notes: Seventeen Western states include Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, and Wyoming. Data for 1890-1982, 1987, and 1992 are from the Census of Agriculture. Data for other years are estimates constructed from data provided by the USDA, National Agricultural Statistics Service (NASS).

Table 60. Condition of U.S. Nonfederal Rangeland, 1963-1992, and Bureau of Land Management Rangeland, 1936-1994

Rangeland condition	Nonfederal					Bureau of Land Management				
	1963	1977	1982	1987	1992	1936	1966	1975	1986	1994
	% rangeland acreage									
Excellent	5	12	4	3	6	2	2	2	4	5
Good	15	28	30	30	34	14	17	15	30	31
Fair	40	42	45	47	44	48	52	50	41	37
Poor	40	18	16	14	15	36	30	33	18	13
Unclassified	na	na	5	6	1	na	na	na	na	14

Sources: U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), *National Resources Inventory* (USDA, NRCS, Washington, DC, 1977, 1982, 1987, and 1992).

U.S. Department of the Interior (DOI), Bureau of Land Management (BLM), *Public Land Statistics* (DOI, BLM, Washington, DC, annual) and updates by agency.

Notes: na=not available. Range condition is the present state of the vegetation of a range site in relation to the climax (natural potential) plant community for that site. It is expressed as the degree of similarity of present vegetation to the climax plant community: Excellent=76-100% similarity; Good=51-75% similarity; Fair=26-50% similarity; and Poor=0-25% similarity. Unclassified includes rangeland for which data and estimates are not available. Data are updated annually to reflect new information and changes in range condition classes. NRI and BLM data are not strictly comparable because of different survey methodologies. The 1992 NRI data are preliminary pending statistical validation.

Table 61. Timberland in the United States by Ownership, 1952-1992

Year	Farmer and other private	Forest industry	National forests	Other public	Total
			million acres		
1952	304.5	59.0	94.7	50.7	508.9
1962	307.5	61.4	96.8	49.3	515.1
1977	285.3	68.9	88.7	49.5	491.1
1987	283.6	70.3	85.2	45.8	484.9
1992	287.6	70.5	84.7	46.8	489.6

Source: D.S. Powell, J.L. Faulkner, D.R. Darr, Z. Zhu and D.W. MacCleery, *Forest Statistics of the United States, 1992*, General Technical Report RM-234 (U.S. Department of Agriculture, Forest Service, Washington, DC, 1993).

Table 62. Annual Net Growth and Removals of U.S. Growing Stock, 1952-1991, and Volume of U.S. Growing Stock, 1952-1992

	Net growth and removals of growing stock									
	Farmer and other private		Forest industry		National forests		Other public		Total	
Year	Net Growth	Re-movals	Net Growth	Re-movals	Net Growth	Re-movals	Net Growth	Re-movals	Net Growth	Re-movals
					billion cubic feet					
1952	8.1	6.9	2.6	3.3	2.1	1.1	1.2	0.6	13.9	11.9
1962	9.5	6.4	3.2	3.0	2.5	1.9	1.6	0.7	16.7	12.0
1976	12.6	6.8	4.2	4.2	3.1	2.1	2.0	1.1	21.9	14.2
1986	12.1	8.2	4.3	5.4	3.4	2.3	2.3	1.2	22.1	16.0
1991	12.1	8.0	4.3	5.3	3.3	2.0	1.9	1.0	21.6	16.3

	Volume of growing stock									
	Farmer and other private		Forest industry		National forests		Other public		Total	
Year	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood	Soft-wood	Hard-wood
					billion cubic feet					
1952	94.8	133.7	77.4	20.3	204.4	13.6	55.2	16.5	431.8	184.1
1962	104.3	152.5	76.1	25.4	213.7	17.2	55.7	20.7	449.8	215.8
1977	125.3	185.8	74.5	32.3	208.1	21.6	59.0	26.5	467.0	266.1
1986	136.6	220.8	72.8	35.3	186.3	25.1	57.3	31.4	452.9	312.6
1992	143.4	242.3	71.0	34.8	185.6	25.6	50.0	33.0	449.9	335.7

Source: D.S. Powell, J.L. Faulkner, D.R. Darr, Z. Zhu and D.W. MacCleery, *Forest Statistics of the United States, 1992*, General Technical Report RM-234 (U.S. Department of Agriculture, Forest Service, Washington, DC, 1993).

Table 63. U.S. Production of Roundwood Equivalent of End Product, 1950-1991

Year	Lumber	Plywood & veneer	Pulp products	Fuel	Miscel-laneous	Total
			billion cubic feet			
1950	5.9	0.3	1.5	2.3	0.8	10.8
1951	5.8	0.4	1.8	2.2	0.7	11.0
1952	5.8	0.4	1.8	2.0	0.7	10.8
1953	5.7	0.5	1.9	1.9	0.7	10.7
1954	5.6	0.5	2.0	1.8	0.7	10.6
1955	5.8	0.6	2.2	1.7	0.7	11.0
1956	5.9	0.6	2.5	1.7	0.6	11.3
1957	5.1	0.6	2.4	1.6	0.6	10.2
1958	5.2	0.6	2.2	1.5	0.6	10.0
1959	5.7	0.7	2.4	1.4	0.6	10.8
1960	5.1	0.7	2.6	1.3	0.6	10.2
1961	4.9	0.8	2.5	1.2	0.6	10.0
1962	5.1	0.8	2.6	1.1	0.6	10.2
1963	5.4	0.9	2.7	1.1	0.7	10.6
1964	5.6	1.0	2.9	1.0	0.7	11.2
1965	5.7	1.0	3.1	0.9	0.8	11.5
1966	5.6	1.0	3.2	0.8	0.8	11.5
1967	5.3	1.0	3.2	0.8	0.9	11.2
1968	5.5	1.1	3.4	0.7	1.0	11.8
1969	5.4	1.1	3.6	0.6	1.0	11.6
1970	5.2	1.0	3.8	0.5	1.0	11.6
1971	5.4	1.2	3.6	0.5	0.9	11.5
1972	5.5	1.3	3.5	0.5	1.1	11.9
1973	5.7	1.3	3.8	0.5	1.2	12.4
1974	5.1	1.1	4.2	0.5	1.1	12.1
1975	4.9	1.2	3.5	0.6	1.0	11.1
1976	5.6	1.4	3.8	0.6	1.2	12.5
1977	5.9	1.4	3.6	1.0	1.2	13.2
1978	6.2	1.5	3.7	1.5	1.2	14.1
1979	6.1	1.4	4.1	2.2	1.4	15.2
1980	5.3	1.2	4.4	3.1	1.2	15.2
1981	4.8	1.2	4.1	3.2	0.9	14.3
1982	4.6	1.1	4.0	3.4	1.1	14.3
1983	5.4	1.4	4.2	3.2	1.1	15.3
1984	5.8	1.4	4.4	3.6	1.2	16.3
1985	5.7	1.4	4.2	3.4	1.2	16.0
1986	6.5	1.5	4.5	3.1	1.2	17.0
1987	7.0	1.7	4.7	3.1	1.4	17.8
1988	6.9	1.6	4.7	3.4	1.5	18.2
1989	6.8	1.6	5.0	3.4	1.6	18.3
1990	6.5	1.6	5.1	3.3	1.5	18.0
1991	6.5	1.6	5.1	3.3	1.4	17.9

Source: U.S. Department of Agriculture, Forest Service, *U.S. Timber Production, Trade, Consumption, and Price Statistics, 1960-1988*, Table 4, p. 13 (USDA, FS, Washington, DC, 1991) and updates by agency.

Note: Miscellaneous=log and pulp chip exports and other products not specified.

Table 64. Logging Residues from U.S. Growing Stock and Timber Product Output from U.S. Nongrowing Stock, 1952-1991

Year	Logging residues		Output from nongrowing stock	
	Soft-wood	Hard-wood	Soft-wood	Hard-wood
	% of timber product removals from growing stock		*% of timber supplies*	
1952	9.8	22.2	10.4	20.9
1962	9.6	20.7	10.0	18.5
1970	10.0	19.7	7.0	13.9
1976	8.4	17.1	6.9	14.0
1986	9.0	13.2	11.5	38.5
1991	7.5	12.0	11.9	37.5

Source: R.W. Haynes, D.M. Adams and J.R. Mills, *The 1993 RPA Timber Assessment Update*, Table 7, p. 16, and Table 8, p. 17 (U.S. Department of Agriculture, Forest Service, Washington, DC, 1995).

Notes: Logging residues are lower quality material, such as small stem, chunks, and low-quality stems. Declining amounts of residues reflect increased stumpage prices, improved logging technology, and increased demand for wood products. Timber supplies from nongrowing stock include salvable dead trees, rough and rotten trees, tops and limbs, defective sections of growing stock trees in urban areas, along fence rows, and on forested lands other than timberlands. Output from these sources has been greatly influenced by markets for pulpwood and fuelwood since the late 1970s.

Table 65. U.S. Forest Fire Damage and Tree Planting, 1930-1995

Year	Forest fire damage	Tree planting	Year	Forest fire damage	Tree planting
	million acres			*million acres*	
1930	52.3	0.14	1972	2.6	1.68
1940	25.9	0.52	1973	1.9	1.75
1950	15.5	0.50	1974	2.9	1.60
1951	10.8	0.45	1975	1.8	1.93
1952	14.2	0.52	1976	5.1	1.89
1953	10.0	0.71	1977	3.2	1.98
1954	8.8	0.81	1978	3.9	2.09
1955	8.1	0.78	1979	3.0	2.06
1956	6.6	0.89	1980	5.3	2.27
1957	3.4	1.14	1981	4.8	2.35
1958	3.3	1.53	1982	2.4	2.37
1959	4.2	2.12	1983	5.1	2.45
1960	4.5	2.14	1984	3.0	2.55
1961	3.0	1.76	1985	5.2	2.70
1962	4.1	1.37	1986	3.2	2.75
1963	7.1	1.33	1987	5.0	3.03
1964	4.2	1.31	1988	5.7	3.39
1965	2.7	1.29	1989	3.5	3.02
1966	4.6	1.28	1990	4.6	2.86
1967	4.7	1.37	1991	na	2.56
1968	4.2	1.44	1992	na	2.55
1969	6.7	1.43	1993	na	2.42
1970	3.3	1.60	1994	na	2.78
1971	4.3	1.69	1995	na	2.42

Sources: U.S. Department of Agriculture, Forest Service, Wildfire Statistics, unpublished, Washington, DC, annual.

--, *U.S. Forest Planting Report* (USDA, FS, Washington, DC, annual).

Notes: Tree planting refers to acres planted in seedlings and direct seeded. Year refers to fiscal year. na=not available prior to statistical validation. Annual forest fire damage for the years 1991-1995 is estimated to be between 2 and 7 million acres.

Table 66. U.S. Forestland Damaged by Insects, 1968-1995

Year	Spruce budworm	Western spruce budworm	Gypsy moth	Mountain pine beetle	Southern pine beetle
			million acres		
1968	1.3	5.3	0.1	na	na
1969	1.2	4.6	0.3	na	na
1970	2.0	4.0	1.0	na	na
1971	1.6	4.8	1.9	na	na
1972	2.8	5.5	1.4	na	na
1973	4.2	4.4	1.8	na	na
1974	10.8	5.5	0.8	na	na
1975	9.2	5.3	0.5	na	na
1976	9.1	5.8	0.9	na	na
1977	10.3	6.5	1.6	na	na
1978	7.7	5.2	1.3	4.0	na
1979	6.6	5.0	0.6	4.4	15.0
1980	6.6	4.0	5.0	4.7	12.1
1981	4.5	5.5	12.9	4.7	0.9
1982	4.2	8.7	8.2	4.2	7.3
1983	6.5	11.0	2.4	3.6	11.4
1984	6.1	10.6	1.0	3.3	na
1985	5.2	12.8	1.7	3.3	15.5
1986	1.0	13.2	2.4	3.5	26.4
1987	0.8	8.0	1.3	2.4	13.8
1988	0.3	6.1	0.7	2.2	7.9
1989	0.2	3.1	3.0	1.6	5.3
1990	0.2	4.6	7.3	0.9	4.2
1991	0.1	7.2	4.2	0.6	10.7
1992	0.1	4.6	3.1	15.8	14.3
1993	0.1	0.5	1.8	0.8	10.4
1994	1.0	0.5	0.9	0.4	5.3
1995	0.8	0.5	1.4	0.6	21.7

Sources: U.S. Department of Agriculture (USDA), Forest Service (FS), *Forest Insect and Disease Conditions in the United States, 1979-1983* (USDA, FS, Washington, DC, 1985).

--, *Forest Insect and Disease Conditions in the United States* (USDA, FS, Washington, DC, annual from 1986).

Notes: na=not available. Acreage for spruce budworm from 1991 forward includes spruce budworm in Alaska since it is the same species of budworm as in the eastern United States (i.e., it is not the western spruce budworm). Acreage for mountain pine beetle in 1992 includes 15.2 million acres in California not previously reported.

Pollution Prevention

Table 67. U.S. Municipal Solid Waste Trends, 1960-1994

Year	Gross discards	Recovery for recycling	Net discards	Combustion	Discards to landfills	Per capita waste generation
			million tons			*lbs/person/day*
1960	87.8	5.9	81.9	27.0	55.3	2.67
1970	121.9	8.6	113.3	25.1	89.5	3.29
1980	151.4	14.5	136.9	13.7	124.3	3.67
1990	198.0	32.9	165.1	31.9	132.3	4.33
1994	209.1	49.3	159.8	32.5	127.3	4.40

Source: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. *Characterization of Municipal Solid Waste in the United States: 1995 Update,* Table 26, p. 91 and Table 38, p. 117 (EPA, Washington, DC, 1996).

Table 68. U.S. Municipal Solid Waste Trends by Waste Type, 1960-1994

	Paper		Glass		Metals*		Aluminum		Plastics	
Year	Generation	Recovery	Generation	Recovery	Generation	Recovery	Generation	Recovery	Generation	Recovery
					million tons					
1960	29.98	5.08	6.68	0.10	10.11	0.50	0.36	**	0.36	**
1970	44.31	6.77	12.75	0.16	13.56	0.47	0.85	0.01	3.07	**
1980	55.16	11.74	14.99	0.75	12.89	0.91	1.77	0.31	7.74	0.20
1990	72.72	20.23	13.11	2.63	13.54	2.44	2.85	1.01	16.89	0.37
1994	81.30	28.73	13.27	3.11	12.73	4.52	3.06	1.15	19.84	0.93

	Rubber and leather		Textiles		Wood		Food		Yard	
Year	Generation	Recovery	Generation	Recovery	Generation	Recovery	Generation	Recovery	Generation	Recovery
					million tons					
1960	2.03	0.32	1.73	0.01	3.01	**	12.20	**	20.00	**
1970	3.27	0.25	2.00	0.01	4.22	**	12.80	**	23.20	**
1980	4.49	0.13	2.61	0.03	7.44	**	13.00	**	27.50	**
1990	6.25	0.37	5.15	0.57	12.31	0.39	13.20	**	35.00	4.20
1994	6.37	0.45	6.56	0.77	14.59	1.43	14.07	0.48	30.60	7.00

Source: U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. *Characterization of Municipal Solid Waste in the United States: 1995 Update,* Table 1, p. 26 and Table 2, p. 27 (EPA, Washington, DC, 1996).

Notes: *ferrous and nonferrous metals. **negligible (less than 50, 000 tons or 0.05 percent).

Table 69. U.S. Inventory of Low-level Nuclear Waste, 1962-1995, High-level Nuclear Waste, 1980-1995, and Spent Nuclear Fuel, 1980-1995

	Low-level wastes at commercial disposal sites				
Year	Cumulative volume	Cumulative radioactivity	Year	Cumulative volume	Cumulative radioactivity
	million m3	*million curies*		*million m3*	*million curies*
1962	0.002	na	1979	0.676	4.539
1963	0.008	0.042	1980	0.768	4.547
1964	0.020	0.204	1981	0.852	4.483
1965	0.034	0.273	1982	0.929	4.568
1966	0.049	0.355	1983	1.007	4.732
1967	0.071	0.428	1984	1.083	4.954
1968	0.091	0.529	1985	1.160	5.282
1969	0.112	0.687	1986	1.213	5.059
1970	0.138	0.855	1987	1.265	4.924
1971	0.169	2.000	1988	1.306	4.793
1972	0.208	2.287	1989	1.352	5.284
1973	0.255	2.732	1990	1.384	4.979
1974	0.309	2.754	1991	1.423	5.272
1975	0.367	3.040	1992	1.472	5.708
1976	0.442	3.268	1993	1.495	5.709
1977	0.514	3.765	1994	1.519	5.841
1978	0.593	4.383	1995	1.543	5.944

	High-level nuclear waste at DOE/defense and commercial sites			Spent nuclear fuel at commercial sites	
Year	Cumulative volume	Cumulative decayed radioactivity	Year	Cumulative volume	Cumulative radioactivity
	thousand m3	*million curies*		*metric tons initial heavy metal*	*million curies*
1980	329.7	1,362.6	1980	6,558	10,137
1981	339.3	1,628.5	1981	7,692	10,552
1982	342.0	1,369.4	1982	8,690	10,400
1983	352.7	1,299.7	1983	9,952	12,088
1984	363.5	1,355.2	1984	11,291	13,222
1985	357.1	1,459.5	1985	12,684	14,228
1986	365.9	1,419.0	1986	14,139	15,308
1987	381.4	1,303.1	1987	15,844	17,292
1988	384.9	1,206.7	1988	17,497	18,207
1989	381.1	1,113.9	1989	19,410	20,209
1990	398.5	1,050.8	1990	21,547	22,910
1991	396.5	1,007.4	1991	23,406	22,825
1992	398.3	1,081.2	1992	25,697	26,136
1993	403.5	1,045.3	1993	27,929	27,516
1994	378.4	958.8	1994	29,811	26,661
1995	371.7	916.7	1995	32,200	30,200

Source: U.S. Department of Energy, *Integrated Data Base Report - 1994: U.S. Spent Fuel and Radioactive Waste Inventories, Projections, and Characteristics* (DOE, Washington, DC, 1995).

Table 70. U.S. Superfund Inventory and NPL Sites, 1980-1995

Year	Superfund	NPL
	number of sites, cumulative	
1980	8,689	0
1981	13,893	0
1982	14,697	160
1983	16,023	551
1984	18,378	547
1985	22,238	864
1986	24,940	906
1987	27,274	967
1988	29,809	1,195
1989	31,650	1,254
1990	33,371	1,236
1991	35,108	1,245
1992	36,869	1,275
1993	38,169	1,321
1994	39,099	1,360
1995	15,622	1,374

Source: U.S. Environmental Protection Agency, unpublished, Washington, DC, 1996.

Notes: NPL=National Priorities List. The 1995 data reflect the removal of over 24,000 sites from the Superfund inventory as part of EPA's Brownfields initiatives.

Table 71. U.S. Production of Selected Ozone-depleting Chemicals, 1958-1994

Year	CFC-11	CFC-12	HCFC-22	CFC-113	CH_3CCl_3
	thousand metric tons of CFC-11 equivalent				
1958	22.9	59.6	0.76	0.0	0.0
1959	27.4	71.3	0.83	0.0	0.0
1960	32.8	75.5	0.91	1.6	0.0
1961	41.2	78.7	1.03	2.4	0.0
1962	56.6	94.3	1.12	3.2	0.0
1963	63.6	98.6	1.23	3.6	0.0
1964	67.4	103.4	1.34	4.3	0.0
1965	77.3	123.1	1.46	5.1	0.0
1966	77.3	129.9	1.59	5.8	0.0
1967	82.7	140.5	1.78	7.6	13.7
1968	92.7	147.7	1.96	9.1	14.6
1969	108.2	166.8	2.14	10.9	15.6
1970	110.9	170.3	2.28	13.1	16.6
1971	117.0	176.7	2.55	15.6	17.4
1972	135.9	199.2	2.80	18.2	18.2
1973	151.4	221.7	3.09	21.4	19.0
1974	154.7	221.1	3.21	23.2	19.9
1975	122.3	178.3	2.99	24.8	20.8
1976	116.2	178.3	3.85	29.7	24.8
1977	96.4	162.3	4.07	36.2	28.8
1978	87.9	148.4	4.67	41.0	29.2
1979	75.8	133.3	4.78	47.0	32.5
1980	71.7	133.8	5.16	36.7	31.4
1981	73.8	147.6	5.71	38.6	27.9
1982	63.7	117.0	3.95	40.0	27.0
1983	73.1	134.3	5.35	42.2	26.6
1984	83.9	152.7	5.76	60.2	30.6
1985	79.7	136.9	5.34	65.8	39.4
1986	91.6	146.2	6.15	69.2	29.6
1987	89.7	151.9	6.23	72.3	31.5
1988	113.0	187.7	7.54	79.2	32.8
1989	83.3	141.2	7.24	80.4	35.5
1990	61.0	94.6	6.94	55.9	36.4
1991	44.9	71.3	7.13	47.2	29.2
1992	45.5	73.9	7.48	28.5	31.4
1993	32.8	83.7	6.61	11.4	20.5
1994	na	57.5	6.93	na	na

Source: U.S. International Trade Commission, *Synthetic Organic Chemicals, United States Production and Sales* (GPO, Washington, DC, annual).

Notes: CFC-11=Trichlorofluoromethane. CFC-12=Dichlorodifluoromethane. HCFC-22=Chlorodifluoromethane. CFC-113=Trichlorotrifluoroethane. CH_3CCL_3=Trichloroethane or methyl chloroform.

Table 72. U.S. Toxics Release Inventory Releases and Transfers, 1988-1995

	1988	1992	1993	1994
		billion pounds		
Releases				
Air Emissions	2.253	1.560	1.385	1.341
Fugitive air	0.686	0.441	0.379	0.350
Point source air	1.567	1.119	1.006	0.991
Surface water	0.177	0.196	0.203	0.047
Underground injection	0.626	0.367	0.295	0.307
On-site land releases	0.481	0.328	0.274	0.282
Total releases	3.536	2.450	2.157	1.977
Transfers				
To recycling	na	2.609	2.057	2.234
To energy-recovery	na	0.431	0.447	0.463
To treatment	0.396	0.257	0.255	0.290
To POTWs	0.297	0.226	0.186	0.180
To disposal	0.437	0.217	0.267	0.281
To other	0.042	0.013	0.002	0.004
Total transfers	1.173	3.752	3.213	3.451
Total releases and transfers	4.709	6.202	5.370	5.428

Source: U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics, *1994 Toxics Release Inventory: Public Data Release*, EPA/745-R-96-002 (EPA, Washington, DC, 1996).

Table 73. U.S. Toxics Release Inventory by Industry, 1988-1994

Industry	1988	1992	1993	1994
		million pounds		
Food	9.083	11.876	12.035	10.332
Tobacco	1.234	0.588	0.625	0.962
Textile	34.263	19.086	17.598	15.884
Apparel	0.922	1.296	0.994	1.318
Lumber	31.071	30.033	29.801	31.708
Furniture	61.376	53.184	54.003	50.558
Paper	227.692	199.101	179.821	218.562
Printing	60.697	40.433	35.915	34.180
Chemical	1,322.843	991.275	874.385	700.662
Petroleum	67.689	61.724	50.891	43.789
Plastics	146.553	121.075	111.009	111.568
Leather	11.927	7.226	4.447	3.594
Stone/clay/glass	27.114	14.254	14.334	12.403
Primary metals	496.230	341.208	304.643	293.822
Fabr. metals	131.777	100.591	88.633	86.071
Machinery	59.615	32.951	26.538	23.495
Electrical equip.	115.881	47.066	32.888	28.995
Transportation	191.020	125.293	123.826	119.695
Measure/photo.	49.926	29.051	22.478	15.749
Miscellaneous	28.564	16.888	15.248	13.712
Multiple codes	446.596	191.819	137.189	142.919
No codes	13.977	13.628	20.056	16.937
Total	3,536.050	2,449.644	2,157.355	1,976.912

Source: U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics, *1994 Toxics Release Inventory: Public Data Release*, EPA/745-R-96-002 (EPA, Washington, DC, 1996).

Table 74. U.S. Toxics Release Inventory by State, 1988 and 1994

State	1988	1994	Change 1988-1994	
		million pounds		*%*
Alabama	110.190	88.256	-21.935	-19.9
Alaska	6.203	1.667	-4.536	-73.1
Arizona	66.057	30.482	-35.575	-53.9
Arkansas	40.676	32.123	-8.553	-21.0
California	97.587	35.042	-62.545	-64.1
Colorado	13.765	3.744	-10.021	-72.8
Connecticut	32.538	10.148	-22.390	-68.8
Delaware	7.825	4.132	-3.694	-47.2
District of Columbia	<0.001	0.024	0.023	4,658.2
Florida	96.972	82.542	-14.520	-15.0
Georgia	81.661	45.248	-36.412	-44.6
Hawaii	0.935	0.512	-0.423	-45.3

See next page for continuation of table.

Table 74. U.S. Toxics Release Inventory by State, 1988 and 1994 (continued)

State	1988	1994	Change 1988-1994	
		million pounds		*%*
Idaho	7.898	2.422	-5.476	-69.3
Illinois	118.263	86.493	-31.770	26.9
Indiana	169.719	70.231	-99.489	-58.6
Iowa	36.349	22.592	-13.757	-37.8
Kansas	104.567	17.657	-86.910	-83.1
Kentucky	82.349	30.368	-51.981	-63.1
Louisiana	435.022	120.017	-315.006	-72.4
Maine	16.017	7.472	-8.545	-53.3
Maryland	19.587	12.267	-7.319	-37.4
Massachusetts	27.009	8.579	-18.430	-68.2
Michigan	98.792	79.027	-19.765	-20.0
Minnesota	54.772	19.699	-35.073	-64.0
Mississippi	94.357	112.958	18.602	19.7
Missouri	87.441	45.252	-42.188	-48.2
Montana	35.719	46.428	10.709	30.0
Nebraska	13.889	8.148	-5.741	-41.3
Nevada	2.316	3.009	0.693	29.9
New Hampshire	12.287	2.362	-9.925	-80.8
New Jersey	36.677	12.827	-23.850	-65.0
New Mexico	30.252	17.140	-13.112	-43.3
New York	95.609	33.387	-62.222	-65.1
North Carolina	125.148	79.652	-45.496	-36.4
North Dakota	1.131	0.926	-0.245	-18.1
Ohio	166.274	98.556	-67.718	-40.7
Oklahoma	34.085	15.018	-19.067	-55.9
Oregon	17.600	15.460	-2.140	-12.2
Pennsylvania	99.845	47.589	-52.256	-52.3
Puerto Rico	12.368	8.962	-3.405	-27.5
Rhode Island	6.351	2.879	-3.472	-54.7
South Carolina	61.847	44.786	-17.061	-27.6
South Dakota	2.314	1.954	-0.360	-15.6
Tennessee	159.648	146.698	-12.950	-8.1
Texas	310.984	213.061	-97.924	-31.5
Utah	134.108	70.975	-63.134	-47.1
Vermont	1.598	0.611	-0.987	-61.8
Virgin Islands	1.848	0.961	-0.887	-48.0
Virginia	115.321	46.243	-69.077	-59.9
Washington	26.133	22.140	-3.993	-15.3
West Virginia	33.152	19.324	-13.829	-41.7
Wisconsin	50.777	30.272	-20.505	-40.4
Wyoming	42.221	18.683	-23.538	-55.7
Total	3,536.050	1,976.912	-1,559.138	-44.1

Source: U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics, *1994 Toxics Release Inventory: Public Data Release*, EPA/745-R-96-002 (EPA, Washington, DC, 1996).

Table 75. Contaminant Levels in Herring Gull Eggs from Great Lakes Colonies, 1974-1995

Year	Lake Superior				
	DDE	Dieldrin	Mirex	HCB	PCBs
	parts per million in whole egg samples, wet weight				
1974	16.59	0.51	1.04	0.26	62.08
1975	23.10	0.38	0.96	0.18	76.24
1977	11.92	0.38	0.33	0.24	55.22
1978	9.64	0.39	0.28	0.12	41.57
1979	6.83	0.60	0.26	0.14	58.74
1980	3.67	0.34	0.13	0.08	25.58
1981	5.74	0.44	0.14	0.12	33.84
1982	6.29	0.39	0.37	0.08	34.74
1983	3.17	0.33	0.15	0.05	21.42
1984	2.94	0.36	0.12	0.05	16.91
1985	3.13	0.32	0.11	0.05	15.89
1986	3.22	0.34	0.11	0.05	14.10
1987	2.52	0.20	0.10	0.04	12.35
1988	2.94	0.34	0.06	0.05	13.43
1989	2.50	0.34	0.07	0.05	15.09
1990	2.64	0.30	0.06	0.03	11.62
1991	3.60	0.27	0.07	0.04	14.09
1992	3.69	0.40	0.07	0.05	13.95
1993	4.09	0.19	0.08	0.03	15.70
1994	2.39	0.15	0.10	0.03	12.30
1995	2.49	0.11	0.08	0.02	11.15

Year	Lake Michigan				
	DDE	Dieldrin	Mirex	HCB	PCBs
	parts per million in whole egg samples, wet weight				
1976	33.40	0.82	0.36	0.14	118.42
1977	29.25	0.68	0.14	0.24	107.80
1978	22.36	0.87	0.21	0.12	90.74
1980	12.17	0.70	0.10	0.09	57.83
1982	15.86	0.81	0.09	0.09	65.41
1983	6.46	0.61	0.05	0.05	30.27
1984	7.85	0.53	0.09	0.06	31.47
1985	6.98	0.47	0.12	0.05	31.94
1986	7.48	0.38	0.07	0.07	27.25
1987	3.95	0.33	0.06	0.04	16.58
1988	5.04	0.55	0.03	0.04	19.14
1989	4.74	0.54	0.04	0.04	21.00
1990	8.12	0.54	0.06	0.05	32.19
1991	10.52	0.34	0.12	0.05	31.27
1992	6.71	0.41	0.04	0.04	20.25
1993	na	na	na	na	na
1994	10.10	0.34	0.08	0.05	32.85
1995	6.38	0.19	0.05	0.03	23.30

See next page for continuation of table.

Table 75. Contaminant Levels in Herring Gull Eggs from Great Lakes Colonies, 1974-1995 (continued)

Year	DDE	Dieldrin	Mirex	HCB	PCBs
	Lake Huron				
	parts per million in whole egg samples, wet weight				
1974	17.40	0.50	1.34	0.38	71.01
1975	14.03	0.36	0.51	0.21	42.67
1977	16.17	0.54	0.44	0.36	70.28
1978	6.53	0.22	0.21	0.11	32.38
1979	2.30	0.30	0.19	0.10	28.66
1980	2.71	0.24	0.11	0.07	20.41
1981	3.82	0.24	0.26	0.07	25.39
1982	4.43	0.28	0.48	0.08	34.29
1983	2.74	0.22	0.15	0.05	18.28
1984	2.56	0.22	0.34	0.07	19.95
1985	2.77	0.30	0.22	0.06	16.90
1986	2.05	0.21	0.12	0.05	12.00
1987	1.32	0.22	0.08	0.02	8.33
1988	1.40	0.22	0.07	0.04	8.83
1989	1.57	0.20	0.09	0.03	10.19
1990	1.86	0.14	0.11	0.03	11.34
1991	1.97	0.16	0.11	0.03	10.00
1992	2.36	0.16	0.05	0.05	10.20
1993	3.18	0.19	0.06	0.03	10.95
1994	2.19	0.13	0.10	0.03	11.25
1995	1.60	0.10	0.06	0.03	8.95
	Lake Erie				
Year	DDE	Dieldrin	Mirex	HCB	PCBs
	parts per million in whole egg samples, wet weight				
1974	7.13	0.35	0.64	0.29	72.46
1975	7.41	0.33	0.32	0.19	62.30
1977	7.49	0.40	0.45	0.37	68.70
1978	4.29	0.24	0.20	0.09	44.43
1979	3.10	0.25	0.17	0.11	48.44
1980	2.98	0.21	0.18	0.09	46.38
1981	3.90	0.22	0.25	0.09	56.49
1982	3.07	0.25	0.13	0.08	58.89
1983	2.39	0.20	0.17	0.05	37.31
1984	3.23	0.33	0.22	0.06	46.20
1985	2.83	0.19	0.14	0.06	38.41
1986	2.77	0.23	0.14	0.06	33.35
1987	1.77	0.14	0.12	0.03	23.16
1988	2.07	0.17	0.10	0.05	27.50
1989	2.69	0.17	0.18	0.05	39.21
1990	2.01	0.10	0.11	0.03	30.09
1991	2.12	0.08	0.07	0.02	26.55
1992	1.68	0.13	0.05	0.04	24.45
1993	1.49	0.10	0.07	0.02	21.70
1994	1.55	0.08	0.08	0.03	22.90
1995	1.21	0.08	0.07	0.03	23.55

See next page for continuation of table.

Table 75. Contaminant Levels in Herring Gull Eggs from Great Lakes Colonies, 1974-1995 (continued)

Year	Lake Ontario				
	DDE	Dieldrin	Mirex	HCB	PCBs
	parts per million in whole egg samples, wet weight				
1974	22.30	0.47	6.99	0.58	152.37
1975	22.80	0.29	4.70	0.33	143.11
1977	14.88	0.39	2.48	0.80	102.50
1978	10.65	0.26	1.59	0.32	72.43
1979	8.94	0.21	1.89	0.21	69.60
1980	7.62	0.19	1.65	0.17	56.43
1981	11.00	0.28	2.67	0.24	78.90
1982	10.04	0.28	3.05	0.16	62.90
1983	4.78	0.18	1.43	0.08	42.59
1984	6.26	0.21	1.87	0.12	51.11
1985	6.02	0.15	1.47	0.07	35.58
1986	4.41	0.16	1.10	0.07	27.86
1987	2.60	0.13	0.68	0.04	16.48
1988	4.25	0.15	0.82	0.07	23.53
1989	5.28	0.22	1.15	0.07	32.45
1990	3.36	0.10	0.64	0.03	18.44
1991	3.53	0.14	0.58	0.03	17.05
1992	5.01	0.13	0.77	0.05	21.20
1993	5.27	0.13	0.82	0.04	21.05
1994	3.83	0.13	0.80	0.04	19.70
1995	2.23	0.05	0.57	0.02	13.60

Source: Environment Canada, Canadian Wildlife Service, Canada Centre for Inland Waters, Organochlorine Contaminant Concentrations in Herring Gull Eggs from Great Lakes Colonies, unpublished, Burlington, ON, 1996.

Notes: DDE=Derivative of Dichloro-diphenyl-trichloro ethane (DDT). HCB=Hexachloro-benzene. PCBs=Polychlorinated biphenyls. Data are not available for: Lake Superior in 1976; Lake Michigan in 1979, 1981 and 1993; Lake Huron in 1976; Lake Erie in 1976; and Lake Ontario in 1976.

Table 76. Pesticide Residues in U.S. Domestic Surveillance Food Samples by Commodity Group, 1978-1994

Year	Commodity group						
	Grains & grain products	Milk, dairy products & eggs	Fish, shellfish & meats	Fruits	Vegetables	Other	Total
	% of samples with residues found						
1978	54	43	80	48	34	42	47
1979	54	47	81	58	35	47	49
1980	52	36	71	53	40	36	46
1981	43	32	77	56	37	34	44
1982	42	34	72	49	36	32	41
1983	42	32	61	52	41	31	43
1984	54	31	75	38	33	31	37
1985	52	22	65	36	34	22	35
1986	60	21	68	57	39	48	44
1987	57	24	73	50	37	37	42
1988	49	19	72	51	35	28	40
1989	44	13	65	44	32	20	35
1990	46	9	68	49	38	21	40
1991	42	22	42	51	32	19	36
1992	39	6	52	49	31	19	35
1993	34	6	47	30	61	17	36
1994	39	7	41	56	34	12	37

Source: Food and Drug Administration, "Pesticide Program Residues Monitoring 1994," *J. Assoc. Off. Anal. Chem*. Vol. 78 (Washington, DC: FDA, 1995), and earlier issues.

Notes: Domestic food samples are collected as close as possible to the point of production. Fresh produce is analyzed as the unwashed whole, raw commodity. Although a percentage of samples contain pesticide residues, the percent of samples with over-tolerance residues (as set by EPA) is low. Between 1973 and 1986; 3 percent of samples were classed as violative; since 1987, less than 1 percent were violative.

Energy

Table 77. Proven Reserves of Liquid and Gaseous Hydrocarbons in the United States, 1977-1994

Year	Crude oil	Natural gas	Natural gas liquids
	billion barrels	*trillion cubic feet*	*billion barrels*
1977	31.8	207.4	na
1978	31.4	208.0	6.8
1979	29.8	201.0	6.6
1980	29.8	199.0	6.7
1981	29.4	201.7	7.1
1982	27.9	201.5	7.2
1983	27.7	200.5	7.9
1984	28.4	197.5	7.6
1985	28.4	193.4	7.9
1986	26.9	191.6	8.2
1987	27.3	187.2	8.1
1988	26.8	168.0	8.2
1989	26.5	167.1	7.8
1990	26.3	169.3	7.6
1991	24.7	167.1	7.5
1992	23.7	165.0	7.5
1993	23.0	162.4	7.2
1994	22.5	163.8	7.2

Source: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 1995*, Table 4.10, p. 129, DOE/EIA-0384(95) (GPO, Washington, DC, 1996).

Table 78. U.S. Energy Production by Source, 1960-1995

Year	Coal	Crude oil & NPGL	Natural gas	Hydroelectric power	Nuclear	Geothermal & other renewables	Total
				quadrillion Btu			
1960	10.82	16.39	12.66	1.61	0.01	<0.01	41.49
1961	10.45	16.76	13.10	1.66	0.02	<0.01	41.99
1962	10.90	17.11	13.72	1.82	0.03	<0.01	43.58
1963	11.85	17.68	14.51	1.77	0.04	<0.01	45.85
1964	12.52	17.96	15.30	1.89	0.04	<0.01	47.72
1965	13.06	18.40	15.78	2.06	0.04	<0.01	49.34
1966	13.47	19.56	17.01	2.06	0.06	<0.01	52.17
1967	13.83	20.83	17.94	2.35	0.09	0.01	55.04
1968	13.61	21.63	19.07	2.35	0.14	0.01	56.81
1969	13.86	21.98	20.45	2.65	0.15	0.01	59.10
1970	14.61	22.91	21.67	2.63	0.24	0.01	62.07
1971	13.19	22.57	22.28	2.82	0.41	0.01	61.29
1972	14.09	22.64	22.21	2.86	0.58	0.03	62.42
1973	13.99	22.06	22.19	2.86	0.91	0.04	62.06
1974	14.07	21.04	21.21	3.18	1.27	0.05	60.84
1975	14.99	20.10	19.64	3.15	1.90	0.07	59.86
1976	15.65	19.59	19.48	2.98	2.11	0.08	59.89
1977	15.76	19.78	19.57	2.33	2.70	0.09	60.22
1978	14.91	20.68	19.49	2.94	3.02	0.06	61.10
1979	17.54	20.39	20.08	2.93	2.78	0.09	63.80
1980	18.60	20.50	19.91	2.90	2.74	0.11	64.76
1981	18.38	20.46	19.70	2.76	3.01	0.12	64.42
1982	18.64	20.50	18.32	3.27	3.13	0.10	63.96
1983	17.25	20.57	16.59	3.53	3.20	0.13	61.28
1984	19.72	21.12	18.01	3.39	3.55	0.17	65.96
1985	19.33	21.23	16.98	2.97	4.15	0.21	64.87
1986	19.51	20.53	16.54	3.07	4.47	0.23	64.35
1987	20.14	19.89	17.14	2.63	4.91	0.25	64.95
1988	20.74	19.54	17.60	2.33	5.66	0.24	66.10
1989	21.35	18.28	17.85	2.77	5.68	0.22	66.13
1990	22.46	17.74	18.36	2.99	6.16	3.05	70.75
1991	21.59	18.01	18.23	2.94	6.58	3.07	70.41
1992	21.59	17.58	18.38	2.57	6.61	3.23	69.96
1993	20.22	16.90	18.58	2.84	6.52	3.25	68.32
1994	22.07	16.49	19.26	2.64	6.84	3.31	70.62
1995	21.91	16.27	19.23	3.17	7.19	3.40	71.16

Source: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 1995*, Table 1.2, p. 7, DOE/EIA-0384(95) (GPO, Washington, DC, 1996).

Notes: NGPL=Natural gas plant liquids. Hydroelectric power includes hydroelectric pumped storage. Other renewables include electricity produced from wood, waste, wind, photovoltaic, and solar thermal sources. There is a discontinuity in this time series between 1989 and 1990 due to expanded coverage of nonelectric utility use of renewable energy beginning in 1990. Previous-year data may have been revised. Current-year data are preliminary and may be revised in future publications.

Table 79. U.S. Coal Production by Rank, Mining Method, and Location, 1960-1995

	Rank				Mining method		Location		
Year	Bitum-inous	Sub-bi-tuminous	Lignite	Anthra-cite	Under-ground	Surface	West	East	Total
	million tons								
1960	415.5	i	i	18.8	292.6	141.7	21.3	413.0	434.3
1961	403.0	i	i	17.4	279.6	140.9	21.8	398.6	420.4
1962	422.1	i	i	16.9	287.9	151.1	21.4	417.6	439.0
1963	458.9	i	i	18.3	309.0	168.2	23.7	453.5	477.2
1964	487.0	i	i	17.2	327.7	176.5	25.7	478.5	504.2
1965	512.1	i	i	14.9	338.0	189.0	27.4	499.5	527.0
1966	533.9	i	i	12.9	342.6	204.2	28.0	518.8	546.8
1967	552.6	i	i	12.3	352.4	212.5	28.6	536.0	564.9
1968	545.2	i	i	11.5	346.6	210.1	29.7	527.0	556.7
1969	547.2	8.3	5.0	10.5	349.2	221.7	33.3	537.7	571.0
1970	578.5	16.4	8.0	9.7	340.5	272.1	44.9	567.8	612.7
1971	521.3	22.2	8.7	8.7	277.2	283.7	51.0	509.9	560.9
1972	556.8	27.5	11.0	7.1	305.0	297.4	64.3	538.2	602.5
1973	543.5	33.9	14.3	6.8	300.1	298.5	76.4	522.1	598.6
1974	545.7	42.2	15.5	6.6	278.0	332.1	91.9	518.1	610.0
1975	577.5	51.1	19.8	6.2	293.5	361.2	110.9	543.7	654.6
1976	588.4	64.8	25.5	6.2	295.5	389.4	136.1	548.8	684.9
1977	581.0	82.1	28.2	5.9	266.6	430.6	163.9	533.3	697.2
1978	534.0	96.8	34.4	5.0	242.8	427.4	183.0	487.2	670.2
1979	612.3	121.5	42.5	4.8	320.9	460.2	221.4	559.7	781.1
1980	628.8	147.7	47.2	6.1	337.5	492.2	251.0	578.7	829.7
1981	608.0	159.7	50.7	5.4	316.5	507.3	269.9	553.9	823.8
1982	620.2	160.9	52.4	4.6	339.2	499.0	273.9	564.3	838.1
1983	568.6	151.0	58.3	4.1	300.4	481.7	274.7	507.4	782.1
1984	649.5	179.2	63.1	4.2	352.1	543.9	308.3	587.6	895.9
1985	613.9	192.7	72.4	4.7	350.8	532.8	324.9	558.7	883.6
1986	620.1	189.6	76.4	4.3	360.4	529.9	325.9	564.4	890.3
1987	636.6	200.2	78.4	3.6	372.9	545.9	336.8	581.9	918.8
1988	638.1	223.5	85.1	3.6	382.2	568.1	370.7	579.6	950.3
1989	659.8	231.2	86.4	3.3	393.8	586.9	381.7	599.0	980.7
1990	693.2	244.3	88.1	3.5	424.5	604.5	398.9	630.2	1,029.1
1991	650.7	255.3	86.5	3.4	407.2	588.8	404.7	591.3	996.0
1992	651.9	252.1	90.1	3.5	407.2	590.3	409.0	588.6	997.5
1993	576.7	274.9	89.5	4.3	351.1	594.4	429.2	516.2	945.4
1994	640.3	300.5	88.1	4.6	399.1	634.4	467.2	566.3	1,033.5
1995	611.1	328.4	86.1	4.1	370.0	659.7	487.5	542.2	1,029.7

Source: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 1995*, Table 7.2, p. 213, DOE/EIA-0384(95) (GPO, Washington, DC, 1996).

Notes: i=included in bituminous coal. Location refers to east and west of the Mississippi River. Totals may not agree with components due to independent rounding. Previous-year data may have been revised. Current-year data are preliminary and may be revised in future publications.

Table 80. U.S. Petroleum Production and Imports, 1942-1995

Year	Production			Total imports	Year	Production			Total imports
	Crude oil	NGPL	Total			Crude oil	NGPL	Total	
	million barrels per day					*million barrels per day*			
1942	3.80	0.23	4.03	0.03	1969	9.24	1.59	10.83	3.17
1943	4.12	0.24	4.37	0.38	1970	9.64	1.66	11.30	3.42
1944	4.60	0.27	4.97	0.12	1971	9.46	1.69	11.16	3.93
1945	4.69	0.31	5.00	0.20	1972	9.44	1.75	11.18	4.74
1946	4.75	0.32	5.07	0.24	1973	9.21	1.74	10.95	6.26
1947	5.09	0.36	5.45	0.27	1974	8.77	1.69	10.46	6.11
1948	5.53	0.40	5.94	0.35	1975	8.37	1.63	10.01	6.06
1949	5.05	0.43	5.48	0.65	1976	8.13	1.61	9.74	7.31
1950	5.41	0.50	5.91	0.85	1977	8.24	1.62	9.86	8.81
1951	6.16	0.56	6.72	0.84	1978	8.71	1.57	10.27	8.36
1952	6.27	0.61	6.87	0.95	1979	8.55	1.58	10.14	8.46
1953	6.46	0.65	7.11	1.03	1980	8.60	1.58	10.17	6.91
1954	6.34	0.69	7.03	1.05	1981	8.57	1.61	10.18	6.00
1955	6.81	0.77	7.58	1.25	1982	8.65	1.55	10.20	5.11
1956	7.15	0.80	7.95	1.44	1983	8.69	1.56	10.25	5.05
1957	7.17	0.81	7.98	1.57	1984	8.88	1.63	10.51	5.44
1958	6.71	0.81	7.52	1.70	1985	8.97	1.61	10.58	5.07
1959	7.05	0.88	7.93	1.78	1986	8.68	1.55	10.23	6.22
1960	7.04	0.93	7.96	1.81	1987	8.35	1.60	9.94	6.68
1961	7.18	0.99	8.17	1.92	1988	8.14	1.62	9.76	7.40
1962	7.33	1.02	8.35	2.08	1989	7.61	1.55	9.16	8.06
1963	7.54	1.10	8.64	2.12	1990	7.36	1.56	8.91	8.02
1964	7.61	1.16	8.77	2.26	1991	7.42	1.66	9.08	7.63
1965	7.80	1.21	9.01	2.47	1992	7.17	1.70	8.87	7.89
1966	8.30	1.28	9.58	2.57	1993	6.85	1.74	8.58	8.62
1967	8.81	1.41	10.22	2.54	1994	6.66	1.73	8.39	9.00
1968	9.10	1.51	10.60	2.84	1995	6.53	1.76	8.29	8.83

Sources: U.S. Department of Commerce, Bureau of the Census, *Historical Statistics of the United States: Colonial Times to 1970*, Series M 143, 138 (GPO, Washington, DC, 1975).

U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 1995*, Table 5.1, p. 141, DOE/EIA-0384(95) (GPO, Washington, DC, 1996).

Notes: Crude oil includes lease condensate. NGPL=Natural gas plant liquids. Imports for years 1941-1949 include crude petroleum products only. Previous-year data may have been revised. Current-year data are preliminary and may be revised in future publications.

Table 81. U.S. Natural Gas Production, 1960-1995

Year	Well withdrawals	Repressuring	Nonhydrocarbon gas removal	Vented or flared	Marketed production	Extraction loss	Total production
	trillion cubic feet						
1960	15.09	1.75	na	0.56	12.77	0.54	12.23
1961	15.46	1.68	na	0.52	13.25	0.59	12.66
1962	16.04	1.74	na	0.43	13.88	0.62	13.25
1963	16.97	1.84	na	0.38	14.75	0.67	14.08
1964	17.54	1.65	na	0.34	15.55	0.72	14.82
1965	17.96	1.60	na	0.32	16.04	0.75	15.29
1966	19.03	1.45	na	0.38	17.21	0.74	16.47
1967	20.25	1.59	na	0.49	18.17	0.78	17.39
1968	21.33	1.49	na	0.52	19.32	0.83	18.49
1969	22.68	1.46	na	0.53	20.70	0.87	19.83
1970	23.79	1.38	na	0.49	21.92	0.91	21.01
1971	24.09	1.31	na	0.28	22.49	0.88	21.61
1972	24.02	1.24	na	0.25	22.53	0.91	21.62
1973	24.07	1.17	na	0.25	22.65	0.92	21.73
1974	22.85	1.08	na	0.17	21.60	0.89	20.71
1975	21.10	0.86	na	0.13	20.11	0.87	19.24
1976	20.94	0.86	na	0.13	19.96	0.85	19.10
1977	21.10	0.93	na	0.17	20.03	0.86	19.16
1978	21.31	1.18	na	0.15	19.97	0.85	19.12
1979	21.88	1.25	na	0.17	20.47	0.81	19.66
1980	21.87	1.37	0.20	0.13	20.18	0.78	19.40
1981	21.59	1.31	0.22	0.10	19.96	0.77	19.18
1982	20.27	1.39	0.21	0.09	18.58	0.76	17.82
1983	18.66	1.46	0.22	0.09	16.88	0.79	16.09
1984	20.27	1.63	0.22	0.11	18.30	0.84	17.47
1985	19.61	1.92	0.33	0.09	17.27	0.82	16.45
1986	19.13	1.84	0.34	0.10	16.86	0.80	16.06
1987	20.14	2.21	0.38	0.12	17.43	0.81	16.62
1988	21.00	2.48	0.46	0.14	17.92	0.82	17.10
1989	21.07	2.48	0.36	0.14	18.10	0.78	17.31
1990	21.52	2.49	0.29	0.15	18.59	0.78	17.81
1991	21.75	2.77	0.28	0.17	18.53	0.83	17.70
1992	22.13	2.97	0.28	0.17	18.71	0.87	17.84
1993	22.73	3.10	0.41	0.23	18.98	0.89	18.10
1994	23.61	3.33	0.41	0.23	19.64	0.89	18.75
1995	23.79	3.66	0.36	0.14	19.62	0.91	18.71

Source: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 1995*, Table 6.2, p. 191, DOE/EIA-0384(95) (GPO, Washington, DC, 1996).

Notes: Extraction loss refers to volume reduction resulting from the removal of natural gas plant liquids. Total production refers to dry natural gas. Beginning in 1965, all volumes are shown on a pressure base of 14.73 p.s.i.a. at 60 degrees F. Totals may not agree with sum of components due to independent rounding. Previous-year data may have been revised. Current-year data are preliminary and may be revised in future publications.

Table 82. U.S. Production of Electricity by Prime Mover, 1960-1995

Year	Fossil-fired steam: Coal	Fossil-fired steam: Natural gas	Fossil-fired steam: Petroleum	Internal combustion & gas turbine	Nuclear power	Hydroelectric	Geothermal & other	Total
	billion kilowatt-hours							
1960	403	158	48	4	1	146	<1	756
1961	422	169	49	5	2	152	<1	794
1962	450	184	49	5	2	169	<1	855
1963	494	202	52	5	3	166	<1	917
1964	526	220	57	5	3	177	<1	984
1965	571	222	65	5	4	194	<1	1,055
1966	613	251	79	5	6	195	1	1,144
1967	630	265	89	5	8	222	1	1,214
1968	685	304	104	9	13	222	1	1,329
1969	706	333	138	14	14	250	1	1,442
1970	704	361	174	22	22	248	1	1,532
1971	713	360	206	28	38	266	1	1,613
1972	771	361	253	36	54	273	2	1,750
1973	848	323	296	36	83	272	2	1,861
1974	828	304	279	38	114	301	3	1,867
1975	853	288	273	28	173	300	3	1,918
1976	944	284	302	29	191	284	4	2,038
1977	985	292	338	34	251	220	4	2,124
1978	976	290	345	36	276	280	3	2,206
1979	1,075	311	290	32	255	280	4	2,247
1980	1,162	326	238	28	251	276	6	2,286
1981	1,203	325	202	25	273	261	6	2,295
1982	1,192	291	144	16	283	309	5	2,241
1983	1,259	261	141	17	294	332	6	2,310
1984	1,342	284	117	17	328	321	9	2,416
1985	1,402	279	97	16	384	281	11	2,470
1986	1,386	236	133	15	414	291	12	2,487
1987	1,464	258	115	18	455	250	12	2,572
1988	1,541	236	144	22	527	223	12	2,704
1989	1,554	245	151	29	529	265	11	2,784
1990	1,560	246	113	22	577	280	11	2,808
1991	1,551	246	108	22	613	276	10	2.825
1992	1,576	246	86	21	619	240	10	2,797
1993	1,639	229	96	25	610	269	10	2,883
1994	1,636	260	86	36	640	244	9	2,911
1995	1,653	268	56	44	673	296	6	2,995

Source: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 1995*, Table 8.4, p. 237, DOE/EIA-0384(95) (GPO, Washington, DC, 1996).

Notes: Production refers to electric utility net generation of electricity for distribution. Hydroelectric power includes hydroelectric pumped storage. Other includes wood, waste, photovoltaic, and solar thermal energy. Totals may not agree with sum of components due to independent rounding. Previous-year data may have been revised. Current-year data are preliminary and may be revised in future publications.

Table 83. U.S. Nuclear Power Plant Operations, 1958-1995

Year	Operable nuclear generating units *number of units*	Net generation of electricity *billion kilowatt-hours*	Year	Operable nuclear generating units *number of units*	Net generation of electricity *billion kilowatt-hours*
1958	1	0.2	1977	65	250.9
1959	1	0.2	1978	70	276.4
1960	3	0.5	1979	68	255.2
1961	3	1.7	1980	70	251.1
1962	5	2.3	1981	74	272.7
1963	6	3.2	1982	77	282.8
1964	6	3.3	1983	80	293.7
1965	6	3.7	1984	86	327.6
1966	8	5.5	1985	95	383.7
1967	10	7.7	1986	100	414.0
1968	11	12.5	1987	107	455.3
1969	14	13.9	1988	108	527.0
1970	18	21.8	1989	110	529.4
1971	21	38.1	1990	111	576.9
1972	29	54.1	1991	111	612.6
1973	39	83.5	1992	109	618.8
1974	48	114.0	1993	109	610.3
1975	54	172.5	1994	109	640.4
1976	61	191.1	1995	109	673.4

Source: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 1995*, Table 9.2, p. 261, DOE/EIA-0384(95) (GPO, Washington, DC, 1996).

Notes: Previous-year data may have been revised. Current-year data are preliminary and may be revised in future publications.

Table 84. Net U.S. Energy Imports by Source, 1960-1995

Year	Coal	Natural gas (dry)	Petroleum	Other	Total
			quadrillion Btu		
1960	-1.02	0.15	3.57	0.04	2.74
1965	-1.37	0.44	5.01	- 0.02	4.06
1966	-1.35	0.47	5.21	- 0.01	4.32
1967	-1.35	0.50	4.91	- 0.02	4.04
1968	-1.37	0.58	5.73	- 0.02	4.90
1969	-1.53	0.70	6.42	- 0.02	5.56
1970	-1.93	0.77	6.92	- 0.04	5.72
1971	-1.54	0.88	8.07	<0.005	7.41
1972	-1.53	0.97	9.83	0.05	9.32
1973	-1.42	0.98	12.98	0.14	12.68
1974	-1.57	0.91	12.66	0.19	12.19
1975	-1.74	0.90	12.51	0.08	11.75
1976	-1.57	0.92	15.20	0.09	14.65
1977	-1.40	0.98	18.24	0.20	18.02
1978	-1.00	0.94	17.06	0.33	17.32
1979	-1.70	1.24	16.93	0.27	16.75
1980	-2.39	0.96	13.50	0.18	12.25
1981	-2.92	0.86	11.38	0.33	9.65
1982	-2.77	0.90	9.05	0.28	7.46
1983	-2.01	0.89	9.08	0.36	8.31
1984	-2.12	0.79	9.89	0.40	8.96
1985	-2.39	0.90	8.95	0.41	7.87
1986	-2.19	0.69	11.53	0.36	10.38
1987	-2.05	0.94	12.53	0.49	11.91
1988	-2.45	1.22	14.01	0.37	13.15
1989	-2.57	1.28	15.33	0.14	14.18
1990	-2.70	1.46	15.29	0.03	14.08
1991	-2.77	1.67	14.22	0.25	13.36
1992	-2.59	1.94	14.96	0.33	14.64
1993	-1.78	2.25	16.40	0.32	17.18
1994	-1.69	2.52	17.26	0.49	18.58
1995	-2.14	2.63	16.95	0.42	17.86

Source: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 1995*, Table 1.4, p. 11, DOE/EIA-0384(95) (GPO, Washington, DC, 1996).

Notes: Net imports=imports minus exports. Other includes coal coke and small amounts of electricity transmitted across U.S. borders with Canada and Mexico. Totals may not agree with sum of components due to independent rounding. Previous-year data may have been revised. Current-year data are preliminary and may be revised in future publications.

Table 85. U.S. Energy Consumption by Sector, 1960-1995

Year	Residential	Industrial	Transportation	Total
		quadrillion Btu		
1960	13.04	20.16	10.60	43.80
1961	13.44	20.25	10.77	44.46
1962	14.27	21.04	11.23	46.53
1963	14.71	21.95	11.66	48.32
1964	15.23	23.27	12.00	50.50
1965	16.03	24.22	12.43	52.68
1966	17.06	25.50	13.10	55.66
1967	18.10	25.72	13.75	57.57
1968	19.23	26.90	14.86	61.00
1969	20.59	28.10	15.50	64.19
1970	21.71	28.63	16.09	66.43
1971	22.59	28.57	16.72	67.89
1972	23.69	29.86	17.71	71.26
1973	24.14	31.53	18.60	74.28
1974	23.72	30.70	18.12	72.54
1975	23.90	28.40	18.25	70.55
1976	25.02	30.24	19.10	74.36
1977	25.39	31.08	19.82	76.29
1978	26.09	31.39	20.61	78.09
1979	25.81	32.61	20.47	78.90
1980	26.65	30.61	19.69	75.96
1981	25.24	29.24	19.51	73.99
1982	25.63	26.14	19.07	70.85
1983	25.63	25.75	19.13	70.52
1984	26.48	27.86	19.80	74.14
1985	26.70	27.22	20.07	73.98
1986	26.80	26.63	20.81	74.30
1987	27.62	27.83	21.45	76.89
1988	28.92	28.99	22.30	80.22
1989	29.40	29.35	22.56	81.33
1990	29.43	32.10	22.62	84.17
1991	30.10	31.76	22.19	84.05
1993	29.80	32.90	22.54	82.26
1993	30.88	33.17	22.97	87.03
1994	31.07	34.17	23.67	88.90
1995	32.07	34.47	24.06	90.62

Source: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 1995*, Table 2.1, p. 39, DOE/EIA-0384(95) (GPO, Washington, DC, 1996).

Table 86. U.S. Energy Consumption per Capita, 1950-1995

Year	Total energy consumption per capita	End-use energy consumption per capita	Year	Total energy consumption per capita	End-use energy consumption per capita
	million Btu			*million Btu*	
1950	219	194	1973	351	285
1951	230	205	1974	340	273
1952	226	199	1975	327	261
1953	228	201	1976	342	272
1954	218	191	1977	347	274
1955	235	206	1978	352	276
1956	240	210	1979	351	275
1957	236	206	1980	335	259
1958	232	202	1981	322	246
1959	238	206	1982	305	231
1960	244	212	1983	301	226
1961	243	210	1984	314	236
1962	250	216	1985	310	232
1963	256	220	1986	308	231
1964	264	226	1987	316	237
1965	272	232	1988	326	246
1966	285	241	1989	328	246
1967	292	246	1990	338	256
1968	306	257	1991	333	252
1969	319	266	1992	334	255
1970	327	270	1993	338	258
1971	328	270	1994	341	261
1972	340	278	1995	345	264

Source: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 1995*, Table 1.5, p. 13, DOE/EIA-0384(95) (GPO, Washington, DC, 1996).

Notes: End-use energy consumption is total energy consumption less losses incurred in the generation, transmission, and distribution of electricity, less power plant electricity use, and less unaccounted for electrical system energy losses. Per capita data are based upon the resident population of the 50 states and the District of Columbia, estimated for July 1 of each year, except for April decennial census years when April 1 data are used. Previous-year data may have been revised. Current-year data are preliminary and may be revised in future publications.

Table 87. U.S. Energy Consumption per Dollar of Gross Domestic Product, 1959-1995

Year	Petroleum & natural gas	Other energy	Total	Year	Petroleum & natural gas	Other energy	Total
	thousand Btu per chained (1992) $				*thousand Btu per chained (1992) $*		
1959	14.03	5.02	19.05	1978	12.90	4.48	17.38
1960	14.28	5.08	19.37	1979	12.50	4.56	17.06
1961	14.35	4.90	19.25	1980	11.84	4.63	16.47
1962	14.20	4.80	19.00	1981	10.98	4.68	15.66
1963	14.14	4.78	18.92	1982	10.54	4.78	15.32
1964	13.91	4.78	18.68	1983	9.86	4.81	14.66
1965	13.57	4.76	18.33	1984	9.65	4.78	14.43
1966	13.53	4.66	18.19	1985	9.15	4.73	13.88
1967	13.77	4.57	18.33	1986	8.91	4.63	13.53
1968	14.05	4.50	18.55	1987	8.96	4.65	13.61
1969	14.47	4.48	18.95	1988	9.00	4.68	13.68
1970	15.15	4.46	19.61	1989	8.84	4.58	13.42
1971	15.15	4.24	19.40	1990	8.61	5.10	13.71
1972	15.08	4.23	19.31	1991	8.63	5.20	13.83
1973	14.70	4.34	19.04	1992	8.59	5.06	13.65
1974	14.19	4.46	18.66	1993	8.56	5.07	13.63
1975	13.63	4.62	18.25	1994	8.49	4.97	13.46
1976	13.60	4.62	18.22	1995	8.43	5.01	13.45
1977	13.33	4.50	17.83				

Source: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 1995*, Table 1.7, p. 17, DOE/EIA-0035(95) (GPO, Washington, DC, 1996).

Notes: See Table 9 for chained (1992) dollars of Gross Domestic Product. Current-year data are preliminary and may be revised in future publications.

Table 88. U.S. Consumption of Renewable Energy Resources, 1990-1995

Year	Conventional hydroelectric power	Geo-thermal power	Biofuels	Solar energy	Wind energy	Total
			quadrillion Btu			
1990	3.102	0.338	2.632	0.067	0.024	6.163
1991	3.181	0.347	2.642	0.068	0.027	6.265
1992	2.852	0.367	2.788	0.068	0.030	6.106
1993	3.138	0.381	2.784	0.069	0.031	6.403
1994	2.958	0.381	2.852	0.068	0.036	6.296
1995	3.462	0.362	2.941	0.074	0.041	6.879

Source: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 1995*, Table 10.1a, p. 265, DOE/EIA-0384(95) (GPO, Washington, DC, 1996).

Notes: Hydroelectricity generated by pumped storage is not included in renewable energy estimates. Conventional hydroelectric power includes electricity net imports from Canada that are derived from hydroelectric energy. Geothermal power includes electricity imports from Mexico that are derived from geothermal energy. Biofuels are fuelwood, wood byproducts, municipal solid waste, manufacturing process waste, and alcohol fuels. Solar energy includes photovoltaic energy. Wind energy includes only grid-connected electricity; excludes direct heat applications.

Table 89. Estimates of U.S. Energy Intensity by Sector, Selected Years, 1977-1994

Year	Residential	Commercial	Manufacturing	Transportation	
				Passenger automobiles	Freight trucks
	million Btu per household	*thousand Btu per sq. ft.*	*thous. Btu per 1987 $ value of shipments*	*thous. Btu per vehicle-mile*	*thous. Btu per vehicle-mile*
1977	na	na	6.0	9.11	14.16
1978	138	na	5.8	8.96	14.06
1979	126	115.0	5.7	8.73	13.98
1980	114	na	5.5	8.13	13.46
1981	114	na	5.4	7.89	13.39
1982	103	na	4.9	7.56	13.10
1983	na	98.2	4.7	7.31	13.14
1984	105	na	4.5	7.03	13.07
1985	na	na	4.4	6.88	13.12
1986	na	86.6	4.2	6.85	13.08
1987	101	na	4.2	6.52	13.01
1988	na	na	4.3	6.30	12.79
1989	na	91.6	4.3	6.16	12.49
1990	98	na	4.3	5.95	12.17
1991	na	na	4.4	5.77	11.84
1992	na	80.9	na	5.77	11.94
1993	104	na	na	5.95	11.05
1994	na	na	na	5.83	11.16

Sources: U.S. Department of Energy, Energy Information Administration, *Annual Energy Review 1995*, Table 2.4, p. 45, Table 2.9, p. 55, and Table 2.20, p. 77, DOE/EIA-0384(95) (GPO, Washington, DC, 1996).

U.S. Department of Energy (DOE), Oak Ridge National Laboratory (ORNL), *Transportation Energy Data Book: Edition 16*, Table 2.16, p. 2-17, and Table 2.17, p. 2-18, ORNL-6898 (DOE, ORNL, Oak Ridge, TN, 1996).

Transportation

Table 90. U.S. Passenger-Miles of Travel, 5-Year Intervals, 1960-1990, and Annually, 1991-1994

Year	Highway	Transit	Rail	Air	Total
	thousands of passenger-miles				
1960	1,498.25	na	17.06	33.40	1,548.71
1965	1,768.86	na	13.26	57.63	1,839.74
1970	2,116.94	na	6.18	117.54	2,240.66
1975	2,387.46	na	3.93	147.40	2,538.79
1980	2,630.35	39.85	4.50	219.07	2,893.78
1985	2,931.30	39.58	4.83	290.14	3,265.84
1990	3,271.26	41.14	6.06	358.87	3,677.33
1991	3,649.61	40.70	6.27	350.69	4,047.27
1992	3,783.45	40.24	6.09	365.46	4,195.24
1993	3,847.85	39.63	6.20	372.43	4,266.10
1994	3,937.76	na	5.92	398.13	4,341.82

Source: U.S. Department of Transportation (DOT), Bureau of Transportation Statistics (BTS), *National Transportation Statistics 1996*, Table 6, p. 72 (DOT, BTS, Washington, DC, 1996).

Table 91. U.S. Ton-Miles of Freight, 5-Year Intervals, 1960-1990, and Annually, 1991-1994

Year	Intercity truck	Rail	Air	Water	Oil pipeline
		thousands of ton-miles			
1960	285.00	572.31	0.55	413.34	233.00
1965	359.00	697.88	1.35	489.80	306.39
1970	412.00	764.81	2.19	596.20	461.00
1975	454.00	754.25	3.47	565.98	507.00
1980	555.00	918.96	4.53	na	588.20
1985	610.00	876.98	5.16	na	564.30
1990	735.00	1,033.97	9.06	833.54	584.10
1991	758.00	1,038.88	8.86	848.40	578.50
1992	815.00	1,066.87	9.82	856.69	588.80
1993	861.00	1,109.31	10.68	789.66	592.90
1994	908.00	1,200.70	11.69	814.92	608.00

Source: U.S. Department of Transportation (DOT), Bureau of Transportation Statistics (BTS), *National Transportation Statistics 1996*, Table 7, p. 74 (DOT, BTS, Washington, DC, 1996).

Table 92. U.S. Vehicle-Miles of Travel and Fuel Consumption, 1966-1994

Year	Automobiles		Motorcycles		Buses		Other 2-axle, 4-tire vehicles		Trailer combination truck	
	thous. vmt/y	*vmt/g*	*thous. vmt/y*	*vmt/g*	*thous. vmt/y*	*vmt/g*	*thous. vmt/y*	*vmt/g*	*thous. vmt/y*	*vmt/g*
1966	9.92	14.11	1.28	50.00	14.06	5.42	8.08	9.70	35.99	4.78
1967	10.10	14.07	1.16	50.00	13.69	5.38	7.88	9.83	37.36	4.79
1968	10.14	13.87	1.04	50.00	14.00	5.43	8.38	9.86	38.15	4.77
1969	10.16	13.62	1.02	50.00	13.23	5.42	8.36	9.82	38.46	4.76
1970	10.27	13.52	1.06	50.00	12.04	5.54	8.68	10.01	38.82	4.78
1971	10.42	13.54	1.08	50.00	12.07	5.68	9.08	10.22	40.49	4.90
1972	10.52	13.40	1.15	50.00	13.14	5.79	9.53	10.34	42.34	5.01
1973	10.26	13.30	1.19	50.00	13.63	5.86	9.78	10.51	44.37	5.06
1974	9.61	13.42	1.10	50.00	12.72	5.89	9.45	10.97	42.37	5.22
1975	9.69	13.52	1.13	50.00	13.10	5.75	9.83	11.21	41.32	5.40
1976	9.79	13.53	1.22	50.00	13.08	5.98	10.13	11.20	40.56	5.21
1977	9.88	13.80	1.29	50.00	11.87	5.98	10.61	11.44	44.92	5.22
1978	9.84	14.04	1.47	50.00	11.65	5.95	10.97	11.62	46.95	5.20
1979	9.40	14.41	1.59	50.00	11.29	5.97	10.80	11.80	48.32	5.21
1980	9.14	15.46	1.79	50.00	11.46	5.95	10.44	12.33	48.47	5.41
1981	9.19	15.94	1.83	50.00	11.48	5.92	10.24	12.51	54.82	5.33
1982	9.43	16.69	1.72	50.00	10.41	5.93	10.28	12.84	52.69	5.28
1983	9.48	17.14	1.57	50.00	8.92	5.92	10.50	12.82	53.49	5.19
1984	9.56	17.83	1.60	50.00	7.95	5.85	11.15	12.93	57.73	5.23
1985	9.56	18.20	1.67	50.00	8.22	5.84	11.02	12.86	56.73	5.21
1986	9.61	18.27	1.79	50.00	8.54	5.84	11.17	12.85	58.50	5.21
1987	9.88	19.20	1.93	50.00	8.83	5.89	11.59	12.88	60.63	5.22
1988	10.12	19.87	2.19	50.00	8.88	5.93	11.85	13.40	61.07	5.27
1989	10.33	20.31	2.34	50.00	9.05	5.96	11.98	13.77	60.00	5.45
1990	10.55	21.02	2.24	50.00	9.12	6.39	11.99	14.15	59.81	5.52
1991	10.76	21.69	2.20	50.00	9.10	6.65	12.10	14.54	60.46	5.65
1992	11.10	21.68	2.35	50.00	8.93	6.57	12.10	14.28	59.89	5.60
1993	11.76	21.04	2.49	50.00	9.36	6.47	10.29	15.72	64.79	5.82
1994	11.84	21.48	2.76	50.00	9.57	6.58	10.28	15.64	67.11	5.87

Source: U.S. Department of Transportation (DOT), Federal Highway Administration (FHWA), *Highway Statistics*, Table VM-1 (DOT, FHWA, Washington, DC, annual).

Notes: thous. vmt/y=thousand vehicle-miles of travel per year per vehicle. vmt/g=average vehicle-miles of travel per gallon of fuel consumed. Prior to 1993, other 2-axle, 4-tire vehicles refers to light weight trucks. For 1993 and beyond, this category also includes some minivans and sport/utility vehicles which were previously included in the passenger automobile category.

Table 93. U.S. Personal Travel per Household, Driver, and Mode, 1969, 1977, 1983, and 1990

Characteristics of personal travel	Unit	Year			
		1969	1977	1983	1990
Persons per household	*number*	3.16	2.83	2.69	2.56
Licensed drivers per household	*number*	1.65	1.69	1.72	1.75
Vehicles per household	*number*	1.16	1.59	1.68	1.77
Daily vehicle trips per household	*number*	3.83	3.95	4.07	4.66
Daily vehicle miles per household	*miles*	34.01	32.97	32.16	41.37
Average vehicle occupancy rate	*persons/vehicle*	na	1.90	1.70	1.60
Home to work	*persons/vehicle*	na	1.30	1.30	1.10
Family & personal business	*persons/vehicle*	na	2.00	1.80	1.80
Shopping	*persons/vehicle*	na	2.10	1.80	1.70
Social & recreation	*persons/vehicle*	na	2.40	2.10	2.10
Average vehicle trip length	*miles*	8.90	8.40	7.90	9.00
Home to work	*miles*	9.40	9.10	8.50	11.00
Family & personal business	*miles*	6.50	6.80	6.70	7.40
Shopping	*miles*	4.40	5.00	5.30	5.10
Social & recreation	*miles*	13.10	10.30	10.50	11.80
Vacation	*miles*	160.00	77.90	113.90	114.90
Average distance to work	*miles*	9.90	9.20	9.90	10.60
by automobile	*miles*	9.40	9.20	9.90	10.40
by truck	*miles*	14.20	10.60	11.40	13.00
by bus	*miles*	8.70	7.20	8.60	9.30
Average annual travel per driver	*1,000 miles*	8.69	9.92	10.29	13.13
by male drivers	*1,000 miles*	11.35	13.40	13.96	16.64
by female drivers	*1,000 miles*	5.41	5.94	6.38	9.53
Average annual personal travel*	*1,000 miles*	7.66	9.47	9.14	10.42
by private vehicle	*1,000 miles*	na	8.15	7.52	9.18
by public vehicle	*1,000 miles*	na	0.25	0.24	0.24
by other mode	*1,000 miles*	na	1.06	1.37	0.97

Sources: U.S. Department of Transportation (DOT), Federal Highway Administration (FHWA), *1990 Nationwide Personal Transportation Study: Summary of Travel Trends* (DOT, FHWA, Washington, DC, 1992).

--, *1990 NPTS Databook: Nationwide Personal Transportation Study*, Vol. I (DOT, FHWA, Washington, DC, 1993).

--, *1990 NPTS Databook: Nationwide Personal Transportation Study*, Vol. II (DOT, FHWA, Washington, DC, 1995).

Notes: *per person. Household vehicles include automobiles, station wagons, and vanbuses/mini-buses, and, except for 1969, light pickups and other light trucks. Household vehicles are those that are owned, leased, rented, or company owned and left at home to be regularly used by household members. They also include vehicles used solely for business purposes or business-owned vehicles if left at home and used for the home-to-work trip (e.g., taxicabs and police cars). Average vehicle trip length for 1969 is for automobiles only. Family and personal business includes vehicle trips to shop, pickup or deposit passengers, shoe repair, haircuts, etc. Social/recreation includes vehicle trips to visit relatives and friends, go to a movie or play, attend or participate in a sporting event, etc. Private vehicle modes of travel include automobile, van, pick-up truck, and motorcycle. Public transportation includes bus, commuter rail, subway, elevated rail, streetcar, and trolley. Other includes airplane, Amtrak, taxi, school bus, moped, bicycle, and, except for 1969, walking.

Table 94. Journey-To-Work Mode for U.S. Working Population, 1960-1990

Mode of transportation	Year			
	1960	1970	1980	1990
	U.S. working population, in millions			
Private vehicle	42.99	61.96	83.02	101.29
Public transit	7.81	6.51	6.01	5.89
Walked to work	6.42	5.69	5.41	4.49
Worked at home	4.66	2.69	2.18	3.41
Total	61.87	76.85	96.62	115.07
	percent of U.S. working population			
Private vehicle	69.48	80.63	85.92	88.02
Public transit	12.62	8.48	6.22	5.12
Walked to work	10.37	7.40	5.60	3.90
Worked at home	7.54	3.49	2.26	2.96

Source: U.S. Department of Commerce, Bureau of the Census, *Census of Population and Housing* for 1960, 1970, 1980, and 1990 (GPO, Washington, DC, decennial).

Table 95. Congestion on U.S. Urban Interstate Highways, 1975-1994

Year	Peak-hour travel time under congested conditions	Peak-hour miles traveled under congested conditions	Average daily vehicles per lane
	percent		*thousands*
1975	41	23	na
1978	48	29	na
1980	52	28	na
1982	53	28	na
1984	55	30	9.99
1986	63	37	10.79
1988	67	42	11.68
1990	69	45	12.26
1992	70	46	12.38
1994	68	45	12.81

Source; U.S. Department of Transportation (DOT), Federal Highway Administration (FHWA), *Highway Statistics 1994,* Chart "Urban Interstate Congestion Trends," p. V-58 (DOT, FHWA, Washington, DC, 1995).

Note: Congestion refers to the volume-to-service ratio equal to or greater than 0.80.