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NATIONAL ENVIRONMENTAL STATISTICAL REPORT

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OCTOBER 1975

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National Environmental Statistical Report

L. DUNCAN
D. ELCOCK
G. HOLLINS

U. S. DEPARTMENT OF COMMERCE NOAA
COASTAL SERVICES CENTER
2234 SOUTH HOBSON AVENUE
CHARLESTON, SC 29405-2413

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ABSTRACT

This report contains a variety of environmental and related data presented in approximately 200 statistical and summary tables. The tables are arranged by data type, under 16 subject sections. These sections are: air quality, water quality, land use, solid waste and recycling, pesticides and toxic substances, agriculture and food supply, forests and wildlife, water resources, recreation, minerals, energy, transportation, housing, population, economics, and environmental impact statements.

ACKNOWLEDGEMENTS

The authors wish to thank the various government and private agencies that supplied the information contained in this document. Without their cooperation, this report could not have been prepared. The authors also wish to thank their project sponsors, the Council on Environmental Quality and the Resource and Land Investigations (RALI) Program Office of the U.S. Department of the Interior for their guidance.

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INTRODUCTION

Objective of the National Environmental Statistical Report (NESR)

NESR is designed to serve as a useful generalized reference for the public, decisionmakers, and persons who, while knowledgeable about some environmental factors, may need a convenient overview of other aspects. This environmental abstract has been prepared to provide the user with two types of information:

- a. Up-to-date environmental and related data and data trends.
- b. Sources of such data

Periodic updating of NESR would provide potential users with timely and up-to-date information.

Criteria for Selection of Data to be Included in the National Environmental Statistical Report.

Selection of Data Categories

The first step toward the acquisition of data to be included in NESR was the identification of general data categories. Basic environmental categories, such as air quality and water quality, were automatically included. Next, categories that provide data directly related to environmental quality (such as transportation factors that can be used to estimate air pollution emissions) were identified. Finally, data categories (such as population) that are frequently compared to environmental data or are used in the analysis of environmental data were selected. The inclusion of all three types of data provides the user with a single reference document containing a broad spectrum of data elements required for performing overview studies.

The data categories selected were:

- air quality
- water quality
- land use
- solid waste & recycling
- pesticides and toxic substances
- agriculture & food supply
- forests & wildlife
- water resources
- recreation
- minerals
- energy
- transportation
- housing
- population
- economics

Selection of Data Within Each Data Category

Prior to implementing any data acquisition efforts, MITRE compiled several lists of topics suggested for individual data tables. Topic lists were prepared based on interviews with experts in fields related to the data categories, review of environmental literature, and general references such as the Statistical Abstract of the United States. In addition, suggestions were received from the staff of the Congressional Research Service, the Council on Environmental Quality, and the Resource and Land Investigations (RALI) Program of the U.S. Department of the Interior. A list of approximately 200 topics was approved by the project managers and served as a guide for data acquisition.

This list was revised throughout the data acquisition effort, by soliciting suggestions from the various governmental and non-governmental officials who were contacted as potential data suppliers. Comments were also sought on the suitability of including some of the data that had been chosen in the initial survey. These comments were considered particularly valuable since many of the commenting agencies continually provide data to the user community and are quite familiar with user needs. All of these suggestions and comments were considered when making the final selection of data tables to be included in this report.

Based on the assumption that the NESR will be an annually updated reference guide, it is essential that there be continuity from one year's publication to the next. In order to ensure that such continuity will be possible, data that are collected and updated on a regular basis were selected. A few exceptions were made when data of particular interest were only available from a one-time study. These data were included only if they had been collected recently (within the last two to three years) and if it were likely that they would be updated at some time in the future.

Finally, data representing all 50 states and the District of Columbia were chosen. A few tables containing international data have been included to give perspective to the U.S. data.

Presentation of Environmental and Related Data

Data selected based on the criteria discussed above are presented in the following tables.

Guidelines for Data Presentation

All tables in this document present the most current data available as of May 1975. Whenever revisions of earlier released data were available, the revisions have been used. Because of differences in the frequency of data collection; lag time between data collection, compilation, and release; and the time of year when the data collection is performed, there is no uniformity in the dates of the data presented. In most cases, data have been shown for more than one year. When a detailed breakdown of the data was desired, this was shown for just the most recent year available.

All data are presented in the units in which they were received from the sources noted at the bottom of each table. Unit conversion tables appear at the end of this document to assist the user who may wish to compare data from several tables using different units.

In order to aid the user who may wish to compare data from various data categories and sources, data have been broken down by state whenever possible, rather than by region (watershed, SMSA, etc.). In a few instances, when only a regional breakdown was available, the states included in each region are indicated.

It is not the intent of this document to evaluate the quality, accuracy, or validity of these data.

Cross-Referencing Index

A cross-referencing index has been provided for the user in the last section. Many of the tables included in this document are related to more than one area of the environment. This index has been prepared in order to assist the user in locating all tables relevant to a specific area of interest.

**TABLE 1-1
NATIONAL AMBIENT AIR QUALITY STANDARDS AND
RECOMMENDED FEDERAL EPISODE CRITERIA**

POLLUTANT UNITS ¹ / AVERAGING TIME	SECONDARY ²	PRIMARY ³	ALERT ⁴	WARNING ⁴	EMERGENCY ⁴
<u>Sulfur dioxide</u>					
$\mu\text{g}/\text{m}^3$					
1 year		80			
24 hours		365	800	1,600	2,100
3 hours	1,300				
<u>Particulate matter</u>					
$\mu\text{g}/\text{m}^3$					
1 year	60	75			
24 hours	150	260	375	625	875
<u>Product of Sulfur dioxide and Particulate matter</u>					
[$\mu\text{g}/\text{m}^3$] ²			6.5×10^4	2.61×10^5	3.93×10^5
<u>Carbon monoxide</u>					
mg/m^3					
8 hours	10	10	17	34	46
1 hour	40	40			
<u>Oxidants</u>					
$\mu\text{g}/\text{m}^3$					
1 hour	160	160	200	800	1,200
<u>Nitrogen dioxide</u>					
$\mu\text{g}/\text{m}^3$					
1 year	100	100			
24 hours			282	565	750
1 hour			1,130	2,260	3,000
<u>Hydrocarbons</u>					
$\mu\text{g}/\text{m}^3$					
3 hours (6 to 9 a.m.)		160			

¹ $\mu\text{g}/\text{m}^3$ - micrograms of pollutant per cubic meter of air
 mg/m^3 - milligrams of pollutant per cubic meter of air
²[$\mu\text{g}/\text{m}^3$]² - product of the concentration of one pollutant measured in micrograms per cubic meter and the concentration of a second pollutant measured in micrograms per cubic meter.

²National secondary ambient air quality standards are, in the judgment of the EPA Administrator, requisite to protect the public welfare from any known or anticipated adverse effects associated with the presence of air pollutants in the ambient air.

³National primary ambient air quality standards are, in the judgment of the EPA Administrator, requisite to protect the public health.

⁴The Federal Episode Criteria specify that meteorological conditions are such that pollutant concentrations can be expected to remain at these levels for twelve (12) or more hours or increase; or, in the case of oxidants, the situation is likely to reoccur within the next 24 hours unless control actions are taken.

Source: U.S. General Services Administration, Code of Federal Regulations, 40CFR50-99, Revised as of July 1, 1974.

TABLE 1-2
NUMBER OF AIR QUALITY MONITORING STATIONS REPORTING VIOLATIONS
OF NATIONAL AMBIENT AIR QUALITY STANDARDS

STATUS	NUMBER OF MONITORING STATIONS				
	1969	1970	1971	1972	1973
Suspended particulates					
Total stations with year's valid data	667	644	640	1,589	1,300
Exceeding annual secondary standard	638	459	426	871	657
Exceeding annual primary standard	335	319	275	516	341
Total stations with 1 or more valid quarters	1,095	1,002	1,313	2,683	3,380
Exceeding 24-hour secondary standard	594	530	628	1,109	1,222
Exceeding 24-hour primary standards	184	161	140	261	303
Sulfur dioxide					
Total stations with year's valid data	178	155	153	500	457
Exceeding annual primary standard	24	19	4	9	14
Total stations with 1 or more quarter's valid data	234	276	409	1,064	1,623
Exceeding 24-hour secondary standard	72	52	60	NA	NA
Exceeding 24-hour primary standard	54	34	47	24	40
Carbon monoxide					
Total stations with 1 or more quarter's valid data	35	48	58	128	212
Exceeding 1-hour standard	3	10	7	13	24
Exceeding 8-hour standard	29	39	53	95	153
Total oxidants or ozone					
Total stations with 1 or more quarter's valid data	38	45	50	111	187
Exceeding 1-hour standard	37	43	50	93	162
Nitrogen dioxide					
Total stations with 1 or more quarter's valid data	NA	NA	NA	NA	588
Total stations with year's valid data	NA	NA	NA	NA	54
Exceeding annual standard	NA	NA	NA	NA	9

NA = Not available

Sources: U.S. Environmental Protection Agency, The National Air Monitoring Program: Air Quality and Emission Trends, Vol. II (1969, 1970, 1971 data) and Monitoring and Air Quality Trends Report, 1972 and Monitoring and Air Quality Trends Report, 1973.

**TABLE 1-3
NUMBER OF AIR QUALITY CONTROL REGIONS REPORTING VIOLATIONS
OF NATIONAL AMBIENT AIR QUALITY STANDARDS**

STATUS	1969	1970	1971	1972	1973
TOTAL NUMBER OF AIR QUALITY CONTROL REGIONS	247	247	247	247	247
<u>Suspended Particulates</u>					
Reporting one or more valid station-year	149	143	135	191	172
Exceeding annual secondary guide	113	117	104	157	139
Exceeding annual primary standard	88	97	87	122	99
Reporting one or more valid station-quarter	180	173	181	218	225
Reporting only valid quarter	31	30	46	27	53
Exceeding 24-hour secondary standard	122	113	128	171	188
Exceeding 24-hour primary standard	66	65	63	99	115
Exceeding either secondary standard or guide	138	134	143	185	193
Exceeding either primary standard	105	106	100	138	143
Reporting insufficient data to compare with standards	67	74	66	29	22
<u>Sulfur Dioxide</u>					
Reporting one or more valid station-year	75	70	65	123	100
Exceeding annual primary standard	7	7	3	4	10
Reporting one or more valid station-quarter	89	88	119	162	187
Reporting only valid quarters	14	42	54	39	87
Exceeding 24-hour primary standard	15	13	26	19	17
Exceeding 3-hour secondary standard	7	5	7	7	8
Exceeding either primary standard	17	16	26	19	22
Reporting insufficient data to compare with standards	158	135	128	85	59
<u>Carbon Monoxide</u>					
Reporting one or more valid station quarter	16	14	21	48	60
Exceeding any primary standard	14	14	21	42	10, 53 ¹
<u>Oxidants</u>					
Reporting one or more valid station-quarter	9	13	15	38	57
Exceeding any primary standard	9	12	15	28	51 ²
<u>Nitrogen Dioxide</u>					
Reporting one or more valid station-quarter	NA	NA	NA	NA	132
Reporting one or more valid station-year	NA	NA	NA	NA	20
Exceeding primary standard	NA	NA	NA	NA	2

NA Not available

¹ Exceeding 1-hour standard; exceeding 8-hour standard.

² Exceeding 1-hour standard.

Sources: U.S. Environmental Protection Agency, The National Air Monitoring Program: Air Quality and Emission Trends, Vol. II (1969, 1970, 1971 data) and Monitoring and Air Quality Trends Report, 1972 and Monitoring and Air Quality Trends Report, 1973.

TABLE 1-4
U.S. AIR POLLUTION EMISSION TRENDS,¹ BY POLLUTANT AND SOURCE
(in millions of tons per year)

	1970 ^P	1971 ^P	1972 ^P	1973 ^P	1974 ^P
Particulates					
Transportation ²	1.2	1.2	1.3	1.3	1.3
Fuel Combustion in					
Stationary sources	8.3	7.5	7.1	6.4	5.9
Industrial Processes ³	15.7	14.5	13.1	11.9	11.0
Solid Waste Disposal	1.1	0.8	0.7	0.6	0.5
Miscellaneous ⁴	1.2	1.2	1.0	0.8	0.8
Total	27.5	25.2	23.2	21.0	19.5
Sulfur Oxides					
Transportation ²	0.7	0.7	0.7	0.8	0.8
Fuel Combustion in					
Stationary Sources	27.0	26.7	25.2	25.6	24.3
Industrial Processes ³	6.4	6.0	6.6	6.7	6.2
Solid Waste Disposal	0.1	0.0	0.0	0.0	0.0
Miscellaneous ⁴	0.1	0.1	0.1	0.1	0.1
Total	34.3	33.5	32.6	33.2	31.4
Carbon Monoxide					
Transportation ²	82.3	80.9	83.4	79.3	73.5
Fuel Combustion in					
Stationary Sources	1.1	1.0	1.0	1.0	0.9
Industrial Processes ³	11.8	11.6	12.0	13.0	12.7
Solid Waste Disposal	5.5	3.9	3.2	2.8	2.4
Miscellaneous ⁴	6.6	7.5	5.3	4.8	5.1
Total	107.3	104.9	104.9	100.9	94.6
Hydrocarbons					
Transportation ²	14.7	14.3	14.1	13.7	12.8
Fuel Combustion in					
Stationary Sources	1.6	1.7	1.7	1.7	1.7
Industrial Processes ³	2.9	2.7	2.9	3.1	3.1
Solid Waste Disposal	1.4	1.0	0.8	0.7	0.6
Miscellaneous ⁴	11.5	11.7	11.8	12.1	12.2
Total	32.1	31.4	31.3	31.3	30.4
Nitrogen Oxides					
Transportation ²	9.3	9.8	10.5	11.0	10.7
Fuel Combustion in					
Stationary Sources	10.1	10.1	10.8	11.2	11.0
Industrial Processes ³	0.6	0.6	0.6	0.6	0.6
Solid Waste Disposal	0.3	0.2	0.2	0.1	0.1
Miscellaneous ⁴	0.1	0.1	0.1	0.1	0.1
Total	20.4	20.8	22.2	23.0	22.5

^p Preliminary.

¹ The data presented in this table are calculations of the emissions estimates based on common data sources, uniform estimation methods, and consistent assumptions. At the time these estimates were prepared, most 1974 and some 1973 source data were not available from the standard references. Missing items were projected on the basis of forecasts from industrial trade journals, economic indications, or extrapolations based on 1967-1972 data.

² Includes all highway motor vehicles and all off-highway mobile sources, such as aircraft, railroads, vessels, and agricultural, industrial, and construction machinery.

³ Emissions for over 80 industrial processes/products were computed, including all major operations known to emit more than 10 to 20 thousand tons per year of some criteria pollutant on a national scale.

⁴ Sources not appropriately classified under previous categories are included here. Among these sources are forest fires, coal refuse burning, organic solvents, and oil and gasoline production.

Source: U.S. Environmental Protection Agency, National Air Data Branch, Office of Air Quality Planning and Standards, unpublished data.

TABLE 15
ESTIMATED U.S. AIR POLLUTANT EMISSIONS, BY STATE¹
(in thousands of tons per year)

STATE	PARTICULATES	SULFUR OXIDES	NITROGEN OXIDES	HYDROCARBONS	CARBON MONOXIDE
UNITED STATES	18,567	32,023	24,051	26,633	101,694
Alabama	1,299	973	438	709	2,079
Alaska	15	6	36	31	184
Arizona	80	1,852	137	209	899
Arkansas	152	44	186	216	929
California	1,109	434	1,833	2,382	9,080
Colorado	222	54	163	213	965
Connecticut	44	185	172	242	989
Delaware	41	231	64	70	225
District of Columbia	21	67	52	46	210
Florida	250	989	711	683	2,972
Georgia	446	521	408	505	2,244
Hawaii	68	51	49	99	304
Idaho	61	60	54	93	379
Illinois	1,260	2,252	1,074	2,013	7,069
Indiana	825	2,260	1,512	662	3,234
Iowa	239	312	267	349	1,588
Kansas	384	96	258	341	1,105
Kentucky	602	1,326	462	360	1,312
Louisiana	419	184	466	2,116	6,210
Maine	54	160	85	135	415
Maryland	546	463	292	326	1,391
Massachusetts	106	702	369	486	1,854
Michigan	778	1,617	2,450	721	3,575
Minnesota	293	432	344	453	1,941
Mississippi	186	56	190	216	914
Missouri	223	1,270	494	455	2,045
Montana	301	960	164	300	674
Nebraska	105	64	112	141	628
Nevada	104	336	98	59	238
New Hampshire	16	95	74	98	283
New Jersey	167	511	539	903	3,172
New Mexico	113	490	220	168	556
New York	176	381	631	1,391	5,381
North Carolina	530	521	455	493	1,912
North Dakota	87	87	94	77	351
Ohio	1,947	3,285	1,214	1,272	5,738
Oklahoma	103	144	245	376	1,606
Oregon	187	41	150	259	1,024
Pennsylvania	1,996	3,229	3,326	983	4,111
Rhode Island	14	72	52	73	313
South Carolina	219	273	575	1,001	4,654
South Dakota	58	19	55	100	427
Tennessee	452	1,301	470	400	1,620
Texas	606	830	1,437	2,446	7,603
Utah	79	168	89	108	444
Vermont	16	20	27	46	166
Virginia	526	493	363	407	1,706
Washington	179	301	207	380	1,829
West Virginia	236	748	253	128	545
Wisconsin	454	785	450	578	1,745
Wyoming	83	76	80	61	334

¹ These data have been reported to EPA under provisions of the Clean Air Act, and are stored in and compiled from the National Emissions Data System (NEDS). The data are indicators of national emissions for the calendar year 1972, and are estimates based on source records in NEDS prior to receipt of December 31, 1973 reports of revisions and updates.

Source: U.S. Environmental Protection Agency, 1972 National Emissions Report, 1974.

TABLE 1-6
ESTIMATED U.S. AIR POLLUTANT EMISSIONS, BY SOURCE¹
(in thousands of tons per year)

EMISSION CATEGORIES	PARTICULATES	SULFUR OXIDES	NITROGEN OXIDES	HYDROCARBONS	CARBON MONOXIDE
United States					
Area Sources ^{2,3}	3,892	4,149	10,381	19,804	82,706
Point Sources ^{2,4}	14,675	27,874	13,670	6,829	18,988
Fuel Combustion - External ⁵					
Area Sources					
Residential Fuels	300	895	293	138	594
Industrial Fuels	1,604	1,382	600	80	28
Commercial-Institutional Fuels	313	1,199	594	38	47
Point Sources					
Electric Generation	3,385	17,388	5,881	72	235
Industrial Fuels	1,777	3,503	3,907	97	231
Commercial-Institutional Fuels	75	177	60	4	7
Fuel Combustion - Internal ^{6,7}					
Electric Generation	4	6	51	2	3
Industrial Fuels	3	11	865	42	36
Commercial-Institutional Fuels	--	--	1	--	1
Engine Testing	--	--	--	1	1
Industrial Processes ⁸	9,265	6,753	2,876	6,451	17,469
Solid Waste Disposal					
Area Sources					
Residential	342	12	57	977	2,787
Commercial-Institutional	75	7	20	112	264
Industrial	301	30	74	400	923
Point Sources					
Government	73	9	15	59	213
Commercial-Institutional	3	1	1	2	13
Industrial	91	26	13	101	782
Transportation ⁸					
Land Vehicles	524	508	8,515	14,614	76,005
Aircraft	227	45	122	551	976
Vessels	24	71	84	102	437
Gas Handling Evaporation Loss	--	--	--	1,011	--
Miscellaneous					
Area Sources	183	--	22	1,782	645
Point Sources	--	--	--	--	--

-- No emissions or less than 500 tons of emissions were reported.

¹ These data have been reported to EPA under provisions of The Clean Air Act, and are stored in and compiled from the National Emissions Data System (NEDS). The data are indicators of national emissions for the calendar year 1972, and are estimates based on source records in NEDS prior to receipt of December 31, 1973 reports of revisions and updates.

² Data may not add to totals due to independent rounding.

³ Areas sources are all other emission sources not identified as point sources.

⁴ Point sources are stationary facilities that emit relatively large quantities of one or more air pollutants. Those point sources included in the NEDS file each have a total annual emission of any one criteria pollutant equal to or greater than 100 tons per year.

⁵ External combustion requires a heat exchanger for providing required energy form.

⁶ This category includes only point sources.

⁷ Internal combustion provides required energy form directly from combustion of fuel.

⁸ This category includes only area sources.

Source: U.S. Environmental Protection Agency, 1972 National Emissions Report, 1974.

TABLE 1-7
AVERAGE EMISSION FACTORS FOR HIGHWAY VEHICLES,¹
BASED ON NATIONWIDE STATISTICS

POLLUTANT	1965	1970	1971	1972	1973
CARBON MONOXIDE					
grams/mile	89	78	74	68	62
grams/kilometer	55	48	46	42	39
HYDROCARBONS					
Exhaust					
grams/mile	9.2	7.8	7.2	6.6	6.1
grams/kilometer	5.7	4.8	4.5	4.1	3.8
Crankcase & Evaporator					
grams/mile	5.8	3.9	3.5	2.9	2.4
grams/kilometer	3.6	2.4	2.2	1.8	1.5
NITROGEN OXIDES					
grams/mile	4.8	5.3	5.4	5.4	5.4
grams/kilometer	3.0	3.3	3.4	3.4	3.4

¹ Gasoline-powered light-duty vehicles and heavy-duty, gasoline- and diesel-powered vehicles.

Source: U.S. Environmental Protection Agency, Compilation of Air Pollutant Emission Factors, Second Edition, AP-42.

TABLE 1-8
NUMBER OF U.S. AIR POLLUTION ALERTS DECLARED¹

STATE	1973			1974		
	POLLUTANT	NUMBER OF ALERTS	DURATION (days + hours)	POLLUTANT	NUMBER OF ALERTS	DURATION (days + hours)
Alabama	TSP	2	3 + 0	---	NR	---
	TSP, COH, O ₃	1	23 + 0	---	NR	---
Arizona ³	TSP	17	NA	TSP	10	NA
	SO ₂	57	NA	SO ₂	28	NA
	CO	156	NA	CO	38	NA
	O ₃ , O _x	35	NA	O ₃ , O _x	2 ⁴	NA
	NO ₂	1	NA	NO ₂	67	NA
California ³	TSP	8	NA	TSP	1	NA
	CO	510	NA	CO	245	NA
	O ₃ , O _x	4,632	NA	O ₃ , O _x	357	NA
	NO ₂	35	NA	NO ₂	6	NA
Colorado	CO	2	0 + 15.5	---	NR	---
District of Columbia ²	O ₃ , O _x	6	24 + 0	O ₃ , O _x	1	1 + 0
Florida	O ₃	1	2 + 0	O ₃	2	2 + 0
Hawaii ³	---	NR	---	O ₃ , O _x	1 ⁴	NA
Illinois	---	NR	---	O ₃	2	9 + 0
Indiana	CO	1	1 + 12	---	NR	---
Kentucky	TSP	1	1 + 0	---	NR	---
Maryland ²	O _x	5	23 + 0	O _x	1	2 + 0
Nevada ³	TSP	7	NA	TSP	2	NA
	CO	7	NA	CO	4	NA
	O ₃ , O _x	304	NA	O ₃ , O _x	2	NA
New Mexico	CO	1	0 + 15	---	NR	---
North Carolina,						
South Carolina,	COH	1	1 + 0	---	NR	---
East Tennessee,						
& Kentucky						
Ohio	NA	2	19 + 0	TSP	1	1 + 0
	TSP	1	2 + 0	O ₃	3	12 + 0
	TSP, (SO ₂ XCOH)	1	6 + 0	---	NR	---
	TSP, SO ₂ , NO ₂ , (SO ₂ XCOH)	2	6 + 3	TSP, SO ₂ , NO ₂ , (SO ₂ XCOH)	4	8 + 8
Oregon	CO	1	0 + 8	CO	1 + 6	1 + 6
Pennsylvania ²	TSP, SO ₂	4	28 + 0	TSP, SO ₂	12	24 + 0
Tennessee	---	NR	---	O ₃	1	1 + 0
Washington ²	---	NR	---	CO	2	12 + 15
West Virginia ²	TSP, SO ₂	12	37 + 0	TSP, SO ₂	7	16 + 0
Wisconsin	O ₃	1	1 + 0	O ₃	5	5 + 0

NA Not available.
NR None reported.

¹ Alerts are issued whenever pollutant concentrations reach the following Federally established levels:

Sulfur Dioxide (SO₂) - 800 µg/m³ or 0.3 ppm (24-hour average)

Total Suspended Particulates (TSP) - 3.0 Coefficient of Haze (COH's) or 375 µg/m³ (24-hour average)

Product of Sulfur Dioxide and Total Suspended Particulates (SO₂ X TSP) - 65 x 10³ µg/m³ (24-hour average)

Product of Sulfur Dioxide and Particulate Matter as Coefficient of Haze (SO₂ X COH) - 0.2 ppm times COH (24-hour average)

Carbon Monoxide (CO) - 17 µg/m³ or 15 ppm (8-hour average)

Oxidants - 200 µg/m³ or 0.1 ppm (1-hour average)

Oxides of Nitrogen (NO_x) - 1130 µg/m³ or 0.6 ppm (1 hour average)

Nitrogen Dioxide (NO₂) - 282 µg/m³ or 0.15 ppm (24-hour average)

² Alerts in this state are issued according to air pollution episode criteria established by this state or by local agencies within this state, not according to criteria established federally.

³ These data were not reported by the region, but rather are based on sampling data stored in the EPA data bank. The analyses count the number of times an alert level occurred at, at least one sampling site in an air quality control region, and do not consider meteorological data. The eight-hour values were calculated as running averages (i.e., 24 values per day) and no attempt was made to apply any formula to assure non-overlap or any other special conditions. Therefore, it is possible to have 24 violations of the eight-hour criteria on the same day.

⁴ Possible data inaccuracy, caused by faulty equipment readings at data collection points.

Source: U.S. Environmental Protection Agency, regional offices, unpublished data.

TABLE 1-B
SUSPENDED PARTICULATE MATTER LEVELS,¹ BY BACKGROUND² STATIONS
(In micrograms per cubic meter)

STATION LOCATION ³	1969			1970			1971			1972			1973		
	NO. OF VALID VALUES	HIGHEST 24- HOUR VALUE		NO. OF VALID VALUES	HIGHEST 24- HOUR VALUE		NO. OF VALID VALUES	HIGHEST 24- HOUR VALUE		NO. OF VALID VALUES	HIGHEST 24- HOUR VALUE		NO. OF VALID VALUES	HIGHEST 24- HOUR VALUE	
		1st	2nd												
Arizona															
Grand Canyon National Park	25	32	31	25	66	54	NA	--	--	NA	--	--	NA	--	--
Pima County	NA	--	--	NA	--	--	NA	--	--	44	95	92	NA	46	85
Arkansas															
Montgomery County	24	86	52	22	57	43	24	156	58	28	144	103	NA	--	--
California															
Humboldt County	27	182	87	23	73	66	NA	--	--	NA	--	--	NA	--	--
Colorado															
La Plata County	NA	--	--	NA	--	--	NA	--	--	76	202	195	83	234	142
Mesa Verde National Park	26	50	42	25	53	52	24	104	54	NA	--	--	25	48	38
Mesa Verde National Park	NA	--	--	NA	--	--	NA	--	--	75	319	97	87	82	55
Florida															
Hardee County	24	38	39	26	49	46	22	177	77	29	115	93	NA	--	--
Hawaii															
Hawaii Volcanoes National Park	NA	--	--	NA	--	--	26	82	40	27	50	42	NA	--	--
Waianai	NA	--	--	NA	--	--	NA	--	--	110	78	77	98	67	60
Idaho															
Ada County	NA	--	--	NA	--	--	NA	--	--	113	242	124	97	189	185
Butte County	24	22	21	26	24	22	23	26	24	26	35	28	NA	--	--
Indiana															
Farke County	23	92	81	25	139	120	25	139	121	28	125	117	NA	--	--
Kentucky															
Carroll County	NA	--	--	NA	--	--	NA	--	--	61	126	109	59	90	86
Franklin County	NA	--	--	NA	--	--	NA	--	--	54	235	115	54	158	120
Maine															
Acadia National Park	26	42	41	26	68	65	23	40	38	28	68	65	NA	--	--
Missouri															
Shannon County	24	130	76	25	73	68	25	89	88	29	73	66	NA	--	--
Montana															
Glacier National Park	28	36	43	NA	--	--	23	92	79	28	37	37	34	90	65
Nebraska															
Thomas County	26	43	40	22	98	59	NA	--	--	NA	--	--	NA	--	--
Nevada															
Clark County	NA	--	--	NA	--	--	NA	--	--	35A	187	53	197	103	
White Pine County	23	32	23	24	27	27	NA	--	--	30	60	45	NA	--	--
New Hampshire															
Coos County	23	61	59	25	48	47	23	57	41	27	67	55	NA	--	--
New York															
Jefferson County	25	91	74	26	75	66	26	34	48	NA	--	--	NA	--	--
North Carolina															
Cape Hatteras National Seashore	24	234	188	24	177	154	NA	--	--	NA	--	--	NA	--	--
North Dakota															
Cass County	NA	--	--	NA	--	--	NA	--	--	55	156	103	60	488	271
Ward County	NA	--	--	NA	--	--	NA	--	--	52	53	59	47	261	146
Ohio															
Stark County	NA	--	--	NA	--	--	NA	--	--	56	135	119	55	127	120
Stark County	NA	--	--	NA	--	--	NA	--	--	55	170	133	53	168	148
Stark County	NA	--	--	NA	--	--	NA	--	--	56	237	162	60	151	119
Summit County	NA	--	--	NA	--	--	NA	--	--	58	118	114	49	181	179
Wayne County	NA	--	--	NA	--	--	NA	--	--	60	133	108	55	159	135
Oklahoma															
Cherokee County	NA	--	--	24	118	101	NA	--	--	27	86	83	29	92	42
Oregon															
Curry County	NA	--	--	24	107	90	NA	--	--	22	175	104	NA	--	--
Pennsylvania															
Clarion County	NA	--	--	NA	--	--	26	80	76	30	89	79	30	118	110
Rhode Island															
Washington County	NA	--	--	25	81	63	26	91	84	28	103	64	NA	--	--
South Carolina															
Richland County	NA	--	--	NA	--	--	24	75	70	28	101	86	30	67	60
South Dakota															
Black Hills National Forest	NA	--	--	NA	--	--	23	46	38	29	66	29	30	67	60
Texas															
Matagorda County	NA	--	--	25	49	45	23	118	95	29	71	60	28	58	47
Tom Green County	NA	--	--	25	122	119	25	268	232	29	219	186	25	330	97
Vermont															
Orange County	NA	--	--	26	59	57	25	74	62	29	69	54	NA	--	--
Virginia															
Shenandoah National Park	NA	--	--	25	61	58	26	57	57	28	51	47	28	59	57
Wythe County	NA	--	--	26	77	63	26	53	52	29	46	46	26	54	52
Washington															
Grant County	NA	--	--	NA	--	--	NA	--	--	87	133	126	62	105	97
King County	NA	--	--	24	73	61	24	106	53	30	91	78	53	37	37
Wisconsin															
Franklin County	NA	--	--	NA	--	--	117	726	223	NA	--	--	59	136	119
Wyoming															
Grand Teton National Park	NA	--	--	NA	--	--	NA	--	--	29	32	28	30	55	31
Yellowstone Park	NA	--	--	NA	--	--	26	27	18	NA	--	--	23	24	23

NA Data not available for four valid quarters of years.

¹ Sample collected by 24 Hr Vol filter, sample analyzed by the gravimetric method.

² Located away from population centers and major pollution sources.

³ Only stations which had 2 or more valid years of data between 1969 and 1973, have been listed.

Sources: U.S. Environmental Protection Agency, *The National Air Monitoring Program: Air Quality and Emission Trends, Vol. II* (1969, 1970, 1971 data) and *Monitoring and Air Quality Trends Report, 1972 and Monitoring and Air Quality Trends Report, 1973*.

TABLE 1-10
SULFUR DIOXIDE LEVELS¹ BY BACKGROUND² STATIONS
(In micrograms per cubic meter)

STATION LOCATION	1969			1970			1971			1972			1973		
	NO. OF VALID VALUES	HIGHEST 24- HOUR VALUE		NO. OF VALID VALUES	HIGHEST 24- HOUR VALUE		NO. OF VALID VALUES	HIGHEST 24- HOUR VALUE		NO. OF VALID VALUES	HIGHEST 24- HOUR VALUE		NO. OF VALID VALUES	HIGHEST 24- HOUR VALUE	
		1st	2nd												
Arizona															
Coconino County	NA	--	--	58	2	2									
Delaware															
Kent County	24	45	42	NA	--	--	24	15	12	30	37	30	NA	--	--
Florida															
Harden County	NA	--	--	NA	--	--	26	10	10	29	25	7	NA	--	--
Indiana															
Monroe County	23	51	30	25	27	23	NA	--	--	NA	--	--	NA	--	--
Kentucky															
Carroll County	NA	--	--	NA	--	--	NA	--	--	59	59	58	60	203	65
Franklin County	NA	--	--	58	88	52									
Gallatin County	NA	--	--	59	172	141									
Paducah	NA	--	--	57	85	69									
Louisiana															
Iberville Parish	25	22	14	24	24	15	NA	--	--	26	17	17	NA	--	--
Maine															
Acadia National Park	25	24	17	24	23	20	25	29	22	26	12	12	NA	--	--
Mississippi															
Jackson County	NA	--	--	25	29	19									
Missouri															
Shannon County	NA	--	--	NA	--	--	22	44	10	NA	--	--	NA	--	--
New Hampshire															
Cook County	NA	--	--	NA	--	--	24	23	17	NA	--	--	NA	--	--
New Mexico															
Hidalgo County	NA	--	--	42	13	2									
New York															
Jefferson County	NA	--	--	NA	--	--	NA	--	--	27	14	13	NA	--	--
North Carolina															
Cape Hatteras National Seashore	NA	--	--	NA	--	--	NA	--	--	22	19	12	22	14	10
Ohio															
Lake County	NA	--	--	54	189	113									
Stark County	NA	--	--	30	115	75									
Stark County	NA	--	--	31	65	65									
Wayne County	NA	--	--	NA	--	--	NA	--	--	49	176	141	54	103	93
Oklahoma															
Cherokee County	NA	--	--	NA	--	--	NA	--	--	26	13	9	24	10	9
Rhode Island															
Glacier National Park	NA	--	--	NA	--	--	NA	--	--	24	13	7	NA	--	--
Washington County	NA	--	--	NA	--	--	NA	--	--	24	8	7	NA	--	--
South Carolina															
Richland County	NA	--	--	NA	--	--	NA	--	--	28	21	18	27	46	14
South Dakota															
Black Hills National Forest	NA	--	--	NA	--	--	NA	--	--	24	7	6	NA	--	--
Texas															
Matagorda County	NA	--	--	NA	--	--	NA	--	--	26	10	8	25	11	9
Tom Green County	NA	--	--	NA	--	--	NA	--	--	26	12	7	NA	--	--
Virginia															
Shenandoah National Park	NA	--	--	25	42	18	NA	--	--	27	31	29	25	54	16
Wythe County	NA	--	--	NA	--	--	NA	--	--	25	12	9	NA	--	--
Wyoming															
Yellowstone Park	NA	--	--	NA	--	--	NA	--	--	20	11	8	NA	--	--

NA Data not available for four valid quarters of year.

¹ Sample collected by 24-hour bubbler, sample analyzed by the West-Gaeke (Sulfamic Acid) method.

² Located away from population centers and major pollution sources.

Sources: U.S. Environmental Protection Agency, The National Air Monitoring Program: Air Quality and Emission Trends, Vol. II (1969, 1970, 1971 data) and Monitoring and Air Quality Trends Report, 1972, and Monitoring and Air Quality Trends Report, 1973.

TABLE 1-11
FEDERAL AIR CONTROL PROGRAM GRANTS,¹ BY STATE

STATE	1971	1972	1973(e)	1974(e)	1975(e)
UNITED STATES	\$29,332,188	\$41,020,853	\$47,810,327	\$47,764,000	\$50,682,002
Alabama	14,642	527,324	709,427	1,289,000	875,000
Alaska	120,334	69,775	152,518	171,000	186,000
Arizona	350,490	207,049	512,614	592,000	715,000
Arkansas	112,729	208,527	280,295	250,000	250,000
California	2,440,604	3,690,260	3,893,615	3,576,000	3,863,000
Colorado	498,511	838,478	576,524	632,000	710,000
Connecticut	747,225	1,335,796	1,014,406	1,281,000	1,414,000
Delaware	234,134	180	260,054	115,000	270,000
District of Columbia	234,134	225,000	173,088	345,000	240,000
Florida	937,350	958,491	1,363,097	915,000	1,025,000
Georgia	532,460	630,218	684,100	702,000	780,000
Hawaii	NR	96,445	157,395	233,000	255,000
Idaho	60,000	81,687	141,074	203,000	214,000
Illinois	1,412,000	2,526,764	2,830,000	2,830,000	2,945,000
Indiana	298,781	826,034	1,109,927	1,210,000	1,310,000
Iowa	154,290	559,243	498,841	533,000	540,000
Kansas	354,658	340,305	470,228	484,000	479,000
Kentucky	514,870	223,573	1,016,034	850,000	1,170,000
Louisiana	224,208	175,000	349,959	350,000	385,000
Maine	133,666	NR	245,349	110,000	192,000
Maryland	1,125,688	987,000	852,115	741,000	1,153,000
Massachusetts	781,000	794,385	1,247,799	1,086,000	1,123,000
Michigan	1,436,978	1,782,902	2,010,073	1,910,000	1,875,000
Minnesota	411,680	169,014	700,097	700,000	705,000
Mississippi	80,000	421,724	477,659	425,000	470,000
Missouri	948,062	749,037	1,123,344	1,067,000	1,114,000
Montana	259,428	184,681	237,022	265,000	340,000
Nebraska	123,359	231,929	304,422	298,000	324,000
Nevada	191,827	NR	248,532	303,000	388,000
New Hampshire	91,937	185,409	227,609	149,000	211,000
New Jersey	2,079,298	2,135,581	2,583,130	2,418,000	2,230,000
New Mexico	213,481	712,140	302,543	423,000	495,000
New York	2,887,000	4,714,135	4,232,424	4,514,000	4,980,000
North Carolina	505,640	1,592,670	1,050,998	1,469,000	1,450,000
North Dakota	50,477	40,525	62,207	86,000	120,000
Ohio	1,032,705	1,850,454	2,450,000	2,450,000	2,522,000
Oklahoma	168,479	499,906	481,408	393,000	520,000
Oregon	569,181	486,828	667,492	623,000	720,000
Pennsylvania	1,799,996	2,160,700	3,645,052	3,911,000	3,290,000
Rhode Island	117,107	133,899	197,117	266,000	185,000
South Carolina	318,173	111,783	708,247	996,000	550,000
South Dakota	40,966	32,025	85,943	65,000	95,000
Tennessee	746,300	713,731	1,157,469	465,000	1,010,000
Texas	1,637,634	3,164,905	2,789,526	2,848,000	2,910,000
Utah	209,442	NR	216,945	160,000	165,000
Vermont	74,360	224,426	173,669	159,000	180,000
Virginia	428,974	1,062,000	618,516	659,000	954,000
Washington	1,015,719	831,408	1,194,024	1,015,000	1,151,000
West Virginia	387,308	317,620	322,693	229,000	458,000
Wisconsin	150,000	965,448	900,000	900,000	905,000
Wyoming	74,903	64,439	102,667	100,000	130,000

NR Not reported

(e) Estimate

¹ Federal funds allocated to state and local community air quality agencies' staff, equipment, and operating expenses to abate air pollution.

Source: U.S. Environmental Protection Agency, Budget Operations Division, unpublished data.

TABLE 2-1
CHEMICAL ANALYSES OF INTERSTATE CARRIER WATER SUPPLIES¹

STATE	NUMBER OF WATER SUPPLIES TESTED	NUMBER OF ANALYSES ²	DRINKING WATER STANDARDS ³	
			NO. OF ANALYSES EXCEEDING RECOMMENDED LIMIT ⁴	NO. OF ANALYSES EXCEEDING MANDATORY LIMIT ⁵
UNITED STATES	730	13,178	237	18
Alabama	12	124	1	0
Alaska	13	244	4	0
Arizona	6	142	5	0
Arkansas	8	105	1	0
California	57	937	29	0
Colorado	14	278	3	1
Connecticut	9	163	1	0
Delaware	6	82	1	1
District of Columbia	1	23	0	0
Florida	30	484	1	1
Georgia	17	288	2	0
Hawaii	8	144	0	0
Idaho	3	56	0	0
Illinois	19	379	5	0
Indiana	10	168	1	0
Iowa	9	168	0	0
Kansas	9	204	2	0
Kentucky	6	121	2	0
Louisiana	53	1,094	29	5
Maine	6	54	2	0
Maryland	12	166	3	0
Massachusetts	15	307	1	2
Michigan	16	292	1	1
Minnesota	7	87	6	0
Mississippi	15	134	2	0
Missouri	9	210	0	0
Montana	10	202	2	1
Nebraska	5	118	6	1
Nevada	3	36	2	0
New Hampshire	2	19	1	0
New Jersey	39	753	12	0
New Mexico	7	137	12	0
New York	40	578	4	0
North Carolina	19	279	2	0
North Dakota	5	91	7	0
Ohio	19	374	4	0
Oklahoma	7	73	0	0
Oregon	10	226	4	1
Pennsylvania	31	620	14	1
Rhode Island	8	154	1	2
South Carolina	10	155	0	0
South Dakota	3	65	3	0
Tennessee	9	196	1	0
Texas	61	1,259	41	0
Utah	3	48	1	0
Vermont	4	81	2	0
Virginia	20	447	2	0
Washington	22	380	5	1
West Virginia	7	122	1	0
Wisconsin	12	244	7	0
Wyoming	4	67	1	0

¹ Most analyses were performed in 1974.

² Includes analyses of arsenic, barium, cadmium, chloride, copper, cyanide, fluoride, alkyl benzene sulfonate, iron, lead manganese, mercury, nitrate, carbon chloroform extract, selenium, silver, sodium, sulfate, zinc, alkalinity, hardness, pH, total dissolved solids. Not all analyses are performed at every water supply.

³ 1962 Public Health Drinking Water Standards.

⁴ Recommended limit should not be exceeded where other more suitable supplies are or can be made available.

⁵ Mandatory limit, when exceeded, constitutes grounds for rejection of the supply.

Source: U.S. Environmental Protection Agency, Office of Data Reporting, Division of Water Supply, unpublished data.

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TABLE 2-2
NUMBER OF MUNICIPAL WASTE WATER TREATMENT FACILITIES, BY TREATMENT LEVEL AND STATE

STATE	TOTAL	PRIMARY ¹	ADROATE SECONDARY ²	INADEQUATE SECONDARY ²	UNCLASSIFIED SECONDARY ³	TERTIARY ⁴	MINK
UNITED STATES	21,063	2,723	2,575	3,287	10,133	795	1,917
Alabama	261	32	65	42	101	0	21
Alaska	38	8	0	1	25	0	4
Arizona	119	3	7	13	75	1	20
Arkansas	211	18	5	29	157	0	2
California	659	119	69	62	375	11	23
Colorado	233	11	15	16	168	7	16
Connecticut	180	39	11	7	84	6	33
Delaware	25	5	8	8	2	0	2
District of Columbia	1	0	0	1	0	0	0
Florida	582	40	173	147	189	14	19
Georgia	474	64	207	114	62	2	25
Hawaii	39	5	9	3	15	0	7
Idaho	129	17	16	42	37	0	17
Illinois	828	71	183	230	287	31	26
Indiana	741	43	37	80	355	104	122
Iowa	639	27	23	122	350	0	117
Kansas	632	98	13	67	442	0	12
Kentucky	284	25	6	5	238	3	7
Louisiana	188	11	1	2	159	0	15
Maine	68	15	4	3	24	0	22
Maryland	304	28	61	57	141	0	17
Massachusetts	153	37	0	0	77	0	39
Michigan	482	108	59	58	132	13	112
Minnesota	520	53	15	92	311	15	34
Mississippi	312	7	4	11	277	0	13
Missouri	454	20	18	31	376	0	9
Montana	163	24	2	2	127	2	6
Nebraska	496	41	4	24	385	7	35
Nevada	39	3	7	2	24	1	2
New Hampshire	45	18	0	2	23	0	2
New Jersey	339	84	20	33	193	4	5
New Mexico	82	1	8	27	45	0	1
New York	747	472	34	66	135	16	24
North Carolina	1,156	114	150	166	634	33	59
North Dakota	256	15	3	11	216	0	11
Ohio	1,033	89	219	123	298	132	172
Oklahoma	385	12	76	157	137	0	3
Oregon	249	42	39	54	91	2	21
Pennsylvania	1,877	164	429	263	494	253	274
Rhode Island	27	8	1	7	2	2	7
South Carolina	1,416	113	37	93	1,067	82	24
South Dakota	227	19	93	74	26	2	13
Tennessee	265	17	60	42	134	6	6
Texas	911	73	172	490	171	1	4
Utah	89	14	23	21	17	1	13
Vermont	79	34	1	4	31	0	9
Virginia	956	99	54	90	673	22	18
Washington	363	95	22	39	182	2	23
West Virginia	578	149	6	10	385	5	23
Wisconsin	562	84	101	195	132	14	36
Wyoming	85	9	0	2	70	1	3

¹Primary treatment plants take raw sewage and separate the particulate matter from the water by settling the heavier solids and skimming off the lighter ones. This process normally removes 20 to 35 percent of the BOD₅ (5 day biochemical oxygen demand determined when a sample is incubated in a bottle at 20°C for 5 days, and then the amount of oxygen metabolically consumed by the microorganisms is measured).

²Secondary treatment plants use biological degradation to treat output from primary treatment. Under the 1972 Federal Water Pollution Control Act Amendments, EPA requires by July 1977 that publicly owned treatment works achieve BOD₅ effluent concentrations of 30 mg/l and at least 85 percent BOD₅ removal. Facilities achieving these levels are considered adequate secondary treatment facilities while those not achieving these concentrations are classified as inadequate secondary treatment facilities.

³Data insufficient to classify further.

⁴Tertiary treatment plants apply various types of additional treatment to the effluent from the secondary system. These additional processes often involve nutrient (nitrogen or phosphorous) removal and can achieve BOD₅ effluent concentrations significantly lower than secondary treatment.

Source: U.S. Environmental Protection Agency, Office of Water Planning and Standards, National Water Quality Inventory, Vol. 1, 1974, Report to the Congress.

TABLE 2.3
CONTRACT AWARDS¹ FOR CONSTRUCTION OF SEWAGE TREATMENT FACILITIES

STATE	NEW PLANTS ²						OTHER CONSTRUCTION ³					
	1969		1970		1971 ^p		1969		1970		1971 ^p	
	NUMBER	DOLLARS	NUMBER	DOLLARS	NUMBER	DOLLARS	NUMBER	DOLLARS	NUMBER	DOLLARS	NUMBER	DOLLARS
UNITED STATES	430	234,462,226	412	276,930,773	329	364,209,607	1,074	541,447,819	816	687,541,393	770	390,926,350
Alabama	10	4,940,324	2	227,735	1	2,406,286	14	4,851,342	18	11,945,632	4	558,428
Alaska	0	0	1	53,887	0	0	0	0	2	8,887,272	5	2,413,566
Arizona	4	1,857,798	3	2,279,936	0	0	13	7,365,843	5	3,286,805	2	280,725
Arkansas	7	37,540	10	2,032,918	5	2,718,714	16	6,680,938	8	4,901,258	5	1,430,644
California	12	7,158,136	16	13,486,539	13	17,306,698	67	25,023,502	64	45,725,833	63	29,314,513
Colorado	3	1,401,875	1	78,832	1	47,570	27	6,621,702	9	535,928	0	0
Connecticut	2	4,758,000	10	21,933,690	1	11,421,506	35	49,708,569	22	20,492,732	27	8,377,817
Delaware	0	0	0	0	2	4,746,748	1	10,550	2	1,122,109	3	898,548
Dist. of Columbia	0	0	1	216,000	0	0	4	3,248,360	1	129,423	1	0
Florida	17	9,643,373	18	7,424,176	9	5,656,554	18	6,062,411	28	9,063,596	22	1,412,049
Georgia	16	6,782,391	18	10,461,305	16	9,516,049	30	11,878,841	21	15,582,422	25	18,764,466
Hawaii	1	1,221,398	0	0	0	0	4	3,944,777	1	391,219	0	0
Idaho	1	7,000	1	119,123	1	1,662,497	6	547,911	0	0	8	341,262
Illinois	20	12,062,460	15	10,813,002	16	6,472,721	64	40,149,288	57	40,548,327	57	14,507,140
Indiana	8	2,960,135	15	8,399,333	10	4,463,631	16	1,659,617	25	13,797,126	28	1,254,830
Iowa	19	1,710,745	26	2,727,108	11	3,848,530	28	2,650,874	22	4,236,769	14	495,296
Kansas	29	2,857,993	8	626,755	3	686,114	23	7,130,587	11	482,745	13	986,191
Kentucky	8	3,958,610	6	2,201,243	5	4,846,540	21	4,439,476	8	1,385,361	7	1,042,807
Louisiana	10	1,753,636	5	3,869,463	2	180,116	13	5,964,868	6	1,337,788	6	273,633
Maine	4	2,451,932	2	2,427,437	10	15,414,209	14	6,738,005	7	3,003,167	8	2,325,218
Maryland	6	2,545,106	6	11,455,553	8	2,998,432	48	15,796,382	41	32,718,774	18	4,489,109
Massachusetts	4	4,777,995	4	3,589,995	7	15,333,183	30	16,191,596	13	8,814,043	14	10,467,959
Michigan	11	2,789,617	25	25,240,131	7	7,051,737	34	65,670,142	51	82,321,333	43	25,847,321
Minnesota	7	11,401,602	6	4,616,282	10	6,599,053	13	5,211,608	20	30,236,076	16	9,482,388
Mississippi	13	1,687,811	9	4,992,571	4	17,374,214	12	2,092,696	3	142,761	4	2,691,559
Missouri	10	4,137,379	12	1,464,848	6	1,417,240	22	10,892,129	27	9,521,623	16	1,751,541
Montana	2	1,266,246	1	117,653	1	283,324	0	0	0	0	0	0
Nebraska	3	124,575	8	550,857	9	7,138,079	14	2,000,937	9	499,327	9	1,215,495
Nevada	0	0	1	1,242,900	0	0	2	274,207	2	776,714	0	0
New Hampshire	2	4,930,929	3	1,616,208	1	72,000	4	1,531,492	7	4,085,051	8	7,934,665
New Jersey	7	11,604,511	3	968,938	2	6,367,301	20	12,191,006	21	29,495,164	18	8,085,625
New Mexico	0	0	0	0	1	35,893	1	1,137,900	2	825,717	2	0
New York	26	76,090,658	23	62,134,903	26	79,109,272	77	80,762,991	57	138,783,061	36	156,659,707
North Carolina	12	3,447,274	9	4,608,541	4	3,499,320	29	6,278,705	12	8,896,801	32	9,117,833
North Dakota	7	563,372	1	79,850	1	13,785	8	597,700	1	65,958	0	0
Ohio	22	9,321,304	41	17,725,278	18	24,761,054	44	28,246,738	43	33,434,899	44	2,865,843
Oklahoma	9	1,426,505	5	1,260,581	7	4,765,432	13	3,346,468	5	321,899	8	1,081,254
Oregon	11	4,198,127	6	822,878	8	18,352,602	7	687,865	14	14,066,615	13	5,939,343
Pennsylvania	19	6,914,976	10	12,941,596	23	16,349,640	56	18,462,429	35	29,061,128	35	5,439,371
Rhode Island	0	0	0	0	1	212,813	4	2,968,874	1	171,600	1	342,318
South Carolina	9	3,406,284	11	5,487,304	3	1,375,458	11	9,813,977	8	5,140,612	4	1,290,099
South Dakota	5	258,718	2	94,687	2	150,639	13	1,192,482	0	0	2	28,623
Tennessee	12	3,528,837	5	2,595,980	6	19,113,643	19	5,905,615	17	19,997,146	9	2,736,003
Texas	31	7,535,238	31	10,667,003	28	8,789,225	71	22,161,726	35	19,642,229	47	7,160,459
Utah	0	0	1	78,237	0	0	3	261,998	1	30,016	0	0
Vermont	5	1,879,775	4	3,097,877	0	0	6	1,005,201	4	2,036,421	1	525,522
Virginia	7	1,051,786	6	4,714,070	3	5,047,025	29	9,397,173	15	3,647,048	23	8,619,615
Washington	2	931,116	4	1,619,204	5	7,841,468	20	7,970,056	4	898,125	16	1,192,901
West Virginia	3	266,718	2	750,539	3	4,051,095	5	2,554,442	1	898,389	1	123,126
Wisconsin	14	2,335,201	15	2,962,825	24	15,207,183	38	12,153,367	48	23,547,819	51	10,831,030
Wyoming	0	0	0	0	0	0	5	312,481	2	409,552	1	28,216

^p Preliminary data.

¹ Contracts awarded by municipalities, special districts and other local governments for facilities used to dispose of domestic wastes and such industrial wastes as may be directed through these facilities. Data were not used where the construction award was for work related to Federal and State installations such as military bases and port authorities, local government installations such as parks, schools, and hospitals, and where industrial facilities did not discharge through the municipal system.

² Includes new plants, as well as associated new stabilization and oxidation ponds, lagoons and leaching systems.

³ Includes replacements, additions, expansions, and revisions to existing plants, interceptors and outfalls, combinations of the foregoing, and sewage pumping facilities. Also includes contracts whose costs could not be separated between "new plants" and "other" construction.

Sources: U.S. Department of the Interior, *Sewage Facilities Construction 1969*; U.S. Environmental Protection Agency, *Sewage Facilities Construction 1970*; and U.S. Environmental Protection Agency, *Sewage Facilities Construction Report 1971*.

TABLE 2-4
SUMMARY OF POLLUTION-CAUSED FISH KILLS

	1965	1966	1967	1968	1969	1970	1971	1972	1973(p)
Number of states responding	44	46	40	42	45	45	46	50	50
Number of reports	625	532	454	542	594	635	860	760	749
Reports which state number of fish killed	520	453	364	469	492	563	759	697	703
Total reported number of fish killed (thousands)	12,140	9,614	11,291	15,815	41,166	22,290	73,670	17,717	57,814
Average size of kill ¹	4,310	5,620	6,460	6,015	5,860	6,412	6,154	4,639	5,527
Largest kill reported (thousands)	3,000	1,000	6,549	4,029	26,527	3,240	5,500	2,922	10,000
Number of reported incidents for each pollution source operation									
Agricultural	114	88	87	77	117	108	132	113	161
Industrial	244	195	139	177	199	213	231	189	196
Municipal ²	125	87	91	122	84	120	162	167	146
Transportation	27	27	23	39	32	28	52	56	65
Other	23	38	35	23	33	28	64	72	56
Unknown	92	97	79	104	129	138	219	163	125
Total reports	625	532	454	542	594	635	860	760	749
Average duration of kill in days	2.57	2.71	3.34	2.99	3.11	3.25	3.35	3.40	2.72

(p) Preliminary

¹ Derived after excluding reports of 100,000 kills or more as being unrepresentative.

² Municipal operations include electric power-generating stations.

Source: U.S. Environmental Protection Agency, Fish Kills Caused by Pollution in 1972, and unpublished data.

TABLE 2-5
POLLUTION-CAUSED FISH KILL SUMMARY, BY STATE, 1973

STATE	TOTAL REPORTS	REPORTS SPECIFYING NUMBER OF FISH KILLED		NUMBER OF REPORTS AND WATER SURFACES AFFECTED					
		NUMBER OF REPORTS	NUMBER OF FISH	RIVER		LAKE		COASTAL WATERS ¹	
				NUMBER OF REPORTS	NUMBER OF MILES	NUMBER OF REPORTS	NUMBER OF ACRES	NUMBER OF REPORTS	NUMBER OF MILES
UNITED STATES	749	703	37,814,499	590	7,428	151	9,918	3	10
Alabama	57	56	1,250,826	19	4,444	18	2,830		
Alaska	1					1	1		
Arkansas	2	2	950	2	9				
California	39	19	123,764	24	95	14	436	1	
Colorado	2	2	650	1	3	1	1		
Connecticut	8	8	13,040	6	4	2	300		
Delaware	1	1	7,500	1	1				
Florida	29	35	35,113	10	19	19	1,481		
Georgia	19	8	5,840	4	34	15	77		
Hawaii	2	2	2,700	2	3				
Idaho	7	7	10,785	6	10	1	360		
Illinois	21	21	395,040	18	87	3	815		
Indiana	12	10	19,434	12	28				
Iowa	4	3	36,150	3	6	1	10		
Kansas	8	7	155,470	5	8	3	64		
Kentucky	6	6	28,788	5	10	1	2		
Louisiana	16	15	432,747	13	80	3	242		
Maine	5	4	2,400	5	7				
Maryland	8	8	267,415	6	288	1	2	1	6
Massachusetts	4	4	405,040	3	18	1	1		
Michigan	4	4	31,248	4	19				
Mississippi	8	8	273,900	7	1,334	1	10		
Missouri	30	36	121,103	17	68	13	45		
Montana	4	4	4,250	4	11				
Nebraska	6	6	70,939	5	24	1	2		
Nevada	2			2	6				
New Hampshire	4	3	350	4	7				
New Jersey	45	44	2,081,035	28	52	17	161		
New York	29	29	54,390	25	70	4	26		
North Carolina	11	11	18,543	7	24	4	104		
North Dakota	1			1	100				
Ohio	131	131	812,612	127		4			
Oregon	13	12	21,721	8	14	5	24		
Pennsylvania	62	61	301,640	61	158	1	1		
South Carolina	4	3	267,298	4	42				
South Dakota	4	4	9,325	2	2	2	2,839		
Tennessee	22	22	267,285	22	54				
Texas	53	50	22,407,801	43	128	5	42	5	4
Utah	1	1	180	1	2				
Vermont	2	2	3,350	2	7				
Virginia	19	19	7,610,585	17	81	2	36		
Washington	32	25	230,965	23	42	8	6	1	
West Virginia	8	8	90,297	8	13				
Wisconsin	3	2	1,100	3	16				

¹ Includes embayments, such as Chesapeake, San Francisco, and Galveston Bays.

Source: U.S. Environmental Protection Agency, unpublished data.

**TABLE 2-8
FISH KILL SUMMARY, BY SOURCE OF POLLUTION, 1973**

SOURCE OF POLLUTION	TOTAL REPORTS	REPORTS SPECIFYING NUMBER OF FISH KILLED		
		NO. OF REPORTS	NO. OF FISH	AVERAGE KILL ¹
Agricultural:				
Insecticides	91	82	2,040,291	
Fertilizers	18	15	160,361	
Manure-Silage Drainage	52	49	264,176	
Subtotal	161	146	2,464,828	8,558
Industrial:				
Mining	23	21	92,322	
Food Products	19	18	78,389	
Paper Products	11	11	7,350	
Chemicals	39	37	448,236	
Petroleum	30	28	528,201	
Metals	15	13	344,900	
Combinations	3	3	15,668	
Other	36	55	278,806	
Subtotal	196	186	1,793,872	4,236
Municipal:				
Sewerage Systems	115	107	8,948,889	
Refuse Disposal	6	6	7,967	
Water Systems	10	9	5,179	
Swimming Pool	2	2	300	
Power	13	11	1,423,272	
Subtotal	146	135	10,385,607	5,028
Transportation:				
Rail	5	5	133,079	
Truck	31	31	95,021	
Barge or Boat	2	2	12,910	
Pipeline	27	27	324,443	
Subtotal	65	65	565,453	6,991
Other Operations:	56	50	348,275	1,998
Unknown:	125	121	22,256,464	4,065
Total	749	703	37,814,499	5,527

¹Derived after excluding reports of 100,000 kills or more.

Source: U.S. Environmental Protection Agency, unpublished data.

TABLE 27
POLLUTING SPILLS REPORTED IN U.S. WATERS

	NUMBER OF INCIDENTS			TOTAL VOLUME IN GALLONS		
	1971	1972	1973	1971	1972	1973
TOTAL SPILLS REPORTED¹	8,736	9,931	13,328	8,839,523	18,805,732	24,714,918
Type of Location						
Inland Waters	611	682	1,722	1,409,867	2,270,771	7,117,239
Coastal Waters	7,201	7,441	9,871	6,720,259	14,277,375	15,490,447
Open Waters (Great Lakes or Territorial Seas) ²	315	421	571	37,736	24,681	419,428
Contiguous Zone (from 3 to 12 miles from coastline)	396	801	483	651,177	34,793	1,218,860
High Seas	193	583	681	20,484	2,197,812	68,944
Type of Pollutant						
Light Oil ²	4,320	4,290	4,104	2,822,463	6,578,653	6,415,242
Heavy Oil ³	1,603	2,049	2,851	2,934,181	1,761,301	4,538,127
Solvent ⁴	4	4	49	4	4	32,469
Waste Oil	930	890	1,003	164,352	8,067,043	1,211,131
Other Oil	669	1,151	2,996	2,714,399	357,724	2,650,169
Other Materials (including sewage, refuse, etc.)	269	428	774	115,043	2,025,897	8,339,714
Unknown	945	1,123	1,551	89,085	15,114	1,128,066
Source						
Vessels						
Dry Cargo Vessels	271	402	353	418,206	42,771	650,409
Tank Ships	386	453	825	1,665,264	2,583,952	4,494,254
Tank Barges	828	830	718	1,197,819	3,739,144	1,572,059
Combatant Vessels	261	294	246	440,849	40,923	17,963
Other Vessels	388	494	1,408	180,127	96,508	1,184,754
Land Vehicles	77	145	305	101,225	172,519	741,588
Non-Transportation-Related Facilities						
Refineries	188	185	214	2,206,781	42,027	166,403
Pipelines ⁵	5	216	559	5	1,237,227	1,847,498
Other Land Transportation Facilities	22	68	162	159,961	13,331	151,285
All Other Onshore & Offshore Facilities ⁶	3,723	3,804	3,904	2,158,718	10,483,247	6,479,453
Miscellaneous & Unknown	2,592	3,040	4,634	310,573	354,083	7,009,252 ⁷
Cause						
Casualty (includes collision, grounding & blowouts)	214	360	2,793 ⁸	3,045,719	4,082,094	16,068,447 ⁸
Rupture, Leak, or Structural Failure	2,757	2,201		3,715,067	4,823,322	
Equipment Failure (Valves, Pumps)	947	1,542	1,872	274,049	293,755	800,540
Personnel Failure	829	1,287	2,204	1,035,950	940,316	1,127,851
Deliberate Discharges	359	457	599	50,652	68,515	2,176,509
Natural Phenomenon	94	257	354	5,805	8,045,972	2,051,364
Unknown	3,536	3,827	5,506	712,281	551,758	2,090,207

¹ The U.S. Coast Guard has reason to believe that the number of discharges that actually occurred in 1973 was not any greater than those that occurred in 1971 or 1972, but that the increase in the number reported was a reflection of public awareness of the legal requirement to report discharges.

² 1971 and 1972 data include gasoline, light fuel oil, kerosene, and light crude. 1973 data include crude oil, gasoline, and other distillate fuel oil.

³ 1971 and 1972 data include diesel oil, heating oil, heavy fuel oil, heavy crude, and asphalt. 1973 data include diesel oil, asphalt or residual fuel oil.

⁴ 1973 data added the category of solvents, previously included under several other categories.

⁵ 1971 pipeline data included under other categories.

⁶ Changes in 1973 "source" categories make it necessary to combine some onshore and offshore production, storage, and transfer facilities in order to compare data to those for 1971 and 1972.

⁷ Includes one 6 million gallon sewage spill.

⁸ Changes in 1973 "cause" categories make it necessary to combine the categories of casualty, rupture, leak or structural failure.

Source: U.S. Coast Guard, Polluting Incidents In and Around U.S. Waters, 1971, 1972, and 1973.

TABLE 28
OCEAN DISPOSAL, BY TYPE AND AMOUNT¹
(in tons)

WASTE TYPE	TOTAL		ATLANTIC		GULF		PACIFIC	
	1973 ²	1974 ³						
	TOTAL	11,995,740	13,635,200	10,587,500	12,685,000	1,408,000	950,000	240
Industrial Waste	5,405,100	5,717,000	3,997,100	4,767,000	1,408,000	950,000	0	0
Sewage Sludge	5,429,400	5,676,000	5,429,400	5,676,000	0	0	0	0
Construction & Demolition Debris	1,161,000	2,242,000	1,161,000	2,242,000	0	0	0	0
Solid Waste	240	200	0	0	0	0	240	200
Explosives	0	0	0	0	0	0	0	0

¹Data previously reported for 1972 and earlier were calculated differently than those shown here and, thus, are not included in this table.

²From 1973 unpublished reports of EPA Regional Offices. Figures are based on 8 months of dumping activity (May to December 1973) under permits issued by Ocean Disposal Program extrapolated for 12 months.

³From 1974 unpublished reports of EPA Regional Offices. Figures are based on 12 months of dumping activity.

Source: U.S. Environmental Protection Agency, Second Annual Report on Administration of the Ocean Dumping Permit Program, and unpublished data.

**TABLE 2-9
FEDERAL WATER GRANTS TO STATE AND INTERSTATE PROGRAMS¹**

STATE	1971	1972	1973(e)	1974(e)	1975(e)
UNITED STATES	\$9,052,106	\$13,500,123	\$18,210,300	\$37,541,000	\$37,541,000
Alabama	190,500	277,350	355,000	1,065,000	1,065,000
Alaska	20,000	30,600	67,300	121,000	121,000
Arizona	75,500	113,200	181,200	326,000	326,000
Arkansas	115,700	168,900	228,200	591,000	591,000
California	661,100	1,028,000	1,309,900	2,356,000	2,356,000
Colorado	88,000	136,350	206,000	375,000	375,000
Connecticut	167,400	251,250	340,700	613,000	613,000
Delaware	85,900	129,000	187,800	338,000	338,000
District of Columbia	87,800	151,600	185,300	333,000	333,000
Florida	266,300	415,200	573,100	1,031,000	1,031,000
Georgia	218,700	320,700	415,500	1,246,000	1,246,000
Hawaii	71,100	103,500	157,500	283,000	283,000
Idaho	44,100	65,850	110,600	312,000	312,000
Illinois	428,000	215,450	826,800	1,496,000	1,496,000
Indiana	230,000	350,700	466,000	838,000	838,000
Iowa	121,200	184,950	258,900	582,000	582,000
Kansas	97,600	143,850	196,600	422,000	422,000
Kentucky	165,000	246,000	327,100	588,000	588,000
Louisiana	184,100	269,400	354,500	675,000	675,000
Maine	63,000	95,400	146,900	441,000	441,000
Maryland	181,300	275,650	375,100	675,000	675,000
Massachusetts	264,600	470,000	529,100	952,000	952,000
Michigan	357,800	180,050	698,300	1,431,000	1,431,000
Minnesota	155,400	237,000	321,300	749,000	749,000
Mississippi	145,100	205,800	265,200	595,000	595,000
Missouri	196,700	296,100	392,100	705,000	705,000
Montana	39,000	59,250	101,200	274,000	274,000
Nebraska	66,400	115,090	153,300	460,000	460,000
Nevada	23,787	...	77,800	140,000	140,000
New Hampshire	63,500	97,350	151,100	272,000	272,000
New Jersey	311,900	601,800	608,900	1,095,000	1,095,000
New Mexico	52,300	79,650	128,600	231,000	231,000
New York	650,400	990,927	1,207,100	2,204,000	2,204,000
North Carolina	264,600	387,600	489,600	1,469,000	1,469,000
North Dakota	37,200	56,100	96,200	173,000	173,000
Ohio	447,300	671,700	848,200	1,526,000	1,526,000
Oklahoma	117,600	177,000	246,100	443,000	443,000
Oregon	96,900	148,350	218,400	655,000	655,000
Pennsylvania	488,300	734,100	920,500	1,790,000	1,790,000
Rhode Island	111,000	163,200	232,200	417,000	417,000
South Carolina	157,400	226,500	297,700	796,000	796,000
South Dakota	38,500	58,350	99,900	180,000	180,000
Tennessee	208,200	306,450	398,200	723,000	723,000
Texas	427,000	636,900	821,500	1,477,000	1,477,000
Utah	55,400	84,150	136,800	246,000	246,000
Vermont	43,700	66,300	110,600	199,000	199,000
Virginia	210,500	312,600	406,000	1,006,000	1,006,000
Washington	131,037	663,950	285,500	856,000	856,000
West Virginia	111,682	161,400	218,600	508,000	508,000
Wisconsin	193,000	299,250	407,500	1,131,000	1,131,000
Wyoming	23,600	36,306	72,800	131,000	131,000

(e) Estimate

¹ Federal funds allocated to state water quality agencies for staff, equipment, and operating expenses to abate water pollution.

Source: U.S. Environmental Protection Agency, Budget Operations Division, unpublished data.

TABLE 3-1
 FEDERALLY OWNED AND TOTAL ACREAGE, BY STATE
 (in thousands of acres)

STATE	1960		1970		1973	
	ACREAGE OF STATE	PERCENT LAND OWNED BY FEDERAL GOVERNMENT	ACREAGE OF STATE	PERCENT LAND OWNED BY FEDERAL GOVERNMENT	ACREAGE OF STATE	PERCENT LAND OWNED BY FEDERAL GOVERNMENT
UNITED STATES ¹	2,273,407	33.9	2,271,343	33.5	2,271,343	33.5
Alabama	32,690	1.3	32,678	1.4	32,678	1.4
Alaska	165,482	99.7	165,482	96.7	165,482	96.7
Arizona	72,688	46.7	72,688	44.5	72,688	43.9
Arkansas	13,712	9.0	11,599	9.4	11,599	9.5
California	100,314	46.9	100,207	44.8	100,207	45.0
Colorado	66,510	16.0	66,486	15.8	66,486	16.0
Connecticut	3,135	0.2	3,135	0.3	3,135	0.3
Delaware	1,266	2.5	1,266	3.1	1,266	3.0
District of Columbia	39	28.8	39	61.8	39	26.2
Florida	34,728	9.4	34,721	9.8	34,721	9.9
Georgia	37,429	5.4	37,295	5.8	37,295	5.9
Hawaii	4,100	5.7	4,106	9.7	4,106	10.2
Idaho	52,972	66.8	52,933	63.8	52,933	63.9
Illinois	35,798	1.2	35,795	1.4	35,795	1.6
Indiana	23,171	1.5	23,158	2.1	23,158	2.1
Iowa	35,869	0.3	35,860	0.6	35,860	0.6
Kansas	52,549	0.7	52,511	1.3	52,511	1.3
Kentucky	25,513	3.9	25,512	5.0	25,512	5.1
Louisiana	28,904	3.7	28,868	1.6	28,868	3.7
Maine	19,866	0.6	19,848	0.7	19,848	0.7
Maryland	6,124	2.9	6,319	3.1	6,319	3.1
Massachusetts	5,035	1.1	5,035	1.5	5,035	1.6
Michigan	36,494	8.9	36,492	9.2	36,492	9.3
Minnesota	51,206	6.6	51,206	6.5	51,206	6.6
Mississippi	30,239	5.0	30,223	5.2	30,223	5.2
Missouri	44,305	3.8	44,268	4.4	44,268	4.7
Montana	93,362	29.7	93,271	29.6	93,271	29.6
Nebraska	49,064	1.4	49,032	1.5	49,032	1.4
Nevada	70,265	86.9	70,264	86.9	70,264	86.6
New Hampshire	5,771	12.1	5,769	12.3	5,769	12.3
New Jersey	4,814	2.1	4,813	2.5	4,813	2.7
New Mexico	77,767	34.9	77,766	34.0	77,766	33.3
New York	30,684	0.9	30,681	0.8	30,681	0.7
North Carolina	31,422	6.0	31,403	6.2	31,403	6.2
North Dakota	44,836	4.4	44,452	4.8	44,452	5.2
Ohio	26,240	0.8	26,222	1.1	26,222	1.2
Oklahoma	44,180	2.6	44,088	3.3	44,088	3.4
Oregon	61,642	51.1	61,599	52.3	61,599	52.3
Pennsylvania	28,829	1.9	28,804	2.2	28,805	2.3
Rhode Island	677	1.1	677	1.1	677	1.2
South Carolina	19,395	5.8	19,374	5.9	19,374	5.9
South Dakota	48,983	6.8	48,882	6.8	48,882	6.7
Tennessee	26,750	5.8	26,728	6.5	26,728	6.6
Texas	168,648	1.6	168,218	1.8	168,218	1.9
Utah	52,701	69.1	52,697	66.5	52,697	66.2
Vermont	5,938	4.3	5,937	4.5	5,937	4.5
Virginia	25,532	8.4	25,496	8.7	25,496	9.2
Washington	42,743	29.5	42,694	29.5	42,694	29.5
West Virginia	15,411	6.1	15,411	6.6	15,411	6.8
Wisconsin	35,011	5.1	35,011	5.1	35,011	5.2
Wyoming	62,404	48.4	62,343	48.3	62,343	48.2

¹ Details may not sum to totals due to independent rounding.

Sources: U.S. General Services Administration, Inventory Report on Real Property Owned by the United States Throughout the World, As of June 30, 1960, 1961.

U.S. General Services Administration, Inventory Report on Real Property Owned by the United States Throughout the World, As of June 30, 1970, 1971.

U.S. General Services Administration, Inventory Report on Real Property Owned by the United States Throughout the World, As of June 30, 1973, 1974.

TABLE 3-2
U.S. LAND USE, BY STATE, 1969
(in thousands of acres)

STATE	APPROXIMATE LAND AREA ¹	CROPLAND ²	GRASSLAND, PASTURE AND RANGE ³	FOREST LAND ⁴	SPECIAL USES ⁵	OTHER LAND ⁶
UNITED STATES	2,263,587	472,097	603,615	722,670	177,805	287,400
Alabama	32,452	5,885	2,410	21,748	1,909	500
Alaska	362,516	18	1,624	118,276	30,529	212,069
Arizona	72,587	1,665	41,354	17,420	8,102	4,066
Arkansas	33,245	10,202	2,895	18,237	1,501	410
California	100,071	10,879	22,856	39,826	15,834	10,676
Colorado	66,410	11,105	29,711	19,387	3,121	3,086
Connecticut	3,112	252	54	2,119	654	33
Delaware	1,268	533	34	390	183	128
District of Columbia	39	0	0	0	39	0
Florida	34,618	3,773	5,834	17,753	4,794	2,464
Georgia	37,167	7,103	1,275	25,157	2,747	885
Hawaii	4,112	372	987	1,626	617	510
Idaho	52,913	6,166	22,073	18,030	4,051	2,593
Illinois	35,679	25,446	2,614	3,745	3,289	565
Indiana	23,102	14,071	2,038	3,870	2,007	1,116
Iowa	35,802	28,398	2,089	2,250	2,104	961
Kansas	52,344	32,827	15,453	1,344	2,234	486
Kentucky	25,376	9,810	1,871	11,887	1,524	284
Louisiana	28,755	5,962	2,674	15,342	1,803	2,974
Maine	19,789	735	174	17,605	807	468
Maryland	6,330	1,894	294	2,925	981	236
Massachusetts	5,009	288	49	3,412	1,219	41
Michigan	36,363	8,682	1,338	19,100	3,879	3,364
Minnesota	50,745	23,380	2,311	18,466	3,952	2,636
Mississippi	30,269	8,394	2,864	16,892	1,290	829
Missouri	44,157	21,450	4,833	14,828	2,378	668
Montana	93,176	16,493	49,873	19,899	4,405	2,506
Nebraska	48,949	23,379	22,179	1,031	1,719	641
Nevada	70,328	783	48,638	7,255	7,243	6,409
New Hampshire	5,777	198	57	5,046	294	182
New Jersey	4,813	713	61	2,396	1,573	70
New Mexico	77,703	2,351	51,025	17,256	5,189	1,082
New York	30,612	6,276	1,295	14,897	5,796	2,348
North Carolina	31,231	6,480	1,216	20,224	2,693	618
North Dakota	44,339	30,187	11,278	422	1,469	583
Ohio	26,224	12,584	2,374	6,422	3,038	1,806
Oklahoma	44,020	16,036	16,599	8,926	2,142	317
Oregon	61,557	5,145	22,756	29,387	2,520	1,749
Pennsylvania	28,778	6,065	849	17,638	3,810	416
Rhode Island	671	32	5	429	201	4
South Carolina	19,344	3,663	979	12,403	1,614	685
South Dakota	48,611	20,844	24,030	1,699	1,821	217
Tennessee	26,450	8,652	2,195	12,820	2,236	547
Texas	167,766	40,007	94,750	24,064	7,026	1,919
Utah	52,541	1,983	24,893	14,720	5,050	5,895
Vermont	5,931	867	290	4,384	250	140
Virginia	25,459	4,925	2,282	16,075	1,961	216
Washington	42,605	8,278	6,982	20,739	5,498	1,108
West Virginia	15,405	1,763	863	12,126	597	56
Wisconsin	34,857	12,270	2,526	14,892	2,830	2,339
Wyoming	62,210	2,813	45,911	5,885	5,282	2,319

¹ Approximate land area as developed by the Bureau of the Census in conjunction with the 1970 Census of Population. Includes all dryland and land temporarily or partially covered with water, such as marshland, swamps, and river flood plains; streams, sloughs, estuaries, and canals less than one-eighth mile wide; and lakes, reservoirs, and ponds less than 40 acres in area.

² Total acreage in the crop rotation.

³ Grassland and other nonforested pasture in farms excluding cropland used only for pasture, plus estimates of open or nonforested grazing land not in farms.

⁴ Forest land, excluding reserved forest land and some unreserved areas duplicated in parks and other special uses of land.

⁵ Includes urban areas, rural transportation areas, rural parks, wildlife refuges, national defense and industrial areas, state institutional areas, national guard camps, fair grounds, radio stations, gravel pits, water storage areas, farmsteads, and farm roads.

⁶ Miscellaneous areas with low agricultural use value, such as marshes, open swamps, bare rock areas, deserts, and tundra.

Source: U.S. Department of Agriculture, Economic Research Service, Major Uses of Land in the United States, 1969.

TABLE 33
U.S. LAND IN SPECIAL USE AREAS, BY STATE, 1969
(in thousands of acres)

STATE	URBAN AREAS ¹	RURAL TRANSPORTATION AREAS ²	RURAL PARKS ³	WILD-LIFE REFUGE ⁴	NATIONAL DEFENSE AND INDUSTRIAL AREAS ⁵	STATE INSTITUTIONAL AND MISCELLANEOUS USES ⁶	FARMSTEADS, FARM ROADS AND LANES ⁷	TOTAL
UNITED STATES	34,590	25,953	49,281	32,054	25,587	1,918	8,420	177,805
Alabama	792	612	50	19	179	87	150	1,909
Alaska	59	208	7,784	19,937	2,521	15	3	30,529
Arizona	42	326	3,603	113	3,577	11	33	8,492
Arkansas	401	614	27	341	95	21	202	1,501
California	3,302	1,143	7,019	183	3,828	86	273	15,834
Colorado	365	704	1,400	189	297	34	152	3,131
Connecticut	536	59	24	13	1	11	10	634
Delaware	86	30	6	39	4	10	8	143
District of Columbia	39	-	-	-	-	-	-	39
Florida	1,587	714	1,056	255	703	564	115	4,794
Georgia	963	545	56	428	549	51	155	2,747
Hawaii	141	40	225	2	176	11	22	617
Idaho	122	286	2,745	87	691	18	102	4,051
Illinois	1,539	1,080	58	105	64	28	415	1,289
Indiana	852	508	51	70	185	8	333	2,007
Iowa	570	845	15	123	20	19	492	2,104
Kansas	429	1,134	34	69	172	34	362	2,234
Kentucky	444	487	110	54	168	34	227	1,524
Louisiana	392	364	13	495	149	70	170	1,803
Maine	235	187	288	48	-	8	20	807
Maryland	518	139	69	79	127	15	33	981
Massachusetts	955	91	79	25	26	30	13	1,219
Michigan	1,387	975	799	388	28	41	263	3,879
Minnesota	810	1,136	897	679	5	10	415	3,952
Mississippi	439	404	50	78	21	75	223	1,290
Missouri	837	689	150	145	75	31	451	2,378
Montana	93	932	3,116	279	16	40	128	4,405
Nebraska	214	936	30	174	37	22	308	1,719
Nevada	135	496	927	1,701	3,964	6	14	7,243
New Hampshire	172	80	16	6	7	7	6	294
New Jersey	1,201	111	54	104	66	18	19	1,573
New Mexico	252	408	1,273	332	2,832	33	59	5,189
New York	1,778	571	2,942	161	173	48	123	5,796
North Carolina	823	628	436	288	289	26	205	2,683
North Dakota	84	683	76	327	33	18	248	1,469
Ohio	1,796	605	96	89	45	31	376	3,038
Oklahoma	557	628	73	342	183	60	299	2,142
Oregon	362	421	988	553	66	27	103	2,520
Pennsylvania	1,549	684	293	1,066	31	51	136	3,610
Rhode Island	154	10	11	8	7	9	2	201
South Carolina	490	447	64	163	298	50	102	1,414
South Dakota	106	742	351	145	248	10	219	1,821
Tennessee	784	439	398	162	190	39	224	2,216
Texas	2,731	1,677	1,095	351	480	224	468	7,028
Utah	273	269	2,244	314	1,882	15	53	5,050
Vermont	59	75	13	69	12	6	16	250
Virginia	774	366	309	150	193	33	136	1,961
Washington	667	363	3,073	498	756	22	119	5,498
West Virginia	197	191	62	70	2	25	50	597
Wisconsin	843	897	39	635	69	17	330	2,830
Wyoming	61	375	4,674	85	26	8	53	5,282

¹ Urbanized areas and other incorporated and unincorporated places of 1,000 population or more.

² Includes rural highways and roads, railroads, and airports. Excludes airports used strictly for personal or military use.

³ Areas in national and state park systems and national forest wilderness and primitive areas plus 2.7 million acres in New York classified as state forest preserves. Excludes, in most instances, parks in urban places and large water bodies.

⁴ Areas administered by the U.S. Fish and Wildlife Service and state wildlife agencies. Does not include Federal areas under the primary jurisdiction of another agency or leased for wildlife purposes.

⁵ Includes land administered by the Department of Defense for military purposes (23.5 million acres); and 2.1 million acres administered by the Atomic Energy Commission, presently part of the Energy Research and Development Administration.

⁶ Incomplete data on state-owned rural land held for educational, welfare, correctional, and other institutional purposes and miscellaneous uses such as national guard camps, fair grounds, radio stations, gravel pits, and water-storage areas.

⁷ Estimates calculated on the basis of state-by-state number of farms and acreage of unclassified land in farms.

Source: U.S. Department of Agriculture, Economic Research Service, Major Uses of Land in the United States, Summary for 1969, December 1973.

TABLE 3-4
AGRICULTURAL AND NONAGRICULTURAL LAND USE IN THE UNITED STATES
(in millions of acres)

LAND USE	1959	1964	1969
TOTAL LAND AREA¹	2,271	2,266	2,264
<u>AGRICULTURAL</u>			
Cropland	458	444	472
Cropland Used for Crops	359	335	333
Cropland Harvested	317	292	286
Crop Failure	11	6	6
Cultivated Summer Fallow	31	37	41
Soil Improvement and Idle Cropland	33	52	51
Cropland Pasture	66	57	88
Grassland Pasture and Range	633	640	604
Forest Land Grazed	245	225	198
Farmsteads	8.1	7.3	6.6
Farmroads and Lanes	2.1	1.8	1.9
Total Agricultural Land	1,346.2	1,318.1	1,282.5
<u>NONAGRICULTURAL</u>			
Forest Land Not Grazed	501	507	525
Urban and Other Built Up Areas	52.5	55.3	60.6
Urban Areas ²	27.2	29.3	34.6
Highways and Roads	20.5	21.2	21.0
Railroads	3.4	3.3	3.2
Airports	1.4	1.5	1.8
Recreation and Wildlife	61.4	75.5	81.3
National Parks	24.2	26.0	28.3
State Parks	5.5	5.9	6.7
Wilderness and Primitive Areas	14.5	14.6	14.3
Federal Wildlife Refuges	11.5	22.4	25.4
State Wildlife Refuges	5.7 ³	6.6	6.6
Public Installations and Facilities	32.3	33.1	27.5
National Defense Areas	24.4 ⁴	23.6	23.4
Federal Industrial Lands	1.9	2.1	2.2
State Institutional and Other Uses	1.2	1.3	1.9
Flood Control Land	4.8	6.1	
Miscellaneous Land ⁵	277	277	287
Total Nonagricultural Land	924.2	947.9	981.4

- 1 Data may not sum to totals due to independent rounding.
- 2 Areas occupied by towns and cities of 1,000 or more population.
- 3 Includes acreage classified as urban or built-up that was not feasible to separate for purpose of this publication.
- 4 Excludes about 10 million acres of multiple-use forest areas. These areas include land around publicly owned reclamation, flood control, navigation, power reservoirs, and water supply reservoirs and county rural parks and other public areas having recreational facilities.
- 5 Includes miscellaneous uses not inventoried, and areas such as marshes, open swamps, bare rock areas, desert and tundra.

Source: U.S. Department of Agriculture, Economic Research Service, Major Uses of Land in the United States, Summaries for 1959, 1964, 1969.

TABLE 3-5
NUMBER OF FARMS AND ACREAGE, BY STATE

STATE	NUMBER OF FARMS (in thousands)		LAND IN FARMS (in thousands of acres)		AVERAGE ACREAGE PER FARM	
	1959	1969	1959	1969	1959	1969
UNITED STATES	3,711	2,730	1,123,508	1,063,347	303	390
Alabama	116	72	16,543	13,654	143	188
Alaska	7	6	888	1,604	2,421	4,832
Arizona	7	6	40,203	38,203	5,950	6,486
Arkansas	95	60	16,459	13,693	173	260
California	99	78	36,888	33,722	372	459
Colorado	33	28	38,787	36,687	1,162	1,313
Connecticut	8	4	884	541	107	131
Delaware	5	4	763	674	146	182
District of Columbia	1	1	1	1	1	1
Florida	45	36	15,237	14,032	338	394
Georgia	106	67	19,658	15,806	185	234
Hawaii	6	4	2,461	2,058	394	528
Idaho	34	25	13,332	14,417	452	566
Illinois	155	124	30,327	29,913	196	242
Indiana	128	101	18,613	17,373	145	173
Iowa	175	140	33,831	33,570	194	239
Kansas	104	86	50,153	49,390	481	574
Kentucky	131	125	17,031	15,968	113	128
Louisiana	74	42	10,347	9,779	139	232
Maine	17	8	3,082	1,760	178	221
Maryland	25	17	3,457	2,803	138	163
Massachusetts	11	6	1,142	701	102	123
Michigan	112	78	14,783	11,901	132	153
Minnesota	146	111	30,796	28,845	211	260
Mississippi	138	73	18,630	16,040	135	221
Missouri	169	137	33,135	32,420	197	237
Montana	29	25	64,081	62,918	2,213	2,522
Nebraska	90	72	47,756	45,834	538	634
Nevada	2	2	10,943	10,708	4,649	5,070
New Hampshire	7	3	1,124	613	172	211
New Jersey	15	8	1,379	1,036	89	122
New Mexico	16	12	46,293	46,792	2,908	4,020
New York	82	52	13,490	10,148	164	196
North Carolina	191	119	15,888	12,734	83	107
North Dakota	55	46	41,466	43,118	755	930
Ohio	140	111	18,507	17,111	132	154
Oklahoma	93	83	33,801	36,008	378	434
Oregon	43	29	21,236	18,018	499	620
Pennsylvania	100	63	11,062	8,901	119	142
Rhode Island	1	1	138	69	99	98
South Carolina	78	40	9,149	6,992	117	177
South Dakota	55	46	44,851	45,584	805	997
Tennessee	156	121	16,081	15,057	102	124
Texas	227	214	143,216	142,567	631	668
Utah	18	13	12,689	11,313	712	867
Vermont	12	7	2,945	1,916	243	279
Virginia	98	65	13,126	10,650	135	165
Washington	52	34	18,717	17,359	363	516
West Virginia	44	23	6,063	4,341	138	188
Wisconsin	131	99	21,156	18,109	161	183
Wyoming	10	9	36,200	35,476	3,715	4,014

¹ Less than 500.

Source: U.S. Bureau of the Census, U.S. Census of Agriculture, 1964 and 1969, Vol. II.

TABLE 3-6
NUMBER OF U.S. FARMS, BY SIZE
(in thousands)

SIZE OF FARM	NUMBER OF FARMS				
	1950	1954	1959	1964	1969
TOTAL	5,388	4,782	3,711	3,158	2,730
Under 10 acres	489	484	244	183	162
10-49 acres	1,480	1,213	813	637	473
50-99 acres	1,048	864	658	542	460
100-179 acres	1,103	953	773	633	542
180-259 acres	487	464	414	355	307
260-499 acres	478	482	472	451	419
599-999 acres	182	192	200	210	216
1,000-1,999 acres	121	130	79	85	91
2,000 acres and over			57	60	60

Source: U.S. Bureau of the Census, U.S. Census of Agriculture: 1964 and 1969, Vol. II.

TABLE 3-7
IRRIGATED LAND, BY STATE
(in thousands of acres)

	1949	1954	1959	1964	1969
TOTAL CROPLAND USED FOR CROPS	387,000	380,000	359,000	335,000	333,000
UNITED STATES¹	25,905	29,552	33,164	37,050	40,120
Alabama	2	17	17	12	11
Alaska	2	2	2	2	823
Arizona	964	1,177	1,152	1,125	1,178
Arkansas	422	858	712	974	1,010
California	6,438	7,048	7,396	7,599	7,240
Colorado	2,872	2,263	2,685	2,690	2,895
Connecticut	8	12	5	14	9
Delaware	2	6	16	18	20
District of Columbia	2	2	2	2	2
Florida	365	428	414	1,217	1,365
Georgia	3	24	34	64	79
Hawaii	117	NA	141	144	146
Idaho	2,137	2,325	2,577	2,802	2,760
Illinois	2	7	10	14	51
Indiana	5	12	17	17	34
Iowa	1	2	18	22	21
Kansas	139	332	762	1,004	1,522
Kentucky	(2)	13	9	14	20
Louisiana	577	708	485	581	702
Maine	2	1	2	4	6
Maryland	1	8	11	16	22
Massachusetts	19	23	20	24	19
Michigan	14	23	40	49	77
Minnesota	4	9	15	18	36
Mississippi	5	132	100	123	150
Missouri	2	33	30	59	162
Montana	1,717	1,891	1,875	1,893	1,841
Nebraska	876	1,171	2,078	2,169	2,857
Nevada	727	567	543	824	753
New Hampshire	1	1	1	3	2
New Jersey	28	59	74	96	72
New Mexico	655	650	732	813	823
New York	19	59	58	79	55
North Carolina	2	25	66	97	59
North Dakota	35	38	48	51	63
Ohio	6	15	12	17	22
Oklahoma	34	108	198	302	524
Oregon	1,307	1,490	1,384	1,608	1,519
Pennsylvania	7	18	17	23	19
Rhode Island	2	1	NA	1	2
South Carolina	6	22	25	19	15
South Dakota	78	90	116	130	150
Tennessee	1	23	11	11	12
Texas	3,132	4,707	5,656	6,385	6,888
Utah	1,138	1,073	1,062	1,092	1,025
Vermont	NA	1	2	1	2
Virginia	3	22	31	51	37
Washington	589	778	1,007	1,150	1,224
West Virginia	2	1	1	2	3
Wisconsin	10	18	32	62	106
Wyoming	1,432	1,263	1,470	1,571	1,523

NA Not available.

e Estimated.

¹ Data may not add to totals due to independent rounding.

² Less than 500 acres.

Sources: U.S. Department of Commerce, Census of Agriculture and U.S. Department of Agriculture, Economic Research Service, Major Uses of Land and Water in the United States, 1959, 1964, 1969.

TABLE 3-8
U.S. CROPLAND ACREAGE WITHHELD FROM PRODUCTION
UNDER SPECIFIED PROGRAMS
(in millions of acres)

PROGRAM	1960	1970	1971	1972	1973	1974
Total ¹	28.7	57.1	37.6	62.1	19.6	2.7 ¹
Conservation Reserve ²	28.7	0.1	— ³	— ³	0	0
Corn	0	26.1	14.1	24.4	6.0	0
Sorghum Grain	0	7.4	4.1	7.3	2.0	0
Barley	0	3.9	0	4.9	1.4	0
Oats	0	0	0	0	0	0
Wheat	0	15.7	13.5	20.1	7.4	0
Cotton	0	0	2.1	2.0	0	0
Other Programs	0	3.9	3.8	3.3	2.8	2.7 ⁴

¹ Total cropland withheld, including acreage devoted to substitute crops.

² Long-term contracts under soil bank program.

³ Less than 50,000 acres.

⁴ Contracts will expire in 1975.

Source: U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service, Agricultural Statistics 1974, 1974.

TABLE 3-0
FOREST-RANGE GRAZED AND UNGRAZED, BY STATE, 1970¹
(in thousands of acres)

STATE	ALL OWNERSHIPS			NATIONAL FOREST SYSTEM			OTHER FEDERAL LAND			NONFEDERAL LAND		
	TOTAL ²	GRAZED	UNGRAZED	TOTAL ²	GRAZED	UNGRAZED	TOTAL ²	GRAZED	UNGRAZED	TOTAL ²	GRAZED	UNGRAZED
UNITED STATES	1,201,601	834,994	366,612	165,873	100,457	65,416	206,809	144,682	42,127	828,929	549,840	259,069
Alabama	21,755	12,351	9,404	631	261	370	199	7	192	20,923	12,083	8,842
Alaska	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Arizona	63,204	52,057	11,147	11,437	9,838	1,599	17,935	12,212	5,723	33,832	30,007	3,825
Arkansas	18,743	9,885	9,858	2,449	1,202	1,247	426	31	385	15,878	7,652	8,226
California	66,694	53,453	13,241	20,040	14,193	5,847	15,734	12,875	2,859	30,900	26,385	4,515
Colorado	51,003	41,427	9,576	14,334	8,904	5,430	9,136	7,391	1,745	27,533	25,132	2,401
Connecticut	1,992	1,147	845	0	0	0	1	0	1	1,991	1,147	844
Delaware	397	100	297	0	0	0	6	0	6	391	100	291
Dist. of Columbia	19,534	8,738	10,796	1,080	224	856	1,918	20	1,898	16,536	8,514	8,022
Georgia	27,491	14,374	13,115	813	17	796	992	7	985	25,680	14,352	11,334
Hawaii	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Idaho	42,317	31,878	10,439	20,352	13,186	7,166	11,065	10,023	1,042	10,900	8,669	2,231
Illinois	3,807	2,288	1,519	237	0	237	58	0	58	3,512	2,288	1,224
Indiana	3,902	2,288	1,614	149	0	149	81	0	81	3,672	2,288	1,384
Iowa	2,493	1,628	865	0	0	0	38	0	38	2,455	1,628	827
Kansas	15,701	14,551	1,150	108	95	13	62	21	41	15,531	14,435	1,096
Kentucky	11,776	3,194	8,582	548	0	548	271	5	266	10,957	3,189	7,768
Louisiana	15,824	9,126	6,698	593	372	221	286	9	277	14,945	8,745	6,200
Maine	17,864	1,517	16,327	50	0	50	69	0	69	17,725	1,517	16,208
Maryland	2,978	1,433	1,545	0	0	0	71	0	71	2,907	1,433	1,474
Massachusetts	3,289	1,284	2,005	0	0	0	40	0	40	3,249	1,284	1,965
Michigan	19,478	5,218	14,260	2,666	80	2,616	77	7	70	16,735	5,211	11,524
Minnesota	19,513	6,631	14,882	2,780	56	2,724	234	13	221	16,499	4,562	11,937
Mississippi	16,995	7,961	9,034	1,135	503	632	245	12	233	15,615	7,444	8,169
Missouri	14,979	6,612	8,367	1,416	33	1,383	62	3	57	13,501	6,576	6,927
Montana	75,464	63,731	11,733	16,670	11,214	5,456	10,710	8,591	2,119	48,084	43,926	4,158
Nebraska	24,958	23,667	1,291	350	302	48	125	50	75	24,483	23,315	1,168
Nevada	63,969	56,656	7,313	5,074	3,464	1,610	31,864	46,541	5,323	7,031	6,651	380
New Hampshire	3,155	754	4,401	680	0	680	16	0	16	4,439	754	3,705
New Jersey	2,247	921	1,326	0	0	0	72	0	72	2,175	921	1,254
New Mexico	71,448	64,738	6,710	9,186	8,113	1,073	17,183	15,440	1,743	45,079	41,185	3,894
New York	17,188	4,656	12,532	14	0	14	108	0	108	17,066	4,656	12,410
North Carolina	20,716	8,125	12,591	1,128	12	1,116	622	16	606	18,966	8,097	10,869
North Dakota	12,543	11,641	902	1,105	920	185	427	283	144	11,011	10,438	573
Ohio	6,433	3,430	2,983	132	1	131	38	0	38	6,263	3,429	2,814
Oklahoma	22,044	15,544	6,500	288	195	93	329	122	207	21,427	15,227	6,200
Oregon	53,623	37,099	16,524	15,460	8,957	6,503	15,839	12,501	3,338	22,324	15,641	6,683
Pennsylvania	17,062	7,725	9,337	494	0	494	46	1	45	16,522	7,724	8,798
Rhode Island	431	258	173	0	0	0	0	0	0	431	258	173
South Carolina	12,582	5,004	7,578	591	27	564	356	3	353	11,635	4,974	6,661
South Dakota	25,895	24,485	1,410	1,983	1,832	151	577	486	91	23,325	22,167	1,158
Tennessee	13,831	4,216	9,615	608	8	600	528	9	519	12,695	4,199	8,496
Texas	112,711	95,218	17,493	776	669	107	1,422	878	544	110,523	93,681	16,842
Utah	45,181	37,423	7,758	8,023	5,412	2,611	24,576	20,282	4,294	12,582	11,729	853
Vermont	4,370	616	3,754	239	9	230	12	0	12	4,119	607	3,512
Virginia	16,615	5,561	11,054	1,512	18	1,494	510	10	500	14,593	5,533	9,060
Washington	31,401	16,988	14,413	9,044	4,469	4,575	2,506	962	1,544	19,851	11,537	8,294
West Virginia	11,480	6,252	5,228	937	3	934	34	0	34	10,309	6,249	4,260
Wisconsin	15,178	5,551	9,627	1,486	33	1,453	235	23	212	13,457	5,490	7,967
Wyoming	57,367	48,352	8,815	9,273	5,865	3,410	19,658	15,846	3,812	28,434	26,841	1,593

-- Not applicable.

NA Not available.

¹ Forest-range includes all land, public and private, which is either forest or range by nature. There are approximately 1.2 billion acres of forest-range in the 48 contiguous states.

² Details may not add to totals shown due to independent rounding.

Source: U.S. Department of Agriculture, Forest Service, The Nation's Range Resources, 1972.

**TABLE 3-10
NATIONAL FOREST UNITS OF THE NATIONAL WILDERNESS PRESERVATION SYSTEM
AND NATIONAL PRIMITIVE FOREST AREAS, BY STATE¹**

STATE	NATIONAL FOREST UNITS OF THE NATIONAL WILDERNESS PRESERVATION SYSTEM		NATIONAL FOREST PRIMITIVE AREAS	
	UNITS	ACREAGE	UNITS	ACREAGE
TOTAL	65	10,740,706	23	3,881,386
Arizona	8	495,614	1 ³	173,712
California	17	1,600,930	4	357,242
Colorado	5	280,104	6	532,092
Idaho	2 ²	1,205,071	2	1,441,603
Minnesota	1	747,840	0	0
Montana	6 ²	1,721,862	4	418,461
Nevada	1	64,667	0	0
New Hampshire	1	5,552	0	0
New Mexico	5	679,436	3 ³	336,571
North Carolina	2	20,925	0	0
Oregon	10	842,182	0	0
Utah	0	0	1	237,177
Washington	4	1,084,818	0	0
Wyoming	4	1,991,705	3	384,528

¹ As of December 31, 1973.

² Selway Bitterroot Wilderness in both Idaho and Montana.

³ Blue Range primitive area in both Arizona and New Mexico.

Source: Tenth Annual Report on the Status of the National
Wilderness Preservation System, 93rd Congress, 2nd Session,
House Document No. 93-402.

TABLE 3-11
LAND AND FOREST AREAS IN THE WORLD, 1971
(in millions of acres)

AREA	TOTAL LAND AREA	FOREST LAND			FOREST LAND AVAILABLE FOR WOOD PRODUCTION
		TOTAL	SOFTWOOD	HARDWOOD	
Total World	32,205	9,172	2,978	6,017	5,636
North America	4,633	1,754	1,087	642	1,013
Latin America	5,019	1,962	86	1,831	862
Europe	1,129	366	213	153	312
Africa	7,339	1,757	10	1,700	729
Asia (except Japan and U.S.S.R.)	6,580	1,233	183	1,016	815
Japan	247	59	25	32	57
U.S.S.R.	5,297	1,824	1,366	432	1,730
Pacific Area	2,081	227	7	210	118

Source: U.S. Department of Agriculture, Forest Service,
The Outlook for Timber in the United States, 1974.

TABLE 3-12
U.S. FOREST LAND, BY STATE, 1970
(in thousands of acres)

STATE	TOTAL LAND AREA ¹	FOREST LAND				
		TOTAL ¹	COMMERCIAL ²	PRODUCTIVE RESERVED ³	DEFERRED ⁴	UNPRODUCTIVE ⁵
UNITED STATES	2,270,050	753,549	499,697	17,246	2,713	233,891
Alabama	32,678	21,770	21,742	21	0	6
Alaska	365,481	119,051	5,639	200	74	113,138 ⁶
Arizona	72,668	18,583	3,689	546	10	14,336
Arkansas	33,324	18,277	18,206	41	0	29
California	100,091	42,408	16,828	941	157	24,482
Colorado	66,485	22,534	11,583	537	702	9,711
Connecticut	3,116	2,186	2,169	11	0	6
Delaware	1,268	391	390	1	0	0
District of Columbia	-	-	-	-	-	-
Florida	35,179	17,932	16,231	94	0	1,606
Georgia	37,295	25,545	25,102	389	0	54
Hawaii	4,106	1,974	1,081	86	0	807
Idaho	52,933	21,591	15,192	1,837	735	3,826
Illinois	35,761	3,789	3,680	44	0	65
Indiana	23,161	3,908	3,840	38	0	30
Iowa	35,867	2,455	2,430	25	0	0
Kansas	52,515	1,344	1,187	0	0	157
Kentucky	25,504	11,968	11,826	80	0	61
Louisiana	28,867	15,380	15,342	38	0	0
Maine	19,797	17,748	16,894	220	0	633
Maryland	6,369	2,960	2,882	35	0	43
Massachusetts	5,013	3,520	3,491	18	0	11
Michigan	36,492	19,273	18,800	268	0	205
Minnesota	50,745	18,984	16,875	562	0	1,547
Mississippi	30,290	16,913	16,891	21	0	0
Missouri	44,189	14,919	14,600	91	0	228
Montana	93,258	22,777	15,983	1,390	641	4,763
Nebraska	48,974	1,045	1,023	13	0	8
Nevada	70,264	7,660	128	5	0	7,526
New Hampshire	5,781	5,131	5,020	23	0	88
New Jersey	4,820	2,463	2,354	67	0	42
New Mexico	77,766	18,313	5,736	554	48	11,944
New York	30,636	17,377	14,489	2,480	0	407
North Carolina	31,367	20,613	20,192	372	0	48
North Dakota	44,339	421	406	3	0	12
Ohio	26,251	6,458	6,422	76	0	0
Oklahoma	44,149	9,340	4,817	34	0	4,488
Oregon	61,574	30,404	25,673	647	58	4,026
Pennsylvania	28,816	17,832	17,478	194	0	160
Rhode Island	671	433	429	4	0	0
South Carolina	19,366	12,493	12,410	70	0	12
South Dakota	48,605	1,733	1,533	15	0	184
Tennessee	26,474	13,136	12,819	316	0	0
Texas	168,300	24,091	12,924	7	0	11,160
Utah	52,697	15,288	3,824	232	22	11,209
Vermont	5,935	4,391	4,364	7	0	20
Virginia	25,496	16,389	15,859	313	0	216
Washington	42,665	23,098	18,401	1,446	143	3,108
West Virginia	15,413	12,172	12,092	46	0	34
Wisconsin	34,858	14,945	14,536	34	0	374
Wyoming	62,342	10,085	4,182	2,711	121	3,069

¹ Data may not add to totals due to rounding.

² Commercial forest land is that which produces or is capable of producing crops of industrial wood and not withdrawn from timber utilization.

³ Productive Reserved is forest land which is sufficiently productive to qualify as commercial timberland, but withdrawn from timber utilization through statute or administrative designation.

⁴ Deferred forest land is National Forest land that meets productivity standards for commercial timberland, but is under study for possible inclusion in the Wilderness System.

⁵ Unproductive forest land is that which is incapable of producing 20 cubic feet per acre of industrial wood under natural conditions because of adverse site conditions such as sterile soils, dry climate, poor drainage, high elevation, steepness or rockiness.

⁶ Parts of this area in Interior Alaska meet standards for commercial forest land, but the detailed survey of this part of Alaska is not complete.

Source: U.S. Department of Agriculture, Forest Service, The Outlook for Timber in the United States, 1974.

TABLE 3-13
U.S. FOREST AREAS PLANTED AND DIRECT SEEDED,
BY SECTION AND OWNERSHIP CLASS
(in thousands of acres)

SECTION AND OWNERSHIP CLASS	1952	1962	1970	1971
U.S. TOTAL ¹	520	1,366	1,577	1,667
<u>Section</u>				
North ²	191	270	225	271
South ³	250	816	925	1,002
Rocky Mountain ⁴	15	27	70	84
Pacific ⁵	63	253	357	310
<u>Ownership Class</u>				
National Forest	50	198	261	267
Other Public	67	151	131	124
Forest Industry	143	443	763	895
Farm and Miscellaneous Private	260	573	422	381

1 Data may not add to totals due to independent rounding.

2 Includes North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Wisconsin, Illinois, Michigan, Indiana, Ohio, Kentucky, West Virginia, Maryland, Delaware, Pennsylvania, New Jersey, New York, Connecticut, Massachusetts, Vermont, Maine, New Hampshire, Rhode Island.

3 Includes Oklahoma, Texas, Arkansas, Louisiana, Tennessee, Virginia, North Carolina, South Carolina, Georgia, Florida, Mississippi, Alabama.

4 Includes Idaho, Montana, Wyoming, Nevada, Utah, Colorado, Arizona, New Mexico.

5 Includes Alaska, Washington, Oregon, California, Hawaii.

Source: U.S. Department of Agriculture, Forest Service
The Outlook for Timber in the United States, 1974.

TABLE 3-14
OWNERSHIP OF COMMERCIAL TIMBERLANDS IN THE UNITED STATES, BY STATE, 1970¹
(In thousands of acres)

STATE	ALL OWNER- SHIPS	PUBLIC							PRIVATE				
		TOTAL PUBLIC	FEDERAL					STATE	COUNTY AND MUNICIPAL	TOTAL PRIVATE	FOREST INDUSTRY	FARMER	MISCEL- LANEOUS PRIVATE
			TOTAL FEDERAL	NATIONAL FOREST	BUREAU OF LAND MANAGE- MENT	INDIAN	MISCEL- LANEOUS FEDERAL						
UNITED STATES	499,697	136,120	107,108	91,924	4,761	5,888	4,534	21,422	7,588	163,576	67,341	131,134	165,100
Alabama	21,742	997	795	625	2	0	166	156	45	20,744	3,818	7,628	9,298
Alaska ²	5,439	5,609	5,256	5,144	83	25	4	353	0	0	0	0	30
Arizona	3,689	3,523	3,490	2,347	2	1,140	0	32	1	166	0	81	84
Arkansas	18,206	2,938	2,682	2,378	1	0	302	236	19	15,268	3,950	4,800	6,517
California	16,828	8,820	8,743	8,344	275	102	22	72	5	8,008	2,664	1,524	3,819
Colorado	11,583	8,465	8,231	7,710	413	102	4	188	45	3,118	14	2,635	467
Connecticut	2,169	155	1	0	0	0	1	122	32	2,014	3	304	1,707
Delaware	390	9	1	0	0	0	1	8	0	381	29	142	209
Dist. of Columbia	0	0	0	0	0	0	0	0	0	0	0	0	0
Florida	16,231	2,145	1,653	1,035	0	8	609	466	26	14,086	5,216	2,915	5,953
Georgia	25,102	1,407	1,326	806	0	0	520	56	24	23,695	4,700	12,110	6,885
Hawaii	1,081	495	8	0	0	0	8	487	0	595	0	361	223
Idaho	15,192	12,171	11,291	10,731	501	51	7	861	18	3,020	946	777	1,297
Illinois	3,680	267	256	224	0	0	41	11	0	3,412	16	2,107	1,288
Indiana	3,840	360	213	136	0	0	77	146	1	3,479	21	2,605	851
Iowa	2,430	34	10	0	0	1	9	22	1	2,395	9	2,129	257
Kansas	1,187	36	26	0	0	0	26	8	1	1,150	0	798	352
Kentucky	11,826	820	738	531	0	0	207	76	5	11,005	227	5,882	4,895
Louisiana	15,342	860	692	551	6	0	134	163	4	14,482	3,180	2,284	9,017
Maine	16,894	311	73	37	0	0	35	163	75	16,582	8,255	1,122	7,205
Maryland	2,882	189	13	0	0	0	13	144	31	2,692	100	728	1,863
Massachusetts	3,491	399	29	0	0	0	29	280	90	3,092	259	442	2,391
Michigan	18,800	6,440	2,494	2,422	8	17	45	3,838	108	12,359	2,256	3,429	6,672
Minnesota	16,875	9,388	2,784	2,127	64	500	92	3,304	3,300	7,486	814	3,236	3,436
Mississippi	16,891	1,770	1,299	1,118	1	13	166	93	377	15,121	2,505	6,204	6,412
Missouri	14,600	1,586	1,372	1,321	0	0	51	188	25	13,013	779	8,850	3,884
Montana	15,983	11,418	10,863	9,732	478	620	53	529	4	4,565	1,055	1,952	1,557
Nebraska	1,023	94	83	57	0	9	17	11	0	928	0	789	138
Nevada	128	60	55	55	0	0	0	68	1	68	8	1	58
New Hampshire	5,020	696	578	368	0	0	9	65	52	4,324	793	642	2,889
New Jersey	2,354	254	17	0	0	0	17	237	0	2,100	4	195	1,901
New Mexico	5,736	3,809	3,838	2,939	76	613	8	171	0	1,927	137	1,549	240
New York	14,489	892	57	0	0	0	57	711	123	13,597	1,180	3,583	8,833
North Carolina	20,192	1,722	1,349	1,035	0	56	257	307	65	18,470	2,785	8,602	7,082
North Dakota	406	124	114	0	1	61	52	10	0	281	0	161	119
Ohio	6,422	365	138	129	0	0	8	222	4	6,056	126	2,616	3,314
Oklahoma	4,817	377	481	233	0	136	111	86	9	4,260	868	1,411	1,959
Oregon	25,573	15,519	14,581	12,003	2,246	324	8	800	138	10,154	5,206	2,850	2,098
Pennsylvania	17,478	3,406	318	488	0	0	30	2,646	242	14,072	610	3,188	10,274
Rhode Island	429	26	0	0	0	0	0	13	13	403	0	43	360
South Carolina	12,410	1,073	840	550	0	0	289	205	26	11,337	2,047	4,995	4,294
South Dakota	1,533	1,106	1,041	957	6	68	9	65	0	426	17	364	46
Tennessee	12,819	1,286	940	599	0	0	340	324	22	11,533	1,121	5,079	5,333
Texas	12,924	828	778	625	0	3	149	42	4	12,095	3,486	2,403	6,395
Utah	3,824	3,163	2,924	2,613	154	157	0	239	0	660	0	517	123
Vermont	4,366	405	230	226	0	0	3	131	43	3,958	678	1,084	2,196
Virginia	15,859	1,671	1,437	1,202	0	0	233	181	53	14,187	1,634	6,701	5,851
Washington	18,401	9,518	7,233	5,424	48	1,593	168	2,116	169	8,883	4,348	1,866	2,669
West Virginia	12,992	1,046	893	879	0	0	14	144	9	11,045	530	2,071	8,444
Wisconsin	14,536	4,523	1,591	1,317	0	156	117	568	2,365	10,011	1,368	4,723	3,919
Wyoming	4,182	3,527	3,216	2,699	393	123	0	110	0	853	54	619	181

¹ Data may not add to totals because of truncating. Zeros indicate no data or negligible amounts.
² Coastal Alaska.

Source: U.S. Department of Agriculture, Forest Service, *The Outlook for Timber in the United States, 1974*.

TABLE 3-18
LANDS OF THE NATIONAL WILDLIFE REFUGE SYSTEM, BY STATE AND CATEGORY, 1974
(in acres)

STATE	TOTAL ¹ NATIONAL WILDLIFE REFUGE SYSTEM	MIGRATORY BIRD REFUGES (WATERFOWL)	WATERFOWL PRODUCTION AREAS	MIGRATORY BIRD REFUGES (GENERAL)	GAME RANGES	BIG GAME REFUGES	WILDLIFE RANGES	COORDINATION AREAS ²
UNITED STATES	33,805,389	4,012,798	1,370,766	4,253,107	2,393,801	7,647,624	13,690,910	436,383
Alabama	46,332	46,332	--	--	--	--	--	--
Alaska	23,819,332	6,800	--	3,288,447	--	6,901,633	12,102,452	--
Arizona	66,658	59,762	--	--	1,520,000	--	--	6,896
Arkansas	122,934	122,934	--	--	--	--	--	--
California	194,767	192,735	--	211	--	--	--	1,821
Colorado	50,076	48,923	--	--	--	--	--	1,153
Connecticut	178	178	--	--	--	--	--	--
Delaware	22,645	22,065	--	--	--	--	--	580
District of Columbia	--	--	--	--	--	--	--	--
Florida	437,383	415,869	--	16,872	--	4,642	--	--
Georgia	440,920	66,960	--	373,960	--	--	--	--
Hawaii	3,039	--	--	3,039	--	--	--	--
Idaho	71,959	66,169	--	--	--	--	--	5,790
Illinois	116,075	87,934	--	--	--	--	--	28,141
Indiana	7,724	7,724	--	--	--	--	--	--
Iowa	73,248	66,667	--	--	--	--	--	6,581
Kansas	51,062	51,061	--	--	--	--	--	--
Kentucky	2,040	2,040	--	--	--	--	--	--
Louisiana	237,785	228,730	--	9,055	--	--	--	--
Maine	25,408	24,340	1,068	--	--	--	--	--
Maryland	18,759	18,759	--	--	--	--	--	--
Massachusetts	11,369	10,749	--	620	--	--	--	--
Michigan	104,853	104,343	--	510	--	--	--	--
Minnesota	387,229	174,788	130,630	1	--	--	--	81,810
Mississippi	58,316	58,316	--	--	--	--	--	--
Missouri	55,039	42,964	--	--	--	--	--	12,075
Montana	1,043,259	171,924	16,724	468,533	360,845	18,540	--	6,693
Nebraska	156,293	122,285	14,597	--	--	18,667	--	743
Nevada	2,339,794	61,003	--	248	512,956	57,465	1,588,459	119,663
New Hampshire	738	--	--	738	--	--	--	--
New Jersey	31,244	30,352	--	--	--	--	--	892
New Mexico	374,836	35,384	--	--	--	278,991	--	461
New York	20,912	20,880	--	10	--	--	--	22
North Carolina	110,093	110,093	--	--	--	--	--	--
North Dakota	1,176,020	273,893	889,478	27	--	1,674	--	10,948
Ohio	7,955	7,873	--	82	--	--	--	--
Oklahoma	136,377	77,357	--	--	--	59,020	--	--
Oregon	492,493	241,931	--	523	--	242,869	--	7,170
Pennsylvania	8,227	7,994	--	233	--	--	--	--
Rhode Island	127	127	--	--	--	--	--	--
South Carolina	208,118	161,781	--	--	--	--	--	46,337
South Dakota	360,659	42,390	318,269	--	--	--	--	--
Tennessee	81,376	81,376	--	--	--	--	--	--
Texas	198,614	194,942	--	3,672	--	--	--	--
Utah	100,975	94,250	--	--	--	--	--	6,725
Vermont	4,794	4,794	--	--	--	--	--	--
Virginia	73,919	19,057	--	54,862	--	--	--	--
Washington	173,118	83,897	--	31,435	--	40,264	--	17,522
West Virginia	--	--	--	--	--	--	--	--
Wisconsin	207,375	149,277	--	29	--	--	--	58,069
Wyoming	72,956	32,804	--	--	--	23,861	--	16,291

-- Zero

¹ Details may not sum to totals due to independent rounding.

² Areas of acquired land or public land withdrawn by the U.S. Fish and Wildlife Service and made available to the various states or instrumentalities thereof by cooperative agreement for management of Wildlife Resources in accordance with the act of March 10, 1934, 48 Stat 401 as amended.

Source: U.S. Department of the Interior, Division of Realty, Annual Report of Lands Under Control of the U.S. Fish and Wildlife Service as of June 30, 1974.

TABLE 3-16
PUBLIC OUTDOOR RECREATION ACREAGE, BY TYPE OF AREA, REGION,
AND ADMINISTERING JURISDICTION, 1972¹
(In thousands of acres)

TYPE OF AREA OR REGION	ADMINISTERING JURISDICTION						TOTAL
	FEDERAL	STATE	COUNTY	CITY	TOWNSHIP	PARK AND RECREATION DISTRICTS & REGIONAL COUNCILS	
TYPE OF AREA							
Regional, Community and Neighborhood Parks and Recreation Areas	19,106.8	4,412.4	1,298.8	697.4	74.0	166.9	25,756.3
Forest Areas	106,165.1	19,058.2	4,047.9	383.2	495.5	9.9	184,159.8
Fish and Game Areas	32,789.9	15,771.4	1,406.7	209.6	38.3	45.0	50,260.9
Historical and Cultural Areas	1,310.8	49.4	11.3	7.5	0.9	2.0	1,381.9
Wilderness, Primitive & Natural Areas	28,094.8	1,432.2	1,338.2	232.0	21.8	94.1	31,213.1
Other	25,252.5	1,070.9	28.6	99.4	0.9	18.2	26,470.5
TOTAL	266,719.9	41,794.5	8,131.5	1,629.1	631.4	336.1	319,242.5
REGION (CENSUS DIVISION)							
New England ²	1,022.9	1,193.1	7.0	75.0	99.3	6.0	2,403.3
Middle Atlantic ³	551.2	5,026.2	145.1	125.2	126.0	1.5	5,975.2
East North Central ⁴	5,099.6	5,454.8	3,184.0	221.3	206.6	156.9	14,323.2
West North Central ⁵	9,172.3	11,627.7	913.8	390.7	199.4	36.7	22,340.6
South Atlantic ⁶	9,748.8	7,429.8	1,432.9	162.3	0	18.2	18,792.0
East South Central ⁷	4,326.8	2,048.1	843.6	64.3	0	0	7,282.8
West South Central ⁸	6,491.2	1,114.0	326.7	242.1	0	51.8	8,225.8
Mountain ⁹	129,272.9	1,330.6	529.7	138.8	0	4.5	131,276.5
Pacific ¹⁰	101,034.2	6,570.5	748.7	209.4	0	60.6	108,623.4
TOTAL	266,719.9	41,794.8	8,131.5	1,629.1	631.3	336.2	319,242.8

¹ Table based on reports received from individual agencies administering recreation lands within each governmental jurisdiction. Data include only land primarily used for public outdoor recreation purposes. Federal data were reported by the National Park Service, Bureau of Land Management, Bureau of Sport Fisheries and Wildlife, Bureau of Reclamation, Forest Service, Corps of Engineers and Tennessee Valley Authority. The inventory included all state agencies, counties, cities with over 5,000 population, townships with greater than 25,000 population, park and recreation districts and regional councils. Cities with less than 5,000 population and townships with less than 25,000 population were sampled and expanded to reflect the total of all cities and townships. Both sampled and non-sampled data were adjusted for nonreported values. Due to rounding, figures may not total.

The states included in each region are as follows:

- ² New England includes Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut.
- ³ Middle Atlantic includes New York, New Jersey, and Pennsylvania.
- ⁴ East North Central includes Ohio, Indiana, Illinois, Michigan, and Wisconsin.
- ⁵ West North Central includes Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas.
- ⁶ South Atlantic includes Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida.
- ⁷ East South Central includes Kentucky, Tennessee, Alabama, and Mississippi.
- ⁸ West South Central includes Arkansas, Louisiana, Oklahoma, Texas.
- ⁹ Mountain includes Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, and Nevada.
- ¹⁰ Pacific includes Washington, Oregon, California, Alaska, and Hawaii.

Source: U.S. Department of the Interior, Bureau of Outdoor Recreation, Outdoor Recreation - A Legacy for America, 1973.

TABLE 3-17
U.S. SHORELINE OWNERSHIP AND USE, 1971
(In miles)

REGION ¹	TOTAL SHORELINE	OWNERSHIP				SHORE USE			
		FEDERAL GOVERNMENT	STATE & LOCAL GOVERNMENT	PRIVATE	UNCERTAIN ²	RECREATION PUBLIC	RECREATION PRIVATE	NON-RECREATIONAL DEVELOPMENT	UNDEVELOPED
Total for Nation	84,240	45,290	10,080	26,310	2,560	3,390	5,820	6,230	68,800
North Atlantic	8,620	580	840	7,200	0	1,020	2,600	2,430	2,570
South Atlantic-Gulf	14,620	1,870	1,960	8,230	2,540	690	1,500	2,440	9,990
Lower Mississippi	1,940	240	330	1,370	0	20	30	50	1,840
Texas Gulf	2,500	390	50	2,060	0	400	160	110	1,830
Great Lakes	3,680	130	520	3,030	0	370	1,220	250	1,840
California	1,810	380	350	1,080	0	440	200	230	950
North Pacific	2,840	240	270	2,310	20	350	120	190	2,180
Alaska	47,300	41,350	5,500	450	0	10	0	330	46,960
Hawaii	930	110	260	560	0	90	0	200	640

¹ As defined by the U.S. Army Corps of Engineers (see Figure A-1).

² Shorelines with ownership classified as uncertain are typically in remote, inaccessible areas and are generally undeveloped. The uncertain classification results from incomplete schemes used by individual states for determining shoreline ownership at the time of this study.

Source: U.S. Department of the Army, Corps of Engineers, Report on the National Shoreline Study, 1971.

TABLE 3-18
LAND UTILIZED FOR SURFACE MINING¹ AND PERCENTAGE RECLAIMED, BY STATE, 1930-1971
(in acres)

STATE	TOTAL LAND IN SURFACE MINING		TOTAL SURFACE MINING LAND RECLAIMED		PERCENTAGE RECLAIMED		
	MINED AREA	WASTE AREA	MINED AREA	WASTE AREA	MINED AREA	WASTE AREA	TOTAL AREA
UNITED STATES ²	2,170,000	733,000	987,000	402,000	45.5%	54.8%	47.8%
Alabama	39,700	12,900	19,100	8,210	48.1%	63.6%	51.9%
Alaska	22,300	3,550	7,850	1,940	35.2	54.7	37.8
Arizona	26,600	34,900	3,450	1,780	13.0	0.05	8.5
Arkansas	18,700	6,180	5,290	3,230	28.3	52.3	34.2
California	105,000	57,100	23,800	13,000	22.8	22.8	22.7
Colorado	30,200	5,750	9,470	3,160	31.4	55.0	35.1
Connecticut	8,730	2,180	2,080	1,130	23.8	51.8	29.4
Delaware	980	230	250	100	25.5	43.5	28.9
District of Columbia	0	0	0	0	0	0	0
Florida	71,500	10,300	12,500	4,030	17.5	39.1	20.2
Georgia	23,600	5,420	6,230	2,980	26.4	55.0	31.7
Hawaii	3,460	810	620	480	17.9	59.3	25.8
Idaho	16,700	3,980	4,710	1,560	28.2	39.2	30.3
Illinois	201,000	63,800	133,000	51,600	66.2	80.9	69.7
Indiana	125,000	39,300	80,300	31,500	64.2	80.2	68.0
Iowa	38,300	10,100	11,500	5,960	30.0	59.0	36.1
Kansas	27,500	7,970	14,900	5,710	54.2	71.6	58.1
Kentucky	146,000	49,000	104,000	41,600	71.2	84.9	74.7
Louisiana	12,900	3,260	3,320	1,570	25.7	48.2	30.3
Maine	7,620	1,900	2,170	810	28.5	42.6	31.3
Maryland	17,800	4,760	5,980	2,770	33.6	58.2	38.8
Massachusetts	14,600	3,650	3,530	1,750	24.2	48.0	28.9
Michigan	64,600	17,100	14,300	8,050	22.1	47.1	27.4
Minnesota	72,300	37,900	7,250	4,050	10.0	10.7	10.3
Mississippi	7,680	1,890	2,280	850	29.7	45.0	32.7
Missouri	55,300	15,500	26,500	11,300	47.9	72.9	53.4
Montana	22,700	14,100	6,500	3,220	29.3	22.8	26.8
Nebraska	9,170	2,310	2,430	1,060	26.5	45.9	30.4
Nevada	12,000	11,100	1,720	890	14.3	8.0	11.3
New Hampshire	3,750	1,020	1,070	420	28.5	41.2	31.2
New Jersey	18,500	4,590	4,470	2,300	24.2	50.1	29.3
New Mexico	19,600	13,900	6,110	3,240	31.2	23.3	27.9
New York	55,800	12,600	16,900	6,190	30.3	49.1	33.8
North Carolina	24,100	6,530	5,810	3,280	24.1	50.1	29.7
North Dakota	25,700	8,350	17,100	6,610	66.5	79.2	69.6
Ohio	206,000	63,400	128,000	50,400	62.1	79.5	66.2
Oklahoma	24,800	6,900	11,400	4,700	46.0	68.1	50.8
Oregon	22,100	5,290	5,100	2,660	23.1	50.3	28.3
Pennsylvania	221,000	64,500	131,000	45,600	59.3	70.7	61.9
Rhode Island	1,730	370	340	170	19.7	46.0	24.3
South Carolina	9,840	2,300	2,650	1,260	26.9	54.8	32.2
South Dakota	10,900	2,980	3,050	1,280	28.0	43.0	31.2
Tennessee	40,500	12,300	14,800	7,230	36.5	58.8	41.7
Texas	54,000	13,300	12,800	6,420	23.7	48.3	28.6
Utah	18,900	19,200	2,970	1,430	15.7	7.5	11.5
Vermont	2,870	860	580	330	20.2	38.4	24.4
Virginia	42,600	13,100	18,400	8,460	43.2	64.6	48.2
Washington	24,500	6,470	6,020	3,000	24.6	46.4	29.1
West Virginia	96,500	30,600	70,000	25,900	72.5	84.6	75.5
Wisconsin	32,300	8,730	7,550	3,970	23.4	45.5	28.1
Wyoming	14,800	9,040	5,440	3,070	36.8	34.0	35.7

1 Excludes oil and gas.

2 Data may not add to totals shown because of independent rounding.

Source: U.S. Bureau of Mines (IC 8642), Land Utilization and Reclamation in Mining Industry, 1930-71, 1974.

TABLE 3-19
 LAND RECLAIMED BY THE MINING INDUSTRY¹ IN THE UNITED STATES, BY STATE, 1930-1971
 (in acres)

STATE	SURFACE MINING		UNDERGROUND MINING		MILLING, SURFACE WASTE AREA	TOTAL LAND RECLAIMED ³
	MINED AREA	WASTE AREA	SUBSIDED OR DISTURBED AREA ²	SURFACE WASTE AREA		
UNITED STATES	987,000	402,000	5,870	21,600	47,100	1,460,000
Alabama	19,100	8,210	80	580	600	28,500
Alaska	7,850	1,940	---	10	850	10,600
Arizona	3,450	1,780	70	---	1,550	6,850
Arkansas	5,290	3,230	30	40	450	9,040
California	23,800	13,000	370	640	6,060	43,900
Colorado	9,470	3,160	130	310	950	14,000
Connecticut	2,080	1,130	---	---	200	3,410
Delaware	250	100	---	---	20	370
District of Columbia	---	---	---	---	---	---
Florida	12,500	4,030	---	---	530	17,100
Georgia	6,230	2,980	---	10	430	9,650
Hawaii	620	480	---	---	60	1,160
Idaho	4,710	1,560	100	280	2,020	8,660
Illinois	133,000	51,600	280	1,730	1,820	188,000
Indiana	80,300	31,500	50	350	960	113,000
Iowa	11,500	5,960	10	70	740	18,300
Kansas	14,900	5,710	10	30	800	21,500
Kentucky	104,000	41,600	350	2,630	1,300	150,000
Louisiana	3,320	1,570	---	---	320	5,210
Maine	2,170	810	---	---	190	3,170
Maryland	5,980	2,770	10	50	360	9,170
Massachusetts	3,530	1,750	---	---	340	5,610
Michigan	14,300	8,050	---	90	1,610	24,100
Minnesota	7,250	4,050	---	---	1,680	13,000
Mississippi	2,280	850	---	---	180	3,310
Missouri	26,500	11,300	10	200	3,340	41,400
Montana	6,500	3,220	80	150	650	10,600
Nebraska	2,430	1,060	---	---	230	3,720
Nevada	1,720	890	360	50	1,000	4,020
New Hampshire	1,070	420	---	---	100	1,590
New Jersey	4,470	2,300	150	---	550	7,470
New Mexico	6,110	3,240	10	50	390	9,800
New York	16,900	6,190	130	20	1,370	24,600
North Carolina	5,810	3,280	---	---	560	9,640
North Dakota	17,100	6,610	---	20	160	23,900
Ohio	128,000	50,400	120	840	1,880	181,000
Oklahoma	11,400	4,700	10	40	390	16,500
Oregon	5,100	2,660	---	---	1,180	8,940
Pennsylvania	131,000	45,600	2,140	5,470	2,060	186,000
Rhode Island	340	170	---	---	30	540
South Carolina	2,650	1,260	---	---	200	4,110
South Dakota	3,050	1,280	30	10	280	4,650
Tennessee	14,800	7,230	190	250	920	23,400
Texas	12,800	6,420	80	20	1,260	20,500
Utah	2,970	1,430	40	290	1,660	6,390
Vermont	580	330	---	10	280	1,200
Virginia	18,400	8,460	140	1,010	900	28,900
Washington	6,020	3,000	50	50	630	9,740
West Virginia	70,000	25,900	800	6,170	1,960	105,000
Wisconsin	7,550	3,970	40	---	840	12,400
Wyoming	5,440	3,070	20	120	240	8,890

-- None reported.

¹ Excludes oil and gas.

² Disturbed area is any area used for mills and coal preparation plants, waste disposal areas, subsidence areas, and various areas for support facilities. Petroleum and gas activities are excluded.

³ Data may not add to totals shown because of independent rounding. Reclaimed land is land on which restoration or reconditioning has been completed (mined areas and waste disposal areas, etc.) in compliance with Federal, state, or local laws. If reclamation was not required by law, operators were asked to report the affected areas that, by opinion of mine management, were reconditioned or restored to a useful condition.

Source: U.S. Bureau of Mines (IC 8642), Land Utilization and Reclamation in Mining Industry, 1930-71, 1974.

TABLE 3-20
MINERAL LEASES ON PUBLIC LANDS¹

STATE	TOTAL		OIL AND GAS		COAL		OTHER	
	NUMBER	ACRES	NUMBER	ACRES	NUMBER	ACRES	NUMBER	ACRES
TOTAL	95,315	68,928,495	94,362	67,664,303	526	778,055	427	486,137
Alabama	235	44,339	234	44,139	1	200	--	--
Alaska	2,447	4,512,571	2,443	4,509,978	4	2,593	--	--
Arizona	523	723,910	500	707,532	--	--	23 ²	16,378
Arkansas	198	143,570	198	143,570	--	--	--	--
California	2,034	653,510	2,011	624,216	1	80	22 ³	29,214
Colorado	8,459	7,032,479	8,343	6,900,084	112	121,965	4 ⁴	10,430
Florida	174	175,775	174	175,775	--	--	--	--
Idaho	789	1,459,734	702	1,413,442	--	--	87 ⁵	46,292
Kansas	192	58,153	192	58,153	--	--	--	--
Louisiana	348	38,366	348	38,366	--	--	--	--
Michigan	153	120,053	153	120,053	--	--	--	--
Mississippi	238	22,645	238	22,645	--	--	--	--
Montana	8,917	8,202,259	8,871	8,143,834	17	36,232	29 ⁶	22,193
Nebraska	96	36,642	96	36,642	--	--	--	--
Nevada	2,765	1,336,440	2,732	1,300,962	--	--	33 ⁷	35,478
New Mexico	12,792	8,622,457	12,642	8,405,500	30	41,201	120 ⁸	175,756
North Dakota	757	276,137	735	258,696	20	16,436	2 ⁹	1,005
Oklahoma	846	196,464	791	108,810	53	87,014	21 ¹⁰	640
Oregon	168	339,141	165	333,738	3	5,403	--	--
South Dakota	677	506,474	677	506,474	--	--	--	--
Utah	14,943	13,303,926	14,698	12,980,010	195	266,709	50 ¹¹	57,207
Washington	4	1,878	2	1,357	2	521	--	--
Wyoming	37,560	21,121,592	37,417	20,830,347	88	199,701	55 ¹²	91,544

¹ As of June 30, 1973

² 6 Sodium, 9,035 acres; 1 uranium, 21 acres; 16 gold, silver, copper, 7,322 acres.

³ 1 Phosphate, 1,609 acres; 5 potash, 8,953 acres, 17 Sodium, 18,652 acres.

⁴ 1 Potash, 632 acres; 3 Sodium, 9,798 acres.

⁵ 87 Phosphate, 46,292 acres.

⁶ 28 Phosphate, 22,033 acres; 1 Sodium, 160 acres.

⁷ 11 Potash, 16,600 acres; 11 Sodium, 15,327 acres; 2 silica sand, 481 acres; 4 sand & gravel, 2,110 acres; 3 gold, silver, copper, 480 acres; 1 tungsten, 400 acres; 1 feldspar, 80 acres.

⁸ 119 Potash, 175,676 acres; 1 Sodium, 80 acres.

⁹ 2 Sodium, 1,005 acres.

¹⁰ Silica sand, 160 acres; 1 gilsonite, 480 acres.

¹¹ 8 Phosphate, 8,800 acres; 27 Potash, 44,861 acres; 15 gilsonite, 3,546 acres.

¹² 11 Phosphate, 13,919 acres; 44 Sodium, 77,625 acres.

Source: Bureau of Land Management, Public Land Statistics, 1973.

TABLE 3-21
NUTRIENT RUNOFF, BY TYPE OF LAND USE

TYPE OF LAND USE	NUMBER OF SUBDRAINAGE AREAS SAMPLED	MEAN TOTAL PHOSPHORUS CONCENTRATIONS ² (milligrams/liter)	MEAN TOTAL NITROGEN CONCENTRATIONS ² (milligrams/liter)	TOTAL PHOSPHORUS EXPORT ³ (lbs/sq mi/year)	TOTAL NITROGEN EXPORT ³ (lbs/sq mi/year)
Forest ⁴	17	0.014	0.772	47.7	2465.8
Mostly Forest ⁵	45	0.028	0.950	85.7	2940.2
Mixed ⁶	23	0.037	1.238	71.8	2454.6
Mostly Urban ⁷	3	0.072	1.531	158.1	3870.0
Mostly Agriculture ⁸	27	0.076	2.017	113.5	3200.3
Agriculture ⁹	28	0.151	3.100	130.5	2800.3

¹ All subdrainage areas used were east of the Mississippi River. Those west of the Mississippi River are presently being studied. The subdrainage area is that area draining to the point at which the sample was taken.

² Factors such as slope, soils, and climate could cause variations in values for different geographical regions classified here as having the same type of land use.

³ Nutrient exports are computed values of the mass of nutrients exported from a unit of geographical area in one unit of time. The estimates prepared for this survey are based on the concentration measured at a representative point on the lake, flow estimates provided by Geological Survey (adjusted for seasonality and year of sampling), and drainage area measurements as determined by the National Eutrophication Survey.

⁴ Greater than 75% is forest (including forested wetlands); less than 7% is agriculture; less than 2% is urban.

⁵ Greater than 50% is forest.

⁶ Not in any of the other classes.

⁷ Greater than 39% is urban.

⁸ Greater than 50% is agriculture.

⁹ Greater than 75% is agriculture; less than 7% is urban.

Source: Pacific Northwest Environmental Research Laboratory, Relationships between Drainage Area Characteristics and Non-Point Source Nutrients in Streams, Working Paper No. 25, 1974.

TABLE 3-22
LAND USE PROGRAMS, BY STATE¹

STATE	STATEWIDE LAND USE PLANNING AND CONTROL ²	COASTAL ZONE MANAGEMENT ³	WETLANDS MANAGEMENT ⁴	POWER PLANT SITING ⁵	SURFACE MINING ⁶	DESIGNATION OF CRITICAL AREAS ⁷	LAND USE TAX INCENTIVES ⁸	FLOODPLAIN MANAGEMENT ⁹
Alabama	P	---	---	---	yes	---	---	---
Alaska	---	---	---	yes	---	---	yes	---
Arizona	P	NA	---	yes	---	---	---	yes
Arkansas	---	NA	---	yes	yes	---	yes	yes
California	P	yes	---	yes	---	---	yes	yes
Colorado	P	NA	---	yes	yes	yes	yes	yes
Connecticut	P	---	yes	yes	---	---	yes	yes
Delaware	P	yes	yes	---	---	---	yes	---
District of Columbia	NA	NA	NA	NA	NA	NA	NA	NA
Florida	P and R	yes	yes	yes	---	yes	yes	---
Georgia	P	---	yes	---	yes	---	---	---
Hawaii	P and R	yes	---	yes	---	yes	yes	yes
Idaho	---	NA	---	---	yes	---	---	---
Illinois	---	---	---	yes	yes	---	yes	---
Indiana	---	---	---	---	yes	---	yes	yes
Iowa	---	NA	---	---	yes	---	yes	yes
Kansas	---	NA	---	---	yes	---	---	---
Kentucky	---	NA	---	yes	yes	---	yes	---
Louisiana	---	---	yes	---	---	---	yes	---
Maine	P and R	yes	---	yes	yes	yes	yes	yes
Maryland	P and R	---	yes	yes	yes	---	yes	yes
Massachusetts	P	---	yes	yes	---	---	---	---
Michigan	P	yes	---	---	yes	---	---	yes
Minnesota	P and R	yes	yes	yes	yes	yes	yes	yes
Mississippi	---	yes	---	---	---	---	---	---
Missouri	---	NA	---	---	yes	---	---	---
Montana	---	NA	---	yes	yes	---	yes	yes
Nebraska	---	NA	---	yes	---	yes	yes	yes
Nevada	P and R	NA	---	yes	---	---	---	---
New Hampshire	---	---	yes	yes	---	---	yes	---
New Jersey	---	---	yes	yes ¹⁰	---	---	yes	yes
New Mexico	---	NA	---	yes	yes	---	yes	---
New York	P	---	yes	yes	yes	yes	yes	---
North Carolina	P	yes	yes	---	yes	---	yes	yes
North Dakota	---	NA	---	---	yes	---	yes	---
Ohio	---	---	---	yes	yes	---	yes	---
Oklahoma	---	NA	---	yes	yes	---	---	yes
Oregon	P and R	yes ¹¹	---	yes	yes	yes	yes	---
Pennsylvania	P	---	---	yes	yes	---	yes	---
Rhode Island	P	yes	yes	yes	---	---	yes	---
South Carolina	---	---	---	yes	yes	---	---	---
South Dakota	---	NA	---	---	yes	---	yes	---
Tennessee	---	NA	---	yes ¹²	yes	---	---	---
Texas	---	yes	---	---	---	---	yes	---
Utah	---	NA	---	---	---	yes	yes	---
Vermont	P and R	NA	yes	yes	---	---	yes	yes
Virginia	---	yes	yes	yes	yes	---	yes	---
Washington	---	yes	yes	yes	yes	---	yes	---
West Virginia	---	NA	---	---	yes	---	---	---
Wisconsin	P	yes	yes	---	yes	yes	yes	yes
Wyoming	---	NA	---	---	yes	---	yes	---

NA Not Applicable.

¹ Indications that a state has a program in one of the above categories does not constitute an evaluation of the effectiveness of the program, nor does it indicate that the program is based on specific enabling legislation.

² P indicates the state has a land use planning program under way. R indicates the state has authority to review local plans or has direct control.

³ State has authority to plan or review local plans or the ability to control land use in the coastal zone.

⁴ State has authority to plan or review local plans or the ability to control land use in the wetlands.

⁵ State has authority to determine the siting of power plants and related facilities.

⁶ State has authority to regulate surface mining.

⁷ State has established rules, or is in the process of establishing rules, regulations, and guidelines for the identification and designation of areas of critical state concern (e.g., environmentally fragile areas, areas of historical significance).

⁸ State has adopted tax inducements to withhold or delay development of open space (e.g., tax on present use, rollback penalty, contract between the state and landholders to provide preferential tax for commitment to open-space usage).

⁹ State has authority to regulate the use of floodplains.

¹⁰ Only in coastal zone area.

¹¹ Partial.

¹² Tennessee Valley Authority.

Source: The Council of State Governments, Land-State Alternatives for Planning and Management, 1974.

TABLE 3-23
LAND USE CONTROLS ENACTED BY U.S. CITIES, BY POPULATION SIZE OF CITIES, 1973

SIZE OF CITY	NUMBER OF RESPONDENTS	TYPE OF LAND USE CONTROL																	
		ARCHITECTURAL APPEARANCE ¹	FLOOD-PLAIN ZONING	GROWTH LIMITATION	HISTORICAL PRESERVATION	MARSHLAND CONTROLS	OPEN SPACE ZONING	INSTALLATION OF PUBLIC UTILITIES ²	DEDICATION OF LAND FOR PUBLIC PURPOSES ³	ZONING TO PROTECT NATURAL RESOURCES ⁴									
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%				
Total, All Cities	1115	297	27	507	45	258	23	262	23	132	12	531	48	921	83	519	47	390	35
Over 500,000	10	3	30	5	50	2	20	8	80	2	20	6	60	8	80	4	40	2	20
250,000-500,000	18	4	22	12	67	1	6	9	50	4	22	7	38	14	78	8	44	1	6
100,000-250,000	61	15	25	33	54	14	23	30	49	11	18	23	38	51	83	33	54	17	28
50,000-100,000	142	43	30	61	43	38	27	37	27	16	11	70	49	127	89	75	53	51	36
25,000-50,000	282	71	25	131	46	66	23	62	22	30	11	142	50	226	80	128	45	99	35
10,000-25,000	602	161	27	265	44	137	23	116	19	69	11	283	47	495	82	271	45	220	37

¹ Regulates aesthetic element of the environment.

² Requires installation of public facilities (such as sewers) by developers.

³ Requires dedication of land for public purposes (such as schools and parks) by developers.

⁴ Protects natural resources or ecological systems.

Source: U.S. Environmental Protection Agency, Environmental Management and Local Government, 1974.

TABLE 3-24
STATE LAND USE NOISE REGULATIONS IN EFFECT¹
(all levels in A-weighted decibels,² unless otherwise noted)

STATE	LAND USE	EFFECTIVE DATE	MAXIMUM CONTINUOUS NOISE LEVEL		MAXIMUM NOISE LEVEL	MAXIMUM IMPULSE NOISE	COMMENT
			DAYTIME	NIGHTTIME			
California	Large Airports	Before 1-1-76	--	--	80	--	Existing
		After 1-1-76	--	--	75	--	Existing
		After 1-1-81	--	--	70	--	Existing
		After 1-1-86	--	--	65	--	Existing
	Small Airports	Before 1-1-76	--	--	70	--	Existing
		After 1-1-76	--	--	65	--	Existing
New Airports	--	--	--	65CNEL ³	--		
Colorado			<u>7am-7pm</u>	<u>7pm-7am</u>			
	Residential	Not specified	55 65 ⁴	50 --	-- --	-- --	Exempts aircraft Exempts aircraft
	Commercial	Not specified	60 70 ⁴	55 --	-- --	-- --	Exempts aircraft Exempts aircraft
	Light Industrial	Not specified	70 80 ⁴	65 --	-- --	-- --	Exempts aircraft Exempts aircraft
	Industrial	Not specified	80 90 ⁴	75 --	-- --	-- --	Includes Railroad rights-of-way Includes Railroad rights-of-way
Illinois			<u>7am-10pm</u>	<u>10pm-7am</u>			
	Residential	8-9-73	55 ⁵	45 ⁴	--	50 ⁶ 45 ⁷	Adjacent to Residential sources
			55 ⁵	45 ⁴	--	50	Adjacent to Commercial sources
			61 ⁵	51 ⁴	--	57	Adjacent to Industrial sources
	Commercial	8-9-73	55 ⁵	Not specified	--	50 ⁶ 45 ⁷	Adjacent to Residential sources
			61 ⁵	Not specified	--	57	Adjacent to Commercial sources
			66 ⁵	Not specified	--	57	Adjacent to Industrial sources
	Industrial	8-9-73	61 ⁵	Not specified	--	46 ⁶ 57 ⁷	Adjacent to Residential sources
61 ⁵			Not specified	--	61	Adjacent to Commercial sources	
70 ⁵			Not specified	--	65	Adjacent to Industrial sources	
New Jersey			<u>7am-10pm</u>	<u>10pm-7am</u>			
	Residential	1-18-74	65	55	--	80	Also Octave Band Levels
		1-1-76	--	50	--	80	Also Octave Band Levels
Commercial	--	--	--	65	80	Also Octave Band Levels	
Oregon			<u>7am-10pm</u>	<u>10pm-7am</u>			
	All private property	--	60	55	--	--	Includes operation of all motor vehicles

-- Regulation not established, or data not available.

- As of February 1975, five states have land use noise regulations in effect and 21 have passed appropriate legislation to enable the development of regulations.
- A measure of sound intensity weighted to equalize the effects of different frequencies on the human ear, as distinguished from an unweighted decibel, which is merely the logarithmic ratio of a particular quantity, such as sound pressure, intensity, or power, to a reference level, commonly the threshold of human hearing.
- Community Noise Equivalent Level is a scale that takes account of all the noise energy received at a point, from all noise events causing noise levels above some prescribed value. Weighting factors are included which place greater importance upon noise events occurring during the evening hours (7 p.m. to 10 p.m.) and even greater importance upon noise events at night (10 p.m. to 6 a.m.).
- Level of noise not to be exceeded more than 25 percent of the time.
- Estimates from Octave Band Sound Pressure Level (SPL) data. The Octave Band SPL is the integrated sound pressure level of only those sine-wave components in a specified octave band, for a noise or sound having a wide spectrum. An octave band consists of all the components, in a sound spectrum, whose frequencies are between two sine wave components separated by an octave.
- 7 a.m. - 10 p.m.
- 10 p.m. - 7 a.m.

Sources: U.S. Environmental Protection Agency, Office of Noise Abatement and Control, Noise Source Regulation in State and Local Noise Ordinances, February 1975.

**TABLE 3-26
POTENTIALLY HAZARDOUS NOISE SOURCES IN THE UNITED STATES:
LEVEL OF NOISE AND NUMBER OF PEOPLE EXPOSED ANNUALLY¹**

SOURCE	NOISE LEVEL IN dBA ²		APPROXIMATE NUMBER OF PEOPLE EXPOSED (in millions) ⁴
	AVERAGE ³	MAXIMUM	
Snowmobiles	108	112	1.60
Chain Saws	100	110	2.50
Motorcycles	95	110	3.00
Motorboats (over 45 hp)	95	105	8.80
Light Utility Helicopters	94	100	0.05
General Aviation Aircraft	90	103	0.30
Commercial Propeller Aircraft	88	100	5.00
Internal Combustion Lawn-mowers and Other Noisy Lawn Care Equipment	87	95	23.00
Trucks (Personal Use)	85	100	5.00
Some Shop Tools	85	98	13.00
Highway Buses	82	90	2.00
Subways	80	93	2.15

¹ Pertains to non-occupational situations. Although average use of any one of these devices by itself may not produce permanent hearing impairment, exposure to this noise in combination, or together with occupational noise will increase the risk of incurring permanent hearing impairment.

² A measure of sound intensity weighted to equalize the effects of different frequencies on the human ear, as distinguished from an unweighted decibel which is merely the logarithmic ratio of a particular quantity such as sound pressure, intensity or power, to a reference level, commonly the threshold of human hearing.

³ Average refers to the average noise level for devices of various manufacture and model type.

⁴ Single-event exposures. Many individuals may receive multiple exposures. For example an individual may be exposed during the week to noise from any or all of the above sources.

Source: U.S. Environmental Protection Agency, Report to the President and Congress on Noise, December 1971.

TABLE 4-1
STATUS OF LARGE-SCALE RESOURCE RECOVERY SYSTEMS¹

SYSTEMS IN OPERATION	SYSTEMS SELECTED ²	COMMUNITIES COMMITTED ³	COMMUNITIES WITH EXPRESSED INTEREST
Braintree, Massachusetts Charleston, West Virginia ⁴ East Bridgewater, Massachusetts Franklin, Ohio Nashville, Tennessee ⁵ St. Louis, Missouri ⁶	Under Construction Ames, Iowa Baltimore, Maryland Bridgeport, Connecticut Chicago, Illinois New Orleans, Louisiana Saugus, Massachusetts Construction Not Started Hempstead, New York Lowell, Massachusetts Milwaukee, Wisconsin Monroe County, New York New Britain, Connecticut St. Louis, Missouri ⁶ San Diego, California	Akron, Ohio Albany, New York Cleveland, Ohio Dade County, Florida Housatonic Valley, Connecticut Lane County, Oregon Lawrence, Massachusetts Lexington, Kentucky Mt. Vernon, New York Memphis, Tennessee Minneapolis, Minnesota Palmer Township, Pennsylvania Seattle, Washington Westchester County, New York Wilmington, Delaware	Allegheny County, Pennsylvania Austin, Texas Babylon, New York Cecil County, Washington Dallas, Texas DeKalb County, Georgia Denver, Colorado Detroit, Michigan Dutchess County, New York Erie County, New York Grand Rapids, Michigan Hackensack Meadowslands, New Jersey Hamilton County, Ohio Honolulu Hawaii Houston, Texas Huntington, New York Islip, New York Knoxville, Tennessee Little Rock, Arkansas Long Beach, California Los Angeles, California Madison, Wisconsin Middlesex, New Jersey Montgomery County, Maryland Montgomery County, Ohio New York, New York Oneida County, New York Onondaga County, New York Philadelphia, Pennsylvania Phoenix, Arizona Providence, Rhode Island Richmond, Virginia Snohomish County, Washington Springfield, Massachusetts Tidewater, Virginia Toledo, Ohio TVA: Knoxville Memphis Ashville Paducah Muscle Shoals Nashville Washington, D. C.

1 As of May 1975. Large-scale resource recovery systems are those systems handling more than 200 tons of waste per day. Only mechanical systems are included.
 2 Winner of a request for proposal (RFP) of construction contract awarded.
 3 Request for proposal (RFP) issued, design study underway, or construction funding made available.
 4 Large-scale private test facility.
 5 Demonstration or shake-down operation.
 6 Expansion of already existing facility.

Source: U.S. Environmental Protection Agency, A Nationwide Survey of Resource Recovery Activities, 1975.

TABLE 4-2
NUMBER OF U.S. MUNICIPAL INCINERATORS OPERATING AND PROPOSED¹

STATE	NUMBER OF MUNICIPAL SIZE INCINERATORS ²	NUMBER OF PROPOSED INCINERATORS IN THE NEXT TWO YEARS ³
UNITED STATES	189	53
Alabama	0	unknown
Alaska	0	0
Arizona	0	0
Arkansas	6	4
California	1	0
Colorado	0	0
Connecticut	23	0
Delaware	0	1
District of Columbia	unknown	unknown
Florida	10	1
Georgia	0	0
Hawaii	3	0
Idaho	0	0
Illinois	4	2
Indiana	1	0
Iowa	0	1
Kansas	0	0
Kentucky	2	1
Louisiana	4	0
Maine	0	1
Maryland	4	1
Massachusetts	18	3
Michigan	10	0
Minnesota	unknown	1
Mississippi	0	0
Missouri	3	1
Montana	0	0
Nebraska	0	0
Nevada	unknown	unknown
New Hampshire	4	15
New Jersey	3	0
New Mexico	0	0
New York	39	3
North Carolina	0	0
North Dakota	0	1
Ohio	13	4
Oklahoma	2	unknown
Oregon	0	0
Pennsylvania	20	0
Rhode Island	2	2
South Carolina	0	0
South Dakota	0	0
Tennessee	1	1
Texas	4	2
Utah	1	0
Vermont	1	1
Virginia	4	2
Washington	0	1
West Virginia	0	0
Wisconsin	6	2
Wyoming	0	2

¹The survey was done in January, 1975.

²Some states responded with numbers representing small industrial type incinerators used for municipal disposal.

³Includes power generation.

Source: Three Sons Publishing, Waste Age Magazine, January 1975.

TABLE 4-3
NUMBER OF LANDFILLS AND LAND DISPOSAL SITES, 1974

STATE	NUMBER OF KNOWN LAND DISPOSAL SITES ¹	NUMBER OF AUTHORIZED LANDFILLS ²	NUMBER OF LANDFILLS USING SHREDDING	NUMBER OF SITES USING BALING BEFORE LANDFILLS	NUMBER OF SITES WITH IMPERMEABLE LININGS ³	NUMBER OF SITES WITH LEACHATE TREATMENT FACILITIES ⁴
UNITED STATES	18,519	3,792	23	7	21	61
Alabama	143	23	0	0	0	1
Alaska	200	0	0	0	0	1
Arizona	160	0	0	0	0	0
Arkansas	450 ^a	unknown	0	0	0	1
California	441	193	0	0	0	0
Colorado	255 ^a	255	2	0	0	0
Connecticut	144	144	1	0	0	0
Delaware	150 ^a	0	1	1	0	1
District of Columbia	unknown	unknown	unknown	unknown	unknown	unknown
Florida	500	179	1	0	0	6
Georgia	625	125	2	2	0	0
Hawaii	42 ^a	24	0	0	0	0
Idaho	190	20	0	0	0	0
Illinois	404	0	0	0	1	0
Indiana	151	110	0	0	0	0
Iowa	500	36	0	0	0	0
Kansas	300	120	0	0	0	0
Kentucky	147	unknown	0	0	0	4
Louisiana	387	0	0	0	1	0
Maine	367	0	0	0	0	0
Maryland	91	67	0	0	0	2
Massachusetts	324	75	1	1	0	0
Michigan	888	165	0	0	3	3
Minnesota	600	20	0	0	2	1
Mississippi	274	0	0	0	0	0
Missouri	390	88	0	0	0	3
Montana	514	unknown	1	0	0	0
Nebraska	400	70	0	0	0	0
Nevada	120	103	0	0	0	0
New Hampshire	180	138	0	0	0	0
New Jersey	307	138	0	0	1	1
New Mexico	1,000	400	0	0	0	0
New York	800 ^a	376 ^a	2	0	3	0
North Carolina	162	unknown	1	0	0	0
North Dakota	412	NA	0	0	0	0
Ohio	290	10	1	0	0	2
Oklahoma	507	243	0	0	0	0
Oregon	241	133	0	0	0	0
Pennsylvania	379	0	0	0	6	6
Rhode Island	38	0	0	0	0	0
South Carolina	276	100	3	0	0	0
South Dakota	369	16 ^a	0	0	0	0
Tennessee	250	10	0	2	0	2
Texas	1,525 ^a	110	3	1	2	12
Utah	272	4	0	0	0	0
Vermont	95	55	0	0	1	0
Virginia	188	173	0	0	1	1
Washington	397	43	2	0	0	3
West Virginia	300 ^a	24	0	0	0	9
Wisconsin	1,314	unknown	2	0	0	2
Wyoming	80 ^a	NA	0	0	unknown	0

^a Estimate.

NA Not applicable.

¹ All sites reported by the state, including dumps, sanitary landfills and other land disposal classifications.

² Sites which because of the services performed should be in compliance with state regulations including modified sanitary landfills.

³ Linings included artificial lining, asphalt, concrete, rubber, plastic, etc., as opposed to recompacted on-site soil.

⁴ Some facilities may include lagoons and temporary basins.

Source: Three Bona Publishing, Waste Age Magazine, January 1975.

TABLE 4-1
SOLID WASTE SHREDDERS OPERATING IN THE UNITED STATES

STATE	LOCATION	START UP DATE	TYPE OF SHREDDER	RATED CAPACITY (tons/hr.)	DISPOSITION OF WASTE
Alabama	Decatur	Nov. 1969	Horizontal	40	Separation and recycling
	Mobile	1965		15-40	
California	Los Gatos	1969	Horizontal Shaft, 3 Units, Primary, Secondary, and Tertiary	30 ¹	Recycling and some incineration
	Menlo Park	Mar. 1973	Vertical	3	Power generation
	Mountainview	Jun. 1970	One Vertical	15	Landfill
Colorado	San Diego	1970	Horizontal	40	Recycling and landfill
	Mobile Shredders US Air Force	Oct. 1974	Vertical	4-12	Landfill
	Alamosa	Jun. 1972	One Vertical	15	Landfill
	Chaffee County	Jun. 1974	One Vertical	15	Landfill
	Pueblo	Dec. 1974	Two Vertical	40	Landfill with ferrous separation
Connecticut	Ansonia	May 1974	Horizontal	30	Resource recovery and incineration
	Millford	Apr. 1972	Vertical	30	Landfill
Delaware	New Britain	Aug. 1975	Horizontal	50	Landfill
	City of New London	Jul. 1972	Horizontal	80	Landfill
Florida	New Castle	1972	Horizontal	100 ²	Landfill
	Pt. Lauderdale	1973	Horizontal	400 ¹	Incineration and Landfill
Georgia	Tampa	Jun. 1967	Horizontal	6-8	Incineration
	Pompano Beach	Oct. 1972	One Vertical	15	Landfill with paper and ferrous recovery
	Atlanta	Feb. 1973	Horizontal	75	Recycling, rail haul, and landfill
	DeKalb County	Apr. 1973	Vertical	50	Landfill
Illinois	DeKalb County	Jan. 1963	Horizontal	6-8	Incineration
	DeKalb County (Atlanta)	Jun. 1973	Three Vertical	45	Landfill
	Chicago	Jun. 1975	Vertical	60	Energy recovery
Indiana	Chicago	1971	Horizontal	30 ³	Landfill
	Chicago	Jun. 1970	Horizontal	80	Landfill
	Chicago	Oct. 1975	Horizontal	75	STU recovery
	Indianapolis	1971	Horizontal	200 ¹	Landfill
Iowa	Indianapolis	Aug. 1971	Horizontal	25-35	Incineration
	Pt. Wayne	Feb. 1971	Horizontal	35-50	Incineration
	Ames	Aug. 1974	Two Horizontal	50 ⁴	Incineration
Kentucky	Pleasant Hill	1973	Horizontal, Single Direction	20	Composting
	Louisville	Jul. 1969	Horizontal	40	Resource recovery and landfill
Louisiana	Louisville	Apr. 1962	Horizontal	20	Incineration
	Louisville	Feb. 1968	Horizontal	32	Landfill
Maine	Roxford	Oct. 1972	Horizontal	40	STU recovery
Maryland	Baltimore	1974	Two Horizontal	50 ⁴	Pyrolysis
Massachusetts	Holliston	Jan. 1974	Horizontal	40	Resource recovery
	Norboro	Nov. 1973	Horizontal	30	Incineration
Michigan	Dearborn	Aug. 1970	Horizontal	40	Resource recovery and landfill
	Detroit	Jun. 1967	Horizontal	20	Landfill
Missouri	Detroit	1971	Horizontal	75 ⁵	Power generation
	St. Louis	Jun. 1969	Horizontal	30	Incineration
	Mobile Shredders US Air Force	Oct. 1974	Vertical	4-12	Landfill
Montana	Great Falls	Aug. 1973	Two Vertical	35	Landfill with ferrous separation
Nebraska	Mobile Shredders US Air Force	Oct. 1974	Vertical	4-12	Landfill
New Jersey	Monmouth Co.	Nov. 1974	Vertical	30	Landfill
	Buffalo	1970	Horizontal	240 ³	Incineration
New York	Berlin	Aug. 1972	Horizontal	10	Incineration
	Elmira	1973	Two Horizontal	40 ⁴	Power generation
	New York City	1973	Horizontal	7	Landfill
	New York City	1969	Horizontal, 4 Units, 2 Primary, 2 Secondary	20 ⁵	Incineration
Ohio	Onondaga City	Nov. 1973	Vertical	30	Landfill
	Onondaga City	Jul. 1974	Vertical		
	Onondaga City	Sep. 1974	Vertical		
	Onondaga City	Apr. 1974	Horizontal	32	Separation and recycling
North Carolina	Guilford County	Jan. 1974	Vertical	50	Landfill
North Dakota	Mobile Shredders US Air Force	Oct. 1974	Vertical	4-12	Landfill
	Columbus	1974	Three Horizontal	60	Landfill
Ohio	Dayton	1969	Horizontal, Single Direction	10	Incineration
	Newark	1969	Horizontal, Single Direction	10	Landfill
	Willoughby	Aug. 1973	Vertical	25	Landfill
Oregon	Portland	1973	Horizontal, Single Direction	20	Landfill
Pennsylvania	Altoona	Mar. 1966	Horizontal	15	Composting
	Harrisburg	Dec. 1970	Horizontal	80	Incineration
Rhode Island	Lehigh County	Sep. 1974	Two Vertical	40	Landfill
	Providence	Aug. 1972	Vertical	30	Landfill
South Carolina	Charleston	Jun. 1974	Three Vertical	80	Landfill
	Georgetown City	Apr. 1974	One Vertical	20	Landfill
Texas	Williamsburg City	Sep. 1973	One Vertical	20	Landfill
	Galveston	Sep. 1973	Vertical	25	Landfill
	Houston	1965	Horizontal	40	Resource recovery
	Odessa	Jun. 1974	Horizontal	30	Landfill
Virginia	Mobile Shredders US Air Force	Oct. 1974	Vertical	4-12	Landfill
	Norfolk	1974	Two Horizontal	30	Incineration
	Roanoke	Jul. 1968	Horizontal	40	Landfill
Vermont	Richmond	Jun. 1974	One Vertical	20	Landfill with ferrous separation
	Winooski	Oct. 1971	Horizontal	25	STU recovery
Washington	Cowlitz County	Early 75	Horizontal	50	Power generation
	Longview	1971	Horizontal	50	In-plant incineration
	State of Washington	1970	Horizontal, Single Direction	20	Incineration
Wisconsin	State of Washington	1971	Horizontal	3	Incineration
	Tacoma	1971	Horizontal	40	Landfill
	Appleton	Jun. 1974	Horizontal	50	Recycling
	Madison	May 1958	Horizontal	24	Landfill
Wisconsin	Madison	1967	One Horizontal, One Vertical	25	Landfill with ferrous separation

⁰ Expected
¹ For whole system.
² 50 tons per line.
³ On pd/line.
⁴ Each unit.
⁵ Per line, 40 tons/hr. for whole system.

Source: Three Sons Publishing, Waste Age Magazine, May/June 1974.

TABLE B-1
U.S. PESTICIDE PRODUCTION¹
(in thousands of pounds)

PESTICIDE	1968	1969	1970	1971	1972	1973 ²
UNITED STATES	1,271,966	1,186,815	1,098,143	1,203,937	1,220,926	1,362,586
Fungicides						
Copper naphthenate	1,718	1,545	1,730	1,655	2,206	1,552
Copper sulfate ³	37,192	42,072	28,768	31,112	28,064	39,688
Dithiocarbamic acid salts	— ⁴	— ⁴	39,381 ⁴	35,110 ⁴	40,438 ⁴	41,417 ⁴
Ferbam	1,900	1,500 ⁵	— ⁴	— ⁴	— ⁴	— ⁴
Nabam	2,000 ⁵	1,938	— ⁴	— ⁴	— ⁴	— ⁴
Zineb	3,081	2,500 ⁵	— ⁴	— ⁴	— ⁴	— ⁴
Mercury fungicides	1,448	941	1,114	601	527	361
Pentachlorophenol (PCP) ⁶	48,575	45,988 ⁴	47,170 ⁴	50,877 ⁴	49,704 ⁴	46,606 ⁴
2,4,5-Trichlorophenol and salts	28,066	— ⁴				
Other organic fungicides	66,793	85,607	50,307	60,875	49,610	63,738
Total⁷	190,773	182,091	168,470	180,270	170,569	193,362
Herbicides						
2,4-D acid ⁸	(79,263)	(47,077)	(43,576)	— ⁴	— ⁴	— ⁴
2,4-D acid, esters, and salts	94,116 ⁴	56,998 ⁴	— ⁴	— ⁴	— ⁴	— ⁴
DNBP, ammonium salts	— ⁴	— ⁴	— ⁴	— ⁴	— ⁴	— ⁴
Maleic hydrazide	— ⁴	2,771 ⁴	3,271	— ⁴	4,472	— ⁴
Methanesulfonic acid salts	— ⁴	— ⁴	30,454	24,476	30,698	40,126
Phenyl mercuric acetate (PMA) ⁹	582 ⁴	534	457	337 ⁴	307	290 ⁴
Silvex	— ⁴	1,597	2,016	— ⁴	— ⁴	— ⁴
Sodium chlorate ¹⁰	30,000	30,000	30,000	30,000	30,000	30,000
2,4,5-T acid ⁸	(17,530)	(4,999)	— ⁴	— ⁴	— ⁴	— ⁴
2,4,5-T acid, esters, and salts	42,562	11,626	12,335	— ⁴	— ⁴	— ⁴
Other organic herbicides	235,561	268,238	312,132	404,076	416,141	455,693
Total	499,574	423,840	434,241	458,849	481,618	526,109
Insecticides, fumigants, rodenticides¹¹						
Aldrin-toxaphene group ¹²	115,974	107,311	88,641	116,264	141,858	145,584
Calcium arsenate	3,398	1,158	1,144	940	— ⁴	— ⁴
DDT	139,401	123,103	59,316	— ⁴	— ⁴	— ⁴
Dibromochloropropane	7,887	8,611	— ⁴	— ⁴	— ⁴	— ⁴
Lead arsenate	9,016	9,204	4,155	6,168	5,164	3,946
Methyl bromide ¹³	20,454	20,033	21,047	— ⁴	24,633	29,571
Organophosphorus insecticides ⁸	— ⁴	— ⁴	(132,496)	(138,185)	(160,642)	(187,752)
Methyl parathion	38,183	50,572	41,353	37,226	51,076	48,890
Parathion	20,000 ⁵	— ⁴	15,259	— ⁴	— ⁴	— ⁴
Other	— ⁴	— ⁴	75,884	100,959	109,566	138,862
Other organic insecticides	227,325 ⁴	260,892	188,632	303,261	236,442	275,262
Total	581,619	580,884	495,532	564,818	568,739	643,115

¹ The pesticide production figures shown represent commercial grade of pesticides (i.e., economically feasible to produce) and therefore, all figures shown are 95% ± 3% active ingredient.

² Preliminary.

³ Shipments by producers to agriculture (including for use as a minor plant nutrient).

⁴ Withheld to avoid disclosure. Figure included in totals.

⁵ Estimated.

⁶ Not only a wood preservative for wood rot control, but also a herbicide and desiccant.

⁷ Sulfur not included may amount to 150 million pounds.

⁸ Figures in parentheses represent duplication but are included in totals to be comparable with the 1971 and 1972 totals.

⁹ Also a fungicide.

¹⁰ Estimated shipments to producers of herbicides and defoliants.

¹¹ Includes a small quantity of synthetic soil conditioners; does not include the fumigants carbon tetrachloride, carbon disulfide, ethylene dibromide, and ethylene dichloride, which have many other uses; nor does it include paradichlorobenzene (classified by the Tariff Commission as an intermediate) or inorganic rodenticides.

¹² Includes aldrin, chlordane, dieldrin, endrin, heptachlor, Strobane(R), and toxaphene.

¹³ Fumigant for control of both insects and weeds.

Source: U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service, The Pesticide Review 1974, 1975.

TABLE 5-2
SUMMARY OF ESTIMATED U.S. PESTICIDE USE
(in million pounds, active ingredient)

TYPE OF PESTICIDE ¹	TOTAL U.S. USE			FARM USE		
	1966	1971	PERCENT INCREASE 1966-71	1966	1971	PERCENT INCREASE 1966-71
Total	681	833	22	353	494	40
Herbicides	227	359	58	125	227	101
Insecticides	329	319	-3	195	170	3
Fungicides	125	155	24	33	42	27

¹Herbicides include plant growth regulators, defoliants, and desiccants; insecticides include insecticides, rodenticides, repellants, and fumigants. Excluded are sulfur, creosote, petroleum oils, and several other pesticides.

Sources: U.S. Department of Agriculture, Quantities of Pesticides Used by Farmers in 1966, Agricultural Economic Report No. 179 (1970); and U.S. Department of Agriculture, Economic Research Service, Farmers' Use of Pesticides in 1971--Quantities, 1974, Agricultural Economic Report No. 252 (1974).

TABLE 5-3
U.S. PRODUCTION, IMPORTS, EXPORTS, AND USE OF SELECTED PESTICIDES, 1972
(in million of pounds, active ingredient)

Reproduced from
best available copy. 

PESTICIDE	U.S. PRODUCTION	IMPORTS	EXPORTS	U.S. USE
TOTAL	2,071.1	192.1	140.85	1,542.35
Total, Excluding Creosote	1,081.1	32.1	140.85	570.35
Insecticides				
Aldrin	13.0	0	0.3	12.7
Carbaryl	53.0	0	28.0	25.0
Carbofuran	6.0	0	1.0	5.0
Chlordane	20.0	0	5.0	15.0
Diazinon	12.0	0	5.0	7.0
Disulfoton	5.0	0	---	5.0
Malathion	24.0	0.2	8.0	16.2
Methyl Parathion	51.1	1.1	12.5	39.7
Parathion	14.0	1	4.0	10.0
Toxaphene	76.0	0	18.0	58.0
Subtotal	274.1	1.3	81.8	193.6
Herbicides				
Alechlor	24.0	0	3.0	21.0
Atrazine	95.0	---	20.0	75.0
Bromacil	4.0	0	1.0	3.0
2,4-D	55.0	---	7.0	48.0
Diuron	6.5	0.7	0.5	6.7
MSMA	24.0	---	5.0	19.0
Sodium Chlorate	400.0	30.0	---	35.0 ²
Trifluralin	21.0	0	4.0	17.0
Subtotal	629.5	30.7	40.5	224.7
Fungicides and Wood Preservatives				
Captan	17.0	---	1.0	16.0
Creosote	990.0	160.0	0	972 ³
Maneb	12.0	0.1	4.5	7.6
Pentachlorophenol	49.7	0	0.7	49.0
Subtotal	1,068.7	160.1	6.2	1,044.6
(Subtotal, Excluding Creosote)	(78.7)	(0.1)	(6.2)	(72.6)
Fungicides				
Methyl Bromide	25.0	---	2.0	23.0
p-Dichlorobenzene	72.0	0	10.0	55.0 ⁴
Subtotal	97.0	---	12.0	78.0
Tin Compounds⁵				
	1.8	---	0.35	1.45

--- Negligible
Small

² Total domestic sodium chlorate use is 430 million pounds active ingredient of which only 35 million pounds active ingredient is pesticide use.

³ Includes only wood preservation use; 178 million pounds active ingredient is burned as fuel.

⁴ Includes moth control and lavatory-space deodorant purposes only.

⁵ Includes triphenyltin hydroxide (Du-Ter[®]), tricyclohexyltin hydroxide (Plictran[®]), and bis (tributyl) tin oxide (TBTO).

Source: U.S. Environmental Protection Agency, Office of Pesticide Programs, Production, Distribution, Use and Environmental Impact Potential of Selected Pesticides, 1975.

TABLE 5-4
 USE OF SELECTED PESTICIDES IN THE UNITED STATES, BY CONSUMING SECTOR, 1972
 (in millions of pounds, active ingredient)

PESTICIDE	TOTAL U.S. USE	INDUSTRIAL AND COMMERCIAL	GOVERNMENT	HOME AND GARDEN	AGRICULTURAL
TOTAL	1,542.35	1,098.5	13	69.2	361.35
Percent Total Use		71%	1%	5%	23%
Total, Excluding Creosote	570.35	128.5	13	69.2	359.35
Percent Total Use, Excluding Creosote		23%	2%	12%	63%
Insecticides					
Aldrin	12.7	1.7	1	1	11.0
Carbaryl	25.0	1.0	1.5	3.5	19.0
Carbofuran	5.0	1	1	1	5.0
Chlordane	15.0	6.5	0.5	5.0	3.0
Disinon	7.0	1.2	0.8	2.0	3.0
Disulfoton	5.0	1	1	0.1	4.9
Malthion	16.2	4.0	2.2	5.0	5.0
Methyl Parathion	39.7	1	1	1	39.7
Parathion	10.0	1	1	1	9.9
Toxaphene	58.0	1.0			57.0
Subtotal	193.6	15.4	5.0	15.6	157.5
Percent Use		8%	2.6%	8.1%	81.3%
Herbicides					
Alechlor	21.0				21.0
Atrazine	75.0	1.7	0.3	1.0	72.0
Bromacil	3.0	2.3	0.3	0	0.4
2,4-D	48.0	6.0	3.0	3.0	36.0
Diuron	6.7	3.8	0.4		2.5
MSMA	19.0	4.0	1.0	1.5	12.5
Sodium Chlorate	35.0 ²	19.0	1.0		15.0
Trifluralin	17.0				16.8
Subtotal	224.7	36.8	6.0	5.5	176.2
Percent Use		16.4%	2.7%	2.4%	78.4%
Fungicides and Wood Preservatives					
Captan	16.0			6.0	10.0
Creosote	972 ³	970.0			2.0
Nahep	7.6			1.6	6.0
Pentachlorophenol	49.0	47.5		1.5	
Subtotal	1,044.6	1,017.5		9.1	18.0
(Subtotal, Excluding Creosote)		(47.5)		(9.1)	(16)
Percent Use	72.6	97.4%		0.9%	1.7%
(Percent Use, Excluding Creosote)		(65.4%)		(12.5%)	(22.0%)
Fumigants					
Methyl Bromide	23.0	14.0			9.0
p-Dichlorobenzene	55.0 ⁴	14.0	2.0	39.0	
Subtotal	78.0	28.0	2.0	39.0	9.0
Percent Use		35.9%	2.6%	50%	11.5%
Tin Compounds⁵					
	1.45	0.8			0.65
Percent Use		55.2%			44.8%

--- Negligible

¹ Small

² Total domestic sodium chlorate use is 430 million pounds active ingredient of which only 35 million pounds active ingredient is pesticide use.

³ Includes only wood preservation use; 178 million pounds active ingredient is burned as fuel.

⁴ Includes moth control and lavatory-space deodorant purposes only.

⁵ Includes triphenyltin hydroxide (Du-Ter[®]), tricyclohexyltin hydroxide (Plictran[®]), and bis (tributyl) tin oxide (TBTO).

Source: U.S. Environmental Protection Agency, Office of Pesticide Programs, Production, Distribution, Use and Environmental Impact Potential of Selected Pesticides, 1975.

TABLE 65
USE OF SELECTED PESTICIDES IN THE UNITED STATES, BY REGION,¹ 1972
(in millions of pounds, active ingredient)

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best available copy.

PESTICIDE	UNITED STATES	NORTHEAST ²	SOUTHEAST ³	NORTH CENTRAL ⁴	SOUTH CENTRAL	NORTHWEST ⁵	SOUTHWEST ⁶
TOTAL	1,542.35	213.55	233.53	479.20	337.82	250.05	168.22
Percent Total Use		13.8%	15.1%	31.1%	21.6%	16.2%	10.2%
Total, excluding Creosote	570.35	48.05	88.23	178.60	148.52	73.35	47.20
Percent Total Use, Excluding Creosote		8.4%	15.5%	31.3%	26.0%	13.2%	9.7%
Insecticides							
Aldrin ⁸	12.7	0.3	0.7	11.0	0.5	0.1	0.1
Carbaryl ⁸	25.0	2.0	7.9	4.8	3.9	0.9	2.0
Carbofuran	5.0	0.1	0.1	4.4	0.2	0.2	0.2
Chloroane	15.0	1.7	1.8	3.4	1.6	0.4	1.1
Diazinon ⁸	7.0	0.4	0.8	2.1	0.6	1.1	1.2
Disulfoton	5.0	0.02	0.32	1.02	2.42	1.22	1.3
Malathion ⁸	16.2	1.1	3.5	2.5	1.8	1.0	1.3
Methyl Parathion	39.7	---	5.0	0.1	31.0	0.7	2.9
Parathion	10.0	0.4	1.4	1.8	3.5	2.9	2.9
Toxaphene	58.0	0.2	20.2	1.2	31.7	4.2	4.2
Subtotal ⁸	193.6	6.22	41.72	32.32	77.22	18.82	18.82
Percent Use		3.2%	21.5%	16.7%	39.5%	9.7%	9.7%
Herbicides							
Atrachlor	21.0	1.5	0.8	17.4	0.8	0.5	0.5
Atrazine	75.0	2.5	5.5	57.3	7.7	2.0	2.0
Bromacil ⁹	3.0	0.2	0.5	0.4	0.8	0.2	0.6
2,4-D ¹⁰	48.0	2.0	4.1	21.1	7.0	7.8	3.0
Diuron ⁹	6.7	0.4	1.0	0.6	2.1	0.5	1.7
MSMA ⁸	19.0	0.4	2.5	1.4	11.6	0.7	0.9
Sodium Chlorate	35.0 ⁹	1.8	4.0	3.6	13.8	2.1	9.7
Trifluralin	17.0	0.4	2.3	6.5	6.2	1.6	1.6
Subtotal ⁸	224.7	9.2	20.7	108.3	50.0	31.3	31.3
Percent Use		4.1%	9.2%	48.2%	22.1%	13.8%	13.8%
Fungicides and Wood Preservatives							
Captan ¹⁰	16.0	3.5	2.0	2.0	0.5	2.0	2.0
Creosote ¹¹	972	165.5	165.3	300.6	185.3	90.15	65.15
Maneb ¹⁰	7.6	1.8	1.5	1.5	0.3	0.9	0.9
Pentachlorophenol	49.0	11.0	7.5	13.5	7.5	8.0	8.0
Subtotal	1,044.6	181.8	156.3	317.6	193.6	188.2	188.2
(Subtotal, Excluding Creosote)	(72.6)	(16.3)	(11.0)	(37.0)	(8.3)	(30.9)	(30.9)
Percent Use		17.4%	15%	30.4%	18.5%	17.8%	17.8%
(Percent Use, Excluding Creosote)		(22.5%)	(15.2%)	(23.4%)	(11.4%)	(15%)	(15%)
Fungicides							
Methyl Bromide	23.0	1.4	5.2	6.3	3.4	1.0	5.7
p-Dichlorobenzene	55.0 ¹²	14.7	9.3	14.4	9.3	2.0	5.3
Subtotal	78.0	16.1	14.5	20.7	12.7	14.0	14.0
Percent Use		20.6%	18.6%	25.5%	16.3%	17.9%	17.9%
Tin Compounds¹³							
Percent Use	1.45	0.23	0.31	0.28	0.30	0.33	2.8%

--- Negligible

¹ Totals for the Northwest and Southwest regions were not estimated separately for some items.

² The Northeast region includes Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.

³ The Southeast region includes Maryland, Delaware, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida.

⁴ The North Central region includes Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas.

⁵ The South Central region includes Kentucky, Tennessee, Arkansas, Alabama, Mississippi, Louisiana, Oklahoma, and Texas.

⁶ The Northwest region includes Montana, Idaho, Wyoming, Colorado, Utah, Washington, Oregon, and Alaska.

⁷ The Southwest region includes New Mexico, Nevada, Arizona, California, and Hawaii.

⁸ Small amounts of some uses are not included in regional totals.

⁹ Total domestic Sodium Chlorate use is 430 million pounds active ingredient of which only 35 million pounds active ingredient is pesticide use.

¹⁰ Regional figures are for agricultural use only.

¹¹ Includes only wood preservation use; 178 million pounds active ingredient is burned as fuel.

¹² Includes moth control and lavatory-space deodorant purposes only.

¹³ Includes triphenyltin hydroxide (Du-Ter[®]), tricyclohexyltin hydroxide (Plictran[®]), and bis (tributyl) tin oxide (TBTO).

Source: U.S. Environmental Protection Agency, Office of Pesticide Programs, Production, Distribution, Use and Environmental Impact Potential of Selected Pesticides, 1975.

TABLE 6-8
 AMOUNTS OF MAJOR PESTICIDES USED BY FEDERAL GOVERNMENT AGENCIES, 1972
 (in pounds, active ingredient)

PESTICIDE	LARGEST FEDERAL USER		TOTAL QUANTITY USED BY ALL FEDERAL AGENCIES
	AGENCY	QUANTITY	
Ammate	Army - Civil Works	154,500	206,732
Antymycin	Sport Fisheries & Wildlife, Department of the Interior	153,335	153,355
BHC	Sport Fisheries & Wildlife, Department of the Interior	294,030	302,338
Borate & Borate Mixtures	Federal Aviation Administration, Department of Transportation	200,000	266,600
Dichloropropene	Animal & Plant Health Inspection Service, USDA	135,000	207,000
Carbaryl	Animal & Plant Health Inspection Service, USDA	1,249,278	2,187,951
Chlordane	Air Force	1,069,093	1,668,455
Copper Sulfate	Panama Canal Company	3,906,114	3,931,416
2,4-D	Army - Civil Works	992,469	2,637,971
Diazinon	General Services Administration	730,991	1,660,358
FLIT MLO	Sport Fisheries & Wildlife, Department of the Interior	200,566	256,933
Malathion	Animal & Plant Health Inspection Service, USDA	1,784,480	2,479,358
Monuron	Federal Aviation Administration, Department of Transportation	54,244	153,100
Sodium Chlorate	Federal Aviation Administration, Department of Transportation	56,469	161,328
2,4,5-T	Forest Service, USDA	258,481	344,219

Source: Federal Working Group on Pest Management and Midwest Research Institute, Production Distribution Use and Environmental Impact Potential of Selected Pesticides, 1974.

TABLE 8-7
 USE OF SELECTED PESTICIDES IN THE UNITED STATES, BY STATE GOVERNMENT, 1972
 (in pounds of active ingredient)

STATE	CARBARYL	CHLORDANE	DIAZINON	MALATHION	ATRAZINE	BROMACIL	2,4-D	DIFURON	MSMA	SODIUM CHLORATE	METHYL BROMIDE
UNITED STATES	252,240	22,498	10,303	980,688	91,615	113,678	363,710	126,461	191,768	140,796	112,082
Alabama	---	---	---	---	---	---	---	---	---	---	---
Alaska	---	---	---	---	---	---	---	---	---	---	---
Arizona	NR	63	NR	NR	NR	6,280	NR	NR	20,480	NR	NR
Arkansas	---	---	---	---	---	---	---	---	---	---	---
California ¹	5,787	10,692	9,642	13,437	68,946	96,003	86,089	38,960	117,946	337,456	65,576
Colorado	NR	NR	NR	NR	NR	NR	1,601	NR	NR	NR	NR
Connecticut	628	326	104	1,593	476	NR	NR	NR	NR	NR	NR
Delaware	---	---	---	---	---	---	---	---	---	---	---
District of Columbia	---	---	---	---	---	---	---	---	---	---	---
Florida	13,232	NR	NR	824,795	NR	6,180	44,920	22,640	NR	NR	43,282
Georgia	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Hawaii	---	---	---	---	---	---	---	---	---	---	---
Idaho	NR	6	NR	9	4	NR	120	NR	NR	NR	NR
Illinois	235	NR	140	763	NR	17	15,341	560	1,774	NR	NR
Indiana	15	20	145	105	NR	120	4,096	NR	NR	NR	NR
Iowa	NR	NR	NR	NR	NR	NR	3,520	NR	NR	NR	NR
Kansas	NR	NR	NR	NR	800	NR	2,300	80	NR	400	NR
Kentucky	480	NR	NR	NR	1,400	NR	60	NR	NR	2,940	NR
Louisiana	---	---	---	---	---	---	---	---	---	---	---
Maine	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Maryland	NR	NR	NR	1,088	NR	1,000	36,187	184	1,400	NR	NR
Massachusetts	393	699	59	90	338	NR	356	NR	NR	NR	NR
Michigan	NR	NR	NR	NR	3,200	NR	39,300	3,120	NR	NR	NR
Minnesota	NR	NR	NR	NR	500	NR	14,136	40	NR	NR	NR
Mississippi	---	---	---	---	---	---	---	---	---	---	---
Missouri	---	---	---	---	---	---	---	---	---	---	---
Montana	NR	NR	NR	NR	344	NR	15,460	NR	NR	NR	NR
Nebraska	---	---	---	---	---	---	---	---	---	---	---
Nevada	NR	NR	NR	1,350	NR	NR	NR	NR	NR	NR	NR
New Hampshire	35	29	NR	17	NR	NR	NR	NR	NR	NR	NR
New Jersey	36,960	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
New Mexico	132,280	NR	NR	19,508	NR	NR	NR	NR	NR	NR	NR
New York	NR	NR	NR	NR	NR	600	24,640	12,640	NR	NR	NR
North Carolina	---	---	---	---	---	---	---	---	---	---	---
North Dakota	NR	1	120	1,843	560	NR	4	NR	NR	NR	NR
Ohio	---	---	---	---	---	---	---	---	---	---	---
Oklahoma	---	---	---	---	---	---	---	---	---	---	---
Oregon	---	---	---	---	---	---	---	---	---	---	---
Pennsylvania	NR	NR	NR	NR	NR	NR	17,160	18,482	NR	NR	NR
Rhode Island	61,400	NR	NR	25	NR	NR	NR	NR	NR	NR	NR
South Carolina	NR	650	16	112,075	640	NR	NR	NR	18	NR	3,224
South Dakota	NR	NR	NR	125	NR	320	NR	NR	NR	NR	NR
Tennessee	NR	NR	NR	25	1,454	NR	2,180	NR	NR	NR	NR
Texas	NR	10	NR	NR	NR	NR	NR	NR	NR	NR	NR
Utah	NR	NR	NR	NR	NR	NR	220	NR	NR	NR	NR
Vermont	---	---	---	---	---	---	---	---	---	---	---
Virginia	125	NR	NR	950	NR	340	NR	NR	150	NR	NR
Washington	175	NR	26	845	7,448	2,018	34,590	29,200	NR	NR	NR
West Virginia	---	---	---	---	---	---	---	---	---	---	---
Wisconsin	685	2	51	945	5,400	NR	18,818	195	NR	NR	NR
Wyoming	NR	NR	NR	NR	104	NR	5,960	NR	NR	NR	NR

--- Not available
 NR No usage reported.

¹ Data for California may be biased on the high side because usage by some non-state agencies was included.

Source: U.S. Environmental Protection Agency, Office of Pesticide Programs, Production, Distribution, Use and Environmental Impact Potential of Selected Pesticides, 1975.

TABLE 5-8
DOMESTIC DISAPPEARANCE OF SELECTED PESTICIDES AT THE
MANUFACTURERS' LEVEL IN THE UNITED STATES¹
(in thousands of pounds)

PESTICIDE	1968 ²	1969 ³	1970 ³	1971 ³	1972 ³	1973 ³
Aldrin-toxaphene group	38,710	89,721	62,282	85,005	105,980	89,362
Calcium arsenate	1,992	2,117	2,900	2,457	1,751	1,299
Copper sulfate	87,452	99,840	77,344	70,272	72,214	90,878
DDT	28,253	25,756	20,457	13,234	23,546	1,053
Lead arsenate	4,747	7,721	5,860	4,142	5,024	3,005
2,4-D	68,404	49,526	46,942	32,174	23,179	40,011
2,4,5-T	15,804	3,218	4,871	1,389	498	2,514

¹ Domestic disappearance is that material moved from the manufacturers' premises during a given year, other than for direct export. It is calculated by adding inventories at the beginning of the year to total production and imports, and subtracting total exports and inventories at the end of the year. Disappearance is shown for all domestic uses, including nonagricultural and chemical intermediate uses. It includes any exports by firms other than manufacturers, and military shipments abroad, as these are not considered exports.

² Year ending September 30.

³ Year ending December 31.

Source: U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service, The Pesticide Review, 1974, 1975.

TABLE 5-9
SYNTHETIC ORGANIC PESTICIDES: SUMMARY OF PRODUCTION AND SALES IN THE UNITED STATES¹

ITEM	1960	1965	1970	1971	1972	1973 ²
<u>Production</u>						
Quantity (in thousands of pounds)	647,795	877,197	1,034,075	1,135,717	1,157,698	1,288,952
Increase Over Previous Year (percent)	10.6	12.1	-6.4	9.8	1.9	11.3
Value (in thousands of current dollars)	307,293 ³	576,787 ³	1,058,389 ³	1,282,630 ³	1,344,832 ³	1,492,770 ³
Increase Over Previous Year (percent)	14.4	21.7	11.0	21.2	4.8	11.0
<u>Sales</u> (Domestic and Export)						
Quantity (in thousands of pounds)	570,397	763,905	880,914	946,337	1,021,565	1,198,568
Increase Over Previous Year (percent)	13.4	10.3	-5.1	7.4	8.6	17.4
Value (in thousands of current dollars)	261,789 ⁴	497,066 ⁴	870,314 ⁴	979,083 ⁴	1,091,708 ⁴	1,343,581 ⁴
Increase Over Previous Year (percent)	16.1	16.4	2.2	12.5	11.5	23.1

¹ Includes a small quantity of soil conditioners.

² Preliminary.

³ Calculated as the unit value at the manufacturers' level multiplied by the quantity produced.

⁴ As reported by the Tariff Commission.

Source: U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service, The Pesticide Review, 1970, 1971, The Pesticide Review, 1974, 1975.

TABLE 6-10
SYNTHETIC ORGANIC CHEMICALS AND THEIR RAW MATERIALS:
U.S. PRODUCTION AND SALES, 1972 AND 1973

CHEMICAL	PRODUCTION			SALES		
	1972 <small>(in millions of pounds)</small>	1973 <small>(in millions of pounds)</small>	INCREASE OR DECREASE (-), 1973 OVER 1972 ¹ <small>(percentage)</small>	1972 <small>(in millions of pounds)</small>	1973 <small>(in millions of pounds)</small>	INCREASE OR DECREASE (-), 1973 OVER 1972 ¹ <small>(percentage)</small>
TOTAL ²	266,419	286,092	7.4	150,818	164,312	8.9
Tar	7,472	7,325	-2.0	3,409	3,363	-1.3
Tar crudes ³	7,937	7,802	-1.7	5,304	5,151	-2.9
Crude products from petroleum and natural gas	86,792	91,250	5.1	47,900	49,625	3.6
Synthetic organic chemicals, total ²	164,218	179,717	9.4	94,205	106,173	12.7
Cyclic intermediates	34,967	35,863	2.6	16,196	17,915	10.6
Dyes	263	284	7.9	255	266	4.6
Organic pigments	66	69	5.3	53	61	15.5
Medicinal chemicals	234	234	-0.3	163	179	9.8
Flavor and perfume materials	110	117	5.9	104	108	4.2
Plastics and resin materials	25,921	30,251	16.7	22,946	27,018	17.7
Rubber-processing chemicals	361	401	11.1	280	312	11.3
Elastomers (synthetic rubbers)	4,914	5,990	21.9	4,136	5,159	24.7
Plasticizers	1,708	1,873	9.7	1,637	1,708	4.3
Surface-active agents	4,039	4,372	8.3	2,258	2,580	14.3
Pesticides and related products	1,158	1,289	11.3	1,022	1,199	17.3
Miscellaneous chemicals	90,476	98,974	9.4	45,155	49,667	10.0

¹ Percentages calculated from figures rounded to thousands.

² Because of rounding, figures may not add to the totals shown.

³ Estimated in part to avoid disclosing individual company operations.

Source: U.S. International Trade Commission, Synthetic Organic Chemicals: United States Production and Sales, 1973, 1975.

TABLE 6-1
U.S. PRODUCTION OF SELECTED AGRICULTURAL PRODUCTS
(in thousands of bushels, unless otherwise noted)

PRODUCT	1950	1960	1970	1971	1972	1973	1974
All Wheat	1,019,344	1,354,709	1,351,558	1,617,789	1,544,936	1,705,167	1,793,322
Rye	21,403	33,108	36,840	49,288	29,183	26,263	19,293
Oats	1,369,189	1,153,332	917,159	881,277	691,973	666,867	620,539
Barley	303,772	429,005	416,139	463,601	423,461	421,527	308,077
Corn for Grain	2,764,071	3,906,949	4,151,938	5,641,112	5,573,120	5,646,806	4,651,167
Sugarbeets ¹	13,535	16,421	26,378	27,096	28,410	24,499	22,268
Rice ²	38,820	54,591	83,805	85,768	85,439	92,765	114,096
Soybeans for Beans	299,249	555,085	1,127,100	1,175,989	1,270,630	1,547,165	1,233,425
Potatoes ²	259,112	257,104	325,752	319,354	295,955	299,410	340,116
Cotton Lint ³ (fiber)	10,014	14,272	10,192	10,477	13,704	12,974	11,702
Tobacco ⁴	2,029,557	1,944,175	1,906,453	1,704,884	1,749,085	1,742,105	1,958,214
All Hay ¹	103,820	118,158	126,971	129,119	128,614	134,751	126,960

- 1 in 1000 tons
2 in 1000 hundredweight (cwt.)
3 in 1000 bales
4 in 1000 pounds

Sources: Statistical Reporting Service, U.S. Department of Agriculture, "Crop Production, 1974 Annual Summary," Agricultural Statistics 1972 and Agricultural Statistics 1974.

TABLE 6-2
U.S. TRENDS IN YIELD PER HARVESTED ACRE FOR SELECTED CROPS
 (in bushels per acre, unless otherwise noted)

CROP	1950	1960	1970	1971	1972	1973	1974
All Wheat	16.5	26.1	31.0	33.9	32.7	31.7	27.4
Rye	12.2	19.6	25.8	28.1	26.9	25.4	21.5
Oats	34.8	43.4	49.2	55.9	51.2	47.4	46.6
Barley	27.2	31.0	42.8	45.7	43.6	40.3	37.2
Corn for Grain	38.2	54.7	72.4	88.1	97.1	91.2	71.3
Sugarbeets ¹	14.6	17.2	18.7	20.2	21.4	20.1	18.3
Rice ²	2,371	3,423	4,618	4,718	4,700	4,274	4,441
Soybeans for Beans	21.7	23.5	26.7	27.5	27.8	27.7	23.5
Potatoes ³	152.6	185	229	230	236	230	246
Cotton Lint ² (fiber)	269	446	438	438	507	520	443
Tobacco ²	1,269	1,703	2,122	2,035	2,076	1,965	2,036
All Hay ¹	1.38	1.76	2.06	2.10	2.15	2.17	2.10

1 in tons

2 in pounds

3 in hundred weight (cwt.)

Sources: Statistical Reporting Service, U.S. Department of Agriculture,
 "Crop Production, 1974 Annual Summary," Agricultural Statistics 1972
 and Agricultural Statistics 1974.

TABLE 9-3
QUANTITIES OF COMMERCIAL FERTILIZERS¹ CONSUMED IN THE UNITED STATES BY STATE
 (in thousands of short tons)

STATE	COMMERCIAL FERTILIZER						
	1950 ²	1960 ²	1970 ²	1971 ²	1972 ²	1973 ²	1974 ²
UNITED STATES	18,092,922	24,632,732	39,433,512	40,981,788	41,059,011	43,148,599	46,932,599
Alabama	1,139,773	1,073,733	1,033,032	1,036,274	1,108,966	1,122,674	1,137,692
Alaska	NA	4,319	4,808	4,353	4,343	5,233	3,917
Arizona	61,674	185,606	280,307	286,739	326,654	334,626	371,811
Arkansas	318,640	364,603	572,697	597,543	678,377	633,887	745,035
California	1,036,301	2,768,041	3,137,942	3,185,962	3,412,994	3,510,061	4,214,943
Colorado	39,143	96,260	268,467	290,129	309,551	320,056	362,591
Connecticut	NA	NA	57,179	60,036	61,385	69,582	70,470
Delaware	57,507	90,953	115,731	117,039	106,059	128,632	124,791
District of Columbia	1,964	5,413	8,595	8,576	7,792	7,601	5,862
Florida	877,955	1,558,574	1,892,364	1,738,067	1,850,893	1,893,309	1,920,446
Georgia	1,188,014	1,455,253	1,845,703	1,915,769	1,984,885	2,145,174	2,210,560
Hawaii	115,290	127,255	189,262	199,858	202,725	171,199	165,720
Idaho	51,645	149,513	423,208	438,920	421,192	509,121	501,739
Illinois	870,556	1,452,144	3,141,728	3,199,757	2,926,904	3,131,408	3,522,773
Indiana	798,467	1,152,270	1,973,433	2,051,729	1,866,981	2,043,535	2,271,268
Iowa	332,661	690,692	2,647,437	2,651,544	2,605,843	2,665,740	2,939,951
Kansas	160,215	333,961	1,230,916	1,167,989	1,245,272	1,447,795	1,531,724
Kentucky	554,090	569,387	764,036	829,795	811,131	845,059	948,809
Louisiana	274,590	309,548	555,281	615,495	647,296	589,724	731,626
Maine	NA	NA	143,924	136,346	124,735	137,147	146,819
Maryland	251,747	299,562	353,586	432,656	336,063	441,445	400,725
Massachusetts	NA	NA	69,596	71,123	72,234	76,738	77,373
Michigan	474,485	670,471	869,654	1,027,684	942,745	896,523	1,018,000
Minnesota	217,996	538,450	1,306,881	1,750,988	1,608,873	1,780,511	1,800,339
Mississippi	640,607	693,514	739,649	746,672	893,206	916,202	965,700
Missouri	407,710	802,346	1,488,168	1,491,640	1,578,557	1,417,782	1,621,076
Montana	10,957	44,728	186,451	202,947	203,000	245,929	229,874
Nebraska	43,667	321,934	1,242,810	1,352,103	1,364,811	1,467,673	1,493,859
Nevada	1,124	5,585	16,221	16,998	17,923	24,719	24,945
New Hampshire	NA	NA	18,132	19,673	18,885	18,221	21,132
New Jersey	237,750	237,141	209,247	226,279	189,721	217,446	217,127
New Mexico	19,241	46,154	95,820	101,152	93,610	113,367	116,060
New York	608,343	592,295	613,232	640,776	624,551	627,356	649,565
North Carolina	1,740,348	1,602,913	1,785,622	1,825,647	1,706,537	1,845,207	2,052,205
North Dakota	18,671	143,977	355,236	331,703	341,595	483,505	478,351
Ohio	906,634	1,086,748	1,404,412	1,579,037	1,517,094	1,551,576	1,818,209
Oklahoma	141,266	145,343	626,304	631,585	638,595	718,978	771,753
Oregon	96,861	198,693	418,032	444,129	444,873	535,535	453,206
Pennsylvania	632,060	668,247	679,697	705,618	663,537	681,308	716,053
Rhode Island	NA	NA	16,587	16,977	16,922	16,845	27,281
South Carolina	874,528	783,943	855,625	859,677	860,218	982,175	965,043
South Dakota	5,496	36,098	292,439	312,413	304,494	366,182	395,297
Tennessee	506,338	624,039	750,447	745,972	736,135	766,491	816,050
Texas	553,535	708,891	2,251,805	2,320,837	2,514,837	2,556,774	2,913,013
Utah	15,757	42,354	90,422	89,844	109,429	121,400	121,273
Vermont	NA	NA	53,742	55,378	53,908	54,418	64,857
Virginia	728,304	749,634	825,873	823,704	802,905	823,251	803,048
Washington	81,382	276,486	541,645	586,108	608,044	781,285	774,673
West Virginia	104,148	75,388	71,122	67,116	72,891	68,475	77,004
Wisconsin	384,032	422,652	846,719	901,861	942,189	987,733	1,040,029
Wyoming	5,828	18,179	72,066	71,160	79,821	89,986	80,905

NA Not available.

¹ Includes government sales of fertilizer; secondary and micronutrient fertilizers (those essential to plant growth other than nitrogen, phosphate, and potash), but not liming materials.

² Year ended June 30.

³ Data for individual New England states are not available. Total for Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont is 505,398 tons.

⁴ Data for individual New England states are not available. Total for Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont is 409,462 tons.

Sources: U.S. Department of Agriculture, Statistical Reporting Service, Commercial Fertilizers, 1971, 1975 and Agricultural Statistics, 1972, 1973, 1974.

TABLE 6-4
ESTIMATED U.S. SUPPLY OF NITROGEN, PHOSPHATE, AND
POTASH FOR FERTILIZER PURPOSES
(In thousands of short tons)

ITEM	1971-72	1972-73	1973-74	1974-75
NITROGEN (as N)				
Supply from domestic production:				
Liquids ¹	5,617	5,801	6,400	6,824
Solids ²	3,354	3,649	3,602	3,679
Imports ³	843	881	1,007	1,225
Exports ⁴	1,032	1,358	1,333	978
Net domestic supply	8,782	8,973	9,676	10,750
PHOSPHATE (as P₂O₅)				
Supply from domestic production ⁵	6,150	6,387	6,604	7,398
Imports ⁶	326	312	257	269
Exports ⁷	1,102	1,424	1,560	1,614
Net domestic supply	5,374	5,275	5,301	6,053
POTASH (as K₂O)				
Supply from domestic production ⁸	2,432	2,680	2,657	2,640
Imports ⁹	3,088	3,117	3,996	4,596
Exports ¹⁰	657	922	1,033	795
Net domestic supply	4,863	4,875	5,620	6,441

- ¹Includes ammonia, aqua, and all other liquid nitrogens.
- ²Includes ammonium nitrate, ammonium nitrate--limestone mixtures, and ammonium sulfate, all adjusted for the estimated quantity going into non-fertilizer uses, and urea. Also includes all other solid nitrogens, adjusted by the estimated amount of imported ammonia used in primary materials.
- ³Includes ammonia, aqua, nitrogen solutions, ammonium nitrate, ammonium sulfate, urea, adjusted for the estimated quantity going into non-fertilizer uses, sodium nitrate, and all other nitrogen imports.
- ⁴Includes ammonia, aqua, ammonium nitrate, ammonium sulfate, urea, and all other nitrogen exports.
- ⁵Includes normal and enriched superphosphate, concentrated superphosphate, ammonium phosphate, composed of liquid and solid phosphates, excluding those combined with potash salts in the process of manufacture, nitric phosphates, sodium phosphate, wet base goods, natural organics, phosphate rock, colloidal phosphate, basic slag, estimates of wet-process and furnace phosphoric acid for liquid and solid mixed fertilizers, and direct application, and ammonium phosphates combined with potash salts in the process of manufacture.
- ⁶Includes concentrated superphosphate, ammonium sulfate, and all other phosphate imports.
- ⁷Includes normal superphosphate, concentrated superphosphate, ammonium phosphate, and all other phosphate export.
- ⁸Includes potassium chloride, potassium sulfate, potassium-magnesium sulfate, and all other potash supplies from domestic production.
- ⁹Includes potassium chloride, potassium sulfate, potassium-magnesium sulfate, and all other potash imports.
- ¹⁰Includes potassium chloride, potassium sulfate, potassium-magnesium sulfate, and all other potash exports.

Source: U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service, The Fertilizer Supply, 1973-74 and 1974-75.

TABLE 6-5
 NUMBER OF LIVESTOCK ON U.S. FARMS¹
 (in thousands)

CLASS OF LIVESTOCK AND POULTRY	1970	1971	1972	1973	1974p
Cattle	112,303	114,470	114,578	121,534	127,540
Hogs ²	56,655	67,449	62,507	59,180	61,022
All Sheep	20,288	19,597	17,726	17,724	16,545
Stock Sheep	17,411	16,968	15,835	14,852	13,885
Chickens ²	432,332	441,447	425,576	406,241	412,329
Turkeys	6,769	7,715	NA	NA	NA
Turkey Breeder Hens ³	3,331	3,405	3,370 ²	3,303 ²	3,605 ²

P Preliminary
 NA Not available

¹ as of January 1 of year shown.

² as of December 1 of preceding year.

³ data for 26 major producing states.

Sources: U.S. Department of Agriculture, Agricultural Statistics 1972
and Agricultural Statistics 1974.

TABLE 6-6
NUMBER OF FED CATTLE MARKETED
(in thousands of head)

STATE	UNDER 1000 HEAD FEEDLOT CAPACITY					1000 HEAD AND OVER FEEDLOT CAPACITY				
	1970	1971	1972	1973	1974	1970	1971	1972	1973	1974
TOTAL	11,234	10,520	10,277	8,941	8,261	13,650	14,761	16,568	16,363	15,073
Arizona	2	2	2	1	1	858	899	890	918	894
California	19	13	8	9	13	1,947	1,977	2,054	1,933	1,989
Colorado	288	240	183	165	131	1,617	1,911	2,118	1,979	1,761
Idaho	60	40	37	36	11	374	392	391	359	333
Illinois	1,064	942	886	837	755	101	107	117	108	95
Indiana	451	406	408	364	336	66	70	70	42	25
Iowa	4,062	3,574	3,576	2,958	2,710	460	410	430	431	387
Kansas	495	494	489	401	400	1,395	1,472	1,916	2,099	1,840
Michigan	210	200	200	184	177	44	51	51	60	65
Minnesota	822	819	877	813	795	55	56	52	62	69
Missouri	617	568	556	446	348	57	79	48	37	52
Montana	34	35	26	42	26	150	200	221	173	161
Nebraska	1,636	1,684	1,613	1,407	1,330	1,973	2,064	2,375	2,200	2,025
New Mexico	5	3	7	3	1	394	327	369	398	354
North Dakota	63	58	60	50	53	33	22	25	35	31
Ohio	391	385	376	342	328	38	46	62	60	58
Oklahoma	50	52	47	41	36	492	535	579	523	530
Oregon	37	34	25	22	22	129	123	118	107	104
Pennsylvania	119	119	121	112	114	9	9	9	9	9
South Dakota	463	480	454	401	407	89	122	107	158	178
Texas	98	99	98	99	85	3,040	3,564	4,210	4,313	3,814
Washington	43	51	45	34	33	305	312	330	333	268
Wisconsin	205	222	181	174	149	12	13	26	26	31

Sources: U.S. Department of Agriculture, Livestock and Meat Statistics, 1973 and Supplement for 1973, Supplement for 1974, and Cattle on Feed, January 1973.

TABLE 6-7
NUMBER OF CATTLE FEEDLOTS IN THE UNITED STATES

STATE	UNDER 1000 HEAD CAPACITY ¹					1000 HEAD AND OVER FEEDLOT CAPACITY ²				
	1970	1971	1972	1973	1974	1970	1971	1972	1973	1974
TOTAL	174,655	163,032	152,374	144,180	135,810	2,162	2,205	2,035	2,040	1,922
Arizona	8	8	7	3	6	53	53	46	45	41
California	153	139	42	42	28	272	271	139	139	139
Colorado	654	622	621	426	423	184	217	191	183	188
Idaho	546	525	525	492	502	89	88	88	76	72
Illinois	19,452	17,943	16,440	14,943	14,445	48	57	60	57	55
Indiana	13,473	12,446	11,476	10,977	10,477	27	24	24	23	23
Iowa	41,829	38,830	35,830	33,830	31,835	171	170	170	170	165
Kansas	8,868	7,872	7,369	6,363	5,660	132	128	131	137	140
Michigan	1,673	1,671	1,675	1,667	1,667	27	29	25	33	33
Minnesota	18,162	15,960	13,965	11,757	10,970	38	40	35	43	50
Missouri	14,966	13,965	12,974	12,980	11,979	34	35	26	20	21
Montana	424	387	317	236	211	77	86	72	69	65
Nebraska	18,400	17,800	16,629	16,600	14,510	514	522	543	550	460
New Mexico	23	22	19	8	7	5	46	43	46	41
North Dakota	1,079	983	1,082	930	890	21	17	18	20	20
Ohio	9,472	8,972	8,972	8,472	8,175	28	28	28	28	25
Oklahoma	753	651	459	408	358	47	49	41	42	42
Oregon	319	314	315	310	305	37	34	30	26	26
Pennsylvania	5,997	5,997	5,997	5,997	5,997	3	3	3	3	3
South Dakota	9,049	9,049	9,046	9,137	9,123	51	51	54	63	77
Texas	1,300	1,300	1,300	1,300	1,001	227	225	130	233	199
Washington	262	253	227	165	165	30	25	25	21	21
Wisconsin	7,793	7,293	7,090	7,087	7,084	7	7	13	13	16

¹ Number of lots operating at the end of the year.

² Number of lots operating at any time during the year.

Sources: U.S. Department of Agriculture, Livestock and Meat Statistics, 1973 and Supplement for 1973, Supplement for 1974, and Cattle on Feed, January 1975.

TABLE 6-8
ESTIMATES OF U.S. IRRIGATION REQUIREMENTS, BY STATE, 1975
(In thousands of acre-feet)

STATE	NORMAL YEAR ¹				DRY YEAR ²			
	NET DEPLETION ³	CONSUMPTIVE IRRIGATION REQUIREMENT ⁴	FARM DELIVERY ⁵	GROSS DIVERSION REQUIREMENTS ⁶	NET DEPLETION ³	CONSUMPTIVE IRRIGATION REQUIREMENT ⁴	FARM DELIVERY ⁵	GROSS DIVERSION REQUIREMENTS ⁶
UNITED STATES	89,152.5	67,879.8	128,193.4	167,018.7	100,451.4	75,779.4	143,651.5	184,888.5
Alabama	17.6	8.9	14.5	14.5	13.2	11.1	18.1	18.1
Alaska	3.4	2.8	5.0	5.7	4.0	3.1	5.0	6.5
Arizona	5,850.9	3,764.4	8,217.3	11,017.4	5,978.4	3,841.4	8,349.5	11,282.2
Arkansas	1,642.3	1,414.7	2,494.7	2,494.7	1,945.0	1,690.7	2,897.4	2,897.4
California	23,619.4	17,397.5	26,521.3	33,110.5	25,321.4	18,630.7	28,465.8	35,535.0
Colorado	4,577.6	3,690.2	7,868.1	11,085.9	5,186.9	4,189.8	8,911.5	12,574.5
Connecticut	2.6	6.5	10.2	10.2	8.8	7.7	12.0	12.0
Delaware	19.9	17.6	27.2	27.2	24.6	21.6	33.5	33.5
District of Columbia	—	—	—	—	—	—	—	—
Florida	2,529.7	2,123.5	8,163.8	3,163.8	3,286.0	2,762.6	4,110.0	4,110.0
Georgia	76.8	65.7	102.3	102.3	91.6	78.7	122.2	122.2
Hawaii	431.4	364.3	702.6	1,331.2	465.7	392.0	755.2	1,426.9
Idaho	5,511.5	4,526.4	13,413.1	20,696.8	6,739.0	5,332.4	16,406.5	25,375.6
Illinois	41.0	35.4	51.4	51.4	49.2	43.5	62.2	62.2
Indiana	29.7	25.0	36.3	38.4	36.4	30.7	44.9	47.5
Iowa	44.0	25.9	59.1	62.2	49.5	29.3	66.7	70.0
Kansas	2,111.9	1,675.6	3,353.6	3,422.0	2,377.5	1,886.2	3,775.6	3,821.1
Kentucky	18.8	16.0	25.1	25.1	22.4	19.2	30.2	30.2
Louisiana	1,451.5	1,378.2	2,131.7	2,219.3	1,506.8	1,327.7	2,213.3	2,303.5
Maine	2.7	2.6	4.1	4.1	3.7	3.4	5.4	5.4
Maryland	19.1	16.7	25.9	25.9	24.5	21.3	32.9	32.9
Massachusetts	16.2	14.2	22.0	22.0	20.0	17.3	27.1	27.1
Michigan	84.5	56.3	81.0	81.0	76.7	67.0	96.5	96.5
Minnesota	30.3	22.8	36.0	38.2	39.7	30.0	46.7	49.3
Mississippi	108.0	165.0	408.3	408.3	147.7	299.1	461.0	461.0
Missouri	171.3	115.5	178.5	186.1	193.1	130.1	201.9	210.2
Montana	3,291.4	2,584.6	6,035.1	12,087.8	3,677.2	2,887.3	6,749.7	13,526.5
Nebraska	5,646.4	4,369.7	7,612.9	8,878.0	6,477.2	5,015.5	8,729.8	10,171.8
Nevada	1,904.6	1,393.5	3,119.4	3,344.4	2,116.2	1,548.9	3,467.0	3,714.2
New Hampshire	1.1	1.0	1.6	1.6	1.6	1.4	2.3	2.3
New Jersey	93.8	82.6	127.3	127.3	114.9	101.2	155.9	155.9
New Mexico	2,148.6	1,527.7	3,080.1	3,846.0	2,332.8	1,653.7	3,363.0	4,166.4
New York	55.7	48.9	75.8	75.8	67.9	59.6	92.5	92.5
North Carolina	75.7	66.1	102.7	102.7	95.1	83.3	129.0	129.0
North Dakota	128.6	88.4	176.0	274.5	153.1	104.9	209.6	326.3
Ohio	17.4	14.1	22.5	22.5	22.0	17.5	27.8	27.8
Oklahoma	1,151.0	751.6	1,372.4	1,463.1	1,318.7	863.8	1,572.7	1,676.2
Oregon	3,005.9	2,508.0	5,872.5	8,830.8	3,272.5	2,510.0	6,373.5	9,573.7
Pennsylvania	16.9	15.0	23.1	23.1	21.4	18.9	29.1	29.1
Rhode Island	1.0	0.8	1.4	1.4	1.4	1.1	2.0	2.0
South Carolina	20.2	17.2	27.2	27.2	24.1	21.1	32.8	32.8
South Dakota	291.4	163.9	333.6	388.5	337.4	190.3	385.2	448.5
Tennessee	9.9	8.2	13.3	13.3	12.5	10.2	16.3	16.3
Texas	14,568.2	11,096.4	16,697.0	17,631.0	16,370.6	12,462.9	18,777.6	19,536.2
Utah	2,076.0	1,677.3	3,890.1	5,030.4	2,311.8	1,875.1	4,349.7	5,623.0
Vermont	0.2	0.2	0.4	0.4	0.4	0.4	0.6	0.6
Virginia	39.3	33.9	52.7	52.7	52.2	44.9	69.7	69.7
Washington	3,596.7	2,492.0	4,322.0	6,050.9	4,142.4	2,862.1	4,936.8	6,926.8
West Virginia	1.9	1.5	2.8	2.8	2.6	2.3	3.6	3.6
Wisconsin	69.1	56.6	88.6	88.6	86.4	71.2	109.6	109.6
Wyoming	2,548.8	2,150.2	6,189.6	8,979.7	2,732.8	2,305.5	6,659.9	9,645.9

¹ Precipitation value which is equaled or exceeded 5 years in 10.
² Precipitation value which is equaled or exceeded 8 years in 10.
³ The total irrigation water consumed which reduces water supply and cannot be reused. Includes evapotranspiration by the crop and incidental consumptive losses related to irrigation. Does not include evaporation from irrigation storage reservoirs.
⁴ The crop consumptive use, or evapotranspiration minus effective precipitation. Does not include water required for leaching, germination, frost protection, wind erosion protection or plant cooling.
⁵ Crop consumptive irrigation requirement divided by on-farm efficiency; on-farm efficiency is the difference between the amount of water coming into the headgate and that reaching the plant.
⁶ Water removed from the ground or diverted from a stream, lake or reservoir. Water diversions or withdrawals do not indicate water demand as some water diverted can be reused and gross diversion requirement within a water resources area usually incorporates redirection of the same water.

Source: U.S. Department of Agriculture, Soil Conservation Service, Irrigation Water Use, Preliminary Report, 1975.

TABLE 6-8
WIND EROSION CONDITIONS IN THE GREAT PLAINS¹
(in acres)

TIME PERIOD AND STATE	LAND IN CONDITION TO BLOW	LAND NOT DAMAGED DUE TO EMERGENCY TILLAGE	LAND DAMAGED				CROPS OR COVER DESTROYED ON LAND NOT DAMAGED			
			TOTAL	CROPLAND	RANGELAND	OTHER LAND	TOTAL	CROPLAND	RANGELAND	OTHER LAND
November 1, 1971 - May 31, 1972										
Northern:										
Montana	194,000	1,900	241,510	241,400	--	110	11,800	11,800	--	--
Nebraska	176,000	99,400	113,010	95,800	13,870	3,340	27,950	18,850	8,700	400
North Dakota	696,800	90,700	277,450	276,150	1,300	--	2,695	2,420	275	--
South Dakota	289,000	29,490	121,150	119,300	1,200	650	11,510	11,510	--	--
Wyoming	43,800	44,300	72,650	51,750	20,800	100	8,150	6,950	1,200	--
Southern:										
Colorado	101,860	168,880	76,480	72,900	3,500	60	50,150	49,410	660	80
Kansas	16,500	193,460	133,472	131,109	2,163	200	65,566	65,566	--	--
New Mexico	61,100	44,390	40,350	30,700	3,750	6,100	2,350	1,750	500	100
Oklahoma	116,200	33,800	23,875	21,875	300	2,050	24,960	21,760	1,600	1,600
Texas	1,573,800	2,110,900	1,145,150	1,082,850	39,200	23,100	76,200	75,700	500	--
Total	3,744,060	2,821,420	2,245,297	2,123,484	86,083	35,730	281,331	265,716	13,435	2,180
November 1, 1972 - May 31, 1973										
Northern:										
Montana	397,825	4,316	210,075	159,875	50,000	200	5,000	5,000	--	--
Nebraska	83,150	43,500	17,050	7,050	10,000	--	1,650	1,650	--	--
North Dakota	690,100	187,900	316,180	315,580	500	100	13,620	13,270	150	200
South Dakota	517,000	45,310	161,123	160,623	--	500	13,420	10,420	3,000	2,000
Wyoming	84,500	17,500	19,800	12,400	6,400	1,000	3,800	2,800	1,000	--
Southern:										
Colorado	278,700	62,700	67,330	52,900	13,230	1,100	24,990	23,000	1,950	40
Kansas	4,776	5,000	20,158	18,245	1,913	--	2,466	2,466	--	--
New Mexico	62,800	110,000	35,800	21,700	11,500	2,600	1,900	1,500	400	--
Oklahoma	152,825	70,400	92,520	87,820	3,200	1,500	26,700	22,550	3,400	750
Texas	1,696,500	2,239,500	1,018,250	943,150	27,450	47,650	110,320	109,150	820	350
Total	3,668,176	2,795,126	1,958,286	1,779,343	124,193	54,750	207,866	193,606	10,720	3,340
November 1, 1973 - May 31, 1974										
Northern:										
Montana	530,850	14,700	550,300	530,650	19,000	650	112,750	112,050	700	--
Nebraska	162,000	36,000	49,760	39,800	7,500	2,660	19,600	17,400	1,700	500
North Dakota	847,500	100,800	248,000	247,800	200	--	13,050	13,000	50	--
South Dakota	541,607	112,355	172,489	172,257	150	82	11,215	11,195	--	20
Wyoming	52,600	35,900	21,159	15,159	4,900	1,100	2,750	2,600	50	100
Southern:										
Colorado	314,500	50,335	114,510	91,390	15,200	7,920	48,770	46,130	4,440	200
Kansas	60,700	46,300	81,676	80,576	600	500	20,800	20,800	--	--
New Mexico	882,000	130,200	401,350	359,300	35,850	6,200	162,325	158,100	4,000	25
Oklahoma	105,365	69,600	63,465	52,965	100	10,400	25,850	25,850	--	--
Texas	2,649,120	2,034,920	2,053,735	1,944,745	53,480	55,510	163,723	155,703	520	7,500
Total	6,146,242	2,631,110	3,756,444	3,534,462	136,980	85,022	580,833	561,028	11,460	8,145
November 1, 1974 - May 31, 1975										
Northern:										
Montana	927,640	4,500	455,175	444,200	10,600	375	63,825	60,325	3,500	--
Nebraska	113,000	38,850	138,150	126,100	10,000	2,050	29,210	26,700	2,100	410
North Dakota	2,270,500	156,300	1,490,500	1,486,550	3,850	100	16,100	14,900	1,200	--
South Dakota	679,275	35,770	229,340	224,830	2,800	1,710	20,650	20,030	500	120
Wyoming	132,000	27,000	28,400	18,600	4,850	950	2,050	1,950	100	--
Southern:										
Colorado	1,753,450	498,315	1,457,320	646,265	794,250	16,805	1,322,670	958,490	344,780	19,400
Kansas	230,360	248,850	123,440	119,936	1,500	4	212,480	167,480	45,000	--
New Mexico	151,500	99,000	128,520	72,920	41,000	14,600	59,558	58,200	1,000	358
Oklahoma	206,700	106,570	240,025	238,725	400	900	77,600	74,650	2,250	700
Texas	1,671,856	2,734,703	1,399,434	1,245,931	102,718	50,785	82,375	76,120	4,255	2,000
Total	8,136,281	3,950,138	5,684,304	4,624,057	971,968	88,279	1,886,518	1,458,845	406,685	22,988

¹ Summary of estimates from counties in which wind erosion was prevalent or expected during the wind erosion season (November 1 through May 31).

Source: U.S. Department of Agriculture, Soil Conservation Service, *Wind Erosion Conditions - Great Plains*, published three times each year.

TABLE 6-10
MOST IMPORTANT PESTS IN THE UNITED STATES

RANKING ¹	COMMON NAME OF INSECT PEST
1	European Corn Earworm
2	Eastern Subterranean Termite
3	Gypsy Moth
4	Spider Mites
5	Aphid Complex ²
6	Corn Earworm
7	Alfalfa Weevil
8	Potato Leafhopper
9	Colorado Potato Beetle
10	Mosquitoes, all species
11	Armyworm
12	Cutworm
13	Plum Curculio
14	Codding moth
15	Apple Maggot
16	Cabbage Looper
17	Root Maggots
18	Northern and Southern Corn Rootworm
19	White Grubs
20	Cockroaches ³
21	Scale Insects
22	Mexican Bean Beetle
23	Black Flies
24	White Flies
25	Flea Beetles

¹ Nineteen Extension entomologists and survey entomologists served as judges and rated 97 insect pests on four criteria: losses (unrealized yield and control cost), aesthetics, nuisances, diseases (both plant and animal).

² Includes fruit tree field and vegetable ornamental.

³ Includes American German, and brown banded.

Source: Eastern Branch, Entomological Society of America, unpublished data. (Report of Subcommittee to Chairman of Committee on Insect Survey and Losses, September 1974, by R. J. Daum, J. L. Hellman, S. Race, and R. Webb.)

TABLE 6-11
SOUTHERN PINE BEETLE - ACREAGE INFESTED, FEDERAL FUNDS EXPENDED, TIMBER SALVAGED

STATE	OWNERSHIP	FY 1977			FY 1973			FY 1974				
		GROSS OUTBREAK AREA (Acres)	FEDERAL FUNDS EXPENDED (Dollars)	INFESTED VOLUME SALVAGED (Thousand Board-Feet)	GROSS OUTBREAK AREA (Acres)	FEDERAL FUNDS EXPENDED (Dollars)	INFESTED VOLUME SALVAGED (Thousand Board-Feet)	GROSS OUTBREAK AREA (Acres)	FEDERAL FUNDS EXPENDED (Dollars)	INFESTED VOLUME SALVAGED (Thousand Board-Feet)		
TOTALS	Private	17,041,717	\$ 81,567	39,315	56,845,000	\$1,118,753	164,274	32,848	67,686,314	\$1,100,966	176,990	48,175
	Federal	2,492,004	165,731	19,667	4,751,485	526,753	28,162	3,226	10,357,822	465,463	35,626	3,108
	Total	19,533,721	247,298	58,982	61,596,485	1,645,506	172,436	36,074	78,039,136	1,566,429	162,616	51,283
Alabama	Private	203,000	13,293	804	500,000	500,000	66,722	20,377	15,000,000	475,000	28,843	12,670
	Federal	203,000	13,293	804	500,000	180,064	6,194	502	1,276,240	74,658	1,815	185
	Total	406,000	26,586	1,608	1,000,000	680,064	72,916	20,879	16,276,240	549,658	30,658	12,855
Arkansas	Private	---	---	---	645,000	22,952	879	188	1,336,000	21,285	341	160
	Federal	---	---	---	645,000	22,952	879	188	1,336,000	21,285	341	160
	Total	---	---	---	1,290,000	45,904	1,758	376	2,672,000	42,570	682	320
Georgia	Private	2,000,000	988	290	9,200,000	38,000	3,920	2,717	9,018,130	96,000	31,282	13,099
	Federal	2,986,000	10,860	4,767	7,800,000	51,396	6,431	628	1,336,132	50,124	3,917	313
	Total	2,296,000	11,848	5,057	9,900,000	89,396	10,351	3,345	10,354,262	146,124	35,219	13,414
Louisiana	Private	4,000,000	26,000	16,000	7,500,000	285,000	17,836	2,668	6,800,000	100,000	1,292	158
	Federal	561,000	60,630	6,550	600,000	59,894	2,742	411	1,031,287	32,000	820	33
	Total	4,561,000	86,630	22,550	8,100,000	344,894	20,586	3,079	7,831,287	132,000	2,112	191
Mississippi	Private	---	---	---	1,600,000	44,960	240	518	1,652,600	56,210	830	451
	Federal	188,615	17,168	3,000	2,000,000	50,034	2,513	10	371,497	36,618	3,351	---
	Total	188,615	17,168	3,000	3,600,000	94,994	2,753	528	2,024,097	92,828	4,181	451
North Carolina	Private	4,327,717	9,579	21,025	6,700,000	62,841	20,143	2,351	13,506,000	110,471	41,833	6,431
	Federal	631,220	21,210	980	600,000	41,448	2,012	110	2,757,430	33,000	2,459	705
	Total	4,958,937	30,689	21,925	7,300,000	104,289	22,155	2,461	16,263,430	143,471	44,292	7,136
South Carolina	Private	316,000	22,070	2,767	3,600,000	55,183	544	538	3,900,000	47,500	5,101	10,725
	Federal	481,439	22,070	2,767	1,800,000	55,183	2,902	814	1,474,444	35,250	3,120	377
	Total	797,439	44,140	5,534	5,400,000	110,366	3,446	1,352	5,374,444	82,750	8,221	11,102
Tennessee	Private	50,000	15,700	579	80,000	22,350	341	69	1,714,984	---	676	9
	Federal	50,000	15,700	579	80,000	22,350	341	69	1,714,984	---	676	9
	Total	100,000	31,400	1,158	160,000	44,700	682	138	3,429,968	---	1,352	18
Texas	Private	6,700,000	45,000	2,000	8,000,000	165,030	28,000	811	8,000,000	185,000	4,941	381
	Federal	80,000	4,800	300	700,000	56,924	4,847	185	1,216,967	140,835	17,004	643
	Total	6,780,000	49,800	2,300	8,700,000	221,954	32,847	996	9,216,967	325,835	21,945	1,024
Virginia	Private	---	---	---	4,600,000	---	6,000	2,700	6,889,600	9,500	11,326	4,090
	Federal	---	---	---	71,465	9,441	180	497	3,686	15,910	2,500	729
	Total	---	---	---	4,671,465	9,441	6,180	3,197	6,961,289	25,410	13,826	4,819

--- Means 0

1 Total acreage of all counties within outbreak area.

Source: Forest Pest Management, U.S. Forest Service, Southeastern Area Southern Pine Beetle Outbreak Status, January 1975.

TABLE 6-12
GYPSY MOTH DEFOLIATION, BY STATE¹
(in acres)

STATE	1940	1950	1960	1970	1971	1972	1973
TOTAL	485,636	5,168	48,722	972,833	1,945,224	1,369,130	1,773,846
Connecticut	0	375	15,000	368,706	655,107	513,880	333,215
Maine	204,041	2	6,350	1,080	820	40	490
Massachusetts	125,586	4,979	150	6,835	18,787	20,480	43,970
New Hampshire	152,797	12	4,600	38,525	3,250	200	30
New Jersey	0	0	0	129,835	180,595	226,140	254,865
New York	0	0	16,490	416,270	479,150	177,605	248,441
Pennsylvania	0	0	0	10,500	598,200	404,060	856,710
Rhode Island	52	0	0	1,082	8,525	22,510	35,925
Vermont	3,160	0	6,132	0	790 ¹	4,215	200

¹ Based on partial survey.

Sources: U.S. Department of Agriculture, Animal and Plant Health Inspection Service, unpublished data, and U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service, The Pesticide Review, 1973.

TABLE 6-13
U.S. COMMERCIAL FISH LANDINGS: NUMBER OF FISHERMEN, FISHING CRAFT, AND EMPLOYMENT, BY STATE

STATE	1960						1970					
	TOTAL LANDINGS		FISHERMEN	FISHING CRAFT	WHOLESALE AND MANUFACTURING		TOTAL LANDINGS		FISHERMEN	FISHING CRAFT	WHOLESALE AND MANUFACTURING	
	THOUSAND POUNDS	THOUSAND DOLLARS			PLANTS	YEARLY EMPLOYMENT (AVERAGE)	THOUSAND POUNDS	THOUSAND DOLLARS			PLANTS	YEARLY EMPLOYMENT (AVERAGE)
UNITED STATES	4,918,633	351,174	139,853	77,488	3,988	53,391	4,917,220	613,146	140,538 ¹	87,161 ¹	3,735	64,690
Alabama	28,260 ²	4,351 ²	2,077 ²	1,504 ²	74 ²	606 ²	32,116	10,319	2,363	1,440	73	1,156
Alaska	357,713	40,934	14,330	6,724	134	2,846	543,326	96,118	19,529	11,383	108	1,000
Arizona	0	0	0	0	0	0	0	0	0	0	0	0
Arkansas	6,036	733	1,662	1,508	38	63	10,981	2,346	6,094	6,252	27	86
California	540,837	49,578	8,013	2,769	156	7,061	702,720	86,392	12,817	1,690	202	7,611
Colorado	0	0	0	0	0	0	0	0	0	0	0	0
Connecticut	6,196	1,180	810	620	13	136	4,803	1,653	872	651	9	36
Delaware	784,728	3,369	719	378	20	377	9,960	1,293	623	237	19	155
Dist. of Columbia	0	0	0	0	0	0	0	0	0	0	0	0
Florida	196,946	26,828	10,834	6,434	420	3,824	192,714	43,266	9,665	5,683	442	5,359
Georgia	27,968	3,391	1,926	1,304	61	2,297	14,415	4,163	1,307	934	53	1,780
Hawaii	1,118	2,704	598	265	22	442	11,051	3,900	1,436	768	13	3,317 ³
Idaho	0	0	0	0	0	0	1,403	81	113	107	0	0
Illinois	7,808	712	654	561	97	203	5,222	670	420	347	80	857
Indiana	1,008	51	113	109	8	48	1,102	17	150	135	15	95
Iowa	3,817	370	681	616	32	234	3,445	365	447	459	19	94
Kansas	60	8	70	66	3	22	631	31	81	12	7	120
Kentucky	3,460	331	1,330	1,400	26	83	3,116	497	671	665	14	113
Louisiana	574,668 ⁴	27,290 ⁴	10,904 ⁴	6,284 ⁴	232 ⁴	3,178 ⁴	1,115,328	62,516	12,849	7,950	277	1,869
Maine	294,641	20,071	9,802	7,075	268	3,435	158,806	30,672	11,111	6,946	250	1,233
Maryland	69,113	13,936	9,096	6,187	253	4,271	79,897	18,566	11,668	9,616	205	3,790
Massachusetts	480,421	35,947	10,174	3,470	236	4,889	286,936	47,013	8,184	3,770	233	4,991
Michigan	25,021 ⁴	2,907 ⁴	1,816 ⁴	844 ⁴	92 ⁴	462 ⁴	21,169	2,875	544	254	52	296
Minnesota	11,710	726	654	310	22	117	11,240	1,152	691	363	25	144
Mississippi	316,408 ²	7,932 ²	3,450 ²	1,957 ²	73 ²	1,112 ²	300,976	11,679	3,570	2,192	76	1,102
Missouri	344	35	310	310	41	298	800	157	460	436	35	412
Montana	21	2	3	4	0	0	956	82	15	12	0	0
Nebraska	562	39	242	242	6	41	231	12	149	153	8	39
Nevada	0	0	0	0	0	0	0	0	0	0	0	0
New Hampshire	1,188	430	327	102	17	99	1,333	828	525	250	13	394
New Jersey	373,688	9,607	3,966	2,054	115	1,817	97,547	12,505	2,705	1,564	102	1,756
New Mexico	0	0	0	0	0	0	0	0	0	0	0	0
New York	125,932	8,781	3,864	2,080	314	3,294	33,018	16,238	5,334	2,759	226	2,533
North Carolina	265,246	7,020	6,274	3,304	385	978	173,462	9,365	4,114	2,872	176	1,381
North Dakota	827	35	30	5	3	18	300	27	0	4	5	11
Ohio	18,011 ⁴	1,632 ⁴	885 ⁴	475 ⁴	59 ⁴	395 ⁴	9,434	1,165	328	243	35	526
Oklahoma	334	42	50	50	19	57	434	53	72	43	13	44
Oregon	49,160	6,055	2,652	1,599	53	1,066	98,089	22,962	4,653	2,793	60	2,279
Pennsylvania	1,015 ⁴	113 ⁴	84 ⁴	24 ⁴	3 ⁴	21 ⁴	505	94	26	12	47	1,262
Rhode Island	69,318	3,846	1,475	1,090	34	232	79,394	10,867	1,893	1,114	32	304
South Carolina	24,252	4,039	2,174	1,356	68	488	16,066	4,268	1,267	741	69	754
South Dakota	2,202	140	33	20	2	4	3,864	241	59	27	5	13
Tennessee	10,198	1,005	1,346	1,225	41	117	6,673	908	838	814	36	125
Texas	238,405 ⁴	27,945 ⁴	6,193 ⁴	2,618 ⁴	157 ⁴	4,159 ⁴	148,820	53,552	6,633	2,977	180	4,138
Utah	0	0	0	0	0	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0	0	0	0	0	0
Virginia	366,684	20,925	10,406	5,926	378	2,726	550,553	21,977	7,404	6,287	240	4,021
Washington	113,115	15,551	9,273	3,867	172	1,952	133,638	29,316	9,949	5,467	140	2,716
West Virginia	0	0	0	0	0	0	14	6	8	8	0	0
Wisconsin	9,275	459	598	349	39	123	48,750	2,584	1,209	887	64	617
Wyoming	638	32	5	3	0	0	0	0	0	0	0	0

¹Exclusive of duplication.

²Includes the Gulf and Mississippi River fisheries.

³American Samoa and Puerto Rico are included with Hawaii.

⁴Total includes the lakes within or joining the states.

Source: U.S. Department of the Interior, *Fishery Statistics of the United States, 1960, 1970.*

TABLE 6-14
U.S. COMMERCIAL FISH LANDINGS: VOLUME AND VALUE OF SELECTED SPECIES

SPECIES	1950 ¹		1960		1970		1971	
	(in thousands of pounds)	(in thousands of dollars)	(in thousands of pounds)	(in thousands of dollars)	(in thousands of pounds)	(in thousands of dollars)	(in thousands of pounds)	(in thousands of dollars)
FISH								
Alewives	47,326	757	53,595	640	69,539	1,096	58,899	884
Anchovies	5,053	118	5,086	76	192,939	2,173	89,906	1,104
Cod	85,436	3,918	45,753	2,959	56,209	5,942	60,295	6,933
Cusk	3,818	145	1,927	99	1,351	101	1,804	160
Flounders	131,694	11,843	127,048	13,007	168,543	23,075	155,946	22,613
Haddock	158,559	11,834	118,697	9,398	26,889	6,045	21,559	5,603
Hake (white)	14,066	514	5,785	262	4,088	232	5,819	353
Halibut	51,630	8,457	51,202	6,302	34,547	8,834	28,396	6,718
Herring (sea)	363,765	3,477	239,018	3,536	88,559	1,827	91,541	2,040
Mackerel	54,744	2,853	39,888	1,196	27,502	3,276	21,365	2,759
Menhaden	1,026,318	10,402	2,018,263	20,301	1,837,493	34,084	2,196,029	35,310
Perch (ocean)	207,793	9,137	159,375	5,843	70,556	3,687	69,829	1,702
Pollock	25,648	830	22,334	747	9,218	696	10,961	834
Salmon	328,645	37,450	235,647	64,730	412,424	99,037	332,315	81,007
Scup or Porgy	35,528	2,435	49,229	2,732	10,504	2,351	9,229	2,146
Sea Bass, Black (Atlantic)	12,974	1,496	7,021	1,071	4,311	986	2,754	688
Shad	11,134	1,788	6,421	1,141	9,437	1,053	5,734	798
Sturgeon (common)	494	91	549	82	779	121	843	120
Swordfish	937	349	1,365	569	1,589	960	233	160
Tuna and Tunalike fishes	392,273	61,419	298,203	37,571	393,494	74,963	346,146	74,946
Whiting	67,332	1,447	111,602	2,535	44,516	3,889	33,583	2,125
Unclassified	106,432	1,121	146,335 ³	2,646 ³	171,323 ³	4,073 ³	148,434 ⁴	4,192 ³
SHELLFISH, ETC.								
Crabs (total)	129,829	6,029	156,826	9,424	152,039	12,448	134,762	15,146
Blue	126,073 ²	5,881 ²	154,897 ²	9,176 ²	148,083 ²	11,436 ²	131,502 ²	14,133 ²
Rock	3,714	121	1,712	97	2,340	172	1,519	138
Stone	42	27	417	151	1,614	840	1,741	875
Lobsters (total)	25,691	8,923	34,378	15,595	44,497	39,796	42,629	43,424
Northern (American)	23,198	8,346	31,168	14,251	34,152	33,464	33,688	35,594
Spiny	2,493	577	3,210	1,344	10,345	6,332	8,941	7,830
Shrimp	191,474	43,452	249,452	66,932	367,468	129,758	390,907	167,383
Clams (total)	40,945	10,726	49,537	12,033	98,355	28,678	84,182	31,211
Hard	21,049	7,333	14,877	7,031	16,015	14,344	16,666	16,918
Ocean Quahog	221	19	186	19	1,747	305	2,032	345
Razor	2,543	451	824	296	367	317	297	260
Soft	9,390	2,159	8,579	2,974	12,908	5,982	12,652	6,798
Surf	7,742	764	25,071	1,713	67,318	7,730	52,535	6,890
Oysters, market	76,415	29,596	60,010	29,242	53,602	29,485	57,938	34,028
Scallops (total)	21,598	10,478	28,630	10,740	9,004	11,674	8,652	12,827
Bay	1,618	1,274	2,031	1,674	1,700	2,321	2,315	3,846
Sea	19,980	9,204	26,599	9,266	7,304	9,353	6,337	8,981
Turtles	3,041	79	763	472	1,080	240	751	158

¹ Excludes Hawaiian fishing areas.

² Total for hard, soft and peelers.

³ Fish used for food, bait, reduction, and animal food.

Source: U.S. Department of the Interior, *Fishery Statistics of the United States*, 1950, 1960, 1970, 1971 (1950 and 1960 editions under the Fish and Wildlife Service; 1970 and 1971 editions under U.S. Department of Commerce, National Oceanic and Atmospheric Administration).

TABLE 6-15
GOVERNMENT PAYMENTS FOR AGRICULTURE, BY PROGRAM
(in millions of dollars)

PROGRAM	1950	1960	1970	1971	1972	1973	1974
TOTAL ¹	283	702	3,717	3,145	3,961	2,607	530
Conservation ²	246	223	208	173	198	72	191
Soil Bank	---	370	2	---	---	---	---
Sugar Act	37	59	88	80	82	82	78
Wool	---	51	49	69	110	65	---
Feed Grain	---	---	1,504	1,054	1,845	1,142	100
Wheat	---	---	871	878	856	474	70
Cotton	---	---	919	822	813	718	42
Cropland Adjustment	---	---	76	67	52	47	41
Miscellaneous ³	---	---	---	2	0	7	6

--- No government payments made.

¹Details may not add to totals due to independent rounding.

²Includes Great Plains and other conservation programs.

³Includes all other programs.

Sources: U.S. Department of Agriculture, Economic Research Service, Farm Income Situation, July 1974, and unpublished data.

TABLE 6-16
ENERGY USE IN THE U.S. FOOD SYSTEM
(in trillions of BTU's)

COMPONENT	1940	1950	1960	1970
<u>On Farm</u>				
Fuel (direct use)	277.8	626.9	746.0	920.6
Electricity	2.8	130.5	182.9	253.2
Fertilizer	49.2	95.2	162.7	373.0
Agricultural Steel	6.3	10.7	6.7	7.9
Farm Machinery	35.7	119.0	206.3	317.4
Tractors	50.8	122.2	46.8	76.6
Irrigation	71.4	99.2	132.1	138.9
Subtotal	493.6	1,203.9	1,484.0	2,087.6
<u>Processing Industry</u>				
Food Processing Industry	583.3	761.9	888.8	1,222.1
Food Processing Machinery	2.8	19.8	19.8	23.8
Paper Packaging	33.7	67.5	111.1	150.8
Glass Containers	55.6	103.2	123.0	186.5
Steel Cans and Aluminum	150.8	246.0	341.2	484.1
Transport (fuel)	196.8	404.7	608.3	979.7
Trucks and Trailers (manufacture)	111.1	196.4	175.4	293.6
Subtotal	1,133.7	1,799.5	2,267.7	3,340.7
<u>Commercial and Home</u>				
Commercial Refrigeration and Cooking	480.1	595.2	738.8	1,043.6
Refrigeration Machinery (home and commercial)	39.7	99.2	127.0	242.0
Home Refrigeration and Cooking	572.2	802.7	1,097.5	1,904.6
Subtotal	1,092.0	1,497.1	1,963.4	3,190.3
Total ¹	2,719.3	4,500.5	5,715.1	8,618.4

¹Data may not add to totals due to independent rounding.

Sources: Steinhart, J. S., and Steinhart, C. E., "Energy Use in the Food Systems," Science Vol. 184, April 19, 1974.

U.S. Department of Agriculture, Economic Research Service, The U.S. Food and Fiber Sector: Energy Use and Outlook prepared for the Committee on Agriculture and Forestry, United States Senate, September, 1974.

TABLE 6-17
CIVILIAN PER CAPITA CONSUMPTION OF MAJOR FOOD COMMODITIES¹

COMMODITY	1950	1960	1970	1971	1972	1973	1974
Meats (carcass weight)	144.6	160.9	186.3	191.8	188.9	175.7	187.5
Beef	63.4	83.1	113.7	113.0	116.0	109.6	116.5
Veal	8.0	6.1	2.9	2.7	2.2	1.8	2.1
Lamb and mutton	4.0	4.8	3.1	3.1	3.3	2.7	2.4
Pork (excluding lard)	69.2	64.9	66.4	73.0	67.4	61.6	64.5
Fish (edible weight)	11.8	10.3	11.8	11.4	12.2	12.6	12.5
Poultry products:							
Eggs, farm basis (number)	389.0	335.0	311.0	314.0	307.0	294.0	287.0
Chicken (ready-to-cook)	20.6	28.1	41.5	41.4	42.9	41.4	41.4
Turkey (ready-to-cook)	4.1	6.1	8.2	8.5	9.1	8.7	9.2
Dairy products							
Cheese	7.7	8.3	11.5	12.2	13.2	13.7	14.4
Condensed and evaporated milk	20.1	13.7	7.1	6.8	6.4	6.0	5.5
Fluid milk and cream	348.0	322.0	264.0	259.0	258.0	259.0	247.0
Ice cream (product weight)	17.2	18.3	17.7	17.5	17.5	17.5	17.5
Fats and oils, total (fat content)	45.9	45.3	53.3	52.1	53.3	54.0	53.9
Butter (actual weight)	10.7	7.5	5.3	5.1	4.9	4.8	4.4
Margarine (actual weight)	6.1	9.4	11.0	11.1	11.3	11.3	11.6
Lard	12.6	7.6	4.7	4.3	3.8	3.5	3.4
Shortening	11.0	12.6	17.3	16.8	16.7	16.3	16.2
Other edible fats and oils	8.6	11.5	18.2	18.0	19.6	21.3	21.5
Fruits							
Fresh, total (farm weight)	108.8	93.4	81.2	79.8	76.5	75.4	79.0
Citrus	41.7	33.7	28.6	29.2	27.3	27.3	28.9
Apples (commercial)	22.7	18.3	18.3	16.1	17.2	14.3	15.2
Other (excluding melons)	44.4	41.4	34.3	34.5	32.4	33.8	34.9
Processed:							
Canned fruit	21.6	22.6	23.3	21.9	21.7	21.4	21.3
Canned juices (excluding frozen)	13.5	13.0	14.6	15.9	15.7	16.3	15.2
Frozen (including juices)	4.3	9.1	9.8	10.2	10.1	11.2	11.9
Dried	4.1	3.1	2.7	2.6	2.0	2.8	2.8
Vegetables							
Fresh²	115.2	105.9	98.5	99.2	98.1	99.9	99.6
Canned (excluding potatoes and sweet potatoes)	41.2	43.4	51.1	51.2	52.0	54.3	55.9
Frozen (excluding potatoes)	3.2	7.0	9.4	9.7	10.1	10.7	11.1
Potatoes, fresh equivalent	106.0	108.0	118.0	119.0	120.0	118.8	122.0
Sweet potatoes, fresh equivalent	12.9	7.1	5.6	5.0	5.0	5.1	5.5
Dry edible beans	8.6	7.3	5.9	5.9	6.3	6.8	7.0
Melons	24.8	25.8	23.3	22.6	21.8	21.8	19.5
Sugar (refined)	100.6	97.6	102.5	102.4	103.0	102.1	101.9
Grains							
Cornmeal and other ³	17.8 ³	14.3 ³	15.8 ³	15.8 ³	15.8 ³	7.5	7.6
Corn sirup and sugar	13.7	13.8	20.8	21.2	23.0	26.9	28.3
Wheat flour	135.0	118.0	110.0	110.0	109.0	109.0 ⁴	110.0 ⁴
Wheat breakfast cereals	3.1	2.8	2.9	2.9	2.9	2.9	2.9
Rice, milled	5.1	6.1	6.7	7.7	7.0	7.0	7.3
Other							
Coffee (green beans)	16.1	15.8	13.8	13.3	13.9	13.6	13.3
Tea	0.6	0.6	0.7	0.8	0.8	0.8	0.8
Cocoa beans	4.4	3.6	3.9	4.0	4.4	4.2	3.9
Peanuts (shelled)	4.5	4.9	5.9	5.9	6.2	6.7	7.0

¹ Quantity in pounds, except for eggs. Data on calendar year basis except for dried fruits, which are on pack-year basis; fresh citrus fruits and peanuts, on a crop year basis; and rice, on August 1 year. Fresh citrus year begins in previous October and rice year begins in previous August.

² Commercial production for sale as fresh produce.

³ Includes cornstarch, corn cereal, and hominy.

⁴ Includes white, whole wheat, and semolina flour.

Source: U.S. Department of Agriculture, Economic Research Service, published quarterly in National Food Situation.

TABLE 8-18
WORLD PRODUCTION OF SELECTED MAJOR AGRICULTURAL PRODUCTS
(In million metric tons)

PRODUCT AND AREA	1968	1969	1970	1971	1972 ⁽¹⁾
WHEAT					
Western Europe	51.81	50.14	47.60	56.68	54.11
Eastern Europe and USSR	116.41	100.57	118.99	123.43	111.89
North America	60.58	58.36	45.81	58.44	56.56
Oceania	15.25	11.00	8.18	8.83	7.04
Latin America	10.40	12.79	11.07	11.89	12.65
Far East ²	23.62	25.99	28.15 ³	39.98	33.93
China & other Asian centrally planned countries	27.30	28.72	31.74	32.80	34.84
Near East ⁴	20.80	21.31	20.28	23.01	26.34
Africa ⁵	5.86	4.48	4.93	5.34	6.16
OATS					
Western Europe	13.09	12.53	11.96	13.89	12.59
Eastern Europe and USSR	16.47	18.25	19.04	19.92	19.27
North America	19.23	19.52	18.99	18.20	18.72
MAIZE					
Western Europe	19.32	21.72	23.43	25.55	25.83
Eastern Europe and USSR	22.26	27.66	23.22	24.51	28.84
North America	113.66	118.27	108.07	146.24	143.71
Latin America	33.27	32.95	38.17	39.25	33.75
Far East ²	13.85	13.64	16.20	13.80	11.98
China & other Asian centrally planned countries	27.88	29.29	31.11	32.08	30.58
Near East ⁴	4.16	4.26	4.19	4.22	4.25
Africa ⁵	10.76	11.64	10.55	11.04	12.41
RICE (milled equivalent)⁶					
North America	1.07	2.68	2.47	2.53	2.51
Latin America	6.76	6.68	7.69	7.29	7.57
Far East ²	91.48	95.62	98.07	97.81	90.86
China & other Asian centrally planned countries	65.92	66.67	73.37	75.68	72.60
Near East ⁴	2.98	2.97	3.11	2.83	2.94
Africa ⁵	2.91	3.07	3.11	3.26	3.19
SUGAR (centrifugal)⁶					
Western Europe	10.39	11.13	10.80	12.47	11.49
Eastern Europe and USSR	13.78	12.20	12.93	12.14	12.68
North America	5.51	5.20	5.21	5.48	5.93
Oceania	3.37	2.52	2.52	2.79	2.82
Latin America	18.73	18.71	25.54	21.92	21.34
Far East ²	6.42	8.41	8.56	8.40	7.31
China & other Asian centrally planned countries	3.42	3.54	3.66	3.99	4.04
Near East ⁴	1.77	1.70	1.98	2.30	2.26
Africa ⁵	2.13	2.32	2.52	2.77	3.02
SUGAR (non centrifugal)					
Far East ²	8.05	9.16	9.89	10.14	9.34
China & other Asian centrally planned countries	0.78	0.79	0.79	0.79	0.79
TOBACCO					
Western Europe	0.32	0.29	0.31	0.31	0.33
North America	0.88	0.93	0.97	0.88	0.88
Latin America	0.55	0.55	0.57	0.55	0.59
Far East ²	0.95	0.93	0.89	0.83	0.92
China & other Asian centrally planned countries	0.91	0.84	0.85	0.84	0.85
Near East ⁴	0.21	0.20	0.19	0.20	0.21
Africa ⁵	0.18	0.18	0.17	0.18	0.18
WHEAT⁶					
Western Europe	18.67	18.82	21.19	21.58	21.43
Eastern Europe and USSR	15.21	15.32	18.67	19.86	20.71
North America	23.34	23.63	24.66	25.51	25.46
Oceania	2.86	3.07	3.21	3.51	3.64
Latin America	9.72	10.17	10.45	10.02	10.57
Far East ²	3.47	3.54	3.63	3.75	3.89
China & other Asian centrally planned countries	14.15	14.37	14.68	14.90	15.26
Near East ⁴	1.76	1.84	2.12	2.14	2.20
Africa ⁵	2.62	2.70	3.16	3.20	3.26

(1) Preliminary

² Excluding China and other Asian centrally planned countries and Japan.

³ Excluding Israel.

⁴ Excluding South Africa.

⁵ Paddy convert at 65 percent.

⁶ Centrifugal sugar includes cane and beet sugar produced by the centrifugal process, which is the principal kind moving in international trade.

⁷ Beef and veal, mutton and lamb, pork, poultry meat.

Source: Food and Agriculture Organisation of the United Nations, The State of Food and Agriculture, 1971.

TABLE 6-19
WORLD TRENDS IN YIELD PER HARVESTED ACRE FOR SELECTED CROPS
(in kilograms per hectare)

PRODUCT AND AREA	1971	1972	1973
Wheat			
Europe	2,938	2,962	3,072
North America	2,170	2,049	2,025
Oceania	1,221	895	1,342
South America	1,210	1,242	1,427
Asia	1,174	1,258	1,189
Africa	1,045	1,075	965
USSR	1,542	1,470	1,737
Oats			
Europe	2,703	2,601	2,621
North America	2,006	1,842	1,740
Oceania	1,057	771	802
South America	1,253	1,312	1,282
Asia	1,041	989	1,026
Africa	450	519	455
USSR	1,521	1,241	1,468
Maize			
Europe	3,517	3,707	3,795
North America	4,439	4,712	4,479
Oceania	3,162	3,398	3,839
South America	1,581	1,472	1,616
Asia	1,840	1,800	1,859
Africa	1,255	1,351	1,071
USSR	2,580	2,450	3,334
Rice			
Europe	4,569	3,984	4,758
North America	3,877	3,795	3,663
Oceania	6,666	5,349	5,562
South America	1,641	1,858	1,763
Asia	2,305	2,253	2,409
Africa	1,894	1,840	1,780
USSR	3,664	3,912	3,812
Sugar Cane			
Europe	74,631	66,169	65,873
North America	53,799	58,272	56,836
Oceania	78,316	76,197	75,822
South America	52,339	52,379	51,390
Asia	48,598	48,603	50,827
Africa	67,884	70,566	71,059
USSR	NA	NA	NA
Sugarbeets			
Europe	36,792	37,340	36,125
North America	44,527	46,908	44,249
Oceania	NA	NA	NA
South America	37,091	32,698	32,350
Asia	29,366	29,047	27,928
Africa	32,747	26,422	32,489
USSR	21,736	21,922	24,418

NA Not available.

Source: Food and Agriculture Organization of the United Nations,
Production Yearbook 1973, Vol. 27, 1973.

TABLE 7-1
STAND-SIZE CLASS OF COMMERCIAL TIMBERLAND IN THE UNITED STATES, 1970¹
(In thousands of acres)

STATE	TOTAL, ALL OWNERSHIPS					NATIONAL FOREST				
	TOTAL ²	SAWTIMBER STANDS ³	POLETIMBER STANDS ³	SEEDLING AND SAPLING ⁴	NONSTOCKED AREAS ⁵	TOTAL ²	SAWTIMBER STANDS ³	POLETIMBER STANDS ³	SEEDLING AND SAPLING ⁴	NONSTOCKED AREAS ⁵
UNITED STATES	499,697	217,867	126,693	131,368	20,721	91,324	54,374	18,654	10,529	1,327
Alabama	21,772	8,885	5,224	7,468	164	625	428	115	81	0
Alaska	5,039	5,112	180	330	47	5,144	173	4,651	273	274
Arizona ⁶	3,689	3,164	182	157	133	2,347	1,882	146	136	125
Arkansas	18,206	5,443	4,759	7,922	61	2,378	732	863	782	0
California	16,928	13,616	766	1,194	1,252	8,344	7,240	325	352	427
Colorado ⁶	11,541	4,567	2,884	564	1,023	7,710	2,863	1,142	408	752
Connecticut	2,165	366	1,168	583	49	0	0	0	0	0
Delaware	390	210	78	45	6	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0	0	0	0
Florida	16,231	~987	~150	~529	2,563	1,035	419	105	244	14
Georgia	25,102	8,354	4,807	11,426	714	806	492	168	145	0
Hawaii	1,081	321	209	51	497	0	0	0	0	0
Idaho ⁶	15,192	9,835	1,775	1,674	706	10,731	6,301	1,474	1,375	488
Illinois	3,680	2,101	934	594	44	23	94	74	21	16
Indiana	3,846	2,065	795	899	79	136	84	23	22	0
Iowa	2,410	942	777	268	442	0	0	0	0	0
Kansas	1,187	681	229	134	141	0	0	0	0	0
Kentucky	11,826	5,633	2,798	3,717	78	531	426	44	5	5
Louisiana	15,312	4,459	1,922	3,774	186	551	395	51	90	5
Maine	16,894	6,142	5,339	5,268	143	37	14	15	2	0
Maryland	2,862	1,791	753	297	40	0	0	0	0	0
Massachusetts	3,491	414	1,669	1,388	38	0	0	0	0	0
Michigan	18,800	~645	8,055	5,506	592	2,422	178	1,223	761	39
Minnesota	16,875	2,360	8,425	4,247	1,841	2,127	337	1,377	414	159
Mississippi	16,894	4,537	1,772	8,427	133	1,118	528	149	440	0
Missouri	14,600	4,032	2,258	3,490	2,848	1,321	318	681	311	14
Montana ⁶	15,983	9,186	4,466	1,817	380	9,732	5,133	2,887	1,120	258
Nebraska	1,023	153	310	103	353	53	2	27	24	3
Nevada ⁶	114	110	3	7	7	53	41	3	5	4
New Hampshire	3,020	1,787	2,769	693	171	568	341	131	96	0
New Jersey	2,354	599	794	803	157	0	0	0	0	0
New Mexico ⁶	5,736	~655	~62	319	227	2,939	2,164	252	167	224
New York	14,489	~283	2,678	6,201	1,125	0	0	0	0	0
North Carolina	10,192	10,556	~255	5,193	187	1,035	713	186	102	3
North Dakota	~6	~1	158	149	34	0	0	0	0	0
Oklahoma	6,422	1,977	700	3,560	176	129	65	12	32	18
Oregon	~817	1,261	943	2,468	114	233	112	45	75	0
Pennsylvania	29,673	16,153	3,826	4,508	1,184	12,003	8,545	2,104	1,044	312
Rhode Island	7,473	7,665	6,081	3,399	333	488	265	209	7	6
South Carolina	~29	14	233	168	13	0	0	0	0	0
South Dakota	12,410	~907	3,455	3,649	198	550	366	136	46	3
Tennessee	1,533	611	579	65	18	951	569	244	14	12
Texas	12,819	3,297	4,893	~355	32	599	257	210	112	0
Utah ⁶	12,924	7,021	2,184	1,620	97	625	517	37	69	0
Vermont	3,824	2,337	969	253	48	2,613	1,568	686	125	27
Vermont	4,364	1,796	1,524	1,004	40	226	125	63	37	0
Virginia	15,859	5,308	5,981	4,472	96	1,202	619	~92	75	15
Washington	18,401	11,119	3,253	3,282	~77	5,424	3,616	854	826	128
West Virginia	12,092	5,951	3,297	2,596	248	879	943	312	23	0
Wisconsin ⁶	14,536	1,098	6,579	4,489	369	1,317	84	749	~20	64
Wyoming ⁶	~182	1,990	962	174	128	2,699	1,005	580	116	70

¹ Classification scheme based on the size class of growing stock trees.
² Data may not sum to totals due to independent rounding.
³ Stands at least 10 percent occupied with growing-stock trees, with half or more of the total stocking in sawtimber or poletimber trees, and with sawtimber stocking at least equal to poletimber stocking. Sawtimber trees are live trees of commercial species containing at least one 12-foot saw log or two noncontiguous 8-foot logs, and meeting regional specifications for freedom from defect.
⁴ Stands at least 10 percent occupied with growing stock trees of which half or more is poletimber and/or sawtimber trees, and with poletimber stocking exceeding that of sawtimber.
⁵ Stands at least 10 percent occupied with growing-stock trees of which more than half are saplings and/or seedlings. Saplings are live trees 1.0 inch to 5.0 inches in diameter at breast height. Seedlings are live trees less than 1.0 inch in diameter at breast height that are expected to survive according to regional standards.
⁶ Nonstocked areas consist of commercial timberland less than 10 percent occupied with growing-stock trees.
⁷ Coastal Alaska.
⁸ Estimates of area subclasses do not include 3.0 million acres of National Forest lands in the Rocky Mountain states that are not included in the base for allowable cut because of such factors as unstable soils, small size of isolated patches and stringers, or special use constraints.

Source: U.S. Department of Agriculture, Forest Service, *The Outlook for Timber in the United States, 1974*.

TABLE 7-2
NET ANNUAL GROWTH AND REMOVALS OF GROWING STOCK AND SAWTIMBER
ON COMMERCIAL TIMBERLAND IN THE UNITED STATES, 1970

STATE	GROWING STOCK (in millions of cubic feet)						SAWTIMBER (in millions of board-feet)					
	ALL SPECIES		SOFTWOODS		HARDWOODS		ALL SPECIES		SOFTWOODS		HARDWOODS	
	GROWTH	REMOVALS	GROWTH	REMOVALS	GROWTH	REMOVALS	GROWTH	REMOVALS	GROWTH	REMOVALS	GROWTH	REMOVALS
UNITED STATES ¹	18,368	14,033	10,667	9,623	7,901	4,409	59,919	62,770	40,257	47,739	19,662	15,031
Alabama	947	807	719	521	228	286	3,073	2,900	2,548	2,028	526	872
Alaska ²	31	157	31	157	0	0	165	1,080	163	1,080	1	0
Arizona ³	71	88	66	88	5	5	106	492	289	491	17	1
Arkansas	779	620	403	299	376	321	2,604	2,537	1,714	1,376	890	1,161
California	630	927	545	901	85	26	2,422	5,637	2,253	5,581	169	56
Colorado ⁴	157	99	123	57	36	2	672	341	610	333	62	8
Connecticut	45	9	6	1	39	7	82	28	13	4	69	25
Delaware	31	12	8	8	23	4	63	33	20	22	42	11
District of Columbia	0	0	0	0	0	0	0	0	0	0	0	0
Florida	532	348	416	278	116	70	1,688	1,154	1,323	934	165	220
Georgia	1,357	928	993	680	363	248	4,052	2,893	3,210	2,204	842	688
Hawaii ⁵	2	2	2	2	2	2	11	11	11	11	11	11
Idaho	503	357	447	357	6	3	2,005	2,106	1,992	2,105	13	11
Illinois	93	91	1	1	91	90	289	397	2	2	287	395
Indiana	107	66	4	3	103	65	288	351	8	1	280	350
Iowa	81	50	3	3	81	50	338	163	1	1	337	162
Kansas	16	8	3	3	16	8	48	36	0	0	48	36
Kentucky	319	141	21	11	298	130	1,198	728	76	40	1,123	688
Louisiana	744	722	605	523	139	199	1,153	3,024	2,738	2,351	416	674
Maine	711	409	550	275	161	134	1,622	1,299	1,224	878	398	421
Maryland	106	76	17	31	90	45	268	321	43	127	225	194
Massachusetts	81	31	23	15	58	17	112	128	47	60	65	68
Michigan	605	213	177	53	428	158	1,589	867	546	207	1,043	660
Minnesota	456	155	115	70	341	85	1,058	485	354	243	704	242
Mississippi	966	746	592	462	375	284	3,228	2,757	2,347	1,825	882	932
Missouri	303	109	24	14	279	95	832	460	91	30	741	430
Montana ⁶	443	324	440	324	3	3	1,486	1,815	1,473	1,815	13	13
Nebraska	17	10	4	1	13	9	80	52	21	3	59	49
Nevada ⁶	2	3	2	3	0	0	10	6	10	6	0	0
New Hampshire	138	60	86	25	52	36	705	220	231	99	74	121
New Jersey	57	12	16	6	41	7	161	37	37	12	104	25
New Mexico ⁶	75	44	66	44	9	3	253	262	227	259	26	3
New York	286	115	80	22	206	91	703	416	213	86	489	330
North Carolina	885	691	449	377	436	314	2,718	2,019	1,669	1,209	1,050	820
North Dakota	5	3	0	0	5	3	18	7	0	0	18	7
Ohio	158	113	5	2	153	111	484	572	17	5	467	566
Oklahoma	70	52	48	23	22	30	192	189	157	102	35	87
Oregon	1,151	1,556	998	1,535	154	21	4,995	9,776	4,401	9,689	594	87
Pennsylvania	763	232	44	16	718	215	1,275	719	96	53	1,179	666
Rhode Island	10	2	1	3	9	2	8	6	1	1	6	5
South Carolina	691	449	440	299	251	150	2,127	1,513	1,487	999	640	514
South Dakota ⁶	31	18	28	16	3	1	115	92	102	88	12	4
Tennessee	509	216	103	33	406	183	1,428	820	309	124	1,119	696
Texas	566	461	465	335	101	126	2,254	1,837	2,054	1,406	199	431
Utah ⁶	36	13	26	12	11	3	85	70	75	70	10	10
Vermont	93	31	45	22	47	29	163	163	95	70	68	93
Virginia	563	443	169	166	395	277	1,511	1,187	543	487	969	700
Washington	1,244	1,536	1,016	1,471	228	65	5,559	9,108	4,814	8,886	745	222
West Virginia	554	155	26	13	528	143	1,343	663	73	51	1,270	612
Wisconsin	504	309	133	39	371	270	1,348	796	381	127	968	668
Wyoming ⁶	46	36	43	36	3	0	164	196	160	196	4	0

¹ Data may not sum to totals due to independent rounding.

² Coastal Alaska.

³ Less than 500 thousand cubic feet.

⁴ Estimates of area subclasses do not include 5.0 million acres of National Forest lands in the Rocky Mountain States that are not included in the base for allowable cut because of such factors as unstable soils, small size of isolated patches and stragglers, or special use constraints. Volume and growth data are also excluded for these areas.

⁵ Growth estimates for Hawaii are not available.

⁶ Less than 300 thousand board-feet.

Source: U.S. Department of Agriculture, Forest Service, *The Outlook for Timber in the United States, 1974*.

TABLE 7-3
U.S. LUMBER CONSUMPTION, BY MAJOR END USE, SPECIES GROUP,
AND PER CAPITA USE¹

ITEM	1962 (in millions of board- feet)	1970 (in millions of board- feet)
By end use:		
New housing	13,940	12,270
Residential upkeep and improvements	4,400	4,690
New nonresidential construction ²	3,930	3,690
Manufacturing	4,240	4,670
Shipping	4,340	5,720
All other uses ³	6,450	8,460
Total use	37,300	39,500
By species group:		
Softwoods	30,800	32,100
Hardwoods	6,500	7,300
Total use	37,300	39,500
	(board- feet)	(board- feet)
Per capita average use	200	193

¹ Data may not add to totals due to independent rounding.

² In addition to new construction, includes railroad ties laid as replacements in existing track.

³ Includes upkeep and improvement of nonresidential buildings and structures; farm construction, except housing; mining; made-at-home projects, such as furniture, boats, and picnic tables; made-on-the-job products, such as advertising and display structures; and a wide variety of other miscellaneous products and uses.

Source: U.S. Department of Agriculture, Forest Service, The Outlook for Timber in the United States, 1974.

TABLE 7-4
DOMESTIC LUMBER CONSUMPTION, PRODUCTION, EXPORTS, AND IMPORTS
(in billions of board-feet)

ITEM	1950	1960	1970	1971	1972	1973 ¹	1974 ¹
<u>Domestic Consumption</u>							
Total ²	40.9	36.0	39.5	43.5	45.7	46.2	40.4
Softwoods	33.4	29.6	32.1	36.4	38.8	38.8	33.2
Hardwoods	7.5	6.4	7.3	7.1	7.0	7.3	7.2
<u>Domestic Production</u>							
Total ²	38.0	32.9	34.7	37.0	37.7	38.6	34.9
Softwoods	30.6	26.7	27.5	30.0	31.0	31.6	27.9
Hardwoods	7.4	6.3	7.1	6.9	6.8	7.0	6.9
<u>Exports</u>							
Total ²	.5	.9	1.3	1.1	1.5	2.0	1.8
Softwoods ³	.4	.7	1.2	.9	1.2	1.8	1.6
Hardwoods	.1	.2	.1	.2	.3	.2	.2
<u>Imports</u>							
Total ²	3.4	3.9	6.1	7.6	9.4	9.6	7.3
Softwoods ³	3.1	3.6	5.8	7.2	9.0	9.0	6.8
Hardwoods	.3	.3	.3	.4	.4	.5	.4

¹Preliminary estimates.

²Data may not add to totals because of rounding.

³Includes small volumes of mixed species (not classified as softwoods or hardwoods).

Sources: U.S. Department of Agriculture, Forest Service, The Demand and Price Situation for Forest Products, 1974, and unpublished data.

TABLE 74
WILDFIRES IN THE UNITED STATES: FOREST ACREAGE AND NUMBER OF ACRES BURNED, BY STATE
(in thousands of acres)

STATE	1950		1960		1970		1971		1972		1973	
	TOTAL FOREST AREA ¹	AREA BURNED	TOTAL FOREST AREA ²	AREA BURNED								
UNITED STATES	792,851	17,579	797,666	4,478	1,279,028	3,279	1,326,202	4,278	1,407,481	2,641	1,405,621	1,917
Alabama	18,813	420	20,651	117	21,629	141	23,716	102	25,742	84	25,743	68
Alaska	151,501	2,060	146,302	26	316,150	113	316,148	1,047	313,291	816	313,764	38
Arizona	19,413	17	18,949	37	63,650	38	64,237	120	63,380	43	63,392	40
Arkansas	19,486	166	19,035	299	19,091	128	23,255	96	23,298	70	23,311	12
California	42,306	489	43,158	311	60,346	437	60,352	47	74,017	153	74,015	259
Colorado	24,529	29	25,806	14	33,514	10	33,761	17	33,725	18	33,522	4
Connecticut	1,907	2	1,969	1	1,990	1	2,000	1	1,900	0.7	1,990	1
Delaware	441	0.3	453	0.2	412	— ⁷	413	0.4	414	— ⁷	414	0.2
Dist. of Columbia	NR	NR	NR	NR								
Florida	21,231	4,818	22,135	1,261	20,714	634	28,203	1,287	28,226	115	28,252	224
Georgia	21,009	2,944	23,269	163	32,278	60	28,785	43	30,004	34	28,578	31
Hawaii	1,735	0.2	1,191	23	2,088	19	2,089	2	2,095	7	2,095	18
Idaho	29,133	26	29,559	150	44,976	53	44,959	281	45,005	102	45,016	186
Illinois	3,994	8	3,405	6	4,053	9	4,057	13	4,076	7	4,079	2
Indiana	4,361	4	4,053	10	4,172	4	4,184	12	4,195	4	4,200	0.8
Iowa	1,981	3	2,294	— ⁷	2,656	4	2,609	4	2,681	0.6	2,681	0.3
Kansas	NR	NR	NR	NR	12,499	33	12,499	11	19,489	57	19,489	12
Kentucky	11,918	283	11,361	155	11,757	54	17,698	45	17,732	10	17,741	13
Louisiana	14,728	433	15,975	125	15,993	84	15,883	47	16,121	46	16,121	34
Maine	16,778	18	17,068	3	17,426	1	17,427	0.6	17,528	2	17,436	2
Maryland	2,690	3	2,866	2	2,884	1	2,883	4	2,873	0.8	2,873	0.8
Massachusetts	3,295	10	3,234	5	3,271	6	3,271	4	3,308	3	3,308	6
Michigan	19,703	6	19,947	3	20,565	7	20,325	6	21,001	7	20,979	3
Minnesota	21,561	9	21,098	159	21,302	26	21,306	39	21,395	41	21,534	182
Mississippi	16,468	1,558	16,504	175	17,208	116	21,261	67	21,259	62	21,267	42
Missouri	15,194	581	15,206	355	15,421	170	15,437	147	15,485	68	15,488	25
Montana	25,033	1	26,259	38	44,381	35	44,744	67	44,693	9	44,785	94
Nebraska	227	1	1,582	21	7,365	36	7,366	34	26,884	160	26,884	23
Nevada	13,843	24	12,986	7	60,513	9	60,525	31	60,434	31	61,690	92
New Hampshire	4,846	6	4,860	0.2	5,020	0.3	5,022	0.2	5,022	0.4	5,022	0.4
New Jersey	2,295	12	2,096	20	2,134	4	2,145	41	2,633	2	2,633	4
New Mexico	18,061	110	17,851	23	68,490	28	67,252	87	74,970	10	74,149	13
New York	13,432	8	13,009	5	12,657	2	14,485	2	14,485	3	14,503	3
North Carolina	18,381	485	19,844	83	20,292	94	22,878	117	24,517	42	22,957	32
North Dakota	967	— ⁷	1,471	6	2,553	3	2,551	3	2,748	0.9	2,749	1
Ohio	5,067	16	4,030	6	5,111	5	5,110	7	5,125	2	5,131	2
Oklahoma	10,188	1,490	8,711	296	8,447	409	8,448	68	28,411	264	28,411	138
Oregon	30,751	25	30,848	84	48,433	44	48,092	63	48,758	106	48,738	137
Pennsylvania	15,133	37	15,178	33	17,068	5	17,070	15	16,624	1	17,096	4
Rhode Island	452	4	434	0.9	434	1	434	1	434	0.6	434	0.5
South Carolina	11,930	239	11,798	45	12,702	65	12,705	31	12,814	33	12,817	19
South Dakota	3,312	3	5,263	21	11,014	24	14,121	31	32,991	21	32,390	49
Tennessee	13,916	524	12,426	49	13,781	36	13,785	41	13,402	19	13,607	15
Texas	15,420	396	15,792	125	15,914	20	15,928	32	26,475	13	26,581	4
Utah	21,445	11	22,124	18	43,937	7	44,062	22	43,072	19	43,080	33
Vermont	3,714	0.9	4	0.2	4,329	— ⁷	4,331	— ⁷	4,332	0.3	4,335	0.5
Virginia	13,634	21	16	7	16,204	12	16,242	17	16,173	2	16,215	4
Washington	25,163	7	24,815	45	25,472	226	25,486	5	26,291	6	26,292	16
West Virginia	9,549	62	10	59	11,504	30	11,509	49	13,217	10	13,221	9
Wisconsin	17,463	3	17,169	73	17,046	11	17,045	4	17,092	4	17,161	5
Wyoming	12,952	0.3	14,194	11	37,562	19	37,556	71	37,444	25	37,472	13

NR None reported.
¹ Includes 15,391 thousand acres state and privately-owned nonforested critical watershed areas.
² Includes 20,525 thousand acres state and privately-owned nonforested critical watershed areas.
³ Includes an estimated 400,338 thousand acres nonforested watershed lands.
⁴ Alaska acreage will vary periodically as land is selected under the Statehood Act.
⁵ Includes an estimated 384,212 thousand acres nonforested watershed lands.
⁶ Includes an estimated 720,535 thousand acres nonforested watershed lands.
⁷ Fewer than 100 acres.

Sources: U.S. Department of Agriculture, Forest Service, *Forest Fire Statistics, 1950, 1960; Wildfire Statistics, 1970, 1971, 1972, 1973.*

TABLE 7-6
WILDFIRES IN THE UNITED STATES: NUMBER OF PROTECTED
ACRES BURNED, BY TYPE OF LAND AND STATE, 1973¹

STATE	TOTAL ACRES BURNED	FOREST LAND			NONFORESTED WATERSHED ⁴
		TOTAL	COMMERCIAL FOREST ²	NONCOMMERCIAL FOREST ³	
UNITED STATES	1,762,124	802,471	621,007	181,464	959,653
Alabama	68,161	62,904	62,180	724	5,257
Alaska	37,989	29,982	930	29,052	8,307
Arizona	39,697	14,888	13,606	1,282	24,809
Arkansas	12,319	8,538	8,520	18	3,781
California	259,281	88,194	53,683	34,511	171,087
Colorado	4,064	1,039	389	650	3,025
Connecticut	1,044	826	286	--	218
Delaware	192	36	36	--	156
District of Columbia	--	--	--	--	--
Florida	224,203	152,908	147,790	5,118	71,295
Georgia	30,566	25,348	25,325	23	5,218
Hawaii	18,188	7,249	3,174	4,075	10,939
Idaho	185,914	11,939	10,140	1,799	173,975
Illinois	1,611	751	751	--	860
Indiana	835	466	304	162	369
Iowa	300	41	41	--	259
Kansas	11,970	55	55	--	11,915
Kentucky	13,460	11,954	11,954	--	1,506
Louisiana	34,041	34,041	34,037	4	--
Maine	1,519	1,309	1,176	133	210
Maryland	794	788	645	143	6
Massachusetts	6,069	5,884	925	4,959	185
Michigan	2,947	2,467	2,370	97	480
Minnesota	181,664	84,809	67,225	17,584	96,835
Mississippi	41,973	29,501	29,468	33	12,472
Missouri	10,163	6,161	6,124	37	4,002
Montana	88,648	68,143	16,542	51,601	20,505
Nebraska	22,921	4,137	3,327	810	18,784
Nevada	89,066	3,462	2,639	823	85,604
New Hampshire	408	408	286	122	--
New Jersey	3,775	3,426	3,418	8	349
New Mexico	13,202	5,175	2,556	2,619	8,027
New York	3,270	2,136	1,765	371	1,134
North Carolina	30,460	27,875	26,045	1,830	2,585
North Dakota	2,863	184	125	59	2,679
Ohio	1,827	572	572	--	1,255
Oklahoma	10,222	9,035	6,853	2,182	1,187
Oregon	137,415	22,452	16,656	5,796	114,563
Pennsylvania	3,990	3,686	3,335	351	304
Rhode Island	521	301	74	427	20
South Carolina	19,326	14,554	14,414	140	4,772
South Dakota	49,049	6,533	434	6,099	42,516
Tennessee	14,817	12,448	12,418	30	2,369
Texas	3,619	3,236	3,224	12	383
Utah	30,688	2,812	162	2,650	27,876
Vermont	278	205	203	--	73
Virginia	3,640	3,640	3,331	309	--
Washington	15,639	13,943	9,692	4,251	1,696
West Virginia	9,126	9,251	8,179	72	875
Wisconsin	5,432	1,597	1,588	9	3,835
Wyoming	12,958	1,982	1,493	489	10,976

¹ Areas under organized fire protection of Federal or state governments.

² Commercial forest land is that which is producing, or is capable of producing, crops of industrial wood and is not withdrawn from timber use by statute or administrative regulation.

³ Noncommercial forest land is unproductive forest land incapable of yielding crops of industrial wood because of adverse site conditions and productive forest land withdrawn from commercial timber through statute or administrative regulation.

⁴ Nonforested watershed land is that which has never supported forests, and lands formerly forested but now developed for such nonforest uses as crops, improved pasture, residential areas, city parks, improved roads and adjoining rights-of-way, power line clearings, and certain areas of water classified by the Bureau of Census as land.

Source: U.S. Department of Agriculture, Forest Service, Wildfire Statistics, 1973.

TABLE 7.7
WILDFIRES IN THE UNITED STATES: NUMBER OF PROTECTED ACRES BURNED, BY CAUSE AND STATE, 1973¹

STATE	TOTAL	LIGHTNING	CAMPFIRES	SMOKING	DEBRIS BURNING ²	INCENDIARY ³	EQUIPMENT USE ⁴	RAILROADS ⁵	CHILDREN	MISCELLANEOUS ⁶
UNITED STATES	1,762,124	534,530	34,562	123,397	205,628	479,278	146,175	50,758	37,286	150,510
Alabama	68,161	237	551	7,661	9,720	46,096	808	1,473	601	1,014
Alaska	37,989	29,475	8,002	6	349	3	8	4	4	134
Arizona	39,697	10,926	7,370	11,407	3,591	322	691	1,064	541	3,785
Arkansas	12,319	311	145	1,706	2,585	6,325	101	750	137	259
California	259,281	35,930	1,306	23,546	6,331	47,434	58,020	10,407	12,488	63,819
Colorado	4,064	1,348	255	1,042	429	81	129	218	98	464
Connecticut	1,044	--	44	73	130	295	7	6	483	6
Delaware	192	--	--	12	152	3	5	10	10	--
District of Columbia	--	--	--	--	--	--	--	--	--	--
Florida	224,203	10,771	2,159	20,202	36,411	127,455	14,384	3,633	6,090	3,537
Georgia	30,566	545	419	4,558	10,142	9,590	604	1,659	1,784	1,265
Hawaii	18,188	200	26	10,465	2,708	310	15	--	1	4,463
Idaho	185,914	138,809	397	1,333	10,983	14,721	5,340	2,371	384	11,576
Illinois	1,611	--	6	97	749	424	--	81	--	254
Indiana	835	--	18	102	503	14	14	75	10	97
Iowa	300	--	--	1	103	13	3	174	2	4
Kansas	11,970	186	26	481	3,729	232	2,889	2,424	48	1,955
Kentucky	13,460	--	1,013	2,299	4,040	2,942	66	715	494	1,891
Louisiana	34,041	26	35	408	1,103	32,224	35	39	3	148
Maine	1,519	38	7	40	449	544	301	19	107	14
Maryland	794	--	13	124	110	152	49	104	60	182
Massachusetts	6,069	10	28	212	86	1,927	32	581	1,809	1,384
Michigan	2,947	7	165	623	1,081	335	144	276	200	158
Minnesota	181,664	39	4,032	1,356	47,514	102,904	1,246	7,803	880	15,890
Mississippi	41,973	280	182	2,680	7,332	29,408	465	475	469	682
Missouri	10,163	27	107	695	3,138	2,576	169	817	101	533
Montana	88,648	74,437	213	785	2,379	163	1,998	255	39	8,369
Nebraska	22,921	8,565	10	608	1,586	1	4,466	2,151	4,534	980
Nevada	89,066	49,030	304	35	49	1,284	30,734	510	28	7,072
New Hampshire	408	--	--	88	68	51	67	32	87	15
New Jersey	3,775	1	230	871	38	2,100	6	55	340	134
New Mexico	13,202	3,759	65	3,759	2,314	1,084	311	1,692	13	205
New York	3,270	7	453	487	781	635	31	203	231	442
North Carolina	30,460	390	274	4,017	9,420	11,556	626	953	866	2,358
North Dakota	2,863	637	21	160	143	376	140	610	671	105
Ohio	1,827	--	18	422	503	202	28	385	55	214
Oklahoma	10,222	7	101	32	691	8,776	--	35	29	553
Oregon	137,413	119,871	2,574	1,112	1,515	1,414	8,815	62	797	1,255
Pennsylvania	3,990	6	71	360	676	1,279	171	994	214	219
Rhode Island	521	--	30	20	63	270	11	9	113	5
South Carolina	19,326	97	96	2,565	5,533	7,948	1,137	862	809	259
South Dakota	49,049	29,573	90	376	6,188	2,519	6,782	1,570	90	4,863
Tennessee	14,817	72	477	876	5,370	5,677	284	857	193	1,011
Texas	3,619	175	348	168	1,752	570	113	195	106	192
Utah	30,688	13,811	1,764	9,751	2,598	171	696	18	36	1,843
Vermont	278	3	65	109	78	--	3	5	6	9
Virginia	3,640	14	104	857	777	531	320	237	183	617
Washington	15,639	346	474	1,970	1,920	1,865	3,480	663	284	4,637
West Virginia	9,126	2	157	386	3,080	2,983	83	736	422	1,077
Wisconsin	5,432	12	61	308	1,412	1,481	270	1,442	94	350
Wyoming	12,958	7,990	254	1,946	1,225	12	60	1,017	222	232

¹ Areas under organized fire protection of Federal and state governments.
² A wildfire spreading from clearing land, burning trash, range, stubble, meadow, rights-of-way, logging slash or other prescribed burning.
³ Wildfires willfully set by anyone to burn, or to spread to, vegetation or property not owned or controlled by him, and without consent of the owner or his agent.
⁴ Wildfires caused by any and all mechanical equipment other than railroad operations.
⁵ Wildfires caused by all railroad operations including burning rights-of-way and ties.
⁶ Wildfires that cannot be properly classified under other general causes.

Source: U.S. Department of Agriculture, Forest Service, Wildfire Statistics, 1973.

**TABLE 7-8
EMPLOYMENT, STOCKING RATE, ANIMAL OUTPUT VALUE, AND HERBAGE AND
BROWSE PRODUCTION ON U.S. RANGE LANDS, 1970**

OWNERSHIP	TOTAL ¹	WESTERN RANGE	WESTERN FOREST	GREAT PLAINS	EASTERN FOREST
Employment² (in millions of man-hours per yr.)					
All Ownerships	195.5	68.5	10.1	83.5	33.4
National Forest System	13.0	8.3	3.1	1.0	0.7
Other Federal	22.3	19.5	0.5	2.2	0.1
Non-Federal	160.2	40.7	6.5	80.3	32.6
Animal Unit-Month Production³ (in animal unit-months)					
All Ownerships	213,102	56,081	10,729	92,767	53,525
National Forest System	11,255	5,696	3,334	1,161	1,064
Other Federal	18,757	15,551	594	2,465	147
Non-Federal	183,090	34,834	6,801	89,140	52,314
Animal Output Value⁴ (in millions of dollars)					
All Ownerships	1,687.0	460.0	86.0	774.5	366.5
National Forest System	86.5	45.0	26.1	8.4	7.1
Other Federal	150.1	126.1	4.7	18.3	1.0
Non-Federal	1,450.3	288.9	55.2	747.8	358.4
Herbage and Browse Production⁵ (in thousands of tons per year)					
All Ownerships	485,472	145,154	52,060	154,938	133,320
National Forest System	54,753	19,192	23,060	2,971	9,530
Other Federal	69,352	51,362	3,447	5,749	8,794
Non-Federal	361,368	74,600	25,554	146,218	114,996

¹ Data may not sum to totals due to independent rounding.

² Primary permanent employment generated by full use of range associated outputs.

³ One animal unit-month is defined as the amount of feed or forage required by an animal unit for one month. An animal unit is defined as one mature 1,000 pound cow, plus calf, or the equivalent, based upon daily forage consumption of 26 pounds of dry matter per day.

⁴ Dollar value of livestock production.

⁵ Production of leafy or twig material.

Source: U.S. Department of Agriculture, Forest Service, The Nation's Range Reserves, 1972.

TABLE 7-8
 CUMULATIVE RECORD OF MAMMALS AND BIRDS STOCKED FOR WILDLIFE RESTORATION¹

	DEER	ANTELOPE	ELK	MOUNTAIN SHEEP	OTHER BIG GAME	FUR ANIMALS	SMALL GAME	TURKEY	PHEASANTS	BOBWHITE	WESTERN QUAIL	CHUKARS	OTHER EXOTICS	GROUSE	WATER-FOWL
UNITED STATES	61,611	20,159	3,404	1,104	3,520	21,295	11,100	27,970	526,220	138,663	24,822	92,524	250,283	10,485	27,070
Alabama	3,114	0	0	0	0	897	0	1,043	2,644	0	0	0	19,838	63	0
Alaska	21	0	38	26	297	142	86	0	0	0	0	0	0	124	59
Arizona	211	473	0	16	74	136	543	1,146	1,374	236	9,282	3,128	1,429	0	0
Arkansas	3,616	0	0	0	0	1,346	0	4,178	0	37	0	0	150	380	0
California	176	143	0	0	0	2,073	0	439	498	0	1,186	12,691	7,790	0	0
Colorado	0	846	301	209	28	2	0	981	329	0	313	3,307	20,752	54	1,432
Connecticut	0	0	0	0	0	332	0	0	0	0	0	0	0	0	0
Delaware	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dist. of Columbia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Florida	490	0	0	0	0	0	0	1,998	0	29	0	0	0	0	0
Georgia	3,634	0	0	0	6	953	73	304	912	0	0	0	2,432	0	0
Hawaii	28	0	0	41	0	0	0	424	0	0	184	267	2,080	0	0
Idaho	1,398	1,912	159	84	91	5,837	0	7,795	9	0	2,775	974	0	18	0
Illinois	393	0	0	0	0	90	0	0	2,123	0	0	0	0	0	500
Indiana	1,129	0	0	0	0	0	0	2	2,426	0	0	0	0	148	156
Iowa	0	0	0	0	0	0	0	0	0	0	0	0	0	234	225
Kansas	0	158	72	0	0	0	0	564	37,560	0	0	0	0	121	0
Kentucky	8,705	0	0	0	10	1,283	64	837	13,992	3,204	0	3,882	35,181	832	50
Louisiana	3,860	0	0	0	0	158	0	1,847	548	0	0	0	5,949	0	633
Maine	0	0	0	0	0	426	0	0	0	0	0	0	0	32	416
Maryland	0	0	0	0	0	0	0	1,127	820	1,500	0	0	0	0	0
Massachusetts	0	0	0	0	0	0	0	133	0	0	0	0	0	0	0
Michigan	0	0	0	0	0	0	0	0	0	0	0	0	0	364	168
Minnesota	0	0	0	0	0	0	0	0	6,360	8,318	0	0	0	0	181
Mississippi	2,256	0	0	0	0	856	0	2,372	0	0	0	0	0	0	0
Missouri	291	0	0	0	0	50	0	606	14,826	0	0	0	3,410	498	0
Montana	1,505	4,374	164	527	308	1,051	0	149	7,033	0	0	545	84	287	275
Nebraska	3	566	0	0	0	4	0	828	0	1,204	2,008	19,663	80,141	0	472
Nevada	0	90	0	10	214	0	0	32	12,840	0	2,992	22,395	9,558	0	420
New Hampshire	22	0	0	0	0	0	0	15	0	0	0	0	0	0	25
New Jersey	0	0	0	0	0	0	0	0	424	0	0	0	0	0	0
New Mexico	998	4,488	292	52	4,060	168	0	71	9,486	1,122	112	17,842	14,098	218	482
New York	185	0	0	0	270	318	7,219	1,429	274,500	53,813	1,898	0	6,141	0	7,473
North Carolina	1,125	0	0	0	26	8	0	55	100	0	0	0	598	6	0
North Dakota	0	217	51	0	6	0	0	44	8,861	0	0	0	0	0	0
Ohio	237	0	0	0	0	21	2,123	340	31,472	0	0	0	72	0	13,012
Oklahoma	1,914	83	356	0	0	720	54	1,265	14,746	52,680	4,580	588	14,673	607	0
Oregon	0	0	13	0	0	157	0	98	10,240	0	0	0	0	0	0
Pennsylvania	0	0	0	0	0	24	0	18	1,056	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	746	4,193	0	34	0	22,078	0	0
South Carolina	434	0	0	0	0	976	0	872	210	1,250	0	0	1,488	0	0
South Dakota	0	118	0	0	0	157	0	98	10,240	0	0	0	0	0	419
Tennessee	4,771	0	0	0	90	111	0	977	26,706	0	0	0	0	12	26
Texas	19,989	5,494	0	13	13	880	467	2,090	203	3,480	984	2,636	895	336	0
Utah	0	813	0	0	0	319	0	10	0	0	442	2,084	100	0	52
Vermont	0	0	0	0	0	212	0	14	0	0	0	0	0	0	0
Virginia	1,790	0	0	0	4	193	0	488	0	11,454	0	0	0	0	0
Washington	0	0	0	54	4	1,528	182	10	31,741	100	807	597	305	0	83
West Virginia	882	0	0	0	0	4	0	309	0	0	0	0	0	0	0
Wisconsin	0	0	0	0	0	0	0	0	0	0	0	0	0	67	0
Wyoming	436	284	1,858	72	17	0	0	0	0	0	0	224	0	5,969	83

¹ Cumulative from 1938 to 1973 under the Pittman-Robertson Program, whereby individual states administer stocking of wildlife for restoration (as opposed to hunting) and are partially reimbursed by the Federal government.

Source: Department of the Interior, U.S. Fish and Wildlife Service, Federal Aid in Fish and Wildlife Restoration, 1973, 1974.

TABLE 7-10
ENDANGERED FAUNA IN THE UNITED STATES

NAME	WHERE FOUND	NAME	WHERE FOUND
Bony Fishes		Reptiles	
Sturgeon and Paddlefishes		Crocodilians	
1. Sturgeon, Shortnose	Atlantic Coast	1. Alligator, American	Southeast
Trout, Salmon and Relatives		Lizards and Snakes	
1. Clac, Longjaw	Lakes Michigan, Huron and Erie	1. Lizard, Blunt-nosed leopard	California
2. Trout, Arizona (Apache)	Arizona	2. Snake, San Francisco garter	California
3. Trout, Gila	New Mexico		
4. Trout, Greenback cutthroat	Colorado		
5. Trout, Lahontan cutthroat	California, Nevada		
6. Trout, Fatue cutthroat	California		
Carps, Minnows and Relatives		Birds	
1. Bonytail, Fahranget	Nevada	Albatrosses, Petrels and Relatives	
2. Chub, Humpback	Arizona, Utah and Wyoming	1. Petrel, Hawaiian dark-rumped	Hawaii
3. Chub, Mohave	California		
4. Cui-oi	Nevada	Pelicans	
5. Dace, Kendall Warm Springs	Wyoming	1. Pelican, Brown	Coastal
6. Dace, Moapa	Nevada		
7. Squawfish, Colorado River	Colorado River system	Ducks, Geese, Swans and Relatives	
8. Woundfin	Utah	1. Duck, Hawaiian (Koloa)	Hawaii
Silversides, Topminnows and Relatives		2. Duck, Laysan	Hawaii
1. Gambusia, Big Bend	Texas	3. Duck, Mexican	Texas, Arizona
2. Gambusia, Clear Creek	Texas	4. Goose, Aleutian Canada	Western
3. Gambusia, Focos	Nevada	5. Goose, Hawaiian (nose)	Hawaii
4. Killifish, Fahring	Texas		
5. Pupfish, Cosanga Springs	Texas	Eagles, Falcons, Vultures and Relatives	
6. Pupfish, Devil's Hole	Nevada	1. Condor, California	California
7. Pupfish, Owens River	California	2. Eagle, Southern bald	South of 40th parallel
8. Pupfish, Tecopa	California	3. Falcon, American peregrine	U.S.A.
9. Pupfish, Warm Springs	Nevada	4. Falcon, Arctic, peregrine	U.S.A.
10. Topminnow, Gila	Arizona	5. Hawk, Hawaiian (io)	Hawaii
6. Kite, Florida Everglad (snail kite)			Florida
Sticklebacks, Pipefishes and Relatives		Phanagras, Grouse, Curassows and Relatives	
1. Stickleback, Unarmored threespine	California	1. Prairie Chicken, Attwater's Greater	Texas
		2. Quail, Masked bobwhite	Arizona, New Mexico
Perches and Relatives		Grasses, Rails, Bustards and Relatives	
1. Darter, Fountaln	Texas	1. Coot, Hawaiian	Hawaii
2. Darter, Maryland	Maryland	2. Crane, Mississippi sandhill	Mississippi
3. Darter, Okaloosa	Florida	3. Crane, Whooping	U.S.A.
4. Darter, Watercress	Alabama	4. Gallinule, Hawaiian	Hawaii
5. Pike, Blue	Lakes Erie and Ontario	5. Rail, California clapper	California
		6. Rail, Light-footed clapper	California
		7. Rail, Yuma clapper	California, Arizona
		Plovers, Snipes, Gulls and Relatives	
		1. Stilt, Hawaiian	Hawaii
Amphibians		Parrots, Parakeets and Relatives	
Salamanders		1. Parrot - Thick billed	Arizona, New Mexico
1. Salamander, Desett elander	California		
2. Salamander, Santa Cruz long-toed	California	Woodpeckers, Puffbirds, Barbets and Relatives	
3. Salamander, Texas blind	Texas	1. Woodpecker, Ivory-billed	South Central and Southeast
		2. Woodpecker, Red-cockaded	South Central and Southeast
Frogs		Forching Birds - Sparrows, Larks, Thrushes and Relatives	
1. Toad, Houston	Texas	1. Crow, Hawaiian (alala)	Hawaii
		2. Honeycreeper, Akiapoleau	Hawaii
Mammals		3. Honeycreeper, Crested (akohokoho)	Hawaii
Bats		4. Honeycreeper, Hawaii akapa (akapa)	Hawaii
1. Bat, Hawaiian hoary	Hawaii	5. Honeycreeper, Kauai akialoa	Hawaii
2. Bat, Indiana	Midwest and East	6. Honeycreeper, Maui parrotbill	Hawaii
		7. Honeycreeper, Maui akapa (Akapia)	Hawaii
Rodents		8. Honeycreeper, Molokai creeper (Lakavahi)	Hawaii
1. Kangaroo Rat, Morro Bay	California	9. Honeycreeper, Oahu creeper (alauiwaho)	Hawaii
2. Mouse, Salt marsh harvest	California	10. Honeycreeper, Oa	Hawaii
3. Prairie Dog, Utah	Utah	11. Honeycreeper, Palila	Hawaii
4. Squirrel, Delmarva Peninsula fox	Maryland	12. Honeycreeper, Laysan and Nihon finches	Hawaii
		13. Honeycreepers, Kauai and Maui makupuu	Hawaii
Carnivores		14. Honey-eater, Kauai (Oo (oo ae))	Hawaii
1. Cougar, Eastern	Eastern States	15. Sparrow, Cape sabbie	Florida
2. Ferret, Black-footed	Western States	16. Sparrow, Dusky sabbie	California
3. Fox, San Joaquin kit	California	17. Sparrow, Santa Barbara	California
4. Panther, Florida	Florida	18. Thrush, Large Kauai	Hawaii
5. Wolf, Eastern timber	Minnesota, Michigan	19. Thrush, Molokai (Olomau)	Hawaii
6. Wolf, Northern Rocky Mountain	Wyoming, Montana	20. Thrush, Small Kauai (Pualohi)	Hawaii
7. Wolf, Red	Texas, Louisiana	21. Warbler, Nihon willerbird	Hawaii
Beaver-Toad Ungulates		22. Warbler (Wood), Bachman's	Southeast
1. Deer, Columbian white-capped	Oregon, Washington	23. Warbler (Wood), Kittland's	U.S.A.
2. Deer, Key	Florida		
3. Pronghorn, Sonoran	U.S.A.		

Source: U.S. Department of the Interior, United States List of Endangered Fauna, May 1974.

**TABLE 8-1
USES AND SOURCES OF WATER IN THE UNITED STATES**
(In billions of gallons per day)

U.S. TOTALS ¹	1955 ²	1960	1965	1970
Off-Channel Water Use (Withdrawals) ³				
Public Supplies ⁴	17	21	24	27
Rural Domestic and Livestock ⁵	3.6	3.6	4.0	4.5
Irrigation ⁶	110	110	120	130
Self-Supplied Industrial ⁷				
Thermoelectric power	72	100	130	170
Other self-supplied industrial	39	38	46	47
Total Withdrawals	240	270	310	370
Water consumed by off-channel uses ⁸	NA	61	77	87
Sources of Water for Off-Channel Uses				
Fresh groundwater	47	50	60	68
Saline groundwater ⁹	0.65	0.38	0.1	1.0
Fresh surface water	180	190	210	250
Saline surface water ⁹	18	31	43	53
Reclaimed sewage ¹⁰	0.2	0.1	0.7	0.5
Water Used for Hydroelectric Power ¹¹	1,500	2,000	2,300	2,800

NA = Not Available

¹Data may not sum to totals due to independent rounding.

²Forty-eight conterminous states only.

³Off channel water use, or withdrawal, is the amount of water withdrawn from its source. It is equivalent to "intake" or "water requirement" as used in industry and agriculture, respectively. The term "off-channel uses" is used to represent all withdrawal uses other than water withdrawn for hydroelectric power generation.

⁴Water obtained from water utilities that serve the general public. Such water has domestic, commercial, and industrial uses.

⁵Rural domestic and livestock uses are by individual families and small communities not served by a water utility.

⁶Including conveyance losses.

⁷Water is self-supplied if a public supply is either not available or not used.

⁸Water consumed by off-channel uses is that part of the water withdrawn that is no longer available because it has been evaporated, transpired, incorporated into products and crops, consumed by man or livestock, or otherwise removed from the water environment.

⁹Water with more than 1,000 milligrams of dissolved solids per liter of solution is classed as "saline" irrespective of the nature of the minerals present.

¹⁰Reclaimed sewage is the effluent from a sewage treatment plant which has been diverted before it reaches a natural waterway and becomes part of the streamflow.

¹¹Water for hydroelectric power generation is an "in-channel use," as it is used within the river channel itself.

Sources: U.S. Department of the Interior, Geological Survey, Estimated Use of Water in the United States in 1970, 1972.

TABLE B-2
WATER USED FOR IRRIGATION, BY STATE, 1970¹

STATE	ACRES IRRIGATED (1,000 acres)	TOTAL WATER WITHDRAWN (1,000 acre-feet per year)				WATER CONSUMED ² (1,000 ac-ft/yr)	CONVEY-ANCE LOSS (1,000 ac-ft/yr)	TOTAL WATER WITHDRAWN (million gallons per day)				WATER CONSUMED ² (mgd)	CONVEY-ANCE LOSS (mgd)
		GROUND-WATER	SURFACE WATER	RE-CLAIMED SEWAGE	ALL WATER ³			GROUND-WATER	SURFACE WATER	RE-CLAIMED SEWAGE	ALL WATER ³		
UNITED STATES	49,286.5	50,930.8	91,251.9	414.2	142,246.6	81,752.5	25,153.9	45,464.4	81,452.0	363.8	126,547.0	72,335.2	22,344.2
Alabama	27	6.0	14	0	20	20	0	5.4	12	0	18	18	0
Alaska	2.2	0.5	0.5	0	1.0	0.9	0	0.4	0.4	0	0.9	0.8	0
Arizona	1,200	4,300	2,700	0	7,000	5,000	270	3,800	2,400	0	6,300	4,500	240
Arkansas	1,100	1,200	260	0	1,400	1,000	100	1,100	230	0	1,300	890	90
California	8,700	18,000	19,000	140	37,000	23,000	5,500	16,000	17,000	120	33,000	20,000	4,900
Colorado	4,600	2,100	12,000	90	14,000	7,400	1,600	1,900	11,000	80	13,000	6,600	1,400
Connecticut	14	0.7	6.2	0	6.9	6.9	0	0.5	5.4	0	5.9	5.9	0
Dist. of Columbia	0	0	0	0	0	0	0	0	0	0	0	0	0
Delaware	17	2.6	0.7	0	3.3	3.3	0	2.2	0.5	0	2.7	2.7	0
Florida	1,700	1,400	1,100	0	2,500	1,500	160	1,300	970	0	2,200	1,300	150
Georgia	150	7.6	45	0	53	53	0	6.6	40	0	47	47	0
Hawaii	160	610	760	64	1,400	840	250	550	680	57	1,300	750	220
Idaho	3,700	2,300	15,000	2.8	17,000	5,200	4,800	2,100	13,000	2.5	15,000	4,700	4,300
Illinois	36	17	7.2	0	24	24	0	15	6.0	0	21	21	0
Indiana	34	20	8.9	0	29	29	0	18	7.4	0	25	25	0
Iowa	54	26	3.8	0	30	30	0	23	3.1	0	26	26	0
Kansas	1,800	3,100	230	0	3,300	2,600	48	2,800	200	0	3,000	2,300	43
Kentucky	25	0.4	7.8	0	8.2	8.2	0	0.4	6.7	0	7.1	6.8	0
Louisiana	670	870	880	0	1,700	1,300	480	770	780	0	1,600	1,100	430
Maine	22	0.2	9.9	0	10	10	0	0.2	8.7	0	8.9	8.8	0
Maryland	16	2.5	4.9	0.2	7.6	7.5	0	2.1	4.3	0.2	6.6	6.6	0
Massachusetts	34	21	44	0	65	49	0	18	40	0	58	43	0
Michigan	100	25	41	0	66	66	0	22	36	0	58	58	0
Minnesota	50	14	9.5	0	23	23	0	12	8.0	0	20	20	0
Mississippi	200	240	180	0	420	210	42	220	160	0	370	190	17
Missouri	180	79	8.2	0	87	62	6.7	70	6.9	0	77	55	5.5
Montana	2,200	71	8,500	0.1	8,600	6,000	2,500	63	7,600	0.1	7,600	5,400	2,200
Nebraska	4,100	3,000	2,300	0	5,300	3,900	1,400	2,700	2,100	0	4,700	3,500	1,300
Nevada	830	430	2,900	4.8	3,400	1,600	1,800	360	2,600	4.2	3,000	1,400	1,600
New Hampshire	3.3	0	3.3	0	3.3	2.5	0	0	2.8	0	2.8	2.0	0
New Jersey	170	63	22	0	85	78	0	56	20	0	76	70	0
New Mexico	1,100	1,500	1,700	25	3,200	1,500	170	1,300	1,500	22	2,800	1,300	160
New York	75	16	15	0	31	31	0	14	13	0	27	27	0
North Carolina	470	56	36	0	92	92	0	50	32	0	82	82	0
North Dakota	74	30	190	0	210	150	66	26	170	0	190	130	59
Ohio	32	11	25	0	35	32	0	9.0	22	0	31	28	0
Oklahoma	620	810	110	0	920	640	22	720	99	0	820	570	20
Oregon	1,900	710	4,700	3.6	5,400	2,600	1,700	630	4,200	3.1	4,800	2,300	1,500
Pennsylvania	35	0.9	11	0	12	12	0	0.8	9.4	0	10	10	0
Rhode Island	3.8	0.5	4.7	0	5.2	3.9	0	0.4	4.1	0	4.5	3.4	0
South Carolina	42	10	22	0	32	32	0	8.9	20	0	29	29	0
South Dakota	150	35	230	0	260	147	88	31	200	0	230	130	79
Tennessee	9.3	1.8	1.6	0	5.4	4.6	0	1.3	2.9	0	4.2	3.8	0
Texas	8,300	8,800	2,800	17	12,000	9,100	540	7,800	2,500	15	10,000	8,100	480
Utah	1,300	470	3,500	58	4,100	2,200	710	420	3,200	52	3,600	2,000	630
Vermont	0.3	0	0.1	0	0.1	0.1	0	0	0.1	0	0.1	0.1	0
Virginia	80	6.1	34	0	40	38	0	5.2	30	0	35	34	0
Washington	1,400	390	5,900	0	6,300	2,300	1,200	350	5,300	0	5,600	2,200	1,000
West Virginia	2.6	0	1.6	0	1.6	1.6	0	0	1.3	0	1.3	1.3	0
Wisconsin	100	37	22	0	60	45	1.2	33	20	0	52	40	0.7
Wyoming	1,700	140	5,900	8.7	6,000	2,600	1,700	130	5,200	7.7	5,400	2,300	1,500

¹ The large discrepancy between the number of irrigated acres in 1970 found in this table and the number of irrigated acres in 1969 shown in Table B-10, (i.e., 49,286,500 versus 39,129,000) may be attributed to the difference in data collection and reporting methodologies utilized by the respective source agencies.

² Excluding conveyance losses by evapotranspiration.

³ Partial figures may not add to totals because of independent rounding.

Source: U.S. Department of the Interior, Geological Survey, Estimated Use of Water in the United States in 1970, 1972.

TABLE B-3
WATER USED FOR ELECTRIC UTILITY GENERATION OF THERMOELECTRIC POWER, BY STATE
 (in millions of gallons per day)

STATE	1960			1970		
	CONDENSER COOLING	OTHER USES	WATER CONSUMED	CONDENSER COOLING	OTHER USES	WATER CONSUMED
UNITED STATES	101,138	1,157	224	161,087	3273.8	1044.8
Alabama	3,100	92	0	4,800	260	25.4
Alaska	86	0	0	4.4	66	0
Arizona	51	0	12	42	0	32
Arkansas	280	0	7	950	2.0	3
California	9,200	4	17	9,900	11	90
Colorado	200	0	7	110	0.2	8
Connecticut	1,500	1	0	2,900	8.0	2
Delaware	440	2	0	730	0.4	0
District of Columbia	270	0	0	1,000	60	0
Florida	5,500	5	2	11,000	3.5	106
Georgia	1,800	0	0	4,000	40	40.1
Hawaii	300	2	0	980	0	0
Idaho	0	0	0	0	0	0
Illinois	9,400	320	2	11,000	320	5
Indiana	3,200	41	7	4,700	110	5
Iowa	1,500	4	2	1,400	42	20
Kansas	530	4	12	260	0	32
Kentucky	2,000	1	1	3,400	240	21
Louisiana	4,700	6	11	2,700	140	195
Maine	120	2	0	200	2.0	0
Maryland	1,100	23	0	3,200	16	0
Massachusetts	1,800	9	1	2,700	32	2
Michigan	3,900	25	1	9,700	49	0
Minnesota	1,200	22	0	1,700	0.2	0.2
Mississippi	270	0	10	920	13	35
Missouri	1,300	6	1	2,500	10	13
Montana	58	0	0	60	0	0
Nebraska	570	3	2	970	0	8.4
Nevada	3	0	1	56	0.1	7.5
New Hampshire	250	6	0	410	0	0
New Jersey	2,600	19	4	4,200	26	26
New Mexico	22	1	8	28	0.9	27
New York	8,200	120	8	13,000	390	26.6
North Carolina	2,000	19	0	4,500	42	30
North Dakota	10	0	2	350	0	2
Ohio	8,100	63	22	13,000	610	14
Oklahoma	310	0	8	190	1.6	28
Oregon	7	0	0	22	0	0.1
Pennsylvania	6,500	150	4	12,000	280	8.9
Rhode Island	310	1	0	310	0	0
South Carolina	660	2	2	2,600	26	14
South Dakota	2	0	1	3.6	0	0.6
Tennessee	3,800	120	1	4,500	340	62
Texas	3,800	11	52	9,600	4.4	144
Utah	76	1	3	87	0.6	3.8
Vermont	29	0	0	0	5.0	0
Virginia	3,400	2	2	3,900	0	0.8
Washington	0	0	0	4	0.3	0
West Virginia	3,600	69	10	4,800	120	1.1
Wisconsin	2,900	1	0	5,300	0	0
Wyoming	84	0	1	200	1.6	5.3

Source: U.S. Department of the Interior, Geological Survey, Estimated Use of Water in the United States, 1960, 1961, 1970, and 1972.

TABLE 8-4
UNIT WATER REQUIREMENTS FOR PRODUCING ENERGY

ENERGY SOURCE	STANDARD UNIT	CONSUMPTION OF WATER	WATER NEEDED (gallons/million BTU)	WATER USES OF CONSIDERATION
Western coal mining	ton	6 - 14.7 gal/ton	0.25 - 0.61	Dust control
Eastern surface mining	ton	15.8 - 18.0 gal/ton	0.66 - 0.75	Dust control Coal washing
Oil shale	barrel	145.4 gal/bbl	30.1	Processed shale disposal Shale oil upgrading Power requirements Retorting Mining and crushing Revegetation Sanitary use Associated urban
Coal gasification	MSCF*	72 - 158 gal/MSCF	72 - 158	Process use Cooling use
Coal liquefaction	barrel	175 - 1,134 gal/bbl	31 - 200	Process use Cooling use
Nuclear	kilowatt-hour	0.80 gal/kWh	234.46	Cooling Uranium mining
Oil and gas production	barrel	17.3 gal/bbl	3.05	Well drilling Secondary and tertiary recovery
Refineries	barrel	43 gal/bbl	7.58	Process water Cooling water
Fossil fuel power plants	Kwh	0.41 gal/kWh	120.16	Cooling water
Gas processing plants	MSCF ¹	1.67 gal/MSCF ¹	1.67	Cooling water

¹Million standard cubic feet.

Source: Water Resources Council. Water Requirements, Availabilities, Constraints, and Recommended Federal Actions; Project Independence, November 1974.

TABLE 8-5
NATIONAL ASSESSMENT OF SHORE EROSION, 1971
(in miles)

REGION ¹	TOTAL SHORELINE	SIGNIFICANT EROSION			NON-ERODING
		TOTAL	CRITICAL EROSION ²	NON-CRITICAL EROSION ²	
TOTAL FOR NATION	84,240	20,500	2,700	17,800	63,740
North Atlantic	8,620	7,460	1,090	6,370	1,160
South Atlantic-Gulf	14,620	2,820	980	1,840	11,800
Lower Mississippi	1,940	1,580	30	1,550	360
Texas Gulf	2,500	360	100	260	2,140
Great Lakes	3,680	1,260	220	1,040	2,420
California	1,810	1,550	80	1,470	260
North Pacific	2,840	260	70	190	2,580
Alaska	47,300	5,100	100	5,000	42,200
Hawaii	930	110	30	80	820

¹ As defined by the U.S. Army Corps of Engineers (see Figure A-1).

² Those areas where erosion presents a serious problem because the rate of erosion considered in conjunction with economic, industrial, recreational, agricultural, navigational, demographic, ecological, and other relevant factors indicates that action to halt such erosion may be justified. Critical areas are those where experienced judgment indicates that prospective damage prevented and benefits from tangible and intangible values may justify action to halt erosion. Where judgment does not so indicate, areas are designated non-critical, although erosion is significant.

Source: U.S. Department of the Army, Corps of Engineers, Report on the National Shoreline Study, 1971.

**TABLE 8-6
SEDIMENT YIELDS FOR SELECTED RIVERS DISCHARGING TO THE
OCEANS FROM THE CONTERMINOUS UNITED STATES**

AREA OR RIVER BASIN	DRAINAGE AREA (in square miles)	AVERAGE ANNUAL SUSPENDED SEDIMENT YIELD			AVERAGE ANNUAL SUSPENDED SEDIMENT DISCHARGE		
		(in tons per square mile)			(in thousands of tons)		
		1909	1964	1973	1909	1964	1973
<u>Atlantic Ocean</u> ¹	287,166	97.2	--	49.5	27,900	--	14,204
Delaware River	6,780	56	147	111	380	998	749
Susquehanna River	24,100	35	--	81.0	845	--	1,953
Potomac River	9,651	95	--	81.4	913	--	786
Pee Dee River	8,830	154	--	15.2	1,360	--	442
Ogeechee River	2,650	225	--	23.2	596	--	61.6
<u>Gulf of Mexico</u> ¹	1,739,200	220	--	217.4	382,600	--	378,179
Apalachicola River	17,200	159	--	10.1	2,740	--	173
Tombigbee River	19,200	104	120	128	2,000	2,300	2,454
Alabama River	22,000	178	97	115	3,920	2,140	2,528
Pearl River	6,630	58	--	133	385	--	881
Mississippi River	1,262,000	269	244	259	340,000	308,000	244,900
<u>Pacific Ocean</u> ¹	632,410	--	623	157	--	394,100 ²	99,067
Colorado River	245,000	387	1,190	0.04	94,800	292,000	10.6
San Francisco Bay	47,570	77	--	75.4	3,660	--	3,585
Sacramento River	23,530	86	94	116	2,020	2,215	2,719
Bel River	3,113	--	5,846	9,426	--	18,200	29,345
Mad River	485	--	3,711	5,549	--	1,800	2,691
Trinity River	2,865	--	1,141	1,919	--	3,270	5,497
Columbia River	258,200	--	125	60.5	--	32,300	15,620

-- not reported

¹The river basin numbers do not sum to the total ocean and Gulf area figures, since the river basins shown are only a sample of those draining into the oceans and the Gulf of Mexico.

²Sum of Colorado, Pacific Slopes, California, and Columbia Regions.

Source: U.S. Department of the Interior, Geological Survey, Fluvial-Sediment Discharge to the Oceans from the Conterminous United States, 1973.

**TABLE 8-7
VOLUME AND COST¹ OF DREDGING WORK DONE BY THE
U.S. ARMY CORPS OF ENGINEERS**

ITEM AND DIVISION ²	1970	1971	1972	1973	1974	1975 ³
VOLUME (in thousands of cubic yards)						
New England	3,046	5,153	2,528	1,219	404	874
North Atlantic	26,215	35,653	36,287	31,146	17,025	24,856
South Atlantic	76,080	60,979	57,742	51,402	40,409	67,905
Ohio River	4,139	4,405	5,435	5,035	8,583	6,457
North Central	18,024	11,825	11,980	11,885	12,475	12,589
Missouri River	1,245	2,479	2,376	1,595	3,376	3,035
Lower Mississippi Valley	138,506	134,788	109,443	148,468	191,285	167,030
South Pacific	10,402	10,025	10,779	8,070	13,111	8,485
Southwestern	94,915	69,370	61,393	37,121	82,052	47,391
North Pacific	19,614	22,981	17,687	10,706	18,131	21,234
Total	392,185	357,658	315,650	312,646	386,850	369,260
COST (in thousands of dollars)						
New England	\$ 5,919	\$ 10,275	\$ 5,581	\$ 4,198	\$ 811	\$ 7,030
North Atlantic	20,111	28,056	32,132	34,796	25,179	41,267
South Atlantic	25,131	28,415	31,284	33,347	38,889	59,980
Ohio River	1,195	1,721	2,785	2,368	4,385	8,437
North Central	15,627	12,400	13,017	16,890	12,725	16,125
Missouri River	774	1,358	1,606	1,464	2,160	1,944
Lower Mississippi Valley	22,698	22,683	19,063	26,045	46,333	49,001
South Pacific	5,598	4,449	6,144	5,747	8,789	10,087
Southwestern	22,663	21,330	18,399	18,862	26,067	24,905
North Pacific	8,631	9,844	10,386	13,014	9,553	13,486
Total	\$128,347	\$140,532	\$140,396	\$156,830	\$174,891	\$232,262

¹ Cost to Corps of dredging contracts.

² As defined by the U.S. Army Corps of Engineers (see Figure A-1).

³ Estimated.

Source: U.S. Department of the Army, Office of the Chief of Engineers, unpublished data.

TABLE 88
REVENUES, EXPENSES, AND EMPLOYMENT OF CLASS A WATER CARRIERS IN THE UNITED STATES, BY REGION¹
(dollar amounts in thousands)

REGION AND ITEM	1970	1971	1972	1973
TOTAL² - ALL NAVIGATION AREAS				
Total Water Line Operating Revenues	\$365,925	\$389,172	\$422,729	\$464,210
Freight	273,427	303,893	330,532	353,448
Passenger	10,320	9,643	10,985	17,402
Other	82,178	75,634	81,212	93,360
Total Operating Expenses	322,688	343,333	370,321	414,870
Net Revenue from Water Line Operations	43,171	45,839	52,408	49,323
Average Number of Employees	7,998	8,163	8,193	8,864
Total Amount of Compensation	77,981	83,744	134,609	96,730
Atlantic and Gulf Coasts Area				
Total Water Line Operating Revenues	56,938	61,871	65,125	71,533
Freight	36,123	38,192	39,602	43,000
Passenger	3,298	3,633	3,668	2,966
Other	17,515	20,046	21,855	25,567
Total Operating Expenses	52,566	57,935	61,632	67,326
Net Revenue from Water Line Operations	4,372	3,936	3,493	4,207
Average Number of Employees	1,794	1,772	1,765	1,656
Total Amount of Compensation	17,829	20,919	22,842	23,601
Great Lakes Area				
Total Water Line Operating Revenues	28,006	27,480	29,029	35,376
Freight	25,107	25,500	26,546	29,960
Passenger	1,422	706	721	761
Other	1,477	1,274	1,762	4,655
Total Operating Expenses	22,247	21,902	23,151	28,428
Net Revenue from Water Line Operations	5,759	5,579	5,878	6,930
Average Number of Employees	816	655	824	860
Total Amount of Compensation	6,938	7,266	8,564	10,743
Mississippi River and Tributaries Area				
Total Water Line Operating Revenues	212,498	225,884	251,153	275,953
Freight	175,310	192,719	216,783	233,020
Passenger	3,001	3,295	4,348	11,325
Other	34,187	29,870	30,022	31,608
Total Operating Expenses	181,962	193,571	212,196	243,008
Net Revenue from Water Line Operations	30,699	32,313	38,957	32,945
Average Number of Employees	3,778	4,168	4,075	4,747
Total Amount of Compensation	33,515	36,171	83,445	42,149
Pacific Coast Area				
Total Water Line Operating Revenues	65,862	70,661	73,874	77,362
Freight	34,264	44,207	44,052	43,523
Passenger	2,599	2,010	2,249	2,350
Other	28,999	24,444	27,573	31,489
Total Operating Expenses	63,584	67,153	70,094	72,276
Net Revenue from Water Line Operations	2,048	3,508	3,779	5,086
Average Number of Employees	1,568	1,525	1,487	1,452
Total Amount of Compensation	19,173	18,771	18,958	19,484
Intracoastal Area				
Total Water Line Operating Revenues	2,622	3,276	3,548	3,986
Freight	2,621	3,275	3,548	3,945
Passenger	0	0	0	0
Other	1	1	0	41
Total Operating Expenses	2,329	2,773	3,248	3,632
Net Revenue from Water Line Operations	293	503	301	353
Average Number of Employees	42	43	42	49
Total Amount of Compensation	526	616	801	753

NA Not Available

¹ Class A carriers are defined as those companies having average annual operating revenues exceeding \$500,000. Class A carriers usually generate approximately 90 percent of the total operating revenues of all water carriers.

² Details may not sum to totals due to independent rounding.

Source: Interstate Commerce Commission, Bureau of Accounts, Transport Statistics in the United States, Part 5: Carriers by Water, 1970, 1971, 1972, and 1973.

TABLE 8-8
FLOODPLAINS POPULATION, DEPTH OF FLOODING, PRECIPITATION
AND ELEVATION OF SELECTED URBAN AREAS

URBANIZED AREA	POPULATION OF URBANIZED AREA ¹ (thousands)	LAND IN URBANIZED AREA				POSSIBLE DEPTH OF FLOODING ³ (feet)	AVERAGE ANNUAL PRECIPITATION ⁴ (inches)	ELEVATION ⁵ (feet)	
		TOTAL SQUARE MILES	AREA IN FLOODPLAIN		DEVELOPED AREA ² IN FLOODPLAIN				
			SQUARE MILES	PERCENT OF TOTAL	SQUARE MILES				PERCENT OF TOTAL
Asheville, North Carolina	72.5	38.2	1.6	4.4	1.0	65.0	24	38	2,2-2
Boise, Idaho	85.2	29.4	2.5	8.5	2.1	84.0	10	11	2,838
Boston, Massachusetts	2,652.6	664.4	62.4	9.4	11.9	19.1	5	43	15
Charleston, South Carolina	228.4	99.2	39.8	40.1	21.2	53.3	14	37	9
Chicago, Illinois	6,714.6	1,277.2	131.8	10.3	75.1	57.0	19	33	658
Dallas, Texas	1,338.7	674.2	146.1	21.7	28.0	19.2	31	35	481
Denver, Colorado	1,047.3	292.8	30.6	10.5	19.1	62.2	12	15	5,332
Fargo-Moorhead, North Dakota-Minnesota	85.5	23.5	9.4	40.0	5.1	54.3	25	18	896
Great Falls, Montana	70.9	21.8	2.0	9.2	1.9	97.0	11	14	3,664
Harrisburg, Pennsylvania	240.8	78.4	9.7	12.4	8.1	83.5	26	38	338
Lansing, Michigan	229.5	73.4	4.8	6.5	0.9	18.8	16	31	841
Lincoln, Nebraska	153.4	52.1	13.8	26.5	6.9	49.6	25	27	1,150
Lorain-Elyria, Ohio	192.3	106.4	5.3	5.0	0.6	11.3	21	35	777
Monroe, Louisiana	90.6	40.1	32.5	81.0	26.8	82.4	38	51	78
Norfolk-Portsmouth, Virginia	668.3	299.0	59.2	19.8	13.5	26.2	8	45	22
Omaha-Council Bluffs, Nebraska-Iowa	491.8	151.2	50.6	33.5	23.1	45.5	31	28	1,323
Phoenix, Arizona	863.4	387.5	71.2	18.4	63.5	89.2	20	7.2	1,117
Portland, Oregon	824.9	266.8	14.5	5.4	8.5	58.7	30	37	21
Reno, Nevada	99.7	37.5	2.0	5.3	0.9	45.0	15	7	4,404
Richmond, Virginia	416.6	144.6	12.9	8.9	1.7	13.2	28	44	164
St. Louis, Missouri-Illinois	1,882.0	460.6	136.1	29.6	91.7	67.4	50	36	555
Salt Lake City, Utah	479.4	184.3	12.9	7.0	10.1	78.3	10	14	4,220
San Jose, California	1,025.3	277.2	80.0	28.8	67.9	84.7	17	14	95
Spokane, Washington	229.6	77.8	1.9	2.4	0.9	47.4	13	17	2,349
Tallahassee, Florida	77.9	29.8	3.1	10.4	2.6	83.9	10	57	55
Texarkana, Texas-Arkansas	58.6	30.8	4.7	13.8	2.1	44.2	18	48	390

¹ Population as of 1970.

² That area in a floodplain where: (a) More than one-third of the acreage, whether continuous or interspersed, is actively used for residential, commercial, or industrial purposes; or (b) Plans exist for development to a degree outlined in (a) and there is assurance that the development will be accomplished soon; or (c) State or local planning and/or development agencies have classified the land as being developed; or (d) The Corps of Engineers has classified them as being "built up" and measured for its Civil Works Information System records.

³ Calculated as a measure of severity of flooding, the difference in elevation of low water and the 100-year flood elevation for the major stream in an urbanized area.

⁴ Measured at the principal first-order weather station in the area.

⁵ Elevation of the U.S. Weather Service precipitation gauge used for measuring precipitation.

Sources: U.S. Department of the Interior, Geological Survey, Extent and Development of Urban Flood Plains, 1974.

TABLE 8-10
FLOOD DAMAGES AND DAMAGES PREVENTED, BY WATER RESOURCES COUNCIL REGION¹
(in thousands of dollars)

REGION	1960 ²	1970 ²	1971 ²	1972 ²	1973 ²	1974 ²
DAMAGES INCURRED³						
TOTAL DAMAGES INCURRED	92,976	157,453	287,275	4,496,088	1,310,474	703,476
New England	7,250	0	0	60	67,900	10,175
Middle Atlantic	8,025	918	167,918	3,997,580	56,114	68,587
South Atlantic - Gulf	13,952	17,308	8,989	73,050	43,413	93,441
Great Lakes	1,942	3,100	1,000	123,848	1,920	7,805
Ohio	7,519	10,158	12,263	119,636	89,520	46,310
Tennessee	0	0	0	0	NR	NR
Upper Mississippi	12,901	8,996	0	0	277,650	114,229
Lower Mississippi	496	14,831	7,737	4,045	476,882	16,809
Souris - Red - Rainy	0	13,021	1,008	0	NR	NR
Missouri	28,105	22,911	7,862	84,131	147,267	139,915
Arkansas - White - Red	3,705	6,036	26,747	7,943	21,831	57,922
Texas Gulf	8,205	4,149	26,383	49,749	105,182	11,806
Rio Grande	0	0	145	0	847	575
Upper Colorado	0	15	555	0	NR	NR
Lower Colorado	0	5,000	3,476	0	NR	NR
Great Basin	0	356	1,860	0	NR	NR
Columbia - North Pacific	360	2,927	8,680	26,746	2,251	88,534
California - South Pacific	516	47,727	3,522	3,500	19,557	45,868
Alaska	0	0	8,630	5,800	140	1,500
Hawaii	0	0	500	0	NR	NR
DAMAGES PREVENTED³						
TOTAL DAMAGES PREVENTED	459,300	802,574	391,711	2,272,860	10,766,557	6,494,925
New England	40,100	1,216	676	9,120	7,171	54,990
Middle Atlantic	25,700	5,823	3,055	496,056	22,841	7,580
South Atlantic - Gulf	7,700	37,167	33,520	34,270	20,076	74,537
Great Lakes	4,200	3,179	4,668	152,583	8,094	6,440
Ohio	46,500	196,854	33,756	1,137,784	109,964	164,059
Tennessee	0	612	604	5	NR	NR
Upper Mississippi	11,500	29,011	5,965	3,446	1,078,109	56,797
Lower Mississippi	30,200	267,760	161,748	73,496	9,046,518	4,307,720
Souris - Red - Rainy	0	551	1,229	2,142	NR	NR
Missouri	249,300	38,135	29,672	107,996	170,512	1,091,392
Arkansas - White - Red	32,300	34,162	10,974	20,526	102,610	227,935
Texas Gulf	37,000	22,020	15,402	28,156	29,879	51,874
Rio Grande	0	866	1,111	2,395	5,177	351
Upper Colorado	0	0	0	0	NR	NR
Lower Colorado	0	0	200	1,750	NR	NR
Great Basin	0	0	0	95	NR	NR
Columbia - North Pacific	5,700	40,073	81,052	181,290	14,949	345,347
California - South Pacific	4,900	124,760	7,768	21,700	150,645	105,903
Alaska	200	21	200	50	12	0
Hawaii	0	364	111	0	NR	NR

NR Not reported.

¹ As defined by the Water Resources Council (see Figure A-2).

² Data for 1960, 1970, and 1971 are for calendar years; 1972, 1973, and 1974 are fiscal years.

³ As estimated by the U.S. Army Corps of Engineers.

Source: U.S. Army Corps of Engineers, unpublished data.

TABLE 8-11
TOTAL U.S. FLOOD CONTROL WORKS: TYPES, COSTS, AND DAMAGES PREVENTED, BY STATE

STATE	TYPE OF CONSTRUCTION				CONSTRUCTION COSTS (in thousands of dollars)			OPERATIONS AND MAINTENANCE COSTS (in thousands of dollars)	DAMAGES PREVENTED (in thousands of dollars)
	STORAGE CAPACITY ² (in thousands of acre-feet)	CHANNEL IMPROVEMENT ³ (in tenths of miles)	LEVEES ⁴ (in tenths of miles)	FLOODWALLS ⁴ (in tenths of miles)	TOTAL	FEDERAL ⁵	NON-FEDERAL		
UNITED STATES	49,906	27,099	38,199	1,161	8,121,691	7,293,217	828,474	987,557	10,536,619
Alabama	0	338	9	3	1,189	1,193	1,996	0	1,392
Alaska	0	3	30	0	1,993	1,994	39	36	6,100
Arizona	0	36	33	0	28,146	27,752	394	1,212	31,400
Arkansas	14,464	961	726	4	435,442	432,357	2,885	68,201	148,909
California	2,170	1,886	7,947	11	980,172	862,200	517,972	119,555	572,678
Colorado	341	13	74	0	32,402	31,904	498	6,132	230,341
Connecticut	0	14	131	17	106,312	94,418	11,894	4,567	104,169
Delaware	0	0	0	0	0	0	0	0	0
District of Columbia	0	14	16	1	499	494	5	0	1,400
Florida	0	0	0	0	0	0	0	0	0
Georgia	1,623	123	137	3	332,975	331,048	1,927	26,742	32,433
Hawaii	0	1	39	4	7,925	4,253	3,672	0	1,378
Idaho	0	184	643	114	65,059	64,355	704	10,962	42,365
Illinois	6	856	7,775	21	165,957	148,721	17,276	1,920	469,852
Indiana	983	308	1,284	63	124,586	107,697	16,694	6,229	179,290
Iowa	472	936	2,679	21	91,365	77,793	13,570	3,855	259,314
Kansas	1,327	1,531	2,020	6	339,447	314,847	24,600	25,012	613,633
Kentucky	1,827	1,497	43	154	495,637	488,134	7,503	48,297	252,202
Louisiana	445	2,669	2,534	33	567,356	557,872	9,484	1,292	400,202
Maine	1	0	0	0	207	207	4	0	13
Maryland	0	139	96	4	34,414	24,240	10,174	809	40,925
Massachusetts	0	190	212	91	102,179	92,770	9,409	8,944	103,281
Michigan	0	133	40	0	65,110	64,209	901	35,334	14,551
Minnesota	1,078	2,664	247	12	49,041	43,815	5,226	2,156	74,171
Mississippi	0	4,092	0	0	1,360	1,360	0	1,065	5,251
Missouri	1,151	536	1,723	12	114,650	112,005	2,645	18,484	99,067
Montana	0	9	101	0	4,248	3,898	350	0	8,394
Nebraska	127	440	589	18	130,438	113,135	6,305	26,373	385,920
Nevada	0	271	14	0	2,784	2,554	230	248	800
New Hampshire	0	18	12	1	207	207	4	0	13
New Jersey	0	14	9	2	1,300	1,257	243	0	1,679
New Mexico	1,072	269	2,105	1	97,377	84,790	11,587	8,600	17,618
New York	390	527	628	131	105,064	94,405	10,442	46,564	497,220
North Carolina	112	1,505	222	0	13,258	12,396	862	2,939	19,072
North Dakota	94	368	175	1	16,915	14,324	2,581	3,036	42,564
Ohio	576	279	311	68	237,541	219,289	18,252	28,792	518,779
Oklahoma	7,770	252	198	1	97,377	84,790	11,587	8,600	17,618
Oregon	15	532	2,400	13	691,964	667,218	24,748	119,185	1,007,410
Pennsylvania	2,112	981	575	79	408,133	395,465	12,661	28,722	1,888,622
Rhode Island	0	23	21	5	29,750	21,991	7,759	0	5,570
South Carolina	0	463	0	0	638	518	120	0	733
South Dakota	1,014	154	370	14	210,352	208,689	1,663	23,324	15,271
Tennessee	125	143	107	32	180,685	178,322	2,163	48,170	56,933
Texas	8,701	737	512	4	566,234	516,942	49,292	71,050	1,256,937
Utah	3	265	181	0	3,746	2,751	995	100	2,225
Vermont	0	25	0	1	56,721	55,974	747	6,350	27,081
Virginia	1,320	50	29	2	114,856	113,190	1,666	25,694	28,218
Washington	106	527	1,013	86	955,116	950,442	4,674	75,580	355,092
West Virginia	479	194	107	126	114,987	104,823	10,164	9,910	427,558
Wisconsin	42	9	3	0	9,803	9,405	398	218	1,107
Wyoming	0	0	266	0	4,148	4,028	120	0	5,019

1 All costs and damages prevented are cumulative from the fiscal year put into operation to 30 June 1974. Damages are estimated by regional Corps District Engineers on site at the time of the flood. The first project became operative in 1932.

2 The controlled volume of water and sediments retained behind a man-made structure for use in flood control.

3 Includes all forms of excavation (including spoil disposal areas, retaining dikes or levees, and other attendant facilities) necessary for the maintenance of channels for flood control purposes; excavation, clearing and removing accumulated debris and vegetable growth from streams for revetments, alignments, dikes, and bulkheads constructed as channel improvement works for flood control, as differentiated from such items provided for bank stabilization only. Also includes jetties provided in connection with flood control channel improvements.

4 Includes embankments, walls, and other structures constructed to protect areas from inundation by overflow from creeks, rivers, lakes, canals, and other bodies of water. Also includes such items as service roads or levee crowns or landside berms, roadtraps, closure structures, seepage control measures, erosion protection measures on levee slopes and on berms and bank slopes when an integral part of the levees or floodwalls; and drainage facilities constructed to provide means for the passage of accumulated drainage and seepage water and sewage from the protected area over or through levees and floodwalls, comprising such items as interceptor and collection sewers and ditches and pressurized sewers and drainage structures, including outfalls through levees or floodwalls. Levees, locally called dikes, are also included in Levees and Floodwalls. Levees are made of dirt, and floodwalls constructed of concrete.

5 Includes expenditures by the Corps of Engineers.

Sources: U.S. Army Corps of Engineers, unpublished data, March 1975.

TABLE 8-12
TRENDS IN U.S. FLOOD CONTROL WORKS: TYPES, COSTS, AND CUMULATIVE DAMAGES PREVENTED¹

ITEM ²	FISCAL YEAR PUT INTO OPERATION						
	1950	1960	1970	1971	1972	1973	1974 ²
TYPE OF FLOOD CONTROL WORK							
Storage Capacity ³ (in thousands of acre feet)	933	612	8	340	85	0	224
Channel Improvement ⁴ (in tenths of miles)	400	2,026	798	609	472	98	1,144
Levees ⁵ (in tenths of miles)	954	1,314	822	27	862	123	6,157
Flood Walls ⁵ (in tenths of miles)	180	0	7	1	25	10	7
COST OF FLOOD CONTROL WORK (in thousands of dollars)							
TOTAL	175,566	156,812	256,945	86,010	93,984	29,275	189,723
Federal ⁶	168,244	142,333	241,595	25,147	74,352	25,230	108,699
Non-Federal	6,322	14,479	15,350	60,863	19,362	4,045	80,624
OPERATIONS AND MAINTENANCE	14,319	12,803	5,305	111	1,253	0	125
DAMAGES PREVENTED⁷ (in thousands of dollars)							
	475,061	178,031	221,569	6,665	106,335	6,849	184,582

1 Cumulative damages prevented by projects installed in given fiscal year to 30 June 1974.

2 From 1 January 1974 to 30 June 1974.

3 The controlled volume of water and sediments retained behind a man-made structure for uses in flood control.

4 Includes all forms of excavation (including spoil disposal areas, retaining dikes or levees, and other attendant facilities) necessary for the maintenance of channels for flood control purposes; excavation, clearing, and removing accumulated debris and vegetable growth from streams for revetments, alignments, dikes, and bulkheads constructed as channel improvement works for flood control, as differentiated from such items provided for bank stabilization only. Also includes jetties provided in connection with flood control channel improvements.

5 Includes embankments, walls, and other structures constructed to protect areas from inundation by overflow from creeks, rivers, lakes, canals, and other bodies of water. Also includes such items as service roads or levee crowns or landside berms, roadramps, closure structures, seepage control measures, erosion protection measures on levee slopes and on berms and bank slopes when an integral part of the levees or floodwalls; and drainage facilities constructed to provide means for the passage of accumulated drainage and seepage water and sewage from the protected area over or through levees and floodwalls, comprising such items as interceptor and collection sewers and ditches and pressurized sewers and drainage structures, including outfalls through levees or floodwalls. Levees, locally called dikes, are also included in levees and floodwalls. Levees and are made of dirt, and floodwalls are constructed of concrete.

6 Includes expenditures by the Corps of Engineers.

7 Estimated by regional Corps district engineers on site at the time of the flood.

Source: U.S. Army Corps of Engineers, unpublished data, March 1975.

TABLE 8-13
EMERGENCY FLOOD CONTROL EXPENDITURES BY THE U.S. ARMY CORPS OF ENGINEERS¹
 (in thousands of dollars)

AMOUNT	FISCAL YEAR 1955	FISCAL YEAR 1960	FISCAL YEAR 1965	FISCAL YEAR 1970	FISCAL YEAR 1971	FISCAL YEAR 1972	FISCAL YEAR 1973	FISCAL YEAR 1974
Total Expenditure	1,247	5,432	11,811	24,987	12,806	9,741	80,538	108,786

¹ Under the authority of Public Law 84-99. This is a continuing statutory authority under which responsibility for selection of individual projects and provision of funds for each from an Emergency Fund established and replenished by Congress, is delegated to the Chief of Engineers. Responsibilities include supplementing the resources of local interests in time of flood or coastal storm, the repair and restoration of flood control work damaged or destroyed by flood, and of Federally authorized shore protection similarly affected by an unusual coastal storm.

Source: U.S. Army Corps of Engineers, Emergency Flood Control and Shore Protection Activities of the Corps of Engineers, January 1975 (unpublished).

TABLE 8-14
FEDERAL DISASTER ASSISTANCE ADMINISTRATION FUNDING FOR WATER-RELATED DISASTERS¹
(In thousands of dollars)

STATE	YEAR OF DECLARATION													
	1960		1970		1971		1972		1973		1974		1975 ²	
	TOTAL ESTIMATED REQUIREMENT	NET OBLIGATION												
UNITED STATES	8,654	8,654	51,853	51,851	40,862	38,233	122,396	117,739	157,923	149,922	55,448	50,640	123	4,776
Alabama	0	0	120	120	0	0	0	0	6,784	6,620	0	0	4,170	2,725
Alaska	0	0	0	0	0	0	0	0	1,250	1,197	2,200	1,308	0	0
Arizona	0	0	1,609	1,609	0	0	3,348	3,348	2	0	0	0	0	0
Arkansas	431	431	0	0	0	0	0	0	6,957	6,562	3,330	3,187	714	0
California	0	0	6,295	6,295	0	0	8,484	8,204	5,360	5,330	3,510	3,038	0	0
Colorado	0	0	605	605	0	0	0	0	7,613	7,125	0	0	0	0
Connecticut	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delaware	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dist. of Columbia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Florida	4,257	4,257	0	0	0	0	3,617	3,512	1,205	888	0	0	0	0
Georgia	0	0	0	0	0	0	0	0	1,748	1,618	0	0	2,217	350
Hawaii	973	973	0	0	0	0	0	0	0	0	81	80	0	0
Idaho	0	0	0	0	0	0	389	389	0	0	0	0	0	0
Illinois	0	0	0	0	0	0	1,002	913	17,870	17,826	9,288	9,434	0	0
Indiana	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Iowa	0	0	0	0	0	0	1,780	1,289	1,956	1,782	2,950	2,806	0	0
Kansas	0	0	0	0	0	0	0	0	6,872	6,866	456	407	0	0
Kentucky	0	0	349	349	212	212	643	499	502	455	0	0	4,694	270
Louisiana	0	0	0	0	1,159	1,159	0	0	0	0	6,042	5,227	0	0
Maine	0	0	3,129	3,129	0	0	0	0	1,250	1,033	0	0	0	0
Maryland	0	0	0	0	3,397	3,036	0	0	0	0	0	0	0	0
Massachusetts	0	0	0	0	0	0	7,200	7,036	0	0	0	0	0	0
Michigan	0	0	0	0	0	0	1,749	1,634	1,746	1,584	170	155	0	0
Minnesota	0	0	0	0	0	0	5,901	5,538	0	0	3,200	2,667	0	0
Mississippi	0	0	0	0	4,360	4,248	679	646	9,339	8,641	4,311	4,072	833	609
Missouri	434	434	0	0	0	0	0	0	23,087	21,425	2,900	2,918	0	0
Montana	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nebraska	397	397	0	0	1,687	1,687	0	0	2,100	1,892	0	0	0	0
Nevada	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Hampshire	0	0	0	0	0	0	350	331	4,150	3,681	0	0	0	0
New Jersey	0	0	0	0	12,219	11,250	0	0	3,900	3,753	0	0	0	0
New Mexico	0	0	0	0	0	0	1,326	1,218	1,610	1,610	0	0	0	0
New York	0	0	0	0	4,911	4,192	0	0	5,150	4,892	1,800	1,795	0	0
North Carolina	1,209	1,209	0	0	0	0	0	0	410	391	336	336	0	0
North Dakota	0	0	0	0	0	0	233	233	0	0	1,782	1,604	0	0
Ohio	0	0	0	0	0	0	2,975	2,775	4,237	3,670	2,975	2,572	0	0
Oklahoma	399	399	461	461	420	420	422	422	7,320	6,824	7,068	6,274	0	0
Oregon	0	0	0	0	647	647	8,264	8,078	0	0	0	0	0	0
Pennsylvania	0	0	0	0	4,716	4,578	170	165	4,339	4,366	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South Dakota	137	137	0	0	0	0	28,000	27,071	0	0	0	0	0	0
Tennessee	0	0	0	0	202	202	300	300	8,392	7,801	0	0	6,300	575
Texas	417	417	41,285	41,283	5,292	5,174	2,335	1,961	4,227	3,813	2,300	2,068	1,175	27
Utah	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0	0	15,131	14,932	0	0	0	0
Virginia	0	0	0	0	0	0	24,006	23,658	0	0	0	0	0	0
Washington	0	0	0	0	1,640	1,640	7,590	7,086	0	0	0	0	0	0
West Virginia	0	0	0	0	0	0	11,708	11,028	0	0	382	382	0	0
Wisconsin	0	0	0	0	0	0	425	405	3,415	3,145	387	360	0	0
Wyoming	0	0	0	0	0	0	0	0	0	0	0	0	0	0

¹Includes floods, tornadoes, tidal waves, severe weather conditions, hurricanes, heavy rains, typhoons, snow melt, and mud slides. Total Estimated Requirement is the total amount of dollars to be paid by FEMA over time to the disaster area and victims. Net Obligation is that portion of the total estimated requirement which has been paid as of 9 April 1975.

²From 1 January 1975 through 9 April 1975.

Source: U.S. Department of Health, Education and Welfare, Federal Disaster Assistance Administration, unpublished data.

TABLE 8-1
 NUMBER OF VISITOR-DAYS ON LANDS UNDER THE ADMINISTRATIONS OF THE U.S. FISH AND WILDLIFE SERVICE,
 THE U.S. FOREST SERVICE, AND THE BUREAU OF LAND MANAGEMENT, BY STATE AND ACTIVITY, 1973
 (in thousands of visitor-days)¹

STATE	FISH AND WILDLIFE SERVICE					FOREST SERVICE					BUREAU OF LAND MANAGEMENT				
	CAMPING & PICNIC-KING	HUNTING & FISHING	SWIMMING, BOATING & OTHER WATER RELATED ACTIVITIES	INTERPRETATION & EDUCATION ²	OTHER	CAMPING & PICNIC-KING	HUNTING & FISHING	SWIMMING, BOATING & OTHER WATER RELATED ACTIVITIES	SIGHT-SEEING, MOUNTAIN CLIMBING, NATURE STUDY, ETC.	OTHER	CAMPING & PICNIC-KING	HUNTING & FISHING	SWIMMING, BOATING & OTHER WATER RELATED ACTIVITIES	SIGHT-SEEING	OTHER
UNITED STATES	1,712.7	2,294.2	635.7	1,412.3	104.5	60,460.7	30,809.4	10,699.3	19,934.8	66,616.4	9,242	8,454	463	11,259	12,138
Alabama	0.1	177.6	4.5	18.2	1.6	214.9	200.6	107.4	77.9	204.5	--	--	--	--	--
Alaska	499.0	151.1	4.2	140.3	1.6	251.4	316.1	312.8	374.0	434.7	1,243	1,282	12	997	18
Arizona	28.4	9.7	2.0	8.0	--	3,403.1	1,217.2	730.2	1,104.4	3,897.4	1,643	231	1	1,353	403
Arkansas	15.7	83.7	0	5.0	--	870.9	774.8	321.4	328.4	670.3	--	--	--	--	--
California	38.8	63.9	35.3	25.7	33.0	19,360.2	4,941.6	2,847.6	4,701.1	20,443.0	2,636	600	79	1,486	9,988
Colorado	8.0	3.1	--	0.8	--	4,494.9	1,832.3	156.6	1,453.4	5,832.5	308	728	15	1,957	282
Connecticut	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Delaware	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Dist. of Columbia	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Florida	18.4	273.5	57.4	162.6	4.1	976.8	826.5	389.9	175.2	418.7	--	--	--	--	--
Georgia	33.5	23.7	0.1	34.1	NR	637.0	505.6	89.3	282.8	645.2	--	--	--	--	--
Hawaii	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Idaho	4.6	13.1	9.8	2.8	0.4	2,653.8	1,970.2	741.3	702.7	3,218.6	--	--	--	--	--
Illinois	306.3	156.0	126.1	158.1	0	194.7	157.4	32.7	104.8	201.8	--	--	--	--	--
Indiana	0.1	0.9	NR	1.4	NR	274.3	284.7	191.5	163.3	356.4	--	--	--	--	--
Iowa	81.8	133.2	117.0	32.2	0.3	NR	NR	NR	NR	NR	285	2,659	63	111	43
Kansas	14.7	31.4	0.3	9.0	NR	9.8	11.1	0.2	2.4	19.0	--	--	--	--	--
Kentucky	NR	NR	NR	NR	NR	288.4	250.9	107.7	223.7	358.9	--	--	--	--	--
Louisiana	NR	48.0	NR	1.9	1.4	190.4	217.8	54.1	35.8	98.0	--	--	--	--	--
Maine	NR	1.4	NR	3.4	0.6	15.7	7.5	0.9	11.1	17.0	--	--	--	--	--
Maryland	0.1	3.8	--	5.8	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Massachusetts	0.1	8.6	--	52.8	7.5	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Michigan	2.9	5.3	NR	8.0	NR	1,150.0	945.4	307.0	282.9	2,199.5	--	--	--	--	--
Minnesota	1.9	21.1	0.1	13.2	0.6	1,185.4	894.5	715.8	108.1	1,008.5	--	--	--	--	--
Mississippi	0.9	19.8	NR	1.1	NR	258.7	306.1	70.5	35.5	174.2	--	--	--	--	--
Missouri	1.0	33.3	NR	22.5	NR	411.1	402.2	164.1	141.1	398.0	--	--	--	--	--
Montana	75.1	50.8	25.2	49.7	4.5	1,735.1	1,417.3	248.0	791.2	2,789.1	446 ³	470 ³	49 ³	238 ³	49 ³
Nebraska	1.1	18.5	NR	9.9	NR	35.3	25.6	4.2	36.5	311.6	--	--	--	--	--
Nevada	12.4	39.2	0.9	7.1	NR	593.4	186.5	21.5	193.1	701.2	61	59	9	1,274	91
New Hampshire	NR	NR	NR	--	NR	688.3	40.1	50.1	852.6	823.7	--	--	--	--	--
New Jersey	NR	6.5	--	46.1	--	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
New Mexico	3.3	12.9	--	7.5	--	1,418.1	664.7	25.6	328.0	1,033.4	515	169	15	652	201
New York	0.4	16.5	1.6	41.0	--	16.5	16.1	--	12.3	8.5	--	--	--	--	--
North Carolina	3.9	36.2	5.0	59.2	8.1	472.0	508.2	146.9	310.0	759.7	--	--	--	--	--
North Dakota	3.6	74.7	0.1	11.0	0.1	14.2	57.7	3.0	14.1	25.1	--	--	--	--	--
Ohio	NR	NR	NR	2.9	NR	92.4	137.6	50.3	73.7	500.3	--	--	--	--	--
Oklahoma	95.8	38.0	13.9	92.3	10.5	58.9	97.5	33.0	60.9	130.8	--	--	--	--	--
Oregon	11.4	27.7	1.2	29.7	--	5,573.7	3,023.4	980.5	1,978.5	4,946.8	1,743	1,516	130	1,221	744
Pennsylvania	0.6	0.5	NR	4.3	NR	566.8	481.9	192.3	253.4	581.8	--	--	--	--	--
Rhode Island	1.8	0.3	NR	2.7	5.2	NR	NR	NR	NR	NR	--	--	--	--	--
South Carolina	0.8	277.7	3.5	22.3	NR	163.9	265.9	75.1	62.5	236.5	--	--	--	--	--
South Dakota	0.7	13.9	0.4	7.9	--	436.0	184.2	56.1	131.3	874.0	--	--	--	--	--
Tennessee	11.1	73.7	12.0	18.9	NR	448.6	323.5	108.6	169.2	488.9	--	--	--	--	--
Texas	21.3	37.3	0.2	45.7	--	417.6	520.2	125.5	83.6	229.7	--	--	--	--	--
Utah	0.7	3.2	NR	3.9	NR	3,784.8	1,917.9	354.1	981.2	3,276.2	304	434	65	942	174
Vermont	NR	NR	NR	NR	NR	89.2	49.0	13.2	90.0	953.7	--	--	--	--	--
Virginia	35.7	16.7	18.6	59.9	3.2	727.3	868.5	64.0	406.2	905.0	--	--	--	--	--
Washington	173.1	46.9	14.2	82.2	0.1	3,975.7	1,344.8	307.1	1,015.4	3,882.1	10	24	6	13	8
West Virginia	NR	NR	NR	NR	NR	543.6	417.0	50.4	118.2	291.8	--	--	--	--	--
Wisconsin	203.2	188.5	161.5	91.6	1.7	420.1	452.3	129.1	73.5	600.2	--	--	--	--	--
Wyoming	0.3	7.8	--	2.6	NR	1,707.6	833.2	119.7	482.8	1,970.1	48	282	19	1,025	108

-- Less than 100 visitor days.

NR None reported

¹A visitor-day is defined as the recreational use of land under the administration of the Fish and Wildlife Service, National Forest or Bureau of Land Management which aggregates to 12 person-hours. It may entail one person for 12 hours, 12 persons for one hour, or any equivalent combination of individual or group use, either continuous or intermittent.

²Interpretation and Education programs are designed by the Fish and Wildlife Service to significantly increase the understanding and appreciation of the environment by the visitor. Interpretation is defined as "an educational activity which aims to reveal meanings and relationships through the use of original objects, by firsthand experience, and by illustrative media rather than simply to communicate factual information."

³Includes North and South Dakota.

Source: U.S. Department of the Interior, Fish and Wildlife Service, Division of Wildlife Refuges, unpublished data, U.S. Department of Agriculture Forest Service, unpublished data, U.S. Department of the Interior, Bureau of Land Management, Public Land Statistics, 1973.

TABLE 8-2
NUMBER OF ACTIVITY-DAYS, AVERAGE HOURS OF PARTICIPATION PER ACTIVITY-DAY, AND PERCENT PARTICIPATION BY VACATION, TRIPS, AND OUTINGS, FOR SELECTED ACTIVITIES¹

ACTIVITY	ESTIMATED TOTAL U.S. PARTICIPATION (in millions of activity-days)	AVERAGE HOURS OF PARTICIPATION PER ACTIVITY-DAY	PERCENT PARTICIPATION BY VACATION, TRIPS, AND OUTINGS ²		
			PERCENT ON VACATIONS	PERCENT ON TRIPS	PERCENT ON OUTINGS
Camping in remote or wilderness areas	57.5	— ³	NA	NA	— ⁵
Camping in developed campgrounds	153.3	— ³	63.9	36.1	— ⁵
Hunting	17.5	4.44	NA	NA	NA
Fishing	278.2	4.44	29.3	19.0	51.1
Riding motorcycles off the road	58.2	4.00	25.2	11.5	63.3
Driving 4-wheel vehicles off the road	26.6	3.13	NA	NA	NA
Wildlife and bird photography	19.6	1.64	NA	NA	NA
Bird watching	42.0	2.07	NA	NA	NA
Hiking with a pack/mountain/rock climbing	45.0	3.01	NA	NA	NA
Nature walks	148.9	1.99	40.2	22.3	37.5
Walking for pleasure	496.3	1.92	35.0	10.4	54.6
Bicycling	214.2	2.03	12.6	3.3	84.1
Horseback riding	51.5	2.73	NA	NA	NA
Waterskiing	54.1	2.62	19.4	16.6	64.0
Canoeing	18.3	2.25	NA	NA	NA
Sailing	32.5	4.38	NA	NA	NA
Other boating	126.1	2.84	35.0	29.3	35.7
Outdoor pool swimming	257.0	2.76	29.2	11.2	59.6
Other swimming outdoors	487.1	2.61	30.9	15.8	53.3
Golf	63.4	4.90	25.2	— ⁴	74.8
Tennis	81.2	2.07	NA	NA	NA
Playing other outdoor games or sports	338.8	2.55	19.2	8.0	72.8
Sightseeing	362.8	3.05	57.1	13.8	29.1
Picnicking	405.1	2.73	24.3	13.5	62.2

NA Not available.

¹ For June - August 1972.

² Vacations are defined as the most recent overnight journey taken during the summer quarter of 1972, trips are defined as other overnight excursions, and outings are defined to occur within one day.

³ Defined to be one entire day.

⁴ Vacation and trip demand is combined.

⁵ Camping is defined to be overnight and, thus, cannot be an outing.

Source: U.S. Department of the Interior, Bureau of Outdoor Recreation, Outdoor Recreation - A Legacy for America, 1973.

TABLE 9-3
DISTRIBUTION OF ROUND-TRIP MILES TRAVELED ON TRIPS AND VACATIONS, BY ACTIVITY¹

ACTIVITY	ROUND-TRIP MILEAGE															
	0-200	201-400	401-600	601-800	801-1000	1001-1400	1401-1800	1801-2200	2201-2600	2601-3000	3001-4000	4001-5000	5001-6000	6001-7000	7001-8000	OVER 8000
All Activities: Percent trips	16.4	23.0	13.2	7.2	5.9	4.5	2.5	7.2	2.8	3.7	6.8	2.4	0.3	1.5	0	2.3
Percent vacations	2.6	4.6	5.7	4.9	5.9	6.3	7.1	6.4	7.9	8.4	9.9	7.5	6.7	3.0	3.6	10.0
Camping in Remote or Wilderness Areas: Percent trips	22.9	34.9	5.9	6.6	3.1	4.8	2.3	3.3	0	5.2	0	7.1	0	0	0	0
Percent vacations	1.8	4.8	5.1	1.4	4.8	1.5	2.2	5.9	3.7	9.0	9.2	10.7	26.5	0	3.4	12.1
Camping in Developed Campgrounds: Percent trips	3	16.6	7.9	6.5	2.6	3.9	1.3	17.2	0	6.2	1.4	1.1	3.0	8.6	0	3.4
Percent vacations	3.0	4.6	5.7	3.5	2.7	7.1	6.0	6.4	8.7	9.1	9.3	3.8	11.6	0	1.6	18.8
Hunting: Percent trips	39.6	42.4	0	0	0	0	0	18.0	0	0	0	0	0	0	0	0
Percent vacations	2.2	1.3	5.0	3.1	4.9	7.4	3.2	0	0	0	0	72.9	0	0	0	0
Fishing: Percent trips	21.3	26.0	10.6	9.0	2.4	3.9	0	6.4	1.9	7.2	11.2	0	0	0	0	0
Percent vacations	3.7	5.4	6.4	6.3	5.4	9.1	8.8	7.0	5.5	7.0	12.9	10.8	5.7	0	0	8.9
Riding Motorcycles Off the Road: Percent trips	20.1	31.5	5.5	5.3	18.3	4.5	0	0	0	0	14.9	0	0	0	0	0
Percent vacations	3.3	4.3	4.1	1.8	0.4	13.8	5.0	2.6	3.0	19.0	6.8	5.7	4.7	0	8.5	17.0
Driving 4-wheel Vehicles Off the Road: Percent trips	14.5	7.1	4.4	0	4.2	4.6	0	0	0	0	29.1	0	0	0	0	36.3
Percent vacations	1.2	2.7	3.2	5.5	2.3	2.0	7.5	1.3	14.5	7.3	6.2	7.8	5.4	32.8	0	0
Wildlife and Bird Photography: Percent trips	11.2	5.4	4.2	24.5	0	0	0	54.8	0	0	0	0	0	0	0	0
Percent vacations	0.4	0.3	1.9	1.3	1.9	3.1	5.0	5.8	11.9	9.8	12.3	27.4	0	16.4	0	0
Bird Watching: Percent trips	13.5	23.6	3.1	7.7	6.6	29.4	0	16.1	0	0	0	0	0	0	0	0
Percent vacations	2.3	5.8	5.7	9.1	3.5	2.6	6.0	4.0	18.0	6.5	3.2	0	0	9.4	23.9	0
Hiking with a Pack/Mountain/Rock Climbing: Percent trips	13.3	17.0	7.3	8.1	1.8	0	2.2	4.6	0	10.5	6.5	0	0	28.5	0	0
Percent vacations	2.2	3.8	6.2	1.6	3.0	1.7	7.0	5.9	5.4	9.7	9.6	7.3	21.0	0	7.6	9.1
Nature Walks: Percent trips	16.0	26.4	12.0	5.0	5.5	5.4	1.9	10.1	2.7	0	2.9	3.9	0	0	0	6.1
Percent vacations	2.2	3.4	3.9	4.5	4.1	4.7	7.0	7.2	7.4	5.2	10.9	12.2	5.9	0.9	4.1	16.6
Walking for Pleasure: Percent trips	14.1	21.1	8.9	4.6	8.5	7.5	0.5	11.0	4.7	4.3	3.4	3.0	1.9	0	0	6.5
Percent vacations	2.2	4.2	4.4	5.4	4.9	7.1	6.2	5.6	6.9	8.4	9.7	4.7	8.8	1.7	4.8	14.9
Bicycling: Percent trips	22.1	19.9	7.2	11.6	29.0	10.3	0	0	0	0	0	0	0	0	0	0
Percent vacations	2.9	3.9	3.5	2.1	6.2	6.8	6.3	2.0	3.1	12.0	16.6	13.4	2.5	4.5	3.7	10.3
Horseback Riding: Percent trips	12.3	31.3	7.3	4.5	18.2	3.5	9.3	0	0	0	13.6	0	0	0	0	0
Percent vacations	2.7	4.7	2.6	2.8	6.4	6.8	10.4	3.8	5.4	13.9	16.6	3.9	6.1	0	13.9	0
Water Skiing: Percent trips	28.3	40.5	14.9	1.7	14.6	0	0	0	0	0	0	0	0	0	0	0
Percent vacations	4.2	9.8	4.4	3.1	0.9	4.1	5.0	11.8	11.2	4.5	31.1	9.7	0	0	0	0
Canoeing: Percent trips	10.3	20.0	13.4	20.0	1.4	0	0	0	0	12.9	0	0	0	0	0	22.1
Percent vacations	4.6	8.2	4.9	5.3	1.1	0	0	2.8	0	19.9	7.8	13.8	0	0	31.5	0
Sailing: Percent trips	8.6	1.6	29.6	2.6	0	0	0	53.5	0	0	0	0	0	0	0	0
Percent vacations	1.2	3.9	5.0	7.6	4.0	4.2	6.2	0.9	2.7	26.6	8.1	0	0	0	15.5	14.1
Other Boating: Percent trips	20.5	33.1	11.3	8.7	6.2	7.3	0	1.5	3.9	0	7.5	0	0	0	0	0
Percent vacations	2.9	4.6	4.8	4.3	5.7	4.1	5.6	6.8	5.9	5.6	13.5	15.3	1.2	7.0	4.5	8.0
Outdoor Poolswimming: Percent trips	10.5	16.0	13.1	5.3	6.0	12.1	7.2	1.2	3.3	2.3	11.1	0	4.1	0	0	7.6
Percent vacations	2.1	3.7	3.8	4.9	4.9	6.4	5.7	8.8	11.5	10.4	9.6	6.7	5.7	2.4	0	11.3
Other Swimming Outdoors: Percent trips	21.7	25.8	11.5	9.0	5.6	3.2	3.3	2.7	3.1	1.5	0	3.6	0	5.6	0	3.5
Percent vacations	3.7	5.8	5.7	4.4	3.2	6.0	5.8	6.0	8.8	6.6	9.2	7.6	9.0	1.6	5.3	11.4
Golf: Percent trips	6.5	13.9	13.0	6.5	9.7	4.1	0	35.0	0	11.3	0	0	0	0	0	0
Percent vacations	2.8	3.6	3.0	3.2	4.6	6.9	10.2	9.7	15.4	12.7	0	0	0	0	0	26.9
Tennis: Percent trips	4.9	17.9	1.3	13.6	9.8	23.2	9.0	0	20.4	0	0	0	0	0	0	0
Percent vacations	4.2	6.6	7.9	6.8	0.9	13.1	13.6	7.7	13.8	8.0	7.9	0	0	9.6	0	0
Playing Other Outdoor Games or Sports: Percent trips	20.1	16.8	14.5	8.3	11.3	2.9	0	4.7	7.6	0	8.2	0	0	0	0	5.5
Percent vacations	2.6	3.7	3.8	5.6	5.6	4.9	2.7	3.3	6.3	4.1	9.5	7.6	14.6	6.5	3.5	15.6
Sightseeing: Percent trips	7.5	15.8	10.4	6.7	8.5	5.9	2.0	6.6	4.4	5.3	12.2	3.6	1.3	3.9	0	6.0
Percent vacations	0.9	3.0	4.6	4.3	5.4	5.9	6.6	7.0	9.0	8.8	11.4	7.1	5.3	3.6	3.6	13.5
Picnicking: Percent trips	15.3	24.5	6.7	6.3	7.7	5.4	0.9	6.0	6.1	6.4	9.4	3.1	2.0	0	0	0
Percent vacations	2.2	4.5	3.5	4.1	4.7	7.0	7.4	6.7	9.0	9.1	10.7	7.1	4.5	2.1	2.3	15.2

¹ June through August 1972. Vacations are defined as the most recent overnight journey taken during the summer quarter of 1972, and trips are defined as other overnight excursions.

Source: U.S. Department of the Interior, Bureau of Outdoor Recreation, *Outdoor Recreation - A Legacy for America, 1973*

TABLE 9-4
FISHING AND HUNTING: NUMBER AND EXPENDITURES OF FISHERMEN AND HUNTERS,
RECREATION-DAYS, AND PASSENGER-MILES TRAVELED
(In thousands)

	1955	1960	1965	1970
<u>Number of fishermen and hunters</u>	24,917	30,435	32,881	36,277
Number of fishermen	20,813	25,323	28,348	33,158
Fresh-water	18,420	21,677	23,962	29,363
Salt-water	4,557	6,292	8,305	9,460
Number of hunters	11,784	14,637	13,583	14,336
Small-game	9,822	12,105	10,576	11,671
Big-game	4,414	6,277	6,566	7,774
Waterfowl ¹	1,986	1,955	1,650	2,894
<u>Expenditures of fishermen and hunters²</u>	\$2,850,979	\$3,852,116	\$4,046,440	\$7,101,531
Expenditures of fishermen	1,914,292	2,690,872	2,925,304	4,958,883
Fresh-water	1,425,353	2,064,680	2,125,652	3,734,178
Salt-water	488,939	626,191	799,656	1,224,705
Expenditures of hunters	936,687	1,161,242	1,121,135	2,142,648
Small-game	494,033	726,118	615,234	945,634
Big-game	323,909	345,694	418,764	952,563
Waterfowl	118,745	89,431	87,136	244,451
<u>Number of recreation-days spent fishing and hunting</u>	566,870	658,308	708,578	909,876
Fishing	397,447	465,769	522,759	706,187
Fresh-water	338,826	385,167	426,922	592,494
Salt-water	58,621	80,602	95,837	113,694
Hunting	169,423	192,539	185,819	203,689
Small-game	118,630	138,192	128,448	124,041
Big-game	30,834	39,190	43,845	54,536
Waterfowl	19,959	15,158	13,526	25,113
<u>Passenger-miles traveled by automobile for fishing and hunting</u>	23,982,730	26,447,562	30,447,130	37,829,515
Fishing	17,910,434	18,834,947	22,111,249	28,722,782
Fresh-water	15,006,433	15,430,001	17,972,943	23,263,506
Salt-water	2,904,001	3,404,945	4,138,307	5,459,276
Hunting	6,072,296	7,612,615	8,365,881	9,106,734
Small-game	3,094,974	3,962,020	4,010,499	3,958,723
Big-game	2,222,373	2,998,178	3,718,767	3,934,818
Waterfowl	754,949	652,417	636,615	1,213,193

¹The number of waterfowl hunters in the 1970 survey is not comparable with those reported in the 1960 and 1965 surveys. In 1960 and 1965, respondent sportsmen were not included in the waterfowl hunter total if they reported that they went waterfowl hunting but did not take the trip chiefly to hunt waterfowl. In 1970, all respondents who reported that they had hunted waterfowl during 1970, whether or not the trip purpose was chiefly to hunt waterfowl, were included in the total. The number of hunters who did not take trips chiefly to hunt waterfowl in 1970 was 1,054,000.

²Excludes expenditures on alcoholic beverages.

Source: U.S. Department of the Interior, Fish and Wildlife Service, Bureau of Sport Fisheries and Wildlife, National Survey of Fishing and Hunting 1970.

TABLE 9-5
FISHES¹ DISTRIBUTED TO HATCHERIES, BY STATE, 1973

STATE	TOTAL		GAME FISH ²		FOOD FISH ³		SCAVENGER ⁴		OTHER	
	NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS	NUMBER	POUNDS
UNITED STATES	298,768,754	6,362,861	234,043,986	6,066,722	31,957,262	49,799	12,181,407	241,875	563,679	4,230
Alabama	2,328,833	22,670	981,178	16,777	1,203,550	2,161	144,105	3,732	0	0
Alaska	4,162,681	1,437	4,162,681	1,437	0	0	0	0	0	0
Arizona	4,264,821	303,168	3,979,922	264,021	0	0	262,499	38,826	0	0
Arkansas	3,611,603	513,903	3,397,783	307,701	1,993,396	1,971	220,222	4,231	0	0
California	13,540,259	415,518	13,539,239	415,517	1,000	1	0	0	0	0
Colorado	2,479,566	105,598	2,331,564	94,605	4,970	7	163,032	11,022	0	0
Connecticut	343,849	29,496	343,849	29,496	0	0	0	0	0	0
Delaware	486,204	11,433	112,034	11,208	364,150	194	10,000	51	0	0
District of Columbia	4,015	1,328	3,863	1,322	0	0	152	6	0	0
Florida	2,637,976	12,785	1,687,866	8,675	821,583	1,583	128,527	2,527	0	0
Georgia	7,628,310	193,281	2,421,612	167,656	4,402,755	7,139	627,898	17,348	176,245	1,118
Hawaii	50,923	10	50,923	10	0	0	0	0	0	0
Idaho	22,888,613	636,579	22,888,613	636,579	0	0	0	0	0	0
Illinois	2,534,924	17,319	1,396,382	14,468	377,245	290	761,297	2,561	0	0
Indiana	7,951,583	24,676	7,081,611	21,376	723,980	1,190	165,992	2,110	0	0
Iowa	2,697,366	9,347	1,257,086	6,780	526,500	353	913,778	2,214	0	0
Kansas	613,990	830	601,490	528	0	0	12,300	322	0	0
Kentucky	6,383,238	125,343	4,872,560	114,594	1,493,953	2,587	217,704	8,323	1,039	-1
Louisiana	2,355,837	8,984	769,636	1,178	1,505,106	6,714	81,115	1,490	0	0
Maine	246,124	18,442	246,124	18,442	0	0	0	0	0	0
Maryland	1,075,413	47,767	579,507	42,783	452,400	211	43,506	4,771	0	0
Massachusetts	243,618	31,717	239,308	31,710	4,160	5	0	0	150	2
Michigan	26,973,894	134,459	26,900,164	134,377	69,105	73	6,625	9	0	0
Minnesota	13,164,125	20,784	12,948,041	20,373	130,584	347	65,500	63	0	0
Mississippi	6,398,300	29,479	1,012,242	6,935	4,175,878	6,365	1,205,980	15,779	4,200	420
Missouri	807,760	61,105	615,165	60,861	62,750	130	38,300	33	91,545	81
Montana	3,851,697	318,881	3,701,439	318,350	370	45	149,888	486	0	0
Nebraska	987,366	35,998	350,007	31,672	272,380	474	285,069	3,687	99,910	165
Nevada	1,048,833	117,320	1,048,833	117,320	0	0	0	0	0	0
New Hampshire	379,798	50,722	379,798	50,722	0	0	0	0	0	0
New Jersey	309,271	40,152	243,856	37,994	8,300	1,682	57,115	326	0	0
New Mexico	8,444,572	187,047	8,033,150	145,369	6,625	16	361,510	40,513	43,287	1,149
New York	465,591	10,651	464,656	10,600	935	51	0	0	0	0
North Carolina	5,902,647	187,899	4,179,994	181,883	1,494,745	1,825	227,908	4,191	0	0
North Dakota	6,079,276	53,242	4,914,933	52,348	1,097,743	746	66,600	148	0	0
Ohio	3,030,211	16,771	2,430,145	8,222	1,604,194	2,565	995,772	5,884	100	100
Oklahoma	3,566,312	94,931	1,424,463	70,759	492,863	831	1,646,684	23,332	2,300	9
Oregon	10,067,551	209,278	10,014,415	209,273	0	0	53,136	5	0	0
Pennsylvania	2,410,306	116,930	2,031,876	115,754	203,150	121	175,280	1,075	0	0
Rhode Island	42,785	11,671	42,785	11,671	0	0	0	0	0	0
South Carolina	5,334,621	84,386	1,848,788	75,785	2,895,145	2,892	590,688	5,709	0	0
South Dakota	9,760,361	115,391	9,268,526	114,177	348,950	458	113,085	356	30,000	400
Tennessee	3,113,380	157,611	2,169,431	133,897	830,965	2,549	112,980	1,165	0	0
Texas	15,923,069	38,999	14,769,300	6,431	307,680	751	840,289	31,806	7,800	11
Utah	2,419,253	175,539	2,319,128	175,164	0	0	100,125	375	0	0
Vermont	730,418	39,314	730,418	39,314	0	0	0	0	0	0
Virginia	4,786,085	174,979	1,280,680	167,478	3,000,402	3,089	505,203	4,412	0	0
Washington	58,769,047	1,033,065	58,769,047	1,033,065	0	0	0	0	0	0
West Virginia	3,998,104	167,404	3,891,418	166,629	13,128	42	93,558	733	0	0
Wisconsin	4,008,489	84,236	2,247,163	82,228	1,046,438	538	607,785	736	107,103	734
Wyoming	2,839,448	62,704	2,629,448	61,186	0	0	170,000	1,318	0	0

¹ Includes fish eggs.

² Includes large mouth bass, smallmouth bass, spotted bass, striped bass, white bass, northern pike, walleye, gar, bowfin, muskellunge, rainbow trout, brook trout, brown trout, cutthroat trout, lake trout, steelhead trout, other salmonids, Atlantic salmon, fall chinook salmon, chum salmon, coho salmon, landlocked Atlantic salmon, kokanee, spring chinook salmon.

³ Includes bluegill redear sunfish, green sunfish, other sunfishes, yellow perch, other suckers.

⁴ Includes channel catfish, brown bullhead, yellow bullhead, blue catfish, flathead catfish.

⁵ Includes carp, fathead minnows, other minnows, goldfish, and miscellaneous fish.

Source: U.S. Department of the Interior, Fish and Wildlife Service, Division of Fish Hatcheries, Propagation and Distribution of Fishes from National Fish Hatcheries, FY 1973.

TABLE 9-6
STATE RECREATIONAL AND OFF-ROAD VEHICLE NOISE REGULATIONS
 (all levels in decibels measured at 50 feet unless noted otherwise)

STATE	VEHICLE TYPE	VEHICLES IN OPERATION		NEW VEHICLE SALES		COMMENTS	
		EFFECTIVE DATE	MAXIMUM LEVEL	DATE OF MANUFACTURE	MAXIMUM LEVEL		
Federal		None	None	None	None		
California	Snowmobile	After 1972	82	Not specified	Not specified		
	Off-road - self-propelled	Not specified	Not specified	After 1-1-72	92		
				After 1-1-73	88		
				After 1-1-75	86		
Colorado	Off-road - self-propelled	Not specified	86 (over 35 mph)	After 1-1-71	86		
			82 (under 35 mph)	After 1-1-73	84		
				After 1-1-74	79		
				After 1-1-75	74		
Connecticut	Snowmobile	Before 1-1-75	82	--	--	} Test procedures: SAE practice J192 ²	
		After 1-1-75	73	--	--		
	Off-road - self-propelled	Before 1-1-75	80	--	--		
		After 1-1-75	73	--	--		
Iowa	Snowmobile	Not specified	86	After 7-1-73	82	Test procedure - rules to be adopted by commission	
Maine	Snowmobile	--	--	After 10-1-73	82	Test procedure: SAE practice J19 ²	
				After 2-1-75	78		
Massachusetts	Snowmobile	Not specified	73	Not specified	73	Test procedure: ISIA 1969 ³ or other standard for measurement as registrar of motor vehicles adopts	
	Off-road - self-propelled	Not specified	73	Not specified	73		
Michigan	Snowmobile	Not specified	82	After 2-1-72	82	Test procedure SAE practice J192 ³	
New Hampshire	Off-road - self-propelled	After 7-1-73	82	--	--	Test procedure - ISIA 1969 ³ or other standard of measurement as adopted by commissioner	
		After 7-1-78	73				
		After 7-1-83	70				
Oregon	Snowmobile	--	--	1975	82		
				1976-1978	78		
	Off-road - self-propelled	} Before 1975	} 1976	} 1976-1978	} After 1978		} --
Vermont	Snowmobile	9-1-72	82	--	--	No test procedure given.	
		9-1-73	to be established				
Wisconsin	Snowmobile	--	--	After 7-1-72	82	Test procedure SAE ¹ Practice J192	
				After 7-1-75	78		

¹ The logarithmic ratio of a particular quantity, such as sound pressure, intensity, or power, to a reference level, commonly the threshold of human hearing.

² Society of Automotive Engineers, Recommended Practice J192 "Exterior Sound Level for Snowmobiles."

³ International Snowmobile Industry Association (January 1969) "Procedure for Sound Level Measurements of Snowmobiles."

⁴ Stationary at 25 feet.

⁵ Moving at 50 feet.

Source: U.S. Environmental Protection Agency, Office of Noise Abatement and Control, Noise Source Regulation in State and Local Noise Ordinances, February 1975.

TABLE 0-7
NUMBER OF ESTABLISHMENTS,¹ VOLUME OF BUSINESS, AND EMPLOYMENT
IN RECREATION-RELATED INDUSTRIES

ITEM	1958	1963	1967	1972
<u>Number of Establishments</u>				
Retail Trade:				
Boat dealers	NA	2,670	3,208	4,318
Sporting goods stores	5,410	6,316	7,293	} 12,356 ³
Bicycle shops	846	999	1,056	
Service Industries:				
Motels, tourist courts	NA	23,159	22,697	27,739
Sporting, recreational camps	3,923	4,899	4,682	3,165
Sports clubs, promoters	486	445	455	537
Manufacturing:				
Boat building and repairing	1,651	1,626	1,596	1,778
Motorcycles, bicycles, & parts	51	88	91	222
Sporting & athletic goods	1,210	1,419	1,366	1,554
Travel trailers and campers	NA	NA	NA	1,033
<u>Volume of Business² (in thousands of dollars)</u>				
Retail Trade:				
Boat dealers	NA	406,855	751,079	1,560,308
Sporting goods stores	491,826	608,607	925,896	} 2,283,851 ³
Bicycle shops	37,891	56,474	82,636	
Service Industries:				
Motels, tourist courts	NA	1,062,962	1,556,975	3,854,471
Sporting, recreational camps	124,376	176,994	203,913	224,537
Sports clubs, promoters	118,554	158,804	226,067	512,904
Manufacturing:				
Boat building and repairing	329,009	360,208	571,400	1,053,600
Motorcycles, bicycles & parts	121,527	192,851	299,600	659,500
Sporting & athletic goods	577,815	704,718	853,300	1,736,600
Travel trailers & campers	NA	NA	NA	1,347,100
<u>Paid Employees</u>				
Retail trade:				
Boat dealers	NA	9,360	13,111	23,617
Sporting goods stores	18,435	20,578	25,351	} 51,284 ³
Bicycle shops	1,902	2,206	2,158	
Service Industries:				
Motels, tourist courts	NA	96,374	128,755	273,056
Sporting, recreational camps	17,617	7,488	7,482	10,524
Sports clubs, promoters	7,800	8,663	10,321	14,515
Manufacturing:				
Boat building and repairing	25,295	24,861	30,500	40,900
Motorcycles, bicycles & parts	7,578	9,662	12,000	17,600
Sporting & athletic goods	37,164	40,543	45,200	61,300
Travel trailers & campers	NA	NA	NA	37,300

NA Not available.

¹ Establishments having payrolls.

² Sales for retail trade, receipts for service industries, and value of shipments for manufacturing.

³ In 1972, sporting goods stores and bicycle shops were combined to form one category.

Source: U.S. Department of the Interior, Bureau of Outdoor Recreation, Selected Outdoor Recreation Statistics, 1971; U.S. Department of Commerce, Bureau of the Census, 1972 Census of Selected Service Industries Summary Report, 1975, and 1972 Census of Manufactures, Industry Series, 1975.

TABLE 10-1
U.S. AND WORLD MINERALS PRODUCTION

MINERAL (AND UNITS OF MEASUREMENT) ¹	U.S. PRODUCTION					WORLD PRODUCTION, EXCLUSIVE OF U.S. PRODUCTION				
	1969	1970	1971	1972	1973	1969	1970	1971	1972	1973
Aluminum (ST X 10 ⁸)	475	536	512	467	442	11,442	12,555	13,884	14,576	16,286
Antimony (ST)	2,112	1,728	1,853	1,005	1,276	71,227	7,424	69,186	74,030	75,137
Asbestos (ST)	126	125	131	132	130	6,042	3,672	3,816	4,050	4,448
Barium (ST X 10 ³)	603	478	482	507	619	1,769	1,951	1,842	1,935	2,068
Beryllium (ST)	2	2	2	2	2	353	334	222	196	173
Bismuth (ST)	2	2	2	2	2	3,909	4,617	3,946	4,398	4,366
Boron (ST)	171,361	175,000	176,500	189,000	207,000	79,741	82,400	107,200	125,000	135,000
Bromine (ST)	40,570	174,874	177,973	193,432	209,125	53,900	61,635	75,311	84,461	98,455
Cadmium (ST)	2,325	1,778	1,777	2,390	2,840	17,067	16,430	15,364	16,110	15,360
Cement (ST X 10 ³)	78,375	76,116	80,316	84,356	84,282	530,433	564,199	599,632	644,045	696,062
Cesium (pounds)	0	0	0	0	0	12,500	27,000	114,000	26,000	60,000
Chlorine (ST X 10 ³)	9,422	9,755	9,349	9,869	10,303	12,378	13,494	15,463	15,815	18,266
Chromium (ST X 10 ³)	0	0	0	0	0	1,814	2,050	2,184	2,184	2,386
Clay (ST X 10 ³)	58,694	54,853	57,008	59,817	69,814	301,306	312,247	416,992	452,183	515,186
Cobalt (ST X 10 ³)	1,003	697	690	0	0	43,556	52,590	47,908	51,290	56,510
Columbium (ST)	0	0	0	0	0	8,040	9,945	5,366	8,204	11,665
Copper (ST X 10 ³)	1,545	1,720	1,522	1,665	1,718	4,679	4,918	5,131	5,649	6,139
Corundum (ST)	0	0	0	0	0	10,000	10,927	10,861	11,516	11,775
Diatomite (ST X 10 ³)	598	598	533	576	609	1,084	1,015	1,013	982	986
Feldspar (ST X 10 ³)	755	726	743	732	792	1,942	2,060	2,006	1,902	2,002
Fluorine (ST X 10 ³)	82	121	122	145	151	1,723	1,963	2,179	2,205	2,322
Germanium (Pounds X 10 ³)	30	28	27	27	27	152	158	123	133	138
Gold (Troy ounces X 10 ³)	1,733	1,743	1,495	1,450	1,176	44,879	45,777	45,000	43,268	41,894
Gypsum (ST X 10 ³)	9,881	9,436	10,418	12,328	13,558	43,394	46,144	46,663	51,217	53,474
Hafnium (ST)	0	0	0	0	0	0	90	87	85	85
Iron Ore (ST X 10 ⁶)	59.0	59.4	54.3	51.5	59.9	389.0	418.1	434.1	435.2	484.2
Iron and Steel (ST X 10 ⁶)	141.3	131.5	120.4	133.2	150.8	490.7	522.7	519.5	561.3	616.4
Lead (ST X 10 ³)	509	572	578	619	603	3,014	3,168	3,165	3,145	3,203
Lime (ST X 10 ³)	20,209	19,747	19,591	20,290	21,132	79,087	86,921	90,198	93,276	97,688
Magnesium (ST X 10 ³)	1,210	1,141	1,002	1,069	1,082	4,363	5,117	4,605	4,287	4,520
Manganese (ST X 10 ³)	83	66	38	29	31	9,192	8,978	9,960	9,983	10,707
Mercury (76-pound flasks)	29,640	27,296	17,883	7,333	2,171	259,627	256,718	282,751	270,251	274,008
Molybdenum (ST)	49,904	55,676	54,796	36,069	37,930	31,482	35,039	30,736	31,140	32,647
Nickel (ST X 10 ³)	15.6	15.6	15.6	15.7	13.9	516.9	676.8	685.0	666.2	707.7
Perlite (ST X 10 ³)	471	456	432	545	544	715	723	1,909	1,183	1,210
Phosphate Rock (ST X 10 ³)	37,725	38,739	38,886	40,831	42,137	52,823	54,896	53,621	58,150	65,923
Platinum (Troy ounces X 10 ³)	11	8	8	5	6	1,392	1,831	1,700	1,780	2,359
Palladium (Troy ounces X 10 ³)	10	10	10	11	13	1,634	1,903	1,699	1,943	2,195
Rhodium (Troy ounces X 10 ³)	0	0	0	0	0	86	112	105	109	141
Potash (K ₂ O) (ST X 10 ³)	2,804	2,729	2,587	2,639	2,603	16,394	17,284	19,230	19,806	21,570
Selenium (ST)	609	688	329	370	314	1,023	946	1,245	1,197	1,188
Silicon (ST X 10 ³)	471	530	448	535	578	1,282	1,281	1,281	1,310	1,381
Silver (Troy ounces X 10 ⁶)	41.9	45.0	41.6	37.2	37.8	250.6	250.6	247.3	254.2	368.1
Strontium (ST)	0	0	0	0	0	15,681	17,421	45,186	42,542	42,200
Sulfur (LT X 10 ³)	9,545	9,537	9,580	10,218	10,921	27,555	29,643	31,320	32,782	35,079
Talc (ST X 10 ³)	1,029	1,028	1,037	1,107	1,247	4,026	4,278	4,355	4,145	4,419
Tantalum (ST)	0	0	0	0	0	1,001	796	1,167	1,714	1,149
Tellurium (ST)	117	79	82	129	121	139	163	156	515	151
Tin (LT X 10 ³)	2	2	2	2	2	225.7	228.5	232.2	238.6	232.4
Titanium (ST X 10 ³)	285	276	224	228	286	1,281	1,498	1,397	1,384	1,404
Tungsten (ST)	3,903	4,823	3,450	4,075	3,788	31,973	30,868	35,631	38,160	38,873
Vanadium (ST)	5,906	5,594	5,288	5,248	4,864	13,289	18,855	19,792	20,162	23,358
Vermiculite (ST X 10 ³)	309	285	301	337	365	134	141	153	175	186
Zinc (ST X 10 ³)	553	534	503	478	479	5,335	5,489	5,576	5,763	5,898
Zirconium (ST)	2	2	2	2	60,000	239,000	234,000	264,371	245,171	254,175

¹ ST - Short Ton
LT - Long Ton

² Data are withheld because the manner in which they became available to the Bureau of Mines does not permit general disclosure.

Source: U.S. Department of the Interior, Bureau of Mines, Minerals in the U.S. Economy: Ten Year Supply - Demand Profiles for Mineral and Fuel Commodities, 1975.

TABLE 10-2
U.S. MINERALS PRODUCTION AND DEMAND, 1973

MINERAL (AND UNITS OF MEASUREMENT) ¹	PRODUCTION	DEMAND
Aluminum (ST x 10 ³)	442	6,242
Antimony (ST)	1,276	23,949
Asbestos (ST)	150	876
Barium (ST x 10 ³)	619	892
Beryllium (ST)	2	348
Bismuth (ST)	2	1,899
Boron (ST)	207,000	114,000
Bromine (ST)	209,125	186,650
Cadmium (ST)	2,860	6,228
Cement (ST x 10 ³)	84,282	92,237
Cesium (Pounds)	0	13,675
Chlorine (ST x 10 ³)	10,303	10,340
Chromium (ST x 10 ³)	0	543
Clay (ST x 10 ³)	64,814	62,770
Cobalt (ST x 10 ³)	0	21,722
Columbium (ST)	0	3,025
Copper (ST x 10 ³)	1,718	1,942
Corundum (ST)	0	750
Diatomite (ST x 10 ³)	609	433
Feldspar (ST x 10 ³)	792	769
Fluorine (ST x 10 ³)	151	780
Germanium (Pounds x 10 ³)	27	43
Gold (Troy ounces x 10 ³)	1,176	6,304
Gypsum (ST x 10 ³)	13,558	20,636
Hafnium (ST)	0	35
Iron ore (ST x 10 ⁶)	59.9	92.5
Iron and Steel (ST x 10 ⁶)	150.8	142.5
Lead (ST x 10 ³)	603	1,059
Lime (ST x 10 ³)	21,132	21,429
Magnesium (ST x 10 ³)	1,082	1,155
Manganese (ST x 10 ³)	31	1,554
Mercury (76-pound flasks)	2,171	46,537
Molybdenum (ST)	57,930	72,922
Nickel (ST x 10 ³)	13.9	192.5
Perlite (ST x 10 ³)	564	526
Phosphate Rock (ST x 10 ³)	42,137	31,233
Platinum (Troy ounces x 10 ³)	6	563
Palladium (Troy ounces x 10 ³)	13	862
Rhodium (Troy ounces x 10 ³)	0	60
Potash (K ₂ O) (ST x 10 ³)	2,603	5,550
Selenium (ST)	314	1,200
Silicon (ST x 10 ³)	578	656
Silver (Troy ounces x 10 ⁶)	37.8	162.3
Strontium (ST)	0	16,300
Sulfur (LT x 10 ³)	10,921	10,234
Talc (ST x 10 ³)	1,247	1,004
Tantalum (ST)	0	1,312
Tellurium (ST)	121	358
Tin (LT x 10 ³)	2	54,163
Titanium (ST x 10 ³)	286	645
Tungsten (ST)	3,788	14,886
Vanadium (ST)	4,864	8,549
Vermiculite (ST x 10 ³)	265	345
Zinc (ST x 10 ³)	679	1,556
Zirconium (ST)	60,000	74,453

¹ ST - Short Ton
LT - Long Ton

² Data are withheld because the manner in which they became available to the Bureau of Mines does not permit general disclosure.

Source: U.S. Department of the Interior, Bureau of Mines, Minerals in the U.S. Economy: Ten Year Supply-Demand Profiles for Minerals and Fuel Commodities, 1975.

TABLE 10-3
CRUDE ORE AND TOTAL MATERIAL HANDLED AT ALL MINES, BY STATE¹
(in thousands of short tons)

STATE	CRUDE ORE			WASTE ²			TOTAL ³		
	1970	1971	1972	1970	1971	1972	1970	1971	1972
UNITED STATES	2,674,000	2,613,000	2,670,000	1,290,000	1,470,000	1,510,000	3,964,000	4,083,000	4,180,000
Alabama	32,742	29,909	29,100	24,128	4,638	3,540	56,870	34,547	32,600
Alaska	35,758	29,962	18,200	1,254	672	255	37,012	30,635	18,400
Arizona	174,497	178,318	201,000	350,898	335,416	371,000	525,395	513,733	572,000
Arkansas	33,039	33,122	32,200	6,249	12,678	11,600	39,288	45,800	43,800
California	221,021	181,715	172,000	67,384	64,506	37,100	288,405	246,221	209,000
Colorado	45,526	49,358	51,800	1,027	1,096	1,160	46,553	50,454	53,000
Connecticut	15,476	14,484	15,800	40	22	45	15,516	14,507	15,800
Delaware	NA	2,219	2,270	NA	NA	NA	NA	2,219	2,270
District of Columbia	NA	NA	NA	NA	NA	NA	NA	NA	NA
Florida	183,039	200,669	210,000	220,944	242,120	214,000	403,983	442,789	424,000
Georgia	40,716	45,204	52,000	49	90	51	40,765	45,295	52,000
Hawaii	NA	7,177	6,020	NA	33	NA	NA	7,210	6,020
Idaho	22,460	20,601	16,300	16,951	13,137	17,600	39,411	33,738	33,900
Illinois	102,298	109,613	98,300	NA	NA	NA	102,298	109,613	98,300
Indiana	51,330	52,867	57,800	35	33	NA	51,365	52,900	57,800
Iowa	48,680	46,297	46,700	5,966	3,447	3,780	54,646	49,744	50,500
Kansas	30,705	28,141	28,000	56	37	43	30,742	28,178	28,000
Kentucky	39,287	42,221	43,900	2	NA	NA	39,289	42,221	43,900
Louisiana	38,872	36,289	35,600	20	NA	12	38,892	36,289	35,600
Maine	14,264	9,623	13,000	1,039	662	NA	15,303	10,285	13,000
Maryland	30,106	27,474	33,100	NA	NA	NA	30,106	27,474	33,100
Massachusetts	26,345	25,342	27,100	NA	NA	NA	26,345	25,342	27,100
Michigan	141,549	140,218	143,000	16,306	17,484	44,000	157,855	157,702	167,000
Minnesota	208,007	196,489	184,000	106,631	110,258	103,000	314,638	306,746	286,000
Mississippi	13,051	14,413	16,000	NA	NA	NA	13,051	14,413	16,000
Missouri	72,078	70,424	72,400	2,243	2,988	2,670	74,321	73,412	75,100
Montana	47,183	38,707	36,500	43,471	59,051	94,000	90,654	97,758	130,000
Nebraska	16,536	16,966	18,100	NA	NA	NA	16,536	16,966	18,100
Nevada	32,803	34,262	37,700	64,073	64,535	72,900	96,896	98,797	111,000
New Hampshire	6,966	8,871	6,600	NA	NA	NA	6,966	8,871	6,600
New Jersey	34,064	34,370	39,400	235	381	NA	34,299	34,751	39,400
New Mexico	60,390	56,848	58,400	123,780	145,454	113,000	184,170	202,302	171,000
New York	88,337	73,358	75,700	4,218	2,654	1,880	92,555	76,012	77,600
North Carolina	51,828	54,999	55,400	15,021	8,085	10,700	66,849	63,085	65,300
North Dakota	8,280	8,334	6,780	NA	NA	NA	8,280	8,334	6,780
Ohio	97,164	96,223	99,600	100	NA	NA	97,264	96,223	99,600
Oklahoma	25,791	25,739	27,800	6,411	10,638	9,930	32,202	36,377	37,700
Oregon	33,371	36,974	38,500	610	604	722	33,981	37,578	39,300
Pennsylvania	91,447	89,859	92,100	1,903	2,083	2,000	93,350	91,941	94,100
Rhode Island	2,808	2,559	2,450	NA	NA	NA	2,808	2,559	2,450
South Carolina	18,007	21,641	23,000	263	231	NA	18,270	21,872	23,000
South Dakota	20,859	19,439	15,900	4,795	2,807	649	25,654	22,245	16,600
Tennessee	55,186	52,084	57,100	9,567	4,328	4,020	64,753	56,413	61,000
Texas	92,925	91,385	104,000	11,914	9,413	16,700	104,839	100,798	120,000
Utah	63,478	55,097	61,500	101,960	93,895	102,000	165,438	148,991	163,000
Vermont	6,739	7,383	7,800	627	599	594	7,366	7,982	8,400
Virginia	49,948	50,633	56,500	663	565	725	50,611	51,198	57,200
Washington	40,011	33,774	89,300	1,377	904	1,130	41,388	36,678	39,500
West Virginia	14,558	17,448	17,600	NA	NA	NA	14,558	17,448	17,600
Wisconsin	61,935	56,923	58,900	3,734	4,368	5,400	65,669	61,291	64,300
Wyoming	23,567	26,248	27,800	74,872	129,051	157,000	98,439	155,299	185,000
Other States	8,792	NA	NA	22	NA	NA	8,814	NA	NA
Undistributed	NA	7,891	4,540	NA	121,720	122,000	NA	129,611	127,000

NA Not applicable.

¹ Data may not add to totals due to independent rounding.

² Wastes are materials produced in the mining of commodities which are not categorized as ore (i.e., overburden, material produced by drafting and cross-cutting and shaft-sinking).

³ Material from wells, ponds, or pumping operations not included in state totals.

⁴ In 1970, the Delaware and Hawaii data were combined and the total is listed as "other states."

⁵ None reported.

⁶ Less than 1/2 unit.

Source: U.S. Department of the Interior, Bureau of Mines, Minerals Yearbook, 1970, 1971, 1972.

TABLE 10-4
CRUDE ORE AND TOTAL MATERIAL HANDLED AT SURFACE AND UNDERGROUND MINES, BY COMMODITY
(In thousands of short tons)

COMMODITY	1970				1971				1972			
	CRUDE ORE		TOTAL MATERIAL		CRUDE ORE		TOTAL MATERIAL		CRUDE ORE		TOTAL MATERIAL	
	SURFACE	UNDER-GROUND	SURFACE	UNDER-GROUND	SURFACE	UNDER-GROUND	SURFACE	UNDER-GROUND	SURFACE	UNDER-GROUND	SURFACE	UNDER-GROUND
METALS												
Bauxite	¹ 3,144	W	¹ 8,561	W	³ 2,709	W	³ 14,683	W	³ 2,560	W	³ 11,800	W
Copper	232,538	27,390	838,879	28,273	222,450	26,002	812,050	26,917	237,000	34,700	920,000	35,400
Gold:												
Lode	1,964	2,175	10,306	2,455	1,877	1,985	12,565	2,333	3,540	1,700	19,500	1,910
Placer	1,504	—	2,399	—	1,600	—	2,157	4	1,330	—	1,430	—
Iron ore	221,187	14,794	427,638	17,028	206,412	12,078	397,105	14,276	197,000	11,600	364,000	12,900
Lead	8	10,816	11	11,619	—	9,962	213	10,438	—	9,560	102	10,000
Mercury	269	173	2,042	197	156	120	439	139	51	30	105	34
Silver	25	737	160	927	29	710	77	995	69	588	100	749
Titanium ilmenite	23,698	—	26,644	—	21,525	—	23,731	—	26,100	—	27,000	—
Tungsten	20	711	20	725	22	641	22	685	8	734	60	864
Uranium	2,746	3,643	87,496	4,704	2,929	3,127	135,457	4,074	3,800	2,690	175,000	3,350
Zinc	379	9,629	623	11,279	156	9,007	819	10,379	19	8,180	19	9,130
Other ⁵	4,513	16	6,560	23	19,994	15,532	87,658	15,783	19,400	15,800	51,600	16,300
Total metals ²	499,000	87,000	1,467,000	94,000	480,000	80,000	1,497,000	86,000	491,000	85,700	1,570,000	90,800
NONMETALS												
Abrasives ⁶	217	40	224	40	215	44	230	44	54	53	71	53
Asbestos	1,595	21	3,264	21	³ 2,373	W	³ 4,493	W	³ 2,300	W	³ 3,060	W
Barite	3,886	107	5,546	109	3,785	114	6,473	128	4,190	116	6,260	130
Clays	59,668	1,096	100,668	1,112	53,871	1,114	100,871	1,130	55,200	886	103,000	899
Diatomite	611	—	3,126	—	551	—	3,160	—	603	—	3,100	—
Feldspar	1,553	7	2,112	7	³ 1,701	W	³ 2,061	W	1,560	—	1,770	—
Fluorspar	31	776	64	781	59	691	59	700	119	529	125	529
Gypsum	7,161	2,258	22,468	2,390	8,022	2,298	20,329	2,365	9,820	2,720	23,500	2,720
Mica	341	—	760	—	692	—	1,123	—	579	—	936	1
Perlite	636	4	636	4	³ 495	W	³ 495	W	649	W	684	W
Phosphate rock	124,951	415	390,079	419	132,911	322	406,800	322	128,000	240	382,000	241
Potassium salts	—	16,604	—	17,537	—	16,117	—	20,631	—	17,300	—	18,600
Pumice	3,230	—	3,318	—	3,341	—	3,492	—	3,820	—	3,870	—
Salt	5,898	15,284	5,900	15,564	720	14,661	721	14,805	423	13,700	425	13,800
Sand and gravel	943,941	—	943,941	—	919,608	—	919,608	—	913,000	—	913,000	—
Sodium carbonate (natural)	—	4,221	—	6,894	—	4,514	—	4,692	—	5,120	—	4,210
Stones:												
Crushed and broken	833,964	38,693	903,964	38,963	841,353	31,916	914,533	32,146	883,000	35,400	955,000	35,700
Dimension ⁷	⁸ 3,400	32	⁸ 7,300	32	⁸ 3,600	14	⁸ 5,500	14	⁸ 2,750	2	4,200	2
Talc, soapstone, & pyrophyllite	565	463	1,546	479	624	448	1,612	465	1,490	704	2,810	752
Other ⁸	2,078	72	3,831	72	6,276	75	30,726	75	10,600	102	27,400	102
Total nonmetals ²	2,011,000	80,000	2,442,000	84,000	1,980,000	73,000	2,422,000	78,000	2,020,000	76,900	2,430,000	81,800
Grand total	2,510,000	167,000	3,909,000	178,000	2,460,000	153,000	3,919,000	164,000	2,500,000	163,000	4,000,000	173,000

— means not reported.

¹ Estimate

W Withheld to avoid disclosing individual company confidential data.

² Excludes material from wells, ponds, or pumping operations.

³ Data may not add to totals shown because of independent rounding.

⁴ Includes underground; Bureau of Mines not at liberty to publish separately.

⁵ Less than 1/2 unit.

⁶ Antimony, beryllium, magnesium, manganese, molybdenum, nickel, platinum-group metals, rare-earth metals, tin, and vanadium.

⁷ Energy, garnet, and tripoli.

⁸ For structural facing or surfacing.

⁹ Aplite, boron minerals, graphite, green sand marl, iron oxide pigments (crude), kyanite, lithium minerals, magnesite, millstones, olivine, pyrites, vermiculite, wollastonite, and zeolite.

Source: U.S. Department of the Interior, Bureau of Mines, Minerals Yearbook, 1970, 1971, 1972.

TABLE 10-5
QUALITY OF METALLIC AND NONMETALLIC ORE MINED

ORE MINED	UNIT OF MARKETABLE PRODUCT	ORE (in thousands of short tons)		MARKETABLE PRODUCT, UNITS		RATIO OF UNITS OF ORE TO UNITS OF MARKETABLE PRODUCT		
		1970	1971	1970	1971	1970	1971	1972
Metals								
Bauxite	Thousand long tons	3,144	2,862	2,082	1,988	1.5:1	1.4:1	1.4:1
Copper	Thousand short tons	239,948	242,381	1,692	1,494	152.6:1	162.2:1	163.0:1
Gold	Thousand troy ounces	4,139	3,723	1,095	946	4.6:1	3.9:1	5.8:1
Lead	Thousand long tons	1,504	1,330	38	16	39.6:1	99.2:1	104.0:1
Iron Ore	Thousand long tons	235,981	217,864	86,937	76,962	2.7:1	2.8:1	2.7:1
Lead	Thousand short tons	10,822	9,945	509	519	21.3:1	19.2:1	17.0:1
Mercury	Thousand flasks	462	278	26	17	17.4:1	15.7:1	11.7:1
Silver	Thousand troy ounces	762	733	16,251	15,204	0.04:1	0.1:1	0.1:1
Titanium: Ilmenite	Thousand short tons	23,698	21,641	921	714	25.7:1	30.3:1	36.0:1
Uranium	Short tons	6,389	6,570	15	12	428.5:1	535.9:1	502.2:1
Zinc	Thousand short tons	10,008	9,117	387	368	25.9:1	24.8:1	23.6:1
Non-Metals								
Asbestos	Thousand short tons	1,616	2,373	125	131	13.1:1	18.1:1	17.4:1
Barite	Thousand short tons	3,993	3,901	846	825	4.9:1	4.7:1	4.7:1
Clays	Thousand short tons	54,764	55,426	54,852	53,466	1.0:1	1.0:1	1.0:1
Diatomite	Thousand short tons	611	542	597	535	1.0:1	1.0:1	1.0:1
Feldspar	Thousand short tons	1,560	1,700	616	636	2.5:1	2.7:1	2.4:1
Fluorspar	Thousand short tons	807	749	270	272	3.0:1	2.8:1	2.6:1
Gypsum	Thousand short tons	9,419	10,319	9,324	10,319	1.0:1	1.0:1	1.0:1
Mica (scrap or flake)	Thousand short tons	341 ²	128	81	102	1.2:1	1.3:1	1.1:1
Perlite	Thousand short tons	640	432	454	432	1.2:1	1.0:1	1.0:1
Phosphate rock	Thousand short tons	125,366 ¹	133,303	34,588	38,886	3.6:1	3.4:1	3.1:1
Potassium salts	Thousand short tons	16,604	16,117	2,467	2,291	6.7:1	7.0:1	7.5:1
Pumice	Thousand short tons	3,230	3,316	3,135	3,316	1.0:1	1.0:1	1.0:1
Salt	Thousand short tons	21,182	14,573	19,071	13,732	1.1:1	1.1:1	1.0:1
Sand and Gravel	Thousand short tons	943,941	919,608	943,941	919,608	1.0:1	1.0:1	1.0:1
Sodium carbonate	Thousand short tons	4,221	6,409	2,549	2,737	2.4:1	2.3:1	1.7:1
Stone:								
Crushed and broken Dimension ³	Thousand short tons	872,657	881,089	872,593	872,812	1.0:1	1.0:1	1.0:1
Talc, soapstone, pyrophyllite	Thousand short tons	5,452	3,614	2,394	1,648	2.3:1	2.2:1	2.2:1
Trippoli	Thousand short tons	1,028	1,072	1,028	1,037	1.0:1	1.0:1	2.0:1
Vermiculite	Thousand short tons	68	75	68	75	1.0:1	1.0:1	1.0:1
	Thousand short tons	1,445	NA	286	NA	4.1:1	NA	12.7:1

1 NA Not Applicable.

2 Measured in thousands of long tons in 1970.

3 Mica (flake) in 1970, (scrap) in 1971, 1972.

For structural facing or surfacing.

Source: U.S. Department of the Interior, Bureau of Mines, Minerals Yearbook, 1970, 1971, 1972

TABLE 10-6
RECEIPTS FROM THE DISPOSITION OF PUBLIC LANDS AND RESOURCES
(in thousands of dollars)

SOURCE	FISCAL YEAR						
	1947-50	1951-60	1961-70	1971	1972	1973	
TOTAL	127,625	1,399,496	4,769,454	1,287,868	525,094	4,230,114	
Sales of Public Lands	1,333	23,463	28,799	2,014	1,942	1,798	
Sales of Timber	15,911	208,631	478,509	70,663	83,520	104,642	
Fees and Commissions	876	9,076	36,265	4,097	5,351	6,791	
Mineral Leases ¹	95,415	615,669	1,093,760	135,241	129,824	133,409	
Outer Continental Shelf Leases	0	434,731	2,917,727	1,050,549	279,353	3,955,577	
Miscellaneous ²	14,091	107,926	214,394	25,303	25,104	27,896	

¹ Act of February 25, 1920 (41 Stat. 437; 30 U.S.C. 180 seq.).

² Includes sales of Indian lands, grazing revenues, rental of land, mineral leasing under special laws, and other miscellaneous sources.

Source: U.S. Department of the Interior, Bureau of Land Management, Public Land Statistics, 1973.

TABLE 10-7
INCOME FROM PUBLIC LANDS ADMINISTERED BY THE BUREAU OF LAND MANAGEMENT, BY SOURCE

STATE	TOTAL	MINERAL LEASES AND PERMITS	SALES OF TIMBER	SALES OF LAND	GRAZING LEASES, LICENSES, AND PERMITS			ALL OTHER RECEIPTS			
					SECTION 3 ¹	SECTION 15 ¹	OTHER	FEES AND COMMISSIONS	RIGHTS- OF-WAY	RENT OF LAND	OTHER SOURCES
UNITED STATES	\$4,230,113,995	\$4,104,878,005	\$104,642,478	\$1,797,933	\$7,680,219	\$1,151,204	\$450,104	\$6,791,187	\$427,981	\$89,924	\$2,204,960
Alabama	178,166	135,671	--	200	--	--	--	9,220	--	--	33,071
Alaska	7,186,912	7,130,856	7,141	16,394	--	--	9,036	14,488	1,011	7,129	2,857
Arizona	1,326,473	422,665	1,379	232,896	459,897	108,173	5,730	6,040	47,675	3,035	38,992
Arkansas	681,997	672,677	--	200	--	--	--	9,110	10	--	--
California	10,072,943	8,059,517	1,099,854	365,434	111,934	125,343	645	55,952	80,684	25,086	148,476
Colorado	12,051,518	11,201,815	24,782	85,832	448,276	50,953	9,945	190,837	21,096	8,951	9,051
Connecticut	--	--	--	--	--	--	--	--	--	--	--
Delaware	--	--	--	--	--	--	--	--	--	--	--
Dist. of Columbia	10	--	--	--	--	--	--	10	--	--	--
Florida	387,471	377,311	--	310	--	--	--	9,830	10	10	--
Georgia	8,959	5,368	--	--	--	--	--	20	3,571	--	--
Hawaii	--	--	--	--	--	--	--	--	--	--	--
Idaho	2,835,949	1,273,985	447,198	96,362	932,170	34,646	390	19,090	13,915	1,327	16,866
Illinois	100,881	98,356	--	50	--	--	--	2,080	395	--	--
Indiana	110	20	--	--	--	--	--	90	--	--	--
Iowa	--	--	--	--	--	--	--	--	--	--	--
Kansas	663,453	663,096	--	--	--	57	--	300	--	--	--
Kentucky	180,711	180,131	--	--	--	--	--	580	--	--	--
Louisiana	3,702,967	3,586,645	--	6	--	--	--	90,190	5,315	--	20,811
Maine	201	--	--	--	--	--	--	--	--	--	201
Maryland	4,780	4,780	--	--	--	--	--	--	--	--	--
Massachusetts	--	--	--	--	--	--	--	--	--	--	--
Michigan	229,258	224,650	--	--	--	--	--	4,503	105	--	--
Minnesota	4,390	4,009	--	50	--	--	--	50	--	281	--
Mississippi	1,747,471	1,378,028	12,965	--	--	--	--	355,590	--	--	888
Missouri	2,621,269	2,620,808	311	--	--	--	--	130	--	--	--
Montana	9,814,572	8,335,194	118,702	36,930	610,826	142,839	376,408	175,066	13,994	3,009	1,444
Nebraska	124,957	94,290	--	29,087	--	--	--	866	714	--	--
Nevada	2,979,665	898,903	10,632	386,354	1,551,443	29,764	--	22,790	64,431	8,850	6,298
New Hampshire	10	--	--	--	--	--	--	10	--	--	--
New Jersey	--	--	--	--	--	--	--	--	--	--	--
New Mexico	42,312,947	38,250,802	3,314	239,042	1,149,558	174,051	24,793	2,418,825	34,518	13,167	4,877
New York	2,503	2,463	--	--	--	--	--	40	--	--	--
North Carolina	434	424	--	--	--	--	--	10	--	--	--
North Dakota	1,460,996	1,409,842	--	1,457	--	7,637	--	41,010	50	--	--
Ohio	10,378	10,318	--	--	--	--	--	60	--	--	--
Oklahoma	1,114,239	1,070,036	--	--	--	--	--	46,020	--	--	--
Oregon	103,896,297	159,573	102,889,485 ²	58,431	667,429	54,184	1,420	3,295	17,622	2,541	42,317
Pennsylvania	1,826	1,746	--	--	--	--	--	80	--	--	--
Rhode Island	--	--	--	--	--	--	--	--	--	--	--
South Carolina	55	--	--	--	--	--	--	10	--	--	45
South Dakota	347,772	268,103	5,427	2,054	--	67,793	--	3,795	275	325	--
Tennessee	10	--	--	--	--	--	--	10	--	--	--
Texas	310,213	304,623	--	--	--	--	--	5,590	--	--	--
Utah	12,614,346	11,410,371	3,745	60,025	767,098	--	2,271	336,985	21,484	6,666	5,701
Vermont	--	--	--	--	--	--	--	--	--	--	--
Virginia	12,295	12,205	--	--	--	--	--	90	--	--	--
Washington	93,955	42,972	14,812	8,820	--	25,622	--	430	185	1,021	73
West Virginia	94,901	96,841	--	--	--	--	--	60	--	--	--
Wisconsin	1,302	509	--	703	--	--	--	80	10	--	--
Wyoming	53,486,595	48,893,382	2,740	177,076	981,566	329,093	19,466	2,971,087	101,625	7,550	1,009
Subtotal	272,666,157	149,300,989	104,642,478	1,797,933	7,680,219	1,151,204	450,104	6,791,187	427,981	89,924	334,138
Outer Continental Shelf	3,955,577,016	3,955,577,016	--	--	--	--	--	--	--	--	--
Total operating revenue	4,228,243,173	4,104,878,005	104,642,478	1,797,933	7,680,219	1,151,204	450,104	6,791,187	427,981	89,924	334,138
Nonoperating revenue	1,870,822	--	--	--	--	--	--	--	--	--	1,870,822

¹ No Bureau of Land Management involvement.
The Taylor Grazing Act of June 28, 1934 (48 Stat. 1269, 43 U.S.C. 315), authorizes the Secretary of the Interior to classify any land withdrawn or reserved by Executive Order of November 26, 1934, and February 5, 1935 (43 CFR 2410.1 et seq.), or within grazing districts, which are more valuable or suitable for any purpose other than the production of native grasses or forage plants, or which are proper for withdrawal to facilitate the production of any outstanding lease, exchange, or scrip rights, or land grant, or which it would be proper to expose for public sale, and to open such lands to entry, selection or location in accordance with such classification.
² Includes Oregon and California railroad lands (894,381,504) and Coos Bay wagon road lands (83,845,256).

Source: U.S. Department of the Interior, Bureau of Land Management, Public Land Statistics, 1973.

TABLE 11-1
PRODUCTION OF MINERAL ENERGY FUELS AND ELECTRICAL ENERGY FROM WATER
AND NUCLEAR POWER IN THE UNITED STATES
(in trillions of BTU's)

FUEL OR ENERGY	1970	1971	1972	1973	1974
TOTAL	61,852	60,963	62,078	61,715	60,536
Anthracite	247	222	181	174	160
Bituminous Coal and Lignite	14,820	13,385	14,319	14,208	14,430
Natural Gas (wet)	24,154	24,805	24,792	24,746	23,951
Crude Petroleum	19,772	19,322	19,344	18,849	17,942
Electricity					
Hydropower	2,630	2,825	2,866	2,850	2,880
Nuclear Power	229	404	576	888	1,173

Source: DeGolyer and McNaughton, Twentieth Century Petroleum Statistics, September, 1975.

TABLE 11-2
PRODUCTION OF BITUMINOUS COAL AND LIGNITE, BY STATE
(in thousands of tons)

STATE	1970	1971	1972	1973	1974
UNITED STATES	602,932	552,192	595,386	591,000	601,000
Alabama	20,560	17,945	20,814	19,793	19,745
Alaska	1	1	668	700	716
Arizona	1	1	2,954	2,965	6,432
Arkansas	268	276	428	458	445
California	1	1	0	0	0
Colorado	6,025	5,337	5,522	6,232	6,960
Connecticut	0	0	0	0	0
Delaware	0	0	0	0	0
District of Columbia	0	0	0	0	0
Florida	0	0	0	0	0
Georgia	1	1	0	0	0
Hawaii	0	0	0	0	0
Idaho	1	1	0	0	0
Illinois	65,119	58,402	65,523	61,549	58,080
Indiana	22,263	21,396	25,949	25,267	25,267
Iowa	987	989	851	855	680
Kansas	1,627	1,151	1,227	1,145	679
Kentucky	125,305	119,389	121,187	127,000	133,000
Louisiana	0	0	0	0	0
Maine	0	0	0	0	0
Maryland	1,615	1,644	1,640	1,754	2,170
Massachusetts	0	0	0	0	0
Michigan	1	1	0	0	0
Minnesota	0	0	0	0	0
Mississippi	0	0	0	0	0
Missouri	4,447	4,036	4,551	4,980	4,625
Montana	3,447	7,064	8,221	9,950	14,089
Nebraska	0	0	0	0	0
Nevada	0	0	0	0	0
New Hampshire	0	0	0	0	0
New Jersey	0	0	0	0	0
New Mexico	7,361	8,175	8,248	9,340	9,669
New York	0	0	0	0	0
North Carolina	1	1	0	0	0
North Dakota	5,639	6,075	6,632	7,400	7,400
Ohio	55,351	51,431	50,967	45,345	44,566
Oklahoma	2,427	2,234	2,624	2,625	2,175
Oregon	1	1	0	0	0
Pennsylvania	80,491	72,835	75,939	76,646	78,879
Rhode Island	0	0	0	0	0
South Carolina	0	0	0	0	0
South Dakota	1	1	0	0	0
Tennessee	8,237	9,271	11,260	8,993	7,681
Texas	1	1	4,045	6,945	7,684
Utah	4,733	4,626	4,802	5,140	6,047
Vermont	0	0	0	0	0
Virginia	35,016	30,628	34,028	33,869	33,249
Washington	37	1,134	2,634	3,210	3,915
West Virginia	144,072	118,258	123,743	115,239	105,997
Wisconsin	0	0	0	0	0
Wyoming	7,222	8,052	10,928	13,600	20,650
Other States	681	1,844	0	0	0

¹Production, if any, included in "Other States."

Sources: National Coal Association, Bituminous Coal Data, 1973.

U.S. Bureau of Mines, Mineral Industry Surveys, Weekly Coal Report
No. 2950, March 1974.

U.S. Bureau of Mines, Mineral Industry Surveys, Weekly Coal Report
No. 3002, March 1975.

TABLE 11-3
DEMONSTRATED COAL RESERVE BASE OF THE UNITED STATES
ON JANUARY 1, 1976, BY SULFUR CONTENT¹
-SURFACE MINING-
(in millions of tons)

STATE	TOTAL ²	SULFUR RANGE, PERCENT BY WEIGHT			
		<1.0	1.1-3.0	>3.0	UNKNOWN
TOTAL	135,767.8	73,169.3	33,597.4	18,950.9	10,049.6
Alabama	156.2	35.4	83.2	1.6	36.7
Alaska	7,399.0	7,377.6	21.0	0.0	0.0
Arizona	350.0	173.3	176.7	0.0	0.0
Arkansas	263.3	37.9	152.8	17.1	55.2
Colorado	870.0	724.2	146.2	0.0	0.0
Illinois	12,222.9	60.4	1,493.0	7,321.3	1,347.8
Indiana	1,674.1	105.3	559.2	907.2	101.6
Kansas	1,388.1	0.0	309.2	695.6	383.2
Kentucky	7,354.2	1,515.9	1,107.7	2,104.3	2,624.1
Maryland	146.3	28.6	66.6	16.2	34.6
Michigan	0.6	0.0	0.5	0.1	0.0
Missouri	3,413.7	0.0	47.8	1,635.8	1,730.0
Montana	42,595.0	38,182.4	2,175.2	46.4	2,166.7
New Mexico	2,258.3	1,681.0	579.3	0.0	0.0
North Carolina	0.4	0.0	0.0	0.0	0.4
North Dakota	16,003.0	5,389.0	10,325.4	268.7	15.0
Ohio	3,653.9	18.9	990.9	2,524.9	117.9
Oklahoma	434.1	120.5	88.1	38.8	186.2
Oregon	0.8	0.5	0.3	0.0	0.0
Pennsylvania	1,091.1	55.5	717.21	231.5	83.6
South Dakota	428.0	103.1	287.9	35.9	1.0
Tennessee	319.6	65.5	163.2	55.2	34.1
Texas	3,271.9	659.8	1,884.6	284.1	444.0
Utah	262.0	52.3	149.1	42.6	18.0
Virginia	679.2	411.6	218.1	2.1	46.7
Washington	508.1	172.5	307.7	25.8	2.2
West Virginia	5,212.0	3,005.5	1,422.8	270.4	509.5
Wyoming	23,845.3	13,192.8	10,122.3	425.5	105.3

¹Includes measured and indicated categories as defined by the U.S. Bureau of Mines and the U.S. Geological Survey. Measured-tonnage of coal is coal for which estimates of the quality and quantity have been computed, within a margin of error of less than 20 percent; from sample analyses and measurements from closely spaced and geologically well-known sample sites. Indicated-tonnage of coal is coal which estimates of the quality and quantity have been computed partly from sample analyses and measurements and partly from reasonable geologic projections.

²Data may not add to totals shown due to independent rounding.

Source: U.S. Bureau of Mines, Demonstrated Reserve Base of The United States, By Sulfur Category and The Reserve Base of United States Coal by Sulfur Content:
 (1) The Eastern States, I.C. 8680, 1975.

TABLE 11-4
DEMONSTRATED COAL RESERVE BASE OF THE UNITED STATES
ON JANUARY 1, 1975, BY SULFUR CONTENT¹
-UNDERGROUND MINING-
(in millions of tons)

STATE	TOTAL ²	SULFUR RANGE, PERCENT BY WEIGHT			
		<1.0	1.1-3.0	>3.0	UNKNOWN
TOTAL	293,839.9	120,670.3	59,224.5	73,721.6	39,666.3
Alabama	1,798.1	589.3	1,016.7	14.8	176.2
Alaska	4,246.4	4,080.8	163.2	0.0	0.0
Arkansas	402.4	43.3	310.3	29.2	19.1
Colorado	13,999.2	6,751.3	640.0	47.3	6,547.3
Georgia	0.5	0.33	0.0	0.0	0.17
Illinois	53,441.9	1,034.7	5,848.37	33,647.7	12,908.4
Indiana	8,948.5	443.5	2,746.6	4,355.1	1,402.5
Iowa	2,884.9	1.5	226.7	2,105.9	549.2
Kentucky	18,186.4	5,042.7	2,778.5	7,439.1	2,921.1
Maryland	901.9	106.5	623.9	171.2	0.0
Michigan	117.6	4.6	84.9	20.8	7.0
Missouri	6,073.6	0.0	134.2	3,590.2	2,350.5
Montana	65,834.3	63,464.2	1,939.8	456.2	0.0
New Mexico	2,136.5	1,894.3	214.1	0.9	27.5
North Carolina	31.3	0.0	0.0	0.0	31.3
Ohio	17,423.3	115.5	5,449.9	10,109.4	1,754.1
Oklahoma	860.1	154.5	238.5	202.6	264.3
Oregon	1.0	1.0	0.0	0.0	0.0
Pennsylvania	22,788.9	981.1	16,013.5	3,568.1	2,215.6
Tennessee	667.1	139.3	369.9	101.4	53.9
Utah	3,780.5	1,916.2	1,397.6	6.8	460.3
Virginia	2,833.2	1,676.1	945.4	12.0	198.3
Washington	1,445.9	431.0	957.8	13.2	42.9
West Virginia	34,377.8	11,086.6	12,583.4	6,552.8	4,142.9
Wyoming	29,490.8	20,719.5	4,535.1	1,275.6	2,955.0

¹Includes measured and indicated categories as defined by the U.S. Bureau of Mines and the U.S. Geological Survey. Measured-tonnage of coal is coal for which estimates of the quality and quantity have been computed, within a margin of error of less than 20 percent, from sample analyses and measurements from closely spaced and geologically well-known sample sites. Indicated-tonnage of coal is coal for which estimates of the quality and quantity have been computed partly from sample analyses and measurements and partly from reasonable geologic projections.

²Data may not add to totals shown due to independent rounding.

Source: U.S. Bureau of Mines, Demonstrated Reserve Base of The United States, By Sulfur Category and The Reserve Base of United States Coal By Sulfur Content: (1) The Eastern States, I.C. 8680, 1975.

TABLE 11-5
ESTIMATED NET PRODUCTION OF NATURAL GAS, BY STATE
(In millions of cubic feet)

STATE	1969	1970	1971	1972	1973	1974 ^P
UNITED STATES	21,223,990	22,410,102	22,777,573	22,761,475	22,895,841	21,318,470
Alabama	1	1	663	4,610	13,161	16,912
Alaska	83,407 ¹	146,384 ¹	155,498	147,186	135,986	143,930 ²
Arizona	1	1	1,215	809	402	2
Arkansas	170,583	181,577	173,888	169,171	159,476	123,690
California	680,763	651,616	613,204	487,278	451,368	356,963 ³
Colorado	120,080	112,930	111,380	121,707	140,733	131,785
Connecticut	0	0	0	0	0	0
Delaware	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0
Florida	1	1	1,258	15,805	33,857	39,481
Georgia	0	0	0	0	0	0
Hawaii	0	0	0	0	0	0
Idaho	0	0	0	0	0	0
Illinois	3,893	4,972	4,495	3,000	1,638	3,076
Indiana	171	153	537	355	276	515
Iowa	0	0	0	0	0	2
Kansas	885,822	902,668	887,813	891,949	895,495	892,309 ²
Kentucky	81,304	77,892	72,723	63,648	62,396	59,781
Louisiana	7,386,678	7,942,365	8,185,471	8,036,345	8,344,514	7,713,787 ³
Maine	0	0	0	0	0	0
Maryland	978	813	214	244	298	2
Massachusetts	0	0	0	0	0	0
Michigan	36,971	39,660	25,662	35,221	45,696	75,041
Minnesota	0	0	0	0	0	2
Mississippi	139,331	133,264	123,895	107,661	110,473	83,704
Missouri	1	1	22	9	33	2
Montana	67,687	47,908	37,637	37,696	59,866	51,001 ²
Nebraska	6,989	5,991	5,054	4,741	4,670	4,540
Nevada	0	0	0	0	0	0
New Hampshire	0	0	0	0	0	0
New Jersey	0	0	0	0	0	0
New Mexico	1,142,191	1,141,889	1,170,400	1,221,757	1,222,540	1,200,981
New York	4,861	3,358	2,202	3,679	4,539	3,976
North Carolina	0	0	0	0	0	0
North Dakota	56,542	54,751	36,550	34,916	50,236	31,622
Ohio	49,793	52,113	79,903	89,995	93,610	94,376
Oklahoma	1,654,481	1,724,572	1,724,059	1,845,684	1,807,391	1,704,769
Oregon	0	0	0	0	0	0
Pennsylvania	79,134	76,841	76,451	73,958	78,514	82,735
Rhode Island	0	0	0	0	0	0
South Carolina	0 ¹	0 ¹	0	0	0	0 ²
South Dakota	1	1	0	0	0	2
Tennessee	1	1	497	205	185	2
Texas	7,964,698	8,458,021	8,620,927	8,717,661	8,549,983	7,942,352
Utah	49,535	45,633	45,344	44,980	50,379	56,459
Vermont	0	0	0	0	0	0
Virginia	2,846	2,805	2,619	2,787	5,101	6,966 ²
Washington	0	0	0	0	0	0
West Virginia	231,759	242,452	234,027	214,951	208,676	160,098
Wisconsin	0	0	0	0	0	0
Wyoming	321,149	356,939	383,965	383,435	364,349	337,169

^P Preliminary

¹ These states were combined as "other states." The "other states" total production for 1969 was 2,344; for 1970, it was 2,535.

² Includes Arizona, Iowa, Maryland, Minnesota, Missouri, South Dakota, Tennessee, and Washington; the net production for these states was 452 for 1974.

³ Includes off-shore.

Source: American Gas Association, American Petroleum Institute, and the Canadian Petroleum Association, Reserves of Crude Oil, Natural Gas Liquids, and Natural Gas in the United States and Canada and United States Productive Capacity as of December 31, 1974, 1975.

TABLE 11-8
 PRODUCTION, RESERVES, AND UNDISCOVERED RECOVERABLE GAS RESOURCES
 IN THE UNITED STATES, DECEMBER 31, 1974
 (in trillions of cubic feet)

REGIONS ¹	TOTAL CUMULATIVE PRODUCTION + DEMONSTRATED RESERVES	CUMULATIVE PRODUCTION	DEMONSTRATED RESERVES (MEASURED)	INFERRED RESERVES ²	UNDISCOVERED RECOVERABLE RESOURCES	
					STATISTICAL MEAN	ESTIMATED RANGE ³ (95%-5%)
On-shore						
Alaska	32.204	0.482	31.722	14.7 ⁴	32	16 - 57
Pacific Coastal States	30.187	25.455	4.732	4.0	13	8 - 20
Western Rocky Mountains	19.809	10.728	9.081	2.9	14	6 - 25
Northern Rocky Mountains	18.240	11.485	6.754	5.3	29	18 - 47
West Texas and Eastern New Mexico	83.310	58.686	24.624	23.3	70	35 - 101
Western Gulf Basin	279.802	197.899	81.903	58.7	133	85 - 196
Mid-Continent	141.850	107.700	34.150	20.6	72	50 - 101
Michigan Basin	2.016	0.558	1.458	0.8	1	0.2 - 2
Eastern Interior	3.563	2.797	0.766	0.5	2	0.7 - 4
Appalachians	37.042	31.057	5.985	3.3	10	5 - 17
Eastern Gulf and Atlantic Coastal Plain	0.002	0.001	0.001	—	1	0.4 - 2
Total Lower 48 On-shore	615.820	446.366	169.454	119.4	345	246 - 453
Total On-shore United States	648.024	446.848	201.176	134.1	377	264 - 506
Off-shore (0-200 meters)						
Alaska	0.568	0.423	0.145	0.1 ⁵	44	8 - 80
Pacific Coastal States	1.878	1.415	0.463	0.4	3	2 - 6
Gulf of Mexico	67.486	32.138	35.348	67.0	50	18 - 91
Atlantic Coastal States	0.000	0.000	0.000	0.0	10	5 - 14 ⁶
Total Lower 48 Off-shore	69.364	33.553	35.811	67.4	63	26 - 111
Total Off-shore United States	69.932	33.976	35.956	67.5	107	42 - 181
Total Lower 48	685.184	479.919	205.265	186.8	408	286 - 529
Total Alaska	32.772	0.905	31.867	14.8	76	29 - 132
U.S. TOTAL	717.956	480.824	237.132	201.6	484	322 - 655

¹The area covered by each region is shown in Figure A-3.

²Inferred reserves were derived for all regions based on historical data.

³The low value of the range is the quantity associated with a 95 percent probability (19 in 20 chance) that there is at least this amount. The high value is the quantity with a 5 percent probability (1 in 20 chance) that there is at least this amount. Totals for the low and high values are not obtained by arithmetic summation; they are derived by statistical methods.

⁴Inferred reserves based on national on-shore average.

⁵Negligible—less than 0.001 trillion cubic feet.

⁶Estimates reported at the 75 and 25 percent probability levels because, in this area, these levels are judged to be more applicable for some planning purposes. It can also be noted that in frontier areas, lacking discovered indigenous or adjacent recoverable hydrocarbons, uncertainty is sufficiently great as to weaken probability estimates at extreme ranges. For purposes of comparison with other recorded ranges, the 95-5 percent probability range in offshore Atlantic is 0-22 trillion cubic feet of gas.

Source: U.S. Department of the Interior, Geological Survey, Geological Estimates of Undiscovered Recoverable Oil and Gas Resources in the United States, 1975.

TABLE 11-7
ESTIMATES OF UNDISCOVERED RECOVERABLE RESOURCES FOR NATURAL GAS LIQUIDS
IN THE UNITED STATES

REGIONS ¹	NATURAL GAS LIQUID/GAS RATIO	UNDISCOVERED RECOVERABLE NATURAL GAS—STATISTICAL MEAN	UNDISCOVERED RECOVERABLE NATURAL GAS LIQUID
	(barrels/million cubic feet)	(trillions of cubic feet)	(billions of barrels)
<u>On-shore</u>			
Alaska	33 ³	32	1.1
Pacific Coastal States	41	13	0.5
Western Rocky Mountains ²	26	43	1.1
Northern Rocky Mountains ²			
West Texas and Eastern New Mexico	50	70	3.5
Western Gulf Basin	33	133	4.4
Mid-Continent	31	72	2.2
Michigan Basin	27	-	0
Eastern Interior	33 ³	2	0.1
Appalachians	8	10	0.1
Eastern Gulf and Atlantic Coastal Plain	33 ³	1	0
Total Lower 48 On-shore		345	11.9
Total On-shore United States		377	13.0
<u>Off-shore(0-200 meters)</u>			
Alaska	25 ⁴	44	1.1
Pacific Coastal States	41	3	0.1
Gulf of Mexico	25	50	1.3
Atlantic Coastal States	25 ⁴	10	0.3
Total Lower 48 Off-shore		63	1.7
Total Off-shore United States		107	2.8
U.S. TOTAL	33	484	15.8

¹The area covered by each region is shown in Figure A-3.

²The Western Rocky Mountains Region and the Northern Rocky Mountains Region were treated together because of data availability.

³Ratio assumed to be national average.

⁴Ratio assumed to be off-shore average.

Source: U.S. Department of the Interior, Geological Survey, Geological Estimates of Undiscovered Recoverable Oil and Gas Resources in the United States, 1975.

TABLE 11-8
CRUDE OIL PRODUCTION¹
(in thousands of barrels)

STATE	1969	1970	1971	1972	1973	1974
UNITED STATES	3,371,751	3,517,450	3,453,914	3,455,368	3,353,370	3,199,328
Alabama	7,701	7,263	7,832	9,934	12,155	13,279
Alaska	73,953 ₂	83,616 ₂	79,494 ₂	72,893 ₂	72,412 ₂	70,605
Arizona						742
Arkansas	18,049	18,035	18,263	18,519	18,044	16,464
California	375,291	372,191	358,484	347,022	336,066	336,075
Colorado	28,294	24,723	27,391	32,015	36,406	37,370
Connecticut	NR	NR	NR	NR	NR	NR
Delaware	NR	NR	NR	NR	NR	NR
District of Columbia	NR	NR	NR	NR	NR	NR
Florida	1,731	2,999	5,347	16,897	32,694	36,228
Georgia	NR	NR	NR	NR	NR	NR
Hawaii	NR	NR	NR	NR	NR	NR
Idaho	NR	NR	NR	NR	NR	NR
Illinois	50,724	43,747	39,084	34,874	29,888	27,558
Indiana	7,841	7,487	6,658	6,130	5,165	5,312
Iowa	NR	NR	NR	NR	NR	NR
Kansas	88,716	84,853	78,532	73,744	66,227	61,692
Kentucky	12,924	11,575	10,692	9,702	8,684	7,837
Louisiana	844,603	906,907	935,243	891,827	823,372	736,415
Maine	NR	NR	NR	NR	NR	NR
Maryland	NR	NR	NR	NR	NR	NR
Massachusetts	NR	NR	NR	NR	NR	NR
Michigan	12,213	11,693	11,893	12,990	14,606	17,893
Minnesota	NR	NR	NR	NR	NR	NR
Mississippi	64,283	65,119	64,066	61,100	56,082	50,787
Missouri	67	66	66	60	67	67
Montana	43,954	37,879	34,599	33,904	34,444	34,519
Nebraska	12,106	11,451	10,062	8,705	7,231	6,611
Nevada ²	2,656	1,933	1,349	1,093	898	129
New Hampshire	NR	NR	NR	NR	NR	NR
New Jersey	NR	NR	NR	NR	NR	NR
New Mexico	129,227	128,184	118,412	110,525	100,641	97,509
New York	1,256	1,194	1,126	1,018	908	914
North Carolina	NR	NR	NR	NR	NR	NR
North Dakota	22,703	21,998	21,653	20,624	19,898	19,591
Ohio	10,972	9,864	8,286	9,358	8,639	9,544
Oklahoma	224,729	223,574	213,313	207,633	191,197	177,777
Oregon	NR	NR	NR	NR	NR	NR
Pennsylvania	4,448	4,093	3,798	3,441	3,868	4,000
Rhode Island	NR	NR	NR	NR	NR	NR
South Carolina	NR	NR	NR	NR	NR	NR
South Dakota	158	160	233	219	275	483
Tennessee	32	309	398	198	198	144
Texas	1,151,775	1,249,697	1,222,926	1,301,685	1,294,386	1,260,566
Utah	23,295	23,370	23,630	26,570	31,894	39,298
Vermont	NR	NR	NR	NR	NR	NR
Virginia	1 ₂	1 ₂	1 ₂	NR	NR	NR
Washington						NR
West Virginia	3,104	3,124	2,969	2,677	2,385	2,665
Wisconsin	NR	NR	NR	NR	NR	NR
Wyoming	154,945	160,345	148,114	140,011	144,640	141,061

NR None Reported.

¹ Includes field condensate.

² Washington and Arizona included with Nevada.

Source: U.S. Department of the Interior, Bureau of Mines, 1974 Mineral Industry Surveys, April 1975.

TABLE 11-8
ESTIMATED PROVED CRUDE OIL RESERVES¹
(in thousands of barrels)

STATE	1970	1971	1972	1973	1974
TOTAL U.S. RESERVES	29,631,862	39,001,335	38,062,957	36,339,408	35,299,839
Alabama	67,126	65,262	61,478	56,734	53,603
Alaska	432,300	10,148,824	10,116,195	10,096,282	10,112,213
Arkansas	127,346	129,577	117,648	113,100	105,552
California	4,242,730	3,983,986	3,705,750	3,553,735	3,488,100
Colorado	400,604	389,048	332,773	326,411	304,790
Florida	NR	74,781	204,122	208,149	183,859
Illinois	272,115	228,680	208,763	174,883	152,343
Indiana	41,307	37,009	30,855	29,383	26,622
Kansas	566,013	539,305	501,552	453,394	401,089
Kentucky	73,103	61,377	52,548	48,193	39,980
Louisiana	5,689,150	5,710,320	5,399,000	5,028,478	4,576,826
Michigan	51,517	45,615	58,765	62,002	72,444
Mississippi	360,198	354,741	342,368	312,458	291,049
Montana	275,765	241,529	228,185	241,248	219,343
Nebraska	46,835	40,943	36,124	30,553	28,166
New Mexico	839,927	760,921	656,885	582,593	642,994
New York	11,791	10,550	9,772	9,246	8,288
North Dakota	234,504	192,377	174,011	166,033	179,520
Ohio	127,367	127,912	129,144	127,385	124,911
Oklahoma	1,389,983	1,351,353	1,404,608	1,303,004	1,270,964
Pennsylvania	54,740	51,286	47,052	37,345	39,613
Texas	13,063,182	13,195,476	13,023,529	12,144,057	11,756,613
Utah	195,290	181,512	165,806	244,397	264,512
West Virginia	53,481	53,221	51,731	34,040	32,126
Wyoming	996,550	1,017,359	996,985	949,779	916,763
Miscellaneous (Other States)	18,938	8,371	7,308	6,526	7,556

NR None reported.

¹ Reported as of January 1. Proved reserves is defined as the current estimated quantity of crude oil which analysis of geologic and engineering data demonstrate with reasonable certainty to be recoverable in the future from known oil and gas reservoirs under existing economic and operating conditions. Reservoirs are considered proved that have demonstrated the ability to produce by either actual production or conclusive formation test.

Source: DeGolyer and MacNaughton, Twentieth Century Petroleum Statistics, 1975.

TABLE 11-10
U.S. IMPORTS OF CRUDE OIL, BY SOURCE
(in thousands of barrels)

	1950	1960	1970	1971	1972	1973	1974
TOTAL ALL COUNTRIES	177,714	371,575	483,293	613,617	811,135	1,183,996	1,269,115
Total North America¹	12,307	42,274	245,258	263,294	312,440	365,859	289,360
Canada	NR	41,349	245,258	263,294	312,440	365,370	288,763
Mexico	12,307	925	NR	NR	NR	489	597
Total South America¹	123,789	187,955	106,108	114,808	109,359 ²	166,379 ²	157,174
Colombia	16,159	14,799	7,313	3,175	1,695	778	NR
Venezuela	107,019	172,887	97,996	110,574	93,300	125,742	116,437
Total Africa	NR	1,451	44,365	68,361	172,105 ³	285,481 ³	356,121
Algeria	NR	284	2,093	4,685	31,753	43,619	65,764
Egypt	NR	1,167	7,626	6,924	3,091	5,296	3,227
Libya	NR	NR	17,156	19,426	40,069	48,585	1,495
Nigeria	NR	NR	17,490	34,826	88,887	163,687	254,358
Total Middle East	41,618	113,175	61,892	124,155	155,982	292,988 ⁴	362,146
Abu Dhabi	NR	NR	23,047	29,026	26,873	25,764	25,158
Iran	111	13,056	12,184	38,576	49,700	78,990	168,956
Iraq	NR	6,363	NR	3,932	1,315	1,529	NR
Kuwait	26,741	47,512	12,123	10,650	13,205	15,208	1,820
Neutral Zone	NR	16,363	8,398	⁵	⁵	⁵	NR
Saudi Arabia	14,650	28,232	6,140	41,971	63,626	168,525	159,827
Indonesia	NR	26,720	25,670	40,232	59,633	73,055	103,482
Others	NR	NR	NR	2,567	1,616	234 ⁶	832

NR None reported.

¹ Totals may include amounts imported from other countries.

² Includes 17,229 from Ecuador and 21,739 from Trinidad and 891 from Bolivia.

³ Includes 17,753 from Angola and 6,541 from Tunisia.

⁴ Includes 2,663 from Qatar and 309 from Israel.

⁵ Included with Saudi Arabia.

⁶ Represents imports from Malaysia.

Sources: DeGolyer and MacNaughton, Twentieth Century Petroleum Statistics, 1974; U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys, April 1975.

TABLE 11-11
U.S. SUPPLY AND DEMAND OF ALL OILS
(in thousands of barrels)

	1971	1972	1973	1974
Domestic production:				
Crude oil	3,296,612	3,304,142	3,206,012	3,056,094
Lease Condensate	157,302	154,910	154,891	143,234
Natural gas plant liquids	617,815	632,879	634,423	616,098
Imports:				
Crude oil ¹	613,417	811,135	1,183,996	1,269,155
Unfinished oils ¹	45,193	45,705	50,161	44,228
Plant condensate	13,321	31,428	39,344	32,364
Refined products	760,949	846,988	1,009,992	876,432
Other hydrocarbons and hydrogen				
Refinery input	6,074	10,118	10,716	13,057
Total new supply	5,510,683	5,837,305	6,289,535	6,050,662
Unaccounted for crude oil ²	+14,823	+7,288	+918	-5,827
Processing gain	139,433	142,161	165,488	175,255
Total supply	5,664,939	5,986,754	6,455,941	6,220,090
Change in stocks, all oils	+26,086	-84,968	+49,328	+65,339
Total disposition of primary supply	5,638,853	6,071,722	6,406,613	6,154,751
Exports:				
Crude oil	503	187	697	1,074
Refined products ³	81,342	81,281	83,716	79,417
Crude losses	4,448	4,641	4,897	4,789
Domestic demand for products:				
Gasoline, total	2,213,159	2,350,405	2,452,687	2,402,334
Motor gasoline	2,195,267	2,333,777	2,436,156	2,386,177
Aviation gasoline	17,892	16,628	16,531	16,215
Jet fuel, total	368,723	382,490	386,627	362,600
Naphtha-type	94,732	88,495	79,220	81,177
Kerosine-type	273,991	293,995	307,407	281,429
Ethane (incl. ethylene)	87,744	106,201	119,443	124,582
Liquefied gases	369,008	409,083	409,318	388,244
Kerosine	90,917	85,854	78,915	64,352
Distillate fuel oil	971,316	1,066,049	1,128,714	1,072,812
Residual fuel oil	838,045	925,647	1,030,177	957,811
Petrochemical feedstocks ⁴	110,525	123,867	129,929	132,468
Special naphthas	29,762	31,888	32,230	31,976
Lubricants	49,321	52,801	59,171	56,670
Wax	5,248	5,410	6,941	6,801
Coke	79,897	88,319	95,156	87,056
Asphalt	158,526	163,788	182,602	168,733
Road oil	8,487	7,538	7,832	6,881
Still gas	156,967	170,993	176,758	175,724
Miscellaneous products	14,915	15,280	18,934	24,263
Plant Condensate	NA	NA	1,869	6,106
Total domestic demand	5,552,560	5,985,613	6,317,303	6,069,471

NA Not available

- Reported to the Bureau of Mines. Imports of crude oil include some Athabasca hydrocarbons. For the current month, according to the Department of Commerce data, 92 percent of crude oil imported was 25° API gravity or over.
- Represents the difference between supply and indicated demand for crude petroleum.
- Exports to noncontiguous territories are estimated; Department of Commerce data not available.
- Produced at petroleum refineries. Demands for ethane and liquefied gases used for petrochemical feedstocks are excluded. Demand data for these products for petrochemical feedstock use are included under the items "Ethane" and "Liquefied Gases."

Source: U.S. Department of the Interior, Bureau of Mines, Mineral Industry Surveys, Crude Oil Petroleum, Petroleum Products and Natural Gas Liquids, 1971, 1972, 1973, 1974.

TABLE 11-12
SALIENT URANIUM CONCENTRATE (U₃O₈) STATISTICS
(short tons U₃O₈, unless otherwise specified)

	1969	1970	1971	1972	1973	1974
Production:						
Domestic:						
Mine: ¹						
Ore (thousand tons)	5,904	6,324	6,279	6,418	6,537	7,027
Content of ore (percent U ₃ O ₈)	12,281	12,768	12,907	13,667	13,588	12,400 ^e
Average grade of ore (percent U ₃ O ₈)	0.208	0.202	0.205	0.213	0.208	0.176 ^e
Recoverable ²	11,870	12,190	12,260	12,880	12,900	11,614
Value ³ (thousands)	\$142,161	\$147,569	\$151,996	\$162,272	\$167,700	\$243,883
Mill ⁴ , concentrate	11,609	12,905	12,273	12,900	13,235	11,528
World ⁵ , concentrate	23,083	24,161	23,909	25,625	25,486	24,176
Deliveries of concentrate:						
Atomic Energy Commission:						
Quantity	6,184	2,520	NA	NA	NA	NA
Value (thousands)	\$72,336	\$28,078	NA	NA	NA	NA
Price per pound	\$5.85	\$5.59	NA	NA	NA	NA
Private industry ⁶	6,200	9,300	12,800	11,600	12,100	11,900
Imports, concentrate	1,504	665	942	2,329	5,605	1,835
Reserves ⁶ (thousand tons)	204	246	273	273	277	315
Employment ⁷ (number of persons)	9,059	8,165	7,373	6,403	6,595	7,293

NA - Not applicable. The AEC's procurement program ended in 1970.

¹ Estimate.

² Receipts at mills; excludes uranium from leaching operations, mine waters, and refinery residues.

³ Based on mill recovery factors.

⁴ Market value based on recoverable U₃O₈ content, average AEC price for U₃O₈, and estimated average private price for 1969-70; based on estimated average private price only in 1971-73.

⁵ Includes marketable concentrate from leaching operations.

⁶ Non-Communist only.

⁷ At \$8 per pound U₃O₈.

⁸ In exploration, mining, and milling, at year end.

Source: U. S. Department of the Interior, Bureau of Mines, Preprint from the 1973 Bureau of Mines Minerals Yearbook, Uranium, 1975, and unpublished data.

TABLE 11-13
SHALE OIL RESOURCES OF THE UNITED STATES IN BILLIONS OF BARRELS,
BY GRADE (OIL YIELD) OF OIL SHALE
(in gallons per ton)

DEPOSIT	IDENTIFIED ¹		HYPOTHETICAL ²		SPECULATIVE ³	
	25-100	10-25	25-100	10-25	25-100	10-25
TOTAL	418	1,600	300	1,600	600	23,000
Green River Formation, Colorado, Utah, and Wyoming	418	1,400	50	600	NA	NA
Chattanooga Shale and equivalent formations, Central and Eastern United States	0	200	0	800	NA	NA
Marine shale, Alaska	Small	Small	250	200	NA	NA
Other shale deposits	0	Small	Ne	Ne	600	23,000

Ne - not estimated
NA - not applicable

¹Identified resources: Specific, identified mineral deposits that may or may not be evaluated as to extent and grade, and whose contained minerals may or may not be profitably recoverable with existing technology and economic conditions.

²Hypothetical resources: Undiscovered mineral deposits, whether of recoverable or subeconomic grade, that are geologically predictable as existing in known districts.

³Speculative resources: Undiscovered mineral deposits, whether of recoverable or subeconomic grade, that may exist in unknown districts or in unrecognized or unconventional form.

Source: U.S. Department of the Interior, Geological Survey, Oil Shale, Professional Paper 820, 1973.

TABLE 11 14
 GEOTHERMAL RESOURCES OF HYDROTHERMAL CONVECTION SYSTEMS ASSUMED RECOVERABLE
 WITH PRESENT AND NEAR-CURRENT TECHNOLOGY AND WITHOUT REGARD TO COST

	HEAT IN GROUND 10 ¹⁸ cal ¹	HEAT AT WELL-HEAD ² 10 ¹⁸ cal	CONVERSION EFFICIENCY	BENEFICIAL HEAT ³ 10 ¹⁸ cal	ELECTRICAL ENERGY MW-CENT ⁴	MW FOR 30 YEARS ⁵
TOTAL	2,817	710		82.8	46,000	153,400
High-temperature systems (>159°C; for generation of electricity)						
Identified Resources	257	64	0.08 to 0.2			
Reserves					3,500	11,700
Paramarginal Resources					3,500	11,700
Submarginal Resources					>1,000 ⁶	>3,300 ⁶
Undiscovered Resources	1,200	100	0.08 to 0.2		38,000 ⁷	126,700 ⁷
Intermediate-temperature systems (90° to 150°C; mainly non-electrical uses)						
Identified Resources	345	86	0.24	20.7		
Undiscovered Resources	1,035	260	0.24	52.1		

¹ 10¹⁸ cal (a billion-billion calories) is equivalent to heat of combustion of 690 million barrels of oil or 154 million short tons of coal.

² Assumed recovery factor 0.25 for all convective resources.

³ Thermal energy applied directly to its intended thermal (non-electrical) use; 10¹⁸ cal of beneficial heat, if supplied by electrical energy, would require at least 1,300 MW-cent (or 4,400 MW for 30 years); however, a user of this geothermal energy must be located or must relocate close to the potential supply; insufficient data available to predict demand or to subdivide into reserves, paramarginal, and submarginal resources.

⁴ Unit of electrical energy; 1 MW-cent is equivalent to 1000 KW produced continuously for 100 years.

⁵ Assumes that each MW-cent of electricity can be produced at rate of 3.33 MW for 30 years.

⁶ Small because of exclusion of systems with temperatures below 150°C.

⁷ Perhaps as much as 60 percent will be reserves and paramarginal resources: costs of discovery and development are more speculative than for identified resources.

Source: U.S. Department of the Interior, Geological Survey, Assessment of Geothermal Resources of the United States - 1975, 1975.

TABLE 11-15
NUMBER OF U.S. BITUMINOUS COAL MINES

STATE	NUMBER OF ACTIVE BITUMINOUS COAL MINES					NUMBER OF UNDERGROUND BITUMINOUS COAL MINES					NUMBER OF BITUMINOUS COAL AUGER MINES ¹					NUMBER OF BITUMINOUS COAL STRIP MINES				
	1960	1970	1971	1972	1973	1960	1970	1971	1972	1973	1960	1970	1971	1972	1973	1960	1970	1971	1972	1973
U.S. TOTAL	7,865 ²	5,601	5,149	4,879	4,744	5,989 ³	2,939	2,268	1,996	1,737	346	559	591	574	698	1,530 ⁴	2,103	1,290	2,309	2,309
Alabama	177	129	115	126	105	135	35	16	24	21	3	3	4	1	1	39	91	95	101	83
Alaska	8	3	4	1	1	2	0	0	0	0	0	0	0	0	0	6	3	4	1	1
Arizona	0	1	1	1	1	2	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Arkansas	20	3	7	8	11	10	2	1	1	1	0	0	0	0	0	10	6	6	7	10
Colorado	94	48	41	33	30	87	40	32	27	21	0	0	0	0	1	7	8	9	8	8
Illinois	128	39	64	39	35	39	28	28	26	23	0	0	0	0	0	69	31	36	33	32
Indiana	81	38	38	40	39	34	6	4	4	3	0	0	0	0	0	47	32	34	36	36
Iowa	44	13	13	11	12	19	3	2	2	2	0	0	0	0	0	25	10	11	9	10
Kansas	13	5	4	4	4	2	0	0	0	0	0	0	0	0	0	11	5	4	4	4
Kentucky	1,864	1,721	1,745	1,458	1,443	1,630	1,104	867	697	610	105	207	265	244	379	129	410	613	517	454
Eastern	0	1,623	1,625	1,355	1,382	0	1,072	840	670	584	103	202	257	239	379	0	349	528	446	399
Western	0	98	120	103	81	0	32	27	27	26	2	5	8	5	0	0	61	85	71	55
Maryland	83	30	33	35	36	48	16	10	5	2	0	6	6	9	8	37	28	39	41	46
Missouri	33	9	10	11	10	10	0	0	0	0	0	0	0	0	0	23	9	10	11	10
Montana	19	8	10	9	9	14	4	4	3	1	0	0	0	0	0	5	4	6	6	8
New Mexico	19	4	3	5	6	18	1	1	1	1	0	0	0	0	0	0	3	2	4	5
North Dakota	32	20	15	14	12	1	0	0	0	0	0	0	0	0	0	31	20	15	14	12
Ohio	470	306	302	306	235	149	44	35	35	28	36	45	30	33	31	265	217	237	236	176
Oklahoma	26	11	11	13	11	11	2	3	2	0	0	1	1	0	0	15	8	7	13	11
Pennsylvania	1,282	807	785	836	964	680	198	181	159	134	49	54	57	55	55	553	555	527	622	775
Tennessee	415	203	186	211	119	332	116	78	108	46	12	7	11	9	9	71	80	97	94	64
Texas	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
Utah	45	20	22	22	16	45	20	21	21	16	0	0	0	0	0	0	0	1	1	0
Virginia	1,268	803	670	693	650	1,201	566	355	327	300	32	83	103	122	108	33	134	212	244	242
Washington	10	3	4	3	3	9	2	2	1	1	0	0	0	0	0	1	1	2	2	2
West Virginia	1,708	1,319	1,030	935	932	1,479	748	624	548	522	89	153	113	99	106	140	418	313	288	304
Wyoming	19	13	14	18	17	10	4	4	5	5	0	0	1	0	0	9	9	9	13	12

¹ Surface mines which bore holes into the earth.

² Total includes two active mines for Georgia and one active mine for South Dakota.

³ Total includes two underground mines for Georgia.

⁴ Total includes two strip mines for other states.

Sources: National Coal Association, Bituminous Coal Data, 1962, 1973; U.S. Department of the Interior, Bureau of Mines, Minerals Yearbook, 1960 and Mineral Industry Surveys: Coal-Bituminous and Lignite in 1973, January 1975.

TABLE 11-16
WELLS DRILLED IN THE UNITED STATES¹ AND SUCCESS RATIOS

	1940	1950	1960	1970	1971	1972	1973	1974
Total Wells Drilled	29,161	42,173	45,619	26,784	25,357	27,128	25,466	31,848
Producing Oil Wells	19,843	23,775	22,258	12,398	11,510	11,184	9,555	12,718
Condensate ² Wells	0	465	764	₃	₃	₃	₃	₃
Gas Wells	2,265	3,015	4,385	3,225	3,399	4,778	5,894	7,200
Dry Holes Drilled	7,053	14,918	18,212	11,161	10,448	11,166	10,017	11,930
Success Ratio ⁴ (percent)	75.8%	64.6%	60.1%	58.3%	58.8%	58.8%	50.6%	62.5%

¹ Does not include water input, gas injection, and salt water disposal wells.

² A type of well which produces natural gas, highly saturated with hydrocarbons (heavier than methane or ethane) which are condensable.

³ Included in gas wells drilled.

⁴ Ratio of successful (producing) wells to total wells.

Sources: U.S. Department of the Interior, Bureau of Mines, Minerals Yearbook, 1970, 1971, 1972; DeGolyer and MacNaughton, Twentieth Century Petroleum Statistics, 1974; The Petroleum Publishing Company, The Oil and Gas Journal, February 1975.

TABLE 11-17
FOOTAGE DRILLED FOR ALL NEW WELLS

STATE	1960	1970	1971	1972	1973	1974
UNITED STATES ¹	194,643,317	137,636,273	129,060,434	140,045,104	134,204,790	138,401,000
Alabama	470,425	376,707	378,374	1,198,379	1,025,870	880,000
Alaska	240,969	862,656	347,664	219,646	243,832	224,000
Arizona	— ²	73,000				
Arkansas	2,129,789	1,550,066	2,077,621	2,100,448	1,623,799	1,596,000
California	7,145,783	6,142,215	5,218,754	4,841,977	4,485,040	5,115,000
Colorado	— ³	4,982,000				
Connecticut	NR	NR	NR	NR	NR	NR
Delaware	NR	NR	NR	NR	NR	NR
District of Columbia	0	0	0	0	0	0
Florida	NA	189,705	665,980	1,473,738	678,444	583,000
Georgia	NA	NA	NA	NA	NA	30,000
Hawaii	NA	NR	NR	NR	NR	NR
Idaho	NR	NR	NR	NR	NR	9,000
Illinois	4,089,766	1,323,176	1,116,305	1,234,615	1,112,718	1,826,000
Indiana	1,405,822	372,293	300,765	362,884	381,521	634,000
Iowa	NR	NA	NA	NA	NA	3,000
Kansas	17,725,692	7,727,989	6,857,117	8,074,267	6,702,539	8,953,000
Kentucky	2,309,276	1,204,433	1,134,296	1,036,496	1,046,128	1,164,000
Louisiana	27,972,877	24,621,341	22,907,679	26,028,455	21,585,858	22,453,000
Maine	NR	NR	NR	NR	NR	NR
Maryland	NA	NA	NA	NA	NA	13,000
Massachusetts	NR	NR	NR	NR	NR	NR
Michigan	3,109,570	1,081,259	1,214,734	1,492,895	1,705,056	1,932,000
Minnesota	NR	NR	NR	NR	NR	NR
Mississippi	6,944,981	4,683,669	4,768,132	3,885,403	3,181,167	3,802,000
Missouri	33,900	NA	NA	NA	NA	69,000
Montana	1,570,996	2,128,029	1,750,593	2,425,908	2,035,861	2,026,000
Nebraska	5,101,070	1,360,812	1,017,251	1,412,966	905,905	1,175,000
Nevada	— ²	18,000				
New Hampshire	NR	NR	NR	NR	NR	NR
New Jersey	NR	NR	NR	NR	NR	NR
New Mexico	8,997,968	4,700,055	4,639,617	5,557,664	5,679,562	6,328,000
New York	— ⁴	440,000				
North Carolina	NA	NA	NA	NA	NA	38,000
North Dakota	1,715,525	1,043,433	937,852	724,194	901,986	1,043,000
Ohio	2,557,693	4,617,919	4,260,568	4,900,520	6,487,993	7,418,000
Oklahoma	16,971,324	13,701,300	11,402,557	12,154,518	12,461,946	16,837,000
Oregon	— ²	NR				
Pennsylvania	— ⁴	2,826,000				
Rhode Island	NR	NR	NR	NR	NR	NR
South Carolina	NR	NR	NR	NR	NR	NR
South Dakota	127,687	210,595	174,846	176,025	94,539	61,000
Tennessee	92,779	106,018	293,359	131,645	166,372	176,000
Texas	68,206,484	40,825,462	41,146,897	42,200,322	44,638,587	54,175,000
Utah	— ³	1,532,000				
Vermont	NR	NR	NR	NR	NR	NR
Virginia	NA	NA	NA	NA	NA	249,000
Washington	— ²	NR				
West Virginia	— ⁴	2,400,000				
Wisconsin	NR	NR	NR	NR	NR	NR
Wyoming	5,238,364	9,832,866	5,738,502	6,948,853	5,889,268	7,418,000

NR None reported.

NA Not available.

² Totals include minor amounts that cannot be broken down by districts. Colorado and Utah have been treated as one combined area. Totals are, for 1960, 4,739,980; 1970, 4,477,372; 1971, 6,476,450; 1972, 6,975,540; and 1973, 6,601,678.

³ These states grouped together as one unit in Petroleum Administration for Defense (P.A.D.) District V. The totals were, for 1960, 94,813; and 1970, 55,634.

⁴ New York, Pennsylvania and West Virginia have been treated as one unit in P.A.D. District I. The totals for this combined unit were in 1960, 5,487,182; 1970, 4,219,893; 1971, 3,810,261; 1972, 4,206,178; and 1973, 4,291,034.

Sources: U.S. Department of the Interior, Bureau of Mines, *Minerals Yearbook*, 1961, 1970, 1971, 1972; DeGolyer and MacNaughton, *Twentieth Century Petroleum Statistics*, 1974; and The Petroleum Publishing Company, *The Oil and Gas Journal*, January 1975.

TABLE 11-18
U.S. OIL PIPELINE MILEAGE OPERATED, BY STATE¹

STATE	TOTAL MILEAGE	TRUNKLINES			GATHERING LINES
		TOTAL	CRUDE	PRODUCT	
UNITED STATES	222,355	153,089	76,250	76,839	69,266
Alabama	1,759	1,694	232	1,462	65
Alaska	124	101	82	19	23
Arizona	1,352	1,344	377	967	8
Arkansas	2,997	1,935	858	1,077	1,062
California	10,183	7,723	4,815	2,908	2,460
Colorado	2,180	1,746	907	839	434
Connecticut	92	92	0	92	0
Delaware	6	6	0	6	0
District of Columbia ²					
Florida	273	260	28	232	13
Georgia	1,886	1,886	0	1,886	0
Idaho	633	633	0	633	0
Illinois	11,405	8,438	4,279	4,159	2,967
Indiana	4,629	3,993	1,322	2,671	636
Iowa	3,951	3,951	59	3,892	0
Kansas	15,907	9,700	4,123	5,577	6,207
Kentucky	2,326	446	338	108	1,880
Louisiana	8,791	6,544	3,740	2,804	2,247
Maine	354	354	229	125	0
Maryland & District of Columbia	220	220	0	220	0
Massachusetts	347	347	0	347	0
Michigan	3,929	3,201	1,711	1,490	728
Minnesota	3,099	3,099	1,394	1,705	0
Mississippi	3,389	2,930	1,351	1,579	459
Missouri	6,928	6,928	3,217	3,711	0
Montana	2,806	1,945	1,327	618	861
Nebraska	3,283	2,933	640	2,293	350
Nevada	198	198	0	198	0
New Jersey	472	453	0	453	19
New Hampshire	108	108	108	0	0
New Mexico	5,927	2,639	1,456	1,183	3,288
New York	1,939	1,449	301	1,148	490
North Carolina	900	900	0	900	0
North Dakota	1,741	1,263	786	477	478
Ohio	6,965	5,110	1,529	3,581	1,855
Oklahoma	20,547	10,385	6,350	4,035	10,162
Oregon	673	673	0	673	0
Pennsylvania	8,038	5,153	1,204	3,949	2,885
Rhode Island	17	17	0	17	0
South Carolina	669	669	0	669	0
South Dakota	642	642	0	642	0
Tennessee	707	707	264	443	0
Texas	65,472	40,678	27,490	13,188	24,794
Utah	1,341	1,210	605	605	131
Vermont	177	177	177	0	0
Virginia	834	834	0	834	0
Washington	760	760	64	696	0
West Virginia	3,540	501	451	50	3,039
Wisconsin	942	942	476	466	0
Wyoming	6,897	5,172	3,960	1,212	1,725

¹ As of January 1, 1974.

² District of Columbia combined with Maryland.

Source: U.S. Department of Interior, Bureau of Mines, "Crude Oil and Product Pipelines, Triennial," Mineral Industry Surveys, December 1974.

TABLE 11.19
ELECTRIC UTILITY INSTALLED GENERATING CAPACITY
(in thousands of kilowatts)

STATE	TOTAL ELECTRIC UTILITY INDUSTRY				HYDRO				CONVENTIONAL STEAM				NUCLEAR STEAM				INTERNAL COMBUSTION			
	1971P	1972P	1973P	1974P	1971P	1972P	1973P	1974P	1971P	1972P	1973P	1974P	1971P	1972P	1973P	1974P	1971P	1972P	1973P	1974P
UNITED STATES	107,390	109,606	111,874	113,307	55,898	56,566	57,234	57,902	2,907	2,907	2,907	2,907	8,687	15,700	21,070	31,662	4,466	4,796	4,908	5,002
Alabama	1,478	1,478	1,478	1,478	2,508	2,508	2,508	2,508	0	0	0	0	0	0	0	0	0	0	0	0
Alaska	199	199	199	199	77	76	76	76	2,079	2,079	2,079	2,079	0	0	0	0	115	107	113	119
Arizona	4,048	4,470	4,819	5,000	1,941	1,961	2,079	2,079	2,076	2,496	2,727	2,907	0	0	0	0	71	73	73	73
California	3,190	3,540	3,906	4,333	977	988	1,016	1,016	2,364	2,499	2,500	2,500	510	510	510	515	49	49	50	50
Colorado	2,877	2,890	2,884	2,884	743	743	743	743	21,054	22,147	23,438	25,334	0	0	0	0	73	73	73	73
Connecticut	4,855	4,814	4,814	4,814	136	136	136	136	1,057	1,072	1,072	1,072	1,262	1,262	1,262	1,262	82	81	82	85
Delaware	4,988	4,988	4,988	4,988	3	3	3	3	3,443	3,443	3,443	3,443	0	0	0	0	11	11	11	11
Dist. of Columbia	1,115	1,109	1,279	991	3	3	3	3	1,112	1,206	1,276	988	0	0	0	0	0	0	0	0
Florida	14,094	16,270	19,073	17,251	3	3	3	3	13,855	15,245	17,278	15,451	0	760	1,523	1,520	209	275	285	244
Georgia	7,404	8,275	9,144	9,640	1,056	1,056	1,056	1,056	6,348	7,317	8,084	8,582	0	0	0	0	2	2	2	2
Hawaii	934	934	934	934	3	3	3	3	922	922	1,123	1,019	0	0	0	0	79	79	79	66
Idaho	8,265	1,265	1,656	1,647	1,255	1,255	1,255	1,255	16,944	17,533	19,103	18,585	1,878	3,449	4,407	5,718	209	217	246	230
Illinois	48,714	21,231	23,089	22,587	1,735	1,735	1,735	1,735	10,962	11,496	12,341	12,432	0	0	0	0	54	54	54	61
Indiana	33,109	11,741	12,562	12,568	93	93	93	93	313	313	307	459	0	830	830	830	83	83	83	84
Iowa	8,279	4,072	4,107	4,254	133	132	132	132	3,104	3,478	3,576	3,108	0	0	0	0	392	412	449	468
Kansas	8,052	1,445	1,445	1,445	68	68	68	68	3,620	3,678	4,570	4,699	0	0	0	0	411	434	476	484
Kentucky	8,844	10,348	10,745	11,854	61	61	61	61	9,250	9,658	10,051	11,154	0	0	0	0	8	8	8	8
Louisiana	8,910	8,849	10,358	10,847	0	0	0	0	8,910	8,849	10,358	10,847	0	0	0	0	206	206	206	201
Maine	4,920	1,740	1,707	1,665	342	342	342	342	4,578	4,407	4,363	4,363	0	0	0	0	85	85	85	84
Maryland	8,862	6,459	6,731	5,361	494	484	484	484	5,325	5,923	6,184	5,014	0	0	0	0	43	42	43	53
Massachusetts	8,866	7,361	7,776	8,272	385	435	435	435	5,445	5,940	5,777	5,643	185	840	840	840	131	146	145	150
Michigan	12,806	17,806	15,962	16,073	343	344	344	344	11,437	11,344	12,746	12,479	75	887	887	887	330	331	336	345
Minnesota	12,409	12,409	12,409	12,409	136	136	136	136	3,826	3,975	4,203	3,604	569	569	569	569	278	285	314	318
Mississippi	5,725	3,245	3,272	3,045	0	0	0	0	3,220	3,240	3,267	3,041	0	0	0	0	5	5	5	5
Missouri	8,263	9,630	10,461	10,314	800	800	846	846	7,237	8,999	9,350	9,117	0	0	0	0	226	231	265	351
Montana	1,837	1,882	1,881	1,831	1,512	1,512	1,512	1,512	316	366	365	315	0	0	0	0	4	4	4	4
Nebraska	5,780	5,780	5,780	5,780	238	236	236	236	1,562	1,721	2,096	1,633	0	0	0	0	195	201	246	246
Nevada	1,166	1,166	1,166	1,166	587	582	581	582	2,529	2,518	2,578	2,588	0	0	0	0	70	70	70	69
New Hampshire	1,166	1,166	1,166	1,166	381	381	380	380	782	782	763	1,089	0	0	0	0	3	3	3	3
New Jersey	8,791	10,874	11,300	6,091	361	341	341	341	8,430	9,528	10,403	5,996	550	550	550	550	6	6	6	6
New Mexico	1,445	3,595	3,943	4,025	24	24	24	24	3,379	3,529	3,976	3,958	0	0	0	0	4	4	4	4
New York	75,266	78,389	25,960	23,603	3,974	3,974	4,967	4,967	17,554	18,877	18,634	16,028	1,434	1,434	2,503	2,503	106	106	106	105
North Carolina	10,197	11,215	11,960	12,133	1,834	1,834	1,834	1,834	8,363	9,261	10,106	10,277	0	0	0	0	43	43	43	43
North Dakota	1,166	1,368	1,306	1,290	400	400	400	400	865	865	865	867	0	0	0	0	0	0	0	0
Ohio	18,989	20,455	21,496	21,972	2	2	2	2	18,987	20,453	21,494	21,734	0	0	0	0	172	300	198	192
Oklahoma	5,467	5,577	5,795	6,686	765	765	805	805	4,702	4,648	4,977	5,129	0	0	0	0	159	158	163	160
Oregon	3,808	3,807	6,091	5,782	5,638	5,638	5,638	5,638	166	166	166	166	0	0	0	0	0	0	0	0
Pennsylvania	8,940	8,940	8,940	8,940	1,657	1,657	1,651	1,651	19,030	20,958	21,011	19,183	156	156	156	156	109	109	107	99
Rhode Island	360	360	360	372	2	2	2	2	330	330	330	330	0	0	0	0	28	28	28	29
South Carolina	1,629	1,769	1,769	1,769	1,161	1,161	1,161	1,161	3,740	3,654	4,491	3,697	739	768	1,654	3,429	2	2	2	2
South Dakota	1,716	1,716	1,716	1,716	1,165	1,165	1,165	1,165	4,551	4,551	4,551	4,551	0	0	0	0	89	89	97	91
Tennessee	8,840	10,130	12,876	12,242	2,023	2,085	2,135	2,135	6,817	8,046	10,741	11,107	0	0	0	0	238	239	243	249
Texas	17,239	31,967	33,985	36,609	517	517	517	517	27,504	31,450	31,819	31,843	0	0	0	0	39	39	34	35
Utah	1,166	1,166	1,166	1,224	207	222	222	222	959	959	959	959	0	0	0	0	0	0	0	0
Vermont	177	906	906	777	186	186	186	186	171	160	163	16	0	0	0	0	0	0	0	0
Virginia	5,511	7,400	8,245	8,403	842	842	842	842	5,642	5,684	5,685	6,042	0	0	0	0	26	26	26	24
Washington	8,265	12,885	13,456	13,456	11,613	11,613	11,613	11,613	736	237	1,639	1,577	800	800	800	800	6	6	6	5
West Virginia	3,350	9,776	12,338	12,332	1,011	1,011	1,011	1,011	2,369	2,369	2,369	2,369	0	0	0	0	0	0	0	0
Wisconsin	8,637	7,139	7,664	7,309	368	369	369	369	8,269	8,795	9,638	12,711	59	1,100	1,100	1,100	87	92	92	92
Wyoming	1,166	1,166	1,166	1,166	222	222	222	222	1,166	1,166	1,166	1,166	0	0	0	0	19	19	19	19

Prepared by
Source: Edison Electric Institute, Statistical Yearbook of the Electric Utility Industry for 1973 (Federal Power Commission).
Federal Power Commission, News Releases, June 1975.

TABLE 11-20
GENERATION BY FUEL—TOTAL ELECTRIC UTILITY INDUSTRY¹
 (in millions of kilowatt-hours)

	1951 ²	1960	1970	1971 ^P	1972 ^P	1973 ^P	1974 ⁴
Total Thermal Generation ³	270,532	607,660	1,283,271	1,346,756	1,472,812	1,575,936	1,561,811
Coal	185,204	403,067	706,102	714,756	770,617	845,986	829,840
Percent of Total	68.5	66.3	55.0	53.1	52.3	53.7	53.1
Fuel Oil	28,712	46,105	182,488	218,162	272,482	310,657	299,296
Percent of Total	10.6	7.6	14.2	16.2	18.5	19.7	19.2
Gas	56,616	157,970	372,884	375,939	375,682	336,001	319,935
Percent of Total	20.9	26.0	29.1	27.9	25.5	21.3	20.5
Nuclear	0	518	21,797	37,899	54,031	83,292	112,740
Percent of Total	0	0.1	1.7	2.8	3.7	5.3	7.2

Preliminary.

¹ Alaska and Hawaii included since 1963.

² Data not available for 1950.

³ Excludes generation by geothermal, wood, and waste.

⁴ Calculated from Federal Power Commission data, 1975.

Source: Edison Electric Institute, Statistical Yearbook of the Electric Utility Industry for 1973 (Federal Power Commission).

TABLE 11-21
TRENDS IN FUEL EFFICIENCY AT STEAM ELECTRIC PLANTS

	1963 ¹	1970	1971	1972	1973	1974
Fuel Rates: U.S.²						
Pounds of Coal Per kWh ³	.856	.908	.918	.910	.918	.946
Gallons of Oil Per kWh	.075	.076	.074	.074	.075	.075
Cubic Feet of Gas Per kWh	10.6	10.4	10.5	10.4	10.7	10.7
Average BTU Value:						
Per Pound of Coal	11,984	11,309	11,168	11,182	11,105	10,860
Per Gallon of Oil	150,375	147,811	147,079	146,292	145,965	145,952
Per Cubic Feet of Gas	1,044 ⁴	1,035	1,033	1,032	1,031	1,023
Average BTU Value Required to Generate One kWh (net):						
Coal	10,258	10,269	10,252	10,176	10,198	10,208
Oil	11,278	11,234	10,884	10,826	10,914	10,249
Gas	11,066	10,764	10,847	10,733	10,918	10,101
Total Net kWh Generated: (million)						
From Coal	493,841.9	705,884.1	713,959.7	768,127.2	845,703.9	829,839.5
From Oil	48,076.7	168,861.0	200,174.3	245,396.0	312,804.8	299,295.8
From Gas	197,993.0	360,898.4	360,508.8	359,773.8	340,448.9	319,935.4

¹ Previous data not available.

² Excludes experience for Alaska or Hawaii.

³ Includes bituminous anthracite coal and lignite.

⁴ Includes use of artificial gas in Ohio and West Virginia.

Source: National Coal Association, Steam-Electric Plant Factors, 1963-1972. 1973-1974 MATRE calculations based on Federal Power Commission data released through FPC News, 1974 and 1975.

TABLE 11-22
U.S. IMPORTS AND EXPORTS OF FOSSIL FUELS

UNITED STATES	1950		1960		1970		1974 ⁶	
	IMPORTS	EXPORTS	IMPORTS	EXPORTS	IMPORTS	EXPORTS	IMPORTS	EXPORTS
Coal	365 ¹	29,360 ¹	262 ¹	37,981 ¹	36 ¹	72,411 ¹	2,000 ¹	61,100 ¹
Petroleum	311 ²	112 ²	665 ²	74 ²	1,248 ²	95 ²	2,236 ²	81 ²
Gas								
Natural Gas	0 ³	25,727 ³	155,646 ³	11,332 ³	820,780 ³	69,813 ³	940,000 ³	80,000 ³
Natural Gas Liquids	NA	NA	1,631 ⁴	2,990 ^{4,7}	18,921 ⁴	9,955 ^{4,7}	— ⁵	— ⁵

1 Thousands of short tons of anthracite, bituminous coal, and lignite. Exports for 1950, 1960, and 1970 include shipment to U. S. Armed Forces in West Germany.

2 Millions of barrels, includes crude oil and products, and natural gas liquids included in 1974 petroleum products.

3 Millions of cubic feet.

4 Thousands of 42-gallon barrels.

5 Included with petroleum.

6 Preliminary.

7 Natural gasoline included with exports of petroleum.

Sources: American Petroleum Institute, Annual Statistical Review, U.S. Petroleum Industry Statistics 1956-1971, 1972.

Department of the Interior, U.S. Energy Through the Year 2,000, 1972.

Department of the Interior, U.S. Energy Use Down in 1974 After Two Decades of Increases, News Release, April 1975.

TABLE 11-23
U.S. GROSS CONSUMPTION OF ENERGY RESOURCES
BY MAJOR SOURCE AND CONSUMING SECTOR
(in trillions of BTU's)

	1965	1969	1970	1971	1972	1973	1974 ^P
U.S. Total Energy Inputs¹							
Anthracite	328	224	210	186	150	144	132
Bituminous Coal and Lignite	12,030	12,509	12,488	11,857	12,335	13,150	13,037
Natural Gas (dry) ²	16,098	21,020	22,029	22,819	23,125	22,712	22,237
Petroleum ³	23,241	28,421	29,537	30,570	32,973	34,851	33,490
Hydropower ⁴	2,049	2,659	2,650	2,862	2,972	2,998	3,052
Nuclear Power ⁴	39	146	229	404	576	888	1,173
Total Gross Energy Inputs⁵	53,785	64,979	67,143	68,698	72,131	74,743	73,121
Household and Commercial							
Anthracite	168	107	103	98	75	74	62
Bituminous Coal and Lignite	546	340	324	308	312	222	229
Natural Gas (dry) ²	5,518	6,890	7,108	7,366	7,642	7,318	7,116
Petroleum ³	5,635	6,268	6,453	6,440	6,667	6,689	6,390
Total Gross Energy Inputs⁵	11,867	13,605	13,988	14,212	14,696	14,303	13,797
Utility Electricity Distributed ⁶	1,948	2,752	3,000	3,209	3,478	3,709	3,687
Total Sector Energy Inputs⁷	13,815	16,357	16,988	17,421	18,174	18,012	17,484
Industrial							
Anthracite	101	70	59	47	35	33	32
Bituminous Coal and Lignite	5,640	4,981	4,943	4,256	4,232	4,344	4,176
Natural Gas (dry) ²	7,671	9,885	10,161	10,570	10,591	10,970	11,129
Petroleum ³	4,138	5,047	5,061	5,094	5,668	6,059	5,826
Hydropower ⁴	0	34	34	34	35	34	34
Total Gross Energy Inputs⁵	17,550	20,017	20,258	20,001	20,541	21,111	21,197
Utility Electricity Distributed ⁶	1,634	2,155	2,210	2,293	2,433	2,634	2,665
Total Sector Energy Inputs⁷	19,184	22,172	22,468	22,294	23,054	24,074	23,862
Transportation⁸							
Bituminous Coal and Lignite	19	8	8	6	4	3	2
Natural Gas (dry) ²	517	651	745	766	790	743	664
Petroleum ³	12,179	15,249	15,720	16,286	17,264	18,164	17,608
Total Gross Energy Inputs⁵	12,715	15,908	16,473	17,058	18,058	18,910	18,274
Utility Electricity Distributed ⁶	18	17	16	17	17	15	16
Total Sector Energy Inputs⁷	12,733	15,925	16,489	17,075	18,075	18,925	18,290
Electricity Generation Utilities							
Anthracite	55	47	48	42	40	37	38
Bituminous Coal and Lignite	5,825	7,180	7,213	7,288	7,787	8,581	8,630
Natural Gas (dry) ²	2,392	3,594	4,015	4,117	4,102	3,681	3,328
Petroleum ³	744	1,628	2,087	2,543	3,141	3,656	3,448
Hydropower ⁴	2,049	2,625	2,616	2,828	2,937	2,964	3,018
Nuclear Power ⁴	39	146	229	404	576	888	1,173
Total Gross Energy Inputs⁵	11,104	15,220	16,208	17,222	18,583	19,807	19,635
Utility Electricity Distributed ⁶	3,600	4,924	5,226	5,519	5,988	6,358	6,368
Total Sector Energy Inputs⁷	11,104	15,220	16,208	17,222	18,583	19,807	19,635
Miscellaneous and Unaccounted For:							
Anthracite	4	0	0	0	0	0	0
Petroleum ³	545	229	216	207	233	283	218
Total Gross Energy Inputs⁵	549	229	216	207	233	283	218
Total Sector Energy Inputs⁷	549	229	216	207	233	283	218

TABLE 11-23 (CONCLUDED)

- P Preliminary
- 1 Data may not add to totals shown because of independent rounding.
- 2 Excludes natural gas liquids.
- 3 Petroleum products including still gas, liquefied refining gas (LRG), and natural gas liquids.
- 4 Represents outputs of hydropower (adjusted for net imports or net exports) and nuclear power converted to theoretical energy inputs calculated from national average heat rates for fossil-fueled steam-electric plants provided by the Federal Power Commission using 10,530 Btu per kilowatt-hour in 1965, 10,447 Btu in 1969 and 10,494 Btu in 1970. Energy inputs for hydropower in 1971 and 1972 are converted at an average heat rate of 10,478 Btu per net kilowatt-hour generated. Energy inputs for nuclear power in 1971, 1972, 1973 and 1974 are converted at an average heat rate 10,660 Btu per net kilowatt-hour based on information from the Atomic Energy Commission. Excludes inputs for power generated by nonutility fuel-burning plants which are included within the other consuming sectors.
- 5 Gross energy is that contained in all types of commercial energy at time it is incorporated in the economy, whether energy is produced domestically or imported. Gross energy comprises inputs of primary fuels (or the derivatives) and outputs of hydropower and nuclear power converted to theoretical energy inputs. Gross energy includes energy used for production, processing, and transportation of energy proper.
- 6 Utility electricity, generated and imported, distributed to the other consuming sectors as energy resource inputs. Distribution to sectors is based on historical series in the Edison Electric Institute Yearbook. Conversion of electricity to energy equivalent by sectors was made at the value of contained energy corresponding to 100% efficiency using a theoretical rate of 3,412 Btu per kilowatt-hour.
- 7 Energy resource inputs by sector, including direct fuels and electricity distributed.
- 8 Includes bunkers and military transportation.

Source: U.S. Department of the Interior, Bureau of Mines, Minerals Yearbook, 1968, 1971, 1972 and unpublished data from the Division of Interfuels and Special Studies, Office of the Assistant Director.

INT	Loc	PETE	Gas

TABLE 11-24
U.S. CONSUMPTION OF BITUMINOUS COAL
 (in thousands of short tons)

ITEM	1960	1965	1970	1971	1972	1973P	1974P
Total U.S. Consumption	380,429	459,164	515,619	494,862	516,776	556,022	551,263
Electric Power Utilities ¹	173,882	242,729	318,921	326,280	348,612	386,879	388,204
Bunker, Foreign Trade	945	655	298	207	163	116	80
Manufacturing and Mining Industries:							
Beehive Coke Plants	1,640	2,693	1,428	1,278	1,059	1,310	1,255
Oven Coke Plants	79,375	92,086	94,581	81,531	86,213	92,324	88,410
Steel and Rolling Mills ²	7,378	7,466	5,410	5,560	4,850	6,356	6,155
Other							
Manufacture and Mining Industries ³	86,804	94,487	82,909	68,655	67,131	60,837	58,319
Retail Dealer Deliveries ⁴	30,405	19,048	12,072	11,351	8,748	8,200	8,840

P Preliminary

1 Federal Power Commission

2 Estimates based upon reports collected from a selected list of representative mills.

3 Estimates based upon reports collected from a selected list of representative manufacturing plants.

4 Estimates based upon reports collected from a selected list of representative retailers.

Sources: U.S. Department of the Interior, Bureau of Mines, Minerals Yearbook, 1969, 1970, 1971, 1972 and Mineral Surveys, 1975, and The National Coal Association, Bituminous Coal.

TABLE 11-25
U.S. CONSUMPTION OF NATURAL GAS
(DRY—EXCLUDES NATURAL GAS LIQUIDS)
(in trillions of BTU's)

	1969	1970	1971	1972	1973	1974 ^P
Total Energy Input	21,020	22,029	22,819	23,035	22,712	22,237
Household and Commercial	6,890	7,108	7,366	7,613	7,318	7,116
Industrial	9,885	10,161	10,570	10,549	10,970	11,129
Transportation ¹	651	745	766	787	743	664
Electricity Generation Utilities	3,594	4,015	4,117	4,086	3,681	3,328

^PPreliminary

¹Includes bunkers and military transport.

Source: U.S. Department of the Interior, Bureau of Mines, Minerals Yearbook, 1970, 1971, 1972 and Division of Interfuels and Special Studies, News Releases, April 1975.

TABLE 11-26
U.S. CONSUMPTION OF PETROLEUM¹
 (in millions of BTU's)

CONSUMING SECTOR	1969	1970	1971	1972	1973	1974P
UNITED STATES	28,421	29,537	30,570	32,966	34,851	33,490
Household and Commercial	6,268	6,453	6,440	6,667	6,689	6,390
Industrial	5,047	5,061	5,094	5,668	6,059	5,826
Transportation	15,249	15,720	16,286	17,264	18,164	17,608
Electricity Generation: Utilities	1,628	2,087	2,543	3,134	3,656	3,448
Miscellaneous and Unaccounted for	229	216	207	233	283	218
Conversion Factors BTU/barrel	5,508	5,306	5,506	5,504	5,534	5,517

p Preliminary

¹ Includes still gas, liquified refinery gas and natural gas liquids.

Source: U.S. Department of the Interior, Bureau of Mines, New Releases, March 1974 and April 1975.

TABLE 11-27
ELECTRIC POWER USE, AVERAGE CUSTOMER BILL, AND UTILITY
REVENUES PER KILOWATT-HOUR SOLD
(in current dollars and cents)

	1960	1969	1970	1971	1972	1973	1974
Average Kilowatt-Hours Used Per Customer/Per Year:							
Residential	3,854	6,571	7,066	7,380	7,691	8,079	7,907
Commercial (small light and power)	17,006	36,950	39,952	41,943	44,496	47,580	46,557
Average Annual Bill Per Customer:							
Residential	\$95.19	\$137.33	\$148.39	\$161.62	\$176.12	\$192.28	\$223.77
Commercial (small light and power)	418.00	735.00	803.00	889.00	988.00	1,094.00	1,327.00
Total Electric Utilities' Revenue Per Kilowatt-Hour Sold: (cents per kilowatt-hour)							
Residential	2.47¢	2.09¢	2.10¢	2.19¢	2.29¢	2.38¢	2.83¢
Commercial and Industrial:							
small light and power	2.46	1.99	2.01	2.12	2.22	2.30	2.85
large light and power	0.97	0.91	0.95	1.03	1.09	1.17	1.55
Street and highway lighting	3.18	3.25	3.38	3.53	3.69	3.83	4.31
Other public authorities	1.49	1.16	1.20	1.29	1.37	1.47	1.92
Railroads and railways	1.31	1.35	1.49	1.72	1.92	2.20	3.43

Source: Edison Electric Institute, Statistical Yearbook of the Electric Utility Industry for 1973, and advance release of data for the Statistical Yearbook of the Electric Utility Industry, Year 1974, June 1975.

TABLE 11-28
ELECTRIC POWER CONSUMPTION, BY MAJOR CONSUMING SECTOR¹
(in millions of kilowatt-hours)

ITEM	1950	1955	1960	1965	1970	1971	1972	1973	1974
Total Sales ²	280,684	481,415	683,987	957,113	1,395,568	1,469,955	1,580,466	1,705,877P	NA
Exports to Canada and Mexico	145	494	788	3,699	4,209	3,514	2,752	2,674P	NA
Total Sales to Ultimate Customers	280,539	480,921	683,199	953,414	1,391,359	1,466,441	1,577,714	1,703,203	1,700,769
Residential	70,055	125,371	196,400	280,970	447,795	479,080	511,423	554,171	554,960
Small Light and Power ³	51,753	77,880	114,806	202,112	312,750	333,752	361,859	396,903	392,716
Large Light and Power ³	142,049	257,937	344,799	433,365	572,522	592,700	639,467	687,235	689,435
Street and Highway Lighting	3,000	4,389	6,121	8,782	11,183	11,673	12,193	12,836	13,313
Other Public Authorities	7,223	10,187	15,642	21,675	37,816	39,819	43,190	42,340	40,721
Railroads and Railways	5,881	4,563	4,770	4,652	4,633	4,537	4,440	4,186	4,258
Interdepartmental ⁴	578	594	661	1,858	4,660	4,880	5,142	5,532	5,366

Preliminary * NA - Not available

¹ Alaska and Hawaii included since 1960.

² For comparison, total sales in 1930 and 1940 were; 74,933 million kilowatt hours and 118,665 million kilowatt hours respectively.

³ Small Light and Power and Large Light and Power are not wholly comparable on a year-to-year basis due to changes from one classification to another.

⁴ Interdepartmental - Kilowatt-hour sales of electric energy to other departments (gas, steam, water, etc.) and dollar value of such sales at tariff or other specified rates for the energy supplied.

Sources: Edison Electric Institute, Historical Statistics and Statistical Yearbook of the Electric Utility Industry for 1973, and advanced release of data for the Statistical Yearbook of the Electric Utility Industry, Year 1974, June 1975.

TABLE 11-29
NORMAL MONTHLY AND ANNUAL HEATING DEGREE DAYS,¹
(In thousands)

CITY	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.	ANNUAL
Ala. Mobile	451	337	221	40	0	0	0	0	0	39	211	385	1,684
Alaska Juneau	1,287	1,036	1,026	783	564	334	288	332	474	719	975	1,169	9,007
Ariz. Phoenix	428	292	185	60	0	0	0	0	0	17	182	388	1,552
Ark. Little Rock	791	619	470	139	21	0	0	0	5	143	441	725	3,354
Calif. Los Angeles	331	270	267	195	114	71	19	15	23	77	158	279	1,819
Calif. San Francisco	518	386	372	291	210	120	93	84	66	137	291	474	3,042
Colo. Denver	1,088	902	868	525	233	80	0	0	120	408	768	1,004	6,016
Conn. Hartford	1,246	1,070	911	519	226	24	0	12	106	384	711	1,141	6,350
Del. Wilmington	1,023	879	725	381	128	0	0	0	32	254	579	939	4,940
D.C. Washington	911	776	617	265	72	0	0	0	14	190	510	856	4,211
Fla. Jacksonville	348	282	176	24	0	0	0	0	0	19	161	317	1,527
Fla. Miami	53	67	17	0	0	0	0	0	0	0	13	56	206
Ga. Atlanta	701	560	443	144	27	0	0	0	8	137	408	667	3,095
Hawaii Honolulu	0	0	0	0	0	0	0	0	0	0	0	0	0
Idaho Boise	1,116	826	741	480	252	97	0	12	127	406	756	1,020	5,833
Ill. Chicago	1,262	1,053	874	453	208	26	0	8	57	316	738	1,132	6,127
Ind. Indianapolis	1,150	960	784	387	155	11	0	5	63	302	639	1,057	5,377
Iowa Des Moines	1,414	1,142	964	465	186	26	0	13	94	350	816	1,240	6,710
Kansas Wichita	1,045	804	671	275	90	7	0	0	32	211	608	946	4,687
Ky. Louisville	983	818	661	286	105	0	0	0	35	281	600	911	4,640
La. New Orleans	403	299	188	29	0	0	0	0	40	179	327	1,465	1,465
Maine Portland	1,349	1,179	1,029	669	381	106	27	55	200	493	792	1,218	7,498
Md. Baltimore	980	846	688	340	110	0	0	0	27	250	567	921	4,729
Mass. Boston	1,110	969	834	492	218	27	0	8	76	301	594	992	5,621
Mich. Detroit	1,232	1,075	921	519	244	36	5	16	95	377	747	1,132	6,419
Minn. Duluth	1,751	1,481	1,287	792	484	194	67	104	318	611	1,098	1,569	9,757
Minn. Minneapolis-St. Paul	1,649	1,366	1,147	612	286	75	14	26	195	496	993	1,451	8,310
Miss. Jackson	569	442	313	74	6	0	0	0	0	91	301	504	2,300
Mo. St. Louis	1,043	837	682	272	103	10	0	0	35	224	600	942	4,750
Mont. Great Falls	1,380	1,075	1,070	648	367	162	18	42	260	524	912	1,194	7,652
Nebr. Omaha	1,314	1,036	865	391	148	20	0	6	71	301	750	1,147	6,049
Nevada Reno	1,026	781	766	546	328	145	17	50	168	456	747	992	6,022
N.H. Concord	1,376	1,187	1,014	624	315	58	16	45	182	487	810	1,246	7,360
N.J. Atlantic City	1,001	871	741	399	131	9	0	0	35	262	570	927	4,946
N. Mex. Albuquerque	924	700	595	282	38	0	0	0	7	218	615	893	4,292
N.Y. Buffalo	1,280	1,137	1,020	603	321	58	12	33	138	419	756	1,150	6,927
N.Y. New York	1,017	885	741	387	137	0	0	0	29	209	528	915	4,848
N.C. Raleigh	760	638	502	180	48	0	0	0	12	186	450	738	3,514
N.C. Durham	1,761	1,442	1,237	660	339	122	18	35	232	564	1,083	1,531	9,044
Ohio Cleveland	1,181	1,039	896	501	244	40	9	17	95	354	702	1,076	6,154
Ohio Columbus	1,135	972	800	418	176	13	0	8	76	342	699	1,063	5,702
Okla. Oklahoma City	874	664	532	180	36	0	0	0	12	148	474	775	3,695
Oreg. Portland	834	622	598	432	264	128	48	56	119	347	591	753	4,792
Pa. Philadelphia	1,014	871	716	367	122	0	0	0	38	249	564	924	4,865
Pa. Pittsburgh	1,144	1,000	834	444	208	26	7	16	98	372	711	1,070	5,930
R.I. Providence	1,135	997	871	531	259	36	0	10	93	350	651	1,039	5,972
S.C. Columbia	608	493	360	83	12	0	0	0	0	112	341	589	2,598
S. Dak. Sioux Falls	1,575	1,277	1,085	567	259	65	10	18	165	465	957	1,395	7,838
Tenn. Memphis	760	594	457	131	22	0	0	0	7	142	423	691	3,227
Tenn. Nashville	828	672	524	176	45	0	0	0	10	180	498	763	3,696
Texas Houston	416	294	189	23	0	0	0	0	0	24	155	333	1,434
Utah Salt Lake City	1,147	885	787	474	237	88	0	5	105	402	777	1,076	5,983
Vt. Burlington	1,494	1,299	1,113	660	331	63	20	49	191	502	840	1,314	7,876
Va. Richmond	853	717	569	226	64	0	0	0	21	203	482	806	3,939
Wash. Seattle-Tacoma	831	636	648	489	313	167	80	82	170	397	612	760	5,185
W. Va. Spokane	1,228	918	853	567	327	144	21	47	196	533	885	1,116	6,835
W. Va. Charleston	946	798	642	287	113	10	0	0	46	267	588	893	4,590
Wis. Milwaukee	1,414	1,190	1,042	609	348	90	15	36	140	440	855	1,265	7,444
Wyo. Cheyenne	1,190	1,008	1,035	669	394	156	22	31	225	530	885	1,110	7,255

¹ For any one day, when the mean temperature is less than 65°, there exist as many degree days as there are Fahrenheit degrees difference in temperature between the average temperature for the day and 65°F.

² Airport data unless otherwise noted. Based on standard 30 year period, 1941 to 1970.

³ City office data.

Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Local Climatological Data, April 1975.

TABLE 11-30
 PLANNED NUCLEAR POWER CAPACITY, BY PREDICTED ON-LINE DATE¹
 (In megawatts)

STATE	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988 OR LATER ²
UNITED STATES	8,488	8,510	7,014	6,357	11,810	15,042	23,756	23,877	18,421	17,200	12,634	9,710	3,630	20,115
Alabama	1,152	2,011	860	---	1,332	1,332	---	---	---	1,200	1,200	1,200	1,200	---
Alaska	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Arizona	---	---	---	---	---	---	1,270	1,270	---	1,270	---	---	---	---
Arkansas	---	---	012	---	---	---	---	---	---	---	---	---	---	---
California	---	1,060	1,060	---	---	1,140	1,140	---	1,300	---	1,300	1,300	---	1,300
Colorado	330	---	---	---	---	---	---	---	---	---	---	---	---	---
Connecticut	830	---	---	---	1,150	---	---	---	---	---	---	---	---	---
Delaware	---	---	---	---	---	---	770	---	---	770	---	---	---	---
District of Columbia	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Florida	---	1,715	---	---	---	---	890	---	---	---	---	---	---	2,600 ²
Georgia	786	---	---	---	---	---	---	---	---	---	---	---	---	786 ²
Hawaii	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Idaho	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Illinois	---	---	---	1,078	1,078	1,120	2,070	2,240	---	2,050	1,100	---	---	---
Indiana	---	---	---	---	660	---	---	---	1,150	1,150	---	---	---	2,600 ²
Iowa	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Kansas	---	---	---	---	---	---	---	1,150	---	---	---	---	---	---
Kentucky	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Louisiana	---	---	---	---	1,165	940	---	1,150	940	1,150	---	---	---	---
Maine	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Maryland	800	---	800	---	---	---	---	1,100	---	---	1,100	---	---	---
Massachusetts	---	---	---	---	---	1,180	---	---	---	---	---	1,150	---	1,150 ²
Michigan	---	---	---	---	---	---	855	506	---	---	---	---	---	5,719 ²
Minnesota	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Mississippi	---	---	---	---	---	1,250	---	1,250	---	---	---	---	---	---
Missouri	---	---	---	---	---	---	1,150	---	1,150	---	---	---	---	---
Montana	---	---	---	---	---	---	---	---	1,150	---	---	---	---	---
Nebraska	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nevada	---	---	---	---	---	---	---	---	---	---	---	---	---	---
New Hampshire	---	---	---	---	1,150	---	1,150	---	---	---	---	---	---	---
New Jersey	---	1,090	---	---	1,115	---	1,100	1,070	1,100	---	1,150	---	1,150	2,300
New Mexico	---	---	---	---	---	---	---	---	---	---	---	---	---	---
New York	1,786	---	---	849	---	---	2,250	1,150	1,350	1,220	---	1,220	---	---
North Carolina	821	821	---	1,180	1,180	---	900	900	2,180	900	1,280	---	1,280	---
North Dakota	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Ohio	---	872	---	---	810	1,205	---	1,205	906	2,350	906	1,200	---	---
Oklahoma	---	---	---	---	---	---	---	---	950	---	950	---	---	---
Oregon	1,130	---	---	---	---	---	---	1,260	---	---	1,260	---	---	1,260 ²
Pennsylvania	853	---	---	880	---	1,050	1,908	1,050	1,055	1,160	---	1,160	---	1,120
Rhode Island	---	---	---	---	---	---	---	1,150	1,150	---	---	---	---	---
South Carolina	---	---	---	---	900	---	1,153	1,153	---	2,180	---	1,280	---	1,280
South Dakota	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Tennessee	---	---	2,442	1,270	1,270	1,285	2,570	1,285	---	---	---	---	---	---
Texas	---	---	---	---	---	2,350	2,400	2,450	---	---	---	---	---	---
Utah	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Vermont	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Virginia	---	940	940	---	---	940	940	---	900	900	---	---	---	---
Washington	---	---	---	1,100	---	1,250	1,240	2,538	1,240	---	1,288	---	---	---
West Virginia	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Wisconsin	---	---	---	---	---	---	---	---	900	900	1,100	---	---	---
Wyoming	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Location unknown ³	---	---	---	---	---	---	---	---	---	---	---	1,200	---	---

--- None presently planned.
¹ Based on information available as of March 1, 1975.
² Year indefinite.
³ Location has not yet been specified, but will probably be Oregon or Wyoming.
 Source: Power Engineering, *New Generating Plants*, May 1975.

TABLE 11-31
LIQUID EFFLUENT TREND FROM U.S. NUCLEAR POWER PLANTS--TRITIUM
(in curies)

UNIT	1970	1971	1972	1973
<u>Boiling Water Reactors</u>				
Oyster Creek 1, New Jersey	22.0	21.5	61.6	35.9
Nine Mile Point 1, New York	20.0	12.4	27.8	46.5
Millstone 1, Connecticut	0	12.7	20.9	3.7
Dresden 1, Illinois	5.0	8.7	43.3	18.5
Dresden 2, 3, Illinois	31.0	38.5	25.9	25.8
Genoa, Wisconsin	20.0	91.4	120.0	103.0
Monticello, Minnesota	0	0.6	0.0001	— ¹
Big Rock Point, Missouri	54.0	10.3	10.4	19.7
Humboldt Bay 3, California	7.0	7.5	13.0	51.3
Pilgrim 1, Massachusetts	0	0	4.2 ²	0.4
Quad-Cities 1, 2, Illinois	0	0	4.7	24.5
Vermont Yankee, Vermont	0	0	0	0.1
Peach Bottom 2, Pennsylvania	0	0	0	— ³
<u>Pressurized Water Reactors</u>				
Maine Yankee, Maine	0	0	9.2 ²	153.6
Palisades, Missouri	0	0	208.0	184.8
Yankee (Rowe), Massachusetts	1500.0	1680.0	803.0	693.6
Indian Point 1 ⁴ , New York	410.0	725.0	574.0	137.9
Indian Point 2, New York	0	0	0	27.5
R. E. Ginna 1, New York	110.0	154.0	119.0	286.0
Haddam Neck, Connecticut	7400.0	5830.0	5890.0	3900.0
H. B. Robinson 2, S. Carolina	0	118.0	405.0	432.0
San Onofre 1, California	4800.0	4570.0	3480.0	4070.0
Point Beach 1, 2, Wisconsin	0	266.0	563.0	556.0
Surry 1, 2, Virginia	0	0	5.03 ²	448.0
Ft. Calhoun 1, Nebraska	0	0	0	15.8
Prairie Island, Minnesota	0	0	0	0.0001
Oconee 1, 2, South Carolina	0	0	0	70.7
Turkey Point 3, 4, Florida	0	0	0	329.0
Zion 1, 2, Illinois	0	0	0	— ³
<u>Gas-Cooled Reactor</u>				
Peach Bottom 1, Pennsylvania	50	14	1.7	3.8

¹ No liquid releases.

² Did not operate a full year.

³ No significant activity.

⁴ Unit shut down all of 1973.

Source: U.S. Nuclear Regulatory Commission, Summary of Radioactivity Released in Effluents from Nuclear Power Plants during 1973.

TABLE 11-32
AIRBORNE EFFLUENT TREND FROM U.S. NUCLEAR POWER PLANTS—NOBLE GASES
(in thousands of curies)

UNIT	1970	1971	1972	1973
<u>Boiling Water Reactors</u>				
Oyster Creek 1, New Jersey	110	516	866	810
Nine Mile Point 1, New York	9.5	253	517	872
Millstone 1, Connecticut		276	726	79
Dresden 1, Illinois	900	753	877	840
Dresden 2, 3, Illinois	0	580	429	880
Genoa, Wisconsin	0.95	0.53	30.6	91
Monticello, Minnesota	0	75.8	751	870
Big Rock Point, Missouri	280	284	338	230
Humboldt Bay 3, California	540	514	430	350
Pilgrim 1, Massachusetts	0	0	18.1 ¹	230
Quad-Cities 1, 2, Illinois	0	0	132	900
Vermont Yankee, Vermont	0	0	55.2	180
Peach Bottom 2, Pennsylvania	0	0	0	0.004 ²
<u>Pressurized Water Reactors</u>				
Maine Yankee, Maine	0	0	0.002 ¹	0.161
Palisades, Missouri	0	0	0.505	0.454
Yankee (Rowe), Massachusetts	0.017	0.013	0.018	0.035
Indian Point 1 ³ , New York	1.7	0.36	0.543	0.122
Indian Point 2, New York	0	0	0	0.015
R. E. Ginna 1, New York	10	31.8	11.8	576
Haddam Neck, Connecticut	0.7	3.25	0.645	0.032
H. B. Robinson 2, S. Carolina	0	0.018	0.257	3.1
San Onofre 1, California	0.42	7.67	19.1	11.0
Point Beach 1, 2, Wisconsin		0.838	2.81	5.75
Surry 1, 2, Virginia	0	0	0.00001 ¹	0.866
Ft. Calhoun 1, Nebraska	0	0	0	0.066
Prairie Island 1, Minnesota	0	0	0	0.008
Oconee 1, 2, South Carolina	0	0	0	9.3
Turkey Point 3, 4, Florida	0	0	0	530
Zion 1, 2, Illinois	0	0	0	0.004 ²
<u>Gas-Cooled Reactor</u>				
Peach Bottom 1, Pennsylvania	0.006	0.122	0.058	105

¹ Did not operate a full year.

² No significant activity.

³ Unit shut down all of 1973.

Source: U.S. Nuclear Regulatory Commission, Summary of Radioactivity Released in Effluents from Nuclear Power Plants during 1973.

TABLE 12-1
VEHICLE REGISTRATION IN THE UNITED STATES¹
(in thousands)

STATE	1950	1960	1970	1971	1972	1973
UNITED STATES ²	49,300	73,869	108,407	112,999	118,506	125,421
Alabama	686	1,282	1,966	2,093	2,227	2,354
Alaska	80	81	139	151	149	172
Arizona	271	624	1,093	1,185	1,302	1,415
Arkansas	477	708	1,043	1,075	1,070	1,185
California	4,620	7,799	11,901	12,367	12,852	13,413
Colorado	444	924	1,442	1,548	1,680	1,803
Connecticut	716	1,107	1,733	1,791	1,860	1,891
Delaware	108	192	312	317	323	333
District of Columbia	195	206	257	260	260	261
Florida	985	2,367	4,120	4,534	4,836	5,347
Georgia	898	1,512	2,584	2,753	2,959	3,170
Hawaii	138	231	405	426	447	478
Idaho	272	375	474	509	550	590
Illinois	2,651	3,776	5,238	5,417	5,644	5,952
Indiana	1,435	2,046	2,815	2,903	2,909	2,933 ³
Iowa	1,072	1,325	1,790	1,842	1,917	1,979
Kansas	853	1,163	1,548	1,599	1,692	1,778
Kentucky	784	1,198	1,763	1,860	1,968	2,091
Louisiana	707	1,177	1,742	1,832	1,942	2,057
Maine	276	374	575	537	565	596
Maryland	685	1,155	1,872	2,003	2,130	2,254
Massachusetts	1,280	1,803	2,575	2,700	2,821	2,932
Michigan	2,433	3,306	4,569	4,740	5,011	5,240
Minnesota	1,169	1,591	2,207	2,293	2,368	2,453
Mississippi	484	723	1,117	1,176	1,249	1,312
Missouri	1,261	1,720	2,408	2,498	2,618	2,745
Montana	265	881	483	511	584	567
Nebraska	569	734	974	1,033	1,081	1,097
Nevada	77	175	355	373	399	437
New Hampshire	172	256	362	375	436	462
New Jersey	1,579	2,401	3,586	3,737	3,859	4,074
New Mexico	238	426	637	661	711	726
New York	3,735	5,067	6,718	6,891	7,006	7,319
North Carolina	1,056	1,720	2,826	3,002	3,220	3,445
North Dakota	276	345	428	444	464	489
Ohio	2,795	4,087	5,974	6,043	6,224	6,679
Oklahoma	831	1,184	1,713	1,789	1,887	1,984
Oregon	689	919	1,369	1,432	1,496	1,606
Pennsylvania	3,010	4,287	5,819	6,011	6,311	6,675
Rhode Island	251	341	488	509	536	563
South Carolina	579	879	1,360	1,383	1,497	1,601
South Dakota	290	354	426	442	463	486
Tennessee	858	1,307	2,050	2,136	2,294	2,467
Texas	2,968	4,457	6,693	6,984	7,316	7,816
Utah	247	417	626	711	741	751
Vermont	121	152	229	237	261	275
Virginia	918	1,426	2,263	2,410	2,603	2,794
Washington	924	1,377	2,102	2,163	2,242	2,371
West Virginia	482	601	860	826	874	911
Wisconsin	1,201	1,600	2,188	2,230	2,379	2,472
Wyoming	145	207	247	257	274	294

¹ Not available.

Vehicles included are: private and commercial automobiles (including taxicabs), buses, and trucks; and Federal, state, county, and municipal vehicles. Vehicles owned by the military services are not included.

² Details may not sum to totals due to independent rounding.

³ Indiana was unable to provide motor vehicle registration data for 1973. The figure shown is an estimate by the Federal Highway Administration.

Source: U.S. Department of Transportation, Federal Highway Administration, Highway Statistics, 1950, 1960, 1970, 1971, 1972, 1973.

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TABLE 12-2
NUMBER OF LICENSED DRIVERS IN THE UNITED STATES, BY STATE
(in thousands)

	1960 TOTAL DRIVERS	1970 ¹ TOTAL DRIVERS	1971 ¹ TOTAL DRIVERS	1972 ¹ TOTAL DRIVERS	1973 TOTAL DRIVERS	1974 TOTAL DRIVERS
UNITED STATES ²	87,361	111,543	114,397	118,414	121,628	125,166
Alabama	1,321	1,740	1,801	1,806	1,852	1,890
Alaska	109	141	147	154	161	186
Arizona	778	1,124	1,173	1,184	1,222	1,295
Arkansas	811	1,058	1,081	1,119	1,203	1,251
California	8,694	11,646	12,130	12,650	12,775	13,098
Colorado	1,092	1,380	1,475	1,536	1,611	1,671
Connecticut	1,449 ³	1,724 ³	1,760	1,798	1,808	1,836
Delaware	231	327	340	349	371	377
District of Columbia	342	339	345	345	335	328
Florida	2,659	3,994	4,084	4,361	4,759	5,005
Georgia	1,791	2,710	2,731	3,206	3,339	3,499
Hawaii	384 ³	501 ³	524	492	475	481
Idaho	429	484	501	508	539	555
Illinois	4,565	5,752	5,903	6,004	6,125	6,274
Indiana	2,298	2,699	2,804	2,936	2,959	3,301
Iowa	1,458	1,678	1,689	1,727	1,781	1,851
Kansas	1,407	1,453	1,496	1,565	1,593	1,635
Kentucky	1,254 ³	1,609 ³	1,626 ³	1,684	1,722	1,749
Louisiana	1,308	1,782	1,813	1,917	2,016	2,090
Maine	446	513	540	557	595	621
Maryland	1,480 ³	2,054	2,073	2,151	2,218	2,285
Massachusetts	2,610 ³	2,988 ³	3,060 ³	3,141	3,209	3,273
Michigan	4,078	5,127	5,213	5,312	5,436	5,558
Minnesota	1,793 ³	2,310 ³	2,368 ³	2,336	2,384	2,401
Mississippi	747	1,237	1,309	1,382	1,379	1,386
Missouri	2,085	2,569	2,719	2,775	2,875	2,950
Montana	356	409	421	444	462	466
Nebraska	896	934	1,033	1,007	1,087	1,092
Nevada	167	337	354	369	389	401
New Hampshire	312	427	441	461	505	511
New Jersey	2,757 ³	4,029 ³	4,074 ³	4,124	4,342	4,456
New Mexico	498	577	600	637	666	676
New York	7,062	8,056	8,278	8,450	8,546	8,770
North Carolina	2,000	2,743	2,835	2,919	3,060	3,140
North Dakota	353	331	341	347	354	372
Ohio	4,694	6,105	5,948	6,141	6,294	6,373
Oklahoma	1,223 ³	1,621	1,657	1,631	1,674	1,707
Oregon	949	1,304 ³	1,360 ³	1,513	1,497	1,565
Pennsylvania	5,770	6,213	6,313	6,532	6,574	6,699
Rhode Island	416	504	527	538	558	573
South Carolina	1,097 ³	1,409 ³	1,460 ³	1,564	1,416	1,472
South Dakota	425	411	419	424	417	430
Tennessee	1,604	2,078	2,088	2,159	2,245	2,352
Texas	4,352	6,380	6,595	6,790	6,973	7,137
Utah	482	615	572	650	665	685
Vermont	179	253	268	280	293	305
Virginia	1,827	2,346	2,463	2,670	2,856	2,961
Washington	1,422	1,920	1,966	2,008	2,145	2,206
West Virginia	833	913	982	1,016	1,051	1,068
Wisconsin	1,863	2,460	2,465	2,528	2,594	2,669
Wyoming	212	229	232	217	224	234

¹ Allowance has been made for deaths, emigration, and revocations in states that were able to do so.

² Details may not add to totals shown due to independent rounding.

³ Chauffeurs' licenses have not been added to operators' licenses in the states requiring an operator's license in addition to a chauffeur's license.

Sources: U.S. Department of Transportation, Federal Highways Administration, Highway Statistics, 1970, 1971, 1972, 1973; and Motor Vehicle Manufacturers Association, 1975 Automobile Facts and Figures, 1975. Further reproduction prohibited.

TABLE 12.3
RURAL AND MUNICIPAL ROAD MILEAGE IN THE UNITED STATES, BY STATE
(in thousands of miles)

	RURAL ROAD MILEAGE ¹			MUNICIPAL ROAD MILEAGE ²			TOTAL RURAL AND MUNICIPAL ROAD MILEAGE ³		
	1960	1970	1973	1960	1970	1973	1960	1970	1973
UNITED STATES	3,116.1	3,169.4	3,175.7	429.6	560.7	631.2	3,545.7	3,730.1	3,806.9
Alabama	64.3	67.3	67.8	9.0	11.5	18.0	73.3	78.9	85.8
Alaska	4.2	6.5	7.6	0.4	0.8	1.4	4.6	7.3	9.0
Arizona	32.7	36.7	46.8	4.4	6.0	6.6	37.1	42.7	51.4
Arkansas	72.2	70.1	68.3	6.3	8.8	9.7	78.5	78.9	78.1
California	115.3	119.2	122.9	32.1	45.0	46.7	147.4	164.1	169.6
Colorado	73.3	75.0	75.7	5.3	7.3	7.9	78.6	82.3	83.6
Connecticut	11.1	5.4	5.4	5.6	13.0	13.3	16.7	18.4	18.7
Delaware	4.0	3.4	4.3	0.6	1.5	0.8	4.6	4.9	5.2
District of Columbia	0	0	0	1.3	1.1	1.1	1.3	1.1	1.1
Florida	52.4	68.9	71.8	16.8	20.6	26.4	69.2	89.5	98.1
Georgia	83.5	85.2	85.2	13.4	14.9	15.1	96.9	100.0	100.3
Hawaii	2.4	2.5	2.7	0.7	1.0	1.0	3.1	3.5	3.7
Idaho	39.7	53.1	52.7	2.4	2.9	3.2	42.1	56.0	55.9
Illinois	102.5	102.5	102.5	20.9	27.4	28.0	123.4	129.9	130.5
Indiana	87.7	78.2	75.4	14.5	12.8	15.8	102.2	91.0	91.1
Iowa	99.8	99.2	99.1	11.9	12.9	13.9	111.7	112.1	112.9
Kansas	124.3	123.1	123.3	8.9	10.9	11.5	133.2	134.0	134.8
Kentucky	64.9	63.4	63.8	4.6	5.7	6.0	69.5	69.1	69.8
Louisiana	40.0	42.1	42.7	8.4	10.8	11.4	48.4	52.8	54.1
Maine	18.9	19.0	19.0	2.0	2.4	2.5	20.9	21.4	21.5
Maryland	18.5	22.2	22.6	3.8	4.1	4.2	22.3	26.3	26.9
Massachusetts	16.5	7.4	6.2	9.8	21.6	23.7	26.3	29.1	29.8
Michigan	93.7	94.8	98.7	16.9	19.9	19.6	110.6	114.7	118.3
Minnesota	110.0	110.6	110.7	14.2	17.2	17.5	124.2	127.8	128.2
Mississippi	38.7	60.3	59.8	5.1	6.4	6.8	63.8	66.8	66.7
Missouri	99.0	100.0	99.1	13.6	15.2	15.9	112.6	115.3	115.0
Montana	73.4	75.9	75.5	1.7	2.3	2.5	75.1	78.3	77.9
Nebraska	96.9	93.9	91.1	5.8	6.6	6.9	102.7	100.4	98.0
Nevada	43.5	47.8	47.7	1.0	1.9	1.9	44.5	49.7	49.7
New Hampshire	12.6	10.1	10.2	1.4	4.8	4.9	14.0	14.8	15.0
New Jersey	19.0	15.0	13.6	12.1	17.0	18.8	31.1	32.1	32.4
New Mexico	59.6	62.7	65.1	2.9	4.6	5.2	62.5	67.3	70.3
New York	89.1	82.7	86.7	17.3	23.0	21.1	106.4	105.8	107.8
North Carolina	69.5	72.2	73.4	11.2	13.9	14.6	80.7	86.0	87.9
North Dakota	97.5	103.8	103.0	2.7	3.1	3.2	100.2	106.9	106.2
Ohio	83.9	85.5	86.0	20.6	23.4	23.9	104.5	108.9	110.0
Oklahoma	94.5	94.1	93.5	8.9	13.8	15.0	103.4	107.9	108.5
Oregon	67.0	88.8	94.7	5.5	6.2	6.7	72.5	95.1	101.4
Pennsylvania	92.9	91.3	90.1	16.4	23.9	24.4	109.3	115.2	114.5
Rhode Island	1.9	1.0	1.0	2.3	4.3	4.5	4.2	5.3	5.5
South Carolina	51.2	53.0	53.3	5.2	6.8	7.0	56.4	59.7	60.3
South Dakota	89.6	81.2	79.7	2.7	3.0	3.0	92.3	84.2	82.7
Tennessee	67.3	68.4	68.6	7.9	10.3	12.1	75.2	78.7	80.7
Texas	194.2	198.3	198.8	36.6	47.2	52.7	230.8	245.5	251.5
Utah	30.6	36.0	43.1	3.9	4.4	4.6	34.5	40.4	47.7
Vermont	12.8	13.5	12.9	0.9	1.0	1.0	13.7	14.5	13.9
Virginia	50.6	52.7	52.9	6.0	8.5	9.5	56.6	61.1	62.4
Washington	52.7	65.1	71.1	7.8	10.0	10.1	60.5	75.1	81.2
West Virginia	33.1	31.9	32.7	3.0	3.6	3.6	36.1	35.5	36.3
Wisconsin	86.1	89.2	89.7	11.8	14.1	14.6	97.9	103.2	104.3
Wyoming	57.0	39.4	39.3	1.1	1.3	1.3	58.1	40.6	40.6

¹Mileage in Federal parks, forests, and reservations that are not part of the state highway system included. Includes mileage of county roads under state control in all counties of Delaware, North Carolina, and West Virginia; 10 counties in Alaska; rural boroughs in Alaska; all but 2 counties in Virginia; some mileage in Kentucky and Nevada; county roads on federal-aid secondary system in Montana; mileage designated as farm-to-market in Louisiana; and the state-aid system in Maine.

²Includes mileage in special highway districts and mileage not identified by administrative authority. Includes all roads, streets, and public ways not under state control in municipalities and delimited unincorporated places having estimated populations of 1,000 or more.

³Details may not add to totals due to independent rounding.

⁴Includes 87 miles of streets in Federal parks.

Source: U.S. Department of Transportation, Federal Highway Administration, Highway Statistics, 1960, 1970, 1973.

TABLE 12-4
ESTIMATED MOTOR VEHICLE MILES TRAVELED IN THE UNITED STATES
(in millions of vehicle-miles)

TRAVEL ITEM	MAIN RURAL ROADS			LOCAL RURAL ROADS			URBAN STREETS			TOTAL TRAVEL		
	1960	1970	1973	1960	1970	1973	1960	1970	1973	1960	1970	1973
TOTAL U.S. MOTOR VEHICLE TRAVEL	288,483	412,593	462,979	98,777	130,739	138,196	331,585	577,373	707,387	718,845	1,120,705	1,308,562
Personal Passenger Vehicles:												
Passenger Cars	225,752 ²	NA ¹	NA ¹	77,528 ²	NA ¹	NA ¹	284,800 ²	NA ¹	NA ¹	588,083 ²	890,844	1,016,861
Motorcycles	— ²	NA ¹	NA ¹	— ²	NA ¹	NA ¹	— ²	NA ¹	NA ¹	— ²	10,148	19,594
All Personal Passenger Vehicles	NA	307,047	341,633	NA	99,402	102,631	NA	494,543	592,191	NA	900,992	1,036,455
Buses:												
Commercial	869	939	890	154	194	113	1,849	1,810	1,545	2,872	2,943	2,548
School	597	784	920	635	902	995	249	414	497	1,481	2,100	2,412
All Buses	1,466	1,723	1,810	789	1,096	1,108	2,098	2,224	2,042	4,353	5,043	4,960
Cargo Vehicles:												
Single-Unit Trucks	— ³	76,949	86,764	— ³	28,671	33,292	— ³	68,823	99,072	— ³	174,443	219,128
Combinations	— ³	26,874	32,772	— ³	1,570	1,165	— ³	11,783	14,082	— ³	40,227	48,019
All Trucks	61,262	103,823	119,536	20,460	30,241	34,457	44,687	80,606	113,154	126,409	214,670	267,147

NA Not Available

1 Separate estimates of passenger car and motorcycle travel are not available by highway category.

2 Taxicabs and motorcycles included with passenger cars.

3 Included in all trucks category.

Source: U.S. Department of Transportation, Federal Highway Administration, Highway Statistics, 1960, 1970, 1973.

TABLE 12-6
PASSENGER CARS IN USE, BY AGE OF VEHICLE
(in thousands)

AGE IN YEARS ¹	1963 ²		1968 ^{2,3}		1972 ^{2,3}		1973 ^{2,3}		1974 ^{2,3}	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
Under 1	5,251	8.3	6,182	8.2	7,169	8.3	7,988	8.9	6,433	6.9
1-2	6,614	10.5	8,122	10.8	8,915	10.3	10,158	11.3	11,269	12.2
2-3	5,505	8.7	8,836	11.7	8,851	10.2	8,715	9.7	10,147	11.0
3-4	6,197	9.8	8,939	11.9	9,122	10.6	8,612	9.6	8,622	9.3
4-5	5,730	9.1	7,667	10.2	8,596	9.9	8,881	9.9	8,493	9.2
5-6	4,171	6.6	7,058	9.4	7,499	8.7	8,291	9.2	8,615	9.3
6-7	5,593	8.8	6,183	8.2	7,930	9.2	7,120	7.9	7,931	8.6
7-8	5,262	8.3	4,657	6.2	7,583	8.8	7,333	8.2	6,624	7.2
8-9	5,489	8.7	4,615	6.1	5,920	6.8	6,715	7.5	6,531	7.1
9-10	3,206	5.1	3,347	4.4	4,713	5.5	4,963	5.5	5,710	6.2
10-11	3,201	5.1	1,709	2.3	3,343	3.9	3,698	4.1	3,976	4.3
11-12	1,564	2.5	1,990	2.6	1,824	2.1	2,470	2.8	2,824	3.0
12-13	1,713	2.7	1,612	2.1	1,413	1.6	1,268	1.4	1,813	2.0
13-14	1,654	2.6	1,496	2.0	805	0.9	967	1.1	901	1.0
14-15	864	1.3	743	1.0	389	0.5	548	0.6	682	0.7
15-16	414	0.6	623	0.8	526	0.6	274	0.3	391	0.4
16 & Older	863	1.3	1,517	2.1	1,813	2.1	1,780	2.0	1,621	1.8
SUBTOTAL	63,291	100.0	75,295	100.0	86,412	100.0	89,782	100.0	92,583	100.0
Year not given	93	--	63	--	27	--	23	--	25	--
TOTAL	63,384	--	75,358	--	86,439	--	89,805	--	92,608	--

¹ Each class interval includes lower but not higher age.

² Data as of July 1 of each year.

³ Beginning in 1966, certain vehicles previously counted as passenger cars have been counted as trucks. The 1966 change involved an estimated 700,000 vehicles.

Sources: Motor Vehicle Manufacturers Association, 1973/74 Automobile Facts and Figures, and 1975 Automobile Facts and Figures. Further reproduction prohibited.

TABLE 12-4
STATE NOISE REGULATIONS FOR MOTOR VEHICLES ON STREETS AND HIGHWAYS¹
(All levels in decibels unless noted otherwise)

STATE	VEHICLE WEIGHT/CLASS/TYPE	OPERATION AT PORTED SPEEDS			NEW SALES		
		EFFECTIVE DATE	UNDER 35 MPH	OVER 35 MPH	OTHER	DATE OF MANUFACTURE	MAXIMUM LEVEL
Federal ²	Interstates only Greater than 10,000 pounds GVW ⁴	10-15-71	86	90	Stationary Test: 80	Not applicable	Not applicable
California	GVW ⁴ over 4,000 pounds	1-1-75	86	90	Level Street: 82	After 1967	86
						After 1972	86
						After 1974	83
Motorcycle	Not specified	82	86	Level Street: 77	Before 1976	91	
					After 1969	88	
					After 1974	80	
Other vehicles and Combinations of vehicles	Not specified	76	82	Level Street: 74	After 1974	80	
					After 1977	75	
					After 1987	70	
Colorado	GVW ⁴ over 8,000 pounds	Before 1-1-75	84	82	Not specified not specified	After 1-1-73	86
						After 1-1-74	83
						After 1-1-75	80
Motorcycle	Before 1-1-75	80	82	Not applicable Not applicable	After 7-1-71	88	
					After 1-1-73	86	
					After 1-1-74	83	
Other vehicles and Combinations of vehicles	Not specified	74	80	Not specified	After 1-1-68	86	
					After 1-1-74	83	
					After 1-1-75	80	
Connecticut	GVW ⁴ of 4,000 pounds or more	Before 1-1-75	86	90	Level Street: 82	Not specified	
						After 1-1-75	86
						Level Street: 82	Not specified
Motorcycle	Before 1-1-75	82	86	Level Street: 77	Not specified		
					After 1-1-75	84	
					Level Street: 77	Not specified	
Other vehicles and Combinations of vehicles	Not specified	76	82	Level Street: 74	Not specified		
					Level Street: 74	Not specified	
					Level Street: 74	Not specified	
Indiana	GVW ⁴ of 7,000 pounds or more	Not specified	88	90	-	Not specified	
						Not specified	82
						Not specified	84
Motorcycle	Not specified	82	84	-	Not specified		
					Not specified	82	
					Not specified	81	
All other vehicles	Not specified	76	82	-	Not specified		
					Not specified	82	
					Not specified	81	
Idaho	All vehicles	-	92 decibels at 20 feet	92 decibels at 20 feet	92 decibels at 20 feet	-	
			92 decibels at 20 feet	92 decibels at 20 feet	92 decibels at 20 feet	-	
			92 decibels at 20 feet	92 decibels at 20 feet	92 decibels at 20 feet	-	
Minnesota	GVW ⁴ of 4,000 pounds or more	Before 1-1-75	88	90	-	After 1-1-72	88
						After 1-1-75	86
						After 1-1-75	86
Motorcycle	Before 1-1-75	88	90	-	Before 1-1-72	92	
					After 1-1-72	88	
					After 1-1-73	86	
Other vehicles and Combinations of vehicles	Not specified	82	86	-	After 1-1-72	86	
					Before 1-1-75	86	
					After 1-1-75	84	
Nebraska	GVW ⁴ of 10,000 pounds or more	Before 1-1-75	88	90	-	After 1-1-72	88
						After 1-1-75	86
						After 1-1-75	86
New York	All motor vehicles	-	88	88	Stationary Test: 80	After 1-1-72	88
						After 1-1-73	86
						After 1-1-73	86
Nevada	GVW ⁴ greater than 4,000 pounds and/or towed vehicle	Before 1-1-73	88	90	-	After 1-1-72	88
						After 1-1-73	86
						After 1-1-73	86
Any Motorcycle	-	82	86	-	After 1-1-72	88	
					After 1-1-73	86	
					After 1-1-72	86	
Any other vehicle and/ or towed vehicle	-	78	82	-	After 1-1-72	86	
					After 1-1-73	84	
					After 1-1-73	84	
Oregon	Truck/Bus	Before 1976	86	90	Stationary Test: 94	1975	86
		Before 1978	85	87	Stationary Test: 91	After 1976	83
		After 1978	82	84	Stationary Test: 88	After 1978	80
Motorcycle	-	Before 1975	84	88	Stationary Test: 94	1975	84
		1973	81	83	Stationary Test: 91	After 1976	83
		Before 1978	78	82	Stationary Test: 88	After 1978	80
Automobiles, light trucks, all other vehicles	-	After 1978	73	77	Stationary Test: 83	1975	83
		Before 1976	81	85	Stationary Test: 91	After 1976	80
		Before 1978	78	82	Stationary Test: 88	After 1978	75
After 1978	-	73	77	Stationary Test: 83	After 1978	75	
		73	77	Stationary Test: 83	After 1978	75	
		73	77	Stationary Test: 83	After 1978	75	
Pennsylvania	GVW ⁴ greater than 7,000 lbs. and/or towed vehicle	-	90	92	-	After 1-1-73	90
						After 1-1-73	90
						After 1-1-73	90
Motorcycle	-	-	90	92	-	After 1-1-73	90
						After 1-1-73	90
						After 1-1-73	90
Any other vehicle and/ or towed vehicle	-	-	82	86	-	After 1-1-75	84
						After 1-1-75	84
						After 1-1-75	84

¹ The survey was done in 1974.
² A decibel is the logarithmic ratio of a particular quantity, such as sound pressure, intensity, or power, to a reference level, commonly the threshold of human hearing.
³ Federal regulations pertaining to interstate motor carriers over 10,000 pounds gross vehicle weight rating/gross combined weight rating will become effective October 15, 1975. The Federal regulation will take precedence over existing state and local regulations, and any subsequent state and local regulation must be the same as the Federal regulation.
⁴ Gross Vehicle Weight Rating.

Source: U.S. Environmental Protection Agency, Office of Noise Abatement and Control, Noise Source Regulation in State and Local Noise Ordinances, February 1975.

TABLE 12.7
U.S. TRENDS IN TOTAL NUMBER OF MASS TRANSIT PASSENGERS¹
 (in millions of passengers)

MODE	1940	1950	1960	1970	1971	1972	1973	1974 ^P
U.S. TOTAL	13,098	17,246	9,395	7,332	6,847	6,567	6,660	7,002
Light Rail ²	5,943	3,904	463	235	222	211	207	197
Heavy Rail ³	2,382	2,264	1,850	1,881	1,778	1,731	1,714	1,730
Total Rail	8,325	6,168	2,313	2,116	2,000	1,942	1,921	1,927
Trolley Coach	534	1,658	657	182	148	130	97	77
Motor Bus	4,239	9,420	6,425	5,034	4,699	4,495	4,642	4,998

p Preliminary

1 Combined total of all single-vehicle transit rides by (1) initial board (first-ride) revenue passengers, (2) transfer passengers on second and successive rides, and (3) non-revenue passengers entitled to transportation without charge.

2 Streetcar-type transit vehicle railway constructed on private right-of-way or operating in mixed traffic on shared right-of-way; formerly known as "subway-surface" or "streetcar" ("trolley car"), depending upon local usage or preference.

3 Subway-type transit vehicle railway constructed on exclusive private right-of-way with high-level platform stations; formerly known as "subway" or "elevated (railway)."

Source: American Public Transit Association '74-'75 Transit Fact Book.

TABLE 12-8
INTERCITY PASSENGER TRAVEL, BY MODE OF TRAVEL
 (in billions of passenger-miles)

MODE	1960	1969	1970	1971	1972	1973 ¹
U.S. TOTAL	784.3	1,137.9	1,184.8	1,229.4	1,300.3	1,353.9
Automobiles ²	706.1	977.0	1,026.0	1,071.0	1,129.0	1,174.0
Motor Coaches ²	19.9	24.9	25.3	25.5	25.6	25.6
Total Motor Vehicles ²	726.0	1,001.9	1,051.3	1,096.5	1,154.6	1,199.6
Railways,						
Revenue Passengers	21.6	12.3	10.9	8.9	8.7	9.0
Inland Waterways	2.7	3.8	4.0	4.1	4.0	4.0
Airways,						
Domestic Revenue Services	34.0	119.9	118.6	119.9	133.0	141.0

¹ Preliminary.

² Includes intra-city portions of intercity trips. Omits rural-to-rural trips; strictly intra-city trips with both origin and destination confined to same city; local bus or transit movement; non-revenue school and government bus operations.

Source: Motor Vehicles Manufacturers Association, 1975 Automobile Facts and Figures. Further reproduction prohibited.

**TABLE 12-9
ENERGY REQUIREMENTS OF PASSENGER TRANSPORTATION MODES, 1973**

MODE	NUMBER OF PASSENGERS	VEHICLE-MILES PER GALLON OF FUEL OR EQUIVALENT	PASSENGER-MILES PER GALLON OF FUEL OR EQUIVALENT
Heavy Rail Transit (Subway) Car, Peak Load	135	4.00	540
Intercity Passenger Train	540-720	0.50	270-360
Transit Bus, Peak Load	75	4.10	307
Intercity Bus	47	6.00	282
Commuter Rail Car, Diesel Powered	125	2.00	250
Heavy Rail Transit (Subway) Car, Off-Peak Load	35	4.00	140
Transit Bus, Off-Peak Load	30	4.10	123
Rail Turbine Train	320	0.33	110
Standard Size Automobile, Intercity, Maximum Load	6	18.00	108
Standard Size Automobile, Urban Maximum Load	6	14.40	86
Wide-Body Commercial Jet Aircraft, 1,000 Mile Flight	256-385	0.14-0.22	54-60
Twin Jet Commercial Aircraft, 500 mile Flight	68-106	0.44-0.54	37-47
Average Commuter Automobile	1.4	13.5	19

Source: American Public Transportation Association, '74-'75 Transit Fact Book.

**TABLE 12-10
NOISE LEVELS OF SELECTED SURFACE TRANSPORTATION MODES¹**

TRANSPORTATION MODE	TYPICAL A-WEIGHTED NOISE LEVELS AT 50 FT ² (decibels)	ESTIMATED BILLIONS OF VEHICLE-MILES IN URBAN AREAS
HIGHWAY		
Medium and Heavy Trucks	84 (88)	19
Motorcycles	82 (88)	NA
Garbage Trucks	82 (88)	0.5
Highway Buses	82 (86)	0.1
Automobiles (Sport, etc.)	75 (86)	21
City Buses	73 (85)	2.2
Light Trucks	72 (86)	77
Automobiles (Standard)	69 (84)	335
RAIL		
Freight and Passenger Trains	94	NA
Rapid Transit	86	0.33
Trolley Cars (pre-World War II)	80	0.03
Trolley Cars (post-World War II)	68	0.03
RECREATIONAL VEHICLES		
Off-Road Motorcycles	85	--
Snowmobiles	85	--
Inboard Motorboats	80	--
Outboard Motorboats	80	--

NA Not Available
Not Applicable

¹ A-weighted sound level (the weighted sound pressure level obtained by use of a sound level meter having a standard frequency-filter for attenuating part of the sound spectrum).

² Listed noise levels are measured relative to a base pressure of 20 micro-newtons per square meter. Values inside parentheses are typical for maximum acceleration. All other values are for normal cruising speeds. Variations of 5 dB can be expected.

Source: U.S. Environmental Protection Agency, Report to the President and Congress on Noise, December 1971.

**TABLE 12-11
MILES OF COMMERCIALY NAVIGABLE WATERWAYS
IN THE UNITED STATES**

GROUP	DEPTH OF WATERWAY					
	TOTAL	Less Than 6 Ft.	6 to 9 Ft.	9 to 12 Ft.	12 to 14 Ft.	14 Ft. and Over
TOTALS	25,543	6,352	3,516	6,976	4,033	4,666
Atlantic Coast Waterways (exclusive of Atlantic Intracoastal Waterway from Norfolk, VA to Key West, FL, but including the New York State Barge Canal System)	5,770	1,426	1,241	584	938	1,581
Atlantic Intracoastal Waterways from Norfolk, VA to Key West, FL	1,234	--	65	65	1,104	--
Gulf Coast Waterways (exclusive of Gulf Intracoastal Waterways from St. Marks River, FL to the Mexican Border)	4,292	2,055	647	1,133	79	378
Gulf Intracoastal Waterways from St. Marks River, FL to Mexican Border including Port Allen-Morgan City Alternate Route	1,137	--	--	--	1,137	--
Mississippi River System	8,954	2,020	969	4,957	740	268
Pacific Coast Waterways	3,575	730	498	237	26	2,084
Great Lakes	490	45	89	--	8	348
All Other Waterways (exclusive of Alaska)	91	76	7	--	1	7

--none reported

¹ The mileages shown represent the lengths of all waterways used for commercial traffic in the United States, including those improved by the Federal Government, other agencies, and those which have not been improved but are usable for commercial navigation.

Source: The American Waterways Operators, Inc., 1973 Inland Waterborne Commerce Statistics, 1971.

TABLE 12-12
WATERBORNE COMMERCE OF THE UNITED STATES: TONS, TON-MILES, AND AVERAGE HAUL

TYPE OF TRAFFIC	TONS (in millions)				TON-MILES (in millions)				AVERAGE HAUL (in thousands of miles per ton)			
	1970	1971	1972	1973	1970	1971	1972	1973	1970	1971	1972	1973
Total, Foreign and Domestic	1,530 ¹	1,510 ¹	1,615 ¹	1,757 ¹	658,952	654,764	670,019	666,498	430.7	433.5	414.9	379.3
Foreign ²												
Total	581	566	630	767	62,756	61,600	66,477	81,806	108.0	108.8	105.5	106.6
Great Lakes Ports	62	59	60	67	34,345 ³	33,962 ³	35,087 ³	41,400 ³	551.0	571.3	583.5	620.2
Coastal Ports	519	507	570	701	28,411 ⁴	27,638 ⁴	31,390 ⁴	40,406 ⁴	54.8	54.6	55.1	57.7
Domestic ⁵												
Total	949	944	985	990	596,195	593,164	603,542	584,691	628.2	628.1	612.8	590.7
Coastwise ⁶	238	243	243	237	359,784	360,205	351,509	327,649	1,508.9	1,482.8	1,448.6	1,383.7
Lakewise ⁷	157	141	145	157	79,416	70,381	73,132	83,765	505.6	499.3	504.3	534.8
Internal ⁸	472	479	507	503	155,816	161,339	177,539	171,891	330.0	336.7	350.2	341.6
Local ⁹	81	81	90	93	1,179	1,239	1,364	1,386	14.5	15.2	15.1	14.9

¹ Excludes intraterritory traffic for which ton-miles were not compiled:

1970: 1,630 thousand tons

1971: 2,257 thousand tons

1972: 1,883 thousand tons

1973: 4,283 thousand tons

² All movements between the United States and foreign countries and between Puerto Rico and Virgin Islands, USA, and foreign countries are classified as foreign traffic. Traffic with the Panama Canal Zone is treated as foreign commerce.

³ Based on distances transported on Great Lakes and St. Lawrence River to international boundary at St. Regis, Quebec, Canada.

⁴ Based on distances transported on U.S. waterways from entrance channels to ports and waterways.

⁵ Includes all commercial movements between points in the United States, Puerto Rico, and the Virgin Islands.

⁶ Domestic traffic receiving a carriage over the ocean, or the Gulf of Mexico, e.g. New Orleans to Baltimore, New York to Puerto Rico, San Francisco to Hawaii, Puerto Rico to Hawaii. Traffic between Great Lakes ports and seacoast ports, when having a carriage over the ocean, is also termed "coastwise." The Chesapeake Bay and Puget Sound are considered internal bodies of water rather than arms of the ocean and therefore traffic confined to these areas is "internal" rather than "coastwise."

⁷ Traffic between United States ports on the Great Lakes System. The Great Lakes System is treated as a separate system rather than as a part of the inland system.

⁸ Traffic between ports or landings wherein the entire movement takes place on inland waterways. Also termed internal are movements involving carriage on both inland waterways and waters of the Great Lakes; inland movements that cross short stretches of open waters which link inland systems; marine products, sand and gravel taken directly from beds of the ocean, the Gulf of Mexico and important arms thereof; and movements between offshore installations and inland waterways.

⁹ Movements of freight within the confines of a port whether the port has only one or several arms or channels, except car-ferry and general ferry. The term is also applied to marine products, sand, and gravel taken directly from the Great Lakes.

Source: U.S. Department of the Army, Corps of Engineers, Waterborne Commerce of the United States, 1973.

TABLE 12.13
 NUMBER OF NET TONS AND TON-MILES OF FREIGHT TRAFFIC IN THE UNITED STATES,
 BY RAILWAYS, MOTOR TRUCKS, GREAT LAKES, INLAND WATERWAYS, AND PIPELINES

ITEM AND VEHICLE	1969		1970		1971		1972		1973	
	NUMBER	% OF TOTAL	NUMBER	% OF TOTAL						
NET TONS (millions)										
Total ¹	3,550		3,581		3,523		3,750		3,972	
Railways	1,473	41.5	1,485	41.5	1,391	39.5	1,448	38.6	1,532	38.6
Motor Trucks ²	608	17.1	596	16.6	625	17.7	684	18.2	756	19.0
Great Lakes ³	161	4.5	157	4.4	141	4.0	145	3.9	157	4.0
Inland Waterways	548	15.4	553	15.4	560	15.9	597	15.9	596	15.0
Pipelines	760	21.4	790	22.1	806	22.9	876	23.4	931 ⁴	23.4 ⁴
TON-MILES (billions)										
Total ¹	1,860		1,897		1,915		2,033		2,176	
Railways	774	41.6	771	40.6	746	39.0	784	38.5	860	39.5
Motor Trucks	404	21.7	412	21.7	445	23.2	470	23.1	505	23.2
Great Lakes	83	4.5	79	4.2	70	3.7	73	3.6	84	3.9
Inland Waterways	188	10.1	204	10.8	210	11.0	230	11.3	232	10.7
Pipelines	411	22.1	431	22.7	444	23.2	476	23.4	495 ⁴	22.8 ⁴

- ¹ Details may not sum to totals due to independent rounding.
² Tons of revenue freight carried in intercity service by Class I and II carriers.
³ Includes traffic between U.S. ports on Great Lakes System.
⁴ Estimated.

Source: The American Waterways Operators, Inc., 1973 Inland Waterborne Commerce Statistics, 1974.

TABLE 12-14
SELECTED STATISTICS OF SCHEDULED AIR CARRIERS

	1950	1960	1970	1971	1972	1973
Route Miles in Operation ¹ : (in thousands)	184	250	377	385	379	(NA)
Domestic	77	101	172	180	173	(NA)
International ²	106	148	206	205	206	(NA)
Fuel Consumed: (in millions of gallons)						
Gasoline	572	1,127	14	12	13	(NA)
Domestic	418	922	14	12	12	(NA)
International	154	205	0	0	1	(NA)
Jet fuel						
Domestic	0	988	7,783	7,728	7,886	(NA)
International	0	343	2,014	2,113	2,099	(NA)
Express and Freight, Ton-miles Flown: (in millions)	213	579	2,908	3,023	3,354	4,370
Domestic ³	152	387	1,966	2,013	2,240	2,454
International ³	61	192	942	1,010	1,114	1,916
Mail, Ton-miles Flown: (in millions)						
Domestic	48	136	706	697	677	658
International	26	103	549	457	372	361
Revenue - Miles Flown: (in millions)						
(all scheduled services)	464	983	2,419	2,378	2,376	2,448
Domestic	370	821	2,028	2,004	2,000	2,058
International	95	163	391	374	376	390
Revenue Passengers Carried: (in millions)	19	62	169	173	191	202
Domestic	17	56	153	156	172	183
International	2	6	16	17	19	19
Revenue Passenger-miles Flown: (in millions)						
Domestic	8,007	30,567	104,147	106,438	118,138	126,317
International	2,214	8,306	27,563	29,219	34,268	35,640
Average Passenger Mile Rate: (in dollars)						
Domestic	.055	.061	.060	.063	.064	(NA)
International	.073	.064	.050	.051	.050	(NA)

NA Not available.

¹ Not compiled for intra-Alaska prior to 1970.

² As of December 31 based on fourth quarter.

³ Excludes freight flown by certificated all-cargo operators and irregular carriers.

Source: U.S. Federal Aviation Administration, Statistical Handbook of Aviation, 1950, 1960, 1970, 1971, 1972, 1973.

TABLE 12-15
U.S. RAILROAD OPERATION TRENDS¹
(IN THOUSANDS, UNLESS OTHERWISE STATED)

	1940	1950	1960	1970	1971	1972
Passengers Carried	456,088	488,019	327,172	289,469	275,534	262,010
Passenger-Miles	23,815,598	31,790,470	21,286,084	10,785,746	8,862,819	8,571,552
Passenger Train-Miles ²	395,410	359,055	209,677	93,575	69,929	60,488
Passenger Train Car-Miles ²	3,020,719	3,450,642	2,209,496	691,699	496,998	524,966
Passenger Revenues (Thousands of Dollars)	417,955	814,741	641,496	423,191	384,116	408,863
Revenue Per Passenger Mile (cents)	1.755	2.563	3.014	3.924	4.334	4.770
Average Journey Per Passenger (miles)	52.22	65.14	65.05	37.26	32.17	32.71
Freight Revenue (million dollars)	3,584	7,934	8,152	11,124	11,996	12,790
Revenue Tons Carried ³ (millions)	1,069	1,421	1,301	1,572	1,472	1,531
Ton-miles (millions)	375,369	591,550	575,360	771,012	745,828	782,598
Revenue Ton-Miles Per Mile of Road (Thousands)	1,526	2,497	2,497	3,468	3,015	3,068
Revenue Per Ton-Mile (cents)	0.955	1.341	1,417	1,443	1,608	1,634
Haul Per Ton, U.S., as a System (miles)	351.13	416.32	442.14	490.41	506.83	511.08

¹ In this general summary, no attempt has been made to adjust the figures for the effect of changes in methods of accounting or reporting and, consequently, the data for the various years are often only approximately comparable. For data prior to 1900, see Statistics of Railways for 1944. Intercompany duplications are not included. Excludes Alaska and Hawaii for years 1940 and 1950.

² Includes motorcar (self-propelled railroad car for transportation of passengers of freight) mileage.

³ Total number of paid tons carried (with no duplication).

Source: Interstate Commerce Commission, Transport Statistics in the United States, Part I, Railroads, 1972.

TABLE 12-10
RAILROAD TRACK OWNED, BY STATE
(In miles)

STATE	OWNED BY CLASS I RAILROADS ¹				OWNED BY CLASS II RAILROADS ¹				OWNED BY NON-OPERATING COMPANIES ²				TOTAL TRACK			
	1960	1970	1971	1972	1960	1970	1971	1972	1960	1970	1971	1972	1960	1970	1971	1972
UNITED STATES	188,097	176,745	176,239	174,825	9,136	8,939	8,473	7,995	19,464	20,014	19,881	19,876	216,713	205,782	204,696	202,775
Alabama	4,293	3,887	4,097	4,090	164	490	281	281	189	189	189	189	4,646	4,566	4,567	4,560
Alaska	--	--	--	--	20	20	20	20	--	--	--	--	20	20	20	20
Arizona	1,993	1,879	1,879	1,878	173	174	173	173	--	--	--	--	2,166	2,053	2,052	2,051
Arkansas	3,502	3,316	3,316	3,278	370	364	264	282	--	--	--	--	3,872	3,582	3,582	3,562
California	6,732	6,622	6,593	6,794	886	798	780	572	12	12	12	12	7,630	7,432	7,385	7,378
Colorado	3,700	3,459	3,460	3,609	86	117	112	112	--	--	--	--	3,786	3,576	3,572	3,521
Connecticut	766	609	609	605	--	--	--	--	53	53	53	53	821	664	664	660
Delaware	--	--	--	--	--	--	--	--	293	287	291	291	293	287	291	291
Dist. of Columbia	12	12	12	12	3	3	3	3	16	16	15	15	31	31	30	30
Florida	4,200	3,797	3,732	3,720	271	273	273	276	184	175	152	152	4,655	4,274	4,157	4,148
Georgia	4,298	3,807	4,029	4,030	439	677	438	434	992	951	950	950	5,729	5,435	5,420	5,417
Hawaii	--	--	--	--	25	--	--	--	--	--	--	--	25	--	--	--
Idaho	2,620	2,478	2,478	2,469	65	190	190	190	--	--	--	--	2,685	2,668	2,668	2,659
Illinois	9,962	9,055	8,949	8,808	30	13	110	110	1,203	1,763	1,763	1,768	11,195	10,831	10,822	10,686
Indiana	3,793	3,424	3,425	3,415	92	92	92	92	1,708	2,900	2,888	2,905	6,593	6,416	6,405	6,412
Iowa	8,302	7,797	7,642	7,491	259	92	92	92	--	169	169	170	8,561	8,058	7,903	7,753
Kansas	8,106	7,755	7,752	7,634	99	14	14	14	10	10	10	10	8,215	7,779	7,776	7,658
Kentucky	1,076	3,052	3,093	3,088	86	68	58	58	364	353	353	353	3,526	3,513	3,504	3,499
Louisiana	3,569	3,444	3,445	3,445	253	193	193	193	113	113	113	113	3,937	3,752	3,753	3,753
Maine	1,596	1,522	1,509	1,509	179	147	148	148	9	9	9	9	1,784	1,678	1,666	1,666
Maryland	570	564	564	562	79	64	64	64	492	482	478	476	1,141	1,110	1,110	1,102
Massachusetts	1,161	1,237	1,286	1,282	23	23	15	15	449	377	325	325	1,632	1,461	1,430	1,426
Michigan	4,428	4,109	4,093	4,057	464	404	396	383	1,789	1,670	1,672	1,672	6,621	6,183	6,159	6,135
Minnesota	8,115	7,617	7,579	7,388	15	77	77	77	44	44	44	44	8,176	7,738	7,700	7,509
Mississippi	3,028	3,170	3,170	3,415	518	370	370	423	113	113	113	113	3,659	3,653	3,653	3,651
Missouri	6,554	5,722	5,708	5,622	26	9	9	9	--	620	620	620	6,580	6,351	6,337	6,231
Montana	4,911	4,965	4,916	4,836	37	65	65	65	--	--	--	--	4,948	5,030	4,981	4,901
Nebraska	5,721	5,498	5,420	5,332	--	--	--	--	--	--	--	--	5,721	5,498	5,420	5,332
Nevada	1,473	1,413	1,413	1,412	161	161	161	161	--	--	--	--	1,634	1,574	1,574	1,573
New Hampshire	681	660	660	682	101	68	68	68	99	99	99	99	851	817	817	799
New Jersey	1,126	915	913	888	159	260	243	242	628	589	586	583	1,914	1,764	1,742	1,713
New Mexico	2,399	2,046	2,046	2,011	74	74	74	74	--	--	--	--	2,473	2,120	2,120	2,083
New York	5,389	4,704	4,652	4,623	187	213	197	213	871	691	689	689	6,463	5,624	5,595	5,566
North Carolina	3,048	2,951	2,944	2,904	473	424	420	420	778	779	780	780	4,299	4,154	4,144	4,104
North Dakota	5,126	5,098	5,108	5,079	68	--	--	--	--	--	--	--	3,194	3,098	3,108	3,079
Ohio	4,834	4,549	4,524	4,524	113	77	77	76	3,384	3,219	3,203	3,200	8,321	7,845	7,804	7,800
Oklahoma	5,293	5,307	5,240	5,190	484	92	92	92	--	--	--	--	3,777	3,398	3,332	3,282
Oregon	2,864	2,523	2,521	2,520	310	421	421	421	--	126	126	127	3,174	3,070	3,068	3,068
Pennsylvania	5,884	5,572	5,485	5,450	536	483	483	483	3,672	2,389	2,288	2,265	9,092	8,171	8,273	8,198
Rhode Island	139	183	113	113	8	9	9	9	34	34	24	24	181	146	146	146
South Carolina	2,315	2,111	2,116	2,104	171	219	181	156	798	762	762	762	3,284	3,092	3,059	3,022
South Dakota	3,920	3,571	3,505	3,379	--	--	--	--	--	--	--	--	3,920	3,571	3,505	3,379
Tennessee	2,899	2,851	2,826	2,826	131	75	75	75	387	316	313	313	3,387	3,342	3,214	3,214
Texas	13,993	12,920	12,873	12,707	470	677	671	655	259	1	1	1	14,722	13,616	13,563	13,381
Utah	1,684	1,696	1,686	1,670	52	64	64	64	--	--	--	--	1,736	1,760	1,750	1,734
Vermont	546	324	325	325	168	348	344	344	97	97	97	97	811	769	766	766
Virginia	3,372	3,255	3,270	3,274	381	312	312	312	360	313	313	313	4,113	3,880	3,895	3,899
Washington	4,898	4,438	4,394	4,316	99	85	85	85	--	408	408	408	4,987	4,531	4,487	4,409
West Virginia	3,455	3,162	3,159	3,123	234	192	211	211	179	199	199	199	3,668	3,353	3,269	3,233
Wisconsin	6,099	5,914	5,885	5,823	94	41	41	41	--	--	--	--	6,193	5,955	5,925	5,864
Wyoming	1,872	1,805	1,805	1,783	--	7	7	7	--	--	--	--	1,872	1,812	1,812	1,790

¹ None reported.

² Railroad operating companies are classified for statistical purposes on the basis of a three-year average of operating revenues. Effective January 1, 1965, classification has been: Class I, \$5,000,000 or more; and Class II, under \$5,000,000. From 1956 through 1964, the classification was: Class I, \$3,000,000 or more; and Class II, under \$3,000,000.

³ Represents lessee and proprietary companies.

⁴ Totals exclude estimates derived from earlier statistics for companies not filing official reports for year indicated.

Source: Interstate Commerce Commission, *Transport Statistics in the United States, Part I, Railroads, 1960, 1970, 1971, 1972.*

TABLE 12-17
RAIL ABANDONMENT AND CONSTRUCTION

TYPE OF COMPANY	MILES OF RAIL ABANDONED						MILES OF RAIL CONSTRUCTED					
	1950 ⁵	1960	1969	1970	1971	1972	1950	1960	1969	1970	1971	1972
U.S. TOTALS	755	693	1,166	1,283	1,073	1,902	33	21	49	80	21	22
Class I ¹	517	555	1,116	1,144	965	1,832	16	17	36	80	14	22
Class II ¹	148	137	50	86	47	40	5	0	13	0	7	0
Lessors ²	35	0	0	53	52	22	12	4	0	0	0	0
Proprietary ³	9	1	0	0	9	8	0	0	0	0	0	0
Circular	46	0	- ⁴	- ⁴	- ⁴	- ⁴	0	0	- ⁴	- ⁴	- ⁴	- ⁴

¹ Railroad operating companies are classified for statistical purposes on the basis of a three year average of operating revenues. Effective January 1, 1965, classification has been: Class I, \$5,000,000 or more; and Class II, under \$5,000,000. From 1956 through 1964, the classification was: Class I, \$3,000,000 or more; and Class II, under \$3,000,000. Prior to January 1, 1956, this classification was: Class I, \$1,000,000 or more; Class II, more than \$100,000 but less than \$1,000,000.

² The reports of lessor companies contain only financial accounts.

³ Proprietary companies, as the term is here used, are inactive corporations; that is, railroad companies which neither operate property nor administer their financial affairs and which have been practically absorbed by the controlling railroad corporations which own or control the entire outstanding capitalization, both capital stock and funded debt. Proprietary companies are operated by railroad companies or affiliated system corporations without the parent companies being required to make any accounting to the proprietary corporations. The Commission excuses a proprietary company from filing a separate report, but information regarding its mileage, investment, and capitalization appears in the report of the parent company.

⁴ The circular heading was not used after 1960.

⁵ 1950 excludes Hawaii and Alaska.

Source: Interstate Commerce Commission, Transport Statistics in the United States, 1960, 1969, 1970, 1971, 1972.

TABLE 12.08
U.S. ELECTRIFIED RAILROAD TRACK MILEAGE OPERATED¹

NAME OF RAILROAD AND DISTRICT	MILES OF ROAD			MILES OF SECOND MAIN TRACK			MILES OF ALL OTHER MAIN TRACKS			MILES OF PASSING TRACKS, CROSS-OVERS AND TURNS-OUTS			TOTAL MILEAGE (ALL TRACKS) ²		
	1960	1970	1971	1960	1970	1971	1960	1970	1971	1960	1970	1971	1960	1970	1971
Totals	1,900	1,778	1,778	813	954	943	687	838	833	252	263	263	3,891	4,443	4,423
EASTERN DISTRICT															
Erie Lackawanna Railroad Co.	928	1,109	1,109	794	938	927	596	755	750	133	145	146	2,841	3,421	3,405
Southern District	10	11	11	6	6	6	91	83	83	3	4	4	129	119	118
Western District	662	658	658	13	10	10				316	114	114	921	903	903
EASTERN DISTRICT															
Erie Lackawanna Railroad Co.	67	67	67	45	45	45	18	19	19	3	2	2	156	151	151
Long Island Railroad Co.	109	121	121	90	103	103	35	35	35	5	7	7	274	329	329
Penn Central Transportation Co.	665	829	829	587	716	705	511	683	678	115	126	127	2,187	2,724	2,707
Reading Co.	84	89	89	69	71	71	29	15	15	10	10	10	197	190	190
Richmond, Fredericksburg & Potomac Railroad Co.	3	3	3	3	3	3	3	3	3				27	27	27
SOUTHERN DISTRICT															
Illinois Central Railroad Co.	10	11	11	6	6	6	91	83	83	3	4	3	129	119	118
WESTERN DISTRICT															
Chicago, Milwaukee, St. Paul & Pacific Railroad Co.	662	658	658	13	10	10				116	114	114	921	903	903

-- Not reported.

¹ Includes duplications on account of trackage rights and other jointly operated mileage.

² Total mileage includes way switching and yard switching tracks.

Source: Interstate Commerce Commission, Transport Statistics in the United States, Part I, Railroads, 1960, 1970, 1971, 1972.

**TABLE 13-1
SUMMARY OF U.S. HOUSING CHARACTERISTICS**

CHARACTERISTIC	1960	1970
U.S.: All housing units ¹	58,326,000	68,679,000
All year-round units	56,584,000	67,657,000
Vacant - seasonal and migratory	1,742,000	1,022,000
Units in structure		
Units in 1 unit structures ^{2,3}	44,525,000	46,791,000
Units in 2-4 unit structures	7,552,000	9,007,000
Units in 5-or-more unit structures	6,238,000	9,829,000
All occupied units	53,023,875	63,449,747
Median number of persons per unit	3.0	2.7
Average number of persons per room		
1.00 or less	46,910,402	58,238,873
1.01 to 1.50	4,210,550	3,802,458
1.51 or more	1,902,923	1,408,416
Population in housing units	175,263,469	197,399,913

¹ Due to the use of independent rounding, data may not add up to totals shown.

² Excludes mobile homes and trailers.

³ Based on a 20 percent sample of all Standard Metropolitan Statistical Areas (SMSA's) in the United States.

Sources: U.S. Bureau of the Census, U.S. Census of Housing 1960, 1963; U.S. Census of Housing 1970, 1972; and U.S. Department of Housing and Urban Development, 1971 HUD Statistical Yearbook, 1972.

TABLE 13-2
NEW HOUSING UNITS AUTHORIZED, BY STATE¹
(in thousands)

STATE	1969	1970	1971	1972	1973	1974
UNITED STATES	1,353.7	1,384.0	1,953.2	2,238.5	1,806.1	1,079.5
Alabama	14.6	18.6	24.9	28.4	20.6	14.9
Alaska	1.5	1.7	1.8	2.4	1.7	1.9
Arizona	26.3	29.9	49.1	55.1	46.7	34.1
Arkansas	6.5	9.5	11.9	13.2	10.6	6.3
California	185.2	195.6	256.8	281.0	218.6	128.3
Colorado	23.8	31.2	52.8	65.7	45.5	19.8
Connecticut	25.3	22.4	25.3	25.2	21.5	13.1
Delaware	5.4	5.8	6.6	8.7	8.0	3.0
District of Columbia	2.0	1.9	.8	.9	1.8	1.4
Florida	123.5	106.2	161.6	283.9	277.3	116.6
Georgia	39.8	53.8	74.7	65.5	46.0	25.2
Hawaii	13.8	10.7	12.2	16.1	18.4	19.8
Idaho	1.9	3.6	5.1	6.9	5.8	6.0
Illinois	68.4	54.2	84.1	79.4	65.9	38.3
Indiana	30.0	24.0	38.0	40.2	38.3	22.0
Iowa	10.5	11.1	13.6	14.0	12.1	11.8
Kansas	11.2	9.9	14.2	16.3	11.8	8.2
Kentucky	14.6	17.7	24.1	25.4	13.4	8.8
Louisiana	19.8	19.3	36.2	36.3	26.2	15.6
Maine	2.9	4.0	5.8	7.4	4.8	5.2
Maryland	33.5	35.1	44.7	54.6	48.0	23.1
Massachusetts	34.3	39.0	54.5	49.0	44.5	24.6
Michigan	55.1	51.1	72.8	76.6	70.4	43.7
Minnesota	30.6	25.5	30.8	37.3	21.4	19.1
Mississippi	8.1	12.4	14.9	18.8	17.7	7.2
Missouri	24.7	23.3	35.1	35.2	24.8	14.9
Montana	1.3	1.7	2.6	2.8	2.7	2.4
Nebraska	7.4	8.0	13.2	13.6	9.6	7.0
Nevada	5.2	9.2	13.1	17.0	13.3	5.8
New Hampshire	4.5	5.0	7.1	9.3	7.5	5.7
New Jersey	38.6	39.6	57.9	65.3	48.9	25.8
New Mexico	4.0	7.0	12.2	15.4	9.7	6.3
New York	66.4	66.9	95.5	106.5	69.9	45.7
North Carolina	26.1	32.5	45.4	53.7	39.6	20.7
North Dakota	2.6	2.9	3.1	4.4	3.4	3.1
Ohio	58.5	58.8	87.0	86.1	59.6	42.6
Oklahoma	16.9	18.9	30.9	30.9	15.6	11.3
Oregon	16.1	17.0	26.3	31.0	20.9	14.9
Pennsylvania	44.0	41.2	54.5	63.4	55.2	38.8
Rhode Island	5.3	4.6	8.2	8.5	6.4	3.3
South Carolina	16.8	21.9	26.8	34.1	24.0	14.3
South Dakota	1.5	2.4	2.7	3.7	3.7	2.7
Tennessee	23.0	24.8	36.9	46.0	38.2	17.4
Texas	94.2	94.3	125.8	130.1	103.6	69.6
Utah	6.1	9.4	13.6	17.9	14.0	12.1
Vermont	1.6	1.7	1.9	3.1	2.4	1.4
Virginia	38.3	43.7	69.2	81.7	72.5	41.5
Washington	36.2	28.3	30.8	29.7	26.8	26.8
West Virginia	2.2	2.5	2.7	2.8	2.6	1.3
Wisconsin	23.2	23.2	32.0	36.3	31.6	24.4
Wyoming	.6	1.1	1.4	2.1	2.5	2.4

¹The data including public contract awards data prior to 1972 are based on 1300 statistical areas having local building permits. Data from 1972 to present are based on approximately 14,000 areas with local building permit systems. The relative standard of error of the estimate of total private housing units in permit places is less than 5 percent for most states. Variations in statistical data and accounting may, however, create a larger relative standard of error in a few areas.

Source: U.S. Bureau of the Census, Construction Reports, Series C-40, 1970, 1971, 1972, 1973, and March 1975.

TABLE 13-3
PRIVATE HOUSING UNITS STARTED, COMPLETED,
AND UNDER CONSTRUCTION
 (in thousands of units)

	1969	1970	1971	1972	1973	1974
STARTS¹						
Total²	1,467	1,434	2,052	2,357	2,045	1,338
1-family	811	813	1,151	1,309	1,132	888
2-or more family	656	621	901	1,048	913	450
COMPLETIONS³						
Total²	1,399	1,418	1,706	1,972	2,014	1,689
1-family	808	802	1,014	1,143	1,174	930
2-or more family	592	617	692	828	840	759
UNDER CONSTRUCTION⁴						
Total²	885	922	1,254	1,586	1,599	1,194
1-family	350	381	505	640	583	519
2-or more family	535	541	749	947	1,016	676

¹ Housing units begun between January 1 and December 31 in specified year.

² Details may not add to totals due to independent rounding.

³ Housing units completed between January 1 and December 31 in specified year.

⁴ Housing units under construction but not completed, as of December 31 of given year.

Source: Board of Governors of the Federal Reserve System, Federal Reserve Bulletin, May 1975.

TABLE 13-4
NEW PRIVATELY AND PUBLICLY OWNED HOUSING UNITS¹ COMPLETED
(in thousands)

	1969	1970	1971	1972	1973
Total Private and Public	1,436.4	1,452.1	1,740.2	1,999.2	2,033.2
Total Private In Structures with:	1,399.0	1,418.4	1,706.1	1,971.5	2,013.8
1 unit	807.5	801.8	1,014.0	1,143.3	1,174.1
2-4 units	79.4	85.1	106.1	118.1	120.5
5 or more units	512.1	531.5	586.1	710.1	719.2
Total Publicly Owned Units	37.4	33.7	34.1	27.7	19.4
Completions of Private Units, by Region:					
Northeast ²	219.8	184.9	225.8	279.7	285.6
North Central ³	344.7	323.4	348.1	405.2	429.2
South ⁴	533.1	594.6	727.0	828.2	846.1
West ⁵	281.4	315.5	405.2	458.3	452.9

¹ Excludes mobile homes.

² Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania

³ Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas.

⁴ Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, Texas.

⁵ Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, California, Alaska, Hawaii.

Source: U.S. Bureau of the Census, Construction Reports, Series C-22, 1973.

TABLE 136
NEW COMMUNITIES DEVELOPMENT PROGRAM: NEW APPROVALS BY STATE, PROJECT NAME,
CALENDAR YEARS, AND CUMULATIVE AS OF DECEMBER 31, 1973

STATE/ PROJECT NAME	CUMULATIVE NET APPROVALS AS OF DECEMBER 31, 1973					GROSS APPROVALS, CALENDAR YEAR 1973				
	NUMBER		AMOUNT (in thousands of dollars)			NUMBER		AMOUNT (in thousands of dollars)		
	GUARANTEE PROJECTS ¹	ACRES	TOTAL	GUARANTEE ISSUES ¹	SUPPLEMENTARY GRANTS ¹	GUARANTEE PROJECTS ¹	ACRES	TOTAL	GUARANTEE ISSUES ¹	SUPPLEMENTARY GRANTS ¹
TOTAL	10	63,151	244,960	221,900	23,060	1	4,032	40,696	24,700	15,996
Arkansas	1	5,300	8,338	6,900	1,438	--	--	1,913	1,200	713
Maumelle	1	5,300	8,338	6,900	1,438 ²	--	--	1,913	1,200	713 ³
Illinois	1	8,163	4,186	30,000	6,186	--	--	4,648	--	4,648
Park Forest South	1	8,163	36,186	30,000	6,186 ⁴	--	--	4,648	--	4,648 ⁵
Maryland	1	7,408	26,787	24,000	2,787	--	--	6,344	5,300	1,044
St. Charles	1	7,408	26,787	24,000	2,787 ⁶	--	--	6,344	5,300	1,044 ⁷
Minnesota	2	8,295	46,316	45,000	1,316	--	--	412	--	412
Cedar Riverside	1	101	24,612	24,000	612 ⁸	--	--	412	--	412 ⁹
Jonathan	1	8,194	21,704	21,000	704	--	--	--	--	--
New York	2	6,858	42,671	34,000	8,671	--	--	7,652	--	7,652
Cananda	1	4,733	22,483	22,000	483 ⁹	--	--	55	--	483 ⁹
Lysander	--	--	329	-- ¹¹	329	--	--	--	--	--
Riverston	1	2,123	19,470	12,000 ¹¹	7,470 ¹⁰	--	--	6,980	--	6,980 ¹⁰
Roosevelt Island	--	--	187	--	187	--	--	187	--	187
North Carolina	--	--	769	--	769	--	--	769	--	769
Soul City	--	--	769	--	769 ¹²	--	--	769	--	769 ¹²
Ohio	1	4,032	18,000	18,000	--	1	4,032	18,000	18,000	--
Newfields	1	4,032	18,000	18,000	--	1	4,032	18,000	18,000	--
South Carolina	--	--	368	--	368	--	--	368	--	368
Harvison	--	--	368	--	368	--	--	368	--	368 ¹³
Texas	2	23,095	65,325	64,000	1,325	--	--	390	--	390
Flower Mound	1	6,156	15,525	14,000	1,525	--	--	390	--	390 ¹⁴
Woodlands	1	16,939	50,000	50,000	--	--	--	--	--	--

-- Zero

¹ Bonds, debentures, notes or other obligations issued by private developers to finance the cost of acquiring and developing land for new communities may be guaranteed by HUD. Within a limit of 50 million for any one community, and based on HUD's estimate of value and cost, the guaranteed amount may be up to whichever is less: 80 percent of the value of the property when land development is completed; or the sum of 75 percent of the value of the land before development and 90 percent of the actual cost of the land development (not including buildings). Before making any guarantees, HUD must be satisfied that the proposed new community will contribute to the orderly growth and development of the area in which it is to be located and will provide good living conditions for its inhabitants and a proper balance of housing for low- and moderate-income families. Supplemental grants of up to 20 percent of facility cost are authorized for new community water and sewer or open-space facilities assisted with other Federal grants. The total Federal grant amount may not exceed 80 percent of facility cost. First approval (Guarantee) made in October 1970.

² Includes \$408,000 Waste Water Treatment Grant, Environmental Protection Agency and \$713,000 Federal Highway Administration, Department of Transportation.

³ Includes \$713,000 Federal Highway Administration, Department of Transportation.

⁴ Includes \$962,000 Waste Water Treatment Grant, Environmental Protection Agency; \$1,381,000 Federal Highway Administration, Department of Transportation; \$2,000,000 Hill-Burton Hospital Grant, Department of Health, Education and Welfare; and \$105,000 Bureau of Outdoor Recreation, Department of Interior.

⁵ Includes \$1,381,000 Federal Highway Administration, Department of Transportation; \$2,000,000 Hill-Burton Hospital Grant; Department of Health, Education, and Welfare; and \$105,000 Bureau of Outdoor Recreation, Department of Interior.

⁶ Includes \$1,285,000 Waste Water Treatment Grant, Environmental Protection Agency; \$61,000 Bureau of Outdoor Recreation, Department of Interior; and \$457,000 Hill-Burton Hospital Grant, Department of Health, Education, and Welfare.

⁷ Includes \$61,000 Bureau of Outdoor Recreation, Department of Interior and \$457,000 Hill-Burton Hospital Grant, Department of Health, Education and Welfare.

⁸ Includes \$212,000 Urban Mass Transportation, Department of Transportation and \$200,000 Bureau of Outdoor Recreation, Department of Interior.

⁹ Includes \$483,000 Bureau of Outdoor Recreation, Department of Interior.

¹⁰ Includes \$826,000 Bureau of Outdoor Recreation, Department of Interior; \$226,000 Neighborhood Facilities, HUD; \$279,000 Hill-Burton Hospital Grant, Department of Health, Education and Welfare; and \$3,990,000 Urban Mass Transportation, Department of Transportation.

¹¹ State land development agency project; obligations will not be guaranteed by HUD but project eligible for other program benefits.

¹² Includes \$65,000 Federal Highway Administration, Department of Transportation.

¹³ Includes \$271,000 Waste Treatment Grant, Environmental Protection Agency.

¹⁴ Includes \$390,000 water and sewer grant.

Source: U.S. Department of Housing and Urban Development, 1973 HUD Statistical Yearbook.

TABLE 13-6
U.S. HOUSING OCCUPANCY TRENDS¹
(percent distribution)

	1960	1965	1970	1971	1972	1973	1974
All housing units ²	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Year-round vacant	7.4	7.6	6.3	6.4	6.4	6.5	6.6
For rent	3.0	2.9	1.9	1.9	1.9	2.0	2.1
For sale only	0.8	0.8	0.6	0.6	0.6	0.6	0.7
Rented or sold awaiting occupancy	0.4	0.5	0.6	0.7	0.7	0.7	0.7
Held off market	3.2	3.4	3.2	3.2	3.2	3.2	3.1
for occasional use	NA	0.8	0.9	0.9	0.9	0.8	0.8
temporarily occupied	NA	} 2.6	0.6	0.6	0.6	0.6	0.6
other	NA		1.7	1.7	1.7	1.8	1.7
Seasonal vacant	2.7	2.9	2.5	2.3	2.3	2.2	2.3
Occupied ³	89.9	89.5	91.2	91.3	91.3	91.3	91.1

NA Not available

¹ Averaged over the year.

² A housing unit is a house, an apartment, a group of rooms, or a single room occupied or intended for occupancy as separate living quarters.

³ Persons living in the unit consider it their usual place of residence. The count of occupied housing units is the same as the count of households.

Source: U.S. Bureau of the Census, Current Housing Reports, Series H-111-74-5, Vacancy Rates and Characteristics of Housing in the United States: Annual Statistics 1974, 1975.

TABLE 13-7
MOBILE HOME PRODUCTION AND SHIPMENT, BY STATE

STATE	MOBILE HOME PRODUCTION			SHIPMENT TO STATES		
	1972	1973	1974	1972	1973	1974
UNITED STATES	601,250	568,420	330,800	575,940	566,920	329,300
Alabama	43,980	42,066 ¹	16,955 ¹	19,679	23,033	11,130
Alaska	0 ¹	0 ¹	0 ¹	629	1,010	1,337
Arizona	5,863	6,324	4,469	21,452	21,055	9,312
Arkansas	14,408	11,371	5,154	9,428	10,165	6,280
California	46,948	40,024	25,382	34,237	26,657	20,080
Colorado	5,378	5,042	4,277	10,978	7,863	3,628
Connecticut	0	0	0	581	707	629
Delaware	0	0	0 ³	2,559	2,712	1,843
District of Columbia	0 ²	0 ²	0 ²	0 ²	0 ²	0 ²
Florida	41,632	44,724	24,038	53,986	56,670	26,923
Georgia	69,334	67,794	30,925	25,921	27,646	12,963
Hawaii	0	0	0	66	0	16
Idaho	14,911	13,728	10,618	4,990	4,054	3,553
Illinois	2,106	1,335	661	13,448	13,534	7,849
Indiana	61,638	50,767	29,620	14,955	13,819	7,491
Iowa	0 ³	0 ³	334	3,880	3,854	2,913
Kansas	23,157	17,270	9,628	6,265	5,966	4,296
Kentucky	3,680	3,714	2,197	13,277	13,246	7,041
Louisiana	9,524	9,422	5,727	12,980	14,275	8,711
Maine	0 ³	0 ³	0 ³	3,249	3,521	2,182
Maryland	0 ³	0 ³	0 ³	2,788	3,014	2,282
Massachusetts	0	0	0	1,162	1,386	958
Michigan	14,779	12,371	6,264	21,734	20,993	9,935
Minnesota	8,364	9,229	7,523	6,421	7,444	5,769
Mississippi	13,562	12,108	7,387	14,158	17,351	8,533
Missouri	6,473	4,004	2,823	13,085	12,576	6,547
Montana	0 ³	0 ³	0 ³	4,233	3,520	2,937
Nebraska	10,562	10,338	6,993	3,523	3,148	2,120
Nevada	0	0	0	3,404	3,751	2,062
New Hampshire	0 ³	0 ³	503	1,927	2,184	1,410
New Jersey	0 ³	0	0	1,803	1,856	1,548
New Mexico	0 ³	1,667	880	7,669	9,219	5,923
New York	2,919	3,537	3,317	12,144	12,805	7,889
North Carolina	33,828	32,799	21,960	35,875	31,885	19,519
North Dakota	0 ³	0 ³	0 ³	1,937	2,034	1,628
Ohio	11,711	13,583	9,774	18,608	17,696	10,551
Oklahoma	5,805	4,723	3,157	9,241	7,672	4,873
Oregon	8,053	9,005	8,136	13,309	14,922	8,705
Pennsylvania	42,446	39,857	19,024	22,755	22,302	13,066
Rhode Island	0	0	0	285	301	267
South Carolina	7,251	8,185	3,260	17,887	20,629	12,043
South Dakota	2,470	1,991	0 ³	3,569	2,476	1,643
Tennessee	9,520	15,457	9,372	17,519	18,776	8,110
Texas	49,096	46,085	27,595	44,308	34,559	20,894
Utah	0 ³	0 ³	1,578	4,048	3,697	2,190
Vermont	0	0	(1) ²	902	978	425
Virginia	11,105 ²	8,732 ²	5,065 ²	12,868 ²	11,424 ²	7,913 ²
Washington	3,479	4,656	3,985	8,351	11,330	10,174
West Virginia	0 ³	0 ³	0 ³	8,683	7,602	4,487
Wisconsin	10,919	9,858	7,808	7,335	7,865	4,707
Wyoming	0	0	0	1,849	1,846	2,015

¹ Alaska production has been included in the U.S. total.

² Virginia and D.C. have been combined.

³ Production information has been concealed in these states to prevent disclosure of individual plant production. The U.S. total includes the production of these states.

Source: Reprinted with permission from 1974 Mobile Homes Data Book. Copyright 1975 Mobile Homes Manufacturers Association.

TABLE 13-8
SUMMARY OF WORLD HOUSING CONDITIONS

CONTINENT AND COUNTRY ¹	TOTAL POPULATION (in thousands)	TOTAL POPULATION LIVING IN HOUSEHOLD ² (in thousands)	HOUSEHOLDS ⁴			Dwellings ⁴				DWELLINGS CONSTRUCTED PER 1,000 POPULATION ⁸		
			TOTAL NUMBER (in thousands)	PERCENTAGE OF OWNER OCCUPANTS ³	PERCENTAGE OF RENTER OCCUPANTS ³	TOTAL NUMBER OF DWELLINGS	NUMBER OF OCCUPIED DWELLINGS (in thousands)	AVERAGE NUMBER OF PERSONS PER ROOM ⁵	PERCENTAGE OF DWELLINGS WITH 3 OR MORE PERSONS PER ROOM ^{5,6}		PERCENTAGE OF DWELLINGS WITH ⁷ WATER PIPED INSIDE DWELLING	ELECTRIC LIGHTING
Africa												
Algeria (1966)	12,096	12,040	2,034	NA	NA	1,795	1,792	2.8	NA	22.7	33.7	1.0 ⁹
Egypt (1960) ¹⁰	9,864	9,319 ¹⁰	1,992 ¹⁰	43.0 ^{11,12}	57.0 ^{11,12}	1,636 ¹⁰	1,572 ¹⁰	1.6 ^{10,13}	15.5 ¹⁰	39.5 ^{10,14,15}	37.8 ^{10,14}	1.7 ^{10,17,18}
Morocco (1971)	15,379	NA	2,819	NA	NA	NA	NA	2.4 ^{13,19}	42.3 ¹⁹	NA	NA	NA
Nigeria ²⁰ (1961) ¹⁴	8,972 ²¹	NA	NA	8.0	80.9	93	92	3.0	41.3	NA	81.3	NA
South Africa ^{22,23} (1960)	16,003 ²⁴	4,849	1,023	NA	NA	NA	1,023	1.3 ¹³	13.8	NA	NA	NA
Sudan ^{19,25} (1964-66) ¹⁴	1,848 ⁹	NA	233	59.2	28.3	NA	NA	2.5	NA	63.9 ¹⁵	26.4	NA
North America												
Canada (1971)	21,568	NA	NA	60.0	40.0	6,259	5,970	0.6 ^{13,26}	0.276	96.1 ¹⁵	NA	NA
Cuba (1953)	5,829	NA	NA	37.2 ²⁷	36.5 ²⁷	1,257	1,212	NA	NA	38.9	55.6	NA
Dominican Republic (1960) ^{28,29}	1,047	2,999	594	70.5 ²⁶	15.6 ²⁶	NA	594	2.0 ¹³	NA	8.1	20.0	0.9 ²⁹
Mexico (1970) ^{23,24}	48,225	NA	8,286 ³⁰	66.0 ³⁰	NA	NA	8,286	2.5	NA	38.7	58.9	NA
United States ²¹ (1970)	203,235 ⁴	199,384 ⁴	62,874	62.9 ²⁶	37.1 ²⁶	68,679	63,450	0.6	NA	97.5 ¹⁵	NA	7.1 ^{16,31}
South America												
Argentina (1960)	20,941	19,360	5,232 ³²	58.9 ²⁷	26.8 ²⁷	4,479	4,223	1.4 ²⁶	15.3 ²⁶	NA	69.2	NA
Brazil (1970)	93,139	89,963	18,554	60.4 ^{10,45}	19.0 ^{10,45}	NA	17,628	1.1 ¹³	4.8	27.4	47.6	NA
Colombia (1964)	17,485	16,836	NA	61.3 ³⁰	24.4 ³⁰	NA	1,928	NA	NA	41.3	47.4	1.2 ^{25,29}
Peru ^{3,33} (1961)	9,907 ³⁴	9,566	1,962	56.0 ²⁸	24.7 ²⁸	1,975	1,962	2.3	43.0	14.6	26.0	NA
Venezuela (1971)	10,722	NA	NA	NA	NA	2,127 ¹¹	1,844 ¹¹	NA	NA	72.4 ^{15,35}	NA	NA
Asia												
India (1971)	547,950 ³⁶	543,280 ¹⁰	97,057 ¹⁰	84.6 ^{10,19}	15.4 ^{10,19}	100,213	92,458	2.8 ^{10,19}	NA	NA	NA	NA
Indonesia (1961)	96,319	NA	20,928 ³⁷	NA	NA	NA	20,928	NA	NA	NA	NA	NA
Iran (1968)	25,079	24,920	5,029	71.6 ¹⁹	16.2 ¹⁹	3,899 ¹¹	3,899 ¹¹	2.3 ^{13,38}	46.5 ³⁸	13.1 ¹¹	25.4 ¹¹	NA
Iraq (1950)	6,299 ³	NA	1,209 ^{39,40}	83.0 ²⁷	12.8 ²⁷	741	737	NA	NA	20.8 ^{15,28}	17.1	2.0 ^{16,41}
Israel ⁴² (1971) ⁴³	2,919 ^{44,45}	NA	788 ³⁷	64.6	30.5	NA	NA	1.5 ^{13,19}	8.3 ¹⁹	96.5 ¹⁵	96.5	10.7 ^{16,41}
Japan (1970) ^{46,47}	103,720	98,689	26,747	58.2 ¹⁹	34.9 ¹⁹	NA	NA	1.0 ¹³	2.2	NA	NA	14.3 ⁴⁸
Korea, Republic of (1970)	31,469 ⁹	29,236	5,857	69.0	28.9	4,408	4,334	2.3 ¹³	NA	19.6	49.7	NA
Nepal ⁴⁹ (1961) ¹⁴	9,413	248	46	75.3 ²⁷	10.7 ²⁷	NA	37	2.0 ^{13,50}	20.2 ⁵⁰	47.7 ¹⁵	30.2	NA
Pakistan ⁵¹ (1960)	93,721 ^{52,53}	NA	16,762 ⁵⁰	85.3 ¹¹	5.1 ¹¹	16,469	16,560 ¹¹	3.1 ^{19,40}	60.5 ^{19,40}	NA	NA	NA
Philippines (1967) ⁵⁴	36,684 ⁹	31,980 ⁵⁴	5,234 ⁵⁴	89.4 ⁵⁴	6.1 ⁵⁴	NA	NA	NA	38.1 ⁵⁵	34.4 ^{15,55}	22.9 ⁵⁵	NA
Thailand (1962-63)	26,258 ⁵⁷	NA	NA	85.9 ⁵⁸	7.9 ⁵⁸	NA	NA	NA	NA	55.5 ⁶	NA	NA
Turkey ⁴² (1970) ⁴⁶	35,667	32,750	5,544	81.4 ¹⁹	NA	NA	NA	2.2 ¹³	28.1	35.9 ¹⁵	41.1	NA
Europe												
Czechoslovakia (1961)	13,746	13,709	4,398	50.4 ²⁷	42.0 ²⁷	3,829	3,820	1.3	5.4	49.1	97.3	8.1 ^{9,16}
France ⁵⁹ (1968)	49,779	48,311	15,778	43.3	44.4	18,120	15,190	0.9 ¹³	2.8	90.8	98.8	9.3 ⁹
German Democratic Republic (1971)	17,068	16,876	6,408	23.0	69.3	6,068 ¹¹	5,938 ¹¹	NA	NA	82.1	100.0	4.7 ⁹
Germany, Federal ⁶⁰ Republic of (1968)	60,651 ⁹	59,960	20,666	34.3	65.7	20,123	19,778	0.7	0.2	99.7 ⁶¹	99.9 ⁶²	7.8 ⁹
Hungary (1970)	10,716	9,981	3,378	62.9 ^{10,30}	29.6 ^{10,30}	3,150	3,034	1.3 ¹³	4.1	36.1	91.7	7.8
Italy (1961)	50,624 ⁶³	49,910	13,747	42.8	46.8	14,214	13,032	1.1	7.6	62.3	95.9	7.9 ⁹
Netherlands (1960)	11,462	11,199 ⁶⁴	3,130	NA	NA	2,824	2,790	0.8	NA	NA	NA	7.3 ^{16,64}
Poland (1970)	32,642	31,885 ⁶⁵	9,376 ³⁰	NA	NA	8,295	8,082	1.4	NA	47.3	96.2	NA
Spain (1960) ⁵⁰	30,529	29,815	7,548 ⁶⁶	NA	NA	7,726	7,726	NA	NA	45.0	89.3	4.0
United Kingdom (England and Wales) (1971)	48,604	47,092 ³⁷	16,434 ³⁷	50.1	49.7	NA	NA	0.8 ⁶⁵	0.1 ⁶⁵	NA	NA	NA
Yugoslavia (1971)	20,523 ⁶⁷	NA	NA	70.7	29.3	5,110	4,935	1.4	9.2	34.0	87.9	NA
Oceania												
Australia ³³ (1971) ²³	12,756	12,155	3,671	67.3 ¹⁹	27.3 ¹⁹	4,010	3,671	0.7	0.3	90.3	98.4	NA
New Zealand (1966)	2,677	2,630	717	NA	24.8 ²⁷	793 ¹¹	716	0.7 ¹³	0.2	NA	NA	8.2 ^{9,29,66}
USSR (1965)	241,720 ⁹	NA	50,333 ^{32,44}	NA	NA	61,658 ⁶⁷	31,000 ⁶⁷	1.9 ⁶⁷	NA	NA	NA	9.4 ⁹

TABLE 13-B (CONCLUDED)

FOOTNOTES ON SUMMARY OF WORLD HOUSING CONDITIONS

- u Urban data only.
 1 Provisional
 2 Numbers in parentheses refer to year of census.
 3 The concept of household is based on the arrangements made by persons, individually or in groups, for providing themselves with food or other essentials for living. A household may be either: (a) a one person household, that is, a person who makes provision for his own food or other essentials for living without combining with any other person to form a part of a multi-person household; or (b) a multi-person household that is, a group of two or more persons who make common provision for food or other essentials for living.
 4 Percentages are based on the total number of households occupying dwellings. Not included in the Table are households which occupy their accommodation rent free or as part of a work contract.
 5 A dwelling is defined as a room or suite of rooms and its accessories in a permanent building or structurally separated part thereof, which by the way it has been built, rebuilt, or converted, is intended for habitation by one household and is not, at the time of the census used wholly for other purposes.
 6 A room is defined as a space in a housing unit or other living quarters enclosed by walls or less than 2 meters in height, and having an area greater than or equal to 4 square meters. The total number of rooms includes bedrooms, dining rooms, living rooms, studios, habitable attics, servants' rooms, kitchens, and other separate spaces used or intended for dwelling purposes, so long as they meet the criteria of walls and floor space. Passageways, verandas, lobbies, storerooms and toilet rooms should not be counted as rooms, even if they meet the criteria. When separate information is available, rooms used for professional or business purposes are excluded in calculating the number of persons per room.
 7 Percentages computed on the basis of occupied dwellings with known number of persons per room.
 8 Piped water refers to water laid onto the living quarters by pipes from a community-wide system or an individual installation, such as a pressure tank, pumps, etc., inside the living quarters or outside but with 100 meters.
 9 Unless otherwise indicated, data refer to the number of conventional (permanent) dwellings newly constructed or made available during the calendar year as a result of part-time or conversion of existing structures. Unless otherwise noted, data refer to dwelling completed.
 10 Data are for 1970.
 11 Data based on a sample tabulation of census returns.
 12 Data refers to living quarters.
 13 Estimated on basis of sample survey.
 14 Estimated by the United Nations Statistical Office.
 15 Data refer to residential buildings.
 16 Inside or outside.
 17 Data exclude dwellings made available by partition or conversion of existing structures.
 18 Data are for 1962.
 19 Data refer to whole country.
 20 Data refer to households.
 21 Data based on sample survey of housing in the City of Lagos only and refer to housing units excluding units in buildings of mixed construction material.
 22 Data are for 1963.
 23 Except for total population and dwellings constructed per 1000 population, data are for non-African population.
 24 Data in columns headed Total Number of Dwellings, Number of Occupied Dwellings, Average Number of Persons per Room, Percent of Dwellings with 3 or More Persons per Room, Percentage of Dwellings with Water Piped Inside Dwelling, and Percentage of Dwellings with Electric Lighting, refer to housing units.
 25 Excluding data for Malvinas Bay.
 26 Data based on sample survey of housing carried out in 14 urban areas.
 27 Data refer to housing units.
 28 Data refer to occupied conventional dwellings.
 29 A household is defined as the total number of persons occupying a set of living quarters.
 30 Data refer to permits issued for the construction of dwellings.
 31 Data refer to households in housing units.
 32 Data refer to permits issued for the construction of dwellings in permit areas and dwelling starts in non-permit areas.
 33 Data refer to family households.
 34 A set of living quarters is defined in terms of the space occupied by a household.
 35 Excluding Indian jungle population.
 36 Data refer to occupied housing units (excluding units not intended for habitation but in use for the purpose).
 37 Including Indian held parts of Jammu and Kashmir, the final status of which has not, at this writing, been determined.
 38 Data refer to occupants of dwellings.
 39 Data refer to households and exclude nomadic tribes and persons with no fixed abode.
 40 Data are for 1957.
 41 Including persons not living in households.
 42 Data are for 1965.
 43 Kitchens are not counted as rooms.
 44 Data in columns headed Population Living in Households, Total Number of Households, Percentage of Owner Occupied Households, Percentage Renters, Total Number of Dwellings, Number of Occupied Dwellings, Average Number of Persons per Room, Percent of Dwellings with 3 or More Persons per Room, Percentage of Dwellings with Water Piped Inside Dwelling, and Percentage of Dwellings with Electric Lighting are based on results of sample survey.
 45 Data are for 1969.
 46 Including data relating to certain territories under occupation by Israeli military forces since June 1967.
 47 Except for total population and dwellings constructed per 1000 population, data are based on sample tabulation of census returns.
 48 Data in columns headed Total Number of Dwellings, Number of Occupied Dwellings, Average Number of Persons per Room, Percent of Dwellings with 3 or More Persons per Room, Percentage of Dwellings with Water Piped Inside Dwelling and Percentage of Dwellings with Electric Lighting, refer to households.
 49 Data refer to dwellings started.
 50 Except for total population and dwellings constructed per 1000 Population, data are for the cities of Kathmandu, Lalitpur, Bhaktapur, Biratnagar, Nepalgunj, and Birgunj, only.
 51 Number of conventional dwellings excludes semi-permanent dwellings.
 52 Except for total population and dwellings constructed per 1000 population, data include Bangladesh except for nomads and river boatmen, excluding the frontier regions of Pakistan.
 53 Data are for 1961.
 54 Including Bangladesh excluding data for Jammu and Kashmir, the final status of which has not, at this date, been determined, Junagadh, Manavadar, Gijit, and Belitatan.
 55 Data are based on sample survey of housing.
 56 Data are based on results of household survey and refer to households.
 57 Data refer to source of water supply.
 58 Data are for 1960.
 59 Data based on results of household expenditure survey and refer to families.
 60 Kitchens are counted as rooms only if 12 square meters or more.
 61 Data refer to all dwellings in residential and occupied nonresidential buildings which have a kitchen or kitchenette of their own space dwelling in basements. Kitchens are included as rooms irrespective of size.
 62 Inside the building only.
 63 Official estimates.
 64 Excluding data for the former Free Territory of Trieste.
 65 Duplex buildings counted as one dwelling.
 66 Data refer to households in conventional dwellings.
 67 Data refer to new detached dwellings and adjustments.
 68 Urban areas only.

Source: Statistical Office of the United Nations, Department of Economic and Social Affairs, *Statistical Yearbook*, 1973.

TABLE 14-1
U.S. POPULATION, BY STATE¹
(in thousands)

STATE	1920	1930	1940	1950	1960	1970	1971	1972	1973	1974
UNITED STATES	106,022	123,203	132,165	151,326	179,975	201,810	206,212	208,230	209,844	211,390
Alabama	2,348	2,646	2,833	3,062	3,274	3,451	3,482	3,521	3,546	3,577
Alaska	55	59	73	129	229	304	315	325	330	337
Arizona	334	436	499	750	1,321	1,792	1,868	1,963	2,071	2,153
Arkansas	1,752	1,854	1,949	1,910	1,789	1,932	1,965	2,008	2,035	2,062
California	3,427	5,677	6,907	10,586	15,870	20,007	20,238	20,411	20,652	20,907
Colorado	940	1,036	1,123	1,325	1,769	2,223	2,281	2,364	2,468	2,496
Connecticut	1,381	1,607	1,709	2,007	2,544	3,041	3,077	3,080	3,080	3,088
Delaware	223	238	267	318	449	551	560	571	573	573
District of Columbia	438	487	663	802	765	756	758	752	734	723
Florida	968	1,468	1,897	2,771	5,004	6,848	7,051	7,347	7,745	8,090
Georgia	2,896	2,909	3,124	3,445	3,956	4,607	4,677	4,733	4,818	4,882
Hawaii	256	58	423	500	642	774	796	816	841	847
Idaho	432	445	525	589	671	718	736	755	776	799
Illinois	6,485	7,631	7,897	8,712	10,086	11,128	11,191	11,244	11,176	11,131
Indiana	2,930	3,239	3,428	3,934	4,674	5,202	5,242	5,286	5,304	5,330
Iowa	2,404	2,471	2,538	2,621	2,756	2,832	2,859	2,884	2,863	2,855
Kansas	1,769	1,881	1,801	1,905	2,183	2,249	2,259	2,268	2,264	2,270
Kentucky	2,417	2,615	2,846	2,945	3,041	3,231	3,278	3,306	3,328	3,357
Louisiana	1,799	2,102	2,364	2,684	3,260	3,652	3,696	3,738	3,746	3,764
Maine	768	797	847	914	975	997	1,010	1,026	1,039	1,047
Maryland	1,450	1,632	1,821	2,343	3,113	3,938	4,001	4,048	4,074	4,094
Massachusetts	3,852	4,250	4,317	4,691	5,160	5,706	5,768	5,796	5,799	5,800
Michigan	3,668	4,842	5,256	6,372	7,834	8,890	8,961	9,113	9,061	9,098
Minnesota	2,387	2,564	2,792	2,982	3,425	3,815	3,854	3,8	3,890	3,917
Mississippi	1,791	2,010	2,184	2,179	2,182	2,220	2,1	2,256	2,317	2,324
Missouri	3,404	3,629	3,785	3,955	4,326	4,688	4,734	4,747	4,768	4,777
Montana	549	538	559	591	679	698	710	716	730	735
Nebraska	1,296	1,378	1,316	1,326	1,417	1,488	1,508	1,528	1,533	1,543
Nevada	77	91	110	160	291	493	511	533	551	573
New Hampshire	443	465	492	533	609	742	758	774	794	808
New Jersey	3,156	4,041	4,160	4,835	6,103	7,193	7,296	7,349	7,325	7,330
New Mexico	360	423	532	681	954	1,023	1,053	1,076	1,099	1,122
New York	10,385	12,588	13,479	14,830	16,838	18,268	18,384	18,367	18,214	18,111
North Carolina	2,559	3,170	3,572	4,062	4,573	5,098	5,158	5,221	5,302	5,363
North Dakota	647	681	642	620	634	620	629	634	635	637
Ohio	5,759	6,647	6,908	7,947	9,734	10,664	10,724	10,722	10,743	10,737
Oklahoma	2,028	2,396	2,336	2,233	2,336	2,567	2,600	2,633	2,669	2,709
Oregon	783	954	1,090	1,521	1,772	2,101	2,135	2,185	2,219	2,266
Pennsylvania	8,720	9,631	9,900	10,498	11,329	11,813	11,888	11,905	11,862	11,835
Rhode Island	604	687	713	792	855	951	958	969	967	937
South Carolina	1,684	1,739	1,900	2,117	2,392	2,597	2,639	2,688	2,724	2,784
South Dakota	637	693	643	653	683	668	675	680	682	682
Tennessee	2,338	2,617	2,916	3,292	3,575	3,937	3,988	4,072	4,095	4,129
Texas	4,663	5,825	6,415	7,711	9,624	11,236	11,416	11,604	11,828	12,050
Utah	449	508	550	689	900	1,066	1,094	1,127	1,150	1,173
Vermont	352	360	359	378	389	446	453	460	466	470
Virginia	2,309	2,422	2,678	3,319	3,986	4,659	4,715	4,765	4,844	4,908
Washington	1,337	1,563	1,736	2,379	2,855	3,413	3,435	3,418	3,411	3,476
West Virginia	1,464	1,729	1,902	2,006	1,853	1,751	1,776	1,795	1,788	1,791
Wisconsin	2,632	2,939	3,138	3,435	3,962	4,429	4,471	4,526	4,539	4,566
Wyoming	194	226	251	291	331	334	340	346	353	359

¹ Population estimates for 1920 are as of January 1; for 1930 to 1950, April 1 (except for Alaska, which are October 1, 1929 for 1930 and October 1, 1939 for 1940); and for 1960 and thereafter, July 1.

Sources: U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 304, 460, and 539, and U.S. Census of Population: 1970, Vol. I, Part A, 1970.

TABLE 14-2
U.S. POPULATION DENSITY PER SQUARE MILE, BY STATE¹

STATE	1920	1930	1940	1950	1960	1970
UNITED STATES	29.9	34.7	37.2	42.6	50.6	57.5
Alabama	45.8	51.8	55.5	59.9	64.2	67.9
Alaska	0.1	0.1	0.1	0.2	0.4	0.5
Arizona	2.9	3.8	4.4	6.6	11.5	15.6
Arkansas	33.4	35.2	37.0	36.3	34.2	37.0
California	22.0	36.2	44.1	67.5	100.4	127.6
Colorado	9.1	10.0	10.8	12.8	16.9	21.3
Connecticut	286.4	328.0	348.9	409.7	520.6	623.6
Delaware	113.5	120.5	134.7	160.8	225.2	276.5
District of Columbia	7,293	7,982	10,870	13,151	12,524	12,402
Florida	17.7	27.1	35.0	51.1	91.5	125.5
Georgia	49.3	49.7	53.4	58.9	67.8	79.0
Hawaii	39.9	57.5	66.0	78.0	98.5	119.6
Idaho	5.2	5.4	6.3	7.1	8.1	8.6
Illinois	115.7	136.4	141.2	155.8	180.4	199.4
Indiana	81.3	89.4	94.7	108.7	128.8	143.9
Iowa	43.2	44.1	45.3	46.8	49.2	50.5
Kansas	21.6	22.9	21.9	23.2	26.6	27.5
Kentucky	60.2	65.2	70.9	73.9	76.2	81.2
Louisiana	39.6	46.5	52.3	59.4	72.2	81.0
Maine	25.7	25.7	27.3	29.4	31.3	32.1
Maryland	145.8	165.0	184.2	237.1	313.5	396.6
Massachusetts	479.2	537.4	545.9	396.2	657.3	727.0
Michigan	63.8	84.9	92.2	111.7	137.7	156.2
Minnesota	29.5	32.0	34.9	37.3	43.1	48.0
Mississippi	38.6	42.4	46.1	46.1	46.0	46.9
Missouri	49.5	52.4	54.6	57.1	62.6	67.8
Montana	3.8	3.7	3.8	4.1	4.6	4.8
Nebraska	16.9	18.0	17.2	17.3	18.4	19.4
Nevada	0.7	0.8	1.0	1.5	2.6	4.4
New Hampshire	49.1	51.6	54.5	59.1	67.2	81.7
New Jersey	420.0	537.3	553.1	642.8	805.5	953.1
New Mexico	2.9	3.5	4.4	5.6	7.8	8.4
New York	217.9	262.6	281.2	309.3	350.6	381.3
North Carolina	52.5	64.5	72.7	82.7	93.2	104.1
North Dakota	9.2	9.7	9.2	8.8	9.1	8.9
Ohio	141.4	161.6	168.0	193.8	236.6	260.0
Oklahoma	29.2	34.6	33.7	32.4	33.8	37.2
Oregon	8.2	9.9	11.3	15.8	18.4	21.7
Pennsylvania	194.5	213.8	219.8	233.1	251.4	262.5
Rhode Island	566.4	649.8	674.2	748.5	819.3	902.5
South Carolina	55.2	56.8	62.1	69.9	78.7	85.7
South Dakota	8.3	9.1	8.4	8.5	9.0	8.8
Tennessee	56.1	62.4	69.5	78.8	86.2	94.9
Texas	17.8	22.1	24.3	29.3	36.4	42.7
Utah	5.5	6.2	6.7	8.4	10.8	12.9
Vermont	38.6	38.8	38.7	40.7	42.0	47.9
Virginia	57.4	60.7	67.1	81.2	99.6	116.9
Washington	20.3	23.3	25.9	35.6	42.8	51.2
West Virginia	60.9	71.8	79.0	83.3	77.2	72.5
Wisconsin	47.6	53.7	57.3	62.8	72.6	81.1
Wyoming	2.0	2.3	2.6	3.0	3.4	3.4

¹ For United States, population has been divided by total land area. For each state, population at given census has been divided by land area as then constituted.

Source: U.S. Bureau of the Census, U.S. Census of Population: 1970, Vol. 1, Part A.

TABLE 14-3
ESTIMATES OF THE COMPONENTS OF POPULATION CHANGE, BY STATE
(in thousands)

STATE	1950 to 1960 ¹					1960 to 1970 ²				
	NET CHANGE		COMPONENTS OF CHANGE			NET CHANGE		COMPONENTS OF CHANGE		
	NUMBER ³	PERCENT ⁴	BIRTHS	DEATHS	NET MIGRATION	NUMBER ³	PERCENT ⁴	BIRTHS	DEATHS	NET MIGRATION
UNITED STATES	+27,997	+18.5	40,963	15,608	+2,642	+23,862	+13.3	39,033	18,192	+3,020
Alabama	+205	+6.7	851	277	-369	+177	+5.4	729	319	-233
Alaska	+98	+75.8	69	12	+41	+76	+33.6	73	13	+16
Arizona	+553	+73.7	303	80	+329	+470	+66.1	365	122	-228
Arkansas	-123	-8.5	470	181	-433	+137	+7.7	401	193	-71
California	+5,131	+18.5	3,140	1,351	+3,142	+6,236	+27.0	3,634	1,511	+2,113
Colorado	+479	+32.4	91	136	+184	+433	+25.8	401	163	+215
Connecticut	+528	+26.3	509	215	+234	+497	+19.6	537	255	+214
Delaware	+128	+40.3	102	37	+63	+102	+22.8	109	45	+38
District of Columbia	-38	-5.0	208	86	-180	-7	-1.0	182	89	-100
Florida	+2,180	+78.7	918	352	+1,616	+1,838	+37.1	1,107	596	+1,326
Georgia	+499	+14.5	1,030	319	-212	+646	+16.4	975	379	+51
Hawaii	+133	+26.6	161	31	+3	+137	+21.7	164	37	+11
Idaho	+79	+13.3	170	51	-40	+46	+6.9	146	58	-42
Illinois	+1,389	+15.7	2,216	971	+124	+1,033	+10.2	2,173	1,077	-43
Indiana	+728	+18.5	1,092	425	+61	+531	+11.4	1,023	475	-16
Iowa	+136	+5.2	641	271	-234	+68	+2.4	541	291	-183
Kansas	+273	+14.3	315	197	-44	+70	+3.2	419	218	-130
Kentucky	+93	+5.2	766	283	-190	+181	+6.0	647	313	-153
Louisiana	+574	+21.4	884	261	-49	+386	+11.9	777	316	-130
Maine	+55	+6.1	224	102	-67	+24	+2.5	205	109	-69
Maryland	+758	+32.3	683	246	+321	+822	+26.5	740	303	+185
Massachusetts	+458	+9.8	1,088	534	-96	+341	+10.5	1,040	574	+74
Michigan	+1,451	+22.8	1,928	631	+155	+1,052	+13.4	1,754	729	+27
Minnesota	+431	+14.5	823	293	-98	+391	+11.5	744	327	-25
Mississippi	-1	---	638	206	-433	+39	+1.6	534	228	-267
Missouri	+365	+9.2	952	454	-134	+338	+8.3	857	502	-2
Montana	+84	+14.2	171	62	-25	+20	+2.9	144	66	-58
Nebraska	+66	+6.5	336	133	-117	+72	+5.1	291	146	-73
Nevada	+125	+78.2	59	20	+86	+203	+71.3	91	31	+144
New Hampshire	+74	+13.8	126	64	+12	+131	+21.5	133	71	+69
New Jersey	+1,231	+25.5	1,195	541	+578	+1,101	+18.2	1,259	645	+488
New Mexico	+270	+39.6	276	58	+52	+65	+6.8	263	68	-130
New York	+1,952	+13.2	3,404	1,661	+210	+1,408	+8.4	3,361	1,852	-101
North Carolina	+494	+12.2	1,156	334	-328	+526	+11.5	1,032	412	-94
North Dakota	+13	+2.1	170	52	-105	-15	-2.3	135	55	-94
Ohio	+1,760	+22.1	2,222	869	+407	+946	+9.7	2,047	975	-126
Oklahoma	+95	+4.2	521	207	-219	+231	+9.9	461	244	+13
Oregon	+247	+16.3	384	152	+16	+523	+18.2	346	182	+159
Pennsylvania	+821	+7.8	2,440	1,144	+475	+475	+4.2	2,105	1,252	-378
Rhode Island	+68	+8.5	179	85	-26	+90	+10.5	171	93	+13
South Carolina	+266	+12.5	676	188	-222	+208	+8.7	573	216	-149
South Dakota	+28	+4.3	183	80	-95	-14	-2.1	146	65	-94
Tennessee	+275	+8.4	852	302	-274	+357	+10.0	755	353	-45
Texas	+1,868	+24.2	2,436	689	+121	+1,617	+16.9	2,318	847	+146
Utah	+202	+29.3	247	55	+49	+169	+18.9	245	65	-11
Vermont	+12	+3.2	93	42	-38	+53	+14.1	85	45	+15
Virginia	+648	+19.5	945	312	+15	+682	+17.2	909	369	+141
Washington	+474	+19.9	631	243	+87	+556	+19.5	591	284	+249
West Virginia	-145	-7.2	474	172	-446	-116	-6.2	339	190	-265
Wisconsin	+517	+13.1	925	355	-55	+466	+11.8	856	395	+44
Wyoming	+40	+13.6	84	25	-20	+2	+0.7	70	28	-39

¹ Time period is from April 1, 1950 to April 1, 1960.

² Time period is from April 1, 1960 to April 1, 1970.

³ Components of change may not net out exactly to these numbers, due to rounding error.

⁴ Based on population at beginning of period.

⁵ Less than 0.05 percent.

Sources: U.S. Bureau of the Census, *Current Population Reports*, Series P-25, Number 304, "Revised Estimates of the Population of States and Components of Population Change: 1950 to 1960," and *Current Population Reports*, Series P-25, Number 460, "Preliminary Intercensal Estimates of States and Components of Population Change, 1960 to 1970."

TABLE 14-4
NUMBER OF BIRTHS AND BIRTH RATES, BY STATE¹
 (Number of births in thousands. Rate is number of births per thousand persons by place of residence, except as noted.)

STATE	1950		1960		1970		1971		1972		1973		1974 ^{2,3}	
	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE
UNITED STATES ⁴	3,554	24.1	4,258	23.7	3,731	18.4	3,556	17.2	3,258	15.6	3,131	14.9	3,151	15.0
Alabama	82	28.1	81	24.7	67	19.4	67	19.1	62	17.5	60	16.7	59	16.4
Alaska	NR	31.2 ²	81	33.4	8	24.9	7	23.3	7	21.3	7	19.9	7	20.8
Arizona	21	30.7	37	28.2	38	21.3	38	20.6	37	19.1	38	18.4	40	18.5
Arkansas	46	27.1	41	22.7	35	18.5	36	18.3	34	16.8	34	16.1	34	16.4
California	244	23.1	372	23.7	363	18.2	330	16.3	306	15.0	298	14.5	304	14.5
Colorado	34	26.4	43	24.5	42	18.8	40	17.7	39	16.3	39	16.2	40	15.9
Connecticut	40	20.2	57	22.4	50	16.7	45	14.8	40	12.9	38	12.0	36	11.8
Delaware	8	24.2	12	25.9	11	19.2	10	17.7	9	15.4	8	14.4	8	14.5
District of Columbia	29	25.0	20	26.0	15	20.1	14	18.8	12	16.0	11	27.7	20	28.1
Florida	64	23.9	116	23.3	115	16.9	117	16.6	110	15.0	108	14.0	108	13.4
Georgia	92	28.0	100	25.3	97	21.1	94	20.1	87	18.5	85	18.1	87	17.9
Hawaii	NR	28.1 ²	17	27.2	16	21.3	16	20.0	15	18.9	15	18.5	16	18.4
Idaho	16	27.6	17	25.7	14	20.3	14	19.6	14	18.8	15	18.3	15	18.9
Illinois	137	22.0	239	23.7	205	18.5	195	17.5	178	15.9	169	14.8	166	14.9
Indiana	94	24.0	113	24.2	99	19.1	96	18.3	87	16.5	84	15.8	84	15.7
Iowa	64	24.1	64	23.1	48	17.1	45	15.8	41	14.2	39	13.5	41	14.2
Kansas	42	23.2	51	23.3	38	17.0	36	16.0	33	14.6	32	13.5	31	13.8
Kentucky	75	26.9	72	23.8	60	18.7	61	18.4	55	16.8	54	16.5	54	16.2
Louisiana	76	29.7	90	27.7	74	20.4	73	19.8	68	18.1	66	17.7	66	17.5
Maine	21	23.1	23	24.0	18	17.9	18	17.6	16	15.8	16	15.2	15	13.9
Massachusetts	50	23.4	77	24.9	69	17.6	65	16.3	58	14.4	54	11.6	47	11.4
Michigan	97	20.6	115	22.4	95	16.6	87	15.1	77	13.3	72	12.7	71	12.3
Minnesota	160	25.5	195	25.0	172	19.4	162	18.0	147	16.3	141	15.5	136	15.0
Mississippi	75	25.3	88	25.7	68	18.0	62	16.2	56	14.5	54	13.8	55	14.1
Missouri	66	30.4	59	27.2	49	22.1	49	21.6	46	20.4	45	19.5	45	19.5
Montana	88	22.2	98	22.7	81	17.3	78	16.6	73	15.3	69	14.9	72	15.1
Nebraska	15	26.6	17	25.9	13	18.2	12	17.4	11	16.0	11	15.6	12	16.5
Nevada	32	24.1	34	24.3	26	17.3	26	16.9	23	15.4	23	14.9	24	15.4
Nevada	12	23.4	7	25.5	10	19.6	10	18.9	9	16.9	9	15.5	9	15.1
New Hampshire	12	21.7	14	22.8	13	17.9	13	17.8	12	15.7	12	13.9	11	14.0
New Jersey	194	20.1	132	21.8	120	16.8	113	15.4	101	13.7	96	12.6	91	12.4
New Mexico	22	34.5	31	32.3	22	21.8	22	21.2	21	19.3	21	18.6	21	18.8
New York	303	20.4	359	21.4	318	17.5	285	15.5	254	13.8	239	13.2	240	13.3
North Carolina	107	27.3	110	24.1	98	19.3	96	18.5	89	17.0	86	16.3	85	15.8
North Dakota	17	27.7	17	26.3	11	17.6	10	16.5	10	15.9	10	16.2	11	16.8
Ohio	186	23.6	231	23.8	200	18.7	190	17.7	170	15.8	161	15.0	158	14.7
Oklahoma	50	23.3	51	21.9	45	17.5	45	17.4	42	16.1	41	14.8	41	15.0
Oregon	36	23.9	38	21.7	35	16.8	33	15.6	31	14.3	29	14.3	33	14.8
Pennsylvania	222	21.2	241	21.3	193	16.3	181	15.2	163	13.7	153	13.0	148	12.5
Rhode Island	17	20.5	18	21.4	16	16.5	15	15.5	13	13.7	12	13.0	12	12.5
South Carolina	57	30.2	60	25.1	52	20.1	53	20.2	50	18.6	49	17.5	47	17.0
South Dakota	18	27.7	18	25.9	12	17.5	12	17.2	11	16.6	11	15.3	11	15.8
Tennessee	82	25.6	82	23.0	72	18.4	71	17.9	66	16.2	64	16.4	67	16.3
Texas	204	27.6	249	26.0	231	20.6	229	20.1	215	18.5	210	18.5	221	18.4
Utah	21	31.1	26	29.5	27	25.5	28	25.2	27	23.9	28	24.8	31	26.1
Vermont	9	23.9	9	24.1	8	18.8	8	17.4	7	16.0	7	14.0	7	14.5
Virginia	78	25.4	96	24.1	86	18.6	83	17.5	75	15.8	72	14.2	68	13.9
Washington	57	23.6	65	23.9	61	17.8	55	16.0	48	14.1	48	13.8	48	13.7
West Virginia	51	26.6	39	21.2	31	17.8	31	17.6	29	16.3	28	15.5	28	15.5
Wisconsin	82	24.2	100	25.2	78	17.6	72	16.1	65	14.3	63	13.7	66	14.3
Wyoming	8	26.5	9	25.8	7	19.6	6	18.1	6	17.3	6	16.8	6	17.4

NR Not reported.

¹ Rates are based on population (excluding Armed Forces abroad) enumerated as of April 1 for 1950, 1960 and 1970, and estimated as of July 1 for other years.

² By place of occurrence.

³ Provisional.

⁴ Excludes Alaska in 1950 and Hawaii prior to 1960.

Source: U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Monthly Vital Statistics Report, population at risk.

TABLE 144
NUMBER OF DEATHS AND DEATH RATES, BY STATE
(Number of deaths in thousands. Rate is number of deaths per thousand population residing in state.)

STATE	1950		1960		1970		1971		1972		1973		1974 ¹	
	NUMBER	RATE	NUMBER	RATE										
UNITED STATES²	1,452	9.6	1,712	9.5	1,921	9.5	1,928	9.3	1,964	9.4	1,973	9.4	1,930	9.1
Alabama	27	8.8	30	9.3	34	9.8	34	9.7	35	9.8	35	10.0	34	9.6
Alaska	NR	9.7	1	5.8	1	4.8	1	4.7	1	4.4	1	4.4	1	4.4
Arizona	7	8.6	10	7.8	15	8.4	16	8.5	16	8.1	17	8.4	17	8.1
Arkansas	15	8.1	18	10.0	21	10.7	21	10.7	22	10.9	23	10.8	22	10.6
California	99	9.3	136	8.6	166	8.3	169	8.2	170	8.3	173	8.4	166	8.0
Colorado	13	9.3	15	8.7	17	7.9	18	7.8	18	7.5	19	7.9	18	7.4
Connecticut	19	9.5	24	9.4	26	8.6	26	8.5	26	8.6	27	8.7	26	8.5
Delaware	4	11.0	4	9.4	5	9.0	5	8.6	5	8.7	5	8.9	5	9.1
District of Columbia	9	10.7	9	11.5	9	11.7	9	11.6	8	11.3	8	13.2	10	14.3
Florida	28	9.6	48	9.7	75	11.0	77	10.9	83	11.3	88	11.7	89	12.0
Georgia	30	8.8	35	9.2	42	9.1	42	8.9	43	9.1	44	9.3	50	10.3
Hawaii	NR	5.8	4	5.6	4	5.2	4	5.3	4	5.3	4	5.5	5	5.4
Idaho	5	8.2	5	8.1	6	8.6	6	8.6	6	8.4	6	8.2	6	7.8
Illinois	91	10.6	103	10.2	111	10.0	110	9.8	111	9.9	111	9.6	106	9.5
Indiana	40	10.3	45	9.7	49	9.3	49	9.3	49	9.3	50	9.4	48	9.0
Iowa	27	10.3	29	10.4	29	10.4	30	10.4	30	10.4	29	10.0	29	10.0
Kansas	19	10.0	21	9.7	22	9.7	22	9.8	22	9.9	23	9.7	22	9.5
Kentucky	28	9.5	30	9.9	33	10.3	34	10.2	34	10.2	34	10.3	33	9.8
Louisiana	24	8.8	30	9.1	33	9.2	33	9.0	34	9.2	35	9.4	34	9.0
Maine	10	6.8	11	11.1	11	11.1	11	10.7	11	10.9	11	10.6	11	10.3
Maryland	23	9.6	28	9.0	33	8.4	32	8.1	33	8.3	33	7.8	32	7.8
Massachusetts	49	10.5	57	11.0	57	10.1	57	9.9	57	9.9	57	9.9	55	9.5
Michigan	57	9.1	68	8.7	76	8.6	77	8.6	78	8.7	78	8.6	75	8.3
Minnesota	28	9.4	32	9.3	34	8.9	34	8.7	35	8.9	34	8.8	34	8.7
Mississippi	21	9.5	22	10.0	23	10.5	23	10.5	24	10.5	24	10.3	23	9.7
Missouri	44	11.1	48	11.2	52	11.1	51	10.7	53	11.1	52	11.2	50	10.5
Montana	6	9.9	7	9.7	7	9.5	7	9.7	7	9.6	7	9.4	6	8.8
Nebraska	13	9.5	14	10.0	15	10.1	15	10.0	16	10.2	15	9.8	15	9.8
Nevada	2	9.9	3	8.9	4	7.9	4	7.9	4	7.7	4	8.3	5	8.3
New Hampshire	6	11.4	7	11.0	7	10.0	7	9.8	7	9.7	8	9.6	8	9.4
New Jersey	48	10.2	59	9.8	68	9.5	69	9.4	69	9.4	69	9.2	66	8.9
New Mexico	6	8.0	7	6.9	7	7.3	8	7.4	8	7.4	8	7.3	8	7.2
New York	156	10.5	178	10.6	188	10.3	187	10.1	185	10.1	181	9.9	176	9.7
North Carolina	31	7.7	38	8.4	45	8.8	45	8.7	47	9.1	48	9.1	46	8.7
North Dakota	5	8.4	5	8.6	6	9.1	6	9.0	6	8.9	6	9.4	6	9.2
Ohio	81	10.1	93	9.6	100	9.4	100	9.3	102	9.5	102	9.4	98	9.1
Oklahoma	19	8.7	23	9.8	27	10.5	26	9.9	27	10.2	27	10.0	26	9.8
Oregon	14	9.2	17	9.5	20	9.3	20	9.3	20	9.2	21	9.4	20	9.0
Pennsylvania	110	10.5	121	10.7	127	10.8	127	10.7	127	10.7	127	10.6	122	10.3
Rhode Island	8	10.5	9	10.5	9	10.0	9	9.7	10	9.8	10	9.8	9	9.8
South Carolina	18	8.5	21	8.7	23	8.8	23	8.8	24	8.9	25	9.0	24	8.6
South Dakota	6	9.0	7	9.7	7	9.9	7	10.0	7	10.3	7	9.6	7	9.6
Tennessee	30	8.9	33	9.2	38	9.7	38	9.5	39	9.7	40	10.2	41	10.0
Texas	63	8.2	77	8.1	94	8.4	95	8.3	100	8.6	102	8.7	100	8.3
Utah	5	7.2	6	6.8	7	6.7	7	6.6	7	6.5	8	6.8	8	6.6
Vermont	4	11.0	4	11.4	4	10.0	4	9.6	4	9.4	5	9.8	4	9.5
Virginia	30	9.0	34	8.7	39	8.4	40	8.4	41	8.6	41	8.4	40	8.1
Washington	23	9.5	27	9.3	30	8.8	30	8.8	30	8.7	31	9.0	30	8.5
West Virginia	18	8.7	18	9.7	20	11.5	20	11.2	21	11.5	20	11.2	20	10.9
Wisconsin	34	9.8	38	9.7	41	9.2	40	9.0	42	9.3	41	9.1	41	9.0
Wyoming	2	8.0	3	8.5	3	8.8	3	9.0	3	8.9	3	8.6	3	8.6

NR Not reported.

¹ Provisional.

² Details may not sum to totals due to independent rounding.

Source: U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Monthly Vital Statistics Report.

TABLE 14-6
LIFE EXPECTATIONS AND NUMBER OF SURVIVORS
AT SINGLE YEARS OF AGE, 1973

AGE	LIFE EXPECTANCY, YEARS			NUMBER OF SURVIVORS OUT OF 100,000 BORN ALIVE		
	BOTH SEXES	MALE	FEMALE	BOTH SEXES	MALE	FEMALE
0	71.3	67.6	75.3	100,000	100,000	100,000
5	67.8	64.2	71.7	97,925	97,674	98,189
10	63.0	59.3	66.8	97,722	97,438	98,020
15	58.1	54.5	61.9	97,524	97,187	97,877
20	53.4	49.9	57.1	96,980	96,405	97,578
25	48.8	45.4	52.3	96,270	95,337	97,226
30	44.1	40.9	47.5	95,582	94,354	96,833
35	39.5	36.3	42.7	94,793	93,307	96,301
40	34.9	31.8	38.0	93,684	91,896	95,489
45	30.5	27.5	33.5	92,033	89,830	94,251
50	26.3	23.4	29.1	89,474	86,592	92,363
55	22.3	19.6	24.9	85,819	81,936	89,711
60	18.6	16.2	20.9	80,347	74,940	85,800
65	15.3	13.1	17.2	72,881	65,450	80,439
70	12.2	10.4	13.6	63,304	53,700	73,118
75	9.5	8.2	10.5	50,970	39,929	62,383
80	7.3	6.4	7.9	36,263	25,513	47,621
85	5.4	4.8	5.8	22,071	13,662	31,192

Source: U.S. Department of Health, Education and Welfare, National Center for Health Statistics, Vital Statistics of the United States, 1973.

TABLE 14-7
AGE DISTRIBUTION OF U.S. POPULATION, BY STATE

STATE	1960						1970					
	TOTAL POPULATION	PERCENT OF TOTAL IN AGE GROUP ¹					TOTAL POPULATION	PERCENT OF TOTAL IN AGE GROUP ¹				
		LESS THAN 5 YEARS	5-19 YEARS	20-39 YEARS	40-64 YEARS	OVER 64 YEARS		LESS THAN 5 YEARS	5-19 YEARS	20-39 YEARS	40-64 YEARS	OVER 64 YEARS
UNITED STATES	179,323,172	11.3	27.2	25.7	26.6	9.2	103,211,926	8.4	29.4	25.8	26.5	9.9
Alabama	3,266,740	12.0	30.5	25.0	24.5	8.0	3,444,165	8.7	30.8	25.2	25.8	9.5
Alaska	226,167	15.1	28.0	35.8	18.7	2.4	300,382	10.7	32.5	35.1	19.4	2.3
Arizona	1,302,161	12.8	29.7	26.6	24.0	7.0	1,770,900	9.0	31.1	26.0	24.9	9.1
Arkansas	1,786,272	10.9	29.5	22.0	26.7	10.9	1,923,295	8.2	29.4	23.6	26.5	12.4
California	15,717,204	11.1	26.2	27.5	26.5	8.8	19,953,134	8.2	28.6	27.9	26.3	9.0
Colorado	1,753,947	11.9	28.0	26.6	24.5	9.0	2,207,259	8.4	30.6	25.5	28.2	8.5
Connecticut	2,535,234	11.0	25.2	25.8	28.5	9.6	3,031,709	8.4	28.5	25.5	28.2	9.5
Delaware	446,297	12.4	26.5	27.6	25.5	8.0	548,104	8.8	30.7	26.7	25.7	8.0
District of Columbia	763,956	10.2	21.6	29.4	29.7	9.1	756,510	7.9	25.7	31.0	26.1	9.4
Florida	4,951,560	11.9	25.5	25.5	26.9	11.2	6,789,443	7.4	26.9	23.8	27.4	14.6
Georgia	3,943,116	12.0	30.0	26.4	24.3	7.4	4,589,575	9.2	30.4	27.9	24.6	8.0
Hawaii	632,772	12.8	30.3	30.6	21.8	4.6	768,561	9.2	30.1	30.6	24.3	5.7
Idaho	667,191	12.3	30.7	23.7	24.6	8.7	712,567	9.0	31.8	24.3	25.5	9.5
Illinois	10,081,158	11.2	25.4	25.6	28.2	9.7	11,113,976	8.4	29.2	25.5	27.0	9.8
Indiana	4,662,498	11.7	27.5	25.7	25.6	9.6	5,193,669	8.8	30.4	25.7	25.7	9.5
Iowa	2,757,537	11.1	27.3	23.3	26.4	11.9	2,824,376	8.3	30.0	23.4	26.0	12.4
Kansas	2,178,611	11.5	26.8	23.1	25.8	11.0	2,266,578	7.8	29.3	25.1	26.0	11.9
Kentucky	3,038,156	11.3	29.3	24.7	25.1	9.6	3,218,706	8.4	29.1	25.4	25.6	10.5
Louisiana	3,257,022	13.0	30.3	25.3	24.0	7.4	3,641,306	9.6	31.5	25.3	24.2	8.4
Maine	969,265	11.2	27.6	24.3	25.9	11.0	992,048	8.5	29.7	23.9	26.3	11.6
Maryland	3,100,689	11.8	27.5	27.5	25.9	7.3	3,922,399	8.6	29.8	27.5	26.3	7.6
Massachusetts	5,148,578	10.7	25.1	24.9	28.2	11.1	5,689,170	8.3	28.3	25.1	27.1	11.2
Michigan	7,823,194	12.4	28.0	25.8	25.7	8.2	8,875,083	9.1	29.1	25.5	25.7	8.5
Minnesota	3,413,864	12.2	28.0	23.6	25.8	10.4	3,804,971	8.7	31.3	24.7	24.5	10.8
Mississippi	2,178,141	12.8	32.1	22.6	23.8	8.7	2,216,912	5	32.6	23.7	24.2	10.0
Missouri	4,319,813	10.8	25.6	24.2	27.8	11.7	4,676,501	7.9	28.9	24.6	26.6	12.0
Montana	674,767	12.3	28.9	24.2	25.0	9.7	694,409	8.2	31.9	24.1	25.9	9.9
Nebraska	1,411,330	11.4	26.6	24.1	26.3	11.6	1,483,493	8.1	29.9	24.2	25.4	12.4
Nevada	285,278	11.6	25.7	28.4	27.9	6.4	488,738	9.0	28.7	29.1	26.9	6.3
New Hampshire	606,921	10.9	26.5	24.2	27.2	11.2	737,681	8.9	29.5	25.4	25.8	10.6
New Jersey	6,066,782	10.6	24.8	26.2	29.2	9.2	7,168,164	8.2	28.1	25.0	29.0	9.7
New Mexico	951,023	14.3	31.6	27.8	20.9	5.4	1,016,000	9.5	34.2	26.2	23.2	7.0
New York	16,782,304	10.1	24.0	25.8	30.0	10.1	18,236,967	8.2	27.2	25.6	28.3	10.8
North Carolina	4,556,135	11.6	30.8	27.0	23.9	6.9	5,082,059	8.6	30.2	27.5	25.6	8.2
North Dakota	637,446	12.6	30.1	23.4	24.8	9.3	617,761	8.3	32.3	23.6	25.1	10.7
Ohio	9,706,397	11.7	26.9	26.0	26.1	9.2	10,652,017	8.7	30.0	25.4	25.6	9.4
Oklahoma	2,328,284	10.4	27.5	24.6	26.8	10.7	2,559,229	7.7	28.6	25.3	25.6	11.7
Oregon	1,768,687	10.5	27.7	23.7	27.8	10.4	2,091,385	7.8	29.1	25.1	27.1	10.8
Pennsylvania	11,319,366	10.5	25.7	25.2	28.7	10.0	11,793,909	7.9	28.2	23.7	29.5	10.8
Rhode Island	859,488	10.4	25.3	25.8	28.1	10.4	946,725	8.0	27.5	25.6	28.0	11.0
South Carolina	2,382,594	12.4	32.9	26.1	22.3	6.3	2,590,516	9.1	32.2	27.0	24.4	7.4
South Dakota	680,514	12.2	29.0	23.3	25.0	10.5	665,507	8.2	32.0	22.3	25.4	12.1
Tennessee	3,567,089	11.0	28.9	25.7	25.7	8.7	3,923,687	8.3	29.3	26.3	26.4	9.8
Texas	9,579,677	12.1	28.8	26.6	24.7	7.8	11,196,730	8.9	30.6	26.7	24.9	8.9
Utah	890,627	14.2	31.9	25.6	21.6	6.7	1,059,273	10.6	33.7	26.6	21.8	7.3
Vermont	389,881	11.3	28.3	23.2	26.1	11.2	444,330	8.9	30.6	25.1	24.7	10.7
Virginia	3,966,949	11.6	28.6	27.9	24.6	7.3	4,648,494	8.4	29.5	28.5	25.7	7.9
Washington	2,853,214	11.1	27.5	25.2	26.5	9.8	3,409,169	8.2	29.5	26.7	26.1	9.5
West Virginia	1,860,421	10.6	30.0	23.9	26.3	9.3	1,744,237	7.9	29.1	23.3	28.5	11.2
Wisconsin	3,951,777	11.9	27.4	24.0	26.5	10.2	4,417,731	8.7	31.0	24.2	25.5	10.7
Wyoming	330,066	12.3	28.9	26.1	24.9	7.9	332,416	8.5	31.2	25.1	26.1	9.1

¹ Percentages may not sum to 100 due to independent rounding.

Sources: 1960 Census of the Population, Volume 1; 1970 Census of the Population, Volume 1.

TABLE 14-8
DEATHS AND DEATH RATES FOR MAJOR CAUSES OF DEATH, BY STATE, 1973¹
(per 100,000 population)

STATE	DISEASES OF HEART		MALIGNANT NEOPLASMS ²		CEREBROVASCULAR DISEASE ³		ALL ACCIDENTS		MOTOR VEHICLE ACCIDENTS	
	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE
UNITED STATES	757,075	360.8	351,055	167.3	214,313	102.1	115,821	55.2	55,511	26.5
Alabama	11,646	329.1	5,430	153.4	4,898	138.4	2,654	75.0	1,399	39.5
Alaska	277	83.9	202	61.2	94	28.5	340	103.0	72	21.8
Arizona	5,457	265.2	2,831	137.6	1,451	70.5	1,583	76.9	892	43.3
Arkansas	8,082	396.8	3,647	179.0	3,077	151.1	1,448	71.1	676	31.2
California	63,984	310.6	31,948	155.1	19,147	92.9	11,544	56.0	5,189	25.2
Colorado	6,693	274.6	2,849	116.9	1,778	73.0	1,367	56.1	663	27.2
Connecticut	10,468	340.3	5,457	177.4	2,882	93.7	1,350	37.4	550	17.9
Delaware	2,011	352.6	928	161.1	400	69.4	289	50.2	125	21.7
District of Columbia	2,440	327.1	1,534	205.6	650	87.1	363	48.3	99	13.3
Florida	32,045	417.4	18,492	234.8	10,091	131.4	5,083	66.2	2,579	33.6
Georgia	14,921	311.8	6,498	135.8	5,867	127.6	3,509	73.3	1,810	37.8
Hawaii	1,406	169.0	901	108.3	455	54.7	302	36.3	135	16.2
Idaho	2,290	297.4	1,009	131.0	740	96.1	583	75.7	320	41.6
Illinois	47,276	420.8	19,646	174.8	10,844	96.5	5,109	45.5	2,469	22.0
Indiana	18,946	356.4	8,463	159.2	6,124	115.2	2,962	55.7	1,569	29.5
Iowa	11,526	396.9	5,212	179.5	3,598	123.9	1,731	59.6	853	29.4
Kansas	8,927	391.7	3,858	169.3	2,829	124.1	1,369	60.1	648	28.4
Kentucky	13,621	407.6	5,546	165.9	4,283	128.2	2,281	68.3	1,128	33.8
Louisiana	13,150	349.4	5,822	154.7	3,830	101.8	2,543	67.6	1,132	30.1
Maine	4,393	427.3	1,949	189.6	1,196	116.3	367	55.2	236	23.0
Maryland	12,857	315.9	6,567	161.4	2,633	64.7	1,747	42.9	854	21.0
Massachusetts	22,924	394.0	11,075	190.4	5,744	98.7	2,702	46.4	1,043	17.9
Michigan	29,861	330.2	14,129	156.2	7,933	87.7	4,637	51.3	2,282	25.2
Minnesota	12,964	332.7	6,172	158.4	4,225	108.4	2,120	54.4	1,048	26.9
Mississippi	8,021	351.6	3,382	148.3	3,085	135.2	1,912	83.8	933	40.9
Missouri	20,115	422.9	8,856	186.2	5,946	125.0	2,941	61.8	1,453	30.5
Montana	2,301	319.1	1,054	146.2	708	98.2	622	86.3	320	44.4
Nebraska	5,689	368.9	2,628	170.4	1,944	126.1	920	59.7	425	27.6
Nevada	1,298	236.9	805	146.9	441	80.5	367	70.6	212	38.7
New Hampshire	2,833	358.2	1,393	176.1	811	102.5	392	49.6	144	18.2
New Jersey	29,094	395.2	14,004	190.2	6,519	88.6	2,887	39.2	1,321	17.9
New Mexico	2,146	194.0	1,192	107.8	698	63.1	1,000	90.4	571	51.6
New York	74,280	406.7	35,485	194.3	15,977	87.5	6,846	37.5	3,083	16.9
North Carolina	17,319	328.4	7,400	140.3	5,868	111.3	3,622	68.7	1,879	35.6
North Dakota	2,261	353.3	940	146.9	697	108.9	399	62.3	219	34.2
Ohio	40,531	377.7	18,463	172.1	10,908	101.6	4,982	46.4	2,340	21.8
Oklahoma	10,413	391.0	4,730	177.6	3,301	124.0	1,707	64.1	787	29.6
Oregon	7,536	338.7	3,657	164.4	2,579	115.9	1,364	61.3	661	29.7
Pennsylvania	52,694	442.7	22,651	190.3	12,558	105.5	5,460	45.9	2,549	21.4
Rhode Island	4,032	414.4	1,939	199.3	838	86.1	430	44.2	154	15.8
South Carolina	8,788	322.4	3,662	134.3	3,096	113.6	2,030	74.5	968	35.5
South Dakota	2,577	376.2	1,141	166.6	730	106.6	514	75.0	268	39.1
Tennessee	14,912	361.4	6,490	157.3	5,305	128.6	2,699	65.4	1,433	34.7
Texas	35,458	300.6	17,151	145.4	11,500	97.5	7,247	61.4	3,650	30.9
Utah	2,478	214.2	1,058	91.4	784	67.8	695	60.1	358	30.9
Vermont	1,713	369.2	816	175.9	427	92.0	308	66.4	123	26.5
Virginia	14,970	311.2	7,245	150.6	4,407	91.6	2,792	58.0	1,238	25.7
Washington	11,461	334.2	5,652	164.8	3,413	99.5	1,948	56.8	870	25.4
West Virginia	7,991	445.4	3,254	181.4	2,017	112.4	1,110	61.9	469	26.1
Wisconsin	16,896	369.8	7,394	161.8	4,695	102.8	2,303	50.4	1,155	25.3
Wyoming	1,083	306.8	448	126.9	292	82.7	321	90.9	157	44.5

¹ Refers only to resident deaths occurring within the United States. Excludes fetal deaths.

² Cancerous formations of tissue, as tumors. This category includes neoplasms of lymphatic and hematopoietic tissues.

³ A disease of the brain resulting in varying degrees of brain damage or death, depending on the extent of damage.

An example of such a disease is cerebral apoplexy, commonly called stroke.

Source: U.S. Department of Health, Education, and Welfare, National Center for Health Statistics, Monthly Vital Statistics Report.

TABLE 14-0
POPULATION OF URBAN AND RURAL AREAS, BY METROPOLITAN AND NONMETROPOLITAN STATUS

STATE	1960						1970					
	INSIDE SMSA ¹			OUTSIDE SMSA ¹			INSIDE SMSA ¹			OUTSIDE SMSA ¹		
	TOTAL ²	URBAN	RURAL	TOTAL ²	URBAN	RURAL	TOTAL ²	URBAN	RURAL	TOTAL ²	URBAN	RURAL
UNITED STATES	112,865	99,563	13,323	66,438	25,706	40,732	139,619	123,007	16,612	63,793	26,318	37,475
Alabama	1,488,033	1,199,033	289,000	1,779,226	592,140	1,186,886	1,801,000	1,353,000	448,000	1,663,300	659,146	984,155
Alaska	929,341	809,277	120,064	373,162	162,211	211,151	1,319,593	1,204,444	115,151	432,151	205,517	247,811
Arkansas	341,277	277,066	64,211	1,445,492	492,552	952,940	18,500	17,388	1,112	1,453,748	517,748	811,705
California	13,591,192	12,561,080	1,029,112	2,126,462	1,012,213	1,113,249	18,500	17,388	1,112	1,453,748	517,748	811,705
Colorado	1,986,968	1,699,267	287,701	5,028,282	2,116,282	2,912,000	1,582,503	1,470,388	112,112	626,527	264,229	362,298
Connecticut	307,764	266,764	41,000	139,000	26,000	113,000	386,737	352,737	34,000	162,000	43,000	119,000
District of Columbia	764,000	764,000	0	0	0	0	737,000	737,000	0	0	0	0
Florida	3,247,817	2,817,430	430,387	1,705,845	845,860	860,000	4,637,4,271	4,271,386	2,132,1,197	2,132,1,197	936,936	
Georgia	1,816,500	1,469,433	347,067	2,129,667	711,317	1,418,350	2,280,88	1,959,88	322,24	2,309,600	809,298	1,500,303
Hawaii	500,000	433,000	67,000	667,317	390,112	277,205	112,88	88,24	24,600	198,298	108,303	90,000
Idaho	7,735,2,411	7,119,1,910	636,501	2,326,1,021	1,021,1,000	1,305,1,421	8,903,2,548	8,200,2,548	703,666	2,211,1,980	1,030,824	1,181,1,136
Illinois	2,411,916	2,119,717	294,199	1,842,1,385	698,612	1,144,733	1,006,949	858,840	147,110	1,819,1,297	758,645	1,061,652
Iowa	814,1,036	717,883	319,257	1,385,2,002	612,470	790,1,532	1,069,1,268	840,1,132	227,136	1,297,1,931	645,552	652,1,379
Kentucky	1,627,191	1,448,180	179,71	1,630,778	613,318	1,017,461	1,956,214	1,749,177	247,37	1,663,778	657,327	986,451
Louisiana	2,425,4,387	2,039,3,943	386,444	675,761	195,360	481,402	3,307,4,818	2,830,4,356	477,471	615,871	174,646	441,417
Maryland	4,387,5,721	3,943,4,974	444,747	761,2,103	360,765	402,1,337	4,818,6,806	4,356,5,826	471,561	871,2,069	646,728	417,1,341
Massachusetts	5,721,1,753	4,974,1,595	747,158	2,103,1,641	765,528	1,337,1,133	6,806,2,145	5,826,1,981	561,184	2,069,1,640	728,547	1,341,1,093
Michigan	1,753,187	1,595,151	158,36	1,641,1,991	528,670	1,133,1,321	2,145,393	1,981,304	184,89	1,640,1,823	547,682	1,093,1,141
Minnesota	2,500,152	2,284,123	216,29	1,820,322	592,216	1,228,307	2,997,1,69	2,656,147	341,23	1,679,525	621,224	1,058,301
Missouri	530,212	474,176	56,36	881,74	292,23	590,49	1,699,394	1,817,358	1,890,36	1,499,94	1,463,37	1,38,37
Montana	108,4,788	94,4,464	13,324	499,1,279	239,911	240,368	202,5,511	174,5,119	28,392	536,1,457	242,1,255	294,402
New Hampshire	4,788,262	4,464,241	324,21	1,279,489	911,385	368,304	5,511,356	5,119,297	392,18	1,457,700	1,255,411	402,289
New Jersey	14,353,1,119	13,323,791	1,030,328	2,430,3,437	1,009,1,011	1,420,2,426	15,771,1,896	14,605,1,270	1,166,626	2,466,1,886	997,1,015	1,468,2,171
New Mexico	1,119,67	791,51	328,16	3,437,566	1,011,172	2,426,394	1,896,74	1,270,59	626,15	1,886,544	1,015,215	2,171,329
New York	6,748,1,022	5,899,882	849,139	2,958,1,307	1,224,582	1,734,724	8,273,1,281	6,998,1,128	1,274,154	2,380,1,276	1,027,613	1,352,665
Ohio	891,8,813	726,7,160	175,1,453	878,2,506	382,942	496,1,564	1,281,9,386	1,033,7,526	246,1,839	811,2,428	367,904	443,1,524
Oklahoma	813,741	716,675	96,66	1,453,119	382,68	1,071,50	1,281,802	1,033,742	246,60	811,165	367,83	443,62
Pennsylvania	768,87	489,67	279,20	1,613,594	493,201	1,122,394	1,017,95	706,75	312,20	1,573,570	527,221	1,047,349
South Carolina	1,433,6,073	1,316,5,497	117,575	1,934,3,507	549,1,690	1,385,1,817	1,918,8,234	1,613,7,422	305,812	2,006,2,962	692,1,499	1,314,1,463
Texas	6,073,601	5,497,533	575,68	3,507,290	1,690,135	1,817,155	8,234,752	7,422,70	812,238	2,962,99	1,499,138	1,463,138
Utah	0 ³ ,0 ³	0 ³ ,0 ³	0 ³ ,0 ³	390,150	150,240	240,0 ³	0 ³ ,0 ³	0 ³ ,0 ³	0 ³ ,0 ³	444,143	143,301	301,301
Vermont	2,021,1,801	1,733,1,458	287,343	1,946,1,052	472,486	1,474,567	2,846,2,249	2,502,1,927	364,322	1,802,1,160	432,550	1,370,611
Virginia	575,1,829	386,1,613	189,216	1,285,2,123	325,909	960,1,214	545,2,543	357,2,162	188,381	1,199,1,875	322,748	877,1,126
Washington	0 ³ ,0 ³	0 ³ ,0 ³	0 ³ ,0 ³	390,150	150,240	240,0 ³	0 ³ ,0 ³	0 ³ ,0 ³	0 ³ ,0 ³	444,143	143,301	301,301
West Virginia	1,829,0 ³	1,613,0 ³	216,0 ³	2,123,0 ³	909,0 ³	1,214,0 ³	2,543,0 ³	2,162,0 ³	381,0 ³	1,875,0 ³	748,0 ³	1,126,0 ³
Wisconsin	0 ³ ,0 ³	0 ³ ,0 ³	0 ³ ,0 ³	390,150	150,240	240,0 ³	0 ³ ,0 ³	0 ³ ,0 ³	0 ³ ,0 ³	444,143	143,301	301,301
Wyoming	0 ³ ,0 ³	0 ³ ,0 ³	0 ³ ,0 ³	390,150	150,240	240,0 ³	0 ³ ,0 ³	0 ³ ,0 ³	0 ³ ,0 ³	444,143	143,301	301,301

1 SMSA's as defined in the 1960 and 1970 censuses, respectively. For definitions, see U.S. Bureau of the Budget (predecessor of OMB) document Standard Metropolitan Statistical Areas, issued in 1967, with subsequent amendments. See also U.S. National Bureau of Standards, Metropolitan Statistical Areas, Federal Information Processing Standards Publication (FIPS Pub. 8-4, June 30, 1974).

Urban and Rural Areas: According to the 1970 census definition, the urban population comprises all persons in (a) places of 2,500 inhabitants or more incorporated as cities, villages, boroughs (except Alaska), and towns (except in New England, New York, and Wisconsin), but excluding persons living in the rural portions of extended cities; (b) unincorporated places of 2,500 inhabitants or more; and (c) other territory, incorporated or unincorporated, included in urbanized areas. An urbanized area consists of a central city, or twin cities, with a total of 50,000 inhabitants or more, together with contiguous closely settled territory (urban fringe). Certain incorporated places are designated as "extended cities" because they have one or more large portions with relatively low population density. These portions are classified as rural. In 1960 (but not in 1970) certain towns in New England, townships in New Jersey and Pennsylvania, and Arlington County, Va., were also designated as urban places. In all definitions, the population not classified as urban constitutes the rural population.

2 Components of totals may not sum to total figures printed due to rounding.

3 No Standard Metropolitan Statistical Area in state.

4 The District of Columbia contains no rural area.

5 The District of Columbia in its entirety constitutes an SMSA and, thus contains no "OUTSIDE SMSA" area.

Source: U.S. Bureau of the Census, U.S. Census of Population, 1960, 1970.

TABLE 14-10
POPULATION AND LAND AREA OF SELECTED COUNTRIES

CONTINENT AND COUNTRY	DATE OF LATEST CENSUS	POPULATION AS OF LATEST CENSUS (in millions)			MID-YEAR POPULATION ESTIMATES (in millions)		ANNUAL RATE OF INCREASE 1963-72 (%)	LAND AREA (thousands of Km ²)
		BOTH SEXES	MALE	FEMALE	1963	1972		
Africa								
Algeria	Apr. 1966 ¹	11,822	5,817	6,005	[11,205] ²	[15,270] ²	[3.5]	2,382
Egypt	May 1966	10,076	15,176	14,900	[27,947]	[36,839]	[2.5]	1,001 ³
Morocco	July 1971	15,179 ⁴	NA	NA	[11,665] ⁵	[15,825] ⁶	[6]	447
Nigeria ⁷	Nov. 1963	55,670	28,112	27,558	[46,324] ⁸	[58,020] ⁹	[2.5]	924
South Africa ⁸	May 1970	21,448 ⁹	10,361 ⁹	10,887 ⁹	[18,077]	[22,987]	[2.7]	1,221
Sudan ⁹	Jan. 1956	10,263 ⁹	5,186 ⁹	5,076 ⁹	[12,944]	[16,489]	[2.7]	2,506
North America								
Canada ⁴	June 1971	21,568	10,795	10,773	18,966	21,848	1.6	9,976
Cuba	Sep. 1970	8,553 ⁸	4,375 ⁸	4,178 ⁸	7,236 ⁸	8,749 ⁸	2.0	-876
Dominican Republic	June 1971	4,006	1,995	2,007	[3,315]	[4,305]	[2.9]	-880
Mexico ¹⁰	Jan. 1970	48,225	24,066	24,160	[38,665]	[52,641]	[3.5]	1,973
United States ¹¹	Apr. 1970	203,235 ¹²	98,912	104,300	189,240	208,842	1.1	9,363
South America								
Argentina	Sep. 1970	23,362 ⁸	11,601 ⁸	11,761 ⁸	[20,849]	[23,923]	[1.5]	2,777
Brazil ¹³	Sep. 1970	93,139 ⁸	46,331 ⁸	46,808 ⁸	[76,526]	[98,854]	[2.9]	8,512
Colombia	July 1964	17,485	8,615	8,870	[16,943] ¹⁴	[22,491] ¹⁴	[3.2]	1,139
Peru	June 1972	15,372 ⁸	6,787 ⁸	6,786	[10,958] ⁵	[14,456] ⁵	[3.1]	1,285
Venezuela ¹⁵	Nov. 1971	10,722 ⁸	NA	NA	[8,144] ⁵	[10,969] ⁵	[3.4]	912
Asia								
Bangladesh ¹⁶	Feb. 1961	50,854	NA	NA	[53,209]	NA	NA	143
Burma	Mar. 1973	28,886 ¹⁷	14,357 ¹⁷	14,529 ¹⁷	[23,735]	NA	NA	678
China	June 1953	590,195 ¹⁸	297,554 ¹⁸	276,652 ¹⁸	[682,248] ⁸	[800,721] ⁸	[1.8]	9,597
India ¹⁹	Apr. 1971	347,950	283,937	264,013	[462,027] ⁸	[563,494] ⁸	[2.2]	3,280
Indonesia ²⁰	Sep. 1971	118,468 ⁸	98,878 ⁸	60,181 ⁸	[99,768] ⁸	[121,630]	[2.2]	1,492
Iran	Nov. 1966	25,785	12,982 ²¹	12,803 ²¹	[23,427]	[30,550]	[3.0]	1,648
Iraq	Oct. 1965	8,047	4,103	3,945	[7,554]	[10,074]	[3.3]	435
Israel ¹⁶	May 1972	3,124 ⁸	NA	NA	2,376 ⁵	3,080 ⁵	2.9	21
Japan ^{22,23}	Oct. 1970	104,665	51,369	53,296	96,812	106,958	1.1	372
Korea	May 1964	25,120 ⁸	12,521 ⁸	12,599 ⁸	[38,359] ⁸	[47,049] ⁸	[2.3]	220 ²⁴
Nepal	June 1971	11,556 ⁸	5,817 ⁸	5,739 ⁸	[9,732]	[11,467]	[1.8]	141
Pakistan ²⁵	Sep. 1972	64,892 ⁸	NA	NA	[45,486] ⁵	[56,065] ⁵	[2.4]	804
Philippines ⁸	May 1970	36,684	18,250	18,434	[29,859]	[39,040]	[3.0]	300
Thailand	Apr. 1970	34,152 ⁸	17,002 ⁸	17,150 ⁸	[28,503] ⁸	[36,286] ⁸	[3.1]	514
Turkey	Oct. 1970	35,467 ⁸	18,061 ⁸	17,504 ⁸	[29,655]	[37,010]	[2.5]	781
Republic of Vietnam	Mar. 1960	15,917 ²⁶	7,688 ²⁶	8,229 ²⁶	[17,900] ⁸	[22,038] ⁸	[2.3]	159
Europe								
Czechoslovakia	Dec. 1970	14,362 ⁸	6,989 ⁸	7,372 ⁸	13,952 ⁵	14,481	[6]	128
France ²⁷	Mar. 1968	49,779 ⁸	NA	NA	47,816	51,700 ⁸	0.9	547
German Democratic Republic ⁸	Jan. 1971	17,068	7,865	9,203	17,155	17,043 ⁸	-0.1	108
Republic of Germany ⁸	May 1970	60,651	28,867	31,784	57,606	61,674	0.8	249
Hungary	Jan. 1970	10,332	5,004	5,318	10,091	10,398	0.3	93
Italy ⁸	Oct. 1971	54,025 ⁸	26,382 ⁸	27,643 ⁸	51,177	54,345	0.7	301
Netherlands ⁸	May 1960	11,462	5,707	5,755	11,967	13,330	1.2	41
Poland ²⁹	Dec. 1970	32,642	15,854	16,789	30,691 ⁵	33,068	[9]	313
Spain ³⁰	Dec. 1970	33,986 ⁸	16,575 ⁸	17,381 ⁸	[31,392]	[34,494]	[1.1]	505
United Kingdom of Great Britain and Northern Ireland³¹								
Ireland ³¹	Apr. 1971	55,355 ⁸	26,888 ⁸	28,467 ⁸	53,637	55,788	0.4	244
Yugoslavia ⁸	Mar. 1971	20,523	10,077	10,446	19,029	20,772	1.0	256
Oceania								
Australia ³²	June 1971	12,756	6,413	6,343	10,950	12,959	1.9	7,687
Union of Soviet Socialist Republics	Jan. 1970	241,720	111,399	130,321	225	247 ⁸	1.1	22,402

TABLE 14-18 (CONCLUDED)

NA Not available.
 * Provisional
 x United Nations Estimate

1] Indicate estimates of questionable reliability and/or rates of questionable reliability.
 1 In the departments of Oeas and Saoura, enumeration took place between 22 December 1965 and 20 January 1966.
 2 Population is based on government estimates and includes nationals living abroad numbering 268,868 at 1966 census.
 3 Inhabited and cultivated territory accounts for 35,580 Km²; corresponding density is 913.
 4 Population is based on government estimates.
 5 Estimate as not revised in accord with latest census.
 6 Rate not computed because of apparent lack of comparability between estimates shown for 1963 and 1972.
 7 There is a possibility that the 1963 census overstated the population. The size of this possible overstatement may be judged from the midyear estimates for 1963 and 1971 provided by the United Nations Population Division.
 8 Excluding data for Walvis Bay, which is in integral part of South Africa but is administered as if it were part of Namibia (area 1,124 Km², population 12,048 in 1960).
 9 Estimate based on results of sample survey of population covering 1,883,380 persons, comprising 10 percent of rural and nomadic population and 100 percent of that in 68 towns.
 10 Census results exclude and midyear estimates include adjustment for underenumeration, estimated as follows:

	Percentage Adjustment	Adjusted Census Total
Bolivia	8.4	3,019,031
Costa Rica	3.2	1,378,705
Ecuador	NA	NA
Honduras	NA	NA
Hong Kong	1.05	NA
Mexico	NA	NA
Paraguay	NA	NA
Sierra Leone	5.0	NA
Tunisia	4.0	NA
Uruguay	NA	NA

For Bolivia, adjusted census total includes an estimate of 87,000 for Indian jungle population.
 For Paraguay, census total excludes and midyear estimates include an allowance for Indian jungle population estimated at 35,000 in 1962.
 For Peru, adjusted census total includes an estimate of 100,830 for Indian jungle population, but unadjusted census total and midyear estimates exclude Indian jungle population.

11 Population is *de jure* but excludes civilian citizens absent from country for extended periods of time. Census figures also exclude Armed Forces overseas.
 12 "Both sexes" includes a late revision made to correct errors found in total after detailed tabulations were complete.
 13 Population excludes Indian jungle inhabitants.
 14 Data are for the 15 July of year stated.
 15 Population excludes Indian jungle inhabitants estimated at 31,800 in 1961.
 16 Census results and midyear estimates exclude adjustment for underenumeration, estimated as follows:

	Percentage Adjustment	Adjusted Census Total
Bangladesh	NA	NA
Guatemala	3.7	NA

17 Including 1,600 residents who were absent at the time of the census.
 18 Population registered. Figure for "Both Sexes" includes an estimate of 7,591,298 for Taiwan Province and 8,397,477 for persons living in outlying areas where local registration offices were not established. No adjustment has been made for 0.1 percent estimated net underenumeration. Source: Communiqué issued 1 November 1954 by the State Statistical Bureau concerning the result of the National Population Census and Registration, published in *Jen-min Jih-pao* (People's Daily), Peking, 1 November 1954.
 19 Including Andaman, Nicobar, Laccadive, Minicoy and Amindivi Islands; excluding Sikkim also including Jammu and Kashmir, the final status of which has not yet been determined.
 20 Excluding West Irian.
 21 For settled population only; nomadic tribes (numbering 462,146 for both sexes) and other unsettled population (numbering 264,141 for both sexes) were excluded.
 22 Including Okinawa prefecture (formerly shown as Ryukyu Islands).
 23 Comprising Hokkaido, Hainan, Shikoku, Ryukyu, the Amami Islands, and the Tokara Archipelago. Population excludes diplomatic personnel outside the country and foreign military and civilian personnel and their dependents stationed in the area.
 24 Includes the area of the demilitarized zone (1,462 Km²).
 25 Data are for territory excluding Jammu and Kashmir, the final status of which has not yet been determined (total area 222,802 Km² of which 83,807 Km² is held by Pakistan); data also exclude Junagarah, Manavadar, Gilgit and Baltistan.
 26 Source: *Xhuan Dan* (The People), 2 November 1960, Democratic Republic of Viet-Nam.
 27 Population is based on government estimates, but excludes diplomatic personnel outside the country and includes foreign diplomatic personnel not living in embassies or consulates.
 28 Excluding military personnel stationed outside the country who do not have a personal residence in France, numbering about 16,000.
 29 Population excludes civilian aliens within the country but includes civilian nationals temporarily outside the country.
 30 Continental Spain which includes the Balearic and Canary Islands; also including Albuernas, Ceuta, Chafarinas, Melilla and Penon de Velez de la Gomera.
 31 Excluding Channel Islands and Isle of Man.
 32 Population excludes armed forces stationed outside the country.

Source: Statistical Office of the United Nations, Department of Economic and Social Affairs, *Statistical Yearbook, 1972, 1973*.

TABLE 15-2
RATES OF ECONOMIC GROWTH¹

TERMINAL YEAR	INITIAL YEAR															
	1910	1915	1920	1925	1929	1935	1940	1945	1950	1955	1960	1965	1970	1971	1972	1973
1911	2.6	NA	NA	NA	NA	NA	NA	NA	NA	NA						
1916	1.9	7.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1921	0.6	0.4	-8.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1926	2.9	3.9	5.2	5.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1931	1.6	1.9	1.7	-1.0	-8.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1936	1.8	2.1	2.0	0.7	-0.8	13.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1941	2.6	2.9	3.1	2.4	2.2	7.6	16.1	NA	NA	NA	NA	NA	NA	NA	NA	NA
1946	2.7	3.0	3.1	2.7	2.6	5.7	5.5	-12.0	NA							
1951	2.9	3.2	3.3	3.0	2.9	5.2	4.9	1.3	7.9	NA						
1956	2.9	3.2	3.3	3.0	2.9	4.7	4.3	2.1	3.9	1.8	NA	NA	NA	NA	NA	NA
1961	2.8	3.1	3.1	2.9	2.8	4.2	3.8	2.1	3.1	2.1	1.9	NA	NA	NA	NA	NA
1965	3.0	3.3	3.4	3.1	3.1	4.4	4.1	2.8	3.8	3.5	4.8	NA	NA	NA	NA	NA
1966	3.1	3.3	3.4	3.2	3.2	4.5	4.2	3.0	3.9	3.8	5.1	6.5	NA	NA	NA	NA
1967	3.1	3.3	3.4	3.2	3.2	4.4	4.1	3.0	3.8	3.7	4.8	4.5	NA	NA	NA	NA
1968	3.1	3.3	3.4	3.2	3.2	4.4	4.1	3.0	3.9	3.7	4.7	4.6	NA	NA	NA	NA
1969	3.1	3.3	3.4	3.2	3.2	4.4	4.1	3.0	3.8	3.7	4.5	4.1	NA	NA	NA	NA
1970	3.0	3.2	3.3	3.1	3.1	4.2	3.9	2.9	3.6	3.4	4.0	3.2	NA	NA	NA	NA
1971	3.0	3.2	3.3	3.1	3.1	4.2	3.9	2.9	3.6	3.4	3.9	3.2	3.3	NA	NA	NA
1972	3.1	3.3	3.4	3.2	3.2	4.3	4.0	3.0	3.7	3.5	4.1	3.6	4.7	6.2	NA	NA
1973	3.1	3.3	3.4	3.3	3.3	4.3	4.0	3.1	3.8	3.7	4.3	3.9	5.1	6.0	5.9	NA
1974	3.1	3.3	3.3	3.2	3.2	4.1	3.9	2.9	3.6	3.4	3.8	3.2	3.3	3.2	1.8	-2.1

NA Not applicable.

¹ Figures represent average annual compounded rates of change in gross national product, based on estimates by Department of Commerce of real gross national product (expressed in constant 1958 dollars). Minus sign (-) denotes decline. To obtain annual rate of change between any 2 years shown, find column for initial year at top of table and read figure in that column opposite terminal year shown at left.

Sources: U.S. Department of Commerce, Bureau of Economic Analysis, Long Term Economic Growth, 1860-1970; The National Income and Product Accounts of the U.S., 1929-1965; Survey of Current Business, July issues and March 1975.

TABLE 18-3
PERSONAL CONSUMPTION EXPENDITURES, BY TYPE OF PRODUCT
(in billions of constant dollars, 1956 base year)

	1950	1960	1970	1971	1972	1973
PERSONAL CONSUMPTION EXPENDITURES¹	230.5	316.1	477.5	496.4	527.3	552.1
Durable goods	34.7	44.9	83.8	92.5	104.9	113.6
Autos and parts	15.9	20.0	34.4	41.4	47.2	50.8
New cars and net purchases of used cars ²	14.2	17.5	29.2	35.8	40.9	44.0
Tires, tubes, accessories, and parts	1.7	2.5	5.2	5.6	6.3	6.7
Furniture and household equipment	15.1	19.7	36.9	38.5	43.9	48.4
Furniture, including mattresses and bedspreads	3.6	4.6	6.4	6.6	7.2	7.7
Kitchen and other household appliances	3.7	5.0	9.9	10.4	11.8	13.1
China, glassware, tableware and utensils, and other durable house furnishings	5.8	5.9	10.6	11.3	12.8	14.1
Radio and television receivers, records, and musical instruments	2.0	3.2	10.1	10.3	12.1	13.5
Other durable goods	3.7	6.2	12.6	12.6	13.8	14.4
Orthochemic products and orthopedic appliances	0.3	0.7	1.3	1.2	1.2	1.3
Unrelated goods, durable toys, sport equipment, boats, and pleasure aircraft	1.0	2.1	4.6	4.8	5.9	6.3
Nondurable goods	114.0	149.6	206.5	211.3	220.2	228.6
Food and beverages	63.2	80.8	101.2	103.0	104.5	106.4
Food purchases for off-premise consumption	46.9	62.8	78.6	80.5	81.1	81.8
Food excluding alcoholic beverages	34.1	70.5	86.1	87.3	88.2	89.6
Alcoholic beverages	9.1	10.3	15.1	15.7	16.3	16.9
Purchased meals and beverages	15.3	15.5	20.3	20.3	21.3	22.5
Food furnished government (including military) and commercial employees, and food produced and consumed on farms	3.1	2.6	2.3	2.2	2.1	2.1
Clothing and shoes	21.8	26.6	39.1	40.2	43.6	46.3
Shoes and other footwear	4.2	4.2	5.4	5.4	5.8	6.2
Women's and children's clothing and accessories	10.6	14.5	22.2	23.4	24.8	26.4
Men's and boys' clothing and accessories, and standard clothing issued to military personnel	7.0	7.9	11.6	12.0	13.0	13.7
Gasoline and oil	6.5	11.8	18.7	19.5	20.1	21.4
Other nondurable goods	22.5	30.4	47.5	48.0	51.6	56.5
Tobacco products	5.2	6.5	7.2	7.3	7.6	8.0
Toilet articles and preparations	1.6	2.9	3.6	3.6	4.0	4.4
Semi-durable house furnishings	2.5	2.7	5.1	5.5	6.0	6.6
Cleaning and polishing preparations, and miscellaneous household supplies and paper products	2.2	3.3	5.0	4.9	5.0	5.5
Other fuel and ice	4.0	4.2	5.4	5.2	5.9	6.2
Drug preparations and sundries	2.0	3.6	6.9	7.1	7.8	8.3
Nondurable toys and sport supplies	1.6	2.4	5.3	5.4	6.2	6.7
Services	81.8	121.6	187.2	192.6	202.2	209.9
Housing	26.8	44.9	72.6	75.6	79.4	82.0
Owner-occupied nonfarm dwellings - space-rental value	15.6	29.8	48.2	50.3	53.1	55.2
Tenant-occupied nonfarm dwellings (including lodging houses) - space rent	8.7	11.9	20.4	21.3	22.3	22.7
Rental value of farmhouses	1.6	1.9	1.7	1.7	1.7	1.7
Household operation services	11.7	18.8	29.8	30.4	32.0	33.7
Electricity	2.3	4.9	9.0	9.4	10.0	10.7
Gas	1.4	2.9	4.3	4.3	4.5	4.3
Water and other sanitary services	1.0	1.2	1.6	1.6	1.7	1.7
Telephone	2.2	4.4	9.4	9.8	10.5	11.6
Domestic service	1.4	3.4	2.7	2.7	2.6	2.5
Transportation services	8.5	10.1	12.6	12.8	13.2	13.9
User-operated transportation services	4.5	7.0	8.8	9.1	9.4	9.9
Purchased local transportation	3.0	1.9	1.4	1.4	1.3	1.3
Street and electric railway and local bus	2.3	1.2	0.8	0.8	0.8	0.8
Purchased intercity transportation	1.0	1.2	2.3	2.5	2.5	2.7
Railway (excluding commutation)	0.4	0.3	0.1	0.1	0.1	0.1
Intercity bus	0.4	0.3	0.3	0.3	0.3	0.3
Airline	0.1	0.6	1.9	2.0	2.1	2.3
Other services	34.8	47.9	72.3	73.8	77.5	80.3
Shoe cleaning and repair	0.3	0.2	0.3	0.3	0.3	0.3
Cleaning, dyeing, pressing, alteration, storage and repair of garments including furs, and laundering, in establishments	2.9	2.8	3.0	2.8	2.9	2.7
Barbershops, beauty parlors, and baths	1.5	2.2	2.7	2.6	2.7	2.7
Medical care services	8.9	13.7	22.6	23.1	24.2	25.5
Physicians	3.6	4.9	7.5	7.7	8.0	8.5
Dentists	1.3	1.9	2.8	2.6	2.7	2.8
Services furnished without payment by financial intermediaries except insurance companies	3.1	4.3	7.6	8.4	9.3	9.9
Admissions to specified spectator amusements	2.3	1.5	1.2	1.2	1.2	1.3

1 Totals and subtotals include items not shown separately.
2 Includes consumer purchases of mobile homes.

Sources: U.S. Department of Commerce, Bureau of Economic Analysis, *The National Income and Products Accounts of the U.S. 1929-1965*, and *Survey of Current Business*, July issues.

TABLE 16-4
EXPENDITURES FOR NEW PLANT AND EQUIPMENT, BY U.S. BUSINESS¹
(in billions of current dollars)

INDUSTRY	1950	1960	1970	1971	1972	1973	1974	1975 ²
ALL INDUSTRIES	20.21	36.75	79.71	81.21	88.44	99.74	112.40	116.06
Manufacturing	7.39	15.09	31.95	29.99	31.35	38.01	46.01	49.30
Durable goods	2.94	7.23	15.80	14.15	15.64	19.25	22.62	22.62
Primary metals ³	0.72	1.82	3.24	2.78	2.75	3.43	4.95	5.93
Blast furnaces, steelworks	0.43	1.35	1.68	1.37	1.24	1.38	2.12	2.86
Nonferrous metals	0.13	0.32	1.24	1.08	1.18	1.67	2.33	2.34
Electrical machinery	0.25	0.90	2.27	2.14	2.39	2.84	2.97	2.69
Machinery, except electrical	0.41	1.25	3.47	2.80	2.90	3.42	4.42	4.61
Transportation equipment ³	0.57	1.25	2.43	2.13	2.53	3.12	3.75	3.23
Motor vehicles	0.49	0.79	1.59	1.51	1.83	2.28	2.70	2.18
Aircraft ⁴	0.06	0.34	0.54	0.38	0.43	0.53	0.80	0.82
Stone, clay, and glass	0.30	0.75	0.99	0.85	1.20	1.49	1.44	1.46
Other durables ⁵	0.70	1.26	3.41	3.45	3.87	4.96	5.10	4.70
Nondurable goods	4.45	7.85	16.15	15.84	15.72	18.76	23.39	26.68
Food including beverage	0.78	1.34	2.84	2.69	2.55	3.11	3.25	3.46
Textiles	0.43	0.37	0.56	0.61	0.73	0.77	0.84	0.70
Paper	0.33	0.77	1.65	1.25	1.38	1.86	2.58	2.98
Chemicals	0.77	1.55	3.44	3.44	3.45	4.46	5.69	6.31
Petroleum	1.63	2.89	5.62	5.85	5.25	5.45	8.00	10.19
Rubber	0.14	0.31	0.94	0.84	1.08	1.56	1.47	1.41
Other nondurables ⁶	0.37	0.62	1.11	1.15	1.27	1.56	1.55	1.63
Nonmanufacturing	12.82	21.66	47.76	51.22	57.09	61.73	66.39	66.77
Mining	0.84	1.30	1.89	2.16	2.42	2.74	3.18	3.90
Railroad	1.18	1.16	1.78	1.67	1.80	1.96	2.54	2.89
Air transportation	0.10	0.66	3.03	1.88	2.46	2.41	2.00	1.89
Other transportation	1.09	1.30	1.23	1.38	1.46	1.66	2.12	2.69
Public utilities	3.24	5.24	13.14	15.30	17.00	18.71	20.55	20.56
Electric	2.07	3.62	10.65	12.86	14.48	15.94	17.63	17.51
Gas and other	1.18	1.62	2.49	2.44	2.52	2.76	2.92	3.04
Communication	1.14	3.24	10.10	10.77	11.89	12.85	13.96	13.57
Commercial and other ⁷	5.22	8.75	16.59	18.05	20.07	21.40	22.05	21.28

¹ Excludes agricultural business; real estate operators; medical, legal, educational, and cultural services; and nonprofit organizations.

² Estimates are based on expected capital expenditures reported by business in late January and February 1975. The estimates for the first quarter, second quarter, and second half of 1975 have been corrected for systematic biases. Before such adjustments, 1975 expenditures were expected to be \$117.19 billion for all industries, \$51.54 billion for manufacturing and \$65.65 billion for nonmanufacturing.

³ Includes data not shown separately.

⁴ Includes guided missiles and space vehicles.

⁵ Includes fabricated metals, lumber, furniture, instruments and ordnance and miscellaneous, except guided missiles and space vehicles.

⁶ Includes apparel, tobacco, leather, and printing-publishing.

⁷ Includes trade, service, construction, finance, and insurance.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Survey of Current Business, January 1970, and March issues of 1972-1975.

TABLE 15-8
BUSINESS EXPENDITURES FOR AIR AND WATER POLLUTION CONTROL
(in millions of dollars)¹

INDUSTRY	1970		1971		1972		1973		1974		1975 ¹	
	AIR	WATER	AIR	WATER								
ALL INDUSTRIES	\$1,343	\$1,159	\$1,801	\$1,444	\$2,805	\$1,696	\$3,705	\$1,982	\$4,015	\$2,907	\$4,739	\$3,615
Manufacturing	847	872	1,277	1,026	1,483	1,082	2,041	1,350	2,304	1,736	2,597	2,039
Durable Goods	479	374	601	383	641	391	920	534	1,297	770	1,293	863
Iron and Steel	86	120	112	105	104	89	136	70	141	102	381	253
Nonferrous Metals	80	20	82	29	131	30	236	43	434	205	269	140
Electrical Machinery	23	27	36	34	31	36	48	57	36	33	35	40
Machinery	82	39	62	33	58	53	80	65	100	80	103	79
Autos, Trucks, and Parts	43	22	63	38	72	50	128	105	155	127	90	68
Aerospace	9	6	13	5	15	11	14	9	10	6	12	8
Other Transportation Equipment	12	3	11	4	4	1	7	2	16	8	5	2
Fabricated Metals	25	28	68	21	68	42	53	81	79	29	73	49
Instruments	18	7	25	35	8	15	20	11	27	28	24	24
Stone, Clay, and Glass	39	25	85	27	72	43	89	45	158	94	178	99
Other Durables	58	77	44	54	58	21	89	42	117	66	123	101
Non-durable Goods	368	498	603	641	844	691	1,121	816	1,007	966	1,304	1,176
Chemicals	79	90	124	158	162	214	183	272	182	233	201	396
Paper	59	94	122	135	172	149	275	149	253	175	307	233
Rubber	32	18	21	24	31	31	70	27	19	23	59	28
Petroleum	152	185	281	246	373	189	441	251	400	176	618	398
Food and Beverages	38	46	43	58	64	68	102	92	107	324	94	92
Textiles	4	9	5	15	9	10	10	17	25	20	16	15
Other Durables	4	56	7	5	33	30	40	8	21	13	9	14
Nonmanufacturing	496	287	597	418	1,320	614	1,664	632	1,711	1,171	2,142	1,576
Mining	73	42	29	32	82	42	159	48	140	84	231	168
Railroads	21	7	8	12	9	20	22	22	25	33	23	40
Airlines	18	3	13	2	54	5	224	0	172	12	140	13
Other Transportation	3	1	42	31	5	7	29	5	25	19	25	11
Communications	2	2	2	2	95	190	128	128	321	349	536	536
Electric Utilities	256	149	334	231	912	232	845	367	758	494	970	564
Gas Utilities	75	35	27	22	23	18	22	19	38	26	61	44
Commercial ³	50	50	144	90	140	100	235	43	242	154	156	200

¹ Planned

² Less than \$500,000.

³ Figures based on large chain, mail order and department stores; insurance companies; banks; and other commercial businesses.

Source: McGraw-Hill Publications Company, Economics Department, Annual McGraw-Hill Survey of Pollution Control Expenditures, 1971, 1972, 1973, 1974, 1975.

TABLE 15-6
WHOLESALE PRICE INDEX FOR SELECTED COMMODITIES
(1967 = 100, except as indicated)

COMMODITY GROUP	1950 ¹	1960 ¹	1970	1971	1972	1973	1974
All Commodities	81.8	94.9	110.4	113.9	119.1	134.7	160.1
Farm products	106.7	97.2	111.0	112.9	125.0	176.3	187.7
Processed foods and feeds	83.4	89.5	112.1	114.3	120.8	148.1	170.9
Industrial Commodities	78.0	95.3	110.0	114.0	117.9	125.9	153.8
Textile products and apparel	102.7	99.5	107.1	108.6	113.6	123.8	139.1
Hides, skins, leather, related products	86.3	90.8	110.3	114.0	131.3	143.1	145.1
Fuels, related products, and power	87.1	96.1	106.2	114.2	118.6	134.3	208.3
Coal	83.3	95.6	130.3	181.8	193.8	218.1	332.4
Coke	63.0	92.5	127.4	148.7	155.5	166.6	247.7
Gas fuels	(NA)	87.2	103.6	108.0	114.1	126.7	162.2
Electric power	(NA)	101.2	105.9	113.6	121.5	129.3	183.1
Crude petroleum	83.2	98.6	106.1	113.2	113.8	126.0	211.8
Petroleum products, refined	85.1	95.5	101.0	106.8	108.9	128.7	223.4
Chemicals and allied products	88.9	101.8	102.2	104.2	104.2	110.0	146.8
Industrial chemicals	84.0	103.2	100.9	102.0	101.2	103.4	151.7
Paint materials	98.0	111.9	101.4	101.5	104.1	113.2	152.3
Drugs and pharmaceuticals	105.2	106.6	101.2	102.4	103.0	104.3	112.7
Plastic resins and materials	107.5	108.2	90.6	88.9	88.7	92.1	143.8
Rubber and plastic products	85.9	103.1	108.3	109.2	109.3	112.4	136.2
Crude rubber	129.7	128.3	101.6	99.3	99.2	111.9	139.4
Tires and tubes	79.5	96.9	109.0	109.2	109.2	111.4	133.4
Lumber and wood products	89.3	95.3	113.6	127.0	144.3	177.2	183.6
Lumber	86.6	92.1	113.7	135.5	159.4	205.2	207.1
Millwork	78.2	93.1	116.0	120.7	128.4	144.2	157.1
Pulp, paper, and allied products	74.3	98.1	108.2	110.1	113.4	122.1	151.7
Wood pulp	81.0	102.2	109.6	112.0	111.5	128.3	217.8
Paper	67.9	92.7	111.0	114.1	116.3	121.4	148.6
Converted paper and paperboard products	73.2	98.0	107.9	109.7	113.6	121.6	144.9
Building paper and board	81.5	110.3	101.0	103.0	106.4	112.8	123.5
Metals and metal products	66.3	92.4	116.6	119.0	123.5	132.8	171.9
Iron and steel	64.6	97.1	115.1	121.8	128.4	136.2	178.6
Steel mill products	59.4	96.4	114.2	123.0	130.4	134.1	170.0
Nonferrous metals	64.4	85.9	124.7	116.0	116.9	135.0	187.1
Heating equipment	93.5	105.8	110.6	115.5	118.2	120.4	135.0
Fabricated structural metal products	74.0	95.7	112.0	118.2	122.4	127.4	161.2
Machinery and equipment	63.1	92.0	111.4	115.5	117.9	121.7	139.4
Agricultural machinery excluding tractors	62.3	84.9	112.4	116.4	122.3	126.6	145.0
Construction	54.5	85.9	115.9	121.4	125.7	130.7	152.3
Metal working	55.1	85.1	114.1	117.3	120.2	125.5	146.9
Electrical	68.9	99.5	106.4	109.5	110.4	112.4	125.0
Furniture and household durables	84.7	99.0	107.5	109.9	111.4	115.2	127.9
Nonmetallic mineral products	75.4	97.2	112.9	122.4	126.1	130.2	153.2
Flat glass	75.6	93.3	115.6	123.9	122.4	121.4	128.8
Concrete products	78.2	97.2	112.2	120.6	125.6	131.7	151.7
Structural clay products	72.1	93.7	109.9	114.2	117.3	123.3	135.2
Transportation equipment ²	(NA)	(NA)	104.6	110.3	113.7	115.1	125.5
Motor vehicles and equipment	75.3	98.8	108.7	114.7	118.0	119.2	129.2
Motor vehicle parts	(NA)	(NA)	112.9	120.2	126.0	129.0	143.8
Railroad equipment	(NA)	(NA)	115.1	121.1	128.7	134.7	163.8

NA Not available.

¹ Excludes Alaska and Hawaii.

² December 1968 = 100.

Sources: U.S. Department of Labor, Bureau of Labor Statistics, Wholesale Price Indexes, monthly and annual; Monthly Labor Review; and unpublished data.

TABLE 15-7
CONSUMER PRICE INDEX FOR SELECTED ITEMS AND GROUPS
(1987=100)

COMMODITY	1950	1960	1970	1971	1972	1973	1974
All Items	72.1	88.7	116.3	121.3	125.3	133.1	147.7
All Commodities	78.8	91.5	113.5	117.4	120.9	129.9	145.5
Durable	88.4	96.7	111.8	116.5	118.9	121.9	130.6
Nondurable	75.4	89.4	114.0	117.7	121.7	132.8	151.0
Food	74.5	88.0	114.9	118.4	123.5	141.4	161.7
Food Away from Home	NA	81.4	119.9	126.1	131.1	141.4	159.4
Food at Home	NA	89.6	113.7	116.4	121.6	141.4	162.4
Housing	72.8	90.2	118.9	124.3	129.2	135.0	150.6
Shelter	NA	87.8	123.6	128.8	134.5	140.7	154.3
Rent	70.4	91.7	110.1	115.2	119.2	124.3	130.2
Home Ownership Cost	NA	86.3	128.5	133.7	140.1	146.7	163.2
Fuel and Utilities	NA	95.9	107.6	115.0	120.1	126.9	150.2
Fuel Oil and Coal	72.7	89.2	110.1	117.5	118.5	136.0	214.6
Gas and Electricity	81.2	98.6	107.3	114.7	120.5	126.4	145.8
House Furnishings and Operation	95.5	99.3	111.4	114.3	116.2	119.0	130.8
Apparel and Upkeep	79.0	89.6	116.1	119.8	122.3	126.8	136.2
Transportation	68.2	89.6	112.7	118.6	120.9	123.8	137.7
Private	72.5	90.6	111.1	116.6	117.5	121.5	136.6
Automobiles, new	83.4	104.5	107.6	112.0	111.0	111.1	117.5
Automobiles, used	NA	83.6	104.3	110.2	110.5	117.6	122.6
Gasoline and Motor Oil	NA	93.0	106.2	107.3	108.8	118.8	158.9
Auto Insurance Premiums	44.4	77.5	126.7	141.1	140.5	138.0	138.1
Public	48.9	81.0	128.5	137.7	143.4	144.8	148.0
Local Transit Fares	43.6	77.1	134.5	143.4	150.1	150.1	148.0
Bus Fares	NA	NA	118.4	132.7	140.1	145.7	161.0
Health and Recreation	NA	85.1	116.2	122.2	126.1	130.2	140.3
Medical Care	53.7	79.1	120.6	128.4	132.5	137.7	150.5
Drugs and Prescriptions	88.5	104.5	103.6	105.4	105.6	105.9	109.6
Physicians Fees	55.2	77.0	121.4	129.8	133.9	138.2	150.9
Dentists Fees	63.9	82.1	119.4	127.0	132.3	136.4	146.8
Hospital Service Charges	NA	NA	NA	NA	102.0	105.6	115.1
Hospital, Semi-private Rooms	NA	57.3	145.4	163.1	173.9	182.1	201.5
Personal Care	NA	90.1	113.2	116.8	119.8	125.2	137.3
Reading and Recreation	74.4	87.3	113.4	119.3	122.8	125.9	133.8
All Services	58.7	83.5	121.6	128.4	133.3	139.1	152.0
Services Less Rent	56.0	81.9	123.7	130.8	135.9	141.8	156.0
Household Services Less Rent	NA	85.0	126.8	132.6	139.2	146.8	166.0
Transportation Services	53.3	83.3	123.1	133.0	136.0	136.9	141.9
Medical Services	49.2	74.9	124.2	133.3	138.2	144.3	159.1
Other Services	NA	80.8	116.7	122.5	125.8	131.6	141.6
Special Groups							
All Items Less Shelter	73.1	88.9	114.4	119.3	122.9	131.1	146.1
All Items Less Food	71.1	88.8	116.7	122.1	125.8	130.7	143.6
All Items Less Medical Care	NA	89.4	116.1	120.9	124.9	132.9	147.7

NA Not Available.

Sources: U.S. Department of Labor, Bureau of Labor Statistics, *Monthly Labor Review*, February issues, and unpublished data.

TABLE 15-8
INDUSTRIAL PRODUCTION INDEXES, BY INDUSTRY
(1967=100)

MAJOR INDUSTRY GROUP	1950	1955	1960	1965	1969	1970	1971	1972	1973	1974
Industrial production	45	59	66	89	111	107	107	115	126	215
Manufacturing	45	58	65	89	111	105	105	114	125	124
Durable manufactures	44	60	63	89	110	101	99	108	122	121
Primary metals	71	85	74	104	114	107	101	113	127	124
Fabricated metal products	57	68	72	93	114	109	107	115	131	131
Machinery	(NA)	47	56	84	107	100	96	108	126	128
Transportation equipment	41	66	64	91	108	90	93	99	109	97
Instruments and related products	26	44	58	83	116	111	109	120	138	144
Clay, glass, and stone products	58	72	81	101	113	106	110	119	130	126
Lumber and products	65	76	74	95	109	106	114	122	129	120
Furniture and fixtures	52	66	72	93	107	99	102	114	126	127
Miscellaneous manufactures	49	65	68	94	116	117	121	131	143	144
Nondurable manufactures	46	57	69	90	111	111	114	122	130	130
Textile mill products	61	66	71	95	113	106	109	117	127	123
Apparel products	64	74	82	98	103	98	98	106	113	105
Leather and products	92	99	99	104	96	91	87	89	84	77
Paper and products	46	57	68	92	114	113	116	128	135	134
Printing and publishing	49	59	70	90	106	104	103	108	113	112
Chemicals and products	25	37	53	82	120	120	126	140	150	154
Petroleum products	48	66	77	93	108	113	116	121	127	124
Rubber and plastics products	31	43	54	84	120	116	126	146	164	164
Foods	58	66	78	92	108	112	115	119	123	126
Tobacco products	69	74	90	100	97	100	98	104	112	106
Mining	66	80	83	94	107	110	107	109	110	109
Utilities	27	43	62	87	120	128	134	143	153	150

NA. Not available.

Sources: Board of Governors of the Federal Reserve System, Federal Reserve Bulletin, May 1972, 1973, 1974, and 1975, and Industrial Production, 1971, 1971.

TABLE 15-9
INDEXES OF INDUSTRIAL OUTPUT PER MAN-HOUR¹
(1967=100)

INDUSTRY	OUTPUT PER ALL EMPLOYEES MAN-HOUR					OUTPUT PER PRODUCTION MAN-HOUR				
	1960	1970	1971	1972	1973 ^P	1960	1970	1971	1972	1973 ^P
Manufacturing:										
Aluminum rolling and drawing	66.4	109.1	119.0	134.0	150.5	NA	66.3	113.4	123.5	134.6
Bakery products	77.7	107.2	110.7	115.9	115.4	62.0	79.8	105.6	110.7	116.0
Bottled and canned soft drinks	82.9	118.8	127.4	133.3	141.5	NA	83.6	125.4	136.6	139.1
Candy and other confectionery	78.3	99.9	102.5	108.5	111.7	NA	81.5	101.0	106.6	112.8
Canning and preserving	81.1	105.7	111.1	116.7 ^P	NA	59.7	80.0	105.9	112.2	116.8 ^P
Cement, hydraulic	47.3	71.5	109.0	122.1	128.0	43.6	66.2	109.3	121.9	122.4
Concrete products	37.1	73.6	109.6	116.7	128.0 ^P	NA	55.5	72.7	109.0	117.8
Corrugated, solid fiber boxes	71.2	108.8	115.2	119.3	124.2	NA	76.5	110.8	117.9	120.4
Flour and other grain-mill products	50.4	71.7	110.9	116.0	128.6	48.7	72.2	111.2	114.8	126.2
Foodbeas	80.2	97.2	108.1	108.1	109.7	80.2	98.0	105.3	108.0	106.5
Glass containers	78.5	81.6	104.6	107.6	108.7	77.4	81.8	105.0	108.5	109.8
Gray iron foundries	86.6	108.4	113.6	118.8	119.2	NA	87.9	109.7	115.6	120.0
Major household appliances	66.3	105.8	120.3	130.7	126.9	NA	68.9	106.0	121.0	129.5
Malt liquors	45.9	65.2	119.2	124.1	140.4	46.4	64.9	120.3	127.7	140.6
Man-made fibers	72.1	119.3	140.4	158.6	171.0	NA	71.9	119.1	137.8	154.0
Metal cans	88.3	105.9	105.2	106.7	112.4	70.2	88.8	106.7	107.0	112.8
Metal castings and equipment	78.6	102.9	112.6	124.5	137.8	NA	78.2	105.9	116.3	124.6
Paints and allied products	88.2	98.0	110.6	116.3	114.8	NA	86.3	98.4	112.1	111.4
Paper, paperboard, pulp mills	56.4	74.8	114.9	131.4	134.3	53.0	73.9	115.8	123.1	132.2
Petroleum refining	39.0	62.7	107.6	113.2	137.0	36.6	62.1	108.6	115.3	135.5
Pharmaceuticals	NA	NA	113.3	120.8	136.6	NA	NA	115.0	131.2	142.9
Primary aluminum	48.9	81.9	108.9	119.6	119.5	47.5	83.0	109.8	122.7	121.4
Primary copper, lead and zinc	82.4	98.7	117.0	122.3	136.0	75.8	94.4	111.4	119.2	129.4
Radio and TV receiving sets	69.1	130.2	142.3	NA	NA	NA	72.6	140.4	NA	NA
Steel	78.3	82.3	101.5	105.6	111.8	72.5	82.3	102.8	107.2	111.9
Steel foundries	86.3	96.0	100.3	105.2	114.0	NA	87.1	97.4	104.2	115.2
Sugar	50.7	72.2	111.1	111.0	114.6	48.8	71.9	111.1	110.7	117.9
Tires and inner tubes	56.2	72.2	104.6	111.5	109.0	52.6	70.9	105.4	111.3	112.3
Tobacco products	60.2	83.7	102.9	108.3	107.0	58.1	82.4	103.4	109.4	110.2
Transportation and Utilities:										
Air transportation ²	27.1	52.3	109.7	111.6	128.5	NA	NA	NA	NA	NA
Gas and electric utilities	31.3	65.5	117.3	127.2	127.7	28.9	63.8	117.9	123.9	128.8
Intercity trucking ²	NA	85.0	106.8	113.6	129.0	NA	NA	NA	NA	NA
Petroleum pipelines	NA	50.2	121.3	122.0	132.4 ^P	NA	NA	127.7	129.9	142.9 ^P
RR transportation (car miles)	51.5	75.5	103.6	106.7	113.8	49.7	75.1	103.8	107.4	114.9
RR transport (revenue traffic)	42.0	63.6	110.1	112.1	131.5	40.4	63.2	110.3	113.2	122.5
Telephone communications	NA	85.8	109.6	118.1	123.2	NA	NA	NA	NA	NA

^P Preliminary

NA Not available

¹ The output measures underlying the output per man-hour index relate to the total production of the industry. They do not relate to the specific output of any single group of employees.

² Refers to output per employee rather than output per employee man-hour.

Source: U.S. Department of Labor, Bureau of Labor Statistics, *Indexes of Output Per Man-Hour, Selected Industries, 1974 edition.*

TABLE 15-10
FARM INPUT AND OUTPUT INDEXES
(1967 = 100)

ITEM	1950	1960	1970	1971	1972	1973	1974 ^p
<u>Crops Harvested (millions of acres)</u> ¹	345	324	293	305	296	322	326
<u>Man-hours of Farm Work (billions)</u>	15.1	9.8	6.2	6.1	5.9	5.9	5.9
<u>Indexes of Farm Inputs</u>							
Total Inputs	101	98	101	102	102	106	105
Farm Labor	214	143	92	90	87	87	87
Farm Real Estate	104	99	98	97	95	97	97
Mechanical Power and Machinery	83	95	101	103	101	111	109
Agricultural Chemicals ²	30	50	110	120	125	131	135
Feed, Seed, and Livestock Purchases ³	64	84	109	109	110	109	108
Taxes and Interest	77	87	106	104	107	105	104
Miscellaneous	93	109	107	105	113	120	120
<u>Indexes of Farm Output</u>							
Total Farm Output ⁴	74	91	101	111	110	112	109
<u>Crops</u> ⁵							
Total ⁶	77	93	101	112	113	119	110
Feed Grains	63	86	89	116	112	115	92
Hay and Forage	78	90	100	106	105	110	104
Food Grains	65	86	91	107	102	112	120
Vegetables	85	90	101	100	101	103	110
Fruits and Nuts	93	93	109	116	104	124	122
Cotton	137	170	139	145	187	174	157
Tobacco	103	99	97	86	88	89	100
Oil Crops	46	68	117	121	131	155	129
<u>Livestock and Products</u> ⁵							
Total ⁶	75	88	105	108	108	105	109
Meat Animals	74	85	108	112	110	109	117
Dairy Products	93	101	100	101	102	98	98
Poultry and Eggs	57	76	106	107	109	106	106

p Preliminary

1 Acreage harvested (excluding duplication) plus acreage in fruits, tree nuts, and farm gardens.

2 Fertilizer, lime, and pesticides.

3 Nonfarm portion of feed, seed, and livestock purchases.

4 Farm output measures the annual volume of net farm production available for eventual human use through sales from farms or consumption in farm households.

5 Gross production.

6 Includes certain items not shown separately.

Source: U.S. Department of Agriculture, Economic Research Service, Changes in Farm Production and Efficiency, annual.

TABLE 16-11
INDEXES OF FARM PRODUCTION PER MAN-HOUR, BY ENTERPRISE GROUP
(1967 = 100)

ENTERPRISE GROUP	1950	1960	1970	1971	1972	1973	1974 ¹
Farm Output ²	34	65	112	126	129	133	129
Total Livestock and Products							
Products ³	37	62	121	130	138	144	156
Meat Animals ⁴	55	70	116	126	131	137	147
Milk Cows ⁵	35	60	127	136	148	153	166
Poultry ⁶	21	55	120	129	142	149	166
Total Crops ⁷	36	66	110	120	124	128	117
Feed Grains ⁸	22	57	99	117	129	126	108
Hay & Forage ⁹	40	61	108	109	114	116	113
Food Grain ¹⁰	40	93	118	124	121	123	109
Vegetables ¹¹	53	83	113	116	116	116	122
Fruits and nuts ¹²	67	78	109	112	108	120	116
Sugar crops ¹³	38	78	116	126	128	122	120
Cotton ¹⁴	25	49	129	132	150	158	131
Tobacco	57	74	129	134	149	147	156
Oil crops ¹⁵	52	94	115	121	126	127	115

¹ Preliminary.

² Hours in ratio include labor used on crops, livestock, and overhead.

³ Production of livestock products. Horses and mules excluded. Includes clipped wool, mohair, honey, and beeswax. These items are not included in the separate groups of livestock and products shown.

⁴ Cattle and calves, sheep and lambs, and hogs.

⁵ Butter, butterfat, wholesale milk, retail milk, and milk consumed on farms.

⁶ Chickens and eggs, commercial broilers, and turkeys.

⁷ Includes farm gardens, hay seeds, pasture seeds, and cover crop seeds, and some miscellaneous crop production not included in separate groups of crops shown.

⁸ Corn for grain, oats, barley, and sorghum silage.

⁹ All hay, sorghum forage, corn silage, and sorghum silage.

¹⁰ All wheat, rye, buckwheat, and rice.

¹¹ Potatoes, sweet potatoes, dry edible beans, dry field peas, truck crops for processing, and truck crops for fresh market having value.

¹² Fruits, berries, and tree nuts having value. Citrus production is on year of harvest, 1960 to date; 1950 on year of bloom.

¹³ Sugar beets, sugarcane for sugar and seed, sugarcane syrup, and maple syrup.

¹⁴ Cotton lint and cottonseed.

¹⁵ Soybeans, peanuts picked and threshed, peanuts hogged, flaxseed, and tungnuts.

Source: U.S. Department of Agriculture, Economic Research Service, Changes in Farm Production and Efficiency, 1975.

TABLE 18-12
FEDERAL BUDGET FOR ENVIRONMENT, NATURAL RESOURCES, AND ENERGY
(in millions of dollars)

PROGRAM OR AGENCY ¹	OUTLAYS						
	ACTUAL					ESTIMATE	
	FY 1970	FY 1971	FY 1972	FY 1973	FY 1974	FY 1975	FY 1976
NET TOTAL²	2,480	2,716	3,761	589	6,390	9,412	10,028
Pollution Control and Abatement							
Sewage Plant Construction Grants	0	478	413	684	1,553	2,300	2,300
Other Present Programs ³	0	223	349	429	479	614	674
Subtotal, Pollution Control and Abatement	0	701	762	1,114	2,032	2,914	2,974
Conservation and Land Management⁴							
Forest Services ⁵	556	649	681	723	739	904	763
Bureau of Land Management and Other ⁵	199	188	211	226	340	216	230
Agricultural Conservation Programs	0	0	0	0	247	476	302
Other, including Offsetting Receipts	0	0	0	0	-348	-324	-356
Subtotal, Conservation and Land Management	755	837	892	949	757	1,272	939
Water Resources and Power							
Corps of Engineers ⁵	1,184	1,365	1,512	1,709	6	6	6
Department of the Interior							
Bureau of Reclamation ⁵	263	319	360	447			
Power Marketing Agencies ⁵	139	0	0	0			
Office of Saline Water ⁵	30	0	0	0			
Office of Water Resources, Research and Other	11	0	0	0			
Other Water and Power Programs ⁵	0	186	178	185			
Tennessee Valley Authority	211	367	448	367			
Soil Conservation Service - Watershed Projects ⁵	115	118	126	124			
Federal Power Commission and Other ⁵	28	35	38	40			
Environmental Protection Agency ⁵	262	0	0	0			
Subtotal, Water Resources and Power	2,245	2,390	2,662	2,873	2,540	3,301	3,282
Recreational Resources							
Bureau of Outdoor Recreation ⁵	117	201	194	209	0	0	0
National Park Service ⁵	139	150	147	209	0	0	0
Bureau of Sports Fisheries and Wildlife ⁵ and Other	113	128	144	152	0	0	0
Purchase of New Recreational Areas	0	0	0	0	248	256	292
Operation of Recreational Resources	0	0	0	0	414	564	564
Subtotal, Recreational Resources	371	479	525	570	662	800	856
Mineral Resources⁵							
	94	130	112	122	0	0	0
Other Natural Resources Programs							
	122	136	153	168	498	546	607
Energy⁷							
General Operating Programs	0	0	0	0	-223	152	498
Regulation	0	0	0	0	90	171	164
Research and Development	0	0	0	0	729	1,131	1,377
Subtotal, Energy	0	0	0	0	606	1,454	2,240
SUBTOTAL, ALL OUTLAYS, BEFORE DEDUCTIONS	3,587	4,673	5,106	5,796	7,095	10,287	10,898
Deductions for Offsetting Receipts							
Intrabudgetary Transactions ⁸	-1	-1	-1	-2	10	10	10
Proprietary Receipts from the Public ⁹	-1,104	-1,956					
Rents and Royalties on Outer Continental Shelf Lands			-279	-3,956			
Other			-1,066	-1,248			
SUBTOTAL, ALL DEDUCTIONS	-1,105	-1,957	-1,346	-5,206	-705	-875	-869

¹ Outlays for FY 1974 and subsequent fiscal years fall under slightly different programs or agencies due to the reorganization of Federal research and development responsibilities and the establishment of the Energy Research and Development Administration. This should be noted when attempting to compare outlays prior to FY 1974 with those after FY 1974. Forthcoming budgets are expected to be consistent with those of and subsequent to FY 1974.

² Data may not add to totals due to independent rounding.

³ Net of \$3 million of offsetting receipts in 1971, and \$1 million in 1974.

⁴ Prior to FY 1974, Conservation was not included in this category.

⁵ Includes both Federal funds and trust funds.

⁶ Water Resources and Power Budgetary outlays for FY 1974 and subsequent years are not broken down by Agency.

⁷ Energy programs in FY 1970 - FY 1973 were not included as environmental and natural resource outlays.

⁸ Certain payments between funds are accounted for as outlays of one fund and as receipts of another in financial statements that relate to the individual funds. When all funds are consolidated into a single total in the budget, the duplication involved in these intrabudgetary transactions must be eliminated. This is generally done by deducting the amounts involved from both the outlays and the budget authority for the agency receiving the payment. However, in a few cases where the payment is in the nature of a transfer of receipts, the deduction is made instead from the figures for the agency making the payment. Intrabudgetary transactions may be interfund (from one Federal fund to another, or from one trust fund to another) or intragovernmental (from a Federal fund to a trust fund or vice versa).

⁹ Receipts which arise out of the businesslike and market-oriented activities of the government and which are placed in the general fund, special funds, or trust funds - that is, loan repayments, interest, sale of property and products, charges for nonregulatory services, rents and royalties, etc. - are not counted as budget receipts, but are offset against budget authority and outlays and total for each agency and for each function. They are offset against budget authority in the same amounts.

¹⁰ Deductions for offsetting receipts for FY 1974 and subsequent years are not broken down by category.

Source: The Budget of the United States Government, Fiscal Years 1972, 1973, 1974, 1975, 1976.

TABLE 15-13
FEDERAL BUDGETARY AUTHORITIES AND OUTLAYS FOR POLLUTION CONTROL AND ABATEMENT
(in millions of dollars)

ACTIVITY OR AGENCY	ACTUAL										ESTIMATES			
	1970		1971		1972		1973		1974		1975		1976	
	BUDGET AUTHORITY	OUTLAYS	BUDGET AUTHORITY	OUTLAYS	BUDGET AUTHORITY	OUTLAYS	BUDGET AUTHORITY	OUTLAYS	BUDGET AUTHORITY	OUTLAYS	BUDGET AUTHORITY	OUTLAYS	BUDGET AUTHORITY	OUTLAYS
Activity														
Financial aid to state and local governments	874	288	1,082	554	2,112	490	7,242 ¹	908 ¹	3,645	1,867	3,719	2,699	226 ²	2,752
Research and development ³	344	296	442	366	487	403	599	689	506	415	713	581	710	684
Standard setting and enforcement ⁴	80	72	131	92	172	164	217	215	313	304	372	368	434	417
Manpower development	16	12	19	17	14	10	16	14	12	10	11	10	17	13
Reduce pollution from Federal facilities	72	32	116	74	252	152	311	174	337	301	344	469	415	571
Other	48	52	49	45	159	95	135	125	83	79	87	85	130	106
Total ⁵	1,432	751	1,823	1,149	3,196	1,314	8,521	1,925	6,895	2,974	5,245	4,213	1,933	4,542
Agency														
Environmental Protection Agency	1,046 ⁶	388 ⁶	1,303 ⁶	718 ⁶	2,448	763	7,427	1,113	5,963	2,032	4,246	2,937	743 ⁷	1,080
Defense - Military	89	39	134	82	208	134	291	143	308	231	326	309	421	391
Energy Research and Development Administration ⁸	120	116	124	122	144	138	186	174	131	101	188	151	236	145
Transportation	17	11	52	22	86	40	90	51	92	59	48	79	97	99
Agriculture	60	91	71	67	100	77	142 ⁹	121 ⁹	125	123	100	172	119	166
Defense - Civil	3	3	8	7	9	8	13	13	9	9	10	10	10	10
Interior	36	37	46	45	112	73	114	97	48	41	56	51	66	58
Commerce	19	22	23	20	18	12	150 ⁹	102 ⁹	67	58	50	53	46	49
General Services Administration	1		4	2	0	0	0	0	0	0	0	0	0	0
National Aeronautics and Space Administration	21	15	25	25	27	16	61	34	68	23	65	55	65	66
National Science Foundation	7	7	10	9	15	15	15	14	13	14	17	15	13	15
Housing and Urban Development	0	0	0	0	0	0	0	0	8	155 ⁹	10	158	10	148
Tennessee Valley Authority	0	0	0	0	0	0	0	0	3	62 ¹⁰	3	142	3	171
Nuclear Regulatory Commission	0	0	0	0	0	0	0	0	54	54	69	69	92	92
Other agencies	12	23	22	31	29	38	32	63	6	9	13	13	13	14
Total ⁵	1,432	751	1,823	1,149	3,196	1,314	8,521	1,925	6,895	2,974	5,245	4,213	1,933	4,542

- Figures include water and sewer programs of the type funded by FMA and OEO. These figures were not included in previous figures for this activity.
- Contract authority for the Environmental Protection Agency's 1976 sewage facility grant program is included as 1975 budget authority since it is allocated and available for obligation in 1975. It therefore appears in column for budget authority for that year instead of the 1976 column.
- In 1970 "Research and Development" also included "Demonstration."
- Prior to Fiscal Year 1974, this activity was termed "Federal Abatement and Control Operations."
- Columns may not sum to totals due to independent rounding.
- Funding shown for EPA has been adjusted to include activities actually conducted by Departments of Health, Education, and Welfare, Agriculture, Interior, Atomic Energy Commission, and the Federal Radiation Council prior to December 2, 1970. The budget authority adjustment is \$42 million in 1970 and \$14 million in 1971, and the related outlay adjustment is \$37 million in 1970 and \$17 million in 1971.
- Prior to Fiscal Year 1974 these funds were for the Atomic Energy Commission.
- Figures include expenditures for water and sewer programs and were not included in previous figures for these agencies.
- The large difference between outlays and budget authority is primarily due to outlays from budget authority prior to 1974.
- The large difference between outlays and budget authority is primarily due to TVA's outlays on remedial action which are funded from revenues rather than budget authority.

Source: Special Analyses, Budget of the United States Government, Fiscal Years 1972, 1973, 1974, 1975, 1976.

TABLE 15-14
FEDERAL BUDGET OBLIGATIONS FOR POLLUTION CONTROL AND
ABATEMENT ACTIVITIES, BY MEDIA OR POLLUTANT
(in millions of dollars)

MEDIA OR POLLUTANT	ACTUAL					ESTIMATES	
	1970	1971	1972	1973	1974	1975	1976
Media Polluted:							
Water:							
Construction grants, loans	491	1285	839	3299	2965	4496	5412
Other	186	248	328	431	500	638	644
Air	189	245	373	461	490	636	531
Land	35	49	55	61	40	46	70
Other (e.g., living things, materials)	100	136	200	293	191	359	393
Multimedia (i.e., more than one of the above)	69	53	73	131	147	195	257
TOTAL	1071	2017	1868	4676	4333	6370	7307
Selected Pollutants ¹							
Solid Wastes	20	46	91	150	109	130	120
Pesticides	30	36	40	61	64	73	83
Radiation	116	137	141	181	121	161	193
Noise	36	41	77	66	61	57	70

¹ Funds for selected pollutants are included in the "media" breakdown above.

Source: Special Analyses, Budget of the United States Government, Fiscal Years 1972, 1973, 1974, 1975, 1976.

TABLE 15-18
FEDERAL BUDGETARY AUTHORITIES AND OUTLAYS FOR UNDERSTANDING,
DESCRIBING, AND PREDICTING THE ENVIRONMENT
(in millions of dollars)

ACTIVITY OR AGENCY	ACTUAL					ESTIMATES				
	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
	BUDGET AUTHORITY									
	OUTLAYS									
Observe and predict weather and ocean conditions, disturbances:	120	193	146	165	169	173	207	177		
Research and development	299	284	256	321	341	377	388	371		
Operations										
Locating and describing natural resources:	100	172	163	139	142	189	192	189		
Research and development	61	70	63	127	140	174	188	186		
Operations										
Physical environmental surveys:	4	6	10	14	16	13	11	8		
Research and development	54	81	96	96	107	126	122	115		
Operations	12	17	18	18	22	22	23	22		
Weather modification										
Research on environmental impact on man	26	33	54	79	91	117	129	130		
Ecological and other basic environmental research	44	58	81	68	94	108	122	115		
Total	719	914	887	1,008	1,129	1,298	1,379	1,309		
AGENCY										
Commerce	193	248	212	282	331	370	384	346		
Defense - Military	178	176	160	146	151	164	166	166		
National Science Foundation	60	94	118	107	112	120	140	126		
Interior	203	116	134	152	162	234	247	240		
National Aeronautics and Space Administration	87	171	150	142	117	115	128	119		
Agriculture	51	56	56	109	114	130	134	133		
Energy Research and Development Administration	--	--	--	--	65	87	101	101		
Health, Education, and Welfare	17	20	26	31	28	28	28	29		
Transportation	17	14	14	23	18	15	14	17		
Smithsonian Institution	9	8	11	8	11	10	12	13		
Other Agencies	3	2	9	8	19	23	23	23		
Total	719	914	887	1,008	1,129	1,298	1,379	1,309		

Source: Special Analyses, Budget of the United States Government, Fiscal Years 1972, 1973, 1974, 1975, 1976.

**TABLE 15-17
EMPLOYMENT GENERATED BY FEDERAL POLLUTION CONTROL AND ABATEMENT
ACTIVITIES, BY SELECTED OCCUPATIONS, 1970**

OCCUPATION	NUMBER OF PERSONS EMPLOYED			NUMBER OF JOBS GENERATED PER MILLION DOLLARS OF POLLUTION CONTROL AND ABATEMENT EXPENDITURES		
	TOTAL ¹	DIRECT ²	INDIRECT ³	TOTAL ¹	DIRECT ²	INDIRECT ³
	TOTAL	33,530	15,860	17,670	66.9	31.7
Professional and technical	10,960	9,050	1,910	21.9	18.1	3.8
Engineers	2,600	2,180	420	5.2	4.3	0.9
Aeronautical	10	10	--	--	--	--
Chemical	240	240	--	0.5	0.5	--
Civil	1,130	1,050	80	2.5	2.1	0.2
(Sanitary) ^{4,5}	(460)	(460)	--	(0.9)	(0.9)	--
Electrical	210	130	80	0.4	0.2	0.2
Industrial	60	10	50	0.1	0.1	--
Mechanical	300	210	90	0.6	0.4	0.2
Other	590	500	90	1.2	1.0	0.2
Natural Scientists	3,860	3,790	70	7.7	7.5	0.2
Agricultural	150	150	--	0.3	0.3	--
Biological	1,040	1,040	--	2.1	2.1	--
(Microbiologists) ⁶	(40)	(40)	--	(0.1)	(0.1)	--
(Zoologists) ⁶	(10)	(10)	--	--	--	--
Medical	230	230	--	0.5	0.5	--
Mathematicians	80	80	--	0.2	0.2	--
Systems analysts	60	60	--	0.1	0.1	--
Chemists	1,380	1,330	50	2.8	2.7	0.1
(Biochemists) ⁶	(50)	(50)	--	(0.1)	(0.1)	--
Geologists and geophysicists	30	30	--	0.1	0.1	--
Physicists	430	430	--	0.9	0.9	--
Meteorologists	70	70	--	0.1	0.1	--
Other natural scientists	330	330	--	0.7	0.7	--
Technicians, except medical and dental	3,100	2,740	360	6.2	5.5	0.7
Drafters	420	210	210	0.8	0.4	0.4
Surveyors	50	30	20	0.1	--	--
Electrical and electronic	330	260	70	0.7	0.6	0.1
Other engineering and science	1,430	1,360	70	2.9	2.8	0.1
Computer programmers	100	100	--	0.2	0.2	--
Other	800	800	--	1.6	1.6	--
Medical and other health workers	250	180	70	0.5	0.4	0.1
Other professional and technical	1,170	180	990	2.3	0.4	1.9
Accountants	240	30	210	0.5	0.1	0.4
Pilots	70	40	30	0.1	--	--
Architects	20	--	20	--	--	--
Designers	80	30	50	0.1	--	0.1
Editors and reporters	40	--	40	0.1	--	0.1
Lawyers	190	--	190	0.4	--	0.4
Personnel and labor relations workers	50	--	50	0.1	--	0.1
Other	490	90	400	1.0	--	--
Managers and administrators	2,820	1,000	1,820	5.6	2.0	3.6
Clerical workers	5,310	1,920	3,390	10.6	3.8	6.8
Sales workers	810	--	810	1.6	--	1.6
Craft workers	5,130	2,160	2,970	10.2	4.3	5.9
Operatives	5,300	840	4,460	10.6	1.7	8.9
Service workers	1,200	200	1,000	2.4	0.4	2.0
Laborers	1,740	640	1,100	3.5	1.3	2.2
Farmers and farm workers	200	--	200	0.4	--	0.4

- ¹ represents fewer than 5 or none.
- ² Details may not sum to totals due to independent rounding.
- ³ Direct employment is expressed in number of man years.
- ⁴ Indirect employment is expressed in number of jobs.
- ⁵ Detail available for direct employment only.
- ⁶ Does not include detail for grants for waste water treatment plan construction.
Detail available for extramural employment only.

Source: U.S. Department of Labor, Bureau of Labor Statistics, Impact of Federal Pollution Control and Abatement Expenditures on Manpower Requirements, 1975.

TABLE 16-18
STATE GOVERNMENT AIR QUALITY CONTROL EXPENDITURES, BY STATE
(in thousands of dollars)

STATE	FISCAL YEAR 1969-1970			FISCAL YEAR 1970-1971			FISCAL YEAR 1971-1972			FISCAL YEAR 1972-1973		
	TOTAL ¹	DIRECT		TOTAL ¹	DIRECT		TOTAL ¹	DIRECT		TOTAL ¹	DIRECT	
		CURRENT OPERA- TIONS ²	CAPITAL OUTLAY ³									
UNITED STATES	23,233	20,367	2,653	28,054	25,372	2,378	42,225	37,049	3,924	59,166	46,960	4,374
Alabama	437	372	20	145	142	3	320	308	12	705	700	5
Alaska	23	23	---	59	9	---	116	66	---	126	73	3
Arizona	416	367	69	416	347	69	441	427	14	478	427	51
Arkansas	106	87	19	101	91	10	475	416	59	243	218	25
California	4,555	4,372	183	6,196	5,722	472	11,064	10,495	569	15,533	11,396	557
Colorado	257	229	28	647	550	79	585	585	---	682	682	---
Connecticut	388	313	55	176	175	1	957	368	---	4,550	902	104
Delaware	549	288	261	374	374	---	459	221	40	291	274	17
Dist. of Columbia	466	466	---	449	449	---	221	221	---	466	240	224
Florida	602	602	---	686	627	39	1,027	875	152	1,030	989	41
Georgia	638	608	30	458	458	---	594	560	34	682	637	45
Hawaii	221	153	68	246	246	---	202	202	---	206	206	---
Idaho	74	67	7	89	87	2	120	120	---	161	161	---
Illinois	888	600	288	885	885	---	1,451	1,378	73	2,221	2,027	194
Indiana	254	196	58	162	111	51	610	310	300	495	367	128
Iowa	60	48	12	95	92	3	302	248	54	504	446	58
Kansas	161	142	19	234	206	28	229	107	122	216	188	28
Kentucky	418	375	43	622	505	117	924	807	117	428	409	19
Louisiana	208	194	14	354	302	50	422	313	109	548	527	21
Maine	45	15	30	128	97	31	175	109	66	196	158	38
Maryland	1,629	1,127	502	973	900	73	1,110	1,088	22	1,226	1,177	49
Massachusetts	541	444	97	1,138	1,127	11	2,081	1,902	179	2,630	2,344	286
Michigan	304	301	3	421	369	52	833	767	66	1,214	1,038	126
Minnesota	180	180	---	162	146	16	357	279	78	604	483	121
Mississippi	64	41	23	126	115	11	175	127	48	424	325	99
Missouri	247	211	36	258	245	13	326	304	22	373	354	19
Montana	107	96	6	180	159	1	223	203	20	280	220	29
Nebraska	11	11	---	108	57	51	87	57	30	104	90	14
Nevada	18	17	1	65	65	---	60	56	4	74	67	7
New Hampshire	51	40	11	36	32	4	128	82	46	264	202	62
New Jersey	2,142	1,916	226	2,236	2,025	211	2,307	2,262	---	2,337	2,074	195
New Mexico	75	57	18	323	178	145	310	240	60	430	325	105
New York	2,256	2,183	73	2,317	2,098	219	2,466	2,464	2	3,827	3,827	---
North Carolina	252	231	21	446	446	---	668	622	46	995	962	33
North Dakota	27	24	3	29	29	---	65	42	23	65	65	---
Ohio	353	351	---	743	602	---	417	415	2	908	815	93
Oklahoma	113	81	32	165	165	---	302	260	42	340	106	34
Oregon	630	449	22	437	313	31	617	457	61	847	604	90
Pennsylvania	770	770	---	997	910	87	1,384	1,366	18	2,278	2,139	139
Rhode Island	134	96	38	198	198	---	164	158	6	218	193	25
South Carolina	187	122	65	414	315	99	481	438	43	605	568	37
South Dakota	28	28	---	21	20	1	28	27	1	28	28	---
Tennessee	299	187	112	631	631	---	832	705	127	1,114	852	262
Texas	584	558	26	584	563	21	3,274	2,281	993	3,844	3,240	522
Utah	266	134	132	184	170	14	334	334	---	270	270	---
Vermont	36	36	---	70	43	27	184	134	50	233	207	26
Virginia	167	167	---	390	311	79	623	623	---	1,090	1,090	---
Washington	544	540	---	1,383	1,187	196	689	440	---	1,133	812	---
West Virginia	285	283	2	329	301	28	515	443	72	615	534	81
Wisconsin	162	162	---	163	130	33	409	271	136	923	562	158
Wyoming	25	25	---	47	47	---	82	76	6	114	110	4

--- Represents zero or rounds to zero.

¹ Totals include intergovernmental expenditures amounting to \$213 thousand in FY 1969-1970, \$304 thousand in FY 1970-1971, \$1,252 thousand in FY 1971-1972, and \$7,832 thousand in FY 1972-1973. Intergovernmental expenditures consist of payments from one government to another, including grants in aid, shared revenues, payments in lieu of taxes, and amounts for services performed by one government for another on a reimbursable or cost sharing basis.

² Represents all direct expenditure for compensation of own officers and employees, and for supplies, materials and contractual services, exclusive of any amounts for capital outlay. Excluded are interest payments on debt and contributions to a government's own employee retirement system.

³ Consists of direct expenditure for construction, for purchase of equipment, and for purchase of land and existing structures.

Source: U.S. Bureau of the Census, Environmental Quality Control, State and Local Government Special Studies, Numbers 61 (April 1972), 63 (December 1972), and 71 (February 1973).

TABLE 18-10
STATE GOVERNMENT WATER QUALITY CONTROL EXPENDITURES, BY STATE
(in thousands of dollars)

STATE	FISCAL YEAR 1969-1970			FISCAL YEAR 1970-1971			FISCAL YEAR 1971-1972			FISCAL YEAR 1972-1973		
	TOTAL ¹	DIRECT		TOTAL ¹	DIRECT		TOTAL ¹	DIRECT		TOTAL ¹	DIRECT	
		CURRENT OPERATIONS ²	CAPITAL OUTLAY ³		CURRENT OPERATIONS ²	CAPITAL OUTLAY ³		CURRENT OPERATIONS ²	CAPITAL OUTLAY ³		CURRENT OPERATIONS ²	CAPITAL OUTLAY ³
UNITED STATES	173,547	71,813	17,149	280,845	91,481	11,907	576,167	78,978	59,837	660,984	94,630	78,285
Alabama	621	374	15	159	159	--	957	402	500	946	392	500
Alaska	76	36	--	3,344	146	--	6,394	364	14	3,464	281	11
Arizona	189	189	--	147	147	--	234	211	21	300	283	17
Arkansas	449	410	39	351	317	14	195	144	51	2,009	573	55
California	10,158	10,158	--	12,556	12,527	29	27,040	7,458	38	29,993	7,612	61
Colorado	256	256	--	439	332	7	500	500	--	1,035	455	580
Connecticut	530	510	20	437	413	1	51,548	444	--	35,637	610	8
Delaware	96	125	261	486	288	71	4,834	278	29	2,578	393	29
Dist. of Columbia	16,459	11,843	--	22,722	19,817	2,885	38,499	18,586	19,913	52,844	20,299	12,547
Florida	834	810	24	1,626	1,548	78	1,502	1,371	131	9,965	3,172	131
Georgia	651	640	3	657	584	34	921	856	53	1,208	1,060	37
Hawaii	278	233	17	498	299	199	1,437	271	952	1,298	296	828
Idaho	216	216	--	189	187	2	475	440	33	2,260	596	48
Illinois	1,108	1,022	86	2,191	2,191	--	22,784	1,958	811	31,845	2,771	476
Indiana	12,050	663	73	15,556	614	44	7,929	794	--	6,990	889	--
Iowa	261	261	--	263	263	--	4,542	313	--	6,143	500	--
Kansas	473	473	--	516	498	18	758	749	9	707	882	105
Kentucky	387	387	--	556	478	33	334	297	57	549	404	145
Louisiana	574	539	35	360	318	42	755	729	36	970	891	77
Maine	3,420	427	23	3,191	480	34	7,425	507	45	12,309	675	53
Maryland	6,001	1,013	123	13,137	2,105	178	15,550	1,768	15	14,918	2,506	24
Massachusetts	22,137	7,099	7,933	17,957	7,000	1,958	23,047	8,104	3,550	25,107	7,912	6,182
Michigan	2,463	2,151	312	9,381	3,071	63	102,515	1,459	45	78,549	501	174
Minnesota	1,134	1,079	55	987	823	164	969	894	75	7,131	1,131	47
Mississippi	345	326	19	2,256	267	21	4,319	278	3	4,492	334	157
Missouri	637	637	--	6,134	674	--	2,835	521	--	5,445	722	6
Montana	242	239	3	88	88	--	277	237	12	839	365	24
Nebraska	162	162	--	163	147	16	1,099	263	29	4,025	414	4
Nevada	178	178	--	65	65	--	102	102	--	134	134	--
New Hampshire	1,221	534	1	2,480	865	11	2,983	925	22	3,683	1,348	153
New Jersey	1,963	1,072	--	1,315	1,234	5	17,430	1,375	--	16,590	1,744	89
New Mexico	175	173	2	201	129	23	231	213	18	340	310	30
New York	49,057	10,697	268	81,331	10,951	18	79,759	3,908	24,824	115,809	3,680	22,606
North Carolina	1,023	1,001	22	1,160	1,160	--	1,561	1,498	63	1,941	1,866	75
North Dakota	65	65	--	1,623	589	9	94	92	2	113	92	3
Ohio	5,075	1,875	1,860	17,316	2,270	2,271	56,227	2,347	1,422	82,099	2,905	5,811
Oklahoma	423	421	2	717	717	--	1,257	1,120	17	1,495	1,213	101
Oregon	2,503	989	90	617	596	21	2,648	791	61	12,857	1,143	105
Pennsylvania	10,777	2,342	3	15,618	2,664	13	25,734	4,606	56	30,160	6,286	187
Rhode Island	1,491	302	1,189	2,925	1,372	1,187	8,451	856	6,254	6,799	979	5,284
South Carolina	643	642	1	855	764	91	638	560	78	811	728	83
South Dakota	110	110	--	110	109	1	113	111	2	195	112	25
Tennessee	406	406	--	737	737	--	3,697	770	82	1,562	966	476
Texas	4,908	2,233	--	5,053	2,607	41	4,294	4,060	144	4,542	4,300	161
Utah	137	137	--	164	154	10	272	268	4	376	366	10
Vermont	1,961	272	--	2,467	415	--	2,729	690	--	3,922	791	26
Virginia	1,743	1,733	--	2,771	2,652	109	3,709	1,830	85	7,720	2,534	242
Washington	3,957	1,455	56	4,369	1,998	46	3,461	989	124	7,752	1,804	272
West Virginia	286	286	--	431	419	32	616	556	60	808	719	89
Wisconsin	2,535	2,160	38	19,924	2,984	143	20,544	1,008	35	17,246	1,238	89
Wyoming	213	212	1	229	209	20	113	107	6	165	163	2

-- Represents zero or rounds to zero.

¹ Totals include intergovernmental expenditures amounting to \$84,585 thousand in FY 1969-1970, \$177,422 thousand in FY 1970-1971, \$437,552 thousand in FY 1971-1972, and \$488,069 thousand in FY 1972-1973. Intergovernmental expenditures consist of payments from one government to another, including grants in aid, shared revenues, payments in lieu of taxes, and amounts for services performed by one government for another on a reimbursable or cost sharing basis.

² Represents all direct expenditures for compensation of own offices and employees, and for supplies, materials and contractual services, exclusive of any amounts for capital outlay. Excluded are interest payments on debt and contributions to a government's own employee retirement system.

³ Consists of direct expenditure for construction, for purchase of equipment, and for purchase of land and existing structures.

⁴ Includes \$2.8 million interest on pure water bonds.

Source: U.S. Bureau of the Census, Environmental Quality Control, State and Local Government Special Studies, Numbers 61 (April 1972), 63 (December 1972), and 71 (February 1973).

TABLE 15-20
STATE GOVERNMENT SOLID WASTE MANAGEMENT EXPENDITURES, BY STATE
(in thousands of dollars)

STATE	FISCAL YEAR 1969-1970			FISCAL YEAR 1970-1971			FISCAL YEAR 1971-1972			FISCAL YEAR 1972-1973		
	TOTAL	DIRECT EXPENDITURES ¹	INTER-GOVERNMENTAL EXPENDITURES ²	TOTAL	DIRECT EXPENDITURES ¹	INTER-GOVERNMENTAL EXPENDITURES ²	TOTAL	DIRECT EXPENDITURES ¹	INTER-GOVERNMENTAL EXPENDITURES ²	TOTAL	DIRECT EXPENDITURES ¹	INTER-GOVERNMENTAL EXPENDITURES ²
UNITED STATES	35,679	35,182	497	6,299	5,941	358	55,833	53,597	2,236	62,147	57,342	4,805
Alabama	838	838	-	27	27	-	1,008	1,008	-	1,071	1,071	-
Alaska	75	75	-	-	-	-	128	128	-	141	141	-
Arizona	333	333	-	3	3	-	362	362	-	365	365	-
Arkansas	180	180	-	19	19	-	253	253	-	197	197	-
California	5,852	5,852	-	1,221	1,221	-	8,124	7,364	760	7,789	6,968	821
Colorado	672	672	-	66	66	-	703	703	-	813	813	-
Connecticut	729	729	-	80	80	-	45	45	-	559	559	-
Delaware	173	173	-	-	-	-	715	715	-	442	442	-
District of Columbia	NA	NA	NA									
Florida	1,367	1,367	-	-	-	-	1,692	1,692	-	1,818	1,818	-
Georgia	1,060	1,060	-	187	187	-	2,001	2,001	-	1,585	1,585	-
Hawaii	3	3	-	83	83	-	201	201	-	241	241	-
Idaho	476	476	-	21	21	-	236	236	-	262	262	-
Illinois	331	331	-	235	235	-	5,141	5,141	-	4,972	4,972	-
Indiana	27	27	-	55	49	6	963	963	-	993	993	-
Iowa	58	58	-	97	97	-	313	313	-	294	294	-
Kansas	292	292	-	49	49	-	216	216	-	253	253	-
Kentucky	1,567	1,567	-	153	153	-	1,890	1,890	-	1,923	1,923	-
Louisiana	1,793	1,793	-	-	-	-	909	909	-	918	918	-
Maine	295	295	-	34	34	-	15	15	-	13	13	-
Maryland	509	509	-	222	222	-	899	899	-	909	909	-
Massachusetts	119	119	-	122	122	-	354	354	-	282	282	-
Michigan	197	197	-	21	23	-	831	831	-	1,210	1,210	-
Minnesota	123	123	-	112	112	-	864	742	122	1,733	1,063	670
Mississippi	485	485	-	45	45	-	548	548	-	588	588	-
Missouri	482	482	-	-	-	-	692	692	-	620	620	-
Montana	198	198	-	28	28	-	286	286	-	402	402	-
Nebraska	168	168	-	59	59	-	263	263	-	279	279	-
Nevada	243	243	-	8	8	-	424	424	-	284	284	-
New Hampshire	200	200	-	-	-	-	25	25	-	26	26	-
New Jersey	242	242	-	154	154	-	173	173	-	183	183	-
New Mexico	346	346	-	46	46	-	292	292	-	292	292	-
New York	638	337	301	870	870	-	5,900	5,004	896	6,797	6,476	321
North Carolina	2,441	2,441	-	83	83	-	2,581	2,581	-	2,810	2,810	-
North Dakota	166	166	-	20	20	-	98	98	-	77	77	-
Ohio	907	907	-	171	171	-	1,156	1,156	-	1,278	1,278	-
Oklahoma	449	449	-	70	70	-	599	599	-	633	633	-
Oregon	584	584	-	27	27	-	994	994	-	1,184	1,184	-
Pennsylvania	1,798	1,721	77	418	418	-	2,598	2,248	350	2,993	2,857	136
Rhode Island	100	12	88	126	126	-	21	21	-	251	2	228
South Carolina	793	793	-	136	136	-	862	862	-	1,043	1,043	-
South Dakota	119	119	-	24	24	-	295	295	-	332	332	-
Tennessee	34	34	-	36	36	-	1,814	1,814	-	2,749	1,752	997
Texas	2,722	2,722	-	-	-	-	3,060	3,060	-	3,270	3,270	-
Utah	198	198	-	22	22	-	25	25	-	40	40	-
Vermont	303	303	-	24	24	-	291	291	-	807	363	444
Virginia	1,168	1,168	-	102	229	127	1,530	1,530	-	1,615	1,093	522
Washington	1,372	1,341	31	297	522	225	1,593	1,485	108	2,625	1,959	666
West Virginia	607	607	-	81	81	-	116	116	-	219	219	-
Wisconsin	1,730	1,730	-	291	291	-	1,620	1,620	-	1,807	1,807	-
Wyoming	117	117	-	-	-	-	114	114	-	160	160	-

NA Not available
- Represents zero or rounds to zero

¹Represents all direct expenditures for supplies, materials, equipment, land and existing structures, construction, contractual services, research and development, and compensation of own officers and employees. The major portion of direct expenditures is for litter removal.

²Consists of payments from one government to another, including grants in aid, shared revenues, payments in lieu of taxes, and amounts for services performed by one government for another on a reimbursable or cost sharing basis.

Source: U.S. Bureau of the Census, *Environmental Quality Control*, State and Local Government Special Studies, Numbers 61 (April 1972), 63 (December 1972), and 71 (February 1973).

TABLE 16-1
NUMBER OF DRAFT ENVIRONMENTAL IMPACT STATEMENTS FILED, BY FEDERAL AGENCY

AGENCY	1970	1971	1972	1973	1974	1975e	1976e
TOTAL	319	1,950	1,385	1,145	1,137	1,476	1,295
Department of Transportation	61	1,293	674	432	360	184	194
U.S. Army Corps of Engineers	119	316	211	243	303	615	370
U.S. Department of Agriculture	62	79	124	166	179	319	298
Department of Interior	18	65	107	119	109	129	157
Atomic Energy Commission	32	22	65	28	36	— ¹	— ¹
Nuclear Regulatory Commission	— ²	22	25				
Department of Housing and Urban Development	3	23	26	22	21	27	29
Department of Defense	5	27	24	19	21	52	66
General Services Administration	3	34	6	24	26	13	40
Environmental Protection Agency	0	16	13	26	14	43	53
All Others	16	75	135	66	68	72	63

e estimated

¹ Became the Nuclear Regulatory Commission.

² Agency not formed.

Source: Council on Environmental Quality.

TABLE 16-2
NUMBER OF DRAFT ENVIRONMENTAL IMPACT STATEMENTS FILED, BY TYPE OF STATEMENT

TYPE	1970	1971	1972	1973	1974	1975e	1976e
TOTAL	319	1,950	1,385	1,145	1,137	1,476	1,295
Watershed, Flood Control, Navigation	97	392	210	263	273	676	431
Parks, Wildlife Refuges, Forests	2	24	84	111	73	193	188
Roads	41	1,123	543	305	280	125	125
Timber Management	5	1	26	58	113	105	112
Energy-Related	36	59	128	74	114	89	88
Airports	15	141	119	96	66	40	45
Pesticides, Herbicides	2	16	26	15	14	6	4
All others	121	194	249	223	327	242	302

e estimated

Source: Council on Environmental Quality.

**TABLE 17-1
METRIC UNIT EQUIVALENTS**

ENGLISH UNIT	METRIC EQUIVALENT
inch	2.54 centimeters
foot	0.3048 meters
mile	1.6093 kilometers
acre	0.4047 hectare
square mile	259 hectares
cubic foot	0.0283 cubic meter
gallon (United States)	3.785 liters
bushels (United States)	35.24 liters
long ton	1.0160 metric tons
short ton	0.9072 metric tons
ounce, troy	31.103 grams
pound, troy	0.3732 kilogram
grain	0.0648 gram

Source: U.S. Government Printing Office Style Manual,
and U.S. Department of Commerce, "Units of
Weight and Measure International (Metric) and
U.S. Customary," Bureau of Standards Publication 286,
May 1967.

TABLE 17-2
HYDRAULIC EQUIVALENTS¹

MILLION GALLONS PER DAY (mgd)	BILLION GALLONS PER DAY (bgd)	THOUSAND ACRE- FEET PER YEAR	THOUSAND CUBIC FEET PER SECOND	THOUSAND GALLONS PER MINUTE	MILLION CUBIC METERS PER DAY
1.0	0.001	1.12	0.00155	0.694	0.00379
1,000	1.0	1,120	1.55	694	3.79
.893	.00893	1.0	.00138	.620	.00338
646	.646	724	1.0	449	2.45
1.44	.00144	1.61	.00223	1.0	.00545
264	.264	296	.409	184	1.0

¹ Equivalent values to three significant figures are on the same horizontal line.

Source: U.S. Department of the Interior, Geological Survey, Estimated Use of Water in the United States in 1970, 1972.

**TABLE 17-3
ENERGY CONVERSION FACTORS**

CONVERSION FACTORS FOR CRUDE OIL		
Average gravity		
1 barrel (42 gallons)	weighs	0.136 metric tons (0.150 short tons)
1 metric ton	contains	7.33 barrels
1 short ton	contains	6.65 barrels
APPROXIMATE HEAT CONTENT OF VARIOUS FUELS		
Petroleum		
Crude oil		5.800 million Btu/barrel
Refined products, average		5.517 million Btu/barrel
Gasoline		5.248 million Btu/barrel
Jet fuel, average		5.592 million Btu/barrel
Naphtha-type		5.355 million Btu/barrel
Kerosine-type		5.670 million Btu/barrel
Distillate fuel oil		5.825 million Btu/barrel
Residual fuel oil		6.287 million Btu/barrel
Natural gas liquids		4.031 million Btu/barrel
Natural gas		
Wet		1,093 Btu/cubic foot
Dry		1,021 Btu/cubic foot
Coal		
Bituminous and lignite		
Production		24.01 million Btu/short ton
Consumption		23.65 million Btu/short ton
Anthracite		25.40 million Btu/short ton
ELECTRICITY CONVERSION HEAT RATES		
Fossil fuel steam-electric		
Coal		10,176 Btu/kilowatt hour
Gas		10,733 Btu/kilowatt hour
Oil		10,826 Btu/kilowatt hour
Nuclear steam-electric		10,660 Btu/kilowatt hour
Hydroelectric		10,389 Btu/kilowatt hour
Electricity Consumption		3,412 Btu/kilowatt hour
RADIOACTIVITY		
Curie		3.7×10^{10} disintegrations/ second

Source: Federal Energy Administration, Monthly Energy Review, May 1975; Chemical Rubber Company, Handbook of Chemistry and Physics, 54th Edition, 1973.

APPENDIX A

MAPS

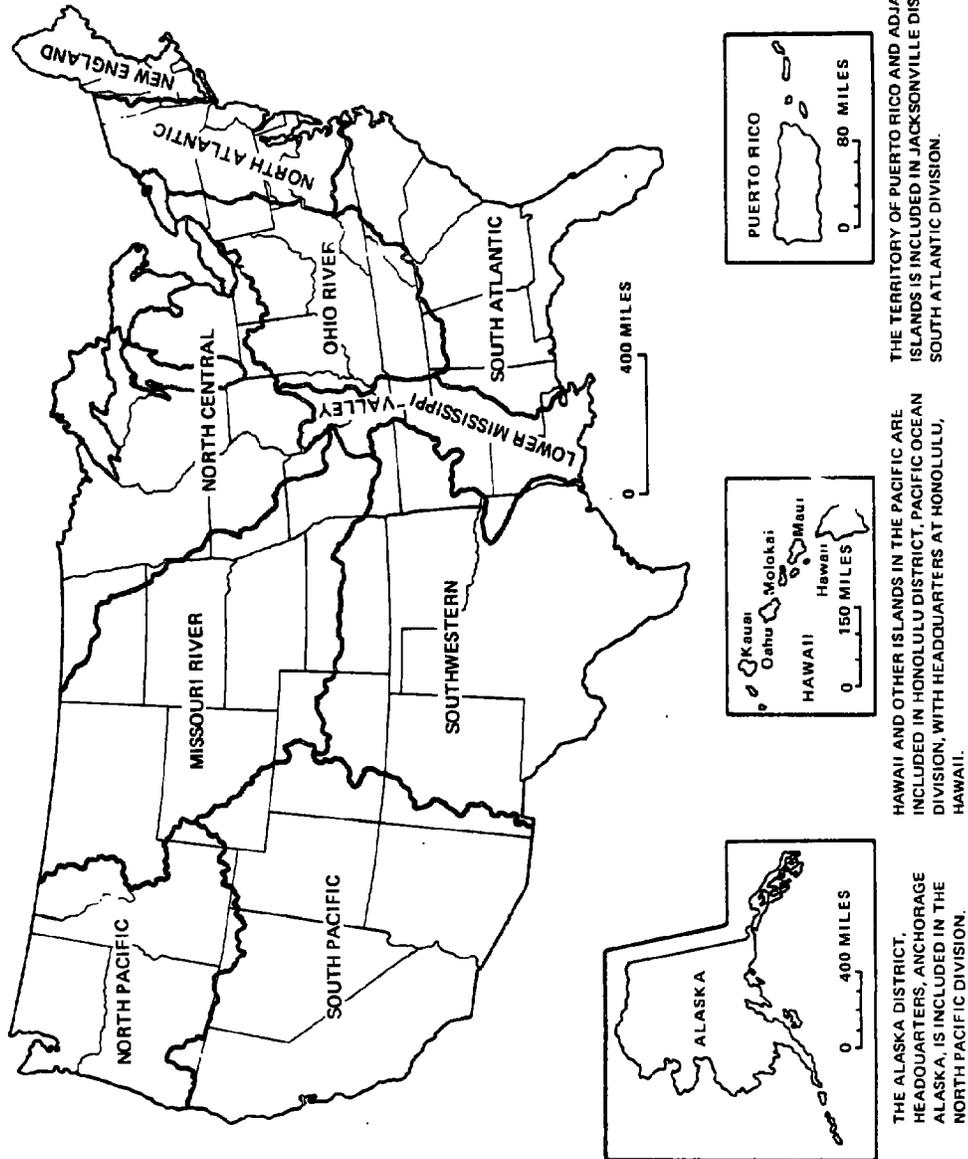


FIGURE A-1
MAP OF THE UNITED STATES SHOWING U.S. ARMY CORPS OF ENGINEERS' DIVISION BOUNDARIES FOR CIVIL WORKS ACTIVITIES

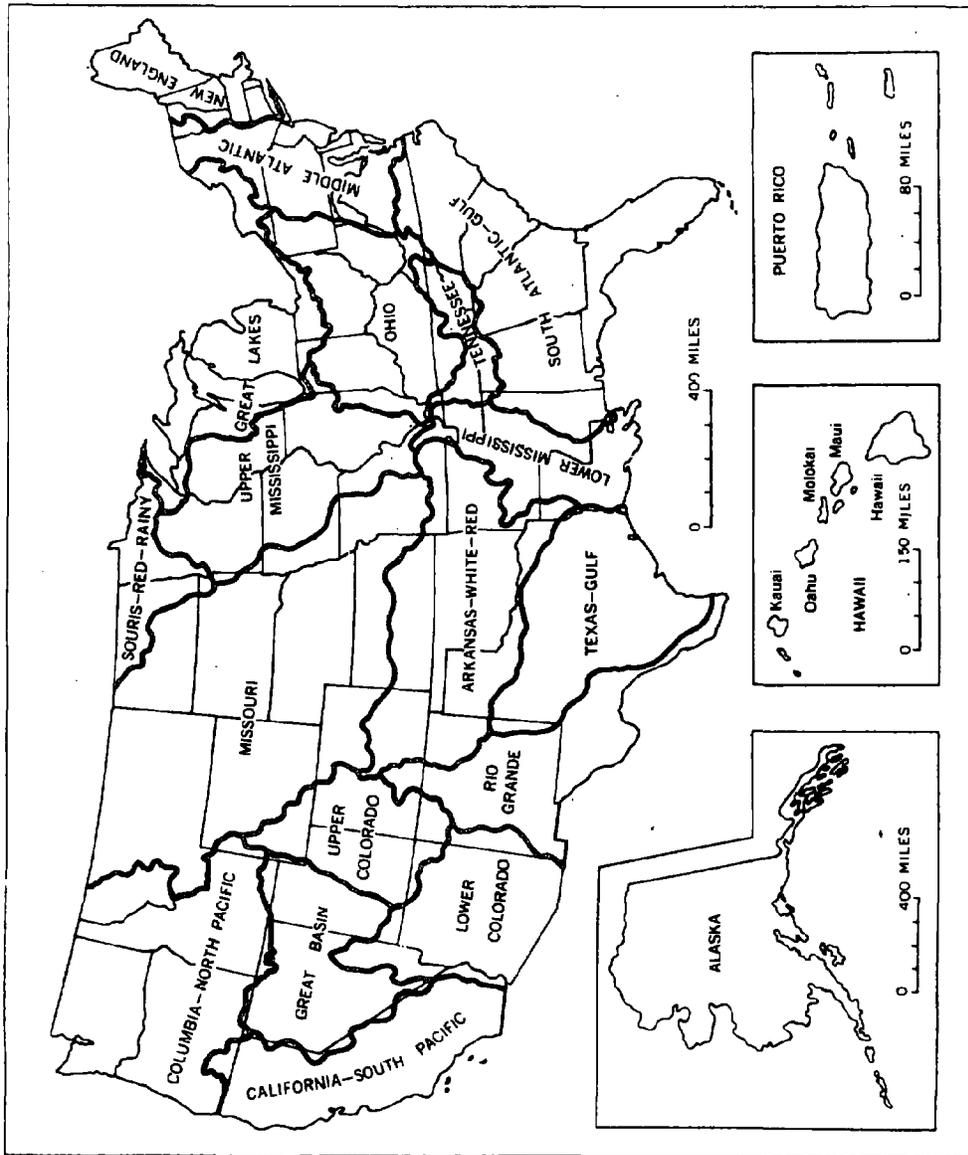


FIGURE A-2
MAP OF THE UNITED STATES SHOWING WATER RESOURCES COUNCIL REGIONS

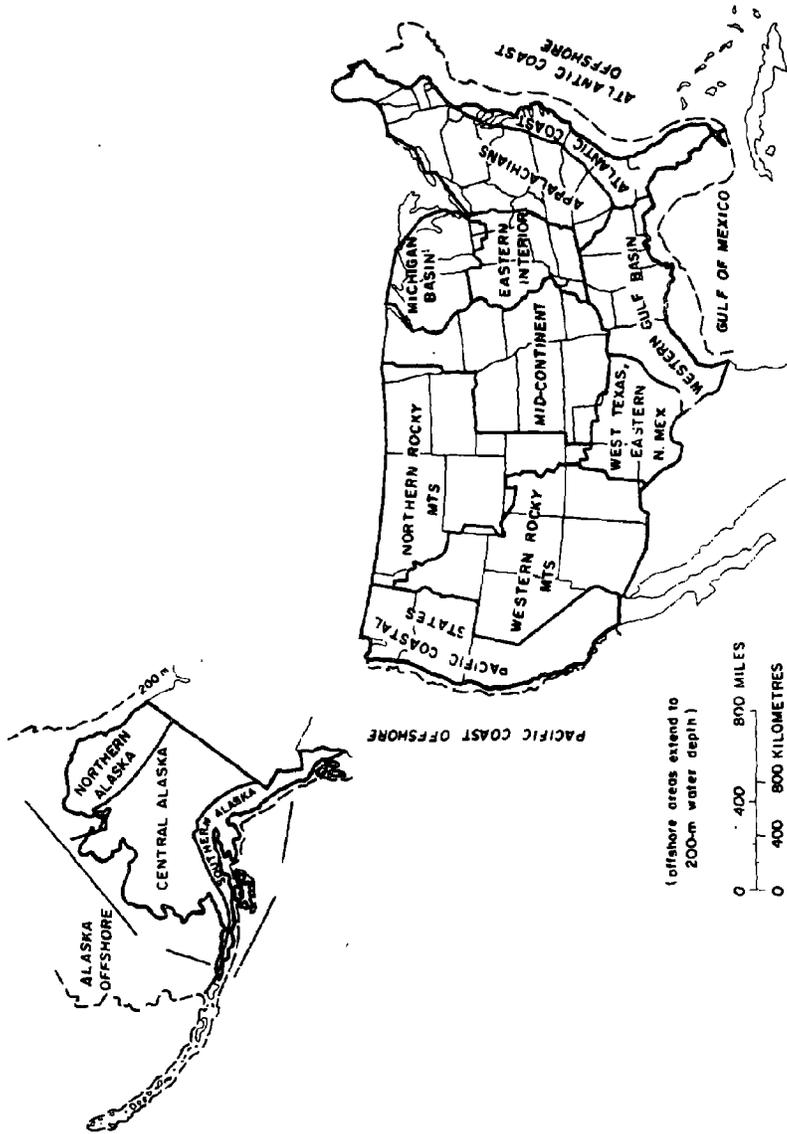


FIGURE A-3
 MAP OF THE UNITED STATES SHOWING BOUNDARIES OF REGIONS
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