

Natural Resources

This section presents data on the area, ownership, production, trade, reserves, and disposition of natural resources. Natural resources is defined here as including forestry, fisheries, and mining and mineral products.

Forestry—Presents data on the area, ownership, and timber resource of commercial timberland; forestry statistics covering the National Forests and Forest Service cooperative programs; product data for lumber, pulpwood, woodpulp, paper and paperboard, and similar data.

The principal sources of data relating to forests and forest products are *An Analysis of the Timber Situation in the United States, 1989-2040, 1990*; *Forest Resources of the United States, 1992*; *U.S. Timber Production, Trade, Consumption, and Price Statistics*; *Land Areas of the National Forest System*, issued annually by the Forest Service of the Department of Agriculture; *Agricultural Statistics* issued by the Department of Agriculture; and reports of the census of manufactures (taken every 5 years) and the annual *Current Industrial Reports*, issued by the Census Bureau issued on the Internet, and in print in the annual *Manufacturing Profiles*. Additional information is published in the monthly *Survey of Current Business* of the Bureau of Economic Analysis; and the annual *Wood Pulp and Fiber Statistics* and *The Statistics of Paper, Paperboard, and Wood Pulp* of the American Forest and Paper Association, Washington, DC.

The completeness and reliability of statistics on forests and forest products vary considerably. The data for forest land area and stand volumes are much more reliable for areas which have been recently surveyed than for those for which only estimates are available. In general,

more data are available for lumber and other manufactured products such as particle board and softwood panels, etc., than for the primary forest products such as poles and piling and fuelwood.

Fisheries—The principal source of data relating to fisheries is *Fisheries of the United States*, issued annually by the National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA). The NMFS collects and disseminates data on commercial landings of fish and shellfish. Annual reports include quantity and value of commercial landings of fish and shellfish disposition of landings, and number and kinds of fishing vessels and fishing gear. Reports for the fish-processing industry include annual output for the wholesaling and fish processing establishments, annual and seasonal employment. The principal source for these data is the annual *Fisheries of the United States*.

Mining and mineral products—Presents data relating to mineral industries and their products, general summary measures of production and employment, and more detailed data on production, prices, imports and exports, consumption, and distribution for specific industries and products. Data on mining and mineral products may also be found in Sections 26 and 30 of this Abstract; data on mining employment may be found in Section 13.

Mining comprises the extraction of minerals occurring naturally (coal, ores, crude petroleum, natural gas) and quarrying, well operation, milling, refining and processing, and other preparation customarily done at the mine or well site or as a part of extraction activity. (Mineral preparation plants are usually operated

together with mines or quarries.) Exploration for minerals is included as is the development of mineral properties.

The principal governmental sources of these data are the *Minerals Yearbook* and *Mineral Commodity Summaries*, published by the U.S. Geological Survey, Department of the Interior, and various monthly and annual publications of the Energy Information Administration, Department of Energy. See text, Section 19, for a list of Department of Energy publications. In addition, the Census Bureau conducts a census of mineral industries every 5 years (1997 results are in the process of being released). Nongovernment sources include the *Annual Statistical Report* of the American Iron and Steel Institute, Washington, DC; *Metals Week* and the monthly *Engineering and Mining Journal*, issued by the McGraw-Hill Publishing Co., New York, NY; *The Iron Age*, issued weekly by the Chilton Co., Philadelphia, PA; and the *Joint Association Survey of the U.S. Oil and Gas Industry*, conducted jointly by the American Petroleum Institute, Independent Petroleum Association of America, and Mid-Continent Oil and Gas Association.

Mineral statistics, with principal emphasis on commodity detail, have been collected by the U.S. Geological Survey and the former Bureau of Mines since 1880. Current data in U.S. Geological Survey

publications include quantity and value of nonfuel minerals produced, sold or used by producers, or shipped; quantity of minerals stocked; crude materials treated and prepared minerals recovered; and consumption of mineral raw materials.

Censuses of mineral industries have been conducted by the Census Bureau at various intervals since 1840. Beginning with the 1967 census, legislation provides for a census to be conducted every 5 years for years ending in "2" and "7." The censuses provide, for the various types of mineral establishments, information on operating costs, capital expenditures, labor, equipment, and energy requirements in relation to their value of shipments and other receipts. Commodity statistics on many manufactured mineral products are also collected by the Census Bureau at monthly, quarterly, or annual intervals and issued in its *Current Industrial Reports* series.

In general, figures shown in the individual commodity tables include data for outlying areas and may therefore not agree with summary tables. Except for crude petroleum and refined products, the export and import figures include foreign trade passing through the customs districts of United States and Puerto Rico but exclude shipments between U.S. territories and the customs districts.

No. 1147. Gross Domestic Product of Agriculture, Forestry, Fishing, Mining, and Timber-Related Industries in Current and Real (1992) Dollars, by Industry: 1990 to 1997

[In billions of dollars (5,743.8 represents \$5,743,800,000,000), except as indicated. Industry classifications based on the 1987 Standard Industrial Classification (SIC). Data include nonfactor charges (capital consumption allowances, indirect business taxes, etc.) as well as factor charges against gross product; corporate profits and capital consumption allowances have been shifted from a company to an establishment basis]

Industry	Current dollars				Chained (1992) dollars			
	1990	1995	1996	1997	1990	1995	1996	1997
All industries, total ¹	5,743.8	7,269.6	7,661.6	8,110.9	6,136.3	6,761.7	6,994.8	7,269.8
Industries covered	298.1	308.0	339.9	350.0	277.3	289.7	295.0	319.5
Percent of all industries	5.19	4.24	4.44	4.32	4.52	4.28	4.22	4.39
Agriculture, forestry, and fishing	108.7	109.5	130.4	131.7	99.3	106.2	114.2	127.6
Farms	79.5	72.3	91.6	90.2	70.7	72.0	78.6	90.3
Agricultural services	29.1	37.2	38.8	41.5	28.6	34.7	36.2	38.0
Mining ¹	112.3	98.7	113.8	120.5	96.9	107.4	103.0	109.9
Metal mining	4.8	6.7	6.1	5.8	3.7	5.5	5.7	6.2
Coal mining	13.2	12.0	12.9	13.2	12.0	15.4	17.2	18.1
Oil and gas extraction	86.4	70.5	84.3	90.1	73.5	77.4	70.6	75.4
Nonmetallic minerals, except fuels	7.8	9.4	10.4	11.4	7.7	9.3	10.2	10.8
Timber-related manufacturing	77.1	99.8	95.7	97.8	81.1	76.1	77.8	82.0
Lumber and wood products	31.8	40.9	39.1	42.8	37.0	31.7	31.4	33.1
Paper and allied products	45.3	58.9	56.6	55.0	44.1	44.4	46.4	48.9

¹ For additional industries, see Table 722.

Source: U.S. Bureau of Economic Analysis, *Survey of Current Business*, November 1998.

No. 1148. National Forest System—Summary: 1980 to 1997

[For fiscal years ending in year shown; see text, Section 9, State and Local Government. Includes Alaska and Puerto Rico, except as noted]

Item	Unit	1980	1990	1991	1992	1993	1994	1995	1996	1997
Timber cut, total value	Mil. dol . . .	737	1,191	1,012	938	918	786	616	544	498
Commercial and cost sales: ¹										
Volume	Mil. bd. ft. . .	9,178	10,500	8,475	7,290	5,917	4,815	3,866	3,725	3,285
Value	Mil. dol . . .	730	1,188	1,009	935	915	783	616	544	498
Free use:										
Volume	Mil. bd. ft. . .	2,070	151	121	80	80	80	80	80	80
Value ²	Mil. dol . . .	5.7	1	1	1	1	1	1	1	1
Misc. forest products:										
Value	Mil. dol . . .	1.1	3	3	3	3	3	3	3	3
Livestock grazing: ³										
Cattle and horses ⁴	1,000	1,521	1,236	1,265	1,408	1,318	1,224	1,311	1,167	1,225
Sheep and goats	1,000	1,328	958	1,029	1,183	1,111	925	1,068	859	932
Roads and trails:										
Road construction ⁵	Miles	925	857	910	853	816	487	424	418	359
Trail construction ^{5,6}	Miles	2,419	1,635	1,921	1,976	1,976	2,113	2,139	1,696	(NA)
Receipts, total	Mil. dol . . .	703	971	772	614	504	515	387	273	285
Timber use	Mil. dol . . .	625	849	667	520	425	432	303	195	197
Grazing use	Mil. dol . . .	16	10	11	11	11	11	9	7	7
Special land use, etc	Mil. dol . . .	62	112	93	84	68	72	75	71	81
Payments to local govt. ⁷	Mil. dol . . .	240	368	335	322	323	309	273	256	234

NA Not available. ¹ Includes land exchanges. ² Includes some free use timber not reducible to board feet. ³ Covers number actually grazed. Excludes Puerto Rico. ⁴ Excludes animals under 6 months of age. ⁵ Includes reconstruction. ⁶ Includes work accomplished by Human Resource Programs and volunteers. ⁷ Payments made in following year.

Source: U.S. Forest Service, *Timber Demand and Technology Assessment*, RWU-4861. Also in *Agricultural Statistics*, annual.

No. 1149. National Forest System Land—States and Other Areas: 1997

[In thousands of acres (231,864 represents 231,864,000). As of Sept. 30]

State and other area	Gross area within unit boundaries ¹	National Forest System Land ²	Other lands within unit boundaries	State and other area	Gross area within unit boundaries ¹	National Forest System Land ²	Other lands within unit boundaries
Total	231,864	191,813	40,051	Montana	19,116	16,877	2,239
United States.	231,808	191,785	40,023	Nebraska	442	352	90
Alabama	1,290	665	625	Nevada	6,285	5,824	461
Alaska	24,271	21,969	2,302	New Hampshire	827	725	102
Arizona	11,889	11,252	637	New Jersey	-	-	-
Arkansas	3,530	2,577	953	New Mexico	10,367	9,327	1,040
California	24,424	20,647	3,777	New York	-	-	-
Colorado	16,058	14,508	1,550	North Carolina	3,169	1,244	1,925
Connecticut	-	-	-	North Dakota	1,106	1,106	-
Delaware	-	-	-	Ohio	841	227	614
Florida	1,418	1,147	271	Oklahoma	555	392	163
Georgia	1,847	865	982	Oregon	17,503	15,656	1,847
Hawaii	-	-	-	Pennsylvania	743	513	230
Idaho	21,688	20,461	1,227	Rhode Island	-	-	-
Illinois	846	278	568	South Carolina	1,376	612	764
Indiana	647	196	451	South Dakota	2,272	2,013	259
Iowa	-	-	-	Tennessee	1,215	634	581
Kansas	116	108	8	Texas	1,994	755	1,239
Kentucky	2,110	693	1,417	Utah	9,203	8,113	1,090
Louisiana	1,025	604	421	Vermont	827	366	461
Maine	93	53	40	Virginia	3,230	1,657	1,573
Maryland	-	-	-	Washington	10,074	9,177	897
Massachusetts	-	-	-	West Virginia	1,870	1,033	837
Michigan	4,898	2,857	2,041	Wisconsin	2,025	1,521	504
Minnesota	5,477	2,837	2,640	Wyoming	9,693	9,248	445
Mississippi	2,312	1,158	1,154	Puerto Rico	56	28	28
Missouri	3,064	1,494	1,570	Virgin Islands	-	-	-

- Represents zero or rounds to zero. ¹ Comprises all publicly and privately owned land within authorized boundaries of national forests, purchase units, national grasslands, Land utilization projects, research and experimental areas, and other areas. ² Federally owned land within the "gross area within unit boundaries."

Source: U.S. Forest Service, *Land Areas of the National Forest System*, annual.

No. 1150. Forest and Timberland Area, Sawtimber and Stock: 1970 to 1992

[As of Jan. 1. 754 acres represents 754,000,000 acres]

Year and region	Timberland, ownership ¹					Sawtimber, ³ net volume		Growing stock, ⁴ net volume	
	Total forest land (mil. acres)	All owner- ships (mil. acres)	Federally owned or man- aged ² (mil. acres)	State, county, and municipal (mil. acres)	Private (mil. acres)	Total (bil. bd. ft.)	Soft-wood (bil. bd. ft.)	Total (bil. cu. ft.)	Soft-wood (bil. cu. ft.)
United States, 1970	754	504	116	29	360	2,587	2,035	694	458
North	(NA)	154	11	18	126	295	81	146	39
South	(NA)	203	15	3	185	569	302	191	87
Rocky Mountains	(NA)	65	42	2	20	398	384	101	95
Pacific Coast	(NA)	82	47	5	29	1,325	1,268	257	238
United States, 1987	731	485	97	34	354	2,853	2,040	766	453
North	165	154	11	19	124	459	126	190	48
South	203	197	16	4	177	781	388	245	106
Rocky Mountains	142	61	39	3	20	411	394	108	100
Pacific Coast	220	72	31	8	32	1,202	1,132	223	199
United States, 1992	737	490	97	35	358	2,992	2,047	786	450
North	168	158	11	19	127	540	137	207	51
South	212	199	16	4	179	842	389	251	103
Rocky Mountains	140	63	40	3	20	415	397	110	101
Pacific Coast	217	70	30	8	32	1,196	1,124	218	195

NA Not available. ¹ Timberland is forest land that is producing or is capable of crops of industrial wood and not withdrawn from timber utilization by statute or administrative regulation. Areas qualifying as timberland have the capability of producing in excess of 20 cubic feet per acre per year of industrial wood in natural stands. Currently inaccessible and inoperable areas are included. ² Includes Indian lands. ³ Sawtimber is timber suitable for sawing into lumber. Live trees of commercial species containing at least one 12-foot sawlog or two noncontiguous 8-foot logs, and meeting regional specifications for freedom from defect. Softwood trees must be at least 9.0-inches diameter, and hardwood trees must be at least 11.0-inches diameter at 4 1/2 feet above ground. International 1/4-inch rule. ⁴ Live trees of commercial species meeting specified standards of quality or vigor. Cull trees are excluded. Includes only trees 5.0-inches diameter or larger at 4 1/2 feet above ground.

Source: U.S. Forest Service, *Forest Resources of the United States, 1992*.

No. 1151. Timber-Based Industries—Summary of Manufactures: 1992 and 1996

[221.7 represents 221,700. Data based on 1987 Standard Industrial Classification Manual, published by the Office of Management and Budget, see text, Section 26, Manufactures. N.e.c. = Not elsewhere classified]

Industry	SIC ¹ code	1992			1996		
		All employees		Value of shipments (bil. dol.)	All employees		Value of shipments (bil. dol.)
		Number (1,000)	Payroll (mil. dol.)		Number (1,000)	Payroll (mil. dol.)	
Logging and sawmills	241/242	221.7	4,739	31.3	254.5	5,984	45.1
Logging	2411	83.6	1,693	13.8	83.0	1,856	15.4
Sawmills/planning mills, general	2421	138.1	3,046	21.1	138.0	3,465	26.7
Hardwood dimension and flooring mills	2426	28.5	502	2.0	31.7	631	2.8
Special product sawmills, n.e.c.	2429	1.8	31	0.1	1.8	32	0.2
Millwork and veneer ²	243	224.8	5,029	24.8	257.3	6,233	31.8
Millwork	2431	86.3	1,984	9.6	95.3	2,364	11.8
Wood kitchen cabinets	2434	62.8	1,308	4.9	71.7	1,607	6.6
Hardwood veneer and plywood	2435	20.1	395	2.2	21.3	456	2.6
Softwood veneer and plywood	2436	31.3	827	5.4	31.9	931	6.0
Structural wood members, n.e.c.	2439	24.3	515	2.5	37.1	876	4.7
Wood containers	244	39.9	640	2.9	50.9	893	4.1
Wood buildings, mobile homes	245	56.1	1,227	6.6	81.8	2,077	11.9
Miscellaneous wood products	249	84.6	1,737	10.4	94.2	2,125	13.7
Pulp mills	261	15.9	689	5.5	15.0	701	5.5
Paper mills	262	130.6	5,421	32.8	116.4	5,599	39.6
Paperboard mills	263	51.5	2,136	16.1	54.8	2,599	20.3
Paperboard containers and boxes	265	198.8	5,706	32.6	212.0	6,727	40.4
Setup paperboard boxes	2652	6.6	129	0.4	(S)	(S)	(S)
Corrugated and solid fiber boxes	2653	111.7	3,264	19.8	127.4	4,060	25.9
Fiber cans, tubes, drums, and similar products	2655	12.4	337	1.9	11.9	356	2.1
Sanitary food containers, except folding	2656	15.4	386	2.5	13.6	389	2.7
Folding paperboard boxes, including sanitary	2657	52.7	1,590	7.9	53.2	1,777	9.0
Converted paper and paperboard products ³	267	229.1	6,525	46.1	232.4	7,321	54.9

¹ S Does not meet publication standards. ¹ Standard Industrial Classification code; see text, Section 17, Business. ² Includes plywood and structural members. ³ Except containers and boxes.

Source: U.S. Census Bureau, *Census of Manufactures, 1992 Final Industry Series, and Annual Survey of Manufactures.*

No. 1152. Timber Products—Production, Foreign Trade, and Consumption, by Type of Product: 1980 to 1997

[In millions of cubic feet (12,123 represents 12,123,000,000, roundwood equivalent)]

Item	Unit	1980	1990	1991	1992	1993	1994	1995	1996	1997
Industrial roundwood:										
Domestic production	Mil. cu. ft.	12,123	14,674	14,051	14,455	14,184	14,515	14,501	14,664	15,361
Imports	Mil. cu. ft.	2,570	3,121	2,841	3,122	3,516	3,701	3,988	4,045	4,154
Exports	Mil. cu. ft.	1,857	2,207	2,287	2,226	2,044	2,042	2,214	2,182	2,314
Consumption	Mil. cu. ft.	12,836	15,587	14,605	15,351	15,656	16,174	16,275	16,527	17,201
Lumber:										
Domestic production	Mil. cu. ft.	5,305	7,404	6,858	7,058	6,870	7,082	6,826	7,072	7,120
Imports	Mil. cu. ft.	1,545	1,893	1,698	1,947	2,227	2,384	2,515	2,615	2,620
Exports	Mil. cu. ft.	395	573	604	548	519	501	481	471	602
Consumption	Mil. cu. ft.	6,455	8,725	7,953	8,457	8,577	8,965	8,861	9,215	9,139
Plywood and veneer:										
Domestic production	Mil. cu. ft.	1,175	1,422	1,271	1,299	1,300	1,327	1,314	1,297	1,211
Imports	Mil. cu. ft.	120	97	83	100	100	94	107	97	114
Exports	Mil. cu. ft.	45	109	95	106	100	86	89	87	103
Consumption	Mil. cu. ft.	1,250	1,410	1,259	1,293	1,300	1,334	1,333	1,307	1,222
Pulp products:										
Domestic production	Mil. cu. ft.	4,390	5,285	5,370	5,488	5,393	5,531	5,847	5,795	5,794
Imports	Mil. cu. ft.	880	1,083	1,017	1,036	1,128	1,181	1,304	1,262	1,352
Exports	Mil. cu. ft.	579	673	773	823	753	795	943	925	858
Consumption	Mil. cu. ft.	4,691	5,696	5,614	5,702	5,768	5,917	6,208	6,132	6,288
Logs:										
Imports	Mil. cu. ft.	25	4	2	7	15	18	13	18	20
Pulpwood chips, exports	Mil. cu. ft.	278	178	214	225	211	230	250	278	422
Fuelwood consumption	Mil. cu. ft.	3,105	3,177	3,187	3,202	3,244	3,297	3,360	3,420	2,542

Source: U.S. Forest Service, *Timber Demand and Technology Assessment*, RWU-4861.

No. 1153. Selected Timber Products—Imports and Exports: 1980 to 1997

Product	Unit	1980	1990	1991	1992	1993	1994	1995	1996	1997
IMPORTS ¹										
Lumber, total ²	Mil. bd. ft.	9,866	13,063	11,708	13,427	15,369	16,534	17,524	18,363	18,237
From Canada	Percent	97.5	91.2	98.4	98.4	98.2	97.4	97.0	97.1	96.2
Logs, total	Mil. bd. ft. ³	128	28	15	45	95	112	80	115	128
From Canada	Percent	97.4	70.7	63.4	91.5	93.6	75.9	40.9	57.3	82.9
Paper and board ⁴	1,000 tons	8,780	13,148	12,167	12,543	13,971	14,918	15,654	14,418	14,721
Woodpulp	1,000 tons	4,051	4,893	4,997	5,029	5,413	5,650	5,969	5,692	6,287
Plywood	Mil. sq. ft. ⁵	1,235	1,687	1,457	1,776	1,786	1,692	1,951	1,772	2,111
EXPORTS										
Lumber, total ²	Mil. bd. ft.	2,494	4,566	3,880	3,498	3,255	3,082	2,929	2,878	2,871
To: Canada	Percent	25.3	14.4	14.6	16.3	17.4	19.8	22.2	23.1	24.8
Japan	Percent	26.0	27.8	31.3	31.8	36.3	34.3	33.4	33.4	25.6
Europe	Percent	23.8	15.0	19.4	21.0	16.8	17.6	17.5	16.9	20.6
Logs, total	Mil. bd. ft. ³	3,261	4,213	3,761	3,279	2,876	2,684	2,820	2,640	2,398
To: Canada	Percent	9.7	9.4	11.3	12.7	13.6	16.2	25.4	19.7	29.7
Japan	Percent	78.0	62.3	56.5	62.3	65.4	67.9	61.3	68.7	56.2
China: Mainland	Percent	2.7	8.6	9.9	7.2	4.6	2.8	0.7	0.6	0.8
Paper and board ⁴	1,000 tons	5,214	6,796	8,331	8,971	9,126	10,097	10,944	12,122	10,306
Woodpulp	1,000 tons	3,806	5,905	6,338	7,222	6,499	6,728	8,261	7,170	6,422
Plywood	Mil. sq. ft. ⁵	413	1,766	1,553	1,760	1,677	1,455	1,517	1,500	1,802

¹ Customs value of imports; see text, Section 28, Foreign Commerce. ² Includes railroad ties. ³ Log scale. ⁴ Includes paper and board products. Excludes hardboard. ⁵ 3/8 inch basis.

Source: U.S. Forest Service, *Timber Demand and Technology Assessment*, RWU-4851. Also in *Agricultural Statistics*, annual.

No. 1154. Lumber Consumption, by Species Group and End Use: 1993 to 1997

[In million board feet (56.9 represents 56,900,000), except per capita in board feet]. Per capita consumption based on estimated resident population as of July 1]

Item	1993	1994	1995	1996	1997	End-use	1993	1994	1995	1996	1997
Total	56.9	59.8	59.3	62.2	63.0	New housing	16.3	16.1	15.9	19.0	(NA)
Per capita	220	229	225	234	235	Residential upkeep and improvements	12.0	12.3	12.4	17.7	(NA)
Species group:						New nonresidential residential construction ¹	5.6	5.7	5.8	4.6	(NA)
Softwoods	45.7	48.2	47.6	50.2	50.9	Manufacturing	5.5	5.5	5.5	7.6	(NA)
Hardwoods	11.2	11.6	11.7	12.0	12.1	Shipping	8.4	8.5	8.5	6.3	(NA)
						Other ²	8.8	8.9	8.8	6.8	(NA)

NA Not available. ¹ In addition to new construction, includes railroad ties laid as replacements in existing track and lumber used by railroads for railcar repair. ² Includes upkeep and improvement of nonresidential buildings and structures; made-at-home projects, such as furniture, boats, and picnic tables; made-on-the-job items such as advertising and display structures; and miscellaneous products and uses.

Source: U.S. Forest Service, *Timber Demand and Technology Assessment*, RWU-4851. Also in *Agricultural Statistics*, annual.

No. 1155. Selected Timber Products—Producer Price Indexes: 1990 to 1998

[1982=100]

Product	1990	1991	1992	1993	1994	1995	1996	1997	1998
Lumber and wood products	129.7	132.1	146.6	174.0	180.0	178.1	176.1	183.8	179.1
Lumber	124.6	124.9	144.7	183.4	188.4	173.4	179.8	194.5	179.3
Softwood lumber	123.8	125.7	148.6	193.0	198.1	178.5	189.5	206.5	182.4
Hardwood lumber	131.0	128.5	140.7	163.3	168.3	167.0	163.9	174.1	178.7
Millwork	130.4	135.5	143.3	156.6	162.4	163.8	166.6	170.9	171.1
General millwork	132.0	138.1	146.3	158.5	163.6	165.4	167.9	171.1	172.4
Prefabricated structural members	122.3	122.4	132.7	159.7	169.3	163.5	167.5	177.8	170.1
Plywood	114.2	114.3	133.3	152.8	158.6	163.3	156.4	159.3	157.6
Softwood plywood	119.6	120.8	147.2	169.7	176.8	188.1	173.7	175.5	175.5
Hardwood plywood and related products	102.7	102.8	106.9	115.4	122.3	122.2	124.9	127.1	126.9
Other wood products	114.7	118.6	124.5	135.3	137.7	143.7	127.5	128.4	135.4
Boxes	119.1	123.6	127.5	138.2	141.3	145.0	147.1	149.2	150.7
Pulp, paper, and allied products	141.2	142.9	145.2	147.3	152.5	172.2	168.7	167.9	171.7
Pulp, paper, and prod. ex bldg paper	132.9	129.8	129.2	127.6	133.1	163.4	149.7	144.7	147.2
Woodpulp	151.3	119.2	118.9	104.2	115.9	183.2	133.1	128.6	122.0
Wastepaper	138.9	121.4	117.5	117.4	209.5	371.1	141.6	163.3	146.0
Paper	128.8	126.9	123.2	123.8	126.0	159.0	149.4	143.9	146.0
Writing and printing papers	129.1	124.8	120.2	120.5	121.7	158.4	144.6	140.0	140.9
Newsprint	119.6	120.9	109.8	112.1	116.7	161.8	159.5	133.9	143.2
Paperboard	135.7	130.2	134.3	130.0	140.5	181.1	155.1	144.4	151.7
Converted paper & paperboard products	135.2	134.8	134.8	133.7	136.7	157.0	153.4	148.4	152.2
Office supplies and accessories	121.4	119.5	116.4	115.3	116.9	134.9	132.9	131.0	131.1
Building paper & building board mill prod.	112.2	111.8	119.6	132.7	144.1	144.9	137.2	129.6	132.8

Source: U.S. Bureau of Labor Statistics, *Producer Price Indexes*, monthly.

No. 1156. Selected Species—Stumpage Prices In Current and Constant (1992) Dollars: 1990 to 1997

[In dollars per 1,000 board feet. Stumpage prices are based on sales of sawtimber from National Forests]

Species	Current dollars					Constant (1992) dollars ¹				
	1990	1994	1995	1996	1997	1990	1994	1995	1996	1997
Softwoods:										
Douglas fir ²	466	652	454	436	331	470	635	426	400	305
Southern pine ³	127	266	248	241	307	128	259	233	221	282
Sugar pine ⁴	285	625	397	318	234	287	609	373	292	215
Ponderosa pine ^{4, 5}	218	291	150	274	270	220	283	141	251	248
Western hemlock ⁶	203	335	297	248	211	205	326	279	227	194
Hardwoods:										
All eastern hardwoods ⁷	146	352	309	259	287	293	707	620	520	576
Oak, white, red, and black ⁷	188	317	297	237	265	378	637	596	475	531
Maple, sugar ⁸	135	313	286	238	357	271	629	574	478	717

¹ Deflated by the producer price index, all commodities. ² Western Washington and western Oregon. ³ Southern region. ⁴ Pacific Southwest region (formerly California region). ⁵ Includes Jeffrey pine. ⁶ Pacific Northwest region. ⁷ Eastern and Southern regions. ⁸ Eastern region.

Source: U.S. Forest Service, *Timber Demand and Technology Assessment*, RWU-4851. Also in *Agricultural Statistics*, annual.

No. 1157. Paper and Paperboard—Production and New Supply: 1980 to 1997

[In thousands of short tons (63,600 represents 63,600,000)]

Item	1980	1990	1991	1992	1993	1994	1995	1996	1997
Production, total	63,600	80,445	81,234	84,701	86,693	90,897	91,352	92,195	96,828
Paper, total	30,116	39,361	39,084	40,973	41,745	43,356	42,894	42,477	44,679
Paperboard, total	30,926	39,318	40,343	41,895	43,113	45,724	46,640	47,901	50,332
Unbleached kraft	15,295	20,357	20,960	21,658	21,447	22,469	22,697	22,178	23,222
Semichemical	4,724	5,640	5,552	5,762	5,672	5,943	5,662	5,619	6,047
Bleached kraft	3,836	4,399	4,572	4,503	4,583	5,029	5,304	5,236	5,548
Recycled	7,071	8,921	9,259	9,973	11,410	12,283	12,977	14,868	15,514
Wet machine board E	138	96	96	93	95	96	96	96	96
Building paper E	1,369	723	782	795	797	787	787	787	787
Insulating board E	1,051	946	929	945	943	934	934	934	934
New supply, all grades, excluding products	67,783	87,683	86,014	89,631	93,146	97,448	98,196	96,247	101,157
Paper, total	37,126	49,485	47,380	49,232	51,246	53,077	52,762	50,642	54,120
Newsprint	11,377	13,412	12,462	12,658	12,750	12,889	12,762	11,768	12,612
Printing/writing papers	16,124	25,456	24,651	26,013	27,846	29,444	29,543	28,291	30,753
Packaging and ind. conv. papers	5,243	4,718	4,596	4,783	4,628	4,640	4,241	4,288	4,234
Tissue	4,382	5,899	5,672	5,778	6,022	6,105	6,215	6,294	6,521
Paperboard, total	27,689	36,301	36,753	38,453	39,950	42,435	43,448	43,611	45,061
Construction and other	2,968	1,897	1,881	1,946	1,949	1,935	1,947	1,994	1,991

Source: American Forest and Paper Association, Washington, DC, *Monthly Statistical Summary of Paper, Paperboard and Woodpulp*.

No. 1158. Newsprint—Production, Stocks, Consumption, and Price Index: 1980 to 1997

[In thousands of metric tons (8,625 represents 8,625,000), except price index]

Country and item	1980	1990	1991	1992	1993	1994	1995	1996	1997
Canada:									
Production	8,625	9,068	8,855	8,755	9,130	9,299	9,226	9,015	(NA)
Capacity	(NA)	10,100	10,175	9,841	9,604	9,695	9,575	9,769	(NA)
Stocks at mills, end of year	165	315	565	351	362	225	208	428	(NA)
United States:									
Capacity	(NA)	6,162	6,400	6,625	6,617	6,604	6,580	6,526	(NA)
Consumption, estimate	10,088	12,241	12,126	11,268	11,505	11,535	11,826	11,256	(NA)
Production	4,239	5,997	6,206	6,424	6,412	6,336	6,352	6,304	(NA)
Stocks at mill, end of year	21	46	98	59	81	60	76	94	(NA)
Producer price index (1982=100)	188.5	119.6	120.9	109.8	112.1	116.7	161.8	159.5	133.9

NA Not available. ¹ Average for 11 months.

Source: 1980-1993, U.S. Bureau of Economic Analysis, *Survey of Current Business*, monthly; beginning 1994, American Forest and Paper Association, Washington, DC, and Canadian Pulp & Paper Association.

No. 1159. Fishery Products—Domestic Catch, Imports, and Disposition: 1980 to 1997

[Live weight, in millions of pounds (11,357 represents 11,357,000,000). For data on commercial catch for selected countries, see Table 1394, Section 30, Comparative International Statistics]

Item	1980	1990	1991	1992	1993	1994	1995	1996	1997
Total	11,357	16,349	16,364	16,106	20,334	19,309	16,484	16,474	17,131
For human food	8,006	12,662	13,020	13,242	13,821	13,714	13,584	13,625	13,739
For industrial use	3,351	3,687	3,344	2,864	6,513	5,595	2,900	2,848	3,392
Domestic catch	6,482	9,404	9,484	9,637	10,467	10,461	9,788	9,565	9,845
For human food	3,654	7,041	7,031	7,618	8,214	7,936	7,667	7,476	7,248
For industrial use	2,828	2,363	2,453	2,019	2,253	2,525	2,121	2,090	2,597
Imports ¹	4,875	6,945	6,879	6,469	9,867	8,848	6,696	6,909	7,286
For human food	4,352	5,621	5,989	5,624	5,607	5,778	5,917	6,150	6,491
For industrial use ²	523	1,324	890	845	4,260	3,070	779	759	795
Disposition of domestic catch	6,482	9,404	9,484	9,637	10,467	10,461	9,788	9,565	9,846
Fresh and frozen	2,621	6,501	6,541	7,288	7,744	7,475	7,099	7,054	6,877
Canned	1,161	751	674	543	649	622	769	678	648
Cured	96	126	119	100	115	95	90	93	108
Reduced to meal, oil, etc.	2,604	2,026	2,150	1,696	1,959	2,269	1,830	1,740	2,213

¹ Excludes imports of edible fishery products consumed in Puerto Rico; includes landings of tuna caught by foreign vessels in American Samoa. ² Fish meal and sea herring.

No. 1160. Fisheries—Quantity and Value of Domestic Catch: 1980 to 1997

Year	Quantity (mil. lb. ¹)				Year	Quantity (mil. lb. ¹)					
	Total	For human food	For industrial products ²	Average price per lb. (cents)		Total	For human food	For industrial products ²	Average price per lb. (cents)		
1980	6,482	3,654	2,828	2,237	34.5	1989	8,463	6,204	2,259	3,238	38.3
1981	5,977	3,547	2,430	2,388	40.0	1990	9,404	7,041	2,363	3,522	37.5
1982	6,367	3,285	3,082	2,390	37.5	1991	9,484	7,031	2,453	3,308	34.9
1983	6,439	3,238	3,201	2,355	36.6	1992	9,637	7,618	2,019	3,678	38.2
1984	6,438	3,320	3,118	2,350	36.5	1993	³ 10,467	8,214	2,253	3,471	33.2
1985	6,258	3,294	2,964	2,326	37.2	1994	10,461	7,936	2,525	3,807	36.8
1986	6,031	3,393	2,638	2,763	45.8	1995	9,788	7,667	2,121	3,770	38.5
1987	6,896	3,946	2,950	3,115	45.2	1996	9,565	7,474	2,091	3,487	36.5
1988	7,192	4,588	2,604	3,520	48.9	1997	9,846	7,248	2,598	3,467	35.2

¹ Live weight. ² Meal, oil, fish solubles, homogenized condensed fish, shell products, bait, and animal food. ³ Represents record year.

No. 1161. Domestic Fish and Shellfish Catch and Value, by Species: 1990 to 1997

Species	Quantity (1,000 lb.)				Value (\$1,000)			
	1990	1995	1996	1997	1990	1995	1996	1997
Total	9,403,571	9,787,554	9,564,888	9,845,784	3,521,995	3,735,615	3,486,713	3,466,605
Fish, total ¹	8,091,068	8,520,086	8,272,709	8,397,286	1,900,097	1,915,642	1,790,966	1,722,205
Cod:								
Atlantic	95,881	29,631	31,422	28,619	61,329	28,184	26,634	24,464
Pacific	526,396	591,399	605,314	661,314	91,384	109,680	111,978	142,429
Flounder	254,519	423,443	459,527	566,353	112,921	150,239	154,049	130,769
Halibut	70,454	44,796	49,092	69,864	96,700	66,781	83,468	117,362
Menhaden	1,962,160	1,846,959	1,755,471	2,027,802	93,896	99,131	94,150	112,050
Pollock, Alaska	3,108,031	2,852,618	2,623,131	2,512,455	268,344	259,614	238,129	242,589
Sablefish	89,802	65,904	59,949	52,925	58,865	123,694	109,009	108,776
Salmon	733,146	1,020,765	877,056	567,658	612,367	486,107	368,729	270,370
Tuna	62,393	63,864	85,439	82,855	105,040	102,638	110,256	109,794
Shellfish, total ¹	1,312,503	1,267,468	1,292,179	1,448,498	1,621,898	1,819,973	1,695,747	1,744,400
Clams	139,198	134,224	123,239	114,184	130,194	140,414	127,779	129,686
Crabs	499,416	363,639	391,797	429,963	483,837	511,987	426,705	429,547
Lobsters:								
American	61,017	66,406	71,641	83,921	154,677	214,838	241,796	267,216
Oysters	29,193	40,380	38,007	39,652	93,718	101,574	114,839	111,185
Scallops:								
Calico	(NA)	957	(NA)	1,613	(NA)	1,219	(NA)	3,601
Sea	39,917	18,316	18,162	13,789	153,696	92,826	101,823	90,291
Shrimp	346,494	306,869	316,879	290,255	491,433	570,034	509,203	544,056

NA Not available. ¹ Includes other types of fish and shellfish, not shown separately.

Source of Tables 1159-1161: U.S. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, *Fisheries of the United States*, annual.

No. 1162. U.S. Private Aquaculture—Trout and Catfish Production and Value: 1990 to 1998

Item	Unit	1990	1992	1993	1994	1995	1996	1997	1998
TROUT FOODSIZE									
Number sold	Millions .	67.8	64.5	60.9	58.3	60.2	56.5	59.3	57.1
Total weight	Mil. lb . .	56.8	55.2	54.6	52.1	55.6	53.6	56.9	55.1
Total value of sales	Mil. dol. .	64.6	51.0	54.3	52.7	60.8	57.0	60.7	59.7
Average price received	Dol./lb . .	1.14	0.92	0.99	1.01	1.09	1.06	1.07	1.08
Percent sold to processors	Percent . .	58	71	63	68	68	67	63	59
CATFISH FOODSIZE									
Number sold	Millions .	272.9	373.2	379.1	347.6	321.8	375.4	391.8	407.8
Total weight	Mil. lb . .	392.4	497.3	495.8	479.4	481.5	526.3	569.6	598.5
Total value of sales	Mil. dol. .	305.1	302.4	352.9	373.6	378.1	403.3	406.8	440.7
Average price received	Dol./lb . .	0.78	0.61	0.71	0.78	0.79	0.77	0.71	0.74
Fish sold to processors	Mil. lb . .	360.4	457.4	459.0	439.3	446.9	472.1	524.9	564.4
Avg. price paid by processors	Cents/lb .	75.8	59.8	70.9	78.4	78.6	77.3	71.2	74.3
Processor sales	Mil. lb . .	183.1	231.3	233.5	216.5	227.0	237.2	261.8	281.4
Avg. price received by processors	Cents/lb .	224.1	200.5	218.6	238.5	240.3	236.9	226.0	229.0
Inventory (Jan. 1)	Mil. lb . .	9.4	11.6	9.5	11.6	10.9	11.9	11.9	10.8

Source: U.S. Dept. of Agriculture, National Agricultural Statistics Service, *Trout Production* released September; *Catfish Production* released February; and *Catfish Processing* released February. Also in *Agricultural Statistics*, annual.

No. 1163. Supply of Selected Fishery Items: 1980 to 1997

[In millions of pounds (425 represents 425,000,000). Totals available for U.S. consumption are supply minus exports plus imports. Round weight is the complete or full weight as caught]

Item	Unit	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997
Shrimp	Heads-off weight . .	425	633	734	744	820	808	847	832	842	923
Tuna, canned	Canned weight	666	759	856	933	922	835	850	875	859	829
Clams	Meat weight	102	164	152	144	155	156	144	144	134	124
American lobster	Round weight	69	108	95	107	95	92	101	94	97	112
Snow crab	Round weight	54	45	37	60	88	66	40	42	46	110
Salmon, canned	Canned weight	126	113	148	131	73	114	117	147	104	82
Spiny lobster	Round weight	127	154	89	85	81	76	76	89	81	76
Scallops	Meat weight	51	72	74	62	69	66	76	62	71	66
Oysters	Meat weight	71	90	56	47	50	48	50	63	58	58
Sardines, canned	Canned weight	69	76	61	52	41	41	48	44	46	49
King crab	Round weight	133	11	19	20	15	8	12	21	30	45
Crab meat, canned	Canned weight	9	8	9	11	9	9	9	12	13	15

Source: U.S. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, *Fisheries of the United States*, annual.

No. 1164. Canned, Fresh, and Frozen Fishery Products: 1980 to 1997

[Fresh fishery products exclude Alaska and Hawaii. Canned fishery products data are for natural pack only]

Product	Production (mil. lb.)						Value (mil. dol.)					
	1980	1990	1994	1995	1996	1997	1980	1990	1994	1995	1996	1997
Canned,¹	1,516	1,178	1,768	1,927	1,877	1,565	1,928	1,562	1,796	1,887	1,800	1,593
Tuna	602	581	610	667	676	627	1,144	902	963	939	957	919
Salmon	200	196	207	244	197	162	376	366	329	419	284	253
Clam products	77	110	122	129	129	125	66	76	106	110	117	115
Mackerel ²	38	23	(NA)	(NA)	(NA)	(NA)	12	11	(NA)	(NA)	(NA)	(NA)
Sardines, Maine	20	13	16	14	18	16	32	17	28	24	30	29
Shrimp	16	1	(Z)	1	1	1	80	3	4	7	6	5
Crabs	5	1	(Z)	(Z)	(Z)	(Z)	19	4	(Z)	(Z)	(Z)	(Z)
Oysters	(Z)	1	(Z)	(Z)	(Z)	(Z)	(Z)	1	(Z)	(Z)	(Z)	(Z)
Fish filets and steaks . .	202	441	425	385	423	398	261	843	836	841	904	909
Cod	31	65	58	65	67	79	43	132	135	152	158	179
Flounder	49	54	35	35	29	26	87	154	89	86	80	75
Haddock	17	7	3	3	4	7	29	24	12	11	14	24
Ocean perch, Atlantic	7	1	(Z)	(Z)	(Z)	1	9	1	1	1	1	2
Rockfish	14	33	23	25	20	15	13	53	33	38	42	30
Pollock, Atlantic	9	12	7	4	2	1	9	21	16	10	5	2
Pollock, Alaska	(NA)	164	141	135	136	112	(NA)	174	144	184	158	129
Other	74	105	158	118	165	157	71	284	406	359	446	468

NA Not available. Z Less than 500,000 pounds or \$500,000. ¹ Includes other products, not shown separately. ² Includes Jack and a small amount of Pacific mackerel. ³ Includes oyster specialties. ⁴ Fresh and frozen.

Source: U.S. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, *Fisheries of the United States*, annual.

No. 1165. Summary of Mineral Operations: 1967 to 1997

[Represents mineral operations only. Beginning 1967, excludes single unit establishments without paid employees]

Item	Unit	1967	1972	1977	1982	1987	1992	1997
Establishments	Number . . .	28,579	25,269	31,359	42,241	33,617	30,787	26,100
With 20 or more employees	Number . . .	5,682	5,312	6,632	(NA)	6,299	5,600	(NA)
Including all operations in manufactures	Number . . .	29,688	26,178	31,967	42,585	34,041	31,261	(NA)
Excluding oil and gas extraction	Number . . .	12,221	10,771	12,912	12,267	10,707	9,896	9,414
Employees, total	1,000	567	595	799	1,114	698	638	550
Production workers ¹	1,000	433	443	593	762	451	415	(NA)
All other	1,000	134	152	206	352	247	223	(NA)
Worker-hours, production workers ¹	Million	892	909	1,183	1,578	942	876	(NA)
Worker-hours per production workers	1,000	2.1	2.1	2.0	2.1	2.1	2.1	(NA)
Payroll, total	Mil. dol	4,187	6,226	13,167	28,637	21,739	24,199	22,145
Wages, production workers ¹	Mil. dol	2,888	4,250	9,082	18,030	12,443	13,833	(NA)
Salaries, all other employees	Mil. dol	1,299	1,976	4,085	10,607	9,296	10,366	(NA)
Cost of supplies, etc. ²	Mil. dol	10,576	14,884	46,079	109,697	62,423	65,653	(NA)
Value added in mining	Mil. dol	19,330	26,471	68,013	188,055	110,959	113,621	(NA)
Metal mining	Mil. dol	1,557	2,382	3,504	3,215	4,610	6,724	(NA)
Coal mining	Mil. dol	2,091	3,754	11,266	18,631	17,068	17,252	(NA)
Oil and gas extraction	Mil. dol	13,394	17,612	48,587	159,937	80,049	80,016	(NA)
Nonmetallic minerals mining	Mil. dol	2,288	2,723	4,656	6,273	9,233	9,629	(NA)
Value of shipments and receipts	Mil. dol	22,784	36,319	96,375	250,000	157,964	162,095	158,482
Capital expenditures	Mil. dol	4,058	5,036	17,718	47,753	15,418	17,179	(NA)

NA Not available. ¹ Represents employees up through the working foreman level in manual work. Includes development and exploration workers. ² Includes purchased machinery installed.

Source: U.S. Census Bureau, *Census of Mineral Industries, 1972, 1977, 1982, 1987, and 1992*; and *1997 Economic Census, Core Business Statistics Series, Series EC97X-CS1*.

No. 1166. Mining and Primary Metal Production Indexes: 1980 to 1998

[Index 1992=100]

Industry group	1980	1990	1991	1992	1993	1994	1995	1996	1997	1998
Mining	111.5	104.8	102.6	100.0	99.9	102.4	102.0	103.7	105.8	104.1
Coal	83.4	103.7	100.1	100.0	93.7	102.5	101.9	105.0	107.8	109.7
Oil and gas extraction	124.4	106.4	104.7	100.0	101.1	101.7	100.5	101.8	103.1	99.9
Crude oil and natural gas	115.1	101.6	101.9	100.0	98.0	98.1	96.5	95.9	95.7	95.0
Oil and gas drilling	236.8	151.1	128.6	100.0	122.6	127.0	126.4	138.0	149.3	135.0
Metal mining	65.2	93.1	93.3	100.0	98.8	100.5	101.5	104.0	110.0	110.2
Iron ore	128.5	101.4	101.7	100.0	100.0	104.3	112.3	111.3	113.5	112.8
Nonferrous ores	52.8	91.9	92.1	100.0	98.6	99.9	100.1	103.0	109.6	110.0
Copper ore	65.6	89.4	92.4	100.0	102.0	104.7	104.8	108.7	109.9	106.7
Primary metals, manufacturing	108.0	104.0	96.7	100.0	105.7	113.4	116.8	119.8	125.3	123.8
Nonferrous metals	92.4	100.9	97.7	100.0	104.0	113.0	115.8	120.6	126.7	127.5
Copper	75.9	81.6	88.3	100.0	116.7	111.7	122.0	103.6	110.5	107.2
Aluminum	115.1	100.4	102.2	100.0	91.7	81.8	83.7	88.5	89.4	92.1
Iron and steel	119.0	106.4	96.0	100.0	107.1	113.7	117.7	119.2	124.2	120.7

Source: Board of Governors of the Federal Reserve System, *Federal Reserve Bulletin*, monthly; and *Industrial Production and Capacity Utilization*, Statistical Release G.17, monthly.

No. 1167. Mineral Industries—Employment, Hours, and Earnings: 1990 to 1998

Item	Unit	1990	1995	1998	Item	Unit	1990	1995	1998
All mining:									
All employees	1,000	709	581	575	Avg. weekly hours	Number . . .	43.9	44.2	42.7
Production workers	1,000	509	424	436	Avg. weekly earnings	Dollars . . .	568	642	719
Avg. weekly hours	Number . . .	44.1	44.7	43.9	Metal mining:				
Avg. weekly earnings	Dollars . . .	603	684	744	All employees	1,000	58	51	51
Coal mining:					Production workers	1,000	46	41	39
All employees	1,000	147	104	91	Avg. weekly hours	Number . . .	42.8	43.8	44.5
Production workers	1,000	119	84	75	Avg. weekly earnings	Dollars . . .	601	735	812
Avg. weekly hours	Number . . .	44.0	44.9	44.8	Nonmetallic minerals, except fuels:				
Avg. weekly earnings	Dollars . . .	735	828	858	All employees	1,000	110	105	108
Oil and gas extraction:					Production workers	1,000	83	80	82
All employees	1,000	395	320	326	Avg. weekly hours	Number . . .	45.3	46.6	46.4
Production workers	1,000	261	218	242	Avg. weekly earnings	Dollars . . .	525	624	683

Source: U.S. Bureau of Labor Statistics, *Bulletin 2370* and *Employment and Earnings*, March and June issues.

No. 1168. Mineral Production: 1990 to 1998

[Data represent production as measured by mine shipments, mine sales, or marketable production]

Mineral	Unit	1990	1995	1997	1998
FUEL MINERALS					
Coal, total	Mil. sh. tons	1,029.1	1,033.0	1,089.9	1,118.7
Bituminous	Mil. sh. tons	693.2	613.8	653.8	665.1
Subbituminous	Mil. sh. tons	244.3	328.0	345.1	363.6
Lignite	Mil. sh. tons	88.1	86.5	86.3	84.8
Anthracite	Mil. sh. tons	3.5	4.7	4.7	5.2
Natural gas (marketed production)	Tril. cu. ft.	18.59	19.51	19.87	19.94
Petroleum (crude)	Mil. bbl. ¹	2,686	2,394	2,354.98	2,279
Uranium (recoverable content)	Mil. lb.	8.9	6.0	5.64	4.71
NONFUEL MINERALS					
Asbestos (sales)	1,000 metric tons	(D)	9.3	6.9	6.0
Barite, primary, sold/used by producers	1,000 metric tons	430	543	692	660
Boron minerals, sold or used by producers	1,000 metric tons	1,090	1,190	1,190	(NA)
Bromine, sold or used by producers	1,000 metric tons	177	218	247	234
Cement:					
Portland	Mil. metric tons	67.0	73.3	78.9	(NA)
Masonry	Mil. metric tons	2.9	3.6	(NA)	(NA)
Clays	1,000 metric tons	42,900	43,100	42,000	43,000
Diatomite	1,000 metric tons	631	722	773	767
Feldspar ²	1,000 metric tons	630	880	900	800
Fluorspar, finished shipments	1,000 metric tons	64	51	-	-
Garnet (abrasive)	1,000 metric tons	47.0	46.3	64.9	57
Gypsum, crude	Mil. metric tons	14.9	16.6	18.6	19.0
Helium ³	Mil. cu. meters	84.8	99	(NA)	(NA)
Lime, sold or used by producers	Mil. metric tons	15.8	18.5	19.7	20.4
Mica, scrap & flake, sold/used by producers	1,000 metric tons	109	108	114	81
Peat, sales by producers	1,000 metric tons	721	660	753	(NA)
Perlite, processed, sold or used	1,000 metric tons	576	700	706	688
Phosphate rock (marketable)	Mil. metric tons	46.3	43.5	43.3	44.6
Potash (K ₂ O equivalent) sales	1,000 metric tons	1,710	1,480	1,400	1,300
Pumice & pumicite, producer sales	1,000 metric tons	443	529	577	616
Salt, common, sold/used by producers	Mil. metric tons	36.9	40.8	40.6	42.1
Sand & gravel, sold/used by producer	Mil. metric tons	855	935	981	1,049
Construction	Mil. metric tons	829	907	952	1,020
Industrial	Mil. metric tons	26	28.2	29.2	29.0
Silica ⁴	Metric tons	3,710	979	(NA)	(NA)
Sodium carbonate (natural) (soda ash)	1,000 metric tons	9,100	10,100	10,700	10,300
Sodium sulfate (natural)	1,000 metric tons	349	327	318	290
Stone ⁵	Mil. metric tons	1,110	2,420	2,600	2,580
Crushed and broken	Mil. metric tons	1,110	1,260	1,420	1,500
Dimension	1,000 metric tons	1,120	1,160	1,180	1,080
Sulfur: Frasch mines (shipments)	1,000 metric tons	3,680	(D)	(D)	(D)
Talc, and pyrophyllite, crude	1,000 metric tons	1,270	1,060	1,050	958
Tripoli	1,000 metric tons	81	80	(NA)	(NA)
Vermiculite concentrate	1,000 metric tons	209	171	(D)	(D)
METALS					
Antimony ore and concentrate	Metric tons	(D)	262	356	500
Aluminum	1,000 metric tons	4,048	3,375	3,603	3,700
Bauxite (dried)	1,000 metric tons	(D)	(D)	(NA)	(NA)
Copper (recoverable content)	1,000 metric tons	1,590	1,850	1,940	1,850
Gold (recoverable content)	Metric tons	294	317	360	350
Iron ore (gross weight) ⁶	Mil. metric tons	57.0	61.1	62.8	62.0
Lead (recoverable content)	1,000 metric tons	484	386	448	449
Magnesium metal	1,000 metric tons	139	142	125	117
Manganiferous ore (gross weight) ⁷	1,000 metric ton	(D)	(D)	(D)	(D)
Mercury ⁸	Metric tons	562	(D)	(D)	(D)
Molybdenum (concentrate)	1,000 metric tons	61.6	60.9	60.9	53.5
Nickel	1,000 metric tons	0.3	1.6	-	-
Palladium metal	Kilograms	5,930	5,260	8,400	10,500
Platinum metal	Kilograms	1,810	1,590	2,610	3,500
Silver (recoverable content)	Metric tons	2,120	1,560	2,150	2,100
Titanium concentrate: Ilmenite (gross weight)	1,000 metric tons	(D)	(D)	(D)	(D)
Tungsten ore and concentrate ⁹	Metric tons	(D)	(D)	(D)	(D)
Zinc (recoverable content)	1,000 metric tons	515	614	605	655

- Represents zero. D Withheld to avoid disclosing individual company data. NA Not available. ¹ 42 gal. bbl. ² Includes apilite, 1992-97. ³ Refined only. ⁴ Includes grindstones, oilstones, whetstones, and deburring media. Excludes grinding pebbles, and tubemill liners. ⁵ Excludes abrasive stone, bituminous limestone and sandstone, and ground soapstone, all included elsewhere in table; 1993 excludes dimension stone. Includes calcareous marl and slate. ⁶ Represents shipments; includes byproduct ores. ⁷ 5 to 35 percent manganiferous ore. ⁸ Mercury produced as a byproduct of gold ores only. ⁹ Content of ore and concentrate.

Source: Nonfuels, through 1994, U.S. Bureau of Mines, thereafter, U.S. Geological Survey, *Minerals Yearbook* and *Mineral Commodities Summaries*, annual; fuels, U.S. Energy Information Administration, *Annual Energy Review*.

No. 1169. Mineral Production Value: 1990 to 1998

[In millions of dollars (141,608 represents \$141,608,000,000). Value derived by multiplying production times price at source of production]

Mineral	1990	1995	1996	1997	1998, est.
Mineral production, total	141,608	123,486	145,206	147,204	(NA)
Mineral fuels, total	108,144	84,783	106,197	106,524	83,601
Coal, total	22,415	19,469	19,691	19,777	19,668
Bituminous	19,014	15,688	15,875	16,110	16,036
Anthracite	138	187	177	165	174
Natural gas (wellhead)	31,789	30,241	42,858	46,098	39,082
Petroleum (crude)	53,801	35,006	43,561	40,576	24,792
Uranium U ₃ O ₈	140	67	87	73	58
Industrial minerals, total	21,022	24,679	25,994	27,606	(NA)
Asbestos (sales)	(¹)	(¹)	(¹)	(¹)	(¹)
Asphalt, related bitumens (native) ³	3,480	(NA)	(NA)	(NA)	(NA)
Barite, primary, sold/used by producers	16	10	15	16	15
Boron minerals, sold/used by producers	436	560	519	580	(NA)
Bromine, sold/used by producers	173	186	150	198	227
Calcium chloride (natural)	(⁴)	(NA)	(NA)	(NA)	(NA)
Cement:					
Portland	3,683	4,920	5,310	5,710	(NA)
Masonry	225	307	321	339	(NA)
Clays	1,620	1,730	1,710	1,670	(NA)
Diatomite ⁵	138	171	176	184	182
Feldspar	28	(⁶)	39	43	40
Fluorspar, finished shipments	(⁷)	(⁷)	(⁷)	(⁷)	(⁷)
Garnet (abrasive)	7	4	6	6	(NA)
Gemstones (estimate)	53	49	43	25	23
Gypsum, crude	100	121	124	132	137
Helium ⁶	113	196	193	206	(NA)
Lime, sold/used by producers	902	1,100	1,170	1,200	(NA)
Mica, scrap and flake, sold/used by producers	6	6	8	9	9
Peat (sales by producers)	19	17.0	18.5	17.5	(NA)
Perlite, processed, sold/used by producers	17	22	21	23	(NA)
Phosphate rock (marketable)	1,075	947	1,060	1,076	1,131
Potash (K ₂ O equivalent)	303	284	299	320	(NA)
Pumice and pumicite (sales by producers)	11	13.2	14.8	16.1	15
Salt (common), sold/used by producers	827	1,000	1,060	993	(NA)
Sand and gravel, sold/used by producers	3,686	4,400	4,500	4,778	(NA)
Silica, special ⁸	(⁹)	1	1	(NA)	(NA)
Sodium carbonate (natural) (soda ash)	836	829	926	915	(NA)
Sodium sulfate (natural)	34	28	27	35	(NA)
Stone	5,822	6,970	7,410	8,295	(NA)
Crushed and broken	5,591	6,740	7,180	8,070	(NA)
Dimension	231	233	234	225	205
Sulfur: Frasch mines (shipments)	335	(¹⁰)	(¹⁰)	(¹⁰)	(NA)
Talc and pyrophyllite, crude ⁸	3	32	31	(NA)	(NA)
Tripoli	31	11	18	16	(NA)
Vermiculite concentrate	19	(¹¹)	(¹¹)	(¹¹)	(NA)
Industrial minerals, undistributed	504	725	820	803	(NA)
Metals, total	12,442	14,024	13,015	13,074	(NA)
Antimony ore and concentrate ⁹	(¹⁰)	(¹²)	(¹²)	(¹²)	(NA)
Bauxite (dried equivalent)	(¹⁰)	(¹²)	(¹²)	(¹²)	(NA)
Copper (recoverable content)	4,311	5,640	4,610	4,580	(NA)
Gold (recoverable content)	3,650	3,950	4,090	3,850	(NA)
Iron ore (gross weight) ¹¹	1,741	1,730	1,770	1,890	(NA)
Lead (recoverable content)	491	359	459	460	(NA)
Magnesium metal	433	475	455	400	(NA)
Manganiferous ore (gross weight) ¹³	(¹⁰)	(¹²)	(¹²)	(¹²)	(NA)
Mercury ¹⁴	(¹⁰)	(¹²)	(¹²)	(¹²)	(NA)
Molybdenum (concentrate)	348	651	456	(D)	(NA)
Palladium metal	22	22	26	50	(NA)
Platinum metal	27	21	24	33	(NA)
Silver (recoverable content)	329	259	262	338	(NA)
Titanium concentrate: Ilmenite (gross weight)	(¹⁰)	(¹²)	(¹²)	(¹²)	(NA)
Tungsten ore and concentrate	(¹⁰)	(¹²)	(¹²)	(¹²)	(NA)
Vanadium (recoverable content)	(¹⁰)	(¹²)	(¹²)	(¹²)	(NA)
Zinc mine production (recoverable content)	847	756	674	860	(NA)
Metals, undistributed	242	161	190	614	(NA)

NA Not available. ¹ Includes subbituminous and lignite. ² Includes grindstones, oilstones, whetstones, and deburring media. ³ 1990-92, excluded from industrial minerals. ⁴ Included in "Industrial minerals, undistributed." ⁵ 1992-93, includes apilite. ⁶ Refined only. ⁷ Excludes abrasive stone, bituminous limestone and sandstone, and ground soapstone; 1993 excludes dimension stone. State ranks based on publishable data. Includes calcareous marl and slate. ⁸ 1990-92, talc only. ⁹ Antimony content. ¹⁰ Included with "metals, undistributed." ¹¹ Represents shipments; includes byproduct orders. ¹² Canvass for magnesium chloride for magnesium metal discontinued in 1986. ¹³ 5 to 35 percent manganiferous ore. ¹⁴ Mercury produced as a byproduct of gold ores only.

Source: Nonfuels, through 1994, U.S. Bureau of Mines, thereafter, U.S. Geological Survey, *Minerals Yearbook* and *Mineral Commodities Summaries*, annual; fuels, U.S. Energy Information Administration, *Annual Energy Review*.

No. 1170. Nonfuel Mineral Commodities—Summary: 1997

Mineral	Mineral disposition				Average price per unit (dollars)	Employment (number)	
	Unit	Production	Exports	Net import reliance (percent)			Consumption, apparent
Aluminum	1,000 metric tons	5,300	1,600	23	6,900	20.75	18,000
Antimony (contained)	Metric tons	31,000	4,500	(NA)	(NA)	21.10	1,000
Asbestos	1,000 metric tons	9	13	38	21	(D)	30
Barite	1,000 metric tons	700	35	71	2,435	425.00	380
Bauxite and alumina	1,000 metric tons	(NA)	1,300	100	4,300	427.00	(NA)
Beryllium (contained)	Metric tons	210	45	(5)	205	26327	425
Bismuth (contained)	Metric tons	(D)	200	(D)	(D)	23.50	30
Boron (B ₂ O ₃ content)	1,000 metric tons	622	(NA)	(5)	(NA)	47340	900
Bromine (contained)	1,000 metric tons	250	14	-	341	890.988	1,700
Cadmium (contained)	Metric tons	31,750	100	33	2,600	2101.00	150
Cement	1,000 metric tons	80,900	850	14	93,602	474.50	17,900
Chromium	1,000 metric tons	1124	33	76	513	412150	(NA)
Clays	1,000 metric tons	43,900	4,970	(5)	39,000	(NA)	13,900
Cobalt (contained)	Metric tons	112,000	1,700	78	9,200	223.00	(NA)
Copper (Mine, contained)	1,000 metric tons	1,920	670	12	2,830	21.08	13,300
Diamond (industrial)	Million carats	135	139	(NA)	244	130.44	(NA)
Diatomite	1,000 metric tons	705	144	(5)	561	4252	1,000
Feldspar	1,000 metric tons	930	8	-	931	445.09	400
Fluorspar	1,000 metric tons	121	60	100	609	(NA)	-
Garnet (industrial)	Metric tons	71,000	13,000	(5)	59,000	450-2,000	250
Gemstones	Million dollars	67	2,700	99	5,370	(NA)	800
Germanium (contained)	Kilograms	20,000	(NA)	(NA)	30,000	8141.475	115
Gold (contained)	Metric tons	325	550	(5)	(NA)	15325	14,000
Graphite (crude)	1,000 metric tons	-	27	100	28	416716	(NA)
Gypsum (crude)	1,000 short tons	17,000	200	30	26,300	47.10	6,000
Iodine	Metric tons	1,330	2,400	65	3,700	814.60	40
Iron ore (usable)	Million metric tons	62	5	15	73.7	41730.41	7,500
Iron and steel scrap (metal)	Million metric tons	78	9	(5)	70	4124.00	38,000
Iron and steel slag (metal)	1,000 metric tons	21,000	3	1	21,400	47.00	2,500
Lead (contained)	1,000 metric tons	450	30	14	1,660	20.470	1,200
Lime	1,000 metric tons	19,300	58	1	19,500	455.40	5,700
Magnesium compounds	1,000 metric tons	400	55	33	595	(NA)	600
Magnesium metal	1,000 metric tons	190	40	10	166	2181.65	1,400
Manganese (gross weight)	1,000 metric tons	-	63	100	715	42.44	(NA)
Mercury	Metric tons	11400	60	(D)	(D)	200.00	(NA)
Mica, scrap and flake	1,000 metric tons	91	7	3	100	491.00	(NA)
Molybdenum (contained)	Metric tons	55,500	50,000	(5)	11,700	8.50	700
Nickel (contained)	Metric tons	16,100	17,300	54	150,000	46.931	4
Nitrogen (fixed)-ammonia	1,000 metric tons	13,000	500	14	15,100	41192	2,500
Peat	1,000 metric tons	500	20	58	1,200	426.00	800
Perlite	1,000 metric tons	703	38	11	790	431.82	140
Phosphate rock	1,000 metric tons	46,300	600	(5)	42,500	423.70	5,000
Platinum-group metals	Kilograms	10,800	60,100	(NA)	(NA)	219394.83	550
Potash (K ₂ O equivalent)	1,000 metric tons	1,430	450	76	5,890	420140	1,650
Pumice and pumicite	1,000 metric tons	538	13	21	680	426.29	70
Salt	1,000 metric tons	41,700	675	14	48,700	421120.00	4,150
Silicon (contained)	1,000 metric tons	424	41	34	637	2220.55	(NA)
Silver (contained)	Metric tons	1,600	3,000	(NA)	(NA)	4.62	1,400
Sodium carbonate (soda ash)	1,000 metric tons	10,400	4,000	(5)	6,480	23105	2,800
Sodium sulfate	1,000 metric tons	320	80	12	659	24114	240
Stone (crushed)	Million metric tons	1,390	4	-	1,397	45.55	78,000
Sulfur (all forms)	1,000 metric tons	11,900	730	11	13,500	42538.00	3,100
Talc	1,000 metric tons	1,060	197	(5)	955	4122	750
Tin (contained)	Metric tons	111,000	4,500	85	49,000	22.65	(NA)
Titanium dioxide	1,000 metric tons	1,330	368	(5)	1,150	2260.93	4,600
Tungsten (contained)	Metric tons	(D)	20	85	11,400	2766	60
Vermiculite	1,000 metric tons	(D)	8	(D)	(D)	(D)	230
Zinc (contained)	1,000 metric tons	607	427	35	1,500	20.810	2,700
Zirconium (Z ₂ O ₂) content	Metric tons	(D)	26,590	(D)	(D)	428400	(NA)

- Represents or rounds to zero. D Withheld to avoid disclosure. NA Not available. ¹ Calculated as a percent of apparent consumption. ² Price per pound. ³ Refinery production. ⁴ Price per metric ton. ⁵ Net exporter. ⁶ Metal, vacuum-cast ingot. ⁷ Granulated pentahydrate borax in bulk, f.o.b. mine. ⁸ Dollars per kilogram. ⁹ Cents per kilogram, bulk, purified bromine. ¹⁰ 1- to 5-short ton lots. ¹¹ Secondary production. ¹² Turkish, chromite price. ¹³ Value of imports per carat. ¹⁴ Zone refined, first reduction quality. ¹⁵ Price per troy ounce. ¹⁶ Price of flake imports. ¹⁷ Delivered, No. 1 Heavy Melting composite price. ¹⁸ Year-end price. ¹⁹ Dealer price of platinum. ²⁰ Price of K₂O, muriate. ²¹ Vacuum and open pan, bulk, pellets and packaged, f.o.b. mine and plant. ²² Ferrosilicon, 50% Si. ²³ Quoted year-end price, dense, bulk, f.o.b. Green river, WY, dollars per short ton. ²⁴ Quoted price, bulk, f.o.b. works, East, dollars per short ton. ²⁵ Rutile, list, year-end. ²⁶ Dollars per unit W03 (7.93 kilograms of contained tungsten per unit). ²⁷ All forms. ²⁸ Price for imported zircon, f.o.b. U.S. east coast.

Source: U.S. Geological Survey, *Mineral Commodity Summaries*, annual.

No. 1171. Selected Mineral Products—Average Prices: 1980 to 1998

[Excludes Alaska and Hawaii, except as noted]

Year	Nonfuels								Fuels		
	Copper, electro-lytic ¹ (cents per lb.)	Plati-num ² (dol./troz oz.)	Gold (dol./fine oz.)	Silver (dol./fine oz.)	Lead ³ (cents per lb.)	Tin (New York) ⁴ (cents per lb.)	Zinc ⁵ (cents per lb.)	Sulfur, crude ⁶ (dol./metric ton)	Bitumi-nous coal ⁷ (dol./short ton)	Crude petro-leum ⁷ (dol./bbl.)	Natura] gas ⁷ (dol./1,000 cu. ft.)
1980	101	677	613	20.63	43	846	37	89.06	24.52	21.59	1.59
1981	84	446	460	10.52	37	733	45	111.48	26.29	31.77	1.98
1982	73	327	376	7.95	26	654	39	108.27	27.14	28.52	2.46
1983	77	424	424	11.44	22	655	41	87.24	25.85	26.19	2.59
1984	67	357	361	8.14	26	624	49	94.31	25.51	25.88	2.66
1985	67	291	318	6.14	19	596	40	106.46	25.10	24.09	2.51
1986	66	461	368	5.47	22	383	38	105.22	23.70	12.51	1.94
1987	83	553	478	7.01	36	419	42	89.78	23.00	15.40	1.67
1988	121	523	438	6.53	37	441	60	85.95	22.00	12.58	1.69
1989	131	507	383	5.50	39	520	82	86.62	21.76	15.86	1.69
1990	123	467	385	4.82	46	386	75	80.14	21.71	20.03	1.71
1991	109	371	363	4.04	34	363	53	71.45	21.45	16.54	1.64
1992	107	360	345	3.94	35	402	58	48.14	20.99	15.99	1.74
1993	92	374	361	4.30	32	350	46	31.86	19.79	14.25	2.04
1994	111	411	385	5.29	37	369	49	28.60	19.34	13.19	1.85
1995	138	425	386	5.15	42	416	56	43.74	18.74	14.62	1.55
1996	109	398	390	5.19	49	412	51	34.48	18.42	18.46	2.17
1997	107	397	333	4.9	47	381	65	38.00	18.11	17.23	2.32
1998	80	406	300	5.1	45	377	52	(NA)	17.51	10.88	196.00

NA Not available. ¹ Domestic market prices for wirebar, 1970, 1975-77; prices for cathode thereafter. ² Average annual dealer prices. ³ 1970, New York prices; beginning 1975, nationwide delivered basis. ⁴ Straits tin through 1975; thereafter, composite price. ⁵ Prime western. Beginning 1975, delivered price. ⁶ F.o.b. works. ⁷ Average value at the point of production or domestic first purchase price. ⁸ Includes lignite.

Source: Nonfuels, through 1994, U.S. Bureau of Mines, thereafter, U.S. Geological Survey, *Minerals Yearbook* and *Mineral Commodities Summaries*, annual; fuels, U.S. Energy Information Administration, *Annual Energy Review* and *Monthly Energy Review*.

No. 1172. Value of Domestic Nonfuel Mineral Production, by State: 1990 to 1998

[In millions of dollars (\$3,445 represents \$33,445,000,000). Data may not add due to rounding]

State	1990	1995	1997	1998	State	1990	1995	1997	1998
United States	33,445	38,506	40,471	40,034	Missouri	1,105	1,140	1,310	1,360
Alabama	559	706	881	947	Montana	573	574	498	500
Alaska	577	538	958	911	Nebraska	90	146	165	174
Arizona	3,085	4,190	3,540	2,820	Nevada	2,621	3,060	3,270	3,100
Arkansas	381	492	487	598	New Hampshire	36	50	149	153
California	2,771	2,760	3,040	2,970	New Jersey	229	243	267	301
Colorado	377	570	524	604	New Mexico	1,103	1,130	1,040	860
Connecticut	122	93	180	105	New York	773	886	955	939
Delaware ²	10	29	212	211	North Carolina	586	735	741	785
Florida	1,574	1,540	1,830	1,960	North Dakota	25	31	34	35
Georgia	1,504	1,690	1,680	2,140	Ohio	733	891	1,040	1,150
Hawaii	106	114	194	86	Oklahoma	259	357	386	408
Idaho	375	510	469	444	Oregon	205	239	285	272
Illinois	667	828	829	862	Pennsylvania	1,031	1,080	1,200	1,280
Indiana	428	589	670	698	Rhode Island	18	31	127	128
Iowa	310	456	486	524	South Carolina	450	447	567	589
Kansas	349	498	539	535	South Dakota	319	332	328	269
Kentucky	359	432	498	489	Tennessee	663	665	707	709
Louisiana	368	434	402	379	Texas	1,459	1,680	1,790	1,920
Maine	55	68	70	76	Utah	1,335	1,850	1,680	1,300
Maryland	368	324	371	358	Vermont	87	60	184	196
Massachusetts	128	190	193	192	Virginia	507	515	642	679
Michigan	1,440	1,520	1,660	1,660	Washington	483	582	555	583
Minnesota	1,482	1,530	1,680	1,560	West Virginia	133	181	205	204
Mississippi	111	131	175	190	Wisconsin	215	416	358	261
					Wyoming	911	973	1,120	1,060

¹ Partial data only. ² Includes District of Columbia.

Source: 1990, U.S. Bureau of Mines, *Minerals Yearbook*, annual, and *Mineral Commodities Summaries*, annual; thereafter, U.S. Geological Survey.

No. 1173. Principal Fuels, Nonmetals, and Metals—World Production and the U.S. Share: 1980 to 1998

Mineral	Unit	World production				Percent U.S. of world			
		1980	1990	1995	1998, prel.	1980	1990	1995	1998, prel.
Fuels: ¹									
Coal	Mil. sh. ton	4,193	5,353	5,134	25,218	19.8	19.2	20.1	20.9
Petroleum (crude)	Bil. bbl.	21.8	22.1	22.8	24.4	14.4	12.1	10.5	9.4
Natural gas (dry, marketable)	Tril. cu. ft.	53.5	73.6	77.9	81.7	36.3	24.2	23.9	23.1
Natural gas plant liquids	Bil. bbl.	1.3	1.7	2.0	2.1	45.7	33.7	32.1	31.6
Nonmetals:									
Asbestos	1,000 metric tons	4,699	4,003	2,420	1,950	2	(D)	(Z)	(Z)
Barite	1,000 metric tons	7,495	5,633	4,300	6,200	27	8	13	11
Feldspar	1,000 metric tons	3,202	5,456	6,780	8,100	20	12	13	10
Fluorspar	1,000 metric tons	5,006	5,131	4,050	4,540	2	1	1	-
Gypsum	Mil. metric tons	78	100	97	105	14	15	17	18
Mica (incl. scrap)	1,000 metric tons	228	215	253	281	46	51	43	29
Nitrogen, (fixed) - ammonia	Mil. metric tons	74	97	96	101	20	13	14	13
Phosphate rock, gross wt.	Mil. metric tons	144	162	130	141	38	29	33	32
Potash (K ₂ O equivalent)	Mil. metric tons	28	28	25	25	8	6	6	5
Sulfur, elemental	Mil. metric tons	55	58	53	54	22	20	22	21
Metals, mine basis:									
Bauxite	Mil. metric tons	89	109	107	125	2	(D)	(D)	(D)
Columbian concentrates (Nb content)	1,000 metric tons	15	15	18	20	-	-	-	-
Copper	1,000 metric tons	7,405	9,017	10,100	11,900	16	18	18	17
Gold	Metric tons	1,219	2,133	2,220	2,400	2	14	14	15
Iron ore	Mil. metric tons	891	982	1,027	1,020	8	6	6	6
Lead	1,000 metric tons	3,470	3,353	2,780	3,080	17	15	14	16
Mercury	Metric tons	6,806	4,523	3,160	2,600	16	12	(D)	(D)
Molybdenum	1,000 metric tons	111	128	141	136	62	48	43	39
Nickel	1,000 metric tons	779	965	1,030	1,170	2	(Z)	(Z)	(Z)
Silver	1,000 metric tons	11	16	15	16	9	13	10	-
Tantalum concentrates	Metric tons	544	400	362	412	-	-	-	-
Titanium concentrates:									
Ilmenite	1,000 metric tons	3,726	4,072	3,970	4,000	14	(D)	(D)	(D)
Rutile	1,000 metric tons	436	481	416	414	(D)	(D)	(D)	(D)
Tungsten	1,000 metric tons	52	43	39	34	5	14	(D)	(D)
Vanadium	1,000 metric tons	37	31	35	35	12	(D)	(D)	(D)
Zinc	1,000 metric tons	5,954	7,184	7,240	7,800	6	8	9	-
Metals, smelter basis:									
Aluminum	1,000 metric tons	15,383	19,292	19,900	22,200	30	21	17	17
Cadmium	1,000 metric tons	18	20	19	20	9	8	7	10
Copper	1,000 metric tons	7,649	9,472	10,200	11,900	14	15	16	16
Iron, pig	Mil. metric tons	514	532	533	544	12	9	10	9
Lead	1,000 metric tons	5,430	5,763	5,590	3,080	23	23	25	24
Magnesium	1,000 metric tons	316	354	389	389	49	39	37	30
Raw Steel	Mil. metric tons	717	771	755	783	14	12	13	13
Tin	1,000 metric tons	251	223	201	216	6	-	-	-
Zinc	1,000 metric tons	6,049	7,060	7,550	7,800	1	5	5	9

- Represents or rounds to zero. D Withheld to avoid disclosing company data. Z Less than half the unit of measure. ¹ Source: Energy Information Administration, *International Energy Annual*. ² Content of ore and concentrate. ³ Refinery production. ⁴ Primary production; no smelter processing necessary. ⁵ Production from primary sources only.

Source: Nonfuels, through 1994, U.S. Bureau of Mines, thereafter, U.S. Geological Survey, *Minerals Yearbook*, annual, and *Mineral Commodities Summaries*, annual; fuels, U.S. Energy Information Administration, *Annual Energy Review*, *International Energy Annual 1997*, and *Monthly Energy Review*.

No. 1174. Federal Strategic and Critical Materials Inventory: 1990 to 1997

[As of Dec. 31. Covers strategic and critical materials essential to military and industrial requirements in time of national emergency]

Mineral	Unit	Quantity ¹				Value (mil. dol.) ²			
		1990	1995	1996	1997	1990	1995	1996	1997
Tin	1,000 metric ton	169	130	116	104	962	908	712	651
Silver	1,000 troy oz.	92,151	46,667	46,667	39,152	374	158	158	96
Cobalt	Mil. lb.	53	44	40	38	443	1,121	872	900
Bauxite ³	1,000 lg. ton	18,033	16,032	15,380	14,006	888	203	207	111
Manganese ⁴	1,000 sh. ton	4,017	2,817	2,683	2,691	962	464	464	330
Tungsten ⁵	Mil. lb.	82	82	82	82	253	253	323	283
Zinc	1,000 sh. ton	379	301	286	244	483	281	272	256
Titanium	1,000 sh. ton	37	37	37	37	402	221	249	249
Platinum	1,000 troy oz.	453	453	432	440	186	154	134	162
Chromium ⁶	1,000 sh. ton	1,074	1,192	1,145	1,128	917	839	980	1,125
Diamonds:									
Stones	Carat 1,000	7,777	5,135	4,655	3,751	267	52	78	99
Industrial, bort	Carat 1,000	17,353	1,967	816	62	16	9	4	4

¹ Consists of stockpile and nonstockpile grades and reflects uncommitted balances. ² Market values are estimated trade values of similar materials and not necessarily amounts that would be realized at time of sale. ³ Consists of abrasive grade, metallic grade Jamaica, metallic grade Suriname, and refractory. ⁴ Consists of chemical grade, dioxide battery natural, dioxide battery synthetic, electrolytic, ferro-high carbon, ferro-med. carbon, ferro-silicon, and metal. ⁵ Consists of carbide powder, ferro, metal powder, and ores and concentrates. ⁶ Consists of ferro-high carbon, ferro-low carbon, ferro-silicon, and metal.

Source: U.S. Defense Logistics Agency, *Statistical Supplement, Stockpile Report to the Congress (AP-3)*.

No. 1175. Net U.S. Imports of Selected Minerals and Metals as Percent of Apparent Consumption: 1980 to 1998

[In percent. Based on net imports which equal the difference between imports and exports plus or minus Government stockpile and industry stock changes]

Mineral	1980	1990	1992	1993	1994	1995	1996	1997	1998
Bauxite ¹	94	98	100	100	99	99	100	100	100
Columbium	100	100	100	100	100	100	100	100	100
Manganese	98	100	100	100	100	100	100	100	100
Mica (sheet)	100	100	100	100	100	100	100	100	100
Strontium	100	100	100	100	100	100	100	100	100
Tin	79	71	80	84	83	84	83	86	85
Barite	44	71	52	72	64	65	70	76	80
Cobalt	93	86	85	85	80	80	80	80	80
Potash	65	68	68	72	76	75	77	80	80
Tantalum	90	71	73	81	75	80	79	75	79
Tungsten	53	81	86	81	95	90	89	84	78
Chromium	91	84	76	79	81	81	78	77	77
Nickel	76	64	59	63	64	60	59	54	65
Titanium	32	(3)	(D)	(D)	(D)	64	50	63	49
Zinc ²	60	41	33	36	35	35	33	35	35
Aluminum	(3)	36	31	31	31	29	27	27	26
Cadmium	55	(3)	1	19	30	23	22	23	25
Gypsum	35	46	50	64	3	21	32	16	21
Copper	16	15	20	12	12	21	13	13	18
Iron and steel	13	13	13	15	22	21	20	20	18
Sulfur	14	21	12	14	18	14	14	14	17
Iron ore	25	3	2	7	13	7	14	13	16
Silver	7	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(3)	(3)
Platinum group	87	88	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Mercury	27	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Selenium	59	46	48	39	31	31	38	(D)	(D)
Vanadium	35	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

D Withheld to avoid disclosure. NA Not available. ¹ Includes alumina. ² Beginning 1990, effect of sharp rise in exports of concentrates. If calculated on a refined zinc-only basis, reliance would be about the same as pre-1990 level; 1990, 64%; 1991, 61%; 1992, 61%; 1993, 67%; 1994, 70%; 1995, 71%; and 1996 and 1997, 70%. ³ Net exports.

Source: Through 1994, U.S. Bureau of Mines; thereafter, U.S. Geological Survey, *Mineral Commodity Summaries*; import and export data from U.S. Census Bureau.

No. 1176. Federal Offshore Leasing, Exploration, Production, and Revenue: 1990 to 1998

[See source for explanation of terms and for reliability statement]

Item	Unit	1990	1992	1993	1994	1995	1996	1997	1998
Tracts offered	Number	10,459	9,618	10,164	10,861	10,995	12,230	9,870	(NA)
Tracts leased	Number	825	204	336	560	835	1,537	1,780	(NA)
Acres offered	1,000	56,789	52,380	55,070	58,895	59,700	69,994	53,397	(NA)
Acres leased	1,000	4,263	1,021	1,714	2,775	4,342	8,249	9,637	(NA)
Bonus paid for leased tracts	Bil. dol.	0.6	0.1	0.1	0.3	0.4	0.9	(NA)	(NA)
New wells being drilled:									
Active	Number	120	104	129	120	124	835	186	(NA)
Suspended	Number	266	180	193	222	247	1,323	244	(NA)
Wells completed	Number	13,167	13,209	13,181	13,342	13,475	1,527	12,912	(NA)
Wells plugged and abandoned	Number	14,677	16,348	16,709	17,427	18,008	18,268	18,728	19,374
Revenue, total ¹	Bil. dol.	3.4	2.6	2.9	2.6	2.6	3.9	4.8	3.5
Bonuses	Bil. dol.	0.6	0.1	0.1	0.3	0.4	0.6	1.2	0.3
Oil and gas royalties ¹	Bil. dol.	2.6	2.3	2.5	2.3	2.1	3.0	3.5	3.0
Rentals	Bil. dol.	0.1	0.1	(Z)	(Z)	0.9	0.1	0.1	0.2
Sales value ²	Bil. dol.	17.0	15.1	16.4	15.0	13.8	27.6	31.1	26.5
Crude oil	Bil. dol.	5.9	5.3	4.9	4.4	5.4	6.4	7.5	6.0
Condensate	Bil. dol.	1.1	1.0	0.9	0.7	0.9	1.3	1.4	1.2
Natural gas	Bil. dol.	9.5	8.2	9.9	9.8	7.5	11.8	13.3	12.1
Sales volume:									
Crude oil	Mil. bbls.	274	302	307	319	357	373	404	423
Condensate	Mil. bbls.	51	52	55	51	52	65	75	81
Natural gas	Bil. cu. ft.	5,093	4,686	4,533	4,700	4,692	5,024	5,077	4,959

NA Not available. Z Less than \$50 million. ¹ Includes condensate royalties. ² Production value is value at time of production, not current value.

Source: U.S. Dept. of the Interior, Minerals Management Service, *Federal Offshore Statistics*, annual.

No. 1177. Petroleum Industry—Summary: 1980 to 1998

[Includes all costs incurred for drilling and equipping wells to point of completion as productive wells or abandonment after drilling becomes unproductive. Based on sample of operators of different size drilling establishments]

Item	Unit	1980	1990	1992	1993	1994	1995	1996	1997	1998
Crude oil producing wells (Dec. 31)	1,000 . . .	548	602	594	584	582	574	574	573	554
Daily output per well	Bbl.	15.9	12.2	12.1	11.7	11.4	11.4	11.3	11.3	11.4
Completed wells drilled, total	1,000 . . .	57.5	24.9	18.5	20.1	17.1	16.7	18.14	20.9	(NA)
Crude oil	1,000 . . .	30.8	10.9	7.8	7.4	5.8	6.7	7.18	8.1	(NA)
Gas	1,000 . . .	15.2	9.5	7.3	9.1	8.6	7.3	8.00	9.7	(NA)
Dry	1,000 . . .	11.6	4.5	3.5	3.6	2.8	2.8	3.0	3.2	(NA)
Average depth per well ¹	Feet	4,174	4,614	5,173	5,410	5,787	5,432	5,374	5,485	(NA)
Average cost per well ¹	\$1,000 . . .	368	384	383	427	483	513	496.1	(NA)	(NA)
Average cost per foot ¹	Dollars . . .	77.02	76.07	70.27	75.30	79.49	87	88.92	(NA)	(NA)
Crude oil production, total	Mil. bbl. . .	3,138	2,685	2,617	2,499	2,432	2,406	2,366	2,355	2,282
Value at wells	Bil. dol. . .	67.7	53.8	41.8	35.6	32.1	35.0	43.6	40.6	24.8
Average price per barrel	Dollars . . .	21.59	20.03	15.99	14.25	13.19	14.62	18.46	17.23	10.88
Lower 48 states	Mil. bbl. . .	2,548	2,037	1,992	1,921	1,863	1,853	1,851	1,882	1,853
Alaska	Mil. bbl. . .	590	647	626	577	569	542	508	473	429
Onshore	Mil. bbl. . .	2,760	2,290	2,173	2,046	1,931	1,838	1,789	1,753	1,672
Offshore	Mil. bbl. . .	377	395	445	453	500	557	570	602	607
Imports: Crude oil	Mil. bbl. . .	1,921	2,151	2,220	2,477	2,578	2,639	2,740	2,919	3,178
Refined petroleum products	Mil. bbl. . .	601	775	659	669	706	586	719	707	731
Exports: Crude oil	Mil. bbl. . .	104.8	39.8	32.5	35.8	36.1	34.7	40.2	39.4	40.1
Proved reserves	Bil. bbl. . .	29.8	26.3	23.7	23.0	22.5	22.40	22.02	22.55	(NA)
Operable refineries	Number . . .	319	205	199	187	179	175	170	164	163
Capacity (Jan. 1)	Mil. bbl. . .	6,566	5,683	5,731	5,519	5,486	5,632	5,595	5,639	5,734
Refinery input, total	Mil. bbl. . .	5,117	5,325	5,340	5,482	5,482	5,555	5,654	5,807	5,869
Crude oil	Mil. bbl. . .	4,920	4,895	4,895	4,968	5,063	5,099	5,179	5,351	5,417
Natural gas plant liquids	Mil. bbl. . .	168	172	172	179	172	172	164	153	150
Other liquids	Mil. bbl. . .	29	259	274	336	252	285	307	303	303
Refinery output, total	Mil. bbl. . .	5,336	5,574	5,621	5,763	5,763	5,836	5,957	6,117	6,190
Motor gasoline	Mil. bbl. . .	2,369	2,540	2,577	2,665	2,621	2,723	2,759	2,825	2,865
Jet fuel	Mil. bbl. . .	365	544	511	518	529	518	555	566	555
Distillate fuel oil	Mil. bbl. . .	971	1,066	1,084	1,142	1,168	1,153	1,212	1,237	1,248
Residual fuel oil	Mil. bbl. . .	577	347	325	307	303	288	266	259	277
Liquefied petroleum gases	Mil. bbl. . .	120	183	223	215	223	237	1,212	1,237	1,248
Utilization rate	Percent . . .	75.4	87.1	87.9	91.5	92.6	92.0	94.1	95.2	95.4

NA Not available. ¹ Source: American Petroleum Institute, *Joint Association Survey on Drilling Costs*, annual.

Source: Except as noted, U.S. Energy Information Administration, *Annual Energy Review*, *Petroleum Supply Annual*; *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*; and *Monthly Energy Review*.

No. 1178. U.S. Petroleum Balance: 1980 to 1998

[In millions of barrels (6,242 represents 6,242,000,000)]

Item	1980	1990	1993	1994	1995	1996	1997	1998
Petroleum products supplied for domestic use	6,242	6,201	6,291	6,467	7,087	6,701	6,796	6,905
Production of products	5,765	5,934	6,182	6,244	6,940	6,511	6,671	6,733
Crude input to refineries	4,934	4,894	4,969	5,061	5,718	5,195	5,351	5,434
Oil, field production	3,138	2,685	2,499	2,431	2,406	2,366	2,355	2,282
Alaska	592	647	577	569	542	510	473	429
Lower 48 States	2,555	2,037	1,922	1,863	1,853	1,856	1,882	1,853
Net imports	1,821	2,112	2,441	2,542	2,604	2,708	2,963	3,137
Imports (gross excluding SPR) ¹	1,910	2,142	2,472	2,574	2,639	2,748	3,002	3,178
SPR ¹ imports	16	10	5	4	-	-	-	-
Exports	-105	40	36	36	35	40	39	40
Other sources	33	98	28	88	102	122	34	15
Natural gas liquids (NGL), supply	577	574	664	694	708	716	721	717
Other liquids	253	465	550	489	514	599	599	582
Net imports of refined products	484	326	134	217	101	181	154	225
Imports	578	598	461	518	407	491	469	508
Exports	94	272	327	302	307	310	315	283
Stock withdrawal, refined products	-7	-59	-24	6	46	9	-29	-53
TYPE OF PRODUCT SUPPLIED								
Total products supplied for domestic use	6,242	6,201	6,291	6,467	6,469	6,701	6,796	6,905
Finished motor gasoline	2,407	2,641	2,729	2,774	2,843	2,888	2,926	3,012
Distillate fuel oil	1,049	1,103	1,110	1,154	1,170	1,232	1,254	1,263
Residual fuel oil	918	449	394	373	311	311	291	324
Liquefied petroleum gases ²	414	568	633	686	693	736	744	713
Other	1,454	1,440	1,425	1,480	1,452	1,535	1,582	1,593
ENDING STOCKS								
Ending stocks, all oils	1,392	1,621	1,647	1,653	1,563	1,052	1,560	1,647
Crude oil and lease condensate	358	323	335	337	303	284	305	324
Strategic Petroleum Reserve (SPR)	108	586	587	592	592	566	563	571
Other	926	712	725	724	668	202	692	752

- Represents zero. ¹ SPR=Strategic petroleum reserve. For more information, see Table 968. ² Includes ethane.

Source: U.S. Energy Information Administration, *Petroleum Supply Annual*.

No. 1179. Crude Petroleum and Natural Gas—Production and Value, by Major Producing States: 1990 to 1997

[2,685 mil. bbl. represents 2,685,000,000 bbl. or 18,594 bil. cu. ft. represents 18,594,000,000,000 cu. ft.]

State	Crude petroleum						Natural gas marketed production ¹					
	Quantity (mil. bbl.)			Value (mil. dol.)			Quantity (bil. cu. ft.)			Value (mil. dol.)		
	1990	1995	1997	1990	1995	1997	1990	1995	1997	1990	1995	1997
Total ²	2,685	2,406	2,355	53,772	35,004	40,574	18,594	19,506	19,865	31,658	30,286	46,131
AL	18	19	15	397	306	276	135	520	583	373	948	1,557
AK	658	542	473	10,086	6,088	7,050	403	470	463	554	771	850
AR	10	9	8	222	132	148	175	187	209	367	565	841
CA	322	279	285	5,732	3,906	4,500	363	280	286	857	483	687
CO	31	29	26	722	466	487	243	523	637	377	497	1,418
FL	6	6	6	(NA)	(NA)	(NA)	6	6	6	15	8	(NA)
IL	20	16	16	467	274	308	1	-	1	1	(Z)	(NA)
IN	3	3	2	73	47	46	(Z)	-	-	1	1	1
KS	59	44	40	1,359	709	742	574	721	687	893	985	1,406
KY	5	3	3	124	57	54	75	75	80	169	123	212
LA	148	131	134	3,409	2,096	2,578	5,242	5,108	5,230	9,587	8,048	12,352
MI	20	11	10	458	189	188	140	238	306	420	399	670
MS	30	20	21	630	294	356	95	96	107	167	118	186
MT	20	17	16	429	247	264	50	50	52	90	68	84
NE	5	4	3	119	58	60	1	2	2	2	3	3
NM	66	65	70	1,472	1,080	1,328	965	1,626	1,559	1,629	2,056	2,750
NY	(Z)	-	-	9	-	5	25	18	16	55	42	41
ND	39	29	36	849	457	632	52	49	52	93	(NA)	113
OH	8	8	9	196	138	153	155	126	116	393	294	314
OK	117	88	83	2,690	1,459	1,588	2,258	1,812	1,704	3,548	2,616	3,960
PA	2	2	1	54	33	25	178	111	80	417	315	(NA)
TX	674	560	537	15,060	9,167	10,013	6,343	6,330	6,454	9,939	10,208	15,976
UT	23	20	19	524	354	359	146	241	257	249	277	478
WV	2	2	2	43	32	26	178	186	172	568	414	(NA)
WY	103	79	70	2,169	1,223	1,222	736	674	738	856	1,198	1,790

- Represents zero. NA Not available. Z Less than 500 million cubic feet or less than \$500,000. ¹ Excludes nonhydrocarbon gases. ² Includes other states not shown separately. State production does not include state offshore production.

Source: U.S. Energy Information Administration, *Petroleum Supply Annual*, and *Petroleum Marketing Annual*; and *Natural Gas Annual*, and *Natural Gas Monthly*.

No. 1180. Crude Oil, Natural Gas, and Natural Gas Liquids—Reserves by State: 1990 and 1997

[As of **December 31**. Proved reserves are estimated quantities of the mineral, which geological and engineering data demonstrate with reasonable certainty, to be recoverable in future years from known reservoirs under existing economic and operating conditions. Indicated reserves of crude oil are quantities other than proved reserves, which may become economically recoverable from existing productive reservoirs through the application of improved recovery techniques using current technology. Based on a sample of operators of oil and gas wells]

Area	1990				1997			
	Crude oil		Natural gas (bil. cu. ft.)	Natural gas liquids (mil. bbl.)	Crude oil		Natural gas (bil. cu. ft.)	Natural gas liquids (mil. bbl.)
	Proved (mil. bbl.)	Indicated (mil. bbl.)			Proved (mil. bbl.)	Indicated (mil. bbl.)		
United States	26,254	3,483	169,346	7,586	22,546	3,207	167,273	7,973
Lower 48 States	19,730	2,514	160,046	7,246	17,385	2,375	156,661	7,342
Alabama	44	(Z)	4,125	170	47	-	4,968	93
Alaska	6,524	969	9,300	340	5,161	832	10,562	631
Arkansas	60	1	1,731	9	45	-	1,475	7
California	² 4,658	² 1,425	² 3,185	² 105	² 3,750	1,264	2,273	95
Colorado	305	8	4,555	169	198	22	6,828	264
Florida	(NA)	(NA)	(NA)	(NA)	91	-	96	17
Illinois	(NA)	(NA)	(NA)	(NA)	92	-	(NA)	(NA)
Indiana	131	-	(NA)	(NA)	10	-	(NA)	(NA)
Kansas	(NA)	(NA)	(NA)	(NA)	238	-	6,989	271
Kentucky	321	(Z)	9,614	313	20	-	1,364	48
Louisiana	33	-	1,016	25	714	313	9,673	437
Michigan	(NA)	(NA)	(NA)	(NA)	68	2	2,195	50
Mississippi	(NA)	(NA)	(NA)	(NA)	183	-	582	6
Montana	(NA)	(NA)	(NA)	(NA)	159	1	762	5
Nebraska	221	-	899	15	21	-	(NA)	(NA)
New Mexico	(NA)	(NA)	(NA)	(NA)	735	146	15,514	869
New York	687	256	17,260	990	(NA)	(NA)	224	(NA)
North Dakota	285	-	586	60	279	6	479	47
Ohio	65	-	1,214	(NA)	43	-	985	(NA)
Oklahoma	734	37	16,151	657	605	20	13,439	685
Pennsylvania	22	-	1,720	(NA)	17	-	1,852	(NA)
Texas	² 7,106	618	² 38,192	² 5,575	² 5,687	479	37,761	2,687
Utah	249	44	1,510	(³)	234	70	1,839	(³)
Virginia	(NA)	(NA)	138	(NA)	(NA)	(NA)	2,446	(NA)
West Virginia	31	-	2,207	86	26	-	2,846	71
Wyoming	794	42	9,944	⁴ 812	627	11	13,562	761
Federal offshore	2,805	49	31,433	619	3,477	41	28,466	920

- Represents or rounds to zero. NA Not available. Z Less than 500,000 barrels. ¹ Includes state offshore. ² Excludes Federal offshore. ³ Included with Wyoming. ⁴ Includes Utah.

Source: Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, Annual Report 1997*, December 1998.

No. 1181. World Crude Oil Production, by Major Producing Country: 1980 to 1997

[In thousands of barrels per day (59,600 barrels represents 59,600,000 barrels)]

Country	1980	1990	1991	1992	1993	1994	1995	1996	1997
World, total ¹	59,600	60,566	60,207	60,213	60,236	60,991	62,335	63,711	66,420
Saudi Arabia	9,900	6,410	8,115	8,332	8,198	8,120	8,231	8,218	8,562
United States	8,597	7,355	7,417	7,171	6,847	6,662	6,560	6,465	6,452
Russia	(X)	(X)	(X)	7,632	6,730	6,135	5,995	5,850	5,920
Iran	1,662	3,088	3,312	3,429	3,540	3,618	3,643	3,686	3,664
Venezuela	2,168	2,137	2,375	2,371	2,450	2,588	2,750	2,938	3,315
China	2,114	2,774	2,835	2,845	2,890	2,939	2,990	3,131	3,200
Norway	528	1,704	1,890	2,229	2,350	2,521	2,768	3,104	3,143
Mexico	1,936	2,553	2,680	2,669	2,673	2,685	2,618	2,855	3,023
United Kingdom	1,622	1,820	1,797	1,825	1,915	2,375	2,489	2,568	2,518
Nigeria	2,055	1,810	1,892	1,943	1,960	1,931	1,993	2,001	2,332
United Arab Emirates	1,709	2,117	2,386	2,266	2,159	2,193	2,233	2,278	2,316
Kuwait	1,656	1,175	190	1,058	1,852	2,025	2,057	2,062	2,083
Canada	1,435	1,553	1,548	1,605	1,679	1,746	1,805	1,837	1,922
Indonesia	1,577	1,462	1,592	1,504	1,511	1,510	1,503	1,547	1,520
Libya	1,787	1,375	1,483	1,433	1,361	1,378	1,390	1,401	1,446
Algeria	1,106	1,175	1,230	1,214	1,162	1,180	1,202	1,242	1,277
Iraq	2,514	2,040	305	425	512	553	560	579	1,155
Oman	282	685	700	740	776	810	851	883	904
Egypt	595	873	874	881	890	896	920	922	856
Brazil	182	631	630	626	643	671	695	795	841
Argentina	491	483	485	553	594	650	715	756	834
Malaysia	283	619	646	653	640	645	682	695	746
Angola	150	475	500	526	509	536	646	709	714
India	182	660	615	561	534	590	703	651	675
Colombia	126	440	419	433	456	450	585	623	652
Qatar	472	406	395	423	413	415	442	510	649
Australia	380	575	545	535	503	536	562	570	588
Syria	164	388	492	481	554	560	575	582	561

X Not applicable. ¹ Includes countries not shown separately.

Source: U. S. Energy Information Administration, *International Energy Annual*, 1997.

No. 1182. Liquefied Petroleum Gases—Summary: 1980 to 1998

[In millions of 42-gallon barrels (561 barrels represents 561,000,000 barrels). Includes ethane]

Item	1980	1990	1992	1993	1994	1995	1996	1997	1998
Production	561	638	720	850	734	760	789	799	775
At natural gas plants	441	456	500	634	511	521	547	547	529
At refineries	121	182	222	216	223	234	242	252	246
Imports	79	68	57	70	67	53	61	62	71
Refinery input	85	107	172	179	108	105	102	96	92
Exports	9	14	18	16	14	21	19	18	15
Stocks, Dec. 31	116	98	98	117	99	93	86	89	115

Source: U.S. Energy Information Administration, *Petroleum Supply Annual*.

No. 1183. Natural Gas Plant Liquids—Production and Value: 1980 to 1998

[Barrels of 42 gallons (576 barrels represents 576,000,000 barrels)]

Item	Unit	1980	1990	1992	1993	1994	1995	1996	1997	1998
Field production ¹	Mil. bbl . . .	576	566	621	634	630	643	670	663	642
Pentanes plus	Mil. bbl . . .	126	112	121	122	119	122	123	116	113
Liquefied petroleum gases	Mil. bbl . . .	441	454	500	512	511	521	547	547	529
Natural gas processed	Tril. cu. ft. . .	15	15	16	16	16	17	17	17	(NA)

NA Not available. ¹ Includes other finished petroleum products, not shown separately.

Source: U.S. Energy Information Administration, *Energy Data Reports*, *Petroleum Statement Annual*, *Petroleum Supply Annual*, and *Natural Gas Annual*.

No. 1184. Natural Gas—Supply, Consumption, Reserves, and Marketed Production: 1980 to 1998

[182 represents 182,000 wells]

Item	Unit	1980	1990	1991	1992	1993	1994	1995	1996	1997	1998, prel.
Producing wells (year-end)	1,000	182	269	276	276	282	292	299	302	304	330
Production value at wells	Bil. dol	32.1	31.8	30.3	32.6	38.7	36.5	30.2	42.9	46.1	39.1
Avg. per 1,000 cu. ft	Dollars	1.59	1.71	1.64	1.74	2.04	1.85	1.55	2.17	2.32	1.96
Proved reserves ¹	Tril. cu. ft	199	169	167	165	162	164	165	166	167	(NA)
Marketed production ²	Tril. cu. ft.	20.2	18.6	18.5	18.7	19.0	19.7	19.5	19.8	19.9	19.9
Minus: Extraction losses ³	Tril. cu. ft.	0.8	0.8	0.8	0.9	0.9	0.9	0.9	1.0	1.0	1.0
Equals: Dry production	Tril. cu. ft.	19.4	17.8	17.7	17.8	18.1	18.8	18.6	18.8	18.9	19.0
Plus: Withdrawals from storage	Tril. cu. ft.	2.0	2.0	2.8	2.8	2.7	2.5	3.0	2.9	2.8	(NA)
Plus: Imports ⁴	Tril. cu. ft.	1.0	1.5	1.8	2.1	2.4	2.6	2.8	2.9	3.0	(NA)
Plus: Balancing item	Tril. cu. ft.	-0.6	-0.2	-0.5	-0.5	-0.1	-0.4	-0.2	0.3	0.1	(NA)
Equals: Total supply	Tril. cu. ft.	21.9	21.3	21.8	22.8	23.6	24.2	24.8	25.6	25.5	(NA)
Minus: Exports	Tril. cu. ft.	0.5	0.9	0.1	0.2	0.1	0.2	0.2	0.2	0.2	(NA)
Minus: Additions to storage ⁵	Tril. cu. ft.	1.9	2.5	2.7	2.6	2.8	2.9	2.6	3.0	2.9	(NA)
Equals: Consumption, total	Tril. cu. ft.	19.9	18.7	19.0	19.5	20.3	20.7	21.6	22.0	22.0	21.3
Lease and plant fuel	Tril. cu. ft.	1.0	1.2	1.1	1.2	1.2	1.1	1.2	1.3	1.2	(NA)
Pipeline fuel	Tril. cu. ft.	0.6	0.7	0.6	0.6	0.6	0.7	0.7	0.7	0.8	(NA)
Residential	Tril. cu. ft.	4.8	4.4	4.6	4.7	5.0	4.8	4.9	5.2	5.0	(NA)
Commercial ⁶	Tril. cu. ft.	2.6	2.6	2.7	2.8	2.9	2.9	3.0	3.2	3.2	(NA)
Industrial	Tril. cu. ft.	7.2	7.0	7.2	7.5	8.0	8.2	8.6	8.9	8.8	(NA)
Vehicle fuel	Tril. cu. ft.	(NA)	(Z)	(Z)	(Z)	1.0	1.7	2.7	2.9	4.4	(NA)
Electric utilities	Tril. cu. ft.	3.7	2.8	2.8	2.8	2.7	3.0	3.2	2.7	3.0	(NA)
World production (dry)	Tril. cu. ft.	53.5	73.6	74.8	74.9	76.3	76.8	77.9	81.7	81.7	(NA)
U.S. production (dry)	Tril. cu. ft.	19.4	17.8	17.7	17.8	18.1	18.8	18.6	18.8	18.9	(NA)
Percent U.S. of world	Percent	36.3	24.2	23.7	23.8	23.7	24.5	23.9	23.0	23.1	(NA)

NA Not available. Z Less than .05 trillion cubic feet. ¹ Estimated, end of year. Source: U.S. Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, annual*. ² Marketed production includes gross withdrawals from reservoirs less quantities used for reservoir repressuring and quantities vented or flared. For 1980 and thereafter, it excludes the nonhydrocarbon gases subsequently removed. ³ Volumetric reduction in natural gas resulting from the extraction of natural gas constituents at natural gas processing plants. ⁴ Includes imports of liquefied natural gas. ⁵ Includes liquefied natural gas (LNG) storage in above ground tanks. ⁶ Includes deliveries to municipalities and public authorities for institutional heating and other purposes.

Source: Except as noted, U.S. Energy Information Administration, *Annual Energy Review, International Energy Annual, Natural Gas Annual*, Volumes I and II and *Monthly Energy Review*.

No. 1185. World Natural Gas Production, by Major Producing Country: 1980 to 1997

[In trillion cubic feet (53.45 represents 53,450,000,000,000)]

Country	1980	1990	1991	1992	1993	1994	1995	1996	1997
World, total ¹	53.45	73.61	74.81	74.87	76.30	76.80	77.92	81.66	81.71
Russia	(X)	(X)	(X)	22.62	21.81	21.45	21.01	21.23	20.17
United States	19.40	17.81	17.70	17.84	18.10	18.82	18.60	18.79	18.90
Canada	2.76	3.85	4.06	4.52	4.91	5.26	5.64	5.78	5.85
United Kingdom	1.32	1.75	2.01	1.93	2.31	2.47	2.67	3.18	3.24
Netherlands	3.40	2.69	3.04	3.06	3.11	2.95	2.97	3.37	2.99
Algeria	0.41	1.79	1.93	1.97	1.90	1.81	2.05	2.19	2.47
Indonesia	0.63	1.53	1.72	1.79	1.97	2.21	2.24	2.35	2.37
Uzbekistan	(X)	(X)	(X)	1.51	1.59	1.67	1.70	1.70	1.74
Iran	0.25	0.84	0.92	0.88	0.96	1.12	1.25	1.42	1.60
Norway	0.92	0.98	0.97	1.04	0.97	1.04	1.08	1.45	1.60
Saudi Arabia	0.33	1.08	1.13	1.20	1.27	1.33	1.34	1.46	1.53
Malaysia	0.06	0.65	0.75	0.80	0.88	0.92	1.02	1.23	1.36
United Arab Emirates	0.20	0.78	0.92	1.02	0.94	0.91	1.11	1.19	1.27
Mexico	1.01	0.94	0.94	0.92	0.90	0.91	0.94	1.10	1.19
Australia	0.33	0.72	0.75	0.82	0.86	0.92	1.03	1.05	1.04
Venezuela	0.52	0.76	0.79	0.76	0.82	0.88	0.89	0.96	1.00
Argentina	0.28	0.63	0.70	0.71	0.76	0.79	0.88	0.94	0.97
Turkmenistan	(X)	(X)	(X)	2.02	2.29	1.26	1.14	1.31	0.90
India	0.05	0.40	0.45	0.48	0.53	0.59	0.63	0.70	0.83
Germany	0.93	0.72	0.67	0.68	0.68	0.67	0.71	0.79	0.78
China	0.51	0.51	0.53	0.53	0.56	0.59	0.60	0.67	0.75
Pakistan	0.29	0.48	0.53	0.55	0.58	0.63	0.65	0.70	0.70
Italy	0.44	0.61	0.61	0.64	0.69	0.73	0.72	0.71	0.68
Qatar	0.18	0.28	0.33	0.40	0.48	0.48	0.48	0.48	0.63
Ukraine	(X)	(X)	(X)	0.74	0.68	0.64	0.62	0.64	0.62
Romania	1.20	1.00	0.88	0.78	0.75	0.69	0.68	0.63	0.54
Thailand	-	0.21	0.24	0.25	0.31	0.34	0.37	0.43	0.52
Egypt	0.03	0.29	0.32	0.35	0.40	0.42	0.44	0.47	0.48

- Represents zero. X Not applicable. ¹ Includes countries not shown separately.

Source: U. S. Energy Information Administration, *International Energy Annual, 1997*.

No. 1186. Coal and Coke—Summary: 1980 to 1998

[(830 short tons represents 830,000,000 short tons). Includes coal consumed at mines. Demonstrated coal reserve base for United States on Jan. 1, 1997, was an estimated 508 billion tons. Recoverability varies between 40 and 90 percent for individual deposits; 50 percent or more of overall U.S. coal reserve base is believed to be recoverable]

Item	Unit	1980	1990	1993	1994	1995	1996	1997	1998, prel.
COAL									
Coal production, total ¹	Mil. sh. tons	830	1,029	945	1,034	1,033	1,064	1,090	1,119
Value	Mil. dol.	20,453	22,404	18,624	20,076	19,460	19,608	19,800	(NA)
Anthracite production	Mil. sh. tons	6.1	3.5	4.3	4.6	4.7	4.8	(NA)	(NA)
Bituminous coal and lignite:									
Production	Mil. sh. tons	824	1,026	945	1,034	1,033	1,064	1,090	(NA)
Underground	Mil. sh. tons	337	425	351	399	396	410	421	(NA)
Surface	Mil. sh. tons	487	605	594	634	637	654	669	(NA)
Exports	Mil. sh. tons	92	106	75	71	89	90	84	77
Imports	Mil. sh. tons	1.2	2.7	7.3	7.6	7.2	7.1	7.5	8.7
Consumption ²	Mil. sh. tons	703	896	926	930	941	983	(NA)	(NA)
Electric power utilities	Mil. sh. tons	569	774	814	817	829	875	900	(NA)
Industrial	Mil. sh. tons	126	115	106	107	106	103	(NA)	(NA)
Number of mines	Number	5,598	3,243	2,475	2,354	2,104	1,903	1,828	(NA)
Daily employment	1,000	225	131	101	98	90	83	82	(NA)
Production, by state:									
Alabama	Mil. sh. tons	26	29	25	23	25	25	24	23
Illinois	Mil. sh. tons	63	60	41	53	48	47	41	40
Indiana	Mil. sh. tons	31	36	29	31	26	30	35	37
Kentucky	Mil. sh. tons	150	173	156	162	154	152	156	150
Montana	Mil. sh. tons	30	38	36	42	39	38	41	43
Ohio	Mil. sh. tons	39	35	29	30	26	29	29	28
Pennsylvania	Mil. sh. tons	93	71	60	62	62	68	76	81
Virginia	Mil. sh. tons	41	47	39	37	34	36	36	34
West Virginia	Mil. sh. tons	122	169	131	162	163	170	174	171
Wyoming	Mil. sh. tons	95	184	210	237	264	278	282	314
Other states	Mil. sh. tons	140	187	189	195	192	192	195	198
World production	Mil. sh. tons	4,193	5,353	4,906	5,018	5,134	5,208	5,218	(NA)
COKE									
Coke production ³	Mil. sh. tons	46.13	27.62	23.18	22.69	23.75	23.08	22.12	(NA)
Imports	Mil. sh. tons	0.66	0.77	1.53	1.61	1.82	1.11	1.57	(NA)
Exports	Mil. sh. tons	2.07	0.57	0.84	0.66	0.75	1.12	0.83	(NA)
Consumption	Mil. sh. tons	41.28	27.82	24.29	24.00	24.45	23.04	22.85	(NA)

NA Not available. ¹ Includes bituminous coal, lignite, and anthracite. ² Includes some categories not shown separately.

³ Includes beehive coke.

Source: U.S. Energy Information Administration, *Coal Industry*, annual; *Annual Energy Review*, and *Quarterly Coal Report*, and unpublished data.

No. 1187. World Coal Production, by Major Producing Country: 1980 to 1997

[In millions of short tons (4,193 represents 4,193,000,000)]

Country	1980	1990	1991	1992	1993	1994	1995	1996	1997
World, total	4,193	5,353	5,029	5,026	4,906	5,018	5,134	5,208	5,218
China	684	1,190	1,199	1,229	1,304	1,404	1,537	1,540	1,553
United States	830	1,029	996	998	945	1,034	1,033	1,064	1,090
India	126	233	253	270	281	291	301	340	329
Australia	116	226	236	249	248	248	267	272	293
Russia	(X)	(X)	(X)	406	364	320	310	304	288
Germany	532	514	388	346	315	292	273	265	252
South Africa	132	193	196	203	207	216	227	227	243
Poland	254	237	231	219	218	220	220	221	220
Canada	40	75	78	72	76	80	83	84	87
Ukraine	(X)	(X)	(X)	147	128	105	93	82	87
Kazakhstan	(X)	(X)	(X)	139	123	120	91	84	80
Czech Republic	(X)	(X)	(X)	(X)	77	82	79	77	72
Korea, North	51	71	73	74	78	78	78	79	68
Greece	26	57	58	61	60	63	64	66	66
Turkey	20	52	51	57	54	60	61	62	61
Indonesia	1	9	14	24	30	34	46	55	60
United Kingdom	144	104	105	94	75	54	52	55	54
Romania	39	43	36	42	43	45	44	51	41
Serbia and Montenegro	(X)	(X)	(X)	47	41	40	44	42	40
Colombia	5	23	26	26	23	25	28	33	36
Spain	41	40	37	37	35	33	31	30	29
Bulgaria	33	35	31	33	32	32	31	32	29
Thailand	2	14	16	17	17	19	20	24	24
Hungary	28	19	19	17	16	16	15	17	17
Vietnam	6	5	5	5	7	6	9	11	11
Mexico	4	9	8	7	8	10	10	10	10

X Not applicable.

Source: U.S. Energy Information Administration, *International Energy Annual*.

No. 1188. Demonstrated Coal Reserves, by Type of Coal and Major Producing State: 1997

[In millions of short tons (507,740 represents 507,740,000,000). As of January 1. The demonstrated reserve base represents the sum of coal in both measured and indicated resource categories of reliability. Measured resources of coal are estimates that have a high degree of geologic assurance from sample analyses and measurements from closely spaced and geological well known sample sites. Indicated resources are estimates based partly from sample and analyses and measurements and partly from reasonable geologic projections. For more information on the classification of coal resources and related terminology, see report cited below]

State	Type of coal					Method of mining	
	Total reserves	Anthracite	Bituminous	Sub-bituminous	Lignite	Under ground	Surface
United States	507,740	7,477	270,910	185,118	44,235	341,775	165,965
Alabama	4,547	-	3,464	-	1,083	1,290	3,256
Alaska	6,126	-	698	5,414	14	5,423	703
Colorado	16,756	26	8,711	3,830	4,190	11,979	4,777
Illinois	105,069	-	105,069	-	-	88,461	16,608
Indiana	9,917	-	9,917	-	-	8,860	1,057
Iowa	2,190	-	2,190	-	-	1,733	457
Kentucky	32,041	-	32,041	-	-	18,508	13,533
Kentucky, Eastern	12,086	-	12,086	-	-	2,247	9,839
Kentucky, Western	19,954	-	19,954	-	-	16,261	3,694
Missouri	5,994	-	5,994	-	-	1,479	4,515
Montana	119,677	-	1,385	102,531	15,760	70,958	48,718
New Mexico	12,483	2	3,706	8,774	-	6,204	6,279
North Dakota	9,395	-	-	-	9,395	-	9,395
Ohio	23,664	-	23,664	-	-	17,789	5,875
Oklahoma	1,575	-	1,575	-	-	1,237	338
Pennsylvania	28,646	7,220	21,427	-	-	24,232	4,414
Anthracite	7,220	7,220	-	-	-	3,850	3,370
Bituminous	21,427	-	21,427	-	-	20,382	1,044
Texas	12,931	-	-	-	12,931	-	12,931
Utah	5,850	-	5,849	1	-	5,583	268
Virginia	2,202	126	2,077	-	-	1,528	674
Washington	1,390	-	304	1,078	8	1,332	57
West Virginia	35,397	-	35,397	-	-	30,968	4,429
Wyoming	67,815	-	4,343	63,472	-	42,516	25,299
East of the MS River	243,156	7,345	234,728	-	1,083	192,939	50,217
West of the MS River	264,584	132	36,182	185,118	43,152	148,836	115,747

- Represents or rounds to zero.

Source: U.S. Energy Information Administration, *U.S. Coal Reserves: 1997 Update*, February 1999.

No. 1189. Uranium Concentrate (U₃O₈) Industry—Summary: 1990 to 1998

[See also Table 978]

Item	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998
Exploration and development, surface drilling	Mil. ft.	1.7	1.8	1.1	1.1	0.7	1.3	3.0	4.9	4.6
Expenditures	Mil. dol.	17.1	17.8	14.5	11.3	3.7	6.0	10.1	30.4	21.7
Number of mines operated	Number	39	15	17	12	12	12	13	14	15
Underground	Number	27	6	4	-	-	-	1	1	4
Openpit	Number	2	2	1	-	-	-	-	-	-
In situ leaching	Number	7	6	4	5	5	5	6	7	6
Other sources	Number	3	1	8	7	7	7	6	6	5
Mine production	1,000 pounds	5,876	5,182	986	2,050	2,526	3,528	4,705	4,710	4,782
Underground	1,000 pounds	(D)	(D)	(D)	-	-	-	(D)	(D)	(D)
Openpit	1,000 pounds	1,881	2,528	(D)	-	-	-	-	-	-
In situ leaching	1,000 pounds	(D)	(D)	(D)	(D)	2,448	3,372	4,379	4,084	3,721
Other sources	1,000 pounds	3,995	2,654	986	2,050	78	156	326	626	1,062
Uranium concentrate production, Concentrate shipments from mills and plants	1,000 pounds	8,886	7,952	5,645	3,063	3,352	6,043	6,321	5,643	4,705
Employment	Person-years	1,335	1,016	682	871	980	1,107	1,118	1,097	1,120

- Represents zero or rounds to zero. D Data withheld to avoid disclosing figures for individual companies.

Source: U.S. Department of Energy, *Uranium Industry*, annual.