

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 Bureau of the Census. 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

In Brief

Real GDP for this sector declined for the second consecutive year to \$295 billion in 1996. The sector represents about 4.3 percent of the total U.S. economy.

Lumber consumption in 1996 reached at its highest level since 1987 with just over 9.2 bil. cubic feet being consumed, including 2.6 bil. cubic feet of imports. Producer prices for lumber, after declining in 1995, rose slightly in 1996.

Sixty-six percent of the Nation's 22 billion barrels of proved oil reserves are found in Texas, Alaska, and California. The U.S. continued to import more than it produced in 1996 with 2.7 billion barrels being imported and 2.4 being produced, continuing a trend begun in 1994.

(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 Magnuson Fishery Conservation and Management Act of 1976 (Magnuson Act), Public Law 94-265 as amended, provides for the conservation and management of all fishery resources within the U.S. Exclusive Economic Zone (EEZ), and gives the federal government exclusive authority over domestic and foreign fisheries within 200 nautical miles of U.S. shores and over certain living marine resources beyond the EEZ. Within the EEZ, the total allowable level of foreign fishing, if any, is that portion of the "optimum yield" not harvested by

U.S. vessels. Adjustments in the "optimum yield" level may occur periodically. For details, see *Fisheries of the United States, 1996*.

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*, 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 list of Department of Energy publications. In addition, the Bureau of the Census conducts a census of mineral industries every 5 years. 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 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 Bureau of the Census 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 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 1996

[In billions of dollars, 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	1994	1995	1996	1990	1994	1995	1996
All industries, total ¹	5,743.8	6,947.0	7,265.4	7,636.0	6,136.3	6,610.7	6,742.1	6,928.4
Industries covered	298.1	303.9	311.4	341.9	277.3	303.6	296.7	294.6
Percent of all industries	5.19	4.37	4.29	4.48	4.52	4.59	4.40	4.25
Agriculture, forestry, and fishing	108.7	119.2	111.0	129.8	99.3	119.1	111.4	111.7
Farms	79.5	83.5	73.5	89.4	70.7	84.9	74.2	75.5
Agricultural services	29.1	35.7	37.5	40.5	28.6	34.9	37.0	37.6
Mining ¹	112.3	94.9	99.8	113.6	96.9	102.5	108.4	101.9
Metal mining	4.8	5.9	6.8	6.8	3.7	5.7	5.5	6.3
Coal mining	13.2	13.1	12.3	12.3	12.0	15.5	15.7	16.6
Oil and gas extraction	86.4	66.7	71.0	84.4	73.5	72.2	77.7	69.4
Nonmetallic minerals, except fuels	7.8	9.2	9.6	10.2	7.7	9.2	9.5	10.1
Timber-related manufacturing	77.1	89.8	100.6	98.5	81.1	81.9	77.0	80.9
Lumber and wood products	31.8	38.4	40.7	41.4	37.0	29.8	31.6	33.6
Paper and allied products	45.3	51.3	59.9	57.1	44.1	52.1	45.4	47.3

¹ For additional industries, see Table 716.

Source: U.S. Bureau of Economic Analysis, *Survey of Current Business*, August 1997.

No. 1148. National Forest System—Summary: 1980 to 1996

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

ITEM	Unit	1980	1985	1990	1991	1992	1993	1994	1995	1996
Timber cut, total value	Mil. dol. . .	737	725	1,191	1,012	938	918	786	616	544
Commercial and cost sales: ¹										
Volume	Mil. bd. ft.	9,178	10,941	10,500	8,475	7,290	5,917	4,815	3,866	3,725
Value	Mil. dol. . .	730	721	1,188	1,009	935	915	783	616	544
Free use:										
Volume	Mil. bd. ft.	2,070	399	151	121	80	80	80	80	80
Value ²	Mil. dol. . .	5.7	2.2	1	1	1	1	1	1	1
Misc. forest products:										
Value	Mil. dol. . .	1.1	1.7	3	3	3	3	3	3	3
Livestock grazing: ³										
Cattle and horses ⁴	1,000 . . .	1,521	1,565	1,236	1,265	1,408	1,318	1,224	1,311	1,167
Sheep and goats	1,000 . . .	1,328	1,183	958	1,029	1,183	1,111	925	1,068	859
Roads and trails:										
Road construction ⁵	Miles . . .	925	1,903	857	910	853	816	487	424	418
Trail construction ^{5,6}	Miles . . .	2,419	987	1,635	1,921	1,976	1,976	2,113	2,139	1,696
Receipts, total.	Mil. dol. . .	703	636	971	772	614	504	515	387	273
Timber use	Mil. dol. . .	625	515	849	667	520	425	432	303	195
Grazing use	Mil. dol. . .	16	9	10	11	11	11	11	9	7
Special land use, etc	Mil. dol. . .	62	112	112	93	84	68	72	75	71
Payments to local govt. ⁷	Mil. dol. . .	240	229	368	335	322	323	309	273	256

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: 1996

[In thousands of acres. 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	231,744	191,645	40,099	Montana	19,104	16,880	2,224
United States	231,687	191,617	40,073	Nebraska	442	352	90
Alabama	1,288	663	625	Nevada	6,275	5,819	457
Alaska	24,355	21,971	2,384	New Hampshire	825	724	102
Arizona	11,887	11,251	636	New Jersey	-	-	-
Arkansas	3,504	2,554	950	New Mexico	10,367	9,327	1,040
California	24,403	20,636	3,767	New York	16	16	-
Colorado	16,052	14,505	1,547	North Carolina	3,165	1,243	1,922
Connecticut	-	-	-	North Dakota	1,106	1,106	-
Delaware	-	-	-	Ohio	834	227	607
Florida	1,408	1,147	261	Oklahoma	465	304	161
Georgia	1,856	865	991	Oregon	17,507	15,665	1,842
Hawaii	-	-	-	Pennsylvania	743	513	230
Idaho	21,658	20,458	1,199	Rhode Island	-	-	-
Illinois	841	277	565	South Carolina	1,376	612	763
Indiana	644	194	450	South Dakota	2,368	2,013	355
Iowa	-	-	-	Tennessee	1,212	633	579
Kansas	116	108	8	Texas	1,994	755	1,240
Kentucky	2,102	692	1,410	Utah	9,211	8,113	1,098
Louisiana	1,025	604	421	Vermont	815	359	456
Maine	93	53	40	Virginia	3,223	1,656	1,567
Maryland	-	-	-	Washington	10,080	9,177	903
Massachusetts	-	-	-	West Virginia	1,869	1,033	837
Michigan	4,895	2,857	2,038	Wisconsin	2,023	1,520	503
Minnesota	5,467	2,837	2,630	Wyoming	9,703	9,248	455
Mississippi	2,310	1,157	1,153	Puerto Rico	56	28	28
Missouri	3,060	1,493	1,567	Virgin Islands	-	-	-

- Represents 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]

YEAR AND REGION	Total forest land (mil. acres)	TIMBERLAND, OWNERSHIP ¹				SAWTIMBER, NET VOLUME ³		GROWING STOCK, NET VOLUME ⁴	
		All ownerships (mil. acres)	Federally owned or managed ² (mil. acres)	State, county, and municipal (mil. acres)	Private (mil. acres)	Total (bil. bd. ft.)	Softwood (bil. bd. ft.)	Total (bil. cu. ft.)	Softwood (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

[Data based on 1987 Standard Industrial Classification Manual, published by the Office of Management and Budget, see text, Manufactures section. 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/planing 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

S Does not meet publication standards. ¹ Standard Industrial Classification code; see text, Section 13. ² Includes plywood and structural members. ³ Except containers and boxes.

Source: U.S. Bureau of the Census, *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 1996

[In millions of cubic feet, roundwood equivalent]

ITEM	Unit	1980	1985	1990	1991	1992	1993	1994	1995	1996
Industrial roundwood:										
Domestic production	Mil. cu. ft.	12,123	12,675	14,674	14,051	14,455	14,184	14,515	14,501	14,664
Imports	Mil. cu. ft.	2,570	3,386	3,121	2,841	3,122	3,516	3,701	3,988	4,045
Exports	Mil. cu. ft.	1,857	1,449	2,207	2,287	2,226	2,044	2,042	2,214	2,182
Consumption	Mil. cu. ft.	12,836	14,612	15,597	14,605	15,351	15,656	16,174	16,275	16,527
Lumber:										
Domestic production	Mil. cu. ft.	5,305	6,293	7,404	6,858	7,058	6,870	7,082	6,826	7,072
Imports	Mil. cu. ft.	1,545	2,158	1,893	1,698	1,947	2,227	2,384	2,515	2,615
Exports	Mil. cu. ft.	395	297	573	604	548	519	501	481	471
Consumption	Mil. cu. ft.	6,455	8,154	8,725	7,953	8,457	8,577	8,965	8,861	9,215
Plywood and veneer:										
Domestic production	Mil. cu. ft.	1,175	1,485	1,422	1,271	1,299	1,300	1,327	1,314	1,297
Imports	Mil. cu. ft.	120	195	97	83	100	100	94	107	97
Exports	Mil. cu. ft.	45	25	109	95	106	100	86	89	87
Consumption	Mil. cu. ft.	1,250	1,655	1,410	1,259	1,293	1,300	1,334	1,333	1,307
Pulp products:										
Domestic production	Mil. cu. ft.	4,390	4,432	5,285	5,370	5,488	5,393	5,531	5,847	5,795
Imports	Mil. cu. ft.	880	964	1,083	1,017	1,036	1,128	1,181	1,304	1,262
Exports	Mil. cu. ft.	579	431	673	773	823	753	795	943	925
Consumption	Mil. cu. ft.	4,691	4,965	5,696	5,614	5,702	5,768	5,917	6,208	6,132
Logs:										
Imports	Mil. cu. ft.	25	16	4	2	7	15	18	13	18
Pulpwood chips, exports	Mil. cu. ft.	278	81	178	214	225	211	230	250	278
Fuelwood consumption	Mil. cu. ft.	3,105	3,470	3,177	3,187	3,202	3,244	3,297	3,360	3,420

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

No. 1153. Selected Timber Products—Imports and Exports: 1980 to 1996

PRODUCT	Unit	1980	1985	1990	1991	1992	1993	1994	1995	1996
IMPORTS ¹										
Lumber, total ²	Mil. bd. ft.	9,866	14,996	13,063	11,708	13,427	15,369	16,534	17,524	18,363
From Canada	Percent	97.5	97.6	91.2	98.4	98.4	98.2	97.4	97.0	97.1
Logs, total	Mil. bd. ft. ³	128	99	28	15	45	95	112	80	115
From Canada	Percent	97.4	81.8	70.7	63.4	91.5	93.6	75.9	40.9	57.3
Paper and board ⁴	1,000 tons	8,780	11,238	13,148	12,167	12,543	13,971	14,918	15,654	14,418
Woodpulp	1,000 tons	4,051	4,466	4,893	4,997	5,029	5,413	5,650	5,969	5,692
Plywood	Mil. sq. ft. ⁵	1,235	1,790	1,687	1,457	1,776	1,786	1,692	1,951	1,772
EXPORTS										
Lumber, total ²	Mil. bd. ft.	2,494	1,793	4,566	3,880	3,498	3,255	3,082	2,929	2,878
To: Canada	Percent	25.3	24.0	14.4	14.6	16.3	17.4	19.8	22.2	23.1
Japan	Percent	26.0	34.5	27.8	31.3	31.8	36.3	34.3	33.4	33.4
Europe	Percent	23.8	15.5	15.0	19.4	21.0	16.8	17.6	17.5	16.9
Logs, total	Mil. bd. ft. ³	3,261	3,843	4,213	3,761	3,279	2,876	2,684	2,820	2,640
To: Canada	Percent	9.7	11.6	9.4	11.3	12.7	13.6	16.2	25.4	19.7
Japan	Percent	78.0	49.4	62.3	56.5	62.3	65.4	67.9	61.3	68.7
China: Mainland	Percent	2.7	27.8	8.6	9.9	7.2	4.6	2.8	0.7	0.6
Paper and board ⁴	1,000 tons	5,214	3,581	6,796	8,331	8,971	9,126	10,097	10,944	12,122
Woodpulp	1,000 tons	3,806	3,796	5,905	6,338	7,222	6,499	6,728	8,261	7,170
Plywood	Mil. sq. ft. ⁵	413	365	1,766	1,553	1,760	1,677	1,455	1,517	1,500

¹ Customs value of imports; see text, section 28. 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: 1986 to 1996

[In million board feet, except per capita in board feet. Per capita consumption based on estimated resident population as of July 1]

ITEM	1986	1993	1994	1995	1996	END-USE	1986	1993	1994	1995	1996
Total	57.8	57.4	60.0	59.1	62.4	New housing	19.3	16.3	16.1	15.9	15.7
Per capita	239	222	230	225	235	Residential upkeep and improvements	10.1	12.0	12.3	12.4	12.6
Species group:						New nonresidential construction	5.3	5.6	5.7	5.8	5.9
Softwoods	47.1	45.7	48.2	47.7	50.5	Manufacturing	4.8	5.5	5.5	5.5	5.5
Hardwoods	10.6	11.7	11.9	11.4	11.9	Shipping	6.8	8.4	8.5	8.5	8.6
						Other ²	10.9	8.8	8.9	8.8	8.8

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 1997

[1982=100]

PRODUCT	1990	1991	1992	1993	1994	1995	1996	1997
Lumber and wood products	129.7	132.1	146.6	174.0	180.0	178.1	176.1	183.8
Lumber	124.6	124.9	144.7	183.4	188.4	173.4	179.8	194.5
Softwood lumber	123.8	125.7	148.6	193.0	198.1	178.5	189.5	206.5
Hardwood lumber	131.0	128.5	140.7	163.3	168.3	167.0	163.9	174.1
Millwork	130.4	135.5	143.3	156.6	162.4	163.8	166.6	170.9
General millwork	132.0	138.1	146.3	158.5	163.6	165.4	167.9	171.1
Prefabricated structural members	122.3	122.4	132.7	159.7	169.3	163.5	167.5	177.8
Plywood	114.2	114.3	133.3	152.8	158.6	165.3	156.6	159.3
Softwood plywood	119.6	120.8	147.2	169.7	176.8	188.1	173.7	175.5
Hardwood plywood and related products	102.7	102.8	106.9	115.4	122.3	122.2	124.9	127.1
Other wood products	114.7	118.6	124.5	135.3	137.7	143.7	127.5	128.4
Boxes	119.1	123.6	127.5	138.2	141.3	145.0	147.1	149.2
Pulp, paper, and allied products	141.2	142.9	145.2	147.3	152.5	172.2	168.7	167.9
Pulp, paper, and prod, ex bldg paper	132.9	129.8	129.2	127.6	133.1	163.4	149.7	144.7
Woodpulp	151.3	119.2	118.9	104.2	115.9	183.2	133.1	128.6
Wastepaper	138.9	121.4	117.5	117.4	209.5	371.1	141.6	163.3
Paper	128.8	126.9	123.2	123.8	126.0	159.0	149.4	143.9
Writing and printing papers	129.1	124.8	120.2	120.5	121.7	158.4	144.6	140.0
Newsprint	119.6	120.9	109.8	112.1	116.7	161.8	159.5	133.9
Paperboard	135.7	130.2	134.3	130.0	140.5	183.1	155.1	144.4
Converted paper and paperboard products	135.2	134.8	134.8	133.7	136.7	157.0	153.4	148.4
Office supplies and accessories	121.4	119.5	116.4	115.3	116.9	134.9	132.9	131.0
Building paper & building board mill prods.	112.2	111.8	119.6	132.7	144.1	144.9	137.2	129.6

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

No. 1156. Selected Species—Stumpage Prices In Current and Constant (1982) Dollars: 1990 to 1996

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

SPECIES	CURRENT DOLLARS					CONSTANT (1982) DOLLARS ¹				
	1990	1993	1994	1995	1996	1990	1993	1994	1995	1996
Softwoods:										
Douglas fir ²	466	318	652	453	399	401	270	542	363	312
Southern pine ³	127	217	266	248	241	109	184	218	199	189
Sugar pine ⁴	285	598	625	397	318	245	508	512	318	249
Ponderosa pine ^{4 5}	218	535	291	158	299	217	455	264	167	234
Western hemlock ⁶	203	364	335	292	221	175	309	278	234	173
Hardwoods:										
All eastern hardwoods ⁷	146	264	141	150	154	126	224	126	120	121
Oak, white, red, and black ⁷	188	195	278	260	209	162	166	231	209	164
Maple, sugar ⁸	135	220	313	286	238	116	187	260	209	186

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 1996

[In thousands of short tons]

ITEM	1980	1985	1990	1991	1992	1993	1994	1995	1996
Production, total	63,600	68,683	80,445	81,234	84,701	86,693	90,897	91,352	92,179
Paper, total.	30,116	34,061	39,361	39,084	40,973	41,745	43,356	42,894	42,460
Paperboard, total.	30,926	32,922	39,318	40,343	41,895	43,113	45,724	46,640	47,901
Unbleached kraft	15,295	16,368	20,357	20,960	21,658	21,447	22,469	22,697	22,179
Semichemical	4,724	5,088	5,640	5,552	5,762	5,672	5,943	5,662	5,619
Bleached kraft.	3,836	3,911	4,399	4,572	4,503	4,583	5,029	5,304	5,236
Recycled	7,071	7,555	8,921	9,259	9,973	11,410	12,283	12,977	14,868
Wet machine board E.	138	130	96	96	93	95	96	96	96
Building paper E	1,369	680	723	782	795	797	787	787	787
Insulating board E	1,051	890	946	929	945	943	934	934	934
New supply, all grades, excluding products	67,783	76,199	87,683	86,014	89,631	93,146	97,447	98,157	96,365
Paper, total.	37,126	43,557	49,485	47,380	49,232	51,246	53,077	52,762	50,759
Newsprint	11,377	12,758	13,412	12,462	12,658	12,750	12,889	12,762	11,768
Printing/writing papers.	16,124	20,658	25,456	24,651	26,013	27,846	29,442	29,543	28,291
Packaging and ind. conv. papers.	5,243	5,163	4,718	4,596	4,783	4,628	4,640	4,241	4,405
Tissue	4,382	4,978	5,899	5,672	5,778	6,022	6,105	6,215	6,294
Paperboard, total.	27,689	30,595	36,301	36,753	38,453	39,950	42,436	43,448	43,611
Construction and other	2,968	2,048	1,897	1,881	1,946	1,949	1,935	1,947	1,994

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 1996

[In thousands of metric tons, except price index.]

COUNTRY AND ITEM	1980	1985	1990	1991	1992	1993	1994	1995	1996
Canada:									
Production	8,625	8,890	9,068	8,855	8,755	9,130	9,299	9,226	9,015
Capacity	(NA)	(NA)	10,100	10,175	9,841	9,604	9,695	9,575	9,769
Stocks at mills, end of year.	165	288	315	565	351	362	225	208	428
United States:									
Capacity	(NA)	(NA)	6,162	6,400	6,625	6,617	6,604	6,580	6,526
Consumption, estimate	10,088	11,507	12,241	12,126	11,268	11,505	11,535	11,826	11,256
Production	4,239	4,924	5,997	6,206	6,424	6,412	6,336	6,352	6,304
Stocks at mill, end of year	21	57	46	98	59	81	60	76	94
Producer price index (1982=100)	88.5	105.3	119.6	120.9	109.8	112.1	116.7	161.8	159.5

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 1996

[Live weight, in millions of pounds. For data on commercial catch for selected countries, see Table 1381, Section 30]

ITEM	1980	1985	1988	1989	1990	1991	1992	1993	1994	1995	1996
Total	11,357	15,150	14,628	15,485	16,349	16,364	16,106	20,334	19,309	16,484	16,474
For human food	8,006	9,337	10,505	12,268	12,662	13,020	13,242	13,821	13,714	13,584	13,625
For industrial use	3,351	5,813	4,123	3,217	3,687	3,344	2,864	6,513	5,595	2,900	2,848
Domestic catch	6,482	6,258	7,192	8,463	9,404	9,484	9,637	10,467	10,461	9,788	9,565
For human food	3,654	3,294	4,588	6,204	7,041	7,031	7,618	8,214	7,936	7,667	7,476
For industrial use	2,828	2,964	2,604	2,259	2,363	2,453	2,019	2,253	2,525	1,121	2,090
Imports¹	4,875	8,892	7,436	7,022	6,945	6,879	6,469	9,867	8,848	6,696	6,909
For human food	4,352	6,043	5,917	6,064	5,621	5,989	5,624	5,607	5,778	5,917	6,150
For industrial use ²	523	2,849	1,519	958	1,324	890	845	4,260	3,070	779	759
Disposition of domestic catch	6,482	6,258	7,192	8,463	9,404	9,484	9,637	10,467	10,461	9,788	9,565
Fresh and frozen	2,621	2,242	3,813	5,585	6,501	6,541	7,288	7,744	7,475	7,099	7,054
Canned	1,161	1,232	1,017	798	751	674	543	649	622	769	678
Cured	96	70	86	128	126	119	100	115	95	90	93
Reduced to meal, oil, etc.	2,604	2,714	2,276	1,952	2,026	2,150	1,696	1,959	2,269	1,830	1,740

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 1996

YEAR	QUANTITY (mil. lb. ¹)			Value (mil. dol.)	Average price per lb. (cents)	YEAR	QUANTITY (mil. lb. ¹)			Value (mil. dol.)	Average price per lb. (cents)
	Total	For human food	For industrial products ²				Total	For human food	For industrial products ²		
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	7,475	2,090	3,487	36.5
1988	7,192	4,588	2,604	3,520	48.9						

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 1996

SPECIES	QUANTITY (1,000 lb.)				VALUE (\$1,000)			
	1990	1994	1995	1996	1990	1994	1995	1996
Total	9,403,571	10,461,388	9,787,554	9,564,888	3,521,995	3,806,700	3,735,615	3,486,713
Fish, total¹	8,091,068	9,132,276	8,520,086	8,272,709	1,900,097	1,984,376	1,915,642	1,790,966
Cod:								
Atlantic	95,881	38,653	29,631	31,422	61,329	36,160	28,184	26,634
Pacific	526,396	460,287	591,399	605,314	91,384	95,836	109,680	111,978
Flounder	254,519	426,855	423,443	459,527	112,921	126,580	150,239	154,049
Halibut	70,454	57,900	44,796	49,092	96,700	84,898	66,781	83,468
Menhaden	1,962,160	2,323,537	1,846,959	1,755,471	93,896	128,364	99,131	94,150
Pollock, Alaska	3,108,031	3,124,531	2,852,610	2,623,131	268,344	375,926	259,614	238,129
Sablefish	89,802	71,339	65,904	59,949	58,865	84,827	123,694	109,009
Salmon	733,146	901,086	1,020,765	877,056	612,367	456,407	486,107	368,729
Tuna	62,393	71,795	63,864	85,439	105,040	108,661	102,638	110,256
Shellfish, total¹	1,312,503	1,329,112	1,267,468	1,292,179	1,621,898	1,822,324	1,819,973	1,695,747
Clams	139,198	131,427	134,224	123,239	130,194	122,362	140,414	127,779
Crabs	499,416	446,942	363,639	391,797	483,837	532,987	511,987	426,705
Lobsters: American	61,017	66,416	66,406	71,641	154,677	196,175	214,838	241,796
Oysters	29,193	38,086	40,380	38,007	93,718	93,737	101,574	114,839
Scallops:								
Calico	(NA)	7,162	957	(NA)	(NA)	6,944	1,219	(NA)
Sea	39,917	18,228	18,316	18,162	153,696	91,793	92,826	101,823
Shrimp	346,494	2,822,626	306,869	316,879	491,433	564,168	570,034	509,203

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 1997

[Periods are from Sept. 1 of the previous year to Aug. 31 of stated year. Data are for foodsize fish, those over 12 inches long]

ITEM	Unit	1990	1991	1992	1993	1994	1995	1996	1997
TROUT FOODSIZE									
Number sold	Millions .	67.8	67.7	64.5	60.9	58.3	60.2	56.5	59.0
Total weight	Mil. lb .	56.8	58.9	55.2	54.6	52.1	55.6	53.6	56.7
Total value of sales	Mil. dol. .	64.6	58.3	51.0	54.3	52.7	60.8	57.0	60.2
Average price received	Dol./lb .	1.14	0.99	0.92	0.99	1.01	1.09	1.06	1.06
Percent sold to processors	Percent .	58	72	71	63	68	68	67	63
CATFISH FOODSIZE									
Number sold	Millions .	272.9	332.7	373.2	379.1	347.6	321.8	375.4	387.1
Total weight	Mil. lb .	392.4	409.5	497.3	495.8	479.4	481.5	526.3	562.6
Total value of sales	Mil. dol. .	305.1	264.0	302.4	352.9	373.6	378.1	403.3	401.7
Average price received	Dol./lb .	0.78	0.64	0.61	0.71	0.78	0.79	0.77	0.71
Fish sold to processors	Mil. lb .	360.4	390.9	457.4	459.0	439.3	446.9	472.1	524.9
Avg. price paid by processors	Cents/lb .	75.8	63.1	59.8	70.9	78.4	78.6	77.3	71.2
Processor sales	Mil. lb .	183.1	199.8	231.3	233.5	216.5	227.0	237.2	261.8
Avg. price received by processors	Cents/lb .	224.1	209.0	200.5	218.6	238.5	240.3	236.9	226.0
Inventory (Jan. 1)	Mil. lb .	9.4	9.6	11.6	9.5	11.6	10.9	11.9	11.9

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 annual.

No. 1163. Supply of Selected Fishery Items: 1980 to 1996

[In millions of pounds. 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	1989	1990	1991	1992	1993	1994	1995	1996
Tuna, canned	Canned weight . .	666	759	1,028	856	933	922	835	850	875	859
Shrimp	Heads-off weight .	425	633	743	734	744	820	808	847	832	845
Salmon, canned	Canned weight . .	126	113	159	148	131	73	114	117	147	104
Clams	Meat weight	102	164	150	152	144	155	156	144	144	134
American lobster	Round weight	69	108	85	95	107	95	92	101	94	97
Spiny lobster	Round weight	127	154	89	89	85	81	76	76	89	81
Scallops	Meat weight	51	72	79	74	62	69	66	76	62	71
Oysters	Meat weight	71	90	66	56	47	50	48	50	63	58
Sardines, canned	Canned weight . . .	69	76	61	61	52	41	41	48	44	46
Snow crab	Round weight	54	45	58	37	60	88	66	40	42	46
King crab	Round weight	133	11	18	19	20	15	8	12	21	30
Crab meat, canned	Canned weight . . .	9	8	8	9	11	9	9	9	12	13

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 1996

[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	1993	1994	1995	1996	1980	1990	1993	1994	1995	1996
Canned,¹	1,516	1,178	1,709	1,768	1,927	2,282	1,928	1,562	1,688	1,796	1,887	1,934
Tuna	602	581	619	610	667	676	1,144	902	904	963	939	957
Salmon	200	196	198	207	244	197	376	366	307	329	419	284
Clam products ²	77	110	117	122	129	129	66	76	92	106	110	117
Mackerel ³	38	23	(NA)	(NA)	(NA)	(NA)	12	11	(NA)	(NA)	(NA)	(NA)
Sardines, Maine	20	13	14	16	14	18	32	17	25	28	24	30
Shrimp	16	1	1	(Z)	1	1	80	3	4	4	7	6
Crabs	5	1	(Z)	(Z)	(Z)	(Z)	19	4	1	(Z)	(Z)	(Z)
Oysters ³	(Z)	1	(Z)	(Z)	(Z)	(Z)	(Z)	1	(Z)	(Z)	(Z)	(Z)
Fish fillets and steaks⁴	202	441	420	425	385	398	261	843	847	836	841	886
Cod	31	65	50	58	65	67	43	132	121	135	152	163
Flounder	49	54	35	35	35	29	87	154	100	89	86	79
Haddock	17	7	4	3	3	4	29	24	16	12	11	14
Ocean perch, Atlantic	7	1	1	(Z)	(Z)	(Z)	9	1	2	1	1	1
Rockfish	14	33	18	23	25	20	13	53	30	33	38	42
Pollock, Atlantic	9	12	8	7	4	2	9	21	17	16	10	5
Pollock, Alaska	(NA)	164	161	141	135	136	(NA)	174	185	144	184	159
Other	74	105	143	158	118	140	71	284	376	406	359	423

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: 1963 to 1992

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

ITEM	Unit	1963	1967	1972	1977	1982	1987	1992
Establishments	Number	38,651	28,579	25,269	31,359	42,241	33,617	30,787
With 20 or more employees	Number	5,499	5,682	5,312	6,632	(NA)	6,299	5,600
Including all operations in manufactures	Number	40,532	29,688	26,178	31,967	42,585	34,041	31,261
Excluding oil and gas extraction	Number	17,409	12,221	10,771	12,912	12,267	10,707	9,896
Employees, total	1,000	616	537	595	799	1,114	698	638
Production workers	1,000	482	433	443	593	762	451	415
All other	1,000	134	134	152	206	352	247	223
Worker-hours, production workers	Million	973	892	909	1,183	1,578	942	876
Worker-hours per production workers	1,000	2.0	2.1	2.1	2.0	2.1	2.1	2.1
Payroll, total	Mil. dol.	3,743	4,187	6,226	13,167	28,637	21,739	24,199
Wages, production workers	Mil. dol.	2,680	2,888	4,250	9,082	18,030	12,443	13,833
Salaries, all other employees	Mil. dol.	1,063	1,299	1,976	4,085	10,607	9,296	10,366
Cost of supplies, etc.	Mil. dol.	8,974	10,576	14,884	46,079	109,697	62,423	65,653
Value added in mining	Mil. dol.	15,910	19,330	26,471	68,013	188,055	110,959	113,621
Metal mining	Mil. dol.	1,418	1,557	2,382	3,504	3,215	4,610	6,724
Coal mining	Mil. dol.	1,727	2,091	3,754	11,266	18,631	17,068	17,252
Oil and gas extraction	Mil. dol.	11,020	13,394	17,612	48,587	159,937	80,049	80,016
Nonmetallic minerals mining	Mil. dol.	1,745	2,288	2,723	4,656	6,273	9,233	9,629
Value of shipments and receipts	Mil. dol.	18,804	22,784	36,319	96,375	250,000	157,964	162,095
Capital expenditures	Mil. dol.	3,264	4,058	5,036	17,718	47,753	15,418	17,179

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. Bureau of the Census, *Census of Mineral Industries, 1972, 1977, 1982, 1987, and 1992. Data from the 1997 Census are expected to be released in 1999.*

No. 1166. Mining and Primary Metal Production Index: 1980 to 1997

[Index 1992=100]

INDUSTRY GROUP	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997
Mining	111.5	111.0	104.8	102.6	100.0	100.1	102.6	102.3	103.9	105.8
Coal	83.4	89.1	103.7	100.1	100.0	95.1	104.1	104.3	106.7	109.9
Oil and gas extraction	124.4	123.0	106.4	104.7	100.0	101.1	101.7	100.5	101.8	103.1
Crude oil and natural gas	115.1	111.4	101.6	101.9	100.0	98.0	98.1	96.5	95.9	95.6
Oil and gas drilling	236.8	259.9	151.1	128.6	100.0	122.6	127.0	126.4	138.0	149.7
Metal mining	65.2	56.6	93.1	93.3	100.0	98.8	100.5	101.5	102.9	107.0
Iron ore	128.5	90.2	101.4	101.7	100.0	100.0	104.3	112.3	111.3	112.7
Nonferrous ores	52.8	50.8	91.9	92.1	100.0	98.6	99.9	100.1	101.8	106.2
Copper ore	65.6	61.2	89.4	92.4	100.0	102.0	104.7	104.8	108.7	109.7
Primary metals, manufacturing	108.0	98.4	104.0	96.7	100.0	105.7	113.4	117.2	118.9	124.5
Nonferrous metals	92.4	98.2	100.9	97.7	100.0	104.0	113.0	116.5	120.4	126.6
Copper	75.9	79.7	81.6	88.3	100.0	116.7	111.7	122.0	124.4	132.4
Aluminum	115.1	86.9	100.4	102.2	100.0	91.7	81.8	83.7	88.5	89.4
Iron and steel	119.0	98.8	106.4	96.0	100.0	107.1	113.7	117.7	117.6	122.7

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 1996

ITEM	Unit	1990	1995	1996	ITEM	Unit	1990	1995	1996
All mining:					Avg. weekly hours	Number	43.9	44.2	44.7
All employees	1,000	709	580	570	Avg. weekly earnings	Dol	568	641	661
Production workers	1,000	509	424	424	Metal mining:				
Avg. weekly hours	Number	44.1	44.7	45.3	All employees	1,000	58	51	52
Avg. weekly earnings	Dol	603	684	707	Production workers	1,000	46	41	41
Coal mining:					Avg. weekly hours	Number	42.8	43.8	44.0
All employees	1,000	147	106	100	Avg. weekly earnings	Dol	601	735	764
Production workers	1,000	119	85	82	Nonmetallic minerals, except fuels:				
Avg. weekly hours	Number	44.0	44.9	45.8	All employees	1,000	110	106	108
Avg. weekly earnings	Dol	735	828	857	Production workers	1,000	83	80	82
Oil and gas extraction:					Avg. weekly hours	Number	45.3	46.5	47.0
All employees	1,000	395	318	311	Avg. weekly earnings	Dol	525	624	650
Production workers	1,000	261	217	220					

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

No. 1168. Mineral Production: 1990 to 1997

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

MINERAL	Unit	1990	1995	1996	1997, est.
FUEL MINERALS					
Coal, total	Mil. sh. tons	1,029.1	1,033.0	1,056.7	(NA)
Bituminous	Mil. sh. tons	693.2	613.8	644.9	(NA)
Subbituminous	Mil. sh. tons	244.3	328.0	322.2	(NA)
Lignite	Mil. sh. tons	88.1	86.5	91.6	(NA)
Anthracite	Mil. sh. tons	3.5	4.7	4.2	(NA)
Natural gas (marketed production)	Tril. cu. ft.	18.59	19.51	19.75	19.89
Petroleum (crude)	Mil. bbl. ¹	2,686	2,394	2,360	2,340
Uranium (recoverable content)	Mil. lb.	8.9	6.0	6.3	(NA)
NONFUEL MINERALS					
Abrasive stone ²	Metric tons	3,710	979	1,290	700
Asbestos (sales)	1,000 metric tons	(D)	9.3	9.6	9
Asphalt and related bitumens (native) ³	Mil. metric tons	25	(³)	(³)	(³)
Barite, primary, sold/used by producers	1,000 metric tons	430	543	662	700
Boron minerals, sold or used by producers	1,000 metric tons	1,090	1,190	1150	1200
Bromine, sold or used by producers	1,000 metric tons	177	218	227	250
Cement:					
Portland	Mil. metric tons	67.0	73.3	75.8	77.3
Masonry	Mil. metric tons	2.9	3.6	3.5	3.6
Clays	1,000 metric tons	42,900	43,100	43,100	43,900
Diatomite	1,000 metric tons	631	687	698	705
Feldspar ⁴	1,000 metric tons	630	880	890	930
Fluorspar, finished all grades	1,000 metric tons	64	51	8	-
Garnet (abrasive)	1,000 metric tons	47.0	53.0	68.2	71.0
Gypsum, crude	Mil. metric tons	14.9	16.6	17.5	17.0
Helium ⁵	Mil. cu. meters	84.8	99	97	98
Lime, sold or used by producers	Mil. metric tons	15.8	18.5	19.1	19.3
Mica, scrap & flake, sold/used by prod.	1,000 metric tons	109	108	97	91
Peat, sales by producers	1,000 metric tons	721	660	640	620
Perlite, processed, sold or used	1,000 metric tons	576	700	684	703
Phosphate rock (marketable)	Mil. metric tons	46.3	43.5	45.4	46.3
Potash (K ₂ O equivalent) sales	1,000 metric tons	1,710	1,400	1,430	1,430
Pumice & pumicite, producer sales	1,000 metric tons	443	529	612	538
Pyrites	1,000 metric tons	(D)	(NA)	(NA)	(NA)
Salt, common, sold/used by producers	Mil. metric tons	36.9	40.8	42.9	41.4
Sand & gravel, sold/used by producer	Mil. metric tons	855	935	942	989
Construction	Mil. metric tons	829	907	914	961
Industrial	Mil. metric tons	26	28	28	28
Sodium carbonate (natural) (soda ash)	1,000 metric tons	9,100	10,100	10,200	10,400
Sodium sulfate (natural)	1,000 metric tons	349	327	306	320
Stone ⁶	Mil. metric tons	1,110	1,260	1,330	1,390
Crushed and broken	Mil. metric tons	1,110	1,260	1,330	1,390
Dimension	1,000 metric tons	1,120	1,160	1,150	1,160
Sulfur: Frasch mines (shipments)	1,000 metric tons	3,680	3,150	2,900	2,900
Talc, and pyrophyllite, crude	1,000 metric tons	1,270	1,060	994	1,060
Tripoli	1,000 metric tons	81	80	80	(NA)
Vermiculite concentrate	1,000 metric tons	209	171	(D)	(D)
METALS					
Antimony ore and concentrate	Metric tons	(D)	262	242	(NA)
Bauxite (dried)	1,000 metric tons	(D)	(D)	(NA)	(NA)
Copper (recoverable content)	1,000 metric tons	1,590	1,850	1,920	1,920
Gold (recoverable content) ⁷	Metric tons	294	317	318	325
Iron ore (gross weight) ⁸	Mil. metric tons	57.0	61.1	62.2	60
Lead (recoverable content)	1,000 metric tons	484	386	426	441
Magnesium metal	1,000 metric tons	139	142	133	120
Manganiferous ore (gross weight) ⁹	1,000 metric ton	(D)	(D)	(D)	(D)
Mercury ¹⁰	Metric tons	562	(D)	(D)	(D)
Molybdenum (concentrate)	1,000 metric tons	61.6	60.9	54.9	55.5
Nickel	1,000 metric tons	0.3	1.6	1.3	(D)
Palladium metal	Kilograms	5,930	5,260	6,100	8,300
Platinum metal	Kilograms	1,810	1,590	1,840	2,500
Silver (recoverable content)	Metric tons	2,120	1,560	1,570	1,600
Titanium concentrate: Ilmenite (gross weight) ¹¹	1,000 metric tons	(D)	(D)	(D)	(D)
Tungsten ore and concentrate	Metric tons	(D)	(D)	(D)	(D)
Vanadium (recoverable content)	Metric tons	(D)	(D)	(D)	(D)
Zinc (recoverable content)	1,000 metric tons	515	614	600	607

- Represents zero. D Withheld to avoid disclosing individual company data. NA Not available. ¹ 42 gal. bbl.
² Includes grindstones, oilstones, whetstones, and deburring media. Excludes grinding pebbles, and tubemill liners. ³ Contains bituminous limestone and sandstone, and gilsonite. Includes road oil, 1990-93. Discontinued. ⁴ Includes aplite, 1992-93.
⁵ Refined only. ⁶ Excludes abrasive stone, bituminous limestone and sandstone, and ground soapstone, all included elsewhere in table. Includes calcareous marl and slate. ⁷ Includes Puerto Rico, 1990-97. ⁸ Represents shipments; includes byproduct ores. ⁹ 5 to 35 percent manganiferous ore. ¹⁰ Mercury produced as a byproduct of gold ores only. ¹¹ 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 and Monthly Energy Review.

No. 1169. Mineral Production Value: 1990 to 1995

[In millions of dollars. Value derived by multiplying production times price at source of production]

MINERAL	1990	1992	1993	1994	1995
Mineral production, total	141,597	127,486	125,265	122,015	118,614
Mineral fuels, total	108,133	95,453	93,265	86,815	80,114
Coal, total	22,404	20,976	18,766	20,076	19,709
Natural gas (wellhead)	31,789	32,555	38,834	34,819	28,828
Petroleum (crude)	53,801	41,846	35,625	31,920	31,577
Uranium U ₃ O ₈	140	76	40	(NA)	(NA)
Industrial minerals, total	21,022	20,496	21,200	23,100	24,400
Abrasive stone ²	(Z)	(Z)	(Z)	(NA)	(NA)
Asbestos (sales)	(1)	6	6	5	(D)
Asphalt, related bitumens (native) ³	3,480	2,794	(NA)	(NA)	(NA)
Barite, primary, sold/used by producers	16	20	19	22	17
Boron minerals, sold/used by producers	436	339	373	443	372
Bromine, sold/used by producers	173	170	123	155	186
Calcium chloride (natural)	(1)	(1)	(X)	(X)	(X)
Cement:					
Portland	3,683	3,500	3,920	4,460	4,920
Masonry	225	195	229	286	307
Clays	1,620	1,482	1,480	1,600	1,730
Diatomite	138	141	150	152	171
Feldspar ⁵	28	29	31	31	37
Fluorspar, finished shipments	(4)	(4)	(4)	(4)	(4)
Garnet (abrasive)	7	5	(D)	15	10
Gemstones (estimate)	53	66	58	51	74
Gypsum, crude	100	101	107	115	121
Helium ⁶	113	187	189	199	196
Lime, sold/used by producers	902	950	965	1,020	1,100
Mica, scrap and flake, sold/used by producers	6	5	4	6	6
Peat (sales by producers)	19	17	17	15	17
Perlite, processed, sold/used by producers	17	16	17	19	22
Phosphate rock (marketable)	1,075	1,058	759	839	945
Potash (K ₂ O equivalent)	303	334	286	285	284
Pumice and pumicite (sales by producers)	11	15	12	12	13
Salt (common), sold/used by producers	827	803	893	990	1,000
Sand and gravel, sold/used by producers	3,686	3,766	3,980	4,230	4,410
Sodium carbonate (natural) (soda ash)	836	836	734	724	829
Sodium sulfate (natural)	34	26	(D)	24	29
Stone	5,822	5,775	6,030	6,620	6,750
Crushed and broken	5,591	5,594	6,030	6,620	6,750
Dimension	231	181	216	(D)	(D)
Sulfur: Frasch mines (shipments)	335	159	101	162	207
Talc and pyrophyllite, crude ⁸	31	31	(D)	32	(4/)
Tripoli	3	3	4	11	11
Vermiculite concentrate	19	15	15	14	(D)
Industrial minerals, undistributed	504	478	417	531	622
Metals, total	12,442	11,537	10,800	12,100	14,100
Antimony ore and concentrate ⁹	(10)	(10)	(10)	(10)	(10)
Bauxite (dried equivalent)	(10)	(10)	(10)	(10)	(10)
Copper (recoverable content)	4,311	4,179	3,640	4,430	5,640
Gold (recoverable content)	3,650	3,662	3,840	4,050	3,990
Iron ore (gross weight) ¹¹	1,741	1,732	1,640	1,580	1,710
Lead (recoverable content)	491	308	249	298	359
Magnesium metal ¹²	433	360	377	389	476
Manganiferous ore (gross weight) ¹³	(10)	(10)	(10)	(10)	(10)
Mercury ¹⁴	(10)	0.4	(D)	(D)	(10)
Molybdenum (concentrate)	348	209	165	284	(D)
Palladium metal	22	18	25	29	22
Platinum metal	27	21	21	25	21
Silver (recoverable content)	329	229	227	253	271
Titanium concentrate: Ilmenite (gross weight)	(10)	(10)	(10)	(10)	(10)
Tungsten ore and concentrate	(10)	(10)	(10)	(10)	(10)
Vanadium (recoverable content)	(10)	(10)	(10)	(10)	(10)
Zinc mine production (recoverable content)	847	674	497	619	756
Metals, undistributed	242	156	132	147	812

D Withheld to avoid disclosing individual company data. NA Not available. X Not applicable. Z Less than \$500,000.
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. 1990-92, talc only. ⁹ Antimony content. ¹⁰ Included with "Metals, undistributed". ¹¹ Represents shipments; includes byproduct ores. 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

[Preliminary estimates. Average price in dollars per metric tons except as noted]

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 31,000	4,500	(NA)	(NA)	²¹ 1.10	100
Asbestos	1,000 metric tons	9	13	38	21	(D)	30
Barite	1,000 metric tons	700	35	71	2,435	⁴² 25.00	380
Bauxite and alumina	1,000 metric tons	(NA)	1,300	100	4,300	⁴⁷ 27.00	(NA)
Beryllium (contained)	Metric tons	210	45	(⁵)	205	²⁶ 327	425
Bismuth (contained)	Metric tons	(D)	200	(D)	(D)	²³ 3.50	30
Boron (B ₂ O ₃ content)	1,000 metric tons	622	(NA)	(⁵)	(NA)	⁴ 7.340	900
Bromine (contained)	1,000 metric tons	250	14	-	341	⁸⁹ 0.988	1,700
Cadmium (contained)	Metric tons	³⁴ 7,500	100	33	2,600	²¹⁰ 1.00	150
Cement	1,000 metric tons	89,900	850	14	93,602	⁴⁷ 4.50	17,900
Chromium	1,000 metric tons	¹¹ 24	33	76	513	⁴¹² 150	(NA)
Clays	1,000 metric tons	43,900	4,970	(⁵)	39,000	(NA)	13,900
Cobalt (contained)	Metric tons	¹¹ 2,000	1,700	78	9,200	²² 3.00	(NA)
Copper (Mine, contained)	1,000 metric tons	1,920	670	12	2,830	²¹ 1.08	13,300
Diamond (industrial)	Million carats	135	139	(NA)	244	¹⁴ 0.44	(NA)
Diatomite	1,000 metric tons	705	144	(⁵)	561	⁴ 252	1,000
Feldspar	1,000 metric tons	930	8	-	931	⁴⁵ 5.09	400
Fluorspar	1,000 metric tons	121	60	100	609	(NA)	-
Garnet (industrial)	Metric tons	71,000	13,000	(⁵)	59,000	⁴⁵ 50-2,000	250
Gemstones	Million dollars	67	2,700	99	5,370	(NA)	800
Germanium (contained)	Kilograms	20,000	(NA)	(NA)	30,000	⁸¹⁶ 1.475	115
Gold (contained)	Metric tons	325	550	(⁵)	(NA)	¹⁷ 325	14,000
Graphite (crude)	1,000 metric tons	-	27	100	28	⁴¹⁸ 716	(NA)
Gypsum (crude)	1,000 short tons	17,000	200	30	26,300	⁴⁷ 1.10	¹⁹ 6,000
Iodine	Metric tons	1,330	2,400	65	3,700	⁸²¹ 14.60	40
Iron ore (usable)	Million metric tons	62	5	15	73.7	⁴²² 30.41	7,500
Iron and steel scrap (metal)	Million metric tons	78	9	(⁵)	157.0	⁴²³ 124.00	38,000
Iron and steel slag (metal)	1,000 metric tons	21,000	3	1	21,400	⁴⁷ 0.00	2,500
Lead (contained)	1,000 metric tons	450	30	14	1,660	²⁰ 4.70	1,200
Lime	1,000 metric tons	19,300	58	1	19,500	⁴⁵ 5.40	5,700
Magnesium compounds	1,000 metric tons	400	55	33	595	(NA)	600
Magnesium metal	1,000 metric tons	190	40	10	166	²²⁴ 1.65	1,400
Manganese (gross weight)	1,000 metric tons	-	63	100	715	⁴²⁵ 2.44	(NA)
Mercury	Metric tons	¹¹ 400	60	(D)	(D)	²⁶ 200.00	(NA)
Mica, scrap and flake	1,000 metric tons	91	7	3	100	⁴⁹ 1.00	(NA)
Molybdenum (contained)	Metric tons	55,500	50,000	(⁵)	11,700	⁸⁸ 5.50	700
Nickel (contained)	Metric tons	16,100	17,300	54	150,000	⁴²⁷ 6.931	4
Nitrogen (fixed)-ammonia	1,000 metric tons	13,000	500	14	15,100	⁴²⁸ 192	2,500
Peat	1,000 metric tons	500	20	58	1,200	⁴²⁶ 0.00	800
Perlite	1,000 metric tons	703	38	11	790	⁴³¹ 8.82	140
Phosphate rock	1,000 metric tons	46,300	600	(⁵)	42,500	⁴²³ 7.00	5,000
Platinum-group metals	Kilograms	10,800	60,100	(NA)	(NA)	¹⁷ 2,994.83	550
Potash (K ₂ O equivalent)	1,000 metric tons	1,430	450	76	5,890	⁴³⁰ 140	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	⁴³¹ 120.00	4,150
Silicon (contained)	1,000 metric tons	424	41	34	637	²³² 0.55	(NA)
Silver (contained)	Metric tons	1,600	3,000	(NA)	(NA)	¹⁷ 4.62	1,400
Sodium carbonate (soda ash)	1,000 metric tons	10,400	4,000	(⁵)	6,480	³³¹ 105	2,800
Sodium sulfate	1,000 metric tons	320	80	12	659	³⁴ 114	240
Stone (crushed)	Million metric tons	1,390	4	-	1,397	⁴⁵ 5.55	78,000
Sulfur (all forms)	1,000 metric tons	11,900	730	11	13,500	⁴³⁵ 38.00	3,100
Talc	1,000 metric tons	1,060	197	(⁵)	955	⁴¹² 22	750
Tin (contained)	Metric tons	¹¹ 11,000	4,500	85	49,000	² 2.65	(NA)
Titanium dioxide	1,000 metric tons	1,330	368	(⁵)	1,150	²³⁶ 0.93	4,600
Tungsten (contained)	Metric tons	(D)	20	85	11,400	³⁷ 66	60
Vermiculite	1,000 metric tons	(D)	8	(D)	(D)	(D)	230
Zinc (contained)	1,000 metric tons	607	427	35	³⁸¹ 5,000	²⁰ 810	2,700
Zirconium (Z ₂ O ₂) content	Metric tons	(D)	26,590	(D)	(D)	⁴³⁹ 400	(NA)

- Represents or rounds to zero. 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 Columbite price. ¹⁴ Value of imports per carat. ¹⁵ Zone refined, first reduction quality. ¹⁶ Price per tray ounce. ¹⁷ Price of flake imports. ¹⁸ Includes employment at calcining plants. ¹⁹ 99.97% indium, per kilogram. ²⁰ O.i.f. value, crude, per kilogram. ²¹ Lake Superior pellets. Cents per long ton unit of iron. ²² Delivered, No. 1 Heavy Melting composite price. ²³ Year-end price. ²⁴ 46%-48% Mn metallurgical ore, per unit contained Mn, c.i.f. U.S. ports. ²⁵ Dollars per 76-pound flask. ²⁶ London Metal Exchange cash price. ²⁷ F.o.b. gulf coast. ²⁸ Dealer's price of platinum. ²⁹ Price of K₂O, muriate. ³⁰ Vacuum and open pan, bulk, pellets and packaged, f.o.b. mine and plant. ³¹ Ferrosilicon, 50% Si. ³² Quoted year-end price, dense, bulk, f.o.b. Green River, WY, dollars per short ton. ³³ Quoted price, bulk, f.o.b. works, East, dollars per short ton. ³⁴ Elemental sulfur, f.o.b. mine and/or plant. ³⁵ Rutile, list, year-end. ³⁶ Dollars per unit W03 (7.93 kilograms of contained tungsten per unit). ³⁷ All forms. ³⁸ Price for imported zircon, f.o.b. U.S. east coast. ³⁹ Estimated.

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

No. 1171. Selected Mineral Products—Average Prices: 1980 to 1997

[Excludes Alaska and Hawaii, except as noted]

YEAR	Copper, electrolytic ¹ (cents per lb.)	Platinum ² (dol./ troy 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)	Bituminous coal ⁷ (dol./ short ton)	Crude petroleum ⁷ (dol./ bbl.)	Natural 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	20.98	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	19.35	13.19	1.85
1995	138	425	386	5.15	42	416	56	43.74	18.74	14.62	1.55
1996	109	398	389	5.19	49	412	51	34.48	18.24	18.46	2.17
1997	107	397	333	4.9	45	381	65	38.00	(NA)	17.24	2.42

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.

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: 1990 to 1997

[In millions of dollars. Data may not add due to rounding]

STATE	1990	1995	1996	1997	STATE	1990	1995	1996	1997
United States	33,445	37,992	39,967	38,989	Montana	573	574	491	4,983
Alabama	559	706	778	805	Nebraska	90	146	148	161
Alaska	577	538	1,613	827	Nevada	2,621	3,060	3,230	3,030
Arizona	3,085	4,190	3,580	3,520	New Hampshire	36	50	152	160
Arkansas	381	492	435	535	New Jersey	229	243	1,246	1,296
California	2,771	2,760	2,830	2,810	New Mexico	1,103	1,130	992	994
Colorado	377	570	513	521	New York	773	886	891	904
Connecticut	122	93	82	165	North Carolina	586	735	690	758
Delaware ²	10	9	17	16	North Dakota	25	31	31	32
Florida	1,574	1,540	1,760	1,740	Ohio	733	891	969	984
Georgia	1,504	1,690	1,740	1,770	Oklahoma	259	357	369	411
Hawaii	106	1,114	1,110	1,100	Oregon	205	239	265	272
Idaho	375	510	449	442	Pennsylvania	1,031	1,080	1,170	1,240
Illinois	667	828	846	880	Rhode Island	18	31	123	123
Indiana	428	589	628	669	South Carolina	450	447	493	507
Iowa	310	456	470	493	South Dakota	319	332	357	340
Kansas	349	498	530	547	Tennessee	663	665	662	786
Kentucky	359	432	442	476	Texas	1,459	1,680	1,730	1,700
Louisiana	368	434	393	379	Utah	1,335	1,850	1,730	1,760
Maine	55	68	69	88	Vermont	87	60	166	168
Maryland	368	324	1,332	401	Virginia	507	515	549	600
Massachusetts	128	190	200	213	Washington	483	582	535	522
Michigan	1,440	1,520	1,540	1,560	West Virginia	133	181	185	189
Minnesota	1,482	1,530	1,540	1,160	Wisconsin	215	416	396	390
Mississippi	111	131	144	137	Wyoming	911	973	1,080	996
Missouri	1,105	1,140	1,250	1,320					

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 1997

MINERAL	WORLD PRODUCTION				PERCENT U.S. OF WORLD				
	Unit	1980	1990	1995	1997	1980	1990	1995	1997
Fuels: ¹									
Coal	Bil. sh. ton	4.2	5.4	5.1	(NA)	20	19	20	(NA)
Petroleum (crude)	Bil. bbl	21.7	22.1	22.8	24.2	14	12	11	10
Natural gas (dry, marketable)	Tril. cu. ft	53.1	73.6	77.9	(NA)	37	24	24	(NA)
Natural gas plant liquids	Bil. bbl	1.4	1.7	2.0	(NA)	43	34	32	(NA)
Nonmetals:									
Asbestos	1,000 metric tons	4,699	4,003	2,420	2,260	2	(D)	(²)	(²)
Barite	1,000 metric tons	7,495	5,633	4,300	4,600	27	8	13	15
Feldspar	1,000 metric tons	3,202	5,456	6,780	6,800	20	12	13	14
Fluorspar	1,000 metric tons	5,006	5,131	4,050	4,110	2	1	1	-
Gypsum	Mil. metric tons	78	100	97	100	14	15	17	17
Mica (incl. scrap)	1,000 metric tons	228	215	253	220	46	51	43	41
Nitrogen, (fixed) - ammonia	Mil. metric tons	74	97	96	96	20	13	14	14
Phosphate rock, gross wt.	Mil. metric tons	144	162	130	136	38	29	33	34
Potash (K ₂ O equivalent)	Mil. metric tons	28	28	25	24	8	6	6	6
Sulfur, elemental	Mil. metric tons	55	58	53	54	22	20	22	22
Metals, mine basis:									
Bauxite	Mil. metric tons	89	109	107	115	2	(D)	(D)	(D)
Columbian concentrates (Nb content)	1,000 metric tons	15	15	18	17	(NA)	(NA)	-	-
Copper	1,000 metric tons	7,405	9,017	10,100	11,300	16	18	18	17
Gold	Metric tons	1,219	2,133	2,220	2,300	2	14	14	14
Iron ore	Mil. metric tons	891	982	1,027	1,030	8	6	6	6
Lead	1,000 metric tons	3,470	3,353	2,780	2,900	17	15	14	16
Mercury	Metric tons	6,806	4,523	3,160	3,000	16	12	(D)	(D)
Molybdenum	1,000 metric tons	111	128	141	131	62	48	43	42
Nickel ²	1,000 metric tons	779	965	1,030	1,080	2	(Z)	-	-
Silver	1,000 metric tons	11	16	15	15	9	13	10	10
Tantalum concentrates	Metric tons	544	400	362	395	(NA)	(NA)	-	-
Titanium concentrates:									
Ilmenite	1,000 metric tons	3,726	4,072	3,970	3,500	14	(D)	(D)	(D)
Rutile	1,000 metric tons	436	481	416	414	(D)	(D)	(D)	(D)
Tungsten ³	1,000 metric tons	52	43	39	32	5	14	(D)	(D)
Vanadium ²	1,000 metric tons	37	31	35	35	12	(D)	(D)	(D)
Zinc ²	1,000 metric tons	5,954	7,184	7,240	7,800	6	8	9	8
Metals, smelter basis:									
Aluminum	1,000 metric tons	15,383	19,292	19,900	21,200	30	21	17	17
Cadmium	1,000 metric tons	18	20	19	20	9	8	7	9
Copper	1,000 metric tons	7,649	9,472	10,200	11,000	14	15	16	16
Iron, pig	Mil. metric tons	514	532	533	536	12	9	10	9
Lead ³	1,000 metric tons	5,430	5,763	5,590	5,980	23	23	25	24
Magnesium ⁴	1,000 metric tons	316	354	389	336	49	39	37	36
Raw Steel	Mil. metric tons	717	771	755	773	14	12	13	12
Tin ⁵	1,000 metric tons	251	223	201	201	1	-	-	-
Zinc	1,000 metric tons	6,049	7,060	7,550	7,430	6	5	5	5

- Represents or rounds to zero. D Withheld to avoid disclosing company data. NA Not available. ² 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*.

No. 1174. Federal Strategic and Critical Materials Inventory: 1980 to 1994

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

MINERAL	QUANTITY ¹				VALUE (mil. dol.) ²				
	Unit	1980	1985	1990	1994	1980	1985	1990	1994
Tin	1,000 metric ton.	200	185	169	145	3,158	2,324	962	684
Silver	1,000 troy oz.	139,500	136,006	92,151	59,507	2,288	801	374	158
Cobalt	Mil. lb.	41	53	53	52	1,020	590	443	561
Bauxite ³	1,000 lg. ton.	14,333	17,957	18,033	16,549	583	871	888	191
Manganese ⁴	1,000 sh. ton.	5,130	4,470	4,017	2,792	599	520	962	468
Tungsten ⁵	Mil. lb.	97	87	82	82	817	369	253	178
Zinc	1,000 sh. ton.	380	378	379	360	317	268	483	307
Titanium	1,000 sh. ton.	43	48	37	37	432	405	402	221
Platinum	1,000 troy oz.	466	466	453	453	215	154	186	131
Chromium ⁶	1,000 sh. ton.	804	854	1,074	1,149	773	836	917	837
Diamonds: Stones	Carat 1,000.	19,224	12,549	7,777	6,457	349	336	267	533
Industrial, bort	Carat 1,000.	23,693	22,001	17,353	4,012	73	39	16	3

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 1997

[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	1991	1992	1993	1994	1995	1996	1997
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
Bauxite ¹	94	98	100	100	100	99	99	100	100
Tin	79	71	74	80	84	83	84	83	85
Tungsten	53	81	91	86	81	95	90	90	85
Cobalt	93	86	86	85	85	80	80	80	80
Chromium	91	84	80	76	79	81	82	81	78
Tantalum	90	71	73	73	81	75	80	79	76
Potash	65	68	69	68	72	76	75	77	76
Barite	44	71	66	52	72	64	65	70	71
Nickel	76	64	61	59	63	64	60	59	54
Selenium	59	46	50	48	39	31	38	40	41
Zinc ²	60	41	24	33	36	35	35	33	35
Gypsum	35	46	46	50	64	3	21	32	33
Aluminum	(³)	36	31	31	31	31	32	29	30
Cadmium	55	(³)	(³)	1	19	30	23	22	23
Iron and steel	13	13	12	13	15	22	21	20	21
Sulfur	14	21	11	12	14	18	14	14	15
Iron ore	25	3	(³)	2	7	13	7	14	12
Copper	16	15	19	20	12	12	21	10	11
Titanium	32	(³)	(D)	(D)	(D)	(D)	(³)	(D)	(D)
Platinum group	87	88	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Silver	7	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Mercury	27	(D)	(D)	(D)	(D)	(D)	(D)	(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. Bureau of the Census.

No. 1176. Federal Offshore Leasing, Exploration, Production, and Revenue: 1990 to 1997

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

ITEM	Unit	1990	1991	1992	1993	1994	1995	1996	1997
Tracts offered	Number . .	10,459	16,600	9,618	10,164	10,861	10,995	(NA)	(NA)
Tracts leased	Number . .	825	676	204	336	560	835	1,537	1,780
Acres offered	1,000 . . .	56,789	90,288	52,380	55,070	58,895	59,700	(NA)	(NA)
Acres leased	1,000 . . .	4,263	3,414	1,021	1,714	2,775	4,342	8,149	9,637
Bonus paid for leased tracts	Bil. dol. . .	0.6	0.3	0.1	0.1	0.3	0.4	0.9	1.4
New wells being drilled:									
Active	Number . .	120	64	104	129	120	124	(NA)	(NA)
Suspended	Number . .	266	249	180	193	222	247	(NA)	(NA)
Wells completed	Number . .	13,167	13,184	13,209	13,181	13,342	13,475	(NA)	(NA)
Wells plugged and abandoned	Number . .	14,677	15,430	16,348	16,709	17,427	18,008	(NA)	(NA)
Revenue, total ¹	Bil. dol. . .	3.4	2.8	2.6	2.9	2.6	2.6	3.9	4.8
Bonuses	Bil. dol. . .	0.6	0.3	0.1	0.1	0.3	0.4	0.6	1.2
Oil and gas royalties ¹	Bil. dol. . .	2.6	2.3	2.3	2.5	2.3	2.1	3.0	3.5
Rentals	Bil. dol. . .	0.1	0.1	0.1	(Z)	(Z)	0.9	0.1	0.1
Sales value ²	Bil. dol. . .	17.0	14.9	15.1	16.4	15.0	13.8	28.0	31.1
Crude oil	Bil. dol. . .	5.9	5.2	5.3	4.9	4.4	5.4	6.8	7.5
Condensate	Bil. dol. . .	1.1	1.1	1.0	0.9	0.7	0.9	1.3	1.4
Natural gas	Bil. dol. . .	9.5	7.9	8.2	9.9	9.8	7.5	11.8	13.3
Sales volume:									
Crude oil	Mil. bbls. .	274	263	302	307	319	357	373	404
Condensate	Mil. bbls. .	51	52	52	55	51	52	65	75
Natural gas	Bil. cu. ft .	5,093	4,516	4,686	4,533	4,700	4,692	5,024	5,077

Z Less than \$50 million. NA Not available. 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 1996

[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	1985	1990	1991	1992	1993	1994	1995	1996
Crude oil producing wells (Dec. 31)	1,000 . . .	548	647	602	614	594	584	582	574	574
Daily output per well	Bbl.	15.9	13.9	12.2	12.1	12.1	11.7	11.4	11.4	11.3
Completed wells drilled, total	1,000 . . .	56.9	57.9	26.3	24.8	20.2	21.8	17.4	15.1	18.0
Crude oil	1,000 . . .	30.5	33.1	11.5	11.3	8.5	8.3	6.2	6.1	6.8
Gas	1,000 . . .	15.1	13.0	10.1	8.9	7.7	9.4	8.2	6.5	8.1
Dry	1,000 . . .	11.3	11.8	4.8	4.5	4.0	4.2	3.1	2.5	3.0
Average depth per well ¹	Feet	4,188	4,262	4,759	4,836	5,193	5,494	5,994	5,740	5,932
Average cost per well	\$1,000 . . .	368	349	384	422	383	427	483	(NA)	(NA)
Average cost per foot ¹	Dollars . . .	77.02	75.35	76.07	82.64	70.27	75.30	79.49	(NA)	(NA)
Crude oil production, total	Mil. bbl. . .	3,138	3,274	2,685	2,707	2,617	2,499	2,432	2,394	2,362
Value at wells	Bil. dol. . .	67.7	78.9	53.8	44.8	41.8	35.6	32.1	35.0	43.6
Average price per barrel	Dollars . . .	21.59	24.09	20.03	16.54	15.99	14.25	13.19	14.62	18.46
Lower 48 states	Mil. bbl. . .	2,548	2,608	2,037	2,051	1,992	1,921	1,863	1,853	1,853
Alaska	Mil. bbl. . .	590	666	647	656	626	577	569	542	510
Onshore	Mil. bbl. . .	2,760	2,819	2,290	2,279	2,173	2,046	1,931	1,838	1,800
Offshore	Mil. bbl. . .	377	456	395	428	445	453	500	557	562
Imports: Crude oil	Mil. bbl. . .	1,920	1,168	2,150	2,110	2,219	2,478	2,577	2,639	2,730
Refined petroleum products	Mil. bbl. . .	602	683	774	672	657	668	704	588	701
Exports: Crude oil	Mil. bbl. . .	104.8	74.5	39.8	42.3	32.5	35.8	36.1	34.7	40.2
Proved reserves	Bil. bbl. . .	29.8	28.4	26.3	24.7	23.7	23.0	22.5	22.40	(NA)
Operable refineries	Number . . .	319	223	205	202	199	187	179	175	171
Capacity (Jan. 1)	Mil. bbl. . .	6,566	5,716	5,683	5,723	5,731	5,519	5,486	5,632	5,595
Refinery input, total	Mil. bbl. . .	5,117	4,814	5,325	5,307	5,340	5,482	5,482	5,555	5,639
Crude oil	Mil. bbl. . .	4,920	4,380	4,895	4,855	4,895	4,968	5,063	5,099	5,176
Natural gas plant liquids	Mil. bbl. . .	168	186	172	172	172	179	172	172	164
Other liquids	Mil. bbl. . .	29	248	259	281	274	336	252	285	299
Refinery output, total	Mil. bbl. . .	5,336	5,019	5,574	5,570	5,621	5,763	5,763	5,836	5,946
Motor gasoline	Mil. bbl. . .	2,369	2,343	2,540	2,548	2,577	2,665	2,621	2,723	2,752
Jet fuel	Mil. bbl. . .	365	434	544	526	511	518	529	518	555
Distillate fuel oil	Mil. bbl. . .	971	982	1,066	1,080	1,084	1,142	1,168	1,153	1,215
Residual fuel oil	Mil. bbl. . .	577	321	347	339	325	307	303	288	263
Liquefied petroleum gases	Mil. bbl. . .	120	142	183	197	223	215	223	237	241
Other products	Mil. bbl. . .	934	796	894	880	902	913	920	920	920
Utilization rate	Percent . .	75.4	77.6	87.1	86.0	87.9	91.5	92.6	92.0	93.5

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 1996

[In millions of barrels]

ITEM	1980	1990	1991	1992	1993	1994	1995	1996
Petroleum products supplied for domestic use	6,242	6,201	6,101	6,234	6,291	6,467	7,087	6,701
Production of products	5,765	5,934	5,933	6,050	6,182	6,244	6,940	6,511
Crude input to refineries	4,934	4,894	4,855	4,909	4,969	5,061	5,718	5,195
Oil, field production	3,138	2,685	2,707	2,617	2,499	2,431	2,406	2,366
Alaska	592	647	656	627	577	569	542	510
Lower 48 States	2,555	2,037	2,050	1,997	1,922	1,863	1,853	1,856
Net imports	1,821	2,112	2,068	2,194	2,441	2,542	2,604	2,708
Imports (gross excluding SPR) ¹	1,910	2,142	2,111	2,223	2,472	2,574	2,639	2,748
SPR ¹ imports	16	10	-	4	5	4	-	-
Exports	-105	40	42	32	36	36	35	40
Other sources	33	98	80	90	28	88	102	40
Natural gas liquids (NGL), supply	577	574	613	628	664	694	708	716
Other liquids	253	465	466	513	550	489	514	599
Net imports of refined products	484	326	177	156	134	217	101	181
Imports	578	598	500	471	461	518	407	491
Exports	94	272	323	315	327	302	307	310
Stock withdrawal, refined products	-7	-59	-10	28	-24	6	46	9
TYPE OF PRODUCT SUPPLIED								
Total products supplied for domestic use	6,242	6,201	6,101	6,234	6,291	6,467	6,469	6,701
Finished motor gasoline	2,407	2,641	2,623	2,660	2,729	2,774	2,843	2,888
Distillate fuel oil	1,049	1,103	1,066	1,090	1,110	1,154	1,170	1,232
Residual fuel oil	918	449	423	401	394	373	311	311
Liquefied petroleum gases ²	414	568	616	642	633	686	693	736
Other	1,454	1,440	1,373	1,441	1,425	1,480	1,452	1,535
ENDING STOCKS								
Ending stocks, all oils	1,392	1,621	1,617	1,592	1,647	1,653	1,563	1,052
Crude oil and lease condensate ¹	358	323	325	318	335	337	303	284
Strategic Petroleum Reserve (SPR) ¹	108	586	569	575	587	592	592	566
Other	926	712	723	699	725	724	668	202

- Represents zero. ¹ SPR=Strategic petroleum reserve. (See Table 967.) 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 1996

STATE	CRUDE PETROLEUM						NATURAL GAS MARKETED PRODUCTION ¹					
	Quantity (mil. bbl.)			Value (mil. dol.)			Quantity (bil. cu. ft.)			Value (mil. dol.)		
	1990	1995	1996	1990	1995	1996	1990	1995	1996	1990	1995	1996
Total ² . . .	2,685	2,406	2,366	53,772	35,004	43,677	18,594	19,506	19,751	31,658	30,286	42,818
AL	18	19	17	387	306	341	135	520	531	373	948	1,390
AK	658	542	510	10,086	6,088	7,859	403	470	481	554	771	772
AR	10	9	9	222	132	165	175	187	222	360	565	847
CA	322	279	282	5,732	3,906	4,722	363	280	286	857	483	521
CO	31	29	25	722	466	511	243	523	572	377	497	783
FL	6	6	6	(NA)	(NA)	(NA)	6	6	6	15	8	(NA)
IL	20	16	16	467	274	325	1	(Z)	(Z)	1	(NA)	(NA)
IN	3	3	3	73	47	52	(Z)	(Z)	(Z)	1	(Z)	1
KS	59	44	42	1,359	709	855	574	721	713	893	985	1,366
KY	5	3	4	124	57	73	75	75	81	169	123	207
LA	148	131	132	3,409	2,096	2,759	5,242	5,108	5,241	9,587	8,048	12,194
MI	30	11	11	458	189	220	140	238	246	420	399	544
MS	30	20	20	630	294	370	95	96	103	167	118	172
MT	20	17	16	429	247	301	50	50	51	90	68	72
NE	5	4	4	119	58	69	1	2	2	2	3	3
NM	66	65	64	1,472	1,080	1,340	965	1,626	1,554	1,629	2,056	2,589
NY	(Z)	(Z)	(Z)	9	(Z)	(Z)	25	18	18	55	42	(NA)
ND	39	29	32	849	457	629	52	49	50	93	(NA)	(NA)
OH	8	8	8	196	138	166	155	126	119	393	294	314
OK	117	88	85	2,690	1,459	1,759	2,258	1,812	1,735	3,548	2,616	3,840
PA	2	2	2	54	33	36	178	111	135	417	315	(NA)
TX	674	560	543	15,060	9,167	11,035	6,343	6,330	6,449	9,939	10,208	14,768
UT	23	20	19	524	354	409	146	241	251	249	277	347
WV	2	2	2	43	32	33	178	186	179	568	414	(NA)
WY	103	79	73	2,169	1,223	1,435	736	674	666	856	1,198	1,715

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, *Energy Data Reports, Petroleum Supply Annual, Natural Gas Annual, and Natural Gas Monthly*.

No. 1180. Crude Oil, Natural Gas, and Natural Gas Liquids—Reserves by State: 1990 and 1996

[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				1996			
	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			Proved (mil. bbl.)	Indicated		
United States	26,254	3,483	169,346	7,586	22,017	2,876	166,474	7,823
Lower 48 States	19,730	2,514	160,046	7,246	16,743	1,924	157,180	7,486
Alabama	44	(Z)	1,4125	170	45	-	5,033	119
Alaska	6,524	969	9,300	340	5,274	952	9,294	337
Arkansas	60	1	1,731	9	58	-	1,470	4
California	2,658	2,1425	2,185	2,105	2,437	2,905	2,082	292
Colorado	305	8	4,555	169	231	22	7,710	287
Florida	(NA)	(NA)	(NA)	(NA)	97	-	96	22
Illinois	(NA)	(NA)	(NA)	(NA)	94	-	(NA)	(NA)
Indiana	131	-	(NA)	(NA)	11	-	(NA)	(NA)
Kansas	(NA)	(NA)	(NA)	(NA)	266	-	7,694	338
Kentucky	321	(Z)	9,614	313	21	-	983	46
Louisiana	33	-	1,016	25	658	331	9,543	543
Michigan	(NA)	(NA)	(NA)	(NA)	74	-	2,061	53
Mississippi	(NA)	(NA)	(NA)	(NA)	164	6	631	7
Montana	(NA)	(NA)	(NA)	(NA)	168	-	796	7
Nebraska	221	-	899	15	28	-	(NA)	(NA)
New Mexico	(NA)	(NA)	(NA)	(NA)	744	148	16,485	1,059
New York	687	256	17,260	990	(NA)	(NA)	232	(NA)
North Dakota	285	-	586	60	248	6	462	48
Ohio	65	-	1,214	(NA)	53	-	1,113	(NA)
Oklahoma	734	37	16,151	657	632	43	13,074	684
Pennsylvania	22	-	1,720	(NA)	10	-	1,696	(NA)
Texas	2,106	618	238,192	2,575	2,576	2,358	238,270	2,606
Utah	249	44	1,510	(³)	237	46	1,633	(³)
Virginia	(NA)	(NA)	138	(NA)	(NA)	(NA)	1,930	(NA)
West Virginia	31	-	2,207	86	25	-	2,703	61
Wyoming	794	42	9,944	4,812	603	14	12,320	4,727
Federal offshore	2,805	49	31,433	619	3,085	45	29,096	776

- Represents or rounds to zero. NA Not available. 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 1996*.

No. 1181. World Crude Oil Production, by Major Producing Country: 1980 to 1996

[In thousands of barrels per day]

COUNTRY	1980	1985	1990	1991	1992	1993	1994	1995	1996
World, total ¹	59,599	53,981	60,566	60,207	60,212	60,238	60,992	62,331	64,054
Saudi Arabia	9,900	3,388	6,410	8,115	8,332	8,198	8,120	8,231	8,218
United States	8,597	8,971	7,355	7,417	7,171	6,847	6,662	6,560	6,465
Russia	(X)	(X)	(X)	(X)	7,632	6,730	6,135	5,995	5,850
Iran	1,662	2,250	3,088	3,312	3,429	3,540	3,618	3,643	3,686
China	2,114	2,505	2,774	2,835	2,845	2,890	2,939	2,990	3,131
Norway	528	788	1,704	1,890	2,229	2,350	2,521	2,768	3,104
Venezuela	2,168	1,677	2,137	2,375	2,371	2,450	2,588	2,750	3,053
Mexico	1,936	2,745	2,553	2,680	2,669	2,673	2,685	2,618	2,855
United Kingdom	1,622	2,530	1,820	1,797	1,825	1,915	2,375	2,489	2,568
United Arab Emirates	1,709	1,193	2,117	2,386	2,266	2,159	2,193	2,233	2,278
Nigeria	2,055	1,495	1,810	1,892	1,943	1,960	1,931	1,993	2,188
Kuwait	1,656	1,023	1,175	1,190	1,058	1,852	2,025	2,057	2,062
Canada	1,435	1,471	1,553	1,548	1,605	1,679	1,746	1,805	1,837
Indonesia	1,577	1,325	1,462	1,592	1,504	1,511	1,510	1,503	1,547
Libya	1,787	1,059	1,375	1,483	1,433	1,361	1,378	1,390	1,401
Algeria	1,106	1,037	1,175	1,230	1,214	1,162	1,180	1,202	1,242
Egypt	595	887	873	874	881	890	896	920	922
Oman	282	498	685	700	740	776	810	851	883
Brazil	182	564	631	630	626	643	671	695	795
Argentina	491	460	483	485	553	594	650	715	756
Angola	150	231	475	500	526	509	536	646	709
Malaysia	283	440	619	646	653	640	645	682	695
India	182	620	660	615	561	534	590	703	651
Colombia	126	176	440	419	433	456	450	585	623
Syria	164	178	388	492	481	554	560	575	604
Iraq	2,514	1,433	2,040	305	425	512	553	560	579
Australia	380	575	575	545	535	503	536	562	570
Qatar	472	301	406	395	423	413	415	442	510

X Not applicable. ¹ Includes countries not shown separately.Source: U. S. Energy Information Administration, *International Energy Annual*, 1996.

No. 1182. Liquefied Petroleum Gases—Summary: 1980 to 1996

[In millions of 42-gallon barrels. Includes ethane]

ITEM	1980	1985	1990	1991	1992	1993	1994	1995	1996
Production	561	622	638	683	720	850	734	760	789
At natural gas plants	441	479	456	488	500	634	511	521	547
At refineries	121	143	182	196	222	216	223	234	242
Imports	79	68	68	54	57	70	67	53	61
Refinery input	85	111	107	111	172	179	108	105	102
Exports	9	23	14	15	18	16	14	21	19
Stocks, Dec. 31	116	74	98	92	98	117	99	93	86

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

No. 1183. Natural Gas Plant Liquids—Production and Value: 1980 to 1996

[Barrels of 42 gallons]

ITEM	Unit	1980	1985	1990	1991	1992	1993	1994	1995	1996
Field production ¹	Mil. bbl . . .	576	587	566	606	621	634	630	643	670
Pentanes plus	Mil. bbl . . .	126	103	112	118	121	122	119	122	123
Liquefied petroleum gases	Mil. bbl . . .	441	479	454	488	500	512	511	521	547
Natural gas processed	Tril. cu. ft. . .	15	13	15	16	16	16	16	17	17

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 1997

ITEM	Unit	1980	1985	1990	1991	1992	1993	1994	1995	1996	1997, prel.
Producing wells (year-end)	1,000	182	243	269	276	276	282	292	299	302	(NA)
Production value at wells	Bil. dol	32.1	43.4	31.8	30.3	32.6	38.7	36.5	30.2	42.9	48.1
Avg. per 1,000 cu. ft.	Dollars	1.59	2.51	1.71	1.64	1.74	2.04	1.85	1.55	2.17	2.42
Proved reserves ¹	Tril. cu. ft	199	193	169	167	165	162	164	165	166	(NA)
Marketed production ²	Tril. cu. ft	20.2	17.3	18.6	18.5	18.7	19.0	19.7	19.5	19.8	19.9
Minus: Extraction losses ³	Tril. cu. ft	0.8	0.8	0.8	0.8	0.9	0.9	0.9	0.9	1.0	0.9
Equals: Dry production	Tril. cu. ft	19.4	16.5	17.8	17.7	17.8	18.1	18.8	18.6	18.8	19.0
Plus: Withdrawals from storage	Tril. cu. ft	2.0	2.4	2.0	2.8	2.8	2.8	2.6	3.0	2.9	2.8
Plus: Imports ⁴	Tril. cu. ft	1.0	0.9	1.5	1.8	2.1	2.4	2.6	2.8	2.9	3.0
Plus: Balancing item	Tril. cu. ft	-0.6	-0.4	-0.2	-0.5	-0.5	-0.1	-0.4	-0.2	0.3	(NA)
Equals: Total supply	Tril. cu. ft	21.9	19.5	21.3	21.8	22.8	23.6	24.2	24.8	25.6	(NA)
Minus: Exports	Tril. cu. ft	0.5	0.6	0.9	0.1	0.2	0.1	0.2	0.2	0.2	0.2
Minus: Additions to storage ⁵	Tril. cu. ft	1.9	2.2	2.5	2.7	2.6	2.8	2.9	2.6	3.0	(NA)
Equals: Consumption, total	Tril. cu. ft	19.9	17.3	18.7	19.0	19.5	20.3	20.7	21.6	22.0	22.0
Lease and plant fuel	Tril. cu. ft	1.0	1.0	1.2	1.1	1.2	1.2	1.1	1.2	1.3	1.3
Pipeline fuel	Tril. cu. ft	0.6	0.5	0.7	0.6	0.6	0.6	0.7	0.7	0.7	0.7
Residential	Tril. cu. ft	4.8	4.4	4.4	4.6	4.7	5.0	4.8	4.9	5.2	5.0
Commercial ⁶	Tril. cu. ft	2.6	2.4	2.6	2.7	2.8	2.9	2.9	3.0	3.2	3.2
Industrial	Tril. cu. ft	7.2	5.9	7.0	7.2	7.5	8.0	8.2	8.6	8.9	8.8
Vehicle fuel	Tril. cu. ft	(NA)	(NA)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(Z)	(NA)
Electric utilities	Tril. cu. ft	3.7	3.0	2.8	2.8	2.8	2.7	3.0	3.2	2.7	3.0
World production (dry)	Quad. Btu	53.1	62.0	73.6	74.8	74.9	76.3	76.8	77.9	82.0	(NA)
U.S. production (dry)	Quad. Btu	19.4	16.5	17.8	17.7	17.8	18.1	18.8	18.6	18.8	19.0
Percent U.S. of world	Percent	36.5	26.4	24.2	23.7	23.8	23.7	24.5	23.9	22.9	(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 includes 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*, Volume I and II and *Monthly Energy Review*.

No. 1185. World Natural Gas Production, by Major Producing Country: 1980 to 1996

[In quadrillion Btu's]

COUNTRY	1980	1985	1990	1991	1992	1993	1994	1995	1996
World, total ¹	53.45	62.32	73.61	74.81	74.87	76.30	76.80	77.92	81.96
Russia	(X)	(X)	(X)	(X)	22.62	21.81	21.45	21.01	21.23
United States	19.40	16.45	17.81	17.70	17.84	18.10	18.82	18.60	19.02
Canada	2.76	3.04	3.85	4.06	4.52	4.91	5.26	5.64	5.85
Netherlands	3.40	3.01	2.69	3.04	3.06	3.11	2.95	2.97	3.37
United Kingdom	1.32	1.52	1.75	2.01	1.93	2.31	2.47	2.67	3.17
Indonesia	0.63	1.23	1.53	1.72	1.79	1.97	2.21	2.24	2.38
Algeria	0.41	1.36	1.79	1.93	1.97	1.90	1.81	2.05	2.19
Uzbekistan	(X)	(X)	(X)	(X)	1.51	1.59	1.67	1.70	1.70
Saudi Arabia	0.33	0.72	1.08	1.13	1.20	1.27	1.33	1.34	1.46
Norway	0.92	0.94	0.98	0.97	1.04	0.97	1.04	1.08	1.45
Iran	0.25	0.60	0.84	0.92	0.88	0.96	1.12	1.25	1.38
Turkmenistan	0.00	0.00	0.00	0.00	2.02	2.29	1.26	1.14	1.31
Malaysia	0.06	0.44	0.65	0.75	0.80	0.88	0.92	1.02	1.30
United Arab Emirates	0.20	0.48	0.78	0.92	1.02	0.94	0.91	1.11	1.28
Australia	0.33	0.46	0.72	0.75	0.82	0.86	0.92	1.03	1.06
Argentina	0.28	0.50	0.63	0.70	0.71	0.76	0.79	0.88	1.02
Mexico	1.01	0.95	0.94	0.94	0.92	0.90	0.91	0.94	0.99
Venezuela	0.52	0.62	0.76	0.79	0.76	0.82	0.88	0.89	0.96
Germany	0.00	0.00	0.00	0.67	0.68	0.68	0.67	0.71	0.78
Italy	0.44	0.50	0.61	0.61	0.64	0.69	0.73	0.72	0.71
India	0.05	0.14	0.40	0.45	0.48	0.53	0.59	0.63	0.70
Pakistan	0.29	0.37	0.48	0.53	0.55	0.58	0.63	0.65	0.70
China	0.51	0.46	0.51	0.53	0.53	0.56	0.59	0.60	0.67
Ukraine	(X)	(X)	(X)	(X)	0.74	0.68	0.64	0.62	0.64
Romania	1.20	1.27	1.00	0.88	0.78	0.75	0.69	0.68	0.63
Qatar	0.18	0.19	0.28	0.33	0.40	0.48	0.48	0.48	0.48
Egypt	0.03	0.18	0.29	0.32	0.35	0.40	0.42	0.44	0.47
Thailand	0.00	0.13	0.21	0.24	0.25	0.31	0.34	0.37	0.43

X Not applicable. ¹ Includes countries not shown separately.

Source: U. S. Energy Information Administration, *International Energy Annual*, 1996.

No. 1186. Coal and Coke—Summary: 1980 to 1997

[Includes coal consumed at mines. Demonstrated coal reserve base for United States on Jan. 1, 1995, was an estimated 496 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	1985	1990	1993	1994	1995	1996	1997, prel.
COAL									
Coal production, total ¹	Mil. sh. tons	830	884	1,029	945	1,034	1,033	1,064	1,089
Value	Mil. dol.	20,453	22,277	22,404	18,624	20,076	19,460	19,480	(NA)
Anthracite production	Mil. sh. tons	6.1	4.7	3.5	4.3	4.6	4.7	4.8	4.9
Bituminous coal and lignite:									
Production	Mil. sh. tons	824	879	1,026	945	1,034	1,033	1,064	1,084
Underground	Mil. sh. tons	337	350	425	351	399	396	410	(NA)
Surface	Mil. sh. tons	487	529	605	594	634	637	654	(NA)
Exports	Mil. sh. tons	92	93	106	75	71	89	90	84
Imports	Mil. sh. tons	1.2	2.0	2.7	7.3	7.6	7.2	7.1	7.5
Consumption ²	Mil. sh. tons	703	818	896	926	930	941	983	1,008
Electric power utilities	Mil. sh. tons	569	694	774	814	817	829	875	902
Industrial	Mil. sh. tons	126	116	115	106	107	106	103	100
Number of mines	Number	5,598	4,547	3,243	2,475	2,354	2,104	1,903	(NA)
Daily employment	1,000	225	169	131	101	98	90	83	(NA)
Production, by state:									
Alabama	Mil. sh. tons	26	28	29	25	23	25	25	24
Illinois	Mil. sh. tons	63	59	60	41	53	48	47	42
Indiana	Mil. sh. tons	31	33	36	29	31	26	30	35
Kentucky	Mil. sh. tons	150	152	173	156	162	154	153	156
Montana	Mil. sh. tons	30	33	38	36	42	39	38	41
Ohio	Mil. sh. tons	39	36	35	29	30	26	29	31
Pennsylvania	Mil. sh. tons	93	71	71	60	62	62	68	73
Virginia	Mil. sh. tons	41	41	47	39	37	34	36	36
West Virginia	Mil. sh. tons	122	128	169	131	162	163	170	173
Wyoming	Mil. sh. tons	95	141	184	210	237	264	278	282
Other states	Mil. sh. tons	140	162	187	189	195	192	192	196
World production	Mil. sh. tons	4,103	4,779	5,356	4,930	5,033	5,144	5,185	(NA)
COKE									
Coke production ³	Mil. sh. tons	46.13	28.44	27.62	23.18	22.69	23.75	23.08	(NA)
Imports	Mil. sh. tons	0.66	0.58	0.77	1.53	1.61	1.82	1.11	(NA)
Exports	Mil. sh. tons	2.07	1.12	0.57	0.84	0.66	0.75	1.12	(NA)
Consumption	Mil. sh. tons	41.28	29.06	27.82	24.29	24.00	24.45	23.09	(NA)

³ Includes beehee coke. ¹ Includes bituminous coal, lignite, and anthracite. ² Includes some categories not shown separately.

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 1996

[In millions of short tons]

COUNTRY	1980	1985	1990	1991	1992	1993	1994	1995	1996
World	4,193	4,900	5,356	5,033	5,052	4,930	5,033	5,144	5,185
China	684	962	1,190	1,199	1,229	1,304	1,404	1,537	1,550
United States	830	884	1,029	996	998	945	1,034	1,033	1,064
India	126	191	233	253	270	281	291	301	311
Russia	(X)	(X)	(X)	(X)	406	364	320	310	302
Australia	116	172	226	236	249	248	248	267	274
Germany	532	578	514	388	346	315	292	274	264
South Africa	132	191	193	196	203	207	216	227	227
Poland	254	275	237	231	219	219	221	221	219
Kazakhstan	(X)	(X)	(X)	(X)	140	124	115	92	84
Canada	40	67	75	78	72	76	80	83	84
Korea, North	51	59	71	73	74	78	78	78	81
Ukraine	(X)	(X)	(X)	(X)	147	128	104	92	77
Czech Republic	(X)	(X)	(X)	(X)	(X)	77	82	79	77
Greece	26	40	57	58	61	60	63	64	66
Turkey	20	44	52	51	57	54	60	61	62
United Kingdom	144	104	106	107	95	76	54	52	56
Indonesia	1	2	12	15	25	32	33	45	53
Romania	39	51	42	36	42	43	45	44	45
Serbia and Montenegro	(X)	(X)	(X)	(X)	47	41	40	44	43
Colombia	5	10	23	26	26	24	25	29	33
Spain	41	53	40	37	37	35	33	31	33
Bulgaria	33	34	35	31	33	32	32	31	32
Thailand	2	6	14	16	17	17	19	20	21
Hungary	28	27	19	19	17	16	16	15	17
Estonia	(X)	(X)	(X)	(X)	21	16	16	15	12
Mexico	4	7	7	6	7	8	10	10	10
France	25	21	15	14	13	12	10	9	10
Mongolia	5	8	10	9	8	8	8	8	9

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: 1995

[In millions of short tons. 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]

AREA	Total reserves	TYPE OF COAL				METHOD OF MINING	
		Anthracite	Bituminous	Sub-bituminous	Lignite	Under ground	Surface
United States	495,666	7,483	257,780	185,950	44,453	328,552	167,113
Alabama	4,635	-	3,552	-	1,083	1,362	3,273
Alaska	6,130	-	698	5,418	14	5,423	707
Colorado	16,844	26	8,777	3,852	4,190	12,049	4,795
Illinois	89,956	-	89,956	-	-	73,781	16,175
Indiana	9,991	-	9,991	-	-	8,873	1,118
Iowa	2,190	-	2,190	-	-	1,733	457
Kentucky	32,565	-	32,565	-	-	18,885	13,680
Kentucky, Eastern	12,485	-	12,485	-	-	2,525	9,960
Kentucky, Western	20,080	-	20,080	-	-	16,360	3,720
Missouri	5,996	-	5,996	-	-	1,479	4,517
Montana	119,773	-	1,385	102,627	15,761	70,959	48,815
New Mexico	12,547	2	3,741	8,804	-	6,205	6,341
North Dakota	9,470	-	-	-	9,470	-	9,470
Ohio	23,754	-	23,754	-	-	17,847	5,907
Oklahoma	1,580	-	1,580	-	-	1,237	342
Pennsylvania	28,868	7,225	21,643	-	-	24,408	4,460
Anthracite	7,225	7,225	-	-	-	3,850	3,375
Bituminous	21,643	-	21,643	-	-	20,558	1,085
Texas	13,065	-	-	-	13,065	-	13,065
Utah	5,956	-	5,955	1	-	5,688	268
Virginia	2,327	126	2,202	-	-	1,630	697
Washington	1,401	-	304	1,089	8	1,332	69
West Virginia	35,983	-	35,983	-	-	31,420	4,564
Wyoming	68,496	-	4,354	64,141	-	42,525	25,971
East of the MS River	229,779	7,351	221,346	-	1,083	179,529	50,250
West of the MS River	265,886	132	36,434	185,950	43,370	149,023	116,863

- Represents or rounds to zero.

Source: U.S. Energy Information Administration, *U.S. Coal Reserves: A Review and Update*, August 1996.

No. 1189. Uranium Concentrate (U₃O₈) Industry—Summary: 1980 to 1996

[Middle demand case. See Table 978]

ITEM	Unit	1980	1985	1990	1991	1992	1993	1994	1995	1996
Production	1,000 sh. tons	21.9	5.7	4.4	4.0	2.8	1.5	1.7	3.0	3.2
Net imports (U ₃ O ₈)	1,000 sh. tons	-1.1	3.2	10.9	6.4	10.3	9.0	9.5	15.8	17.0
Utility and suppliers inventories (U ₃ O ₈ equivalent)	1,000 sh. tons	(NA)	¹ 88.5	¹ 64.6	¹ 59.4	¹ 58.7	¹ 52.9	¹ 43.4	¹ 36.2	¹ 40.0
Price (1992 dol./lb. U ₃ O ₈):										
Long-term contract price	Dollars	48.62	28.88	(NA)	(NA)	(NA)	(NA)	11.55	11.68	13.44
Spot market price	Dollars	52.63	19.90	10.43	8.94	7.95	9.73	² 8.87	² 10.65	² 14.20
Delivered price	Dollars	46.61	³ 40.09	16.77	14.04	13.45	12.81	9.81	10.46	12.87
Capital expenditures (1992 dollars)	Mil. dol.	1308	50	86	68	52	(NA)	(NA)	(NA)	(NA)
Employment	1,000 person years.	19.9	2.4	1.3	1.0	0.7	0.9	⁴ 1.0	⁴ 1.1	⁴ 1.1

NA Not available. ¹ Includes natural U₃O₈ (uranium oxide), natural UF₆ (uranium hexafluoride), natural UF₆ under usage agreement, UF₆ at enrichment suppliers, enriched UF₆ and fabricated fuel. ² Tradetech's restricted exchange value. ³ Average U.S. contract prices and market price settlements. ⁴ Includes reclamation activities (491 person years in 1993, 528 person years in 1994, 573 person years in 1995, and 429 person years in 1996).

Source: U.S. Department of Energy, *Domestic Uranium Mining and Milling Industry*, annual, and *Uranium Industry*, annual.