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## Section 24

# Natural Resources

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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 *Forest Resources of the United States, 1992*; *Timber Demand and Technology Assessment, 1996*; *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, see Table 1149) and the annual *Current Industrial Reports*, issued by the Census Bureau issued on the Internet, and in print in the annual *Manufacturing Profiles*. Additional information is published in the monthly *Survey of Current Business* of the Bureau of Economic Analysis; and the annual *Wood Pulp and Fiber Statistics* and *The Statistics of Paper, Paperboard, and Wood Pulp* of the American Forest and Paper Association, Washington, DC.

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

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

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

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

Mining comprises the extraction of minerals occurring naturally (coal, ores, crude petroleum, natural gas) and quarrying, well operation, milling, refining and processing, and other preparation customarily done at the mine or well site or as a part of extraction activity. (Mineral preparation plants are usually operated together with mines or quarries.) Exploration for minerals is included as is the development of mineral properties.

The principal governmental sources of these data are the *Minerals Yearbook* and *Mineral Commodity Summaries*, published by the U.S. Geological Survey, Department of the Interior, and various monthly and annual publications of the Energy Information Administration, Department of Energy. See text, Section 19, for a list of Department of Energy publications. In addition, the Census Bureau conducts a census of mineral industries every 5 years (for 1997 results, see Table 1162).

Nongovernment sources include the *Annual Statistical Report* of the American Iron and Steel Institute, Washington, DC; *Metals Week* and the monthly *Engineering and Mining Journal*, issued by the McGraw-Hill Publishing Co., New York, NY; *The Iron Age*, issued weekly by the Chilton Co., Philadelphia, PA; and the *Joint Association Survey of the U.S. Oil and Gas Industry*, conducted jointly by the American Petroleum Institute, Independent Petroleum Association of America, and Mid-Continent Oil and Gas Association.

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

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

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

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

## No. 1145. Gross Domestic Product of Agriculture, Forestry, Fishing, Mining, and Timber-Related Industries in Current and Real (1996) Dollars by Industry: 1990 to 1998

[In billions of dollars (5,803.3 represents \$5,803,200,000,000), except as indicated. Industry classifications based on the 1987 Standard Industrial Classification (SIC). Data include nonfactor charges (capital consumption allowances, indirect business taxes, etc.) as well as factor charges against gross product; corporate profits and capital consumption allowances have been shifted from a company to an establishment basis]

Industry	Current dollars				Chained (1996) dollars			
	1990	1995	1997	1998	1990	1995	1997	1998
All industries, total <sup>1</sup> . . . . .	5,803.2	7,400.5	8,300.8	8,759.9	6,707.9	7,543.8	8,144.8	8,495.7
Industries covered . . . . .	297.3	306.7	346.2	330.0	321.9	329.9	361.1	366.9
Percent of all industries . . . . .	5.12	4.14	4.17	3.77	4.80	4.37	4.43	4.32
Agriculture, forestry, and fishing . . . . .	108.3	109.8	129.7	125.2	118.5	123.1	143.1	142.9
Farms . . . . .	79.6	73.2	88.0	80.2	84.2	85.5	103.3	100.7
Agricultural services . . . . .	28.7	36.7	41.6	45.0	34.6	37.6	40.0	41.9
Mining <sup>1</sup> . . . . .	111.9	95.7	121.0	105.9	105.8	113.0	119.4	126.4
Metal mining . . . . .	5.2	6.5	5.8	5.0	4.4	5.5	6.4	7.2
Coal mining . . . . .	11.8	10.7	11.1	11.6	7.5	10.1	11.6	12.7
Oil and gas extraction . . . . .	87.1	69.3	92.8	77.0	87.5	88.6	90.4	94.5
Nonmetallic minerals, except fuels . . . . .	7.8	9.1	11.4	12.3	8.1	9.1	10.9	12.0
Timber-related manufacturing . . . . .	77	101	95	99	98	94	99	98
Lumber and wood products . . . . .	32.2	42.3	41.9	43.9	45.1	41.6	40.3	42.2
Paper and allied products . . . . .	45.0	58.9	53.6	54.9	52.5	52.2	58.3	55.4

<sup>1</sup> For additional industries, see Table 716.

Source: U.S. Bureau of Economic Analysis, *Survey of Current Business*, June 2000.

## No. 1146. National Forest System—Summary: 1980 to 1998

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

Item	Unit	1980	1990	1992	1993	1994	1995	1996	1997	1998
Timber cut, total value . . . . .	Mil. dol . . .	737	1,192	939	919	787	620	548	502	450
Commercial and cost sales: <sup>1</sup>										
Volume . . . . .	Mil. bd. ft. . .	9,178	10,500	7,290	5,917	4,815	3,866	3,725	3,285	3,298
Value . . . . .	Mil. dol . . .	730	1,188	935	915	783	616	544	498	446
Free use:										
Volume . . . . .	Mil. bd. ft. . .	2,070	151	80	80	80	80	80	80	80
Value <sup>2</sup> . . . . .	Mil. dol . . .	5.7	1.0	0.8	0.8	0.8	0.8	0.8	1.0	1.0
Misc. forest products:										
Value . . . . .	Mil. dol . . .	1.1	2.6	2.7	2.8	3.1	2.9	3.2	3.0	3.0
Livestock grazing: <sup>3</sup>										
Cattle and horses <sup>4</sup> . . . . .	1,000 . . . .	1,521	1,236	1,408	1,318	1,224	1,311	1,167	1,225	1,208
Sheep and goats . . . . .	1,000 . . . .	1,328	958	1,183	1,111	925	1,068	859	932	909
Roads and trails:										
Road construction <sup>5</sup> . . . . .	Miles. . . . .	925	857	853	816	487	424	418	359	200
Trail construction <sup>5 6</sup> . . . . .	Miles. . . . .	2,419	1,635	1,976	1,976	2,113	2,139	1,696	(NA)	(NA)
Receipts, total. . . . .	Mil. dol . . .	703	971	614	504	515	387	273	285	294
Timber use . . . . .	Mil. dol . . .	625	849	520	425	432	303	195	197	208
Grazing use . . . . .	Mil. dol . . .	16	10	11	11	11	9	7	7	7
Special land use, etc . . . . .	Mil. dol . . .	62	112	84	68	72	75	71	81	79
Payments to local govt. <sup>7</sup> . . . . .	Mil. dol . . .	240	368	322	323	309	273	256	234	229

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

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

## No. 1147. National Forest System Land—State and Other Area: 1998

[In thousands of acres (231,860 represents 231,860,000). As of Sept. 30]

State and other area	Gross area within unit boundaries <sup>1</sup>	National Forest System Land <sup>2</sup>	Other lands within unit boundaries	State and other area	Gross area within unit boundaries <sup>1</sup>	National Forest System Land <sup>2</sup>	Other lands within unit boundaries
<b>Total . . . . .</b>	<b>231,680</b>	<b>191,938</b>	<b>40,848</b>	Montana . . . . .	19,104	16,886	2,218
<b>United States . . . . .</b>	<b>231,624</b>	<b>191,910</b>	<b>40,820</b>	Nebraska . . . . .	442	352	90
Alabama . . . . .	1,288	665	623	Nevada . . . . .	6,275	5,826	449
Alaska . . . . .	24,355	21,974	2,381	New Hampshire . . . . .	1,554	827	727
Arizona . . . . .	11,891	11,255	636	New Jersey . . . . .	-	-	-
Arkansas . . . . .	3,539	2,579	960	New Mexico . . . . .	10,367	9,327	1,040
California . . . . .	24,403	20,653	3,750	New York . . . . .	-	-	-
Colorado . . . . .	16,052	14,509	1,543	North Carolina . . . . .	3,166	1,244	1,922
Connecticut . . . . .	-	-	-	North Dakota . . . . .	-	1,106	-
Delaware . . . . .	-	-	-	Ohio . . . . .	835	229	606
Florida . . . . .	1,379	1,147	232	Oklahoma . . . . .	772	397	375
Georgia . . . . .	1,856	865	991	Oregon . . . . .	17,496	15,656	1,840
Hawaii . . . . .	-	-	-	Pennsylvania . . . . .	743	513	230
Idaho . . . . .	21,655	20,459	1,196	Rhode Island . . . . .	-	-	-
Illinois . . . . .	856	292	564	South Carolina . . . . .	1,375	613	762
Indiana . . . . .	644	196	448	South Dakota . . . . .	2,367	2,012	355
Iowa . . . . .	-	-	-	Tennessee . . . . .	1,212	634	578
Kansas . . . . .	116	108	8	Texas . . . . .	1,994	755	1,239
Kentucky . . . . .	2,102	693	1,409	Utah . . . . .	9,211	8,111	1,100
Louisiana . . . . .	1,024	604	420	Vermont . . . . .	817	368	449
Maine . . . . .	93	53	40	Virginia . . . . .	3,224	1,659	1,565
Maryland . . . . .	-	-	-	Washington . . . . .	10,088	9,202	886
Massachusetts . . . . .	-	-	-	West Virginia . . . . .	1,870	1,033	837
Michigan . . . . .	4,895	2,857	2,038	Wisconsin . . . . .	2,023	1,521	502
Minnesota . . . . .	5,467	2,838	2,629	Wyoming . . . . .	9,704	9,238	466
Mississippi . . . . .	2,310	1,159	1,151	Puerto Rico . . . . .	56	28	28
Missouri . . . . .	3,060	1,495	1,565	Virgin Islands . . . . .	-	-	-

- Represents zero or rounds to zero. <sup>1</sup> 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. <sup>2</sup> Federally owned land within the "gross area within unit boundaries."

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

## No. 1148. Forest and Timberland Area, Sawtimber, and Stock: 1970 to 1996

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

Year and region	Timberland, ownership <sup>1</sup>					Sawtimber, <sup>3</sup> net volume		Growing stock, <sup>4</sup> net volume	
	Total forest land (mil. acres)	All owner-ships (mil. acres)	Federally owned or managed (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.)
<b>United States, 1970 . . . . .</b>	<b>754</b>	<b>504</b>	<b>116</b>	<b>29</b>	<b>360</b>	<b>2,587</b>	<b>2,035</b>	<b>694</b>	<b>458</b>
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
<b>United States, 1987 . . . . .</b>	<b>731</b>	<b>485</b>	<b>97</b>	<b>34</b>	<b>354</b>	<b>2,853</b>	<b>2,040</b>	<b>766</b>	<b>453</b>
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	397	108	100
Pacific Coast . . . . .	220	72	31	8	32	1,202	1,132	223	199
<b>United States, 1992 . . . . .</b>	<b>737</b>	<b>490</b>	<b>97</b>	<b>35</b>	<b>358</b>	<b>2,992</b>	<b>2,047</b>	<b>786</b>	<b>450</b>
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
<b>United States, 1996 . . . . .</b>	<b>746</b>	<b>518</b>	<b>124</b>	<b>35</b>	<b>357</b>	<b>3,227</b>	<b>2,231</b>	<b>860</b>	<b>503</b>
North . . . . .	170	180	32	21	127	574	146	213	49
South . . . . .	214	201	16	5	180	858	393	256	105
Rocky Mountains . . . . .	143	68	44	2	21	482	457	141	126
Pacific Coast . . . . .	219	69	32	7	29	1,313	1,235	250	223

NA Not available. <sup>1</sup> 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. <sup>2</sup> Includes Indian lands. <sup>3</sup> 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. <sup>4</sup> 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*; and *Timber Demand and Technology Assessment, 1996*, RWU-4851.

## No. 1149. Timber-Based Industries—Summary of Manufactures: 1992 and 1997

Selected industries	1987 SIC code	Establishments		Paid employees		Annual payroll (mil. dol.)		Value of shipments (mil. dol.)	
		1992	1997	1992	1997	1992	1997	1992	1997
<b>Lumber and wood products . . . . .</b>	<b>24</b>	<b>35,807</b>	<b>36,735</b>	<b>655,799</b>	<b>757,267</b>	<b>13,882</b>	<b>18,669</b>	<b>81,565</b>	<b>111,931</b>
Logging . . . . .	241	13,063	13,533	83,202	83,212	1,689	2,014	13,592	13,626
Sawmills & planing mills . . . . .	242	6,845	6,270	168,448	178,575	3,585	4,478	23,294	32,750
Sawmills & planing mills, general	2421	5,815	5,176	137,620	143,292	3,040	3,742	21,061	29,414
Hardwood dimension & flooring mills . . . . .	2426	833	992	28,919	33,940	510	708	2,085	3,207
Millwork, plywood, & structural members . . . . .	243	8,947	9,373	224,061	260,726	5,004	6,599	24,744	33,201
Millwork . . . . .	2431	3,176	2,745	85,804	92,259	1,967	2,345	9,649	12,013
Wood kitchen cabinets . . . . .	2434	4,355	5,096	63,159	79,579	1,315	1,867	4,968	7,483
Hardwood veneer & plywood . . . . .	2435	316	332	19,918	22,151	392	526	2,238	2,856
Softwood veneer & plywood . . . . .	2436	897	155	30,877	28,843	815	913	5,350	5,763
Structural wood members, n.e.c. . . . .	2439	897	1,045	24,303	37,894	516	949	2,539	5,085
Wood containers . . . . .	244	2,466	2,922	40,084	49,580	645	937	2,942	4,332
Nailed wood boxes & shooks . . . . .	2441	308	318	5,850	4,885	101	109	439	406
Wood pallets & skids . . . . .	2448	1,929	2,347	28,705	38,994	451	718	2,147	3,449
Wood buildings & mobile homes . . . . .	245	950	1,028	55,997	91,234	1,234	2,363	6,645	13,179
Miscellaneous wood products . . . . .	249	3,536	3,609	84,007	93,940	1,725	2,278	10,348	14,842
Wood preserving . . . . .	2491	488	451	10,783	11,668	232	298	2,701	4,462
Reconstituted wood products . . . . .	2493	288	316	22,847	25,269	616	798	3,986	5,274
Wood products, n.e.c. . . . .	2499	2,760	2,842	50,377	57,003	878	1,182	3,660	5,107
<b>Paper and allied products . . . . .</b>	<b>26</b>	<b>6,416</b>	<b>6,496</b>	<b>626,348</b>	<b>(1)</b>	<b>20,492</b>	<b>(D)</b>	<b>133,201</b>	<b>(D)</b>
Pulp mills . . . . .	261	45	39	15,893	10,247	689	524	5,466	4,073
Paper mills . . . . .	262	280	256	130,556	107,552	5,421	5,380	32,786	35,514
Paperboard mills . . . . .	263	204	217	51,529	54,643	2,136	2,685	16,140	19,829
Paperboard containers & boxes . . . . .	265	2,787	2,842	199,403	208,071	5,722	6,952	32,655	40,085
Corrugated & solid fiber boxes . . . . .	2653	1,651	1,732	112,262	124,537	3,276	4,244	19,834	25,532
Folding paperboard boxes . . . . .	2657	590	588	52,594	50,921	1,591	1,766	7,929	9,003
Miscellaneous converted paper products . . . . .	267	3,100	3,142	228,967	(1)	6,523	(D)	46,154	(D)
Sanitary paper products . . . . .	2676	150	160	40,601	(2)	1,454	(D)	15,647	(D)

D Data withheld to avoid disclosing data of individual companies. <sup>1</sup> 100,000 or more employees. <sup>2</sup> 25,000 to 49,999 employees.

Source: U.S. Census Bureau, 1997 Economic Census, Core Business Statistics Series, Series EC97X-CS2, June 2000.

## No. 1150. Timber Products—Production, Foreign Trade, and Consumption by Type of Product: 1980 to 1997

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

Item	Unit	1980	1990	1991	1992	1993	1994	1995	1996	1997
<b>Industrial roundwood:</b>										
Domestic production . . . . .	Mil. cu. ft. . . . .	12,123	14,674	14,051	14,455	14,184	14,515	14,501	14,664	14,610
Imports . . . . .	Mil. cu. ft. . . . .	2,570	3,121	2,841	3,122	3,516	3,701	3,988	4,045	4,154
Exports . . . . .	Mil. cu. ft. . . . .	1,857	2,207	2,287	2,226	2,044	2,042	2,214	2,182	2,314
Consumption . . . . .	Mil. cu. ft. . . . .	12,836	15,587	14,605	15,351	15,656	16,174	16,275	16,527	17,201
<b>Lumber:</b>										
Domestic production . . . . .	Mil. cu. ft. . . . .	5,305	7,404	6,858	7,058	6,870	7,082	6,826	7,072	7,120
Imports . . . . .	Mil. cu. ft. . . . .	1,545	1,893	1,698	1,947	2,227	2,384	2,515	2,615	2,620
Exports . . . . .	Mil. cu. ft. . . . .	395	573	604	548	519	501	481	471	602
Consumption . . . . .	Mil. cu. ft. . . . .	6,455	8,725	7,953	8,457	8,577	8,965	8,861	9,215	9,139
<b>Plywood and veneer:</b>										
Domestic production . . . . .	Mil. cu. ft. . . . .	1,175	1,422	1,271	1,299	1,300	1,327	1,314	1,297	1,211
Imports . . . . .	Mil. cu. ft. . . . .	120	97	83	100	100	94	107	97	114
Exports . . . . .	Mil. cu. ft. . . . .	45	109	95	106	100	86	89	87	103
Consumption . . . . .	Mil. cu. ft. . . . .	1,250	1,410	1,259	1,293	1,300	1,334	1,333	1,307	1,222
<b>Pulp products:</b>										
Domestic production . . . . .	Mil. cu. ft. . . . .	4,390	5,285	5,370	5,488	5,393	5,531	5,847	5,795	5,794
Imports . . . . .	Mil. cu. ft. . . . .	880	1,083	1,017	1,036	1,128	1,181	1,304	1,262	1,352
Exports . . . . .	Mil. cu. ft. . . . .	579	673	773	823	753	795	943	925	858
Consumption . . . . .	Mil. cu. ft. . . . .	4,691	5,696	5,614	5,702	5,768	5,917	6,208	6,132	6,288
<b>Logs:</b>										
Imports . . . . .	Mil. cu. ft. . . . .	25	4	2	7	15	18	13	18	20
<b>Pulpwood chips, exports:</b>										
Imports . . . . .	Mil. cu. ft. . . . .	278	178	214	225	211	230	250	278	422
<b>Fuelwood consumption:</b>										
Imports . . . . .	Mil. cu. ft. . . . .	3,105	3,177	3,187	3,202	3,244	3,297	3,360	3,420	2,542

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

## No. 1151. Selected Timber Products—Imports and Exports: 1980 to 1998

Product	Unit	1980	1990	1992	1993	1994	1995	1996	1997	1998
<b>IMPORTS <sup>1</sup></b>										
Lumber, total <sup>2</sup>	Mil. bd. ft.	9,866	13,063	13,426	15,368	16,534	17,524	18,363	18,237	19,012
From Canada	Percent	97.5	91.2	98.4	98.0	97.4	97.0	97.1	96.2	95.9
Logs, total	Mil. bd. ft. <sup>3</sup>	128	23	43	94	110	80	115	128	185
From Canada	Percent	95.2	83.5	93.8	95.1	77.0	70.0	82.3	82.9	90.9
Paper and board <sup>4</sup>	1,000 tons	8,013	12,195	11,730	12,990	13,651	14,292	13,023	14,525	14,538
Woodpulp	1,000 tons	4,051	4,893	5,029	5,413	5,650	5,969	5,692	6,398	5,984
Plywood	Mil. sq. ft. <sup>5</sup>	1,235	1,687	1,776	1,786	1,693	1,951	1,780	2,111	2,429
<b>EXPORTS</b>										
Lumber, total <sup>2</sup>	Mil. bd. ft.	2,507	4,614	3,513	3,280	3,115	2,958	2,898	2,933	2,189
To: Canada	Percent	25.2	14.3	16.3	17.3	19.6	22.0	22.9	24.3	26.3
Japan	Percent	25.9	27.5	31.7	36.0	33.9	33.1	33.2	27.2	16.2
Europe	Percent	23.7	14.9	20.9	16.7	17.5	17.4	16.7	20.2	25.6
Logs, total	Mil. bd. ft. <sup>3</sup>	3,261	4,213	3,279	2,876	2,684	2,820	2,636	2,398	1,978
To: Canada	Percent	9.7	9.4	12.7	13.6	16.2	25.4	19.7	29.6	39.4
Japan	Percent	78.0	62.3	62.3	65.4	67.9	61.3	68.6	56.2	50.8
China: Mainland	Percent	2.7	8.6	7.2	4.6	2.8	0.7	0.6	0.8	0.9
Paper and board <sup>4</sup>	1,000 tons	4,241	5,163	7,021	6,835	7,536	7,621	9,118	10,368	9,103
Woodpulp	1,000 tons	3,806	5,905	7,222	6,499	6,728	8,261	7,170	6,990	6,025
Plywood	Mil. sq. ft. <sup>5</sup>	413	1,766	1,760	1,677	1,455	1,517	1,499	1,802	970

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

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

## No. 1152. Lumber Consumption by Species Group and End Use: 1994 to 1998

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

Item	1994	1995	1996	1997	1998	End-use	1994	1995	1996	1997	1998
<b>Total</b>	<b>59.8</b>	<b>59.3</b>	<b>62.2</b>	<b>63.0</b>	<b>65.1</b>	New housing	16.1	15.9	19.0	(NA)	(NA)
Per capita	229	225	234	235	241	Residential upkeep and improvements	12.3	12.4	17.7	(NA)	(NA)
Species group:						New nonresidential construction <sup>1</sup>	5.7	5.8	4.6	(NA)	(NA)
Softwoods	48.2	47.6	50.2	50.9	52.1	Manufacturing	5.5	5.5	7.6	(NA)	(NA)
Hardwoods	11.6	11.7	12.0	12.1	13.0	Shipping	8.5	8.5	6.3	(NA)	(NA)
						Other <sup>2</sup>	8.9	8.8	6.8	(NA)	(NA)

NA Not available. <sup>1</sup> In addition to new construction, includes railroad ties laid as replacements in existing track and lumber used by railroads for railcar repair. <sup>2</sup> 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. 1153. Selected Timber Products—Producer Price Indexes: 1990 to 1999

[1982=100]

Product	1990	1992	1993	1994	1995	1996	1997	1998	1999
Lumber and wood products	129.7	146.6	174.0	180.0	178.1	176.1	183.8	179.1	183.6
Lumber	124.6	144.7	183.4	188.4	173.4	179.8	194.5	179.5	188.2
Softwood lumber	123.8	148.6	193.0	198.1	178.5	189.5	206.5	182.7	196.0
Hardwood lumber	131.0	140.7	163.3	168.3	167.0	163.9	174.1	178.7	177.3
Millwork	130.4	143.3	156.6	162.4	163.8	166.6	170.9	171.1	174.7
General millwork	132.0	146.3	158.5	163.6	165.4	167.9	171.1	172.4	175.6
Prefabricated structural members	122.3	132.7	159.7	169.3	163.5	167.5	177.8	170.1	178.1
Plywood	114.2	133.3	152.8	158.6	165.3	156.4	159.3	157.3	176.4
Softwood plywood	119.6	147.2	169.7	176.8	188.1	173.7	175.5	174.9	207.0
Hardwood plywood and related products	102.7	106.9	115.4	122.3	122.2	124.9	127.1	126.9	128.6
Other wood products	114.7	124.5	135.3	137.7	143.7	127.5	128.4	135.2	131.1
Boxes	119.1	127.5	138.2	141.3	145.0	147.1	149.2	150.7	152.3
Pulp, paper, and allied products	141.2	145.2	147.3	152.5	172.2	168.7	167.9	171.7	174.1
Pulp, paper, and prod. ex bldg paper	132.9	129.2	127.6	133.1	163.4	149.7	144.7	147.0	147.9
Woodpulp	151.3	118.9	104.2	115.9	183.2	133.1	128.6	122.6	119.7
Wastepaper	138.9	117.5	117.4	209.5	371.1	141.6	163.3	145.4	183.6
Paper	128.8	123.2	123.8	126.0	159.0	149.4	143.9	145.4	141.8
Writing and printing papers	129.1	120.2	120.5	121.7	158.4	144.6	140.0	139.9	137.8
Newsprint	119.6	109.8	112.1	116.7	161.8	159.3	133.9	143.4	(NA)
Paperboard	135.7	134.3	130.0	140.5	183.1	155.1	144.4	151.6	153.2
Converted paper & paperboard products	135.2	134.8	133.7	136.7	157.0	153.4	148.4	152.2	153.5
Office supplies and accessories	121.4	116.4	115.3	116.9	134.9	132.9	131.0	131.2	129.5
Building paper & building board mill products	112.2	119.6	132.7	144.1	144.9	137.2	129.6	132.9	141.6

NA Not available.

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

## No. 1154. Selected Species—Stumpage Prices In Current and Constant (1992) Dollars: 1990 to 1998

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

Species	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>CURRENT DOLLARS</b>									
Softwoods:									
Douglas fir <sup>1</sup>	432	466	477	318	652	454	436	331	254
Southern pine <sup>2</sup>	155	127	198	217	266	248	241	307	288
Sugar pine <sup>3</sup>	667	285	492	598	625	397	318	234	200
Ponderosa pine <sup>3,4</sup>	206	218	292	535	291	150	274	270	205
Western hemlock <sup>5</sup>	213	203	165	364	335	297	248	211	161
Hardwoods:									
All eastern hardwoods <sup>6</sup>	52	146	167	264	352	309	259	287	241
Oak, white, red, and black <sup>6</sup>	66	188	211	195	317	297	237	265	270
Maple, sugar <sup>7</sup>	70	135	145	220	313	286	238	357	395
<b>CONSTANT (1992) DOLLARS<sup>8</sup></b>									
Softwoods:									
Douglas fir <sup>1</sup>	564	470	477	313	635	426	400	305	230
Southern pine <sup>2</sup>	202	128	198	214	259	233	221	282	261
Sugar pine <sup>3</sup>	871	287	492	589	609	373	292	215	181
Ponderosa pine <sup>3,4</sup>	269	220	292	527	283	141	251	248	186
Western hemlock <sup>5</sup>	278	205	165	359	326	279	227	194	146
Hardwoods:									
All eastern hardwoods <sup>6</sup>	147	161	167	260	343	295	287	264	219
Oak, white, red, and black <sup>6</sup>	190	165	211	192	309	279	243	243	245
Maple, sugar <sup>7</sup>	136	121	145	216	305	268	196	328	358

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

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

## No. 1155. Paper and Paperboard—Production and New Supply: 1980 to 1999

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

Item	1980	1990	1993	1994	1995	1996	1997	1998	1999, prel.
<b>Production, total</b>	<b>63,600</b>	<b>80,445</b>	<b>86,693</b>	<b>90,897</b>	<b>91,325</b>	<b>92,199</b>	<b>96,846</b>	<b>96,343</b>	<b>96,902</b>
Paper, total	30,116	39,361	41,745	43,356	42,868	42,481	44,697	44,777	46,012
Paperboard, total	30,926	39,318	43,113	45,724	46,640	47,901	50,332	49,749	50,890
Unbleached kraft	15,295	20,357	21,447	22,469	22,697	22,178	23,222	23,199	22,958
Semichemical	4,724	5,640	5,672	5,943	5,662	5,619	6,047	5,894	5,954
Bleached kraft	3,836	4,399	4,583	5,029	5,304	5,236	5,548	5,487	5,712
Recycled	7,071	8,921	11,410	12,283	12,977	14,868	15,514	15,170	16,266
Wet machine board E	138	96	95	96	96	96	96	96	(NA)
Building paper E	1,369	723	797	787	787	787	787	787	(NA)
Insulating board E	1,051	946	943	934	934	934	934	934	(NA)
<b>New supply, all grades, excluding products</b>	<b>67,783</b>	<b>87,683</b>	<b>93,146</b>	<b>97,448</b>	<b>98,164</b>	<b>95,896</b>	<b>101,201</b>	<b>102,869</b>	<b>(NA)</b>
Paper, total	37,126	49,485	51,246	53,077	52,769	50,687	54,149	55,068	(NA)
Newsprint	11,377	13,412	12,750	12,889	12,762	11,768	12,612	12,721	(NA)
Printing/writing papers	16,124	25,456	27,846	29,444	29,550	28,300	30,751	31,384	(NA)
Packaging and ind. conv. papers	5,243	4,718	4,628	4,640	4,241	4,325	4,265	4,285	(NA)
Tissue	4,382	5,899	6,022	6,105	6,215	6,294	6,521	6,680	(NA)
Paperboard, total	27,689	36,301	39,950	42,435	43,448	43,214	45,061	45,597	(NA)
Construction and other	2,968	1,897	1,949	1,935	1,947	1,994	1,991	2,203	(NA)

NA Not available.

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

## No. 1156. Fishery Products—Domestic Catch, Imports, and Disposition: 1980 to 1998

[Live weight, in millions of pounds (11,357 represents 11,357,000,000). For data on commercial catch for selected countries, see Table 1381, Section 30, Comparative International Statistics]

Item	1980	1990	1992	1993	1994	1995	1996	1997	1998
<b>Total</b> . . . . .	<b>11,357</b>	<b>16,349</b>	<b>16,106</b>	<b>20,334</b>	<b>19,309</b>	<b>16,484</b>	<b>16,474</b>	<b>17,131</b>	<b>16,897</b>
For human food . . . . .	8,006	12,662	13,242	13,821	13,714	13,584	13,625	13,739	14,175
For industrial use . . . . .	3,351	3,687	2,864	6,513	5,595	2,900	2,848	3,392	2,722
<b>Domestic catch</b> . . . . .	<b>6,482</b>	<b>9,404</b>	<b>9,637</b>	<b>10,467</b>	<b>10,461</b>	<b>9,788</b>	<b>9,565</b>	<b>9,845</b>	<b>9,194</b>
For human food . . . . .	3,654	7,041	7,618	8,214	7,936	7,667	7,476	7,248	7,174
For industrial use . . . . .	2,828	2,363	2,019	2,253	2,525	2,121	2,090	2,597	2,020
<b>Imports</b> <sup>1</sup> . . . . .	<b>4,875</b>	<b>6,945</b>	<b>6,469</b>	<b>9,867</b>	<b>8,848</b>	<b>6,696</b>	<b>6,909</b>	<b>7,286</b>	<b>7,703</b>
For human food . . . . .	4,352	5,621	5,624	5,607	5,778	5,917	6,150	6,491	7,001
For industrial use <sup>2</sup> . . . . .	523	1,324	845	4,260	3,070	779	759	795	702
<b>Disposition of domestic catch</b> . . . . .	<b>6,482</b>	<b>9,404</b>	<b>9,637</b>	<b>10,467</b>	<b>10,461</b>	<b>9,788</b>	<b>9,565</b>	<b>9,846</b>	<b>9,194</b>
Fresh and frozen . . . . .	2,621	6,501	7,288	7,744	7,475	7,099	7,054	6,877	6,870
Canned . . . . .	1,161	751	543	649	622	769	678	648	516
Cured . . . . .	96	126	100	115	95	90	93	108	129
Reduced to meal, oil, etc. . . . .	2,604	2,026	1,696	1,959	2,269	1,830	1,740	2,213	1,679

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

## No. 1157. Fisheries—Quantity and Value of Domestic Catch: 1980 to 1998

Year	Quantity (mil. lb. <sup>1</sup> )				Average price per lb. (cents)	Year	Quantity (mil. lb. <sup>1</sup> )				Average price per lb. (cents)
	Total	For human food	For industrial products <sup>2</sup>	Value (mil. dol.)			Total	For human food	For industrial products <sup>2</sup>	Value (mil. dol.)	
1980 . . . . .	6,482	3,654	2,828	2,237	34.5	1990 . . . . .	9,404	7,041	2,363	3,522	37.5
1981 . . . . .	5,977	3,547	2,430	2,388	40.0	1991 . . . . .	9,484	7,031	2,453	3,308	34.9
1982 . . . . .	6,367	3,285	3,082	2,390	37.5	1992 . . . . .	9,637	7,618	2,019	3,678	38.2
1983 . . . . .	6,439	3,238	3,201	2,355	36.6	1993 . . . . .	10,467	8,214	2,253	3,471	33.2
1984 . . . . .	6,438	3,320	3,118	2,350	36.5	1994 . . . . .	10,461	7,936	2,525	3,807	36.8
1985 . . . . .	6,258	3,294	2,964	2,326	37.2	1995 . . . . .	9,788	7,667	2,121	3,770	38.5
1986 . . . . .	6,031	3,393	2,638	2,763	45.8	1996 . . . . .	9,565	7,474	2,091	3,487	36.5
1987 . . . . .	6,896	3,946	2,950	3,115	45.2	1997 . . . . .	9,842	7,244	2,598	3,448	35.0
1988 . . . . .	7,192	4,588	2,604	3,520	48.9	1998 . . . . .	9,194	7,173	2,021	3,128	34.0
1989 . . . . .	8,463	6,204	2,259	3,238	38.3						

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

## No. 1158. Domestic Fish and Shellfish Catch and Value by Species: 1990 to 1998

Species	Quantity (1,000 lb.)				Value (\$1,000)			
	1990	1995	1997	1998	1990	1995	1997	1998
<b>Total</b> . . . . .	<b>9,403,571</b>	<b>9,787,554</b>	<b>9,843,247</b>	<b>9,193,970</b>	<b>3,521,995</b>	<b>3,735,615</b>	<b>3,447,603</b>	<b>3,128,469</b>
<b>Fish, total</b> <sup>1</sup> . . . . .	<b>8,091,068</b>	<b>8,520,086</b>	<b>8,397,286</b>	<b>7,888,020</b>	<b>1,900,097</b>	<b>1,915,642</b>	<b>1,722,145</b>	<b>1,446,942</b>
<b>Cod:</b>								
Atlantic . . . . .	95,881	29,631	28,619	24,514	61,329	28,184	24,464	25,474
Pacific . . . . .	526,396	591,399	661,314	142,429	91,384	109,680	142,429	87,717
Flounder . . . . .	254,519	423,443	566,353	391,178	112,921	150,239	130,769	96,804
Halibut . . . . .	70,454	44,796	69,864	73,260	96,700	66,781	117,362	103,974
Menhaden . . . . .	1,962,160	1,846,959	2,027,802	1,705,677	93,896	99,131	112,050	103,836
Pollock, Alaska . . . . .	3,108,031	2,852,618	2,512,455	2,716,458	268,344	259,614	242,589	190,152
Sablefish . . . . .	89,802	65,904	52,925	43,500	58,865	123,694	108,776	91,823
Salmon . . . . .	733,146	1,020,765	567,658	644,434	612,367	486,107	270,770	257,456
Tuna . . . . .	62,393	63,864	82,855	84,999	105,040	102,638	109,794	94,462
<b>Shellfish, total</b> <sup>1</sup> . . . . .	<b>1,312,503</b>	<b>1,267,468</b>	<b>1,445,961</b>	<b>1,305,950</b>	<b>1,621,898</b>	<b>1,819,973</b>	<b>1,725,458</b>	<b>1,681,527</b>
Clams . . . . .	139,198	134,224	114,184	107,959	130,194	140,414	129,686	135,237
Crabs . . . . .	499,414	363,639	429,963	552,716	483,837	511,987	429,547	473,378
LOBSTERS: American . . . . .	61,017	66,406	83,921	79,642	154,677	214,838	267,216	253,636
Oysters . . . . .	29,193	40,380	37,115	33,538	93,718	101,574	92,243	88,627
<b>Scallops:</b>								
Calico . . . . .	(NA)	957	1,613	(NA)	(NA)	1,219	3,601	(NA)
Sea . . . . .	39,917	18,316	13,789	13,061	153,696	92,826	90,291	79,606
Shrimp . . . . .	346,494	306,869	290,255	277,757	491,433	570,034	544,056	515,616

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

Source of Tables 1156-1158: U.S. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, *Fisheries of the United States*, annual.



## No. 1159. U.S. Private Aquaculture—Trout and Catfish Production and Value: 1990 to 1999

[67.8 represents 67,800,000. 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	1993	1994	1995	1996	1997	1998	1999
<b>TROUT FOODSIZE</b>									
Number sold . . . . .	Millions . .	67.8	60.9	58.3	60.2	56.5	59.3	57.6	61.0
Total weight . . . . .	Mill. lb . .	56.8	54.6	52.1	55.6	53.6	56.9	57.9	60.3
Total value of sales . . . . .	Mill. dol . .	64.6	54.3	52.7	60.8	57.0	60.7	60.3	65.0
Average price received . . . . .	Dol./lb . .	1.14	0.99	1.01	1.09	1.06	1.07	1.04	1.08
Percent sold to processors . . . . .	Percent . .	58	63	68	68	67	63	62	64
<b>CATFISH FOODSIZE</b>									
Number sold . . . . .	Millions . .	272.9	379.1	347.6	321.8	375.4	391.8	409.8	424.3
Total weight . . . . .	Mill. lb . .	392.4	495.8	479.4	481.5	526.3	569.6	601.4	634.9
Total value of sales . . . . .	Mill. dol . .	305.1	352.9	373.6	378.1	403.3	406.8	445.4	464.5
Average price received . . . . .	Dol./lb . .	0.78	0.71	0.78	0.79	0.77	0.71	0.74	0.73
Fish sold to processors . . . . .	Mill. lb . .	360.4	459.0	439.3	446.9	472.1	524.9	564.4	596.6
Avg. price paid by processors . . . . .	Cents/lb . .	75.8	70.9	78.4	78.6	77.3	71.2	74.3	73.7
Processor sales . . . . .	Mill. lb . .	183.1	233.5	216.5	227.0	237.2	261.8	281.4	292.7
Avg. price received by processors . . . . .	Cents/lb . .	224.1	218.6	238.5	240.3	236.9	226.0	229.0	234.0
Inventory (Jan. 1) . . . . .	Mill. lb . .	9.4	9.5	11.6	10.9	11.9	11.9	10.8	12.6

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

## No. 1160. Supply of Selected Fishery Items: 1980 to 1998

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

Species	Unit	1980	1990	1992	1993	1994	1995	1996	1997	1998
Shrimp . . . . .	Heads-off weight . .	425	734	820	808	847	832	842	923	1,002
Tuna, canned . . . . .	Canned weight . . . .	666	856	922	835	850	875	859	829	912
Snow crab . . . . .	Round weight . . . .	54	37	88	66	40	42	46	110	254
Clams . . . . .	Meat weight . . . . .	102	152	155	156	144	144	134	124	119
American lobster . . . . .	Round weight . . . . .	69	95	95	92	101	94	97	112	110
Spiny lobster . . . . .	Round weight . . . . .	127	89	81	76	76	89	81	76	100
Salmon, canned . . . . .	Canned weight . . . .	126	148	73	114	117	147	104	82	86
King crab . . . . .	Round weight . . . . .	133	19	15	8	12	21	30	45	62
Oysters . . . . .	Meat weight . . . . .	71	56	50	48	50	63	58	58	61
Scallops . . . . .	Meat weight . . . . .	51	74	69	66	76	62	71	66	58
Sardines, canned . . . . .	Canned weight . . . .	69	61	41	41	48	44	46	49	50
Crab meat, canned . . . . .	Canned weight . . . .	9	9	9	9	9	12	13	15	22

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

## No. 1161. Canned, Fresh, and Frozen Fishery Products: 1990 to 1998

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

Product	Production (mil. lb.)					Value (mil. dol.)				
	1990	1995	1996	1997	1998	1990	1995	1996	1997	1998
<b>Canned</b> <sup>1</sup> . . . . .	<b>1,178</b>	<b>1,927</b>	<b>1,877</b>	<b>1,565</b>	<b>1,531</b>	<b>1,562</b>	<b>1,887</b>	<b>1,800</b>	<b>1,593</b>	<b>1,766</b>
Tuna . . . . .	581	667	676	627	681	902	939	957	919	983
Salmon . . . . .	196	244	197	162	163	366	419	284	253	274
Clam products . . . . .	110	129	129	125	113	76	110	117	115	105
Sardines, Maine . . . . .	13	14	18	16	12	17	24	30	29	19
Shrimp . . . . .	1	1	1	1	1	3	7	6	5	1
Crabs . . . . .	1	(Z)	(Z)	(Z)	(Z)	4	(Z)	(Z)	(Z)	(Z)
Oysters <sup>2</sup> . . . . .	1	(Z)	(Z)	(Z)	(Z)	1	(Z)	(Z)	(Z)	(Z)
<b>Fish fillets and steaks</b> <sup>3</sup> . . . . .	<b>441</b>	<b>385</b>	<b>423</b>	<b>410</b>	<b>439</b>	<b>843</b>	<b>841</b>	<b>904</b>	<b>961</b>	<b>1,002</b>
Cod . . . . .	65	65	67	79	67	132	152	158	179	162
Flounder . . . . .	54	35	29	27	24	154	86	80	79	71
Haddock . . . . .	7	3	4	7	6	24	11	14	24	22
Ocean perch, Atlantic . . . . .	1	(Z)	(Z)	1	1	1	1	1	2	2
Rockfish . . . . .	33	25	20	17	16	53	38	42	33	32
Pollock, Atlantic . . . . .	12	4	2	1	4	21	10	5	2	7
Pollock, Alaska . . . . .	164	135	136	112	161	174	184	158	129	190
Other . . . . .	105	118	165	166	160	284	359	446	513	516

Z Less than 500,000 pounds or \$500,000. <sup>1</sup> Includes other products, not shown separately. <sup>2</sup> Includes oyster specialties. <sup>3</sup> Fresh and frozen.

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

## No. 1162. Mining Summary by Industry: 1992 and 1997

Industry	1987 SIC code	Establishments		Paid employees		Annual payroll (mil. dol.)		Value of shipments (mil. dol.)	
		1992	1997	1992	1997	1992	1997	1992	1997
<b>Total</b> . . . . .	<b>(X)</b>	<b>30,787</b>	<b>25,251</b>	<b>638,167</b>	<b>512,016</b>	<b>24,199</b>	<b>20,907</b>	<b>162,095</b>	<b>174,520</b>
Metal mining . . . . .	10	1,023	696	52,936	48,533	2,111	2,103	9,864	11,546
Iron ores . . . . .	101	40	32	8,716	7,920	348	394	1,715	1,938
Copper ores . . . . .	102	62	49	14,912	13,745	550	551	3,375	4,018
Lead & zinc ores . . . . .	103	44	31	2,829	2,127	113	89	472	531
Gold & silver ores . . . . .	104	426	316	19,179	18,292	825	810	3,555	4,073
Gold ores . . . . .	1041	402	300	18,174	17,512	784	778	3,440	3,952
Silver ores . . . . .	1044	24	16	1,005	780	41	33	115	122
Metal mining services . . . . .	108	266	203	3,280	3,066	117	110	350	342
Miscellaneous metal ores . . . . .	109	185	65	4,020	3,383	157	149	398	644
Coal mining . . . . .	12	3,069	1,820	134,482	92,958	5,461	4,157	27,134	24,005
Bituminous coal & lignite mining . . . . .	122	2,635	1,443	128,542	86,824	5,282	3,947	26,435	23,244
Anthracite mining . . . . .	123	76	68	1,365	1,141	39	36	160	183
Coal mining services . . . . .	124	358	309	4,575	4,993	141	174	538	578
Oil & gas extraction . . . . .	13	20,891	17,219	344,876	272,764	13,397	11,138	111,523	122,156
Crude petroleum & natural gas . . . . .	131	9,391	7,784	174,825	100,333	8,422	4,969	72,245	78,009
Natural gas liquids . . . . .	132	591	528	12,166	10,548	518	542	27,214	24,828
Oil & gas field services . . . . .	138	10,909	8,907	157,885	161,883	4,456	5,628	12,064	19,318
Drilling oil & gas wells . . . . .	1381	2,125	1,628	47,749	52,858	1,371	1,901	3,584	7,298
Oil & gas exploration services . . . . .	1382	1,490	1,197	13,711	7,039	460	216	965	819
Oil & gas field services, n.e.c. . . . .	1389	7,294	6,082	96,425	101,986	2,626	3,511	7,515	11,201
Nonmetallic minerals, except fuels . . . . .	14	5,804	5,516	105,873	97,761	3,230	3,508	13,574	16,812
Dimension stone . . . . .	141	166	178	1,401	1,658	30	38	99	126
Crushed & broken stone, including riprap . . . . .	142	2,142	2,184	41,641	42,300	1,207	1,510	5,002	7,242
Sand & gravel . . . . .	144	2,677	2,507	30,323	29,640	888	997	3,160	3,983
Clay, ceramic, & refractory minerals . . . . .	145	200	167	10,048	7,412	318	265	1,400	1,558
Chemical & fertilizer mineral mining . . . . .	147	160	92	15,048	10,823	579	495	3,127	3,081
Nonmetallic minerals services, except fuels . . . . .	148	178	172	1,956	1,874	52	64	189	191
Miscellaneous nonmetallic minerals, except fuels . . . . .	149	281	216	5,456	4,054	156	140	596	632

X Not applicable.

Source: U.S. Census Bureau, 1997 Economic Census, Core Business Statistics Series, Series EC97X-CS2, June 2000.

## No. 1163. Mining and Primary Metal Production Indexes: 1980 to 1999

[Index 1992=100]

Industry group	1980	1990	1992	1993	1994	1995	1996	1997	1998	1999
<b>Mining</b> . . . . .	<b>111.5</b>	<b>104.8</b>	<b>100.0</b>	<b>100.0</b>	<b>102.5</b>	<b>102.1</b>	<b>103.7</b>	<b>105.9</b>	<b>103.8</b>	<b>98.0</b>
Coal . . . . .	83.4	103.7	100.0	94.0	103.0	102.6	105.0	108.2	109.7	108.1
Oil and gas extraction . . . . .	124.4	106.4	100.0	101.1	101.7	100.5	101.8	103.1	99.5	92.5
Crude oil and natural gas . . . . .	115.1	101.6	100.0	98.0	98.1	96.5	95.9	95.7	94.2	90.6
Oil and gas drilling . . . . .	236.8	151.1	100.0	122.5	126.9	126.4	137.9	149.3	134.6	106.8
Metal mining . . . . .	65.2	93.1	100.0	98.8	100.5	101.6	104.0	110.3	109.1	97.1
Iron ore . . . . .	128.5	101.4	100.0	100.0	104.3	112.3	111.3	113.6	112.7	103.3
Nonferrous ores . . . . .	52.8	91.9	100.0	98.6	99.9	100.1	103.0	110.0	108.7	96.2
Copper ore . . . . .	65.6	89.4	100.0	102.0	104.7	104.8	108.7	109.9	105.4	91.2
<b>Primary metals, manufacturing</b> . . . . .	<b>108.0</b>	<b>104.0</b>	<b>100.0</b>	<b>105.1</b>	<b>113.8</b>	<b>116.2</b>	<b>119.6</b>	<b>126.7</b>	<b>125.6</b>	<b>126.6</b>
Nonferrous metals . . . . .	92.4	100.9	100.0	104.0	113.0	115.7	120.5	128.1	129.4	130.9
Copper . . . . .	75.9	81.6	100.0	116.7	111.7	121.9	103.5	111.0	107.2	96.4
Aluminum . . . . .	115.1	100.4	100.0	91.7	81.8	83.7	88.5	89.4	92.1	93.7
Iron and steel . . . . .	119.0	106.4	100.0	106.1	114.4	116.5	118.9	125.6	122.6	123.2

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. 1164. Mineral Industries—Employment, Hours, and Earnings: 1990 to 1999

Item	Unit	1990	1995	1999	Item	Unit	1990	1995	1999
All mining:									
All employees . . . . .	1,000 . . .	709	581	535	Avg. weekly hours . . . . .	Number . .	43.9	44.2	42.5
Production workers . . . . .	1,000 . . .	509	424	404	Avg. weekly earnings . . . . .	Dollars . .	568	642	717
Avg. weekly hours . . . . .	Number . .	44.1	44.7	43.8	Metal mining:				
Avg. weekly earnings . . . . .	Dollars . .	603	684	746	All employees . . . . .	1,000 . . .	58	51	45
Coal mining:					Production workers . . . . .	1,000 . . .	46	41	37
All employees . . . . .	1,000 . . .	147	104	85	Avg. weekly hours . . . . .	Number . .	42.8	43.8	44.5
Production workers . . . . .	1,000 . . .	119	84	70	Avg. weekly earnings . . . . .	Dollars . .	601	735	812
Avg. weekly hours . . . . .	Number . .	44.0	44.9	44.8	Nonmetallic minerals, except fuels:				
Avg. weekly earnings . . . . .	Dollars . .	735	828	864	All employees . . . . .	1,000 . . .	110	105	112
Oil and gas extraction:					Production workers . . . . .	1,000 . . .	83	80	82
All employees . . . . .	1,000 . . .	395	320	293	Avg. weekly hours . . . . .	Number . .	45.3	46.6	46.3
Production workers . . . . .	1,000 . . .	281	218	214	Avg. weekly earnings . . . . .	Dollars . .	525	624	700

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

## No. 1165. Mineral Production: 1990 to 1999

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

Mineral	Unit	1990	1995	1998	1999, est.
<b>FUEL MINERALS</b>					
Coal, total	Mil. sh. tons	1,029.1	1,033.0	1,117.5	1,099.1
Bituminous	Mil. sh. tons	693.2	613.8	631.7	621.3
Subbituminous	Mil. sh. tons	244.3	328.0	394.8	388.3
Lignite	Mil. sh. tons	88.1	86.5	85.8	84.4
Anthracite	Mil. sh. tons	3.5	4.7	5.3	5.2
Natural gas (marketed production)	Tril. cu. ft.	18.59	19.51	19.65	19.67
Petroleum (crude)	Mil. bbl. <sup>1</sup>	2,686	2,394	2,281	2,164
Uranium (recoverable content)	Mil. lb.	8.9	6.0	4.71	4.71
<b>NONFUEL MINERALS</b>					
Asbestos (sales)	1,000 metric tons	(D)	9	6	6
Asphalt and related bitumens (native) <sup>3</sup>	Mil. metric tons	25	( <sup>3</sup> )	( <sup>3</sup> )	( <sup>3</sup> )
Barite, primary, sold/used by producers	1,000 metric tons	430	543	476	375
Boron minerals, sold or used by producers	1,000 metric tons	1,090	1,190	1,170	(NA)
Bromine, sold or used by producers	1,000 metric tons	177	218	230	231
Cement:					
Portland	Mil. metric tons	67	73	80	82
Masonry	Mil. metric tons	3	4	4	4
Clays	1,000 metric tons	42,900	43,100	41,600	42,200
Diatomite <sup>4</sup>	1,000 metric tons	631	722	725	720
Feldspar	1,000 metric tons	630	880	820	900
Fluorspar, finished shipments	1,000 metric tons	64	51	-	-
Garnet (abrasive)	1,000 metric tons	47	53	(NA)	(NA)
Gypsum, crude	Mil. metric tons	15	17	19	19
Helium <sup>5</sup>	Mil. cu. meters	85	101	112	118
Lime, sold or used by producers	Mil. metric tons	16	19	20	21
Mica, scrap & flake, sold/used by producers	1,000 metric tons	109	108	87	94
Peat, sales by producers	1,000 metric tons	721	660	785	775
Perlite, processed, sold or used	1,000 metric tons	576	700	685	726
Phosphate rock (marketable)	Mil. metric tons	46	44	44	42
Potash (K <sub>2</sub> O equivalent) sales	1,000 metric tons	1,710	1,480	1,300	1,300
Pumice & pumicite, producer sales	1,000 metric tons	443	529	583	617
Salt, common, sold/used by producers	Mil. metric tons	37	41	41	41
Sand & gravel, sold/used by producer	Mil. metric tons	855	935	1,108	1,108
Construction	Mil. metric tons	829	907	1,080	1,080
Industrial	Mil. metric tons	26	28	28	28
Silica <sup>2</sup>	Metric tons	3,710	979	(NA)	(NA)
Sodium carbonate (natural) (soda ash)	1,000 metric tons	9,100	10,100	10,100	10,100
Sodium sulfate (natural)	1,000 metric tons	349	327	(D)	(D)
Stone <sup>6</sup>	Mil. metric tons	1,110	2,420	2,630	2,600
Crushed and broken	Mil. metric tons	1,110	1,260	1,510	1,560
Dimension	1,000 metric tons	1,120	1,160	1,120	1,040
Sulfur: Total shipments	1,000 metric tons	11,500	12,100	12,100	10,900
Sulfur: Frasch mines (shipments)	1,000 metric tons	3,680	(D)	(D)	(D)
Talc, and pyrophyllite, crude	1,000 metric tons	1,270	1,060	971	954
Vermiculite concentrate	1,000 metric tons	209	171	(D)	(D)
<b>METALS</b>					
Antimony ore and concentrate	Metric tons	(D)	262	242	480
Aluminum	1,000 metric tons	4,048	3,375	3,713	3,800
Bauxite (dried)	1,000 metric tons	(D)	(D)	(NA)	(NA)
Copper (recoverable content)	1,000 metric tons	1,590	1,850	1,860	1,660
Gold (recoverable content)	Metric tons	294	317	366	340
Iron ore (gross weight)	Mil. metric tons	57	61	63	56
Lead (recoverable content)	1,000 metric tons	484	394	493	520
Magnesium metal	1,000 metric tons	139	142	106	(D)
Manganiferous ore (gross weight) <sup>8</sup>	1,000 metric ton	(D)	(D)	(D)	(D)
Mercury	Metric tons	562	(D)	(D)	(D)
Molybdenum (concentrate)	1,000 metric tons	62	61	53	44
Nickel	1,000 metric tons	-	2	-	-
Palladium metal	Kilograms	5,930	5,260	10,600	10,200
Platinum metal	Kilograms	1,810	1,590	3,240	3,200
Silicon (silicon content)	1,000 metric tons	418	396	429	425
Silver (recoverable content)	Metric tons	2,120	1,560	2,060	1,860
Titanium concentrate: Ilmenite (gross weight)	1,000 metric tons	(D)	(D)	(D)	(D)
Tungsten ore and concentrate <sup>9</sup>	Metric tons	(D)	(D)	(D)	(D)
Zinc (recoverable content)	1,000 metric tons	515	614	722	775

- Represents zero. <sup>3</sup> D Withheld to avoid disclosing individual company data. NA Not available. <sup>1</sup> 42 gal. bbl.  
<sup>2</sup> 1990 includes apatite. <sup>3</sup> Refined only. <sup>4</sup> Includes grindstones, oilstones, whetstones, and deburring media. Excludes grinding pebbles, and tubemill liners. <sup>5</sup> Excludes abrasive stone, bituminous limestone and sandstone, and ground soapstone, all included elsewhere in table; 1993 excludes dimension stone. Includes calcareous marl and slate. <sup>6</sup> Represents shipments; includes byproduct ores. <sup>7</sup> 5 to 35 percent manganiferous ore. <sup>8</sup> Mercury produced as a byproduct of gold ores only. <sup>9</sup> Content of ore and concentrate.

Source: Nonfuels, 1990, 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 *Uranium Industry Annual*.

## No. 1166. Mineral Production Value: 1990 to 1998

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

Mineral	1990	1995	1996	1997	1998, est.
<b>Mineral production, total.</b>	<b>141,608</b>	<b>123,486</b>	<b>145,206</b>	<b>147,204</b>	<b>(NA)</b>
<b>Mineral fuels, total.</b>	<b>108,144</b>	<b>84,783</b>	<b>106,197</b>	<b>106,524</b>	<b>83,601</b>
Coal, total	22,415	19,469	19,691	19,777	19,668
Bituminous	19,014	15,688	15,875	16,110	16,036
Anthracite	138	187	177	165	174
Natural gas (wellhead)	31,789	30,241	42,858	46,098	39,082
Petroleum (crude)	53,801	35,006	43,561	40,576	24,792
Uranium U <sub>3</sub> O <sub>8</sub>	140	67	87	73	58
<b>Industrial minerals, total</b>	<b>21,022</b>	<b>24,679</b>	<b>25,994</b>	<b>27,606</b>	<b>(NA)</b>
Asbestos (sales)	(5)	(5)	(5)	(5)	(5)
Asphalt, related bitumens (native) <sup>2</sup>	3,480	(NA)	(NA)	(NA)	(NA)
Barite, primary, sold/used by producers	16	10	15	16	15
Boron minerals, sold/used by producers	436	560	519	580	(NA)
Bromine, sold/used by producers	173	186	150	198	227
Cement: <sup>3</sup>					
Portland	3,683	4,920	5,310	5,710	(NA)
Masonry	225	307	321	339	(NA)
Clays	1,620	1,730	1,710	1,670	(NA)
Diatomite	138	171	176	184	182
Feldspar	28	37	39	43	40
Fluorspar, finished shipments	(7)	(7)	(7)	(7)	(7)
Garnet (abrasive)	7	4	6	6	(NA)
Gemstones (estimate)	53	49	43	25	23
Gypsum, crude	100	121	124	132	137
Helium <sup>6</sup>	113	196	193	206	(NA)
Lime, sold/used by producers	902	1,100	1,170	1,200	(NA)
Mica, scrap and flake, sold/used by producers	6	17	8	9	9
Peat (sales by producers)	19	22	19	23	(NA)
Perlite, processed, sold/used by producers	17	22	21	23	(NA)
Phosphate rock (marketable)	1,075	947	1,060	1,076	1,131
Potash (K <sub>2</sub> O equivalent)	303	284	299	320	(NA)
Pumice and pumicite (sales by producers)	11	13	15	16	15
Salt (common), sold/used by producers	827	1,000	1,060	993	(NA)
Sand and gravel, sold/used by producers	3,686	4,400	4,500	4,778	(NA)
Silica, special	(2)	1	1	(NA)	(NA)
Sodium carbonate (natural) (soda ash)	836	829	926	915	(NA)
Sodium sulfate (natural)	34	28	27	35	(NA)
Stone	5,822	6,970	7,410	8,295	(NA)
Crushed and broken	5,591	6,740	7,180	8,070	(NA)
Dimension	231	233	234	225	205
Sulfur: Frasch mines (shipments)	335	(4)	(4)	(4)	(NA)
Talc and pyrophyllite, crude <sup>9</sup>	31	32	31	(NA)	(NA)
Tripoli	3	11	18	16	(NA)
Vermiculite concentrate	19	(4)	(4)	(4)	(NA)
Industrial minerals, undistributed	504	725	820	803	(NA)
<b>Metals, total</b>	<b>12,442</b>	<b>14,024</b>	<b>13,015</b>	<b>13,074</b>	<b>(NA)</b>
Antimony ore and concentrate <sup>10</sup>	(11)	(11)	(11)	(11)	(NA)
Bauxite (dried equivalent)	(11)	(11)	(11)	(11)	(NA)
Copper (recoverable content)	4,311	5,640	4,610	4,580	(NA)
Gold (recoverable content)	3,650	3,950	4,090	3,850	(NA)
Iron ore (gross weight) <sup>12</sup>	1,741	1,730	1,770	1,890	(NA)
Lead (recoverable content)	491	359	459	460	(NA)
Magnesium metal	433	476	455	400	(NA)
Manganiferous ore (gross weight) <sup>13</sup>	(11)	(11)	(11)	(11)	(NA)
Mercury <sup>14</sup>	(11)	(11)	(11)	(11)	(NA)
Molybdenum (concentrate)	348	651	456	(D)	(NA)
Palladium metal	22	22	26	50	(NA)
Platinum metal	27	21	24	33	(NA)
Silver (recoverable content)	329	259	262	338	(NA)
Titanium concentrate: Ilmenite (gross weight)	(11)	(11)	(11)	(11)	(NA)
Tungsten ore and concentrate	(11)	(11)	(11)	(11)	(NA)
Vanadium (recoverable content)	(11)	(11)	(11)	(11)	(NA)
Zinc mine production (recoverable content)	847	756	674	860	(NA)
Metals, undistributed	242	161	190	614	(NA)

D Withheld to avoid disclosing individual company data. NA Not available. Z Less than \$500,000. <sup>1</sup> Includes subbituminous and lignite. <sup>2</sup> Excluded from industrial minerals total. <sup>3</sup> Value of shipments, 1990; value of production, 1995-96. <sup>4</sup> Includes apilite. <sup>5</sup> Included in "Industrial minerals, undistributed." <sup>6</sup> Refined only. <sup>7</sup> Includes grindstones, oilstones, whetstones, and deburring media. <sup>8</sup> Excludes abrasive stone, bituminous limestone, sandstone, and ground soapstone; 1993 excludes dimension stone. <sup>9</sup> 1990, talc only. <sup>10</sup> Antimony content. <sup>11</sup> Included with "Metals, undistributed." <sup>12</sup> Represents shipments; includes byproduct ores. <sup>13</sup> 5 to 35 percent manganiferous ore. <sup>14</sup> Mercury produced as a byproduct of gold ores only.

Source: Nonfuels, 1990, 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. 1167. Nonfuel Mineral Commodities—Summary: 1998

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

Mineral	Unit	Mineral disposition			Average price per unit (dollars)	Employment (number)	
		Production	Exports	Net import reliance <sup>1</sup> (percent)			Consumption, apparent
Aluminum	1,000 metric tons	3,713	1,590	27	7,090	265.5	418,200
Antimony (contained)	Metric tons	3242	4,170	81	4,270	272	80
Asbestos	1,000 metric tons	6	3	6	16	(D)	430
Barite	1,000 metric tons	476	15	80	2,340	422.70	410
Bauxite and alumina	1,000 metric tons	(NA)	1,500	100	5,000	423.00	-
Beryllium (contained)	Metric tons	243	60	8	260	28327	25
Bismuth (contained)	Metric tons	-	245	100	(NA)	23.60	-
Boron (B <sub>2</sub> O <sub>3</sub> content)	1,000 metric tons	587	106	( <sup>5</sup> )	412	47340.00	900
Bromine (contained)	1,000 metric tons	230	12	-	235	8370.00	1,700
Cadmium (contained)	Metric tons	3,1880	606	20	2,350	2100.28	140
Cement	1,000 metric tons	83,931	743	19	102,457	476.46	17,900
Chromium	1,000 metric tons	11,105	62	80	531	412145.00	-
Clays	1,000 metric tons	41,600	5,230	( <sup>5</sup> )	36,500	(NA)	13,700
Cobalt (contained)	Metric tons	91	1,680	73	11,500	221.43	-
Copper (Mine, contained)	1,000 metric tons	1,860	(NA)	14	3,010	(NA)	13
Diamond (industrial)	Million carats	(NA)	104	90	267	140.44	-
Diatomite	1,000 metric tons	725	138	( <sup>5</sup> )	589	4248.00	1,000
Feldspar	1,000 metric tons	820	13	( <sup>5</sup> )	814	49.76	400
Fluorspar	1,000 metric tons	(NA)	44	100	572	(NA)	-
Garnet (industrial)	Metric tons	74,000	12,000	( <sup>5</sup> )	39,900	450-2000	230
Germanium (contained)	Kilograms	22,000	(NA)	(NA)	(NA)	816(NA)	100
Gold (contained)	Metric tons	366	522	( <sup>5</sup> )	(NA)	17295.00	13,400
Gypsum (crude)	1,000 short tons	(NA)	19,000	28	30,500	47.20	6,000
Iodine	Metric tons	(NA)	1,490	2790	4,950	8216.45	40
Iron ore (usable)	Million metric tons	63	6	12	71	42231.14	7,290
Iron and steel slag (metal)	1,000 metric tons	18,400	10	4	19,000	48.00	2,700
Lead (contained)	1,000 metric tons	(NA)	72	18	1,700	245.30	-
Lime	1,000 metric tons	20,100	58	1	20,300	(NA)	5,600
Magnesium compounds	1,000 metric tons	366	49	45	661	(NA)	600
Magnesium metal	1,000 metric tons	(NA)	35	25	185	(NA)	800
Mercury	Metric tons	11(NA)	63	(NA)	(NA)	2639.84	(NA)
Mica, scrap and flake	1,000 metric tons	87	8	24	137	487.00	367
Molybdenum (contained)	Metric tons	53,300	46,300	( <sup>5</sup> )	24,500	85.90	600
Nickel (contained)	Metric tons	4,290	8,440	64	149,000	2274.6300.00	7
Nitrogen (fixed)-ammonia	1,000 metric tons	14,700	614	18	18,100	428121.00	2,500
Peat	1,000 metric tons	676	30	52	1,420	424.07	800
Perlite	1,000 metric tons	685	42	14	793	431.91	140
Phosphate rock	1,000 metric tons	44,200	378	3	(NA)	425.46	5,000
Platinum-group metals	Kilograms	13,840	51,811	(NA)	(NA)	(NA)	620
Potash (K <sub>2</sub> O equivalent)	1,000 metric tons	1,300	480	80	5,700	43045.00	1,510
Pumice and pumicite	1,000 metric tons	583	22	31	847	421.90	75
Salt	1,000 metric tons	41,200	731	17	48,800	43114.93	4,150
Silicon (contained)	1,000 metric tons	429	47	30	616	(NA)	(NA)
Silver (contained)	Metric tons	2,060	3,330	14	4,300	175.54	1,550
Sodium carbonate (soda ash)	1,000 metric tons	10,100	3,660	( <sup>5</sup> )	6,560	33105.00	2,700
Sodium sulfate	1,000 metric tons	(D)	90	4	555	34114.00	(D)
Stone (crushed)	Million metric tons	1,510	4	-	1,520	45.39	78,500
Sulfur (all forms)	1,000 metric tons	11,600	940	18	14,100	43529.14	3,100
Talc	1,000 metric tons	971	146	( <sup>5</sup> )	990	4126.00	700
Thallium (contained)	Kilograms	-	(NA)	100	100	81280.00	-
Tin (contained)	Metric tons	11,16,100	5,020	85	60,620	22.64	11,100
Titanium dioxide	1,000 metric tons	1,330	398	( <sup>5</sup> )	1,130	2360.98	5
Tungsten (contained)	Metric tons	-	49	77	12,300	3752.00	-
Vermiculite	1,000 metric tons	(D)	11	(D)	(D)	(D)	230
Zinc (contained)	1,000 metric tons	722	554	35	1,580	251.40	2,400
Zirconium (Z <sub>2</sub> O <sub>2</sub> ) content	Metric tons	(D)	28,356	(D)	(D)	439320.00	-

<sup>1</sup> Represents or rounds to zero. <sup>2</sup> D Withheld to avoid disclosure. <sup>3</sup> Refinery production. <sup>4</sup> NA Not available. <sup>5</sup> Calculated as a percent of apparent consumption. <sup>6</sup> Dollars per pound. <sup>7</sup> Net exporter. <sup>8</sup> Dollars per metric ton. <sup>9</sup> Bulk, purified bromine. <sup>10</sup> Metal, vacuum-cast ingot. <sup>11</sup> Granulated pentahydrate borax in bulk, f.o.b. mine. <sup>12</sup> Dollars per kilogram. <sup>13</sup> Bulk, purified bromine. <sup>14</sup> 1- to 5-short ton lots. <sup>15</sup> Secondary production. <sup>16</sup> Turkish, chromite price. <sup>17</sup> Columbite price. <sup>18</sup> Value of imports, dollars per carat. <sup>19</sup> Reported consumption. <sup>20</sup> Zone refined. <sup>21</sup> Dollars per troy ounce. <sup>22</sup> Price of flake imports. <sup>23</sup> Includes employment at calcining plants. <sup>24</sup> 99.97% indium. <sup>25</sup> C.i.f. value, crude, per kilogram. <sup>26</sup> Price of eastern Canadian ore. <sup>27</sup> Delivered, No. 1 Heavy Melting composite price. <sup>28</sup> Year-end price. <sup>29</sup> 46%-48% Mn metallurgical ore, per unit contained Mn, c.i.f. U.S. ports. <sup>30</sup> Dollars per 76-pound flask. <sup>31</sup> London Metal Exchange cash price. <sup>32</sup> F.o.b. gulf coast. <sup>33</sup> Dealer price of platinum. <sup>34</sup> Price of K<sub>2</sub>O, muriate. <sup>35</sup> Vacuum and open pan, bulk, pellets and packaged, f.o.b. m.jne and plant. <sup>36</sup> Ferrosilicon, 50% Si. <sup>37</sup> Quoted year-end price, dense, bulk, f.o.b. Green River, WY, dollars per short ton. <sup>38</sup> Quoted price, bulk, f.o.b. works, East, dollars per short ton. <sup>39</sup> Elemental sulfur, f.o.b. mine and/or plant. <sup>40</sup> Rutile, list, year-end. <sup>41</sup> Dollars per unit W03 (7.93 kilograms of contained tungsten per unit). <sup>42</sup> All forms. <sup>43</sup> Price for imported zircon, f.o.b. U.S. east coast.

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

## No. 1168. Selected Mineral Products—Average Prices: 1980 to 1999

[Excludes Alaska and Hawaii, except as noted]

Year	Nonfuels								Fuels		
	Copper, electro-lytic (cents per lb.)	Plati-num <sup>1</sup> (dol./ troy oz.)	Gold (dol./ fine oz.)	Silver (dol./ fine oz.)	Lead (cents per lb.)	Tin (New York) (cents per lb.)	Zinc (cents per lb.)	Sulfur, crude <sup>2</sup> (dol./ metric ton)	Bitumi- nous coal <sup>3,4</sup> (dol./ short ton)	Crude petro- leum <sup>3</sup> (dol./ bbl.)	Natural gas (dol./ 1,000 cu. ft.)
1980	101	677	613	20.63	43	846	37	89.06	29.17	21.59	1.59
1981	84	446	460	10.52	37	733	45	111.48	31.51	31.77	1.98
1982	73	327	376	7.95	26	654	39	108.27	32.15	28.52	2.46
1983	77	424	424	11.44	22	655	41	87.24	31.11	26.19	2.59
1984	67	357	361	8.14	26	624	49	94.31	30.63	25.88	2.66
1985	67	291	318	6.14	19	596	40	106.46	30.78	24.09	2.51
1986	66	461	368	5.47	22	383	38	105.22	28.84	12.51	1.94
1987	83	553	478	7.01	36	419	42	89.78	28.19	15.40	1.67
1988	121	523	438	6.53	37	441	60	85.95	27.66	12.58	1.69
1989	131	507	383	5.50	39	520	82	86.62	27.40	15.86	1.69
1990	123	467	385	4.82	46	386	75	80.14	27.43	20.03	1.71
1991	109	371	363	4.04	34	363	53	71.45	27.49	16.54	1.64
1992	107	360	345	3.94	35	402	58	48.14	26.78	15.99	1.74
1993	92	375	361	4.30	32	350	46	31.86	26.15	14.25	2.04
1994	111	411	385	5.29	37	369	49	28.60	25.68	13.19	1.85
1995	138	425	386	5.15	42	416	56	44.46	25.56	14.62	1.55
1996	109	398	389	5.19	49	412	51	34.11	25.17	18.46	2.17
1997	107	397	332	4.90	47	384	65	36.06	24.64	17.23	2.32
1998	79	373	295	5.50	45	381	51	29.14	24.87	10.87	1.94
1999	76	365	285	5.20	44	329	51	30.00	(NA)	15.56	2.07

NA Not available. <sup>1</sup> Average annual dealer prices. <sup>2</sup> F.o.b. works. <sup>3</sup> Average value at the point of production or domestic first purchase price. <sup>4</sup> Includes lignite.

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

## No. 1169. Value of Domestic Nonfuel Mineral Production by State: 1990 to 1999

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

State	1990	1995	1998	1999, prel.	State	1990	1995	1998	1999, prel.
<b>United States . . . .</b>	<b>33,445</b>	<b>38,506</b>	<b>39,600</b>	<b>39,100</b>	Missouri . . . . .	1,105	1,140	1,320	1,380
Alabama . . . . .	559	706	1,010	1,080	Montana . . . . .	573	574	502	491
Alaska . . . . .	577	538	999	1,090	Nebraska . . . . .	90	146	99	163
Arizona . . . . .	3,085	4,190	2,770	2,510	Nevada . . . . .	2,621	3,060	3,170	2,780
Arkansas . . . . .	381	492	484	518	New Hampshire . . . . .	36	50	68	64
California . . . . .	2,771	2,760	2,980	3,200	New Jersey . . . . .	229	243	290	300
Colorado . . . . .	377	570	650	555	New Mexico . . . . .	1,103	1,130	888	671
Connecticut . . . . .	122	93	99	103	New York . . . . .	773	886	972	935
Delaware <sup>2</sup> . . . . .	10	9	12	10	North Carolina . . . . .	586	735	750	761
Florida . . . . .	1,574	1,540	1,810	1,930	North Dakota . . . . .	25	31	38	38
Georgia . . . . .	1,504	1,690	1,720	1,840	Ohio . . . . .	733	891	1,030	1,040
Hawaii . . . . .	106	114	85	89	Oklahoma . . . . .	259	357	460	475
Idaho . . . . .	375	510	453	420	Oregon . . . . .	205	239	301	303
Illinois . . . . .	667	828	875	913	Pennsylvania . . . . .	1,031	1,080	1,230	1,270
Indiana . . . . .	428	589	691	717	Rhode Island . . . . .	18	31	125	25
Iowa . . . . .	310	456	518	537	South Carolina . . . . .	450	447	562	574
Kansas . . . . .	349	498	551	566	South Dakota . . . . .	319	332	258	226
Kentucky . . . . .	359	432	498	483	Tennessee . . . . .	663	665	705	710
Louisiana . . . . .	368	434	347	374	Texas . . . . .	1,459	1,680	1,820	1,780
Maine . . . . .	55	68	92	101	Utah . . . . .	1,335	1,850	1,320	1,260
Maryland . . . . .	368	324	352	336	Vermont . . . . .	87	60	174	83
Massachusetts . . . . .	128	190	204	204	Virginia . . . . .	507	515	636	667
Michigan . . . . .	1,440	1,520	1,670	1,660	Washington . . . . .	483	582	609	631
Minnesota . . . . .	1,482	1,530	1,740	1,580	West Virginia . . . . .	133	181	170	180
Mississippi . . . . .	111	131	149	190	Wisconsin . . . . .	215	416	323	334
					Wyoming . . . . .	911	973	1,070	956

<sup>1</sup> Partial data only. <sup>2</sup> 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. 1170. Principal Fuels, Nonmetals, and Metals—World Production and the U.S. Share: 1980 to 1998

Mineral	World production				Percent U.S. of world				
	Unit	1980	1990	1995	1998	1980	1990	1995	1998
<b>Fuels:</b> <sup>1</sup>									
Coal	Mil. sh. ton	4,193	5,356	5,126	5,042	19.8	19.2	20.2	22.2
Petroleum (crude)	Bil. bbl	21.8	22.1	22.8	24.0	14.4	12.2	10.5	9.3
Natural gas (dry, marketable)	Tril. cu. ft	53.5	73.6	78.0	82.8	36.3	24.2	23.9	22.6
Natural gas plant liquids	Bil. bbl	1.3	1.7	2.0	2.1	45.7	33.7	32.1	30.0
<b>Nonmetals:</b>									
Asbestos	1,000 metric tons	4,699	4,003	2,420	1,840	2	(D)	(Z)	(Z)
Barite	1,000 metric tons	7,495	5,633	4,300	5,890	27	8	13	8
Feldspar	1,000 metric tons	3,202	5,456	6,780	8,080	20	12	13	10
Fluorspar	1,000 metric tons	5,006	5,131	4,050	4,670	2	1	1	-
Gypsum	Mil. metric tons	78	100	97	107	14	15	17	18
Mica (incl. scrap)	1,000 metric tons	228	215	253	288	46	51	43	30
Nitrogen, (fixed) - ammonia	Mil. metric tons	74	97	96	106	20	13	14	14
Phosphate rock, gross wt.	Mil. metric tons	144	162	130	145	38	29	33	31
Potash (K <sub>2</sub> O equivalent)	Mil. metric tons	28	28	25	25	8	6	6	5
Sulfur, elemental	Mil. metric tons	55	58	53	58	22	20	22	20
<b>Metals, mine basis:</b>									
Bauxite	Mil. metric tons	89	109	107	125	2	(D)	(D)	(D)
Columbian concentrates									
(Nb content)	1,000 metric tons	15	15	18	19	-	-	-	-
Copper	1,000 metric tons	7,405	9,017	10,100	12,200	16	18	18	15
Gold	Metric tons	1,219	2,133	2,220	2,460	2	14	14	15
Iron ore	Mil. metric tons	891	982	1,027	1,020	8	6	6	6
Lead <sup>2</sup>	1,000 metric tons	3,470	3,353	2,780	3,100	17	15	14	16
Mercury	Metric tons	6,806	4,523	3,160	2,320	16	12	(D)	(D)
Molybdenum	1,000 metric tons	111	128	141	135	62	48	43	40
Nickel <sup>2</sup>	1,000 metric tons	779	965	1,030	1,140	2	(Z)	(Z)	(Z)
Silver	1,000 metric tons	11	16	15	16	9	13	10	13
Tantalum concentrates	Metric tons	544	400	362	454	-	-	-	-
Titanium concentrates:									
Ilmenite	1,000 metric tons	3,726	4,072	3,970	3,860	14	(D)	(D)	(D)
Rutile	1,000 metric tons	436	481	416	406	(D)	(D)	(D)	(D)
Tungsten <sup>2</sup>	1,000 metric tons	52	43	39	32	5	14	(D)	(D)
Vanadium <sup>2</sup>	1,000 metric tons	37	31	35	42	12	(D)	(D)	(D)
Zinc <sup>2</sup>	1,000 metric tons	5,954	7,184	7,240	7,550	6	8	9	10
<b>Metals, smelter basis:</b>									
Aluminum	1,000 metric tons	15,383	19,292	19,900	22,100	30	21	17	17
Cadmium	1,000 metric tons	18	20	19	20	9	8	7	10
Copper	1,000 metric tons	7,649	9,472	10,200	11,900	14	15	16	18
Iron, pig	Mil. metric tons	514	532	533	541	12	9	10	9
Lead <sup>3</sup>	1,000 metric tons	5,430	5,763	5,590	3,080	23	23	25	25
Magnesium <sup>4</sup>	1,000 metric tons	316	354	389	369	49	39	37	39
Raw Steel	Mil. metric tons	717	771	755	783	14	12	13	13
Tin	1,000 metric tons	251	223	201	206	1	-	-	-
Zinc	1,000 metric tons	6,049	7,060	7,550	7,550	6	5	5	10

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

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

## No. 1171. Federal Strategic and Critical Materials Inventory: 1990 to 1999

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

Mineral	Unit	Quantity <sup>1</sup>				Value (mil. dol.) <sup>2</sup>			
		1990	1995	1998	1999	1990	1995	1998	1999
Bauxite <sup>3</sup>	1,000 lg. ton	18,033	16,032	12,288	9,492	888	203	95	71
Chromium <sup>4</sup>	1,000 sh. ton	1,074	1,192	1,070	1,068	917	839	715	628
Cobalt	Mil. lb.	53	44	32	28	443	1,121	504	295
Diamonds: Stones	Carat 1,000	7,777	5,135	3,097	2,497	267	52	31	25
Industrial, bort	Carat 1,000	17,353	1,967	62	-	16	9	-	-
Lead	1,000 sh. ton	(NA)	(NA)	337	277	(NA)	(NA)	198	140
Manganese <sup>5</sup>	1,000 sh. ton	4,017	2,817	2,251	2,144	962	464	284	270
Palladium	1,000 troy oz.	(NA)	(NA)	1,247	1,099	(NA)	(NA)	183	343
Platinum	1,000 troy oz.	453	453	440	342	186	154	162	120
Silver	1,000 troy oz.	92,151	46,667	35,121	26,203	374	158	105	86
Tantalum Group	1,000 lb.	(NA)	(NA)	82,313	2,689	(NA)	(NA)	127	126
Tin	1,000 metric ton	169	130	84	72	962	908	461	391
Titanium	1,000 sh. ton	37	37	35	35	402	221	122	124
Tungsten <sup>6</sup>	Mil. lb.	82	82	82	79	253	253	316	174
Zinc	1,000 sh. ton	379	301	213	198	483	281	220	203

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

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

## No. 1172. Net U.S. Imports of Selected Minerals and Metals as Percent of Apparent Consumption: 1980 to 1999

[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	1993	1994	1995	1996	1997	1998	1999
Bauxite <sup>1</sup>	94	98	100	99	99	100	100	100	100
Columbium	100	100	100	100	100	100	100	100	100
Manganese	98	100	100	100	100	100	100	100	100
Mica (sheet)	100	100	100	100	100	100	100	100	100
Strontium	100	100	100	100	100	100	100	100	100
Tin	79	71	84	83	84	83	86	85	85
Barite	44	71	72	64	65	70	76	80	67
Cobalt	93	86	85	80	79	76	76	73	73
Potash	65	68	72	76	75	77	80	80	80
Tantalum	90	71	81	75	80	80	75	80	80
Tungsten	53	81	81	95	90	89	84	77	81
Chromium	91	84	79	81	80	79	75	80	80
Nickel	76	64	63	64	60	59	56	64	63
Titanium	32	(3)	(D)	(D)	64	50	63	49	(NA)
Zinc <sup>2</sup>	60	41	36	35	35	33	35	35	30
Aluminum	(3)	36	31	31	23	22	23	27	30
Cadmium	55	(3)	19	30	23	32	16	20	19
Gypsum	35	46	64	3	30	29	28	28	29
Copper	16	15	12	12	27	14	13	14	27
Iron and steel	13	13	15	22	21	20	20	27	22
Sulfur	14	21	14	18	21	13	13	18	17
Iron ore	25	3	7	13	14	14	14	12	17
Silver	7	(NA)	(NA)	(NA)	(NA)	(NA)	(3)	14	14
Platinum group	87	88	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Mercury	27	(D)	(D)	(D)	(NA)	(NA)	(D)	(NA)	(NA)
Selenium	59	46	39	31	31	38	(D)	(D)	(D)
Vanadium	35	(D)	(D)	(D)	84	(D)	(D)	78	80

D Withheld to avoid disclosure. NA Not available. <sup>1</sup> Includes alumina. <sup>2</sup> 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%; 1993, 67%; 1994, 70%; 1995, 71%; 1996 and 1997, 70%; 1998, 69%; and 1999, 71%. <sup>3</sup> Net exports.

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

## No. 1173. Federal Offshore Leasing, Exploration, Production, and Revenue: 1990 to 1999

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

Item	Unit	1990	1993	1994	1995	1996	1997	1998	1999
Tracts offered	Number	10,459	10,164	10,861	10,995	12,230	9,870	8,205	7,453
Tracts leased	Number	825	336	560	835	1,537	1,780	1,157	333
Acres offered	Millions	56.79	55.07	58.90	59.70	70.00	26.24	44.10	40.23
Acres leased	Millions	4.30	1.71	2.78	4.34	8.15	9.62	6.34	1.77
Bonus paid for leased tracts	Bil. dol.	0.6	0.1	0.3	0.4	0.9	(NA)	1.3	0.3
New wells being drilled:									
Active	Number	120	129	120	124	835	186	173	219
Suspended	Number	266	193	222	247	1,323	244	122	110
Cumulative wells (since 1953):									
Wells completed	Number	13,167	13,181	13,342	13,475	13,583	13,546	13,702	13,676
Wells plugged and abandoned	Number	14,677	16,709	17,427	18,008	18,268	18,728	21,050	22,134
Revenue, total <sup>1</sup>	Bil. dol.	3.4	2.8	2.9	2.7	4.3	5.3	4.3	3.2
Bonuses	Bil. dol.	0.8	0.1	0.3	0.4	0.8	1.4	1.3	0.3
Oil and gas royalties <sup>1</sup>	Bil. dol.	2.6	2.5	2.3	2.1	3.1	3.4	2.7	2.6
Rentals	Bil. dol.	0.09	0.08	0.06	0.09	0.16	0.23	0.26	0.21
Sales value <sup>2</sup>	Bil. dol.	17.0	16.4	15.0	13.8	27.6	31.1	17.6	17.4
Crude oil	Bil. dol.	5.9	4.9	4.4	5.4	6.4	7.5	5.2	5.4
Condensate	Bil. dol.	1.1	0.9	0.7	0.9	1.3	1.4	1.1	1.1
Natural gas	Bil. dol.	9.5	9.9	9.8	7.5	11.8	13.3	11.4	10.9
Sales volume: <sup>3</sup>									
Crude oil	Mil. bbls.	274	307	319	357	373	404	401	434
Condensate	Mil. bbls.	51	55	51	52	65	75	75	78
Natural gas	Bil. cu. ft.	5,093	4,533	4,700	4,692	5,024	5,077	4,836	4,994

NA Not available. <sup>1</sup> Includes condensate royalties. <sup>2</sup> Production value is value at time of production, not current value. <sup>3</sup> Excludes sales volumes for gas lost, gas plant products or sulfur.

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



## No. 1174. Petroleum Industry—Summary: 1980 to 1999

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

Item	Unit	1980	1990	1993	1994	1995	1996	1997	1998	1999
Crude oil producing wells (Dec. 31)	1,000 . . .	548	602	584	582	574	574	573	562	554
Daily output per well	Bbl. . . . .	15.9	12.2	11.7	11.4	11.4	11.3	11.3	11.1	10.7
Completed wells drilled, total	1,000 . . .	57.7	26.5	21.2	17.9	17.8	19.7	24.4	21.4	17.0
Crude oil . . . . .	1,000 . . .	30.8	11.5	7.9	6.2	7.1	7.8	10.0	6.8	4.7
Gas . . . . .	1,000 . . .	15.2	10.4	9.5	8.8	7.8	8.7	10.8	11.5	9.9
Dry . . . . .	1,000 . . .	11.6	4.6	3.9	2.9	2.9	3.2	3.6	3.1	2.4
Average depth per well <sup>1</sup>	Feet . . . .	4,171	4,653	5,388	5,731	5,505	5,506	5,552	6,060	6,067
Average cost per well <sup>1</sup>	\$1,000 . . .	368	384	427	483	513	496	604	769	(NA)
Average cost per foot <sup>1</sup>	Dollars . . .	77.02	76.07	75.30	79.49	87.22	88.92	107.83	128.97	(NA)
Crude oil production, total	Mil. bbl. . .	3,138	2,685	2,499	2,432	2,394	2,360	2,355	2,282	2,163
Value at wells	Bil. dol. . .	67.7	53.8	35.6	32.1	35.0	43.6	40.6	24.8	33.7
Average price per barrel	Dollars . . .	21.59	20.03	14.25	13.19	14.62	18.46	17.23	10.87	15.56
Lower 48 states	Mil. bbl. . .	2,548	2,037	1,921	1,863	1,853	1,851	1,882	1,853	1,779
Alaska	Mil. bbl. . .	590	647	577	569	542	508	473	429	383
Onshore	Mil. bbl. . .	2,760	2,290	2,046	1,931	1,838	1,789	1,753	1,664	1,650
Offshore	Mil. bbl. . .	377	395	453	500	557	570	602	618	513
Imports: Crude oil	Mil. bbl. . .	1,921	2,151	2,477	2,578	2,639	2,740	3,002	3,178	3,135
Refined petroleum products	Mil. bbl. . .	601	775	669	706	586	719	707	731	717
Exports: Crude oil	Mil. bbl. . .	104.8	39.8	35.8	36.1	34.7	40.2	39.4	40.2	43.1
Proved reserves	Bil. bbl. . .	29.8	26.3	23.0	22.5	22.40	22.02	22.55	21.03	(NA)
Operable refineries	Number . . .	319	205	187	179	175	170	164	163	159
Capacity (Jan. 1)	Mil. bbl. . .	6,566	5,683	5,519	5,486	5,632	5,595	5,639	5,734	5,935
Refinery input, total	Mil. bbl. . .	5,117	5,325	5,482	5,482	5,555	5,654	5,807	5,891	5,880
Crude oil . . . . .	Mil. bbl. . .	4,920	4,895	4,968	5,063	5,099	5,179	5,351	5,435	5,406
Natural gas plant liquids	Mil. bbl. . .	168	172	179	172	172	164	153	146	135
Other liquids	Mil. bbl. . .	29	259	336	252	285	307	303	310	339
Refinery output, total	Mil. bbl. . .	5,336	5,574	5,763	5,763	5,836	5,957	6,117	6,216	6,209
Motor gasoline	Mil. bbl. . .	2,369	2,540	2,665	2,621	2,723	2,759	2,825	2,880	2,898
Jet fuel	Mil. bbl. . .	365	544	518	529	518	555	566	558	573
Distillate fuel oil	Mil. bbl. . .	971	1,066	1,142	1,168	1,153	1,212	1,237	1,248	1,245
Residual fuel oil	Mil. bbl. . .	577	347	307	303	288	266	259	277	256
Liquefied petroleum gases	Mil. bbl. . .	120	183	215	223	237	241	252	245	252
Utilization rate	Percent . . .	75.4	87.1	91.5	92.6	92.0	94.1	95.2	95.6	92.7

NA Not available. <sup>1</sup> 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. 1175. U.S. Petroleum Balance: 1980 to 1999

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

Item	1980	1990	1993	1994	1995	1996	1997	1998	1999	
<b>Petroleum products supplied for domestic use</b>	<b>6,242</b>	<b>6,201</b>	<b>6,291</b>	<b>6,467</b>	<b>7,087</b>	<b>6,701</b>	<b>6,796</b>	<b>6,905</b>	<b>7,125</b>	
Production of products	5,765	5,934	6,182	6,244	6,940	6,511	6,671	6,733	6,774	
Crude input to refineries	4,934	4,884	4,969	5,061	5,718	5,195	5,351	5,434	5,403	
Oil, field production	3,138	2,685	2,499	2,431	2,406	2,366	2,355	2,282	2,147	
Alaska	592	647	577	569	542	510	473	429	383	
Lower 48 States	2,555	2,037	1,922	1,863	1,853	1,856	1,882	1,853	1,764	
Net imports	1,821	2,112	2,441	2,542	2,604	2,708	2,963	3,137	3,144	
Imports (gross excluding SPR)	1,910	2,142	2,472	2,574	2,639	2,748	3,002	3,178	3,184	
SPR imports	16	10	5	4	-	-	-	-	3	
Exports	-105	40	36	36	35	40	39	40	43	
Other sources	33	98	28	88	102	122	34	15	113	
Natural gas liquids (NGL), supply	577	574	664	694	708	716	721	717	757	
Other liquids	253	465	550	489	514	599	599	582	614	
Net imports of refined products	484	326	134	217	101	181	154	225	252	
Imports	578	598	461	518	407	491	469	508	537	
Exports	94	272	327	302	307	310	315	283	284	
Stock withdrawal, refined products	-7	-59	-24	6	46	9	-29	-53	98	
<b>TYPE OF PRODUCT SUPPLIED</b>										
<b>Total products supplied for domestic use</b>	<b>6,242</b>	<b>6,201</b>	<b>6,291</b>	<b>6,467</b>	<b>6,469</b>	<b>6,701</b>	<b>6,796</b>	<b>6,905</b>	<b>7,125</b>	
Finished motor gasoline	2,407	2,641	2,729	2,774	2,843	2,888	2,926	3,012	3,077	
Distillate fuel oil	1,049	1,103	1,110	1,154	1,170	1,232	1,254	1,263	1,304	
Residual fuel oil	918	449	394	373	311	311	291	324	303	
Liquefied petroleum gases <sup>2</sup>	414	568	633	686	693	736	744	713	801	
Other	1,454	1,440	1,425	1,480	1,452	1,535	1,582	1,593	1,639	
<b>ENDING STOCKS</b>										
<b>Ending stocks, all oils</b>	<b>1,392</b>	<b>1,621</b>	<b>1,647</b>	<b>1,653</b>	<b>1,563</b>	<b>1,052</b>	<b>1,560</b>	<b>1,647</b>	<b>1,493</b>	
Crude oil and lease condensate	358	323	335	337	303	284	305	324	284	
Strategic Petroleum Reserve (SPR)	108	586	587	592	592	566	563	571	567	
Other	926	712	725	724	668	202	692	752	641	

- Represents zero. <sup>1</sup> SPR=Strategic petroleum reserve. For more information, see Table 958. <sup>2</sup> Includes ethane.

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

## No. 1176. Crude Petroleum and Natural Gas—Production and Value by Major Producing States: 1990 to 1998

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

State	Crude petroleum						Natural gas marketed production <sup>1</sup>					
	Quantity (mil. bbl.)			Value (mil. dol.)			Quantity (bil. cu. ft.)			Value (mil. dol.)		
	1990	1995	1998	1990	1995	1998	1990	1995	1998	1990	1995	1998
<b>Total</b> <sup>2</sup> . . . . .	<b>2,685</b>	<b>2,406</b>	<b>2,282</b>	<b>53,772</b>	<b>35,004</b>	<b>24,804</b>	<b>18,594</b>	<b>19,506</b>	<b>19,646</b>	<b>31,658</b>	<b>30,160</b>	<b>38,206</b>
AL . . . . .	18	19	12	387	306	150	135	520	564	373	948	1,237
AK . . . . .	658	542	429	10,086	6,088	3,669	403	470	467	554	771	614
AR . . . . .	10	9	8	222	132	89	175	187	188	360	565	738
CA . . . . .	322	279	284	5,732	3,906	2,709	363	280	315	857	483	621
CO . . . . .	31	29	22	722	466	281	243	523	696	377	497	1,323
FL . . . . .	6	6	6	(NA)	(NA)	(NA)	6	6	6	15	8	(NA)
IL . . . . .	20	16	14	467	274	175	1	-	-	1	(Z)	(NA)
IN . . . . .	3	3	2	73	47	28	(Z)	-	1	1	-	1
KS . . . . .	59	44	36	1,359	709	433	574	721	604	893	985	1,027
KY . . . . .	5	3	3	124	57	34	75	75	82	169	123	196
LA . . . . .	148	131	134	3,409	2,096	1,690	5,242	5,108	5,288	9,587	8,048	10,555
MI . . . . .	20	11	9	458	189	111	140	238	278	420	399	491
MS . . . . .	30	20	22	630	294	228	95	96	108	167	118	153
MT . . . . .	20	17	16	429	247	186	50	50	58	90	68	88
NE . . . . .	5	4	3	119	58	37	1	2	2	2	3	2
NM . . . . .	66	65	72	1,472	1,080	894	965	1,626	1,501	1,629	2,056	2,649
NY . . . . .	(Z)	-	-	9	-	3	25	18	17	55	42	43
ND . . . . .	39	29	36	849	457	405	52	49	53	93	(NA)	114
OH . . . . .	8	8	7	196	138	80	155	126	109	393	294	243
OK . . . . .	117	88	78	2,690	1,459	988	2,258	1,812	1,645	3,548	2,616	2,915
PA . . . . .	2	2	2	54	33	27	178	111	68	417	315	-
TX . . . . .	674	560	505	15,060	9,167	6,197	6,343	6,330	6,319	9,939	10,208	13,003
UT . . . . .	23	20	19	524	354	240	146	241	277	249	277	479
WV . . . . .	2	2	1	43	32	18	178	186	178	568	414	-
WY . . . . .	103	79	65	2,169	1,223	693	736	674	761	856	1,198	1,352

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

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

## No. 1177. Crude Oil, Natural Gas, and Natural Gas Liquids—Reserves by State: 1990 and 1998

[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				1998			
	Crude oil		Natural gas	Natural gas liquids	Crude oil		Natural gas	Natural gas liquids
	Proved (mil. bbl.)	Indicated (mil. bbl.)	(bil. cu. ft.)	(mil. bbl.)	Proved (mil. bbl.)	Indicated (mil. bbl.)	(bil. cu. ft.)	(mil. bbl.)
<b>United States</b> . . . . .	<b>26,254</b>	<b>3,483</b>	<b>169,346</b>	<b>7,586</b>	<b>21,034</b>	<b>3,160</b>	<b>164,041</b>	<b>7,524</b>
Lower 48 States . . . . .	19,730	2,514	160,046	7,246	15,982	2,328	154,114	7,204
Alabama . . . . .	44	(Z)	4,125	170	39	-	4,604	81
Alaska . . . . .	6,524	969	9,300	340	5,052	832	9,927	320
Arkansas . . . . .	60	1	1,731	9	47	-	1,328	5
California . . . . .	2,658	2,425	2,185	2105	3,843	1,297	2,244	72
Colorado . . . . .	305	8	4,555	169	212	21	7,881	260
Florida . . . . .	(NA)	(NA)	(NA)	(NA)	71	-	88	18
Illinois . . . . .	(NA)	(NA)	(NA)	(NA)	81	-	(NA)	(NA)
Indiana . . . . .	131	-	(NA)	(NA)	13	-	(NA)	(NA)
Kansas . . . . .	(NA)	(NA)	(NA)	(NA)	246	-	6,402	334
Kentucky . . . . .	321	(Z)	9,614	313	23	-	1,222	54
Louisiana . . . . .	33	-	1,016	25	551	309	9,147	411
Michigan . . . . .	(NA)	(NA)	(NA)	(NA)	44	-	2,328	51
Mississippi . . . . .	(NA)	(NA)	(NA)	(NA)	141	-	658	8
Montana . . . . .	(NA)	(NA)	(NA)	(NA)	167	-	782	5
Nebraska . . . . .	221	-	899	15	18	-	(NA)	(NA)
New Mexico . . . . .	(NA)	(NA)	(NA)	(NA)	620	168	14,987	929
New York . . . . .	687	256	17,260	990	(NA)	(NA)	218	(NA)
North Dakota . . . . .	285	-	586	60	245	1	447	48
Ohio . . . . .	65	-	1,214	(NA)	40	-	890	(NA)
Oklahoma . . . . .	734	37	16,151	657	599	59	13,645	698
Pennsylvania . . . . .	22	-	1,720	(NA)	15	-	1,840	(NA)
Texas . . . . .	27,106	618	238,192	2,575	4,927	400	37,584	2,544
Utah . . . . .	249	44	1,510	( <sup>3</sup> )	201	56	2,388	(NA)
Virginia . . . . .	(NA)	(NA)	138	(NA)	(NA)	(NA)	1,973	(NA)
West Virginia . . . . .	31	-	2,207	86	17	-	2,868	72
Wyoming . . . . .	794	42	9,944	4,812	547	10	13,650	675
Federal offshore . . . . .	2,805	49	31,433	619	3,261	7	26,902	931

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

Source: Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, Annual Report 1998*, December 1999.

## No. 1178. World Daily Crude Oil Production by Major Producing Country: 1980 to 1998

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

Country	1980	1990	1992	1993	1994	1995	1996	1997	1998
<b>World, total</b> <sup>1</sup>	<b>59,600</b>	<b>60,566</b>	<b>60,213</b>	<b>60,236</b>	<b>60,991</b>	<b>62,335</b>	<b>63,711</b>	<b>65,690</b>	<b>66,962</b>
Saudi Arabia	9,900	6,410	8,332	8,198	8,120	8,231	8,218	8,362	8,389
<b>United States</b>	<b>8,597</b>	<b>7,355</b>	<b>7,171</b>	<b>6,847</b>	<b>6,662</b>	<b>6,560</b>	<b>6,465</b>	<b>6,452</b>	<b>6,252</b>
Russia	(X)	(X)	7,632	6,730	6,135	5,995	5,850	5,920	5,854
Iran	1,662	3,088	3,429	3,540	3,618	3,643	3,686	3,664	3,634
China	2,114	2,774	2,845	2,890	2,939	2,990	3,131	3,200	3,198
Venezuela	2,168	2,137	2,371	2,450	2,588	2,750	2,938	3,280	3,167
Algeria	1,936	2,553	2,669	2,673	2,685	2,618	2,855	3,023	3,070
Norway	528	1,704	2,229	2,350	2,521	2,768	3,104	3,143	3,017
United Kingdom	1,622	1,820	1,825	1,915	2,375	2,489	2,568	2,518	2,616
United Arab Emirates	1,709	2,117	2,266	2,159	2,193	2,233	2,278	2,316	2,345
Nigeria	2,055	1,810	1,943	1,960	1,931	1,993	2,001	2,132	2,153
Iraq	2,514	2,040	425	512	553	560	579	1,155	2,150
Kuwait	1,656	1,175	1,058	1,852	2,025	2,057	2,062	2,007	2,085
Canada	1,435	1,553	1,605	1,679	1,746	1,805	1,837	1,922	1,981
Indonesia	1,577	1,462	1,504	1,511	1,510	1,503	1,547	1,520	1,518
Libya	1,787	1,375	1,433	1,361	1,378	1,390	1,401	1,446	1,390
Algeria	1,106	1,175	1,214	1,162	1,180	1,202	1,242	1,277	1,246
Brazil	182	631	626	643	671	695	795	841	969
Oman	282	685	740	776	810	851	883	904	900
Argentina	491	483	553	594	650	715	756	834	847
Egypt	595	873	881	890	896	920	922	856	834
Angola	150	475	526	509	536	646	709	714	735
Malaysia	283	619	653	640	645	682	695	700	733
Colombia	126	440	433	456	450	585	623	652	733
Qatar	472	406	423	413	415	442	510	550	696
India	182	660	561	534	590	703	651	675	661
Syria	164	388	481	554	560	575	582	561	553
Australia	380	575	535	503	536	562	570	588	544
Kazakhstan	(X)	(X)	444	408	352	362	403	466	476
Yemen	-	193	182	220	335	345	340	362	388

- Represents zero. X Not applicable. <sup>1</sup> Includes countries not shown separately.

Source: U.S. Energy Information Administration, *International Energy Review*, 1998.

## No. 1179. Liquefied Petroleum Gases—Summary: 1980 to 1999

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

Item	1980	1990	1993	1994	1995	1996	1997	1998	1999
<b>Production</b>	<b>561</b>	<b>638</b>	<b>850</b>	<b>734</b>	<b>760</b>	<b>789</b>	<b>799</b>	<b>775</b>	<b>811</b>
At natural gas plants	441	456	634	511	521	547	547	529	559
At refineries	121	182	216	223	234	242	252	246	251
Imports	79	68	70	67	53	61	62	71	64
Refinery input	85	107	179	108	105	102	96	92	87
Exports	9	14	16	14	21	19	18	15	18
Stocks, Dec. 31	116	98	117	99	93	86	89	115	88

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

## No. 1180. Natural Gas Plant Liquids—Production and Value: 1980 to 1998

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

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

<sup>1</sup> 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. 1181. Natural Gas—Supply, Consumption, Reserves, and Marketed Production: 1980 to 1998

[182 represents 182,000 wells]

Item	Unit	1980	1990	1991	1992	1993	1994	1995	1996	1997	1998
Producing wells (year-end)	1,000	182	269	276	276	282	292	299	302	311	316
Production value at wells	Bil. dol	32.1	31.8	30.3	32.6	38.7	36.5	30.2	42.9	46.1	38.1
Avg. per 1,000 cu. ft	Dollars	1.59	1.71	1.64	1.74	2.04	1.85	1.55	2.17	2.32	1.94
Proved reserves <sup>1</sup>	Tril. cu. ft.	199	169	167	165	162	164	165	166	167	(NA)
<b>Marketed production<sup>2</sup></b>	<b>Tril. cu. ft.</b>	<b>20.2</b>	<b>18.6</b>	<b>18.5</b>	<b>18.7</b>	<b>19.0</b>	<b>19.7</b>	<b>19.5</b>	<b>19.8</b>	<b>19.9</b>	<b>19.6</b>
Minus: Extraction losses <sup>3</sup>	Tril. cu. ft.	0.8	0.8	0.8	0.9	0.9	0.9	0.9	1.0	1.0	0.9
Equals: Dry production	Tril. cu. ft.	19.4	17.8	17.7	17.8	18.1	18.8	18.6	18.8	18.9	18.9
Plus: Withdrawals from storage	Tril. cu. ft.	2.0	2.0	2.8	2.8	2.7	2.5	3.0	2.9	2.8	(NA)
Plus: Imports <sup>4</sup>	Tril. cu. ft.	1.0	1.5	1.8	2.1	2.4	2.6	2.8	2.9	3.0	(NA)
Plus: Balancing item	Tril. cu. ft.	-0.6	-0.2	-0.5	-0.5	-0.1	-0.4	-0.2	0.3	0.1	(NA)
Equals: Total supply	Tril. cu. ft.	21.9	21.3	21.8	22.8	23.6	24.2	24.8	25.6	25.5	(NA)
Minus: Exports	Tril. cu. ft.	0.5	0.9	0.1	0.2	0.1	0.2	0.2	0.2	0.2	(NA)
Minus: Additions to storage <sup>5</sup>	Tril. cu. ft.	1.9	2.5	2.7	2.6	2.8	2.9	2.6	3.0	2.9	(NA)
<b>Equals: Consumption, total</b>	<b>Tril. cu. ft.</b>	<b>19.9</b>	<b>18.7</b>	<b>19.0</b>	<b>19.5</b>	<b>20.3</b>	<b>20.7</b>	<b>21.6</b>	<b>22.0</b>	<b>22.0</b>	<b>21.3</b>
Lease and plant fuel	Tril. cu. ft.	1.0	1.2	1.1	1.2	1.2	1.1	1.2	1.3	1.2	1.2
Pipeline fuel	Tril. cu. ft.	0.6	0.7	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.6
Residential	Tril. cu. ft.	4.8	4.4	4.6	4.7	5.0	4.8	4.9	5.2	5.0	4.5
Commercial <sup>6</sup>	Tril. cu. ft.	2.6	2.6	2.7	2.8	2.9	2.9	3.0	3.2	3.2	3.0
Industrial	Tril. cu. ft.	7.2	7.0	7.2	7.5	8.0	8.2	8.6	8.9	8.8	8.7
Vehicle fuel	Tril. cu. ft.	(NA)	(Z)	(Z)	(Z)	1.0	1.7	2.7	2.9	4.4	-
Electric utilities	Tril. cu. ft.	3.7	2.8	2.8	2.8	2.7	3.0	3.2	2.7	3.0	3.3
World production (dry)	Tril. cu. ft.	53.5	73.6	74.8	74.8	76.4	76.9	78.0	81.6	81.6	83.0
U.S. production (dry)	Tril. cu. ft.	19.4	17.8	17.7	17.8	18.1	18.8	18.6	18.8	18.9	18.9
Percent U.S. of world	Percent	36.3	24.2	23.7	23.8	23.7	24.5	23.9	23.0	23.2	22.7

- Represents or rounds to zero. NA Not available. Z Less than .05 trillion cubic feet. <sup>1</sup> Estimated, end of year. Source: U.S. Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, annual. <sup>2</sup> Marketed production includes gross withdrawals from reservoirs less quantities used for reservoir repressuring and quantities vented or flared. For 1980 and thereafter, it excludes the nonhydrocarbon gases subsequently removed. <sup>3</sup> Volumetric reduction in natural gas resulting from the extraction of natural gas constituents at natural gas processing plants. <sup>4</sup> Includes imports of liquefied natural gas. <sup>5</sup> Includes liquefied natural gas (LNG) storage in above ground tanks. <sup>6</sup> 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. 1182. World Natural Gas Production by Major Producing Country: 1980 to 1998

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

Country	1980	1990	1992	1993	1994	1995	1996	1997	1998
<b>World, total<sup>1</sup></b>	<b>53.35</b>	<b>73.57</b>	<b>74.84</b>	<b>76.36</b>	<b>76.93</b>	<b>77.96</b>	<b>81.64</b>	<b>81.61</b>	<b>82.96</b>
Russia	(X)	(X)	22.62	21.81	21.45	21.01	21.23	20.17	20.87
<b>United States</b>	<b>19.40</b>	<b>17.81</b>	<b>17.84</b>	<b>18.10</b>	<b>18.82</b>	<b>18.60</b>	<b>18.79</b>	<b>18.90</b>	<b>18.86</b>
Canada	2.76	3.85	4.52	4.91	5.27	5.60	5.78	5.85	6.04
United Kingdom	1.32	1.75	1.96	2.31	2.47	2.67	3.18	3.03	3.17
Netherlands	3.40	2.69	3.06	3.11	2.95	2.98	3.37	2.99	2.84
Algeria	0.41	1.79	1.97	1.90	1.81	2.05	2.19	2.43	2.60
Indonesia	0.63	1.53	1.79	1.97	2.21	2.24	2.35	2.37	2.24
Uzbekistan	(X)	(X)	1.51	1.59	1.67	1.70	1.70	1.74	1.94
Iran	0.25	0.84	0.88	0.96	1.12	1.25	1.42	1.66	1.77
Saudi Arabia	0.33	1.08	1.20	1.27	1.33	1.34	1.46	1.60	1.65
Norway	0.92	0.98	1.04	0.97	1.04	1.08	1.45	1.62	1.63
Malaysia	0.06	0.65	0.80	0.88	0.92	1.02	1.23	1.36	1.44
United Arab Emirates	0.20	0.78	1.02	0.94	0.91	1.11	1.19	1.28	1.31
Mexico	0.90	0.90	0.88	0.95	0.97	0.96	1.06	1.16	1.27
Australia	0.31	0.72	0.80	0.86	0.93	1.03	1.05	1.07	1.10
Argentina	0.28	0.63	0.71	0.76	0.79	0.88	0.94	0.97	1.05
Venezuela	0.52	0.76	0.76	0.82	0.88	0.89	0.96	0.99	0.99
China	0.51	0.51	0.53	0.56	0.59	0.60	0.67	0.75	0.78
Germany	0.93	0.72	0.68	0.68	0.70	0.74	0.80	0.79	0.77
India	0.05	0.40	0.48	0.53	0.59	0.63	0.70	0.72	0.76
Pakistan	0.29	0.48	0.55	0.58	0.63	0.65	0.70	0.70	0.71
Qatar	0.18	0.28	0.40	0.48	0.48	0.48	0.48	0.61	0.69
Italy	0.44	0.61	0.64	0.69	0.73	0.72	0.71	0.68	0.67
Ukraine	(X)	(X)	0.74	0.68	0.64	0.62	0.64	0.64	0.64
Thailand	-	0.21	0.25	0.31	0.34	0.37	0.43	0.54	0.57
Romania	1.20	1.00	0.78	0.75	0.69	0.68	0.63	0.61	0.52
Egypt	0.03	0.29	0.35	0.40	0.42	0.44	0.47	0.48	0.49
Turkmenistan	-	-	2.02	2.29	1.26	1.14	1.31	0.90	0.47
Trinidad and Tobago	0.08	0.18	0.19	0.22	0.25	0.27	0.30	0.33	0.37
Kuwait	0.24	0.19	0.09	0.19	0.21	0.21	0.33	0.33	0.33

- Represents or rounds to zero. X Not applicable. <sup>1</sup> Includes countries not shown separately.

Source: U. S. Energy Information Administration, *International Energy Annual*, 1998.

## No. 1183. Coal and Coke—Summary: 1980 to 1999

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

Item	Unit	1980	1990	1994	1995	1996	1997	1998	1999, prel.
<b>COAL</b>									
<b>Coal production, total <sup>1</sup> . . . . .</b>	<b>Mil. sh. tons . . . . .</b>	<b>830</b>	<b>1,029</b>	<b>1,034</b>	<b>1,033</b>	<b>1,064</b>	<b>1,090</b>	<b>1,118</b>	<b>1,099</b>
Value . . . . .	Bil. dol. . . . .	20.45	22.39	20.06	19.45	19.68	19.77	19.75	19.42
Anthracite production . . . . .	Mil. sh. tons . . . . .	6.1	3.5	4.6	4.7	4.8	4.7	5.3	5.2
Bituminous coal and lignite . . . . .	Mil. sh. tons . . . . .	824	1,026	1,029	1,028	1,059	1,085	1,112	1,094
Underground . . . . .	Mil. sh. tons . . . . .	337	425	399	396	410	421	417	411
Surface . . . . .	Mil. sh. tons . . . . .	487	605	634	637	654	669	700	688
Exports . . . . .	Mil. sh. tons . . . . .	92	106	71	89	90	84	78	59
Imports . . . . .	Mil. sh. tons . . . . .	1	3	8	7	7	7	9	9
Consumption <sup>2</sup> . . . . .	Mil. sh. tons . . . . .	703	896	930	941	1,006	1,029	1,039	1,041
Electric power utilities . . . . .	Mil. sh. tons . . . . .	569	774	817	829	875	900	911	897
Industrial . . . . .	Mil. sh. tons . . . . .	126	115	107	106	103	101	96	94
Number of mines . . . . .	Number . . . . .	5,598	3,243	2,354	2,104	1,903	1,828	1,726	(NA)
Daily employment . . . . .	1,000 . . . . .	225	131	98	90	83	82	81	(NA)
Production, by state:									
Alabama . . . . .	Mil. sh. tons . . . . .	26	29	23	25	25	24	23	20
Illinois . . . . .	Mil. sh. tons . . . . .	63	60	53	48	47	41	40	40
Indiana . . . . .	Mil. sh. tons . . . . .	31	36	31	26	30	35	37	34
Kentucky . . . . .	Mil. sh. tons . . . . .	150	173	162	154	152	156	150	139
Montana . . . . .	Mil. sh. tons . . . . .	30	38	42	39	38	41	43	41
Ohio . . . . .	Mil. sh. tons . . . . .	39	35	30	26	29	29	28	23
Pennsylvania . . . . .	Mil. sh. tons . . . . .	93	71	62	62	68	76	81	76
Virginia . . . . .	Mil. sh. tons . . . . .	41	47	37	34	36	36	34	32
West Virginia . . . . .	Mil. sh. tons . . . . .	122	169	162	163	170	174	171	156
Wyoming . . . . .	Mil. sh. tons . . . . .	95	184	237	264	278	282	314	335
Other states . . . . .	Mil. sh. tons . . . . .	140	187	195	192	192	195	196	203
World production . . . . .	Mil. sh. tons . . . . .	4,200	5,356	5,008	5,126	5,185	5,172	5,043	(NA)
Percent U.S. of world . . . . .	Percent . . . . .	19.8	19.2	20.6	20.2	20.5	21.1	22.2	(NA)
<b>COKE</b>									
Coke production <sup>3</sup> . . . . .	Mil. sh. tons . . . . .	46.13	27.62	22.69	23.75	23.08	22.12	20.04	20.02
Imports . . . . .	Mil. sh. tons . . . . .	0.66	0.77	3.34	3.82	2.54	3.14	3.83	3.22
Exports . . . . .	Mil. sh. tons . . . . .	2.07	0.57	0.99	1.36	1.62	1.27	1.13	0.90
Consumption . . . . .	Mil. sh. tons . . . . .	41.28	27.82	25.56	25.90	23.97	24.02	23.03	22.44

NA Not available. <sup>1</sup> Includes bituminous coal, subbituminous coal, lignite, and anthracite. <sup>2</sup> Includes some categories not shown separately. <sup>3</sup> Includes beehive coke.

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

## No. 1184. World Coal Production by Major Producing Country: 1980 to 1998

[In millions of short tons (4,200 represents 4,200,000,000)]

Country	1980	1990	1992	1993	1994	1995	1996	1997	1998
<b>World, total . . . . .</b>	<b>4,200</b>	<b>5,356</b>	<b>5,019</b>	<b>4,921</b>	<b>5,008</b>	<b>5,126</b>	<b>5,185</b>	<b>5,172</b>	<b>5,043</b>
China . . . . .	684	1,190	1,229	1,304	1,404	1,537	1,515	1,461	1,351
<b>United States . . . . .</b>	<b>830</b>	<b>1,029</b>	<b>998</b>	<b>945</b>	<b>1,034</b>	<b>1,033</b>	<b>1,064</b>	<b>1,090</b>	<b>1,119</b>
India . . . . .	126	233	270	281	291	301	340	353	359
Australia . . . . .	116	226	249	248	248	267	272	293	314
Russia . . . . .	(X)	(X)	406	364	313	296	304	290	272
South Africa . . . . .	132	193	203	207	216	227	227	246	247
Germany . . . . .	532	514	346	315	292	273	265	252	229
Poland . . . . .	254	237	218	218	220	220	222	221	198
Czech Republic . . . . .	(X)	(X)	(X)	94	85	82	84	84	83
Canada . . . . .	40	75	72	76	80	83	83	87	83
Ukraine . . . . .	(X)	(X)	147	128	105	92	79	86	83
Kazakhstan . . . . .	(X)	(X)	139	123	115	92	84	80	77
Korea, North . . . . .	51	71	74	78	78	78	79	68	68
Turkey . . . . .	20	52	57	54	60	61	62	62	67
Indonesia . . . . .	1	9	24	30	34	46	55	60	66
Greece . . . . .	26	57	61	60	63	64	66	65	65
Serbia and Montenegro . . . . .	(X)	(X)	44	41	42	44	42	45	48
United Kingdom . . . . .	144	104	94	75	54	52	55	54	45
Colombia . . . . .	5	23	26	23	25	28	33	36	38
Bulgaria . . . . .	40	39	33	32	32	34	34	33	33
Spain . . . . .	41	40	37	35	33	31	31	29	29
Romania . . . . .	39	42	42	44	45	45	46	37	29
Thailand . . . . .	2	14	17	17	19	20	24	26	22
Hungary . . . . .	28	19	17	16	16	15	13	14	16
Vietnam . . . . .	6	5	5	7	6	9	11	13	12
Mexico . . . . .	4	9	7	8	10	10	11	10	11
Venezuela . . . . .	-	2	3	4	5	4	5	6	8
Macedonia (Former Yugoslav Republic) . . . . .	(X)	(X)	8	8	8	8	8	7	7
France . . . . .	25	15	13	12	10	9	9	8	6
Zimbabwe . . . . .	3	6	6	6	6	6	5	6	6

- Represents zero. X Not applicable.

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

## No. 1185. Demonstrated Coal Reserves by Type of Coal and Major Producing State: 1997

[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 analyze and measurements from closely spaced and geological well known sample sites. Indicated resources are estimates based partly from sample and analyses and measurements and partly from reasonable geologic projections. For more information on the classification of coal resources and related terminology, see report cited below]

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

- Represents or rounds to zero.

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

## No. 1186. Uranium Concentrate (U<sub>3</sub>O<sub>8</sub>) Industry—Summary: 1990 to 1999

[See also Table 968]

Item	Unit	1990	1992	1993	1994	1995	1996	1997	1998	1999
Exploration and development, surface drilling . . . . .	Mil. ft. . . . .	1.7	1.1	1.1	0.7	1.3	3.0	4.9	4.6	2.5
Expenditures . . . . .	Mil. dol. . . . .	17.1	14.5	11.3	3.7	6.0	10.1	30.4	21.7	9.0
Number of mines operated . . . . .	Number . . . . .	39	17	12	12	12	13	14	15	14
Underground . . . . .	Number . . . . .	27	4	-	-	-	1	1	4	3
Openpit . . . . .	Number . . . . .	2	1	-	-	-	-	-	-	-
In situ leaching . . . . .	Number . . . . .	7	4	5	5	5	6	7	6	6
Other sources . . . . .	Number . . . . .	3	8	7	7	7	6	6	5	5
Mine production . . . . .	1,000 pounds . .	5,876	986	2,050	2,526	3,528	4,705	4,710	4,782	4,548
Underground . . . . .	1,000 pounds . .	(D)	(D)	-	-	-	(D)	(D)	(D)	(D)
Openpit . . . . .	1,000 pounds . .	1,881	(D)	-	-	-	-	-	-	-
In situ leaching . . . . .	1,000 pounds . .	(D)	(D)	(D)	2,448	3,372	4,379	4,084	3,721	3,830
Other sources . . . . .	1,000 pounds . .	3,995	986	2,050	78	156	326	626	1,062	718
Uranium concentrate production . . . . .	1,000 pounds . .	8,886	5,645	3,063	3,352	6,043	6,321	5,643	4,705	4,611
Concentrate shipments from mills and plants . . . . .	1,000 pounds . .	12,957	6,853	3,374	6,319	5,500	5,982	5,817	4,863	5,527
Employment . . . . .	Person-years . .	1,335	682	871	980	1,107	1,118	1,097	1,120	848

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

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