Coal Industry Annual 1996

November 1997

Energy Information Administration
Office of Coal, Nuclear, Electric and Alternate Fuels
U.S. Department of Energy
Washington, DC 20585

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

MASTER

Contacts

This publication was prepared by Frederick L. Freme, Michelle Bowles, Stephen Scott, and Thomas Murphy under the direction of Mary K. Paull, Acting Chief, Coal Data Branch, Coal and Electric Data and Renewables Division, Office of Coal, Nuclear, Electric, and Alternate Fuels. Specific information about

the data in this report can be obtained from Frederick L. Freme (202/426-1152), or e-mail FFREME@EIA.DOE.GOV. All other questions on coal statistics should be directed to the National Energy Information Center (202/586-8800), or e-mail INFOCTR@EIA.DOE.GOV.

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

DISCLAIMER

**Portions of this document may be illegible
in electronic image products. Images are
produced from the best available original
document.**

Preface

Coal Industry Annual 1996 provides comprehensive information about U.S. coal production, number of mines, prices, productivity, employment, productive capacity, and recoverable reserves. U.S. coal production for 1996 and previous years is based on the annual survey EIA-7A, "Coal Production Report."

This report presents data on coal consumption, coal distribution, coal stocks, coal prices, coal quality, and emissions for Congress, Federal and State agencies, the coal industry, and the general public. Appendix A contains a compilation of coal statistics for the major coal-producing States. This report does not include coal consumption data for nonutility power producers that are not in the manufacturing, agriculture, mining, construction, or commercial sectors. Consumption for nonutility power producers not included in this report is estimated to be 24 million short tons for 1996.

The data presented in the report were collected and published by the Energy Information Administration (EIA), to fulfill its data collection and dissemination responsibilities, as specified in the Federal Energy Administration Act of 1974 (Public Law 93-275), as amended. Data for the Demonstrated Reserve Base

(DRB) are now reported in *U.S. Coal Reserves: A Review and Update* (DOE/EIA-0529). However, this report presents data on the recoverable portion of the DRB in Table 105.

The base year for the implicit price deflator, which is used to convert nominal figures to real figures is 1992, the same as the previous year (Table D3).

This report constitutes the 21st annual report on coal production published by EIA and continues the series formerly included in the *Minerals Yearbook* published by the Bureau of Mines.

The Office of Coal, Nuclear, Electric and Alternate Fuels gratefully acknowledges the cooperation of the respondents in supplying the information presented in this report and appreciates the valuable assistance of State coal mining agencies; the U.S. Department of the Interior: the Bureau of Land Management, the Minerals Management Service; the U.S. Department of Labor: the Mine Safety and Health Administration, the Bureau of Labor Statistics; the U.S. Department of Commerce: the Bureau of the Census; and the King Publishing Corporation.

Contents

	Page
Executive Summary	ix
Supply	1
Production	3
Productive Capacity	25
Recoverable Coal Reserves at Producing Mines	37
Producer/Distributor Stocks	49
Imports	51
Employment and Productivity	59
Employment	61
Productivity	73
Distribution	89
Demand	129
Domestic Markets	131
Foreign Markets	145
Coal Prices	151
Mine Prices	153
Consumer Prices	169
Import/Export Prices	175
Coal Quality and Emissions	183
Appendices	
A. Major Coal Producing States	195
B. Metric Tables	213
C. References	229
D. Explanatory Notes	233
Glossary	247

Tables

	Page
1. Coal Production by State, 1987, 1992-1996	4
2. Number of Coal Mines by State, 1987, 1992-1996	5
3. Coal Production and Number of Mines by State and Mine Type, 1996	6
4. Coal Production and Number of Mines by State, County, and Mine Type, 1996	7
5. Underground Coal Production by State and Mining Method, 1996	11
6. Coal Production and Number of Mines by State, Mine Type, and Mine Production Range, 1996	12
7. U.S. Coal Production by Coalbed Thickness and Mine Type, 1996	14
8. U.S. Coal Production and Coalbed Thickness by Major Coalbeds and Mine Type, 1996	15
9. Coal Production and Number of Mines by State and Coal Rank, 1996	16
10. Coal Production by State, Coal Rank, and Group, 1996	17
11. Coal Production by State, Mine Type, and Union Type, 1996	18
12. Coal Production by State and Disposition, 1996	20
13. Coal Mining Acreage, Production and Royalties from Federal and Indian Leases by State, 1996	21
14. Major U.S. Coal Mines, 1996	22
15. Major U.S. Coal Producers, 1996	23
16. Productive Capacity of Coal Mines by State, 1987, 1992-1996	26
17. Capacity Utilization of Coal Mines by State, 1987, 1992-1996	27
18. Production, Productive Capacity, and Capacity Utilization of Coal Mines by State and Mine Type, 1996	28
19. Productive Capacity and Capacity Utilization of Underground Coal Mines by State and Mining Method, 1996	29
20. Productive Capacity and Capacity Utilization of Coal Mines by State and Coal Rank, 1996	30
21. Productive Capacity and Capacity Utilization of Coal Mines by State and Mine Production Range, 1996	31
22. Productive Capacity and Productivity of Coal Mines by State and Capacity Utilization Range, 1996	32
23. Productive Capacity and Capacity Utilization of Coal Mines by State and Recoverable Reserves Range, 1996	33
24. Productive Capacity and Capacity Utilization of Coal Mines by State, Mine Type, and Union Type, 1996	34
25. Recoverable Coal Reserves at Producing Mines by State, 1987, 1992-1996	39
26. Average Recovery Percentage at Producing Coal Mines by State, 1987, 1992-1996	40
27. Recoverable Coal Reserves and Average Recovery Percentage at Producing Mines by State and Mine Type, 1996	41
28. Recoverable Coal Reserves at Producing Underground Mines by State and Mining Method, 1996	42
29. Average Recovery Percentage at Producing Underground Coal Mines by State and Mining Method, 1996	43
30. Recoverable Coal Reserves and Average Recovery Percentage at Producing U.S. Mines by Mine Production Range and Mine Type, 1996	44
31. Recoverable Coal Reserves and Average Recovery Percentage at Producing U.S. Mines by Coalbed Thickness and Mine Type, 1996	44
32. Recoverable Coal Reserves and Average Recovery Percentage at Producing Mines by State, Mine Type, and Union Type, 1996	45
33. Status of Recoverable Coal Reserves and Coal Production from Producing Federal Coal Leases by State, 1996	47
34. Year-End Producer and Distributor Coal Stocks by State, 1992-1996	50
35. U.S. Coal Imports by Continent and Country of Origin, 1987, 1992-1996	53
36. Coal Imports by Customs District, 1987, 1992-1996	54
37. U.S. Receipts of Imported Coal by Country of Origin and Destination State, 1987, 1992-1996	55
38. Imported Coal Received at Electric Utilities by Country of Origin and Destination State, 1987, 1992-1996	57
39. Imported Coal Received at Manufacturing and Coke Plants by Country of Origin and Destination State, 1994-1996	58
40. Average Number of Miners by State, 1987, 1992-1996	63
41. Average Number of Miners at Underground Mines by State, 1987, 1992-1996	64
42. Average Number of Miners at Surface Mines by State, 1987, 1992-1996	65
43. Average Number of Miners by State and Mine Production Range, 1996	66
44. Average Number of Miners at Underground Mines by State and Mine Production Range, 1996	67
45. Average Number of Miners at Surface Mines by State and Mine Production Range, 1996	68

46.	Average Number of Miners by State, Mine Type, and Union Type, 1996	69
47.	U.S. Coal Mine Injuries, 1987, 1992-1996	70
48.	Coal Mining Productivity by State, 1987, 1992-1996	74
49.	Underground Coal Mining Productivity by State, 1987, 1992-1996	75
50.	Surface Coal Mining Productivity by State, 1987, 1992-1996	76
51.	Coal Mining Productivity by State and Mine Type, 1996	77
52.	Weighted Average Number of Days Worked by State and Mine Type, 1987, 1992-1996	79
53.	Weighted Average Number of Days Worked by Mine Production Range, 1996	81
54.	Underground Coal Mining Productivity by State and Mining Method, 1996	82
55.	U.S. Coal Mining Productivity by Coalbed Thickness and Mining Method, 1996	83
56.	Coal Mining Productivity by State, Mine Type, and Mine Production Range, 1996	84
57.	Coal Mining Productivity by State, Mine Type, and Union Type, 1996	86
58.	Distribution of U.S. Coal by State of Origin, 1992-1996	91
59.	Domestic and Foreign Distribution of U.S. Coal by State of Origin, 1992-1996	92
60.	Major U.S. Coal Distributors, 1996	93
61.	Domestic Distribution of U.S. Coal by Coal-Producing Region and State, and Destination Census Division and State, 1992-1996	94
62.	Foreign Distribution of U.S. Coal by Major Coal-Exporting States and Destination, 1992-1996	106
63.	Foreign Distribution of U.S. Metallurgical Coal by Major Coal-Exporting States and Destination, 1992-1996	111
64.	Foreign Distribution of U.S. Steam Coal by Major Coal-Exporting States and Destination, 1992-1996	114
65.	Distribution of U.S. Coal by Origin, Destination, and Method of Transportation, 1996	118
66.	Major U.S. Coal Consumers, 1996	133
67.	Coal Consumption by Census Division and State, 1987, 1992-1996	135
68.	Year-End Consumer Coal Stocks by Census Division and State, 1987, 1992-1996	137
69.	Coal Consumption at Electric Utility Plants by Census Division and State, 1987, 1992-1996	138
70.	Year-End Coal Stocks at Electric Utility Plants by Census Division and State, 1987, 1992-1996	139
71.	Coal Consumption at Other Industrial Plants by Census Division and State, 1987, 1992-1996	140
72.	Year-End Coal Stocks at Other Industrial Plants by Census Division and State, 1987, 1992-1996	141
73.	Coal Carbonized at Coke Plants by Census Division and State, 1987, 1992-1996	142
74.	Year-End Coal Stocks at Coke Plants by Census Division and State, 1987, 1992-1996	142
75.	Coal Consumption by Residential and Commercial Sector, by Census Division and State, 1987, 1992-1996	143
76.	U.S. Coal Exports by Destination, 1987, 1992-1996	147
77.	U.S. Metallurgical Coal Exports by Destination, 1987, 1992-1996	148
78.	U.S. Steam Coal Exports by Destination, 1987, 1992-1996	149
79.	Coal Exports by Customs District, 1987, 1992-1996	150
80.	Average Mine Price of Coal by State, 1987, 1992-1996	154
81.	Average Real Mine Price of Coal by State, 1987, 1992-1996	155
82.	Average Mine Price of Coal by State and Mine Type, 1996	156
83.	Average Mine Price of Coal by State and Underground Mining Method, 1996	157
84.	Coal Production, Number of Mines, and Average Mine Price, by State and County, 1996	158
85.	Average Mine Price by State and Coal Rank, 1996	162
86.	Average Mine Price of U.S. Coal by Mine Production Range and Mine Type, 1996	163
87.	Average Mine Price of U.S. Coal by Coalbed Thickness and Mine Type, 1996	163
88.	Average Mine Price of Coal by State and Productivity Range, 1996	164
89.	Average Mine Price of Underground Coal by State and Productivity Range, 1996	165
90.	Average Mine Price of Surface Coal by State and Productivity Range, 1996	166
91.	Average Mine Price by State and Disposition, 1996	167
92.	Average Price of Coal Delivered to Electric Utilities by Census Division and State, 1987, 1992-1996	170
93.	Average Real Price of Coal Delivered to Electric Utilities by Census Division and State, 1987, 1992-1996	171
94.	Average Price of Coal Delivered to Other Industrial Plants by Census Division and State, 1987, 1992-1996	172
95.	Average Real Price of Coal Delivered to Other Industrial Plants by Census Division and State, 1987, 1992-1996	173
96.	Average Price of Coal Delivered to Coke Plants by Census Division and State, 1987, 1992-1996	174
97.	Average Real Price of Coal Delivered to Coke Plants by Census Division and State, 1987, 1992-1996	174
98.	Average Price of U.S. Coal Imports by Continent and Country of Origin, 1987, 1992-1996	176
99.	Average Price of U.S. Coal Exports by Destination, 1987, 1992-1996	177
100.	Average Real Price of U.S. Coal Exports by Destination, 1987, 1992-1996	178
101.	Average Price of U.S. Metallurgical Coal Exports by Destination, 1987, 1992-1996	179
102.	Average Real Price of U.S. Metallurgical Coal Exports by Destination, 1987, 1992-1996	180
103.	Average Price of U.S. Steam Coal Exports by Destination, 1987, 1992-1996	181
104.	Average Real Price of U.S. Steam Coal Exports by Destination, 1987, 1992-1996	182
105.	Estimate of the Recoverable Reserves of Coal by Sulfur Range, State, and Mine Type	184
106.	Average Quality of Coal Received at Electric Utilities by Census Division and State, 1987, 1992-1996	186

107.	Average Quality of Coal Received at Manufacturing and Coke Plants by Census Division and State, 1993-1996	190
A1.	Alabama Coal Statistics, 1987, 1992-1996	195
A2.	Arizona Coal Statistics, 1987, 1992-1996	196
A3.	Colorado Coal Statistics, 1987, 1992-1996	197
A4.	Illinois Coal Statistics, 1987, 1992-1996	198
A5.	Indiana Coal Statistics, 1987, 1992-1996	199
A6.	Kentucky Coal Statistics, 1987, 1992-1996	200
A7.	Montana Coal Statistics, 1987, 1992-1996	201
A8.	New Mexico Coal Statistics, 1987, 1992-1996	202
A9.	North Dakota Coal Statistics, 1987, 1992-1996	203
A10.	Ohio Coal Statistics, 1987, 1992-1996	204
A11.	Pennsylvania Coal Statistics, 1987, 1992-1996	205
A12.	Texas Coal Statistics, 1987, 1992-1996	206
A13.	Utah Coal Statistics, 1987, 1992-1996	207
A14.	Virginia Coal Statistics, 1987, 1992-1996	208
A15.	West Virginia Coal Statistics, 1987, 1992-1996	209
A16.	Wyoming Coal Statistics, 1987, 1992-1996	210
A17.	All Other States Coal Statistics, 1987, 1992-1996	211
A18.	Total U.S. Coal Statistics, 1987, 1992-1996	212
B1.	Trends in U.S. Coal Production, Imports, Consumption, Exports, and Stocks, 1987, 1992-1996	213
B2.	Coal Production by State, 1987, 1992-1996	214
B3.	Productive Capacity of Coal Mines by State, 1987, 1992-1996	215
B4.	Recoverable Coal Reserves at Producing Mines by State, 1987, 1992-1996	216
B5.	U.S. Coal Imports by Continent and Country of Origin, 1987, 1992-1996	217
B6.	Coal Mining Productivity by State, 1987, 1992-1996	218
B7.	Coal Consumption by Census Division and State, 1987, 1992-1996	219
B8.	Year-End Consumer Coal Stocks by Census Division and State, 1987, 1992-1996	220
B9.	U.S. Coal Exports by Destination, 1987, 1992-1996	221
B10.	Average Mine Price of Coal by State, 1987, 1992-1996	222
B11.	Average Price of Coal Delivered to Electric Utilities by Census Division and State, 1987, 1992-1996	223
B12.	Average Price of Coal Delivered to Other Industrial Plants by Census Division and State, 1987, 1992-1996	224
B13.	Average Price of Coal Delivered to Coke Plants by Census Division and State, 1987, 1992-1996	225
B14.	Average Price of U.S. Coal Imports by Continent and Country of Origin, 1987, 1992-1996	226
B15.	Average Price of U.S. Coal Exports by Destination, 1987, 1992-1996	227
C1.	Classification of Coals by Rank	230
C2.	Approximate Heat Content of Coal	232
D1.	Sources of Data for Total U.S. Coal Production and Number of Mining Operations	234
D2.	Interquartile Range and Average Mine Price by State and Mine Type, 1995	237
D3.	Implicit Price Deflator, 1987-1996	245

Illustrations

Page

1.	Recoverable Coal Reserves at Producing U.S. Mines by Mine Type and by Region, 1987-1996	38
2.	Average Recovery Percentage at Producing U.S. Coal Mines by Mine Type and by Region, 1987-1996	38
3.	U.S. Coal Imports, 1987-1996	52
4.	Average Number of U.S. Miners by Mine Type and by Region, 1987-1996	62
5.	U.S. Coal Mining Productivity by Mine Type and by Region, 1987-1996	62
6.	U.S. Coal Mine Injuries, 1987-1996	71
7.	U.S. Coal Mine Fatalities, 1987-1996	71
8.	Coal Distribution, 1987-1996	90
9.	U.S. Coal Consumption, 1987-1996	132
10.	U.S. Consumer Coal Stocks, 1987-1996	136
11.	U.S. Coal Exports, 1987-1996	146
12.	Coal Prices, 1987-1996	152
13.	U.S. Coal Prices by Sector, 1987-1996	169
C1.	Coal-Bearing Areas of the United States	229

Executive Summary

Coal's Role in the U.S. Energy Picture

Total U.S. energy production in 1996 continued the upward swing begun in 1994, rising 2 percent to 72.61 quadrillion Btu. Coal production in Btu terms went up 3 percent to a record high of 22.61 quadrillion Btu (1,064 million short tons). Renewable energy sources, in particular hydroelectric power, and natural gas production went up from their 1995 levels, while oil and nuclear electric power production declined (Table ES1).

Total U.S. energy consumption reached a record level of 93.81 quadrillion Btu in 1996, the fifth consecutive year of growth. Coal consumption reached 20.99 quadrillion Btu, a 5-percent increase over the 1995 level. Consumption of natural gas, petroleum, hydroelectric power, and renewable energy sources also rose, while consumption of nuclear electric power declined slightly.

The electric utility sector accounted for 89 percent of the total coal consumed in 1996. Coal-fired units represented 57 percent of utility generation of electricity, 2 percent more than in 1995. Petroleum and hydroelectric power generation paralleled this increase, while electricity generated by natural gas and nuclear power decreased (Table ES2).

U.S. coal exports went up for the second consecutive year and retained its role as the primary U.S. energy export. In 1996, U.S. coal exports rose to 2.37 quadrillion Btu (90 million short tons), 2 percent more than in 1995. In comparison, coal imports, accounting for less than 1 percent of U.S. energy imports, remained about the same as in 1995 at 0.18 quadrillion Btu (7 million short tons).

Production

U.S. coal production totaled 1,064 million short tons, 31 million short tons higher than in 1995 (Table ES3). Wyoming and Utah set record high production levels. Wyoming remained the leading coal-producing State, followed by West Virginia, and Kentucky. In comparison, Kentucky and Arizona's production was at the lowest level since 1985; Washington's coal output was the lowest since 1987; Oklahoma's coal production was the lowest since 1990; and, New Mexico

and North Dakota had the lowest production levels since 1991. On the other hand, Maryland had the highest production level since 1984; Texas had the highest coal output since 1990; and Tennessee had the highest coal production since 1991. (The total U.S. coal output does not include about 4 million short tons of low-Btu waste coal, which is recovered and used by independent power producers and reported to their respective State governments.)

Coal production for States east of the Mississippi River were 564 million short tons, 19 million short tons more than in 1995. The States with the largest increase in production were West Virginia, Pennsylvania, Indiana, and Ohio, which together had 20 million short tons more coal output than in 1995. The eastern States had a combined net loss of 192 mines and 5,211 miners. However, miner productivity in this region rose 5 percent in 1996 to 3.63 short tons per miner per hour, the third consecutive year of substantial gain.

Coal production west of the Mississippi River reached a record 500 million short tons, despite 9 fewer mines in the region and 1,579 fewer miners. Wyoming's coal output, which was 15 million short tons higher than in 1995, accounted for most of the growth. Miner productivity in the region rose 10 percent to 15.66 tons per miner per hour, in part due to the use of new, upgraded equipment at the mines.

Coal Mine Prices

The average price of U.S. coal in 1996 was \$18.50 per short ton, 2 percent less than in 1995. The price of coal from mines east of the Mississippi River fell 3 percent from the 1995 level, while coal prices at mines West of the Mississippi River also dipped, but by less than 1 percent.

Coal Imports

U.S. coal imports in 1996 were 7 million short tons, about the same as in 1995. An increase in shipments from Indonesia (500 thousand short tons) and Canada (100 thousand short tons) partially offset a decrease in shipment from Venezuela (400 thousand short tons) and Colombia (200 thousand short tons). Venezuela exported 7 percent less coal and Indonesia almost doubled its shipments to the U.S. electric utility sector.

Table ES1. U.S. Energy Overview, Selected Years, 1987, 1992-1996
(Quadrillion Btu)

Activity and Energy Source	1996 ^P	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Production	72.61	R 71.12	R 70.68	68.32	69.96	64.95	2.1	0.9	1.2
Fossil Fuels	58.41	R 57.41	R 57.91	55.71	57.55	57.17	1.8	.4	.2
Coal	22.61	R 21.98	22.07	20.22	21.59	20.14	2.9	1.2	1.3
Natural Gas (Dry)	19.53	R 19.10	R 19.35	18.58	18.38	17.14	2.3	1.5	1.5
Crude Oil ¹	13.74	R 13.89	14.10	14.49	15.22	17.67	-1.1	-2.5	-2.8
Natural Gas Plant Liquids	2.53	2.44	2.39	2.41	2.36	2.22	3.6	1.7	1.5
Nuclear Electric Power	7.17	R 7.18	6.84	6.52	6.61	4.91	-1	2.0	4.3
Hydroelectric Pumped Storage ²	-.03	-.03	-.03	-.04	-.04	(3)	-	-	-
Renewable Energy	7.06	R 6.56	R 5.97	6.13	5.84	2.88	7.6	4.8	10.5
Conventional Hydroelectric Power	3.59	R 3.21	2.67	2.88	2.61	2.63	12.0	8.3	3.5
Geothermal Energy	.35	.33	.38	.38	.37	.23	9.0	-9	4.9
Biofuels ⁴	3.02	R 2.95	R 2.84	2.78	2.79	.02	2.4	2.0	79.8
Solar Energy	.07	.07	.07	.07	.07	-	-	-	-
Wind Energy	.04	R .03	.04	.03	.03	*	10.0	4.8	84.5
Imports	23.68	R 22.48	22.71	21.54	19.66	15.76	5.3	4.8	4.6
Natural Gas	2.90	R 2.90	2.68	2.40	2.16	.99	.1	7.7	12.7
Crude Oil ⁵	16.24	R 15.63	15.34	14.75	13.25	10.07	3.9	5.2	5.4
Petroleum Products ⁶	3.86	R 3.23	3.91	3.76	3.71	4.10	19.5	.9	-7
Coal	.18	.18	.19	.18	.10	.04	-5.2	6.3	1.2
Other ⁷	.50	R .54	.59	.45	.43	.57	-5.2	6.3	1.2
Exports	4.69	4.58	4.12	4.35	5.02	3.85	-	-	-
Coal	2.37	2.32	1.88	1.96	2.68	2.09	2.2	-3.0	1.4
Crude Oil	2.06	1.99	1.99	2.12	2.01	1.63	3.5	.7	2.6
Other ⁸	.26	.27	.26	.27	.33	.13	-4.8	-6.0	7.8
Adjustments ⁹	2.21	R 1.92	R -.05	R 1.83	R .92	.03	14.7	24.5	60.8
Consumption ¹⁰	93.81	R 90.94	R 89.21	R 87.34	R 85.52	76.89	3.1	2.3	2.2
Fossil Fuels	79.29	R 76.94	R 76.06	R 74.51	R 72.89	68.63	3.1	2.1	1.6
Coal	20.99	R 20.08	R 20.02	R 19.83	R 19.21	18.01	4.5	2.2	1.7
Coal Coke Net Imports	*	.03	.02	.02	.03	.01	-	-	-
Natural Gas ¹¹	22.59	R 22.16	R 21.29	20.83	20.13	17.74	1.9	2.9	2.7
Petroleum ¹²	35.72	R 34.66	34.73	33.84	33.53	32.87	3.0	1.6	.9
Nuclear Electric Power	7.17	R 7.18	6.84	6.52	6.61	4.91	-1	2.0	4.3
Hydroelectric Pumped Storage ²	-.03	-.03	-.03	-.04	-.04	(3)	-	-	-
Renewable Energy	7.39	R 6.85	R 6.28	6.40	6.11	3.36	8.0	4.9	9.1
Conventional Hydroelectric Power ¹³	3.91	R 3.47	2.96	3.14	2.85	3.12	12.7	8.2	2.5
Geothermal Energy ¹⁴	.35	R .33	.38	.38	.37	.23	9.0	-9	4.9
Biofuels ⁴	3.02	R 2.95	R 2.84	2.78	2.79	.02	2.4	2.0	79.8
Solar Energy	.07	.07	.07	.07	.07	-	-	-	-
Wind Energy	.04	R .03	.04	.03	.03	*	10.0	4.8	84.5

1 Includes lease condensate.

2 Represents total pumped storage facility production minus energy used for pumping.

3 Pumped storage is included in conventional hydroelectric power.

4 Includes wood, wood waste, peat, wood liquors, railroad ties, pitch, wood sludge, municipal solid waste, agricultural waste, straw, tires, landfill gases, fish oils, and/or other waste.

5 Includes imports of crude oil for the Strategic Petroleum Reserve, which began in 1977.

6 Includes imports of unfinished oils and natural gas plant liquids.

7 "Other" imports are electricity and coal coke.

8 "Other" exports are natural gas, petroleum products, electricity and coal coke.

9 A balancing item. Includes stock changes, losses, gains, miscellaneous blending components, and unaccounted for supply.

10 From 1990, the portion of net imports of electricity that is derived from nonrenewable energy sources is included directly in "Consumption."

11 Includes supplemental gaseous fuels.

12 Petroleum products supplied, including natural gas plant liquids and crude oil burned as fuel.

13 Includes net imports of electricity.

14 Includes electricity imports from Mexico that are derived from geothermal energy.

* Data round to zero.

R Revised data.

P Preliminary data.

Notes: Coal Consumption does not include coal consumed by independent power producers. Total may not equal sum of components due to independent rounding.

Source: Energy Information Administration, *Annual Energy Review 1996*, DOE/EIA-0384(96), Table 1.1.

Table ES2. Share of U.S. Electric Utility Net Generation of Electricity by Source, 1987, 1992-1996
(Percent)

Energy Source	1996	1995	1994	1993	1992	1987
Coal	56.5	55.2	56.2	56.9	56.3	56.9
Natural Gas	8.5	10.3	10.0	9.0	9.4	10.6
Petroleum ¹	2.2	2.0	3.1	3.5	3.2	4.6
Nuclear Power	21.9	22.5	22.0	21.2	22.1	17.7
Hydroelectric Power	10.7	9.8	8.4	9.2	8.6	9.7
Geothermal and Other ²	.2	.2	.3	.3	.4	.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

¹ Distillate fuel oil, residual fuel oil (including crude oil burned as fuel), jet fuel, and petroleum coke.

² Other is wood, waste, wind, photovoltaic, and solar thermal energy used to generate electricity for distribution.

Note: Total may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-759, "Monthly Power Plant Report."

The average price of imported coal in 1996 declined 2 percent to \$33.45 per short ton. Coal imports were valued at \$238 million, down from \$246 million in 1995.

Coal Consumption

In 1996, domestic coal consumption rose to a record of 983 million short tons, a 4-percent increase over 1995. (This total does not include about 24 million short tons of coal consumed by independent power producers in 1996.) The increase is attributable to electric utility coal consumption, which rose by 6 percent to a record level of 875 million short tons, even though net generation at electric utilities rose by 3 percent. Coal consumption at electric utilities was

indirectly affected by: a 10-percent increase in hydroelectric generation; a record level of nuclear power generation (up less than 1 percent); and, the lowest level of natural gas-fired generation since 1993 (down 14 percent from 1995).

Industrial plants consumed 71 million short tons of coal, 3 percent less than in 1995. Coal carbonized at coke plants decreased by 4 percent to 32 million short tons, while the residential and commercial sectors consumed about 6 million short tons.

The average sulfur content (measured as percent sulfur by weight) of coal received at electric utilities in 1996 was 1.10 percent, up 2 percent from 1995. The quality of coal received at manufacturing and coke plants showed a sulfur content of 1.17, a 2-percent increase.

Table ES3. Trends in U.S. Coal Production, Imports, Consumption, Exports, and Stocks, 1987, 1992-1996
(Million Short Tons)

Activity	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Production	1,064	1,033	1,034	945	998	919	3.0	1.6	1.6
Imports	7	7	8	7	4	2	-1.0	17.0	16.9
Producer and Distributor Stocks ¹	29	34	33	25	34	34	-16.8	-4.2	-1.9
Consumption	983	941	930	926	892	837	4.5	2.4	1.8
Exports	90	89	71	75	103	80	2.2	-3.1	1.4
Consumer Stocks ¹	123	135	136	120	164	185	-8.6	-6.9	-4.4

¹ Reported as of the last day of the quarter.

Note: Consumption does not include coal consumed by independent power producers.

Sources: • Production: Energy Information Administration (EIA), Form EIA-7A, "Coal Production Report"; U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report"; and State Mining Agency Coal Production Reports. • Imports: U.S. Department of Commerce, Bureau of the Census, "Monthly Report IM 145." • Producer and Distributor Stocks: EIA, Form EIA-6, "Coal Distribution Report." • Exports: U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545." • Consumption and Consumer Stocks: EIA, Form EIA-759, "Monthly Power Plant Report"; Form EIA-3, Quarterly Coal Consumption Report - Manufacturing Plants; Form EIA-5, "Coke Plant Report - Quarterly"; and Form EIA-6, "Coal Distribution Report."

Coal Stocks

Coal stocks held by consumers on December 31, 1996, totaled 123 million short tons, 12 million short tons less than in 1995. Compared with 1995, year-end 1996 coal stocks at electric utility plants declined by 12 million short tons, while coal stocks at other industrial plants and coke plants remained about the same. Producer and distributor stocks at the end of 1996 were 29 million short tons, a decrease of 6 million short tons.

Delivered Coal Prices

The price of coal delivered to all consuming sectors declined in 1996. The delivered price of coal to the electric utility and other industrial sectors dropped by 2 percent and less than 1 percent, respectively, to \$26.45 per short ton and \$32.32 per short ton. The price of coal delivered to coke plants remained about the same at \$47.33 per short ton.

Coal Exports

U.S. coal exports went up 2 percent to 90 million short tons in 1996. An increase in shipments to Canada, the United Kingdom, Mexico, and the Republic of South Africa offset a decrease in shipments to Europe and Asia.

Compared with 1995, steam coal exports rose 3 percent in 1996 to 38 million short tons. Steam coal exports to North America and Asia increased by 26 percent and 13 percent, respectively, while steam coal exports to Europe dropped by 11 percent to 19 million short tons.

U.S. metallurgical coal exports increased by 2 percent from the 1995 level, to 53 million short tons. Greater demand from foreign metallurgical coal markets, particularly in Canada, Italy, and the Republic of South Africa, were partially offset by lower demand from Japan.

West Virginia continued to dominate coal exports in 1996, shipping over 42 million short tons, a 5-percent decrease from 1995. About 75 percent, or 32 million short tons, went to overseas metallurgical markets, while exports to overseas steam markets amounted to 10 million short tons.

The average price of U.S. coal exports in 1996 was \$40.76 per short ton, a 1-percent increase from 1995. U.S. metallurgical coal export prices rose 3 percent to \$45.49 per short ton, while U.S. steam coal export prices went down slightly to \$34.09 per short ton. Coal exports in 1996 were valued at \$3.7 billion.

Company Mergers & Sales

In the second largest railroad merger this decade, Conrail has been jointly acquired by CSX and Norfolk Southern. Conrail controls 11,000 miles of track in 12 States (including the District of Columbia) in the Northeast, Midwest, and Quebec, Canada. Conrail (for Consolidated Rail Corporation) was formed by the Federal government when Penn Central (which formerly merged with New York Central and five other Eastern lines) collapsed in bankruptcy in 1976. This consolidation of smaller lines allowed Conrail to have a monopoly of rail freight service along the eastern seaboard and west to Chicago.

Since the 1980's, freight railroads have become more profitable, increasing freight traffic and operating more efficiently. These factors created the climate for recent mergers such as the one between Burlington Northern and Santa Fe Pacific in 1994. CSX and Norfolk Southern have each been trying to buy Conrail for some time, in a move to dominate the rail industry in the East. Under the agreement announced April 8, 1997, the two rail giants would divide the former Conrail lines with CSX getting 42 percent of the assets (for \$4.3 billion) and Norfolk Southern having the remaining assets (for \$5.9 billion). CSX would run the old New York Central's Hudson River route, which links New York City to Albany, then continues to Buffalo and Cleveland. In addition, they will serve the lines between New York and Philadelphia and Crestline, Ohio, and Chicago. Norfolk Southern will take over the Erie-Lackawanna route which runs through upstate New York, the old Pennsylvania Railroad line, and a section of the New York Central line from New Jersey to Chicago.

The joint merger application, filed with the U.S. Surface Transportation Board in June 1997, could take a year for final approval. If approved, the CSX-Norfolk Southern jointly-owned railroad would span 22 States and cover nearly 30,000 miles of track. Since Conrail's former rail lines will be divided between the two successors, competition will return to freight rail service in New York, Philadelphia, and other important Eastern ports after a nearly 30-year absence.

In January 1997, Nerox Energy Corp. acquired 1,410 acres of Alaskan coal-bearing lands from San Francisco-based Placer Dome U.S. Inc. Nerox set up offices in Anchorage prior to development of the site, located near Sutton, Alaska. Placer Dome's Evan Jones mine was renamed the Jonesville mine. The company negotiated a contract for an annual amount of 500 thousand metric tons of coal for the Asian export market and has submitted a bid with the Department of Defense to supply coal to military bases in Alaska.

Anker Energy took over Island Creek/Occidental Petroleum's jointly-owned coal properties from Glenn Springs Holdings in early 1996. The site, located in Upshur County, near Buckhannon, West Virginia, was not part of the large sale of Island Creek's assets to Consol in 1993. The property consists of haul roads, a prep plant and the Upshur deep mine, which has been

idle since the middle 1980's. Spokespersons for Anker Energy said that the company will not mine the site, but instead will test its acid mine drainage technology there.

Kerr-McGee Coal sold the stock of its subsidiary Pioneer Fuel to Ruhr American Coal Corp., in February 1996. Ruhr American, owned by Germany's Ruhrkohle AG, purchased Pioneer's surface mine and the accompanying reserves, located in Wyoming County, West Virginia.

Cyprus AMAX Minerals Company, the second largest coal producing company in the U.S. purchased a 50 percent interest in an Australian mine in 1996. The Springvale mine, co-owned by Samsung Development, is a longwall-equipped deep mine which is currently producing at an annual rate of 2 million tons. Cyprus AMAX also successfully bid on the lease to 24 million tons of Federally-owned coal reserves at their Twentymile underground mine in Colorado. This addition brings the total to an estimated 140 million short tons of reserves at the mine. The Twentymile, which produced nearly 6 million tons in 1996, is estimated to produce 8 million tons in 1997.

Arch Minerals the 11th largest U.S. coal-producing company in 1995 sold land in Wyoming that included their Pilot Butte mine, to Union Pacific Corp., in 1996. The Pilot Butte, a small underground mine located near Rock Springs, Wyoming, had been supplying coal to the nearby Jim Bridger power plant. This arrangement did not prove profitable for Arch, and the mine has been idle for the past few years. Union Pacific, which already owned land near the mine, will have the lease for the coal reserves, including reserves which are controlled by the Bureau of Land Management. In August, 1996, Arch's subsidiary, Arch on the North Fork, closed its Ridgeline surface mine, located in Breathitt County, Kentucky. The mine was closed due to depletion of available reserves. In the West, Arch of Wyoming purchased an 80-thousand-acre tract of coal bearing land in Wyoming's Hanna Basin from Commonwealth Edison's Development. The site is located near Elk Mountain, Wyoming, and is estimated to have over 100 million tons in recoverable reserves.

Financially-troubled Morrison Knudsen agreed to merge with Washington Construction Group, a large-project construction company located in Highland, California. Texas-based Morrison Knudsen intends to keep operating its contract mines for the near term. The merger is aimed at pooling the resources of several construction and mining-related interests that the two companies have in common.

Westmoreland Coal sold two of its idle Wise County, Virginia coal operations in 1996. The Wentz facilities (a mine and preparation plant) were transferred to Stonega Mining and Processing, and the Pine Branch Mine was sold to Roaring Fork Mining of Big Stone

Gap, Virginia. The deal was a non-cash sale; Stonega and Roaring Fork agreed to perform reclamation and be responsible for environmental liabilities and meet the UMWA-demands for medical benefit obligations to former Westmoreland employees affected by the sale.

In 1996, Jimmy Ryan, president of two Alabama coal companies, Kodiak Coal and Boone Resources opened the Kodiak No. 1 mine in Shelby County, despite union opposition. The UMWA claimed it had a right to representation at the mine since Ryan is leasing it from U.S. Steel, which is unionized. This was disputed by subsidiary U.S. Steel Mining, the actual operating company, which is non-union. The Kodiak No. 1 Mine produced just over 73 thousand tons of coal in 1996.

In September 1996, Beacon Group Energy Investment Fund purchased MAPCO Coal and MC Mining from MAPCO Inc. The terms of the sale included 100 percent of stock from these two companies. Other assets include mining operations in Kentucky, Maryland, Illinois, and Virginia, a coal terminal on the Ohio River, and supply contracts with Delmarva Power, Seminole Electric, Virginia Power, Cogentrix, TVA, and U.S. Steel. Joe Craft III continues to serve as MAPCO Coal's President, and the company will maintain facilities at MAPCO Inc.'s headquarters in Tulsa, Oklahoma and in Lexington, Kentucky. MAPCO Coal was the 19th largest coal producer in 1996, producing 12.8 million short tons.

In late December 1996, Coastal Corp. was finalizing the sale of its SUFCO, Skyline, and Soldier Creek mining operations in Utah to ARCO Coal and Japanese-owned ITOCHU Corp. The sale was concluded after several months of negotiations, including a period in which ANR Coal- Coastal's Appalachian subsidiary - was being considered as part of the purchase. The main sticking point in the negotiations was the future value of the long-term supply contracts held by Coastal with Intermountain Power Agency and Sierra Pacific Power. Coastal reassured ARCO and ITOCHU by offering to insure the contracts from devaluation due to the effects of arbitration or utility deregulation. The SUFCO, Skyline, and Soldier Creek controlled mines together produced nearly 9 million tons of high volatile, low-sulfur, bituminous coal in 1996. Ninety percent of this output went to U.S. electric utilities and 10 percent was exported to the Pacific Rim. There are an estimated 300 million tons of recoverable reserves on these properties, according to ARCO. Also included in the sale was Coastal's 9-percent share of the Los Angeles Export Terminal.

In November 1996, British-owned Costain PLC sold its U.S. coal company Costain Coal, to Rencoal, Inc., a subsidiary of New York-based Renco Group. Costain PLC had been trying to divest itself of its U.S. coal holdings since 1994. Costain Coal produced 9.3 million short tons in 1996.

Figure ES1. Trends in U.S. Coal Production, Imports, Consumption, Exports, and Stocks, 1987-1996

Note: Consumption does not include coal consumed by independent power producers.
 Sources: Production: Energy Information Administration (EIA), Form EIA-7A, "Coal Production"; U.S. Department of Labor, Mine Safety and Health Administration, Form 2000-2, "Quarterly Mine Employment and Coal Production Report"; and State Mining Agency Coal Production Reports. Imports: U.S. Department of Commerce, Bureau of the Census, "Monthly Report IM 145." Producer and Distributor Stocks: EIA, Form EIA-6, "Coal Distribution Report." Exports: U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545." Consumption and Consumer Stocks: EIA, Form EIA-759, "Monthly Power Plant Report"; Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; and Form EIA-6, "Coal Distribution Report."

Table ES4. U.S. Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	19,427,980	20,105,197	21,016,526	21,535,283	21,626,971	24,241,218	-3.4	-2.6	-2.4
Productive Capacity ¹	1,324,712	1,299,054	1,320,656	1,261,873	1,241,054	1,183,404	2.0	1.6	1.3
Production Total.....	1,063,856	1,032,974	1,033,504	945,424	997,545	918,762	3.0	1.6	1.6
Underground.....	409,849	396,249	399,103	351,053	407,239	372,874	3.4	.1	1.0
Surface.....	654,007	636,725	634,401	594,371	590,306	545,888	2.7	2.6	2.0
Capacity Utilization ²	80.21	79.40	78.11	74.77	80.20	77.29	1.0	*	.4
Ratio of Recoverable Reserves to Production.....	18.3	19.5	20.3	22.8	21.7	26.4	-6.2	-4.2	-4.0
Number of Miners.....	83,462	90,252	97,500	101,322	110,196	142,667	-7.5	-6.7	-5.8
Productivity Total ²	5.69	5.38	4.98	4.70	4.36	3.30	5.8	6.9	6.3
Underground.....	3.57	3.39	3.19	2.95	2.93	2.20	5.6	5.1	5.5
Surface.....	9.05	8.48	7.67	7.23	6.59	4.98	6.7	8.3	6.9
Producer/Distributor Stocks.....	28,648	34,444	33,219	25,284	33,993	34,090	-16.8	-4.2	-1.9
Imports ³	6,476	6,317	6,599	5,496	1,806	765	2.5	37.6	26.8
Distribution (thousand short tons)									
Distribution Total.....	1,059,892	1,030,330	1,022,523	959,445	998,647	NA	2.9	1.5	NA
Domestic Distribution Total.....	967,693	940,423	949,843	883,934	897,267	NA	2.9	1.9	NA
Within State.....	340,005	336,821	353,765	339,034	355,232	NA	.9	-1.1	NA
To Other States.....	627,688	603,602	596,078	544,900	542,035	NA	4.0	3.7	NA
Foreign Distribution Total.....	92,199	89,907	72,680	75,510	101,380	NA	2.5	-2.3	NA
Metallurgical.....	56,162	R 54,077	R 52,206	R 52,591	R 61,432	NA	3.9	-2.2	NA
Steam.....	36,037	R 35,830	R 20,474	R 22,919	R 39,948	NA	.6	-2.5	NA
Canada Total.....	10,599	8,023	8,467	7,751	13,919	NA	32.1	-6.6	NA
Metallurgical.....	8,472	R 6,986	7,464	6,666	9,394	NA	21.3	-2.5	NA
Steam.....	2,127	1,037	1,003	1,085	4,525	NA	105.0	-17.2	NA
Overseas Total ⁴	81,600	81,884	64,214	67,759	87,461	NA	-.3	-1.7	NA
Metallurgical.....	47,690	R 47,091	R 44,743	R 45,925	R 52,038	NA	1.3	-2.2	NA
Steam.....	33,910	R 34,793	R 19,471	R 21,834	R 35,423	NA	-2.5	-1.1	NA
Demand (thousand short tons)									
Consumption Total.....	983,334	940,880	930,201	925,944	892,421	836,860	4.5	2.4	1.8
Electric Utility.....	874,681	829,007	817,270	813,508	779,860	717,894	5.5	2.9	2.2
Industrial.....	70,941	73,055	75,179	74,892	74,042	75,175	-2.9	-1.1	-.6
Coke.....	31,706	33,011	31,740	31,323	32,366	36,877	-3.9	-.5	-1.7
Residential/Commercial.....	6,006	5,807	6,013	6,221	6,153	6,914	3.4	-.6	-1.5
Consumer Stocks Total.....	123,024	134,639	136,139	120,458	163,692	185,459	-8.6	-6.9	-4.4
Electric Utility.....	114,669	126,304	126,897	111,341	154,130	170,797	-9.2	-7.1	-4.3
All Other.....	8,355	8,334	9,243	9,117	9,562	14,662	.3	-3.3	-6.0
Coal Prices (nominal dollars per short ton)									
Mine Total.....	\$18.50	\$18.83	\$19.41	\$19.85	\$21.03	\$23.07	-1.8	-3.1	-2.4
Underground.....	25.96	26.18	26.39	26.92	27.83	29.63	-.9	-1.7	-1.5
Surface.....	13.82	14.25	15.02	15.67	16.34	18.58	-3.0	-4.1	-3.2
Consumer.....									
Electric Utility.....	26.45	27.01	28.03	28.58	29.36	31.83	-2.1	-2.6	-2.0
Industrial.....	32.32	32.42	32.55	32.23	32.78	33.71	-.3	-.3	-.5
Coke.....	47.33	47.34	46.56	47.44	47.92	46.55	*	-.3	.2

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

³ Imports for 1992 through 1996 include imports to electric utilities, manufacturing plants and coke plants. Imports for 1987 include only imports to electric utilities.

⁴ Includes Mexico.

* Data round to zero.

NA Not available.

R Revised Data.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Consumption Total does not include coal consumed by independent power producers. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Supply

Production

U.S. coal production during 1996 increased 3 percent to 1,064 million short tons, setting a record level (Table 1). As in 1995, the largest coal-producing State was Wyoming, followed by West Virginia and Kentucky. Wyoming's coal production in 1996 increased 6 percent over its 1995 level to reach a record of 278 million short tons. West Virginia increased its coal production by 5 percent to a level of 170 million short tons, 3 percent less than the record level of 176 million short tons in 1947. Kentucky, the third largest coal-producing State, declined by 1 percent in 1996, to a level of 152 million short tons. Only 11 of the 25 coal producing States showed an increase in 1996.

Regionally, coal production increased in all regions. In Appalachia, increases in production in 1996 occurred in Maryland, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia, resulting in the largest increase of any region, 17 million short tons (3.9 percent). The Interior Region registered increases in production in Indiana, Missouri, and Texas. Overall, the Interior Region increased in 1996 by 4.3 million short tons (2.6 percent). In the Western Region, two of the nine States (Utah and Wyoming) increased their coal production in 1996, with both States reaching record levels. Coal production in the Western Region increased 9.6 million short tons, an increase of 2.2 percent. Over the last decade, the Appalachian Region has only increased at an average annual rate of 0.2 percent, while the Western Region has increased 5.4 percent. During the same time period, the Interior Region has declined at an average annual rate of 1.7 percent.

U.S. coal producers operated 1,903 mines during 1996, including 885 underground mines and 1,018 surface mines (Table 3). Underground mines produced 410 million short tons and represented 39 percent of total coal production. Underground mines east of the Mississippi accounted for 89 percent of all underground coal production in 1996. Surface mines west of the Mississippi represented 69 percent of total surface coal production in 1996. Of the top 20 coal mines in the United States, 18 are surface mines, all located west of the Mississippi; they accounted for 28.6 percent of total U.S. coal production. Nine of the top ten mines in the United States are in Wyoming and represent 19.4 percent of total U.S. coal production.

Productive Capacity

The total estimated productive capacity of U.S. coal mines in 1996 was 1,325 million short tons, an increase of 2.0 percent compared with the total estimated productive capacity of 1,299 million short tons in 1995 (Table 16). Following the same pattern as coal production, the total estimated productive capacity increased in all regions. Total coal mine capacity utilization, (defined as the ratio of actual production to productive capacity) rose to 80 percent in 1996 (Table 17). Capacity utilization increased for all three regions in 1996, with the Appalachian Region showing the largest increase.

Recoverable Reserves

Estimated recoverable U.S. coal reserves at producing mines in 1996 totaled 19 billion short tons. This 3-percent decrease continued a decline that started in 1986 (Table 25). Recoverable reserves at producing mines in the Western Region accounted for 62.5 percent of total reserves, with reserves at producing mines in the Appalachian and Interior Regions representing 23.3 percent and 14.2 percent, respectively.

The average recovery percentage for all U.S. producing mines in 1996 increased slightly to 80.8 percent from the 80.1 percent in 1995 (Table 26). The estimated recovery percent for all underground mines in 1996 was 57.2 percent, an increase from the 54.5 percent in 1995. The estimated recovery percent at surface mines remained unchanged in 1996 at 90 percent.

Producers and Distributors Stocks

Coal stocks held by U.S. coal producers and distributors at the end of 1996 totaled 29 million short tons, a decrease of 17 percent compared with stocks at year-end 1995.

Coal Imports

U.S. coal imports during 1996 totaled 7.1 million short tons, 1 percent less than the 7.2 million short tons imported during 1995 (Table 35). Since 1987, U.S. coal imports have increased at an average annual rate of 17 percent.

Colombia, Indonesia, Venezuela, and Canada were the

major sources of imported coal during 1996. They contributed 6.9 million short tons and accounted for 98 percent of total coal imports.

Production

Virtually all aspects of the coal industry have been impacted by advanced technology. The Port of Los Angeles' dry bulk facility can stockpile over 170,000 metric tons of commodities including coal and petroleum coke. Petroleum coke is delivered by railcars or bottom dump trucks.

Table 1. Coal Production by State, 1987, 1992-1996
(Thousand Short Tons)

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Alabama.....	24,637	24,640	23,266	24,768	25,796	25,540	*	-1.1	-0.4
Alaska.....	1,481	1,693	1,567	1,601	1,534	1,492	-12.8	-9	-1
Arizona.....	10,442	11,947	13,056	12,173	12,512	11,379	-12.6	-4.4	-9
Arkansas.....	21	29	51	44	58	84	-28.0	-22.6	-14.3
California.....	-	-	-	-	103	46	-	-	-
Colorado.....	24,886	25,710	25,304	21,886	19,226	14,420	-3.2	6.7	6.3
Illinois.....	46,656	48,180	52,797	41,098	59,857	59,155	-3.2	-6.0	-2.6
Indiana.....	29,670	26,007	30,927	29,295	30,466	34,208	14.1	-6	-1.6
Iowa.....	-	-	46	175	289	468	-	-	-
Kansas.....	232	285	284	341	363	2,021	-18.4	-10.5	-21.4
Kentucky Total.....	152,425	153,739	161,642	156,299	161,068	165,192	-8	-1.4	-9
Eastern.....	116,951	118,541	124,447	120,191	119,382	119,906	-1.3	-5	-3
Western.....	35,474	35,198	37,195	36,108	41,686	45,285	.8	-3.9	-2.7
Louisiana.....	3,221	3,719	3,463	3,134	3,240	2,751	-13.4	-1	1.8
Maryland.....	4,093	3,667	3,632	3,355	3,341	3,962	11.6	5.2	.3
Missouri.....	710	548	838	653	2,886	4,292	29.6	-29.6	-18.1
Montana.....	37,891	39,451	41,640	35,917	38,889	34,399	-3.9	-6	1.1
New Mexico.....	24,067	26,813	28,041	28,268	24,549	19,131	-10.2	-5	2.6
North Dakota.....	29,861	30,112	32,286	31,973	31,744	25,142	-8	-1.5	1.9
Ohio.....	28,572	26,118	29,897	28,816	30,403	35,788	9.4	-1.5	-2.5
Oklahoma.....	1,701	1,876	1,911	1,758	1,741	2,870	-9.3	-6	-5.6
Pennsylvania Total.....	67,942	61,576	62,237	59,700	68,981	70,423	10.3	-4	-4
Anthracite.....	4,751	4,682	4,621	4,306	3,483	3,560	1.5	8.1	3.3
Bituminous.....	63,190	56,893	57,616	55,394	65,498	66,863	11.1	-9	-6
Tennessee.....	3,651	3,221	2,987	3,047	3,476	6,442	13.3	1.2	-6.1
Texas.....	55,164	52,634	52,346	54,567	55,071	50,529	4.7	*	1.0
Utah.....	27,507	25,167	24,399	21,847	21,339	16,508	9.3	6.5	5.8
Virginia.....	35,590	34,099	37,129	39,317	43,024	44,543	4.4	-4.6	-2.5
Washington.....	4,565	4,868	4,893	4,739	5,251	4,449	-6.2	-3.4	.3
West Virginia Total.....	170,433	162,997	161,776	130,525	162,164	136,676	4.6	1.3	2.5
Northern.....	45,910	46,114	49,316	33,802	50,022	52,003	-4	-2.1	-1.4
Southern.....	124,523	116,883	112,460	96,723	112,142	84,673	6.5	2.6	4.4
Wyoming.....	278,440	263,822	237,092	210,129	190,172	146,850	5.5	10.0	7.4
Appalachian Total ¹	451,868	434,861	445,370	409,718	456,565	443,281	3.9	-3	.2
Interior Total ¹	172,848	168,526	179,858	167,174	195,659	201,663	2.6	-3.0	-1.7
Western Total ¹	439,140	429,587	408,276	368,532	345,321	273,818	2.2	6.2	5.4
East of Miss. River.....	563,668	544,246	566,289	516,219	588,575	581,929	3.6	-1.1	-3
West of Miss. River.....	500,188	488,728	467,216	429,205	408,970	336,833	2.3	5.2	4.5
U.S. Total.....	1,063,856	1,032,974	1,033,504	945,424	997,545	918,762	3.0	1.6	1.6

¹ For a definition of coal-producing regions, see Appendix C.

* Data round to zero.

Notes: Coal production excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 2. Number of Coal Mines by State, 1987, 1992-1996

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Alabama.....	53	73	85	85	88	99	-27.4	-11.9	-6.7
Alaska.....	1	1	1	1	2	1	-	-15.9	-
Arizona.....	2	2	2	2	2	2	-	-	-
Arkansas.....	5	3	6	6	6	8	66.7	-4.4	-5.1
California.....	-	-	-	-	1	1	-	-	-
Colorado.....	15	17	18	20	21	22	-11.8	-8.1	-4.2
Illinois.....	31	31	34	39	43	51	-	-7.8	-5.4
Indiana.....	37	42	55	56	51	67	-11.9	-7.7	-6.4
Iowa.....	-	-	1	2	2	4	-	-	-
Kansas.....	1	1	1	2	2	5	-	-15.9	-16.4
Kentucky Total.....	544	598	673	696	752	1,428	-9.0	-7.8	-10.2
Eastern.....	484	540	607	622	684	1,323	-10.4	-8.3	-10.6
Western.....	60	58	66	74	68	105	3.4	-3.1	-6.0
Louisiana.....	2	2	2	2	2	1	-	-	8.0
Maryland.....	18	20	20	21	24	35	-10.0	-6.9	-7.1
Missouri.....	5	6	6	7	5	12	-16.7	-	-9.3
Montana.....	8	8	8	8	8	8	-	-	-
New Mexico.....	6	7	7	7	7	10	-14.3	-3.8	-5.5
North Dakota.....	5	6	6	8	8	11	-16.7	-11.1	-8.4
Ohio.....	99	113	134	135	149	210	-12.4	-9.7	-8.0
Oklahoma.....	12	13	14	17	20	19	-7.7	-12.0	-5.0
Pennsylvania Total.....	402	459	505	524	578	683	-12.4	-8.7	-5.7
Anthracite.....	127	134	143	148	166	200	-5.2	-6.5	-4.9
Bituminous.....	275	325	362	376	412	483	-15.4	-9.6	-6.1
Tennessee.....	26	25	24	37	50	93	4.0	-15.1	-13.2
Texas.....	13	14	13	14	15	15	-7.1	-3.5	-1.6
Utah.....	11	13	14	15	15	21	-15.4	-7.5	-6.9
Virginia.....	191	194	231	237	258	477	-1.5	-7.2	-9.7
Washington.....	3	3	3	3	3	4	-	-	-3.1
West Virginia Total.....	386	424	462	502	604	778	-9.0	-10.6	-7.5
Northern.....	93	98	116	137	166	255	-5.1	-13.5	-10.6
Southern.....	293	326	346	365	438	523	-10.1	-9.6	-6.2
Wyoming.....	27	29	29	29	30	29	-6.9	-2.6	-8
Appalachian Total ¹	1,659	1,848	2,068	2,163	2,435	3,698	-10.2	-9.1	-8.5
Interior Total ¹	166	170	198	219	214	287	-2.3	-6.1	-5.9
Western Total ¹	78	86	88	93	97	109	-9.3	-5.3	-3.6
East of Miss. River.....	1,787	1,979	2,223	2,332	2,597	3,921	-9.7	-8.9	-8.4
West of Miss. River.....	116	125	131	143	149	173	-7.2	-6.1	-4.3
U.S. Total.....	1,903	2,104	2,354	2,475	2,746	4,094	-9.5	-8.8	-8.1

¹ For a definition of coal-producing regions, see Appendix C.

Note: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 3. Coal Production and Number of Mines by State and Mine Type, 1996
(Thousand Short Tons)

Coal-Producing State and Region	Underground		Surface		Total	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Alabama.....	11	18,217	42	6,420	53	24,637
Alaska.....	-	-	1	1,481	1	1,481
Arizona.....	-	-	2	10,442	2	10,442
Arkansas.....	-	-	5	21	5	21
Colorado.....	11	15,581	4	9,305	15	24,886
Illinois.....	20	38,948	11	7,707	31	46,656
Indiana.....	3	2,963	34	26,707	37	29,670
Kansas.....	-	-	1	232	1	232
Kentucky Total.....	307	94,306	237	58,119	544	152,425
Eastern.....	287	69,172	197	47,779	484	116,951
Western.....	20	25,135	40	10,340	60	35,474
Louisiana.....	-	-	2	3,221	2	3,221
Maryland.....	3	3,296	15	797	18	4,093
Missouri.....	-	-	5	710	5	710
Montana.....	1	147	7	37,744	8	37,891
New Mexico.....	-	-	6	24,067	6	24,067
North Dakota.....	-	-	5	29,861	5	29,861
Ohio.....	9	15,912	90	12,660	99	28,572
Oklahoma.....	1	137	11	1,564	12	1,701
Pennsylvania Total.....	83	47,247	319	20,694	402	67,942
Anthracite.....	40	391	87	4,360	127	4,751
Bituminous.....	43	46,856	232	16,334	275	63,190
Tennessee.....	13	1,794	13	1,857	26	3,651
Texas.....	-	-	13	55,164	13	55,164
Utah.....	11	27,507	-	-	11	27,507
Virginia.....	147	25,568	44	10,022	191	35,590
Washington.....	-	-	3	4,565	3	4,565
West Virginia Total.....	264	115,585	122	54,848	386	170,433
Northern.....	50	40,274	43	5,637	93	45,910
Southern.....	214	75,311	79	49,211	293	124,523
Wyoming.....	1	2,641	26	275,799	27	278,440
Appalachian Total ¹	817	296,791	842	155,077	1,659	451,868
Interior Total ¹	44	67,183	122	105,665	166	172,848
Western Total ¹	24	45,876	54	393,265	78	439,140
East of Miss. River.....	860	363,837	927	199,831	1,787	563,668
West of Miss. River.....	25	46,012	91	454,176	116	500,188
U.S. Total.....	885	409,849	1,018	654,007	1,903	1,063,856

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Coal production excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 4. Coal Production and Number of Mines by State, County, and Mine Type, 1996
(Thousand Short Tons)

Coal-Producing State and County	Underground		Surface		Total	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Alabama	11	18,217	42	6,420	53	24,637
Bibb.....	-	-	1	33	1	33
Cullman.....	-	-	2	82	2	82
Fayette.....	1	2,066	-	-	1	2,066
Jackson.....	-	-	1	66	1	66
Jefferson.....	4	8,917	4	1,217	8	10,134
Marion.....	-	-	4	191	4	191
Shelby.....	2	878	-	-	2	878
Tuscaloosa.....	3	5,241	4	825	7	6,066
Walker.....	1	1,115	24	3,806	25	4,921
Winston.....	-	-	2	201	2	201
Alaska	-	-	1	1,481	1	1,481
Yukon River.....	-	-	1	1,481	1	1,481
Arizona	-	-	2	10,442	2	10,442
Navajo.....	-	-	2	10,442	2	10,442
Arkansas	-	-	5	21	5	21
Johnson.....	-	-	2	16	2	16
Scott.....	-	-	1	*	1	*
Sebastian.....	-	-	2	4	2	4
Colorado	11	15,581	4	9,305	15	24,886
Delta.....	1	603	-	-	1	603
Fremont.....	1	170	-	-	1	170
Gunnison.....	3	7,475	-	-	3	7,475
La Plata.....	1	199	-	-	1	199
Las Animas.....	1	129	-	-	1	129
Mesa.....	2	626	-	-	2	626
Moffat.....	-	-	2	7,721	2	7,721
Montrose.....	-	-	1	362	1	362
Rio Blanco.....	1	543	-	-	1	543
Routt.....	1	5,837	1	1,222	2	7,059
Illinois	20	38,948	11	7,707	31	46,656
Clinton.....	1	1,701	-	-	1	1,701
Franklin.....	2	3,635	-	-	2	3,635
Fulton.....	-	-	1	205	1	205
Gallatin.....	1	1,324	-	-	1	1,324
Jefferson.....	2	4,299	-	-	2	4,299
Logan.....	1	1,982	-	-	1	1,982
Macoupin.....	3	5,454	-	-	3	5,454
McDonough.....	-	-	1	533	1	533
Perry.....	1	1,850	3	5,213	4	7,064
Randolph.....	2	2,103	-	-	2	2,103
Saline.....	3	8,660	1	673	4	9,333
Schuyler.....	-	-	1	415	1	415
Vermilion.....	1	130	-	-	1	130
Wabash.....	1	2,340	-	-	1	2,340
Washington.....	1	3,674	-	-	1	3,674
White.....	1	1,796	-	-	1	1,796
Williamson.....	-	-	4	668	4	668
Indiana	3	2,963	34	26,707	37	29,670
Clay.....	-	-	4	1,893	4	1,893
Daviess.....	-	-	4	3,187	4	3,187
Dubois.....	-	-	1	370	1	370
Gibson.....	1	900	1	146	2	1,046
Greene.....	-	-	3	2,083	3	2,083
Knox.....	2	2,063	3	1,662	5	3,725
Owen.....	-	-	2	413	2	413
Pike.....	-	-	6	4,359	6	4,359
Sullivan.....	-	-	2	4,772	2	4,772
Vigo.....	-	-	2	1,694	2	1,694
Warrick.....	-	-	6	6,129	6	6,129
Kansas	-	-	1	232	1	232
Crawford.....	-	-	1	232	1	232
Kentucky	307	94,306	237	58,119	544	152,425
Bell.....	13	2,654	12	2,391	25	5,044
Breathitt.....	-	-	8	2,271	8	2,271
Butler.....	-	-	2	244	2	244
Christian.....	-	-	1	32	1	32
Clay.....	-	-	5	98	5	98
Daviess.....	-	-	6	894	6	894
Floyd.....	35	3,227	11	3,920	46	7,147
Harlan.....	31	9,436	9	866	40	10,302

See footnotes at end of table.

Table 4. Coal Production and Number of Mines by State, County, and Mine Type, 1996 (Continued)
(Thousand Short Tons)

Coal-Producing State and County	Underground		Surface		Total	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Kentucky (Continued)						
Henderson	1	631	2	1,453	3	2,084
Hopkins	6	4,271	12	4,384	18	8,655
Johnson	4	1,363	7	448	11	1,812
Knott	29	4,801	17	7,407	46	12,208
Knox	11	417	4	50	15	467
Laurel	—	—	1	52	1	52
Lawrence	—	—	3	69	3	69
Leslie	10	8,017	8	1,701	18	9,718
Letcher	17	5,381	22	2,665	39	8,046
Magoffin	1	34	7	944	8	978
Martin	14	6,332	9	5,453	23	11,785
McLean	1	80	2	114	3	194
Morgan	—	—	3	5	3	5
Muhlenberg	3	3,032	4	739	7	3,771
Ohio	1	20	10	2,122	11	2,142
Owsley	—	—	4	171	4	171
Perry	13	3,991	14	6,377	27	10,368
Pike	100	23,041	45	12,557	145	35,598
Union	3	7,361	—	—	3	7,361
Webster	5	9,740	1	357	6	10,097
Whitley	9	478	8	333	17	811
Louisiana						
De Soto	—	—	2	3,221	2	3,221
Red River	—	—	1	2,434	1	2,434
Maryland						
Allegany	3	3,296	15	797	18	4,093
Garrett	—	—	10	597	10	597
Missouri						
Barton	3	3,296	5	200	8	3,496
Bates	—	—	5	710	5	710
Randolph	—	—	1	88	1	88
Vernon	—	—	2	487	2	487
Montana						
Big Horn	—	—	1	25	1	25
Musselshell	—	—	1	110	1	110
Richland	1	147	7	37,744	8	37,891
Rosebud	—	—	4	24,686	4	24,686
New Mexico						
Colfax	1	147	—	—	1	147
McKinley	—	—	1	256	1	256
San Juan	—	—	2	12,802	2	12,802
North Dakota						
McLean	—	—	6	24,067	6	24,067
Mercer	—	—	1	1,259	1	1,259
Oliver	—	—	2	9,527	2	9,527
Ohio						
Belmont	—	—	3	13,281	3	13,281
Carroll	—	—	5	29,861	5	29,861
Columbiana	—	—	1	7,024	1	7,024
Coshocton	—	—	2	16,908	2	16,908
Gallia	—	—	2	5,929	2	5,929
Guernsey	9	15,912	90	12,660	99	28,572
Harrison	1	4,741	9	1,175	10	5,916
Holmes	—	—	6	329	6	329
Jackson	—	—	9	271	11	569
Jefferson	2	299	5	757	7	1,056
Mahoning	—	—	1	268	1	268
Meigs	—	—	6	302	6	302
Monroe	1	1,117	8	295	9	1,411
Morgan	—	—	2	175	2	175
Muskingum	—	—	3	1,042	3	1,042
Noble	—	—	9	412	11	833
Perry	2	422	1	4	1	4
Stark	—	—	—	—	2	5,951
Tuscarawas	2	5,951	—	—	1	3,383
Vinton	1	3,383	—	—	1	1,543
Oklahoma						
Craig	—	—	1	1,543	1	1,543
Latimer	—	—	3	176	3	176
Le Flore	—	—	2	857	2	857
See footnotes at end of table.						

Table 4. Coal Production and Number of Mines by State, County, and Mine Type, 1996 (Continued)
(Thousand Short Tons)

Coal-Producing State and County	Underground		Surface		Total	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Oklahoma (Continued)						
Nowata.....	-	-	2	187	2	187
Oklmulgee.....	-	-	1	6	1	6
Pennsylvania.....	83	47,247	319	20,694	402	67,942
Allegheny.....	-	-	2	14	2	14
Armstrong.....	9	3,974	23	1,371	32	5,346
Beaver.....	-	-	4	239	4	239
Blair.....	-	-	1	59	1	59
Butler.....	-	-	6	56	6	56
Cambria.....	2	60	11	1,255	13	1,315
Carbon.....	-	-	1	318	1	318
Centre.....	-	-	3	328	3	328
Clarion.....	-	-	6	543	6	543
Clearfield.....	2	154	48	4,273	50	4,428
Columbia.....	1	141	5	270	6	411
Dauphin.....	1	2	1	8	2	11
Elk.....	-	-	6	460	6	460
Fayette.....	-	-	20	428	20	428
Greene.....	9	29,746	2	48	11	29,794
Indiana.....	8	4,190	19	952	27	5,143
Jefferson.....	3	553	22	870	25	1,423
Lackawanna.....	-	-	5	243	5	243
Lawrence.....	-	-	2	139	2	139
Luzerne.....	-	-	17	1,030	17	1,030
Lycoming.....	-	-	1	333	1	333
Mercer.....	-	-	2	5	2	5
Northumberland.....	9	35	8	246	17	281
Schuylkill.....	29	213	48	2,206	77	2,419
Snyder.....	-	-	1	1	1	1
Somerset.....	7	1,848	31	3,533	38	5,381
Sullivan.....	-	-	1	37	1	37
Venango.....	-	-	1	31	1	31
Washington.....	3	6,330	8	705	11	7,035
Westmoreland.....	-	-	14	690	14	690
Tennessee.....	13	1,794	13	1,857	26	3,651
Anderson.....	1	207	1	273	2	479
Bledsoe.....	-	-	1	3	1	3
Campbell.....	7	723	3	344	10	1,067
Claiborne.....	1	240	4	386	5	625
Fentress.....	-	-	1	256	1	256
Marion.....	-	-	2	46	2	46
Morgan.....	1	42	-	-	1	42
Scott.....	1	155	-	-	1	155
Sequatchie.....	2	428	1	550	3	978
Texas.....	-	-	13	55,164	13	55,164
Atascosa.....	-	-	1	3,324	1	3,324
Freestone.....	-	-	1	5,196	1	5,196
Grimes.....	-	-	1	567	1	567
Harrison.....	-	-	2	4,173	2	4,173
Hopkins.....	-	-	1	2,152	1	2,152
Leon.....	-	-	1	8,865	1	8,865
Milam.....	-	-	1	6,615	1	6,615
Panola.....	-	-	1	6,814	1	6,814
Robertson.....	-	-	1	1,933	1	1,933
Rusk.....	-	-	1	6,509	1	6,509
Titus.....	-	-	1	8,569	1	8,569
Webb.....	-	-	1	446	1	446
Utah.....	11	27,507	-	-	11	27,507
Carbon.....	6	12,066	-	-	6	12,066
Emery.....	4	11,238	-	-	4	11,238
Sevier.....	1	4,202	-	-	1	4,202
Virginia.....	147	25,568	44	10,022	191	35,590
Buchanan.....	65	13,364	9	1,419	74	14,784
Dickenson.....	13	1,693	8	1,296	21	2,988
Lee.....	7	1,492	3	544	10	2,036
Russell.....	6	915	1	430	7	1,346
Scott.....	1	5	-	-	1	5
Tazewell.....	16	1,717	1	122	17	1,840
Wise.....	39	6,380	22	6,211	61	12,591
Washington.....	-	-	3	4,565	3	4,565
King.....	-	-	1	173	1	173

See footnotes at end of table.

Table 4. Coal Production and Number of Mines by State, County, and Mine Type, 1996 (Continued)
(Thousand Short Tons)

Coal-Producing State and County	Underground		Surface		Total	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Washington (Continued)						
Lewis.....	-	-	1	2,423	1	2,423
Thurston.....	-	-	1	1,969	1	1,969
West Virginia	264	115,585	122	54,848	386	170,433
Barbour.....	6	1,498	4	49	10	1,547
Boone.....	32	18,841	15	12,183	47	31,024
Braxton.....	1	42	-	-	1	42
Brooke.....	1	1,438	1	10	2	1,448
Clay.....	-	-	5	5,507	5	5,507
Fayette.....	5	1,193	6	2,772	11	3,964
Gilmer.....	1	30	-	-	1	30
Grant.....	2	2,810	2	228	4	3,039
Greenbrier.....	3	766	2	38	5	804
Harrison.....	5	4,600	6	82	11	4,682
Kanawha.....	6	4,689	5	4,274	11	8,964
Logan.....	17	3,769	12	15,020	29	18,789
Marion.....	2	3,118	2	18	4	3,135
Marshall.....	2	8,721	-	-	2	8,721
McDowell.....	66	4,928	11	1,207	77	6,135
Mineral.....	-	-	2	134	2	134
Mingo.....	34	17,612	15	5,351	49	22,963
Monongalia.....	9	11,816	4	1,135	13	12,951
Nicholas.....	13	2,085	3	437	16	2,522
Preston.....	7	1,771	8	158	15	1,929
Raleigh.....	17	10,413	2	797	19	11,209
Randolph.....	4	540	1	30	5	570
Tucker.....	-	-	2	602	2	602
Upshur.....	4	1,323	8	411	12	1,734
Wayne.....	4	2,934	2	1,197	6	4,131
Webster.....	6	2,567	3	2,778	9	5,345
Wyoming.....	17	8,082	1	428	18	8,510
Wyoming	1	2,641	26	275,799	27	278,440
Campbell.....	-	-	17	245,534	17	245,534
Carbon.....	1	2,641	2	1,832	3	4,473
Converse.....	-	-	2	15,839	2	15,839
Lincoln.....	-	-	2	4,419	2	4,419
Sheridan.....	-	-	1	16	1	16
Sweetwater.....	-	-	2	8,159	2	8,159
U.S. Total	885	409,849	1,018	654,007	1,903	1,063,856

* Data round to zero.

Notes: Coal production excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 5. Underground Coal Production by State and Mining Method, 1996
(Thousand Short Tons)

Coal-Producing State and Region	Continuous ¹	Conventional ²	Longwall ³	Other ⁴	Total
Alabama.....	1,410	73	16,734	—	18,217
Colorado.....	3,087	129	12,365	—	15,581
Illinois.....	21,823	130	16,995	—	38,948
Indiana.....	2,963	—	—	—	2,963
Kentucky Total.....	69,153	10,247	14,582	324	94,306
Eastern.....	51,596	9,779	7,473	324	69,172
Western.....	17,557	468	7,109	—	25,135
Maryland.....	346	—	2,950	—	3,296
Montana.....	147	—	—	—	147
Ohio.....	1,837	—	14,075	—	15,912
Oklahoma.....	137	—	—	—	137
Pennsylvania Total.....	11,924	1,645	33,635	43	47,247
Anthracite.....	141	207	—	43	391
Bituminous.....	11,783	1,438	33,635	—	46,856
Tennessee.....	1,775	19	—	—	1,794
Utah.....	2,069	588	24,849	—	27,507
Virginia.....	11,888	5,755	7,925	—	25,568
West Virginia Total.....	54,974	12,507	47,592	512	115,585
Northern.....	6,795	1,430	31,537	512	40,274
Southern.....	48,179	11,078	16,055	—	75,311
Wyoming.....	—	—	2,641	—	2,641
Appalachian Total ⁵	135,750	29,778	130,384	878	296,791
Interior Total ⁵	42,480	598	24,104	—	67,183
Western Total ⁵	5,303	717	39,856	—	45,876
East of Miss. River.....	178,093	30,377	154,488	878	363,837
West of Miss. River.....	5,440	717	39,856	—	46,012
U.S. Total.....	183,533	31,093	194,344	878	409,849

¹ Mines that produce greater than 50 percent of coal by continuous mining method.

² Mines that produce greater than 50 percent of coal by conventional mining method.

³ Mines that have any production from longwall mining method. A typical longwall mining operation uses 80 percent longwall mining and 20 percent continuous mining.

⁴ Mines that produce coal using shortwall, scoop loading, hand loading, or other mining methods or a 50/50 percent continuous/conventional split in mining method.

⁵ For a definition of coal-producing regions, see Appendix C.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-7A, "Coal Production Report."

Table 6. Coal Production and Number of Mines by State, Mine Type, and Mine Production Range, 1996
(Thousand Short Tons)

Coal-Producing State, Region and Type of Mining	Number of Mines						Production						
	Mine Production Range (thousand short tons)												
	1,000 and over	500 to 1,000	200 to 500	100 to 200	10 to 100	Less than 10	1,000 and over	500 to 1,000	200 to 500	100 to 200	10 to 100	Less than 10	
Alabama.....	8	6	4	6	25	4	17,488	3,866	1,036	977	1,256	14	
Underground.....	7	3	—	—	1	—	16,209	1,935	—	—	73	—	
Surface.....	1	3	4	6	24	4	1,279	1,931	1,036	977	1,182	14	
Alaska.....	1	—	—	—	—	—	1,481	—	—	—	—	—	
Surface.....	1	—	—	—	—	—	1,481	—	—	—	—	—	
Arizona.....	2	—	—	—	—	—	10,442	—	—	—	—	—	
Surface.....	2	—	—	—	—	—	10,442	—	—	—	—	—	
Arkansas.....	—	—	—	—	—	5	—	—	—	—	—	21	
Surface.....	—	—	—	—	—	5	—	—	—	—	—	21	
Colorado.....	6	2	4	3	—	—	21,920	1,145	1,323	498	—	—	
Underground.....	3	2	3	3	—	—	12,976	1,145	962	498	—	—	
Surface.....	3	—	1	—	—	—	8,944	—	362	—	—	—	
Illinois.....	18	4	3	1	4	1	42,938	2,306	1,119	130	160	3	
Underground.....	16	1	1	1	1	—	37,728	578	499	130	13	—	
Surface.....	2	3	2	—	3	1	5,210	1,727	620	—	147	3	
Indiana.....	10	11	8	3	4	1	18,426	7,335	3,326	381	199	3	
Underground.....	1	2	—	—	—	—	1,466	1,497	—	—	—	—	
Surface.....	9	9	8	3	4	1	16,960	5,839	3,326	381	199	3	
Kansas.....	—	—	1	—	—	—	—	—	232	—	—	—	
Surface.....	—	—	1	—	—	—	—	—	232	—	—	—	
Kentucky Total.....	31	62	102	83	195	71	54,592	43,633	33,111	12,013	8,742	333	
Underground.....	21	31	60	56	111	28	39,280	21,900	19,372	8,254	5,347	153	
Surface.....	10	31	42	27	84	43	15,312	21,734	13,740	3,759	3,395	180	
Eastern.....	21	48	93	77	180	65	34,071	33,349	29,916	11,182	8,136	297	
Underground.....	12	25	57	56	109	28	20,103	17,155	18,259	8,254	5,247	153	
Surface.....	9	23	36	21	71	37	13,968	16,194	11,657	2,928	2,889	144	
Western.....	10	14	9	6	15	6	20,521	10,285	3,196	831	606	36	
Underground.....	9	6	3	—	2	—	19,177	4,745	1,113	—	100	—	
Surface.....	1	8	6	6	13	6	1,343	5,540	2,083	831	506	36	
Louisiana.....	1	1	—	—	—	—	2,434	787	—	—	—	—	
Surface.....	1	1	—	—	—	—	2,434	787	—	—	—	—	
Maryland.....	1	—	2	1	10	4	2,950	—	520	160	437	25	
Underground.....	1	—	1	—	1	—	2,950	—	300	—	46	—	
Surface.....	—	—	1	1	9	4	—	—	221	160	391	25	
Missouri.....	—	—	1	2	2	—	—	—	290	307	112	—	
Surface.....	—	—	1	2	2	—	—	—	290	307	112	—	
Montana.....	5	1	1	1	—	—	36,886	602	256	147	—	—	
Underground.....	—	—	—	1	—	—	—	—	—	147	—	—	
Surface.....	5	1	1	—	—	—	36,886	602	256	—	—	—	
New Mexico.....	6	—	—	—	—	—	24,067	—	—	—	—	—	
Surface.....	6	—	—	—	—	—	24,067	—	—	—	—	—	
North Dakota.....	5	—	—	—	—	—	29,861	—	—	—	—	—	
Surface.....	5	—	—	—	—	—	29,861	—	—	—	—	—	
Ohio.....	7	5	11	16	47	13	17,826	3,170	3,248	2,483	1,792	53	
Underground.....	5	—	1	3	—	—	15,191	—	271	449	—	—	
Surface.....	2	5	10	13	47	13	2,635	3,170	2,977	2,034	1,792	53	
Oklahoma.....	—	—	3	5	2	2	—	—	909	738	40	14	
Underground.....	—	—	—	1	—	—	—	—	—	137	—	—	
Surface.....	—	—	3	4	2	2	—	—	909	601	40	14	
Pennsylvania Total.....	12	8	33	39	172	138	39,573	5,698	10,399	5,597	6,143	530	
Underground.....	11	4	13	4	19	32	38,198	3,245	4,340	673	683	108	
Surface.....	1	4	20	35	153	106	1,375	2,453	6,059	4,924	5,460	423	
Anthracite.....	—	1	6	4	49	67	—	537	1,866	583	1,558	207	
Underground.....	—	—	—	1	8	31	—	—	—	141	143	107	
Surface.....	—	1	6	3	41	36	—	537	1,866	442	1,415	101	
Bituminous.....	12	7	27	35	123	71	39,573	5,162	8,534	5,014	4,585	323	
Underground.....	11	4	13	3	11	1	38,198	3,245	4,340	532	539	1	
Surface.....	1	3	14	32	112	70	1,375	1,917	4,193	4,482	4,045	322	
Tennessee.....	—	1	9	4	7	5	—	550	2,257	572	241	30	
Underground.....	—	—	5	3	4	1	—	—	1,224	415	152	4	
Surface.....	—	1	4	1	3	4	—	550	1,034	157	89	26	
Texas.....	10	1	2	—	—	—	53,869	567	727	—	—	—	
Surface.....	10	1	2	—	—	—	53,869	567	727	—	—	—	

See footnotes at end of table.

Table 6. Coal Production and Number of Mines by State, Mine Type, and Mine Production Range, 1996 (Continued)
(Thousand Short Tons)

Coal-Producing State, Region and Type of Mining	Number of Mines						Production					
	Mine Production Range (thousand short tons)											
	1,000 and over	500 to 1,000	200 to 500	100 to 200	10 to 100	Less than 10	1,000 and over	500 to 1,000	200 to 500	100 to 200	10 to 100	Less than 10
Utah	8	2	—	—	—	1	25,942	1,557	—	—	—	7
Underground	8	2	—	—	—	1	25,942	1,557	—	—	—	7
Virginia	3	11	37	36	82	22	7,925	7,054	11,302	5,065	4,150	95
Underground	3	4	26	29	69	16	7,925	2,423	7,594	3,964	3,593	68
Surface	—	7	11	7	13	6	—	4,631	3,707	1,101	556	27
Washington	2	—	—	1	—	—	4,393	—	—	173	—	—
Surface	2	—	—	1	—	—	4,393	—	—	173	—	—
West Virginia Total	42	43	73	44	147	37	101,588	32,292	24,001	5,910	6,482	160
Underground	27	29	54	32	104	18	66,871	21,784	17,500	4,413	4,928	88
Surface	15	14	19	12	43	19	34,717	10,508	6,501	1,497	1,553	72
Northern	12	5	10	10	38	18	35,632	4,023	3,311	1,299	1,573	73
Underground	10	4	8	6	17	5	32,888	3,068	2,616	840	838	23
Surface	2	1	2	4	21	13	2,744	955	695	459	735	50
Southern	30	38	63	34	109	19	65,956	28,270	20,690	4,611	4,909	87
Underground	17	25	46	26	87	13	33,982	18,716	14,884	3,573	4,090	65
Surface	13	13	17	8	22	6	31,973	9,554	5,805	1,038	819	22
Wyoming	22	2	1	1	1	—	276,349	1,599	278	198	16	—
Underground	1	—	—	—	—	—	2,641	—	—	—	—	—
Surface	21	2	1	1	1	—	273,708	1,599	278	198	16	—
Appalachian Total ¹	94	122	262	223	670	288	221,422	85,979	82,680	31,947	28,637	1,204
Underground	66	65	157	127	307	95	167,447	46,542	49,488	18,168	14,724	421
Surface	28	57	105	96	363	193	53,975	39,437	33,191	13,778	13,913	783
Interior Total ¹	49	31	27	17	27	15	138,188	21,279	9,799	2,388	1,117	77
Underground	26	9	4	2	3	—	58,371	6,820	1,613	267	113	—
Surface	23	22	23	15	24	15	79,817	14,460	8,186	2,121	1,004	77
Western Total ¹	57	7	6	6	1	1	431,339	4,903	1,858	1,016	16	7
Underground	12	4	3	4	—	1	41,558	2,703	962	645	—	7
Surface	45	3	3	2	1	—	389,781	2,201	896	371	16	—
East of Miss. River	132	151	282	233	693	296	303,306	105,904	90,320	33,289	29,601	1,246
Underground	92	74	161	128	310	95	225,818	53,362	51,101	18,298	14,837	421
Surface	40	77	121	105	383	201	77,488	52,543	39,219	14,991	14,764	825
West of Miss. River	68	9	13	13	5	8	487,643	6,257	4,016	2,062	168	42
Underground	12	4	3	5	—	1	41,558	2,703	962	782	—	7
Surface	56	5	10	8	5	7	446,085	3,554	3,054	1,280	168	35
U.S. Total	200	160	295	246	698	304	790,949	112,162	94,336	35,351	29,769	1,288
Underground	104	78	164	133	310	96	267,377	56,064	52,063	19,080	14,837	428
Surface	96	82	131	113	388	208	523,573	56,097	42,274	16,271	14,932	860

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Coal production excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 7. U.S. Coal Production by Coalbed Thickness and Mine Type, 1996
(Thousand Short Tons)

Coalbed Thickness (inches)	Underground	Surface	Total
< 7	-	48	48
7-12	-	1,938	1,938
13-18	-	8,602	8,602
19-24	385	19,274	19,659
25-30	5,997	22,801	28,798
31-36	34,894	35,680	70,574
37-42	27,811	22,250	50,061
43-48	33,835	28,441	62,276
49-54	32,354	14,823	47,176
55-60	46,440	14,803	61,244
61-66	46,723	12,354	59,077
67-72	35,067	16,971	52,037
73-78	21,643	6,771	28,413
79-84	38,309	11,885	50,195
85-90	8,000	8,917	16,917
91-96	28,244	6,785	35,029
97-102	5,926	12,426	18,352
103-108	3,881	5,982	9,863
109-114	5,837	1,400	7,237
115-120	9,870	5,546	15,415
> 120	24,205	395,452	419,657
Unknown¹	428	860	1,288
U.S. Total	409,849	654,007	1,063,856

¹ Includes mines with production of less than 10,000 short tons, which are required to provide only production data.

Notes: Coal production excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 8. U.S. Coal Production and Coalbed Thickness by Major Coalbeds and Mine Type, 1996

Coalbed ID Number ¹ Coalbed Name ²	Production (thousand short tons)			Thickness (inches)		
	Underground	Surface	Total	Average ³	Low	High
1699 Wyodak	—	243,432	243,432	836	300	1,264
0036 Pittsburgh	71,962	1,957	73,919	74	18	108
0489 No. 9	30,011	9,859	39,871	63	42	84
0111 Hazard No. 5-A	15,326	22,902	38,228	74	20	226
0484 No. 6	28,228	4,147	32,375	78	45	100
1569 Beulah-Zap	—	28,701	28,701	155	132	180
0135 Hazard No. 4	18,347	3,020	21,367	45	20	102
0084 Lower Kittanning	4,757	14,970	19,727	55	12	174
0103 Stockton-Lewiston	3,886	14,996	18,882	75	14	120
0168 Lower Elkhorn	14,983	1,636	16,619	58	18	96
0071 Upper Freeport	12,302	3,638	15,940	63	6	96
1808 Rosebud	—	15,416	15,416	257	216	276
0344 Pocahontas No. 3	14,980	0	14,980	64	38	83
0151 Elkhorn No. 1	10,856	3,871	14,727	49	12	96
0154 Elkhorn No. 2	11,634	2,610	14,244	52	14	66
0157 Elkhorn No. 3	9,388	2,970	12,359	72	15	120
0121 Hazard No. 5	7,191	2,887	10,078	54	10	95
Major Coalbeds Total	253,852	377,012	630,865	372	6	1,264
Other Coalbeds	155,568	276,135	431,703	134	1	960
Unknown⁴	428	860	1,288	NA	NA	NA
U.S. Total	409,849	654,007	1,063,856	275	1	1,264

¹ The coalbed ID number is a unique code assigned by EIA to each correlated coalbed or to coal-bearing geologic formations, coal groups, or coal zones.

² The coalbed name given is the name most commonly used in the State having the greatest production from that coalbed. The States having the greatest production for each coalbed are: Eastern Kentucky (coalbeds 0111, 0135, 0151, 0154, 0157, 0168); West Virginia (0036, 0084, 0103, 0344); Pennsylvania (0071, 0076); Western Kentucky (0489); Illinois (0484); North Dakota (1569); Montana (1808); Wyoming (1699). In some other States where these are major producing beds, the following alternate coalbed names are also used: 0084, No. 5 Block (Eastern Kentucky); 0111, Coalburg (West Virginia); 0135, Chilton (West Virginia); 0151, Jellico (Tennessee); Taggart (Virginia); Cedar Grove (West Virginia); 0154, Lower Cedar Grove (West Virginia); 0157, Upper Standiford (Virginia); Alma (West Virginia); 0168, No. 2 Gas (West Virginia); 0483, No. 12 (Western Kentucky); 0484, No. 11 (Western Kentucky); 0489, No. 5 (Illinois and Indiana).

³ Average thickness is the bed thickness weighted by bed production.

⁴ Includes mines with production of less than 10,000 short tons, which are required to provide only production data.

NA Not available.

Notes: Coal production excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. A major coalbed is defined here as a coalbed from which 10 million or more short tons were produced during the year. The category "Other Coalbeds" includes all coalbeds from which less than 10 million short tons were produced during the year. In some regions, coalbeds are characteristically discontinuous or uncorrelatable from one location to another, and production is identified by the geological formations, coal groups, or coal zones of the native rock where the coalbeds occur. These types of coalbeds are found primarily in the Rocky Mountain States and even in the Gulf Coast lignite belt. Coalbeds of these types are also included in "Other Coalbeds," even though production may exceed 10 million short tons. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 9. Coal Production and Number of Mines by State and Coal Rank, 1996
(Thousand Short Tons)

Coal-Producing State and Region	Bituminous		Subbituminous		Lignite		Anthracite		Total	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Alabama.....	53	24,637	-	-	-	-	-	-	53	24,637
Alaska.....	-	-	1	1,481	-	-	-	-	1	1,481
Arizona.....	2	10,442	-	-	-	-	-	-	2	10,442
Arkansas.....	3	5	-	-	-	-	2	16	5	21
Colorado.....	12	15,942	3	8,944	-	-	-	-	15	24,886
Illinois.....	31	46,656	-	-	-	-	-	-	31	46,656
Indiana.....	37	29,670	-	-	-	-	-	-	37	29,670
Kansas.....	1	232	-	-	-	-	-	-	1	232
Kentucky Total.....	544	152,425	-	-	-	-	-	-	544	152,425
Eastern.....	484	116,951	-	-	-	-	-	-	484	116,951
Western.....	60	35,474	-	-	-	-	-	-	60	35,474
Louisiana.....	-	-	-	-	2	3,221	-	-	2	3,221
Maryland.....	18	4,093	-	-	-	-	-	-	18	4,093
Missouri.....	5	710	-	-	-	-	-	-	5	710
Montana.....	-	-	7	37,635	1	256	-	-	8	37,891
New Mexico.....	4	12,837	2	11,230	-	-	-	-	6	24,067
North Dakota.....	-	-	-	-	5	29,861	-	-	5	29,861
Ohio.....	99	28,572	-	-	-	-	-	-	99	28,572
Oklahoma.....	12	1,701	-	-	-	-	-	-	12	1,701
Pennsylvania Total.....	275	63,190	-	-	-	-	127	4,751	402	67,942
Anthracite.....	-	-	-	-	-	-	127	4,751	127	4,751
Bituminous.....	275	63,190	-	-	-	-	-	-	275	63,190
Tennessee.....	26	3,651	-	-	-	-	-	-	26	3,651
Texas.....	1	446	-	-	12	54,718	-	-	13	55,164
Utah.....	11	27,507	-	-	-	-	-	-	11	27,507
Virginia.....	191	35,590	-	-	-	-	-	-	191	35,590
Washington.....	1	173	2	4,393	-	-	-	-	3	4,565
West Virginia Total.....	386	170,433	-	-	-	-	-	-	386	170,433
Northern.....	93	45,910	-	-	-	-	-	-	93	45,910
Southern.....	293	124,523	-	-	-	-	-	-	293	124,523
Wyoming.....	2	1,832	25	276,608	-	-	-	-	27	278,440
Appalachian Total ¹	1,532	447,116	-	-	-	-	127	4,751	1,659	451,868
Interior Total ¹	150	114,893	-	-	14	57,939	2	16	166	172,848
Western Total ¹	32	68,732	40	340,291	6	30,117	-	-	78	439,140
East of Miss. River.....	1,660	558,916	-	-	-	-	127	4,751	1,787	563,668
West of Miss. River.....	54	71,825	40	340,291	20	88,056	2	16	116	500,188
U.S. Total.....	1,714	630,741	40	340,291	20	88,056	129	4,768	1,903	1,063,856

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Coal production excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 10. Coal Production by State, Coal Rank, and Group, 1996
(Thousand Short Tons)

Coal-Producing State and Region	Bituminous Low Volatile	Bituminous Medium Volatile	Bituminous High Volatile	Bituminous Total ¹	Subbituminous	Lignite	Anthracite	Total
Alabama.....	7,359	3,654	13,303	24,637	-	-	-	24,637
Alaska.....	-	-	-	-	1,481	-	-	1,481
Arizona.....	-	-	10,442	10,442	-	-	-	10,442
Arkansas.....	5	-	-	5	-	-	16	21
Colorado.....	-	129	15,814	15,942	8,944	-	-	24,886
Illinois.....	-	-	46,656	46,656	-	-	-	46,656
Indiana.....	-	-	29,670	29,670	-	-	-	29,670
Kansas.....	-	-	232	232	-	-	-	232
Kentucky Total.....	966	2,121	148,414	152,425	-	-	-	152,425
Eastern.....	966	2,121	113,864	116,951	-	-	-	116,951
Western.....	-	-	34,550	35,474	-	-	-	35,474
Louisiana.....	-	-	-	-	-	3,221	-	3,221
Maryland.....	4,093	-	-	4,093	-	-	-	4,093
Missouri.....	-	-	710	710	-	-	-	710
Montana.....	-	-	-	-	37,635	256	-	37,891
New Mexico.....	-	-	12,837	12,837	11,230	-	-	24,067
North Dakota.....	-	-	-	-	-	29,861	-	29,861
Ohio.....	13	474	27,394	28,572	-	-	-	28,572
Oklahoma.....	268	909	524	1,701	-	-	-	1,701
Pennsylvania Total.....	4,121	11,564	46,839	63,190	-	-	4,751	67,942
Anthracite.....	-	-	-	-	-	-	4,751	4,751
Bituminous.....	4,121	11,564	46,839	63,190	-	-	-	63,190
Tennessee.....	-	1,219	2,432	3,651	-	-	-	3,651
Texas.....	-	446	-	446	-	54,718	-	55,164
Utah.....	-	-	27,507	27,507	-	-	-	27,507
Virginia.....	6,928	7,085	21,577	35,590	-	-	-	35,590
Washington.....	-	-	173	173	4,393	-	-	4,565
West Virginia Total.....	17,312	12,641	139,952	170,433	-	-	-	170,433
Northern.....	3,927	1,803	39,669	45,910	-	-	-	45,910
Southern.....	13,385	10,838	100,283	124,523	-	-	-	124,523
Wyoming.....	-	-	1,832	1,832	276,608	-	-	278,440
Appalachian Total ²	40,792	38,758	365,361	447,116	-	-	4,751	451,868
Interior Total ²	273	1,354	112,342	114,893	-	57,939	16	172,848
Western Total ²	-	129	68,603	68,732	340,291	30,117	-	439,140
East of Miss. River.....	40,792	38,758	476,237	558,916	-	-	4,751	563,668
West of Miss. River.....	273	1,483	70,069	71,825	340,291	88,056	16	500,188
U.S. Total.....	41,065	40,241	546,307	630,741	340,291	88,056	4,768	1,063,856

¹ Includes bituminous production with volatile content not reported.

² For a definition of coal-producing regions, see Appendix C.

Notes: Refer to the *Classification of Coals by Rank* table in Appendix C for coal group definitions. Coal production excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 11. Coal Production by State, Mine Type, and Union Type, 1996
(Thousand Short Tons)

Coal-Producing State and Region	UMWA	Other Unions	Union Total	Nonunion	Total
Alabama	17,060	-	17,060	7,563	24,623
Underground.....	14,519	-	14,519	3,698	18,217
Surface.....	2,541	-	2,541	3,865	6,406
Alaska	-	1,481	1,481	-	1,481
Surface.....	-	1,481	1,481	-	1,481
Arizona	10,442	-	10,442	-	10,442
Surface.....	10,442	-	10,442	-	10,442
Colorado	2,591	2,008	4,599	20,287	24,886
Underground.....	1,007	-	1,007	14,574	15,581
Surface.....	1,584	2,008	3,592	5,714	9,305
Illinois	32,104	3,449	35,553	11,099	46,652
Underground.....	25,635	2,776	28,411	10,538	38,948
Surface.....	6,469	673	7,143	561	7,704
Indiana	14,933	-	14,933	14,734	29,667
Underground.....	900	-	900	2,063	2,963
Surface.....	14,033	-	14,033	12,672	26,704
Kansas	232	-	232	-	232
Surface.....	232	-	232	-	232
Kentucky Total	20,430	779	21,209	130,883	152,092
Underground.....	15,903	245	16,148	78,005	94,153
Surface.....	4,528	533	5,061	52,878	57,939
Eastern	10,455	779	11,234	105,420	116,654
Underground.....	7,149	245	7,395	61,624	69,018
Surface.....	3,306	533	3,839	43,796	47,635
Western	9,975	-	9,975	25,463	35,438
Underground.....	8,754	-	8,754	16,381	25,135
Surface.....	1,222	-	1,222	9,082	10,304
Louisiana	-	-	-	3,221	3,221
Surface.....	-	-	-	3,221	3,221
Maryland	-	-	-	4,068	4,068
Underground.....	-	-	-	3,296	3,296
Surface.....	-	-	-	772	772
Missouri	-	-	-	710	710
Surface.....	-	-	-	710	710
Montana	16,241	12,476	28,717	9,174	37,891
Underground.....	-	-	-	147	147
Surface.....	16,241	12,476	28,717	9,027	37,744
New Mexico	6,587	13,281	19,868	4,199	24,067
Surface.....	6,587	13,281	19,868	4,199	24,067
North Dakota	2,675	4,538	7,212	22,648	29,861
Surface.....	2,675	4,538	7,212	22,648	29,861
Ohio	15,673	-	15,673	12,847	28,520
Underground.....	14,075	-	14,075	1,837	15,912
Surface.....	1,598	-	1,598	11,010	12,608
Oklahoma	-	-	-	1,687	1,687
Underground.....	-	-	-	137	137
Surface.....	-	-	-	1,550	1,550
Pennsylvania Total	25,899	65	25,964	41,447	67,411
Underground.....	23,992	-	23,992	23,147	47,140
Surface.....	1,907	65	1,972	18,300	20,272
Anthracite	986	65	1,052	3,492	4,544
Underground.....	-	-	-	284	284
Surface.....	986	65	1,052	3,208	4,259
Bituminous	24,913	-	24,913	37,955	62,868
Underground.....	23,992	-	23,992	22,863	46,855
Surface.....	920	-	920	15,092	16,012
Tennessee	-	-	-	3,621	3,621
Underground.....	-	-	-	1,790	1,790
Surface.....	-	-	-	1,830	1,830
Texas	-	36,136	36,136	19,027	55,164
Surface.....	-	36,136	36,136	19,027	55,164
Utah	9,256	-	9,256	18,243	27,499
Underground.....	9,256	-	9,256	18,243	27,499
Virginia	7,309	707	8,017	27,478	35,495
Underground.....	6,999	-	6,999	18,501	25,500
Surface.....	310	707	1,018	8,978	9,995
Washington	-	4,393	4,393	173	4,565
Surface.....	-	4,393	4,393	173	4,565
West Virginia Total	89,208	-	89,208	81,065	170,273
Underground.....	65,086	-	65,086	50,411	115,497
Surface.....	24,122	-	24,122	30,654	54,776

See footnotes at end of table.

Table 11. Coal Production by State, Mine Type, and Union Type, 1996 (Continued)
(Thousand Short Tons)

Coal-Producing State and Region	UMWA	Other Unions	Union Total	Nonunion	Total
Northern	31,636	—	31,636	14,201	45,838
Underground	31,636	—	31,636	8,614	40,251
Surface	—	—	—	5,587	5,587
Southern	57,572	—	57,572	66,863	124,435
Underground	33,449	—	33,449	41,796	75,246
Surface	24,122	—	24,122	25,067	49,189
Wyoming	4,435	10,114	14,549	263,891	278,440
Underground	—	—	—	2,641	2,641
Surface	4,435	10,114	14,549	261,250	275,799
Appalachian Total¹	165,605	1,551	167,156	283,508	450,664
Underground	131,820	245	132,066	164,304	296,370
Surface	33,785	1,306	35,090	119,204	154,294
Interior Total¹	57,245	39,585	96,830	75,941	172,771
Underground	35,289	2,776	38,064	29,118	67,183
Surface	21,956	36,809	58,765	46,823	105,588
Western Total¹	52,227	48,290	100,517	338,616	439,133
Underground	10,263	—	10,263	35,605	45,868
Surface	41,963	48,290	90,253	303,011	393,265
East of Miss. River	222,617	5,000	227,617	334,804	562,422
Underground	167,109	3,021	170,130	193,286	363,416
Surface	55,508	1,979	57,487	141,519	199,006
West of Miss. River	52,459	84,426	136,885	363,261	500,146
Underground	10,263	—	10,263	35,742	46,005
Surface	42,196	84,426	126,622	327,519	454,141
Unknown²	NA	NA	NA	NA	1,288
Underground	NA	NA	NA	NA	428
Surface	NA	NA	NA	NA	860
U.S. Total	275,076	89,426	364,502	698,065	1,063,856
Underground	177,373	3,021	180,394	229,027	409,849
Surface	97,704	86,405	184,109	469,038	654,007

¹ For a definition of coal-producing regions, see Appendix C.

² Includes mines with production of less than 10,000 short tons, which are required to provide only production data.

NA Not available.

Notes: Coal production excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding. See Glossary for listing of other unions.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 12. Coal Production by State and Disposition, 1996
(Thousand Short Tons)

Coal-Producing State and Region	Open Market ¹	Captive ²	Total
Alabama	23,749	874	24,623
Alaska	1,478	2	1,481
Arizona	10,442	0	10,442
Colorado	24,886	0	24,886
Illinois	46,080	573	46,652
Indiana	29,666	1	29,667
Kansas	232	0	232
Kentucky Total	149,169	2,923	152,092
Eastern	113,733	2,921	116,654
Western	35,437	2	35,438
Louisiana	3,221	0	3,221
Maryland	4,042	25	4,068
Missouri	710	0	710
Montana	34,909	2,982	37,891
New Mexico	24,067	0	24,067
North Dakota	28,959	901	29,861
Ohio	20,591	7,929	28,520
Oklahoma	1,687	0	1,687
Pennsylvania Total	64,992	2,420	67,411
Anthracite	2,853	1,691	4,544
Bituminous	62,139	729	62,868
Tennessee	3,603	17	3,621
Texas	15,136	40,027	55,164
Utah	19,294	8,205	27,499
Virginia	33,519	1,976	35,495
Washington	173	4,393	4,565
West Virginia Total	167,700	2,573	170,273
Northern	44,756	1,082	45,838
Southern	122,944	1,491	124,435
Wyoming	262,384	16,056	278,440
Appalachian Total³	431,930	18,734	450,664
Interior Total³	132,168	40,603	172,771
Western Total³	406,593	32,540	439,133
East of Miss. River	543,112	19,310	562,422
West of Miss. River	427,579	72,567	500,146
Total⁴	970,691	91,877	1,062,568
Unknown⁵	NA	NA	1,288
U.S. Total	NA	NA	1,063,856

¹ Open Market includes all coal sold on the open market to other coal companies or consumers.

² Captive includes all coal used by the producing company or sold to affiliated or parent companies.

³ For a definition of coal-producing regions, see Appendix C.

⁴ Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

⁵ Includes mines producing less than 10,000 short tons, which are required to provide only production data.

NA Not available.

Notes: Coal production excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 13. Coal Mining Acreage, Production and Royalties from Federal and Indian Leases by State, 1996

Coal-Producing State and Region	Federal Leases			Indian Leases		
	Acres Leased	Production (thousand short tons)	Royalties (thousand dollars)	Acres Leased	Production (thousand short tons)	Royalties (thousand dollars)
Alabama.....	1,610	49	169	—	—	—
Arizona	—	—	—	64,858	12,185	33,226
Colorado	49,633	18,765	28,560	—	—	—
Kentucky.....	2,413	249	268	—	—	—
Montana.....	31,540	24,816	32,935	14,746	4,681	2,139
New Mexico	12,132	5,861	20,844	36,026	9,439	27,697
North Dakota.....	5,472	1,835	1,012	—	—	—
Oklahoma	10,251	769	746	—	—	—
Utah	44,215	26,403	39,456	—	—	—
Washington.....	241	570	1,233	—	—	—
Wyoming.....	118,403	248,866	176,655	—	—	—
Appalachian Total¹	1,610	49	170	—	—	—
Interior Total¹	12,664	1,018	1,015	—	—	—
Western Total¹	261,636	327,121	300,701	115,630	26,305	63,064
East of Miss. River.....	4,023	298	438	—	—	—
West of Miss. River.....	271,887	327,890	301,448	115,630	26,305	63,064
U.S. Total.....	275,910	328,188	301,885	115,630	26,305	63,064

¹ For a definition of coal-producing regions, see Appendix C.

Notes: U.S. Total for this table represents Federal and Indian Leases only. Output from Federal and Indian Lands is reported as sales volume, the basis for royalties. It is approximately equivalent to production, which includes coal sold and coal added to stockpiles. Totals may not equal sum of components due to independent rounding.

Source: U.S. Department of the Interior, Minerals Management Service (MMS), *Mineral Revenues, 1996, Report on Receipts from Federal and Indian Leases*.

Table 14. Major U.S. Coal Mines, 1996

Rank	Mine Name/Company	Mine Type	State	Production (short tons)
1	Black Thunder/Thunder Basin Coal	Surface	Wyoming	39,258,024
2	North Antelope/Powder River Coal	Surface	Wyoming	28,623,169
3	Rochelle/Powder River Coal	Surface	Wyoming	26,248,241
4	Jacobs Ranch/Kerr-McGee Coal	Surface	Wyoming	24,522,960
5	Caballo/Caballo Coal	Surface	Wyoming	22,003,064
6	Belle Ayr/AMAX Coal West	Surface	Wyoming	19,970,300
7	Eagle Butte/AMAX Coal West	Surface	Wyoming	15,642,744
8	Freedom-Coteau/Coteau Properties	Surface	North Dakota	15,624,702
9	Caballo Rojo/Caballo Rojo	Surface	Wyoming	15,082,891
10	Rawhide/Caballo Coal	Surface	Wyoming	15,068,358
11	Cordero/Cordero Mining	Surface	Wyoming	13,071,242
12	Antelope/Antelope Coal	Surface	Wyoming	12,045,854
13	Buckskin/Triton Coal	Surface	Wyoming	12,005,334
14	West Decker/Decker Coal	Surface	Montana	10,388,948
15	Spring Creek/Spring Creek Coal	Surface	Montana	9,026,789
16	Jewett/Northwestern Resources	Surface	Texas	8,865,214
17	Enlow Fork/Enlow Fork Mining	Underground	Pennsylvania	8,723,644
18	Monticello-Winfield/Texas Utilities Mining	Surface	Texas	8,568,801
19	Rosebud No 6/Western Energy	Surface	Montana	7,807,347
20	Bailey No 1/CONSOL	Underground	Pennsylvania	7,469,255
21	Navajo/BHP Minerals	Surface	New Mexico	7,031,000
22	Falkirk/Falkirk Mining	Surface	North Dakota	7,023,633
23	Martin Lake/Texas Utilities Mining	Surface	Texas	6,813,996
24	Galatia No 56/Kerr-McGee Coal	Underground	Illinois	6,629,282
25	Sandow-Rockdale/ALCOA	Surface	Texas	6,615,490
26	Martin Lake-Oak Hill/Texas Utilities Mining	Surface	Texas	6,508,728
27	Jim Bridger/Bridger Coal	Surface	Wyoming	6,321,161
28	Kayenta/Peabody Western	Surface	Arizona	6,236,855
29	Mount Gunnison/Mountain Coal	Underground	Colorado	5,986,138
30	Foidel Creek/Twenty Mile Coal	Underground	Colorado	5,836,673
31	Coal Creek/Thunder Basin Coal	Surface	Wyoming	5,769,025
32	Colowyo/Colowyo Coal	Surface	Colorado	5,713,565
33	Cumberland/Cyprus Cumberland	Underground	Pennsylvania	5,327,908
34	McKinley/Pittsburg & Midway Coal	Surface	New Mexico	5,327,649
35	Mountaineer/Mingo Logan Coal	Underground	West Virginia	5,245,650
36	Big Brown/Texas Utilities Mining	Surface	Texas	5,195,579
37	Big Sky/Big Sky Coal	Surface	Montana	4,994,234
38	Peats Branch No 3/Hobet Mining	Surface	West Virginia	4,847,375
39	Powhatan No 6/Ohio Valley Coal	Underground	Ohio	4,741,214
40	Absaloka/Westmoreland Resources	Surface	Montana	4,668,495
41	Skyline/Coastal States Energy	Underground	Utah	4,628,282
42	Federal No 2/Eastern Associated Coal	Underground	West Virginia	4,580,428
43	No 37/Arch of Kentucky	Underground	Kentucky	4,547,046
44	Center/BNI Coal	Surface	North Dakota	4,537,957
45	Samples(Boone)/Catenary Coal	Surface	West Virginia	4,493,734
46	No 50/US Steel Mining	Underground	West Virginia	4,492,196
47	Shoemaker/CONSOL	Underground	West Virginia	4,415,744
48	Deer Creek/PacifiCorp	Underground	Utah	4,337,999
49	McElory/CONSOL	Underground	West Virginia	4,305,682
50	Robinson Run/CONSOL	Underground	West Virginia	4,216,327
51	Black Mesa/Peabody Western	Surface	Arizona	4,204,908
52	Southern Utah Fuel/Coastal States Energy	Underground	Utah	4,202,439
53	Lee Ranch/Lee Ranch Coal	Surface	New Mexico	4,199,387
54	No 13 Baker/Costain Coal	Underground	Kentucky	3,986,028
55	South Hallsville No 1/Sabine Mining	Surface	Texas	3,892,053
56	San Juan/San Juan Coal	Surface	New Mexico	3,875,153
57	Trail Mountain/PacifiCorp	Underground	Utah	3,825,647
58	Dave Johnston/PacifiCorp	Surface	Wyoming	3,792,706
59	Marissa(Washington)/Peabody Coal	Underground	Illinois	3,673,750
60	Kemmerer/Pittsburg & Midway Coal	Surface	Wyoming	3,650,865
61	Dilworth/CONSOL	Underground	Pennsylvania	3,632,018
62	Buchanan No 1/CONSOL	Underground	Virginia	3,556,890
63	Blacksville No 2/CONSOL	Underground	West Virginia	3,459,798
64	Shoal Creek/Drummond Co	Underground	Alabama	3,417,799
65	Lynnville/Peabody Coal	Surface	Indiana	3,404,172
66	Powhatan No 4/CONSOL	Underground	Ohio	3,382,895
67	No 21/Hobet Mining	Surface	West Virginia	3,366,564
68	San Miguel/Atascosa Mining	Surface	Texas	3,324,110
69	Hawthorn/Peabody Coal	Surface	Indiana	3,317,693
*	Subtotal			551,570,801
*	All Other Mines			512,284,712
*	U.S. Total			1,063,855,513

Notes: Major mines are mines that produced more than 3.3 million short tons in 1996. The company is the firm operating the mine.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Production Report."

Table 15. Major U.S. Coal Producers, 1996

Rank	Company Name	Production (thousand short tons)	Percent of Total Production
1	Peabody Holding Co., Inc.	142,811	13.4
2	Cyprus AMAX Minerals Co.	74,738	7.0
3	Consol Energy Inc.	70,072	6.6
4	Kennecott Energy Co.	62,527	5.9
5	ARCO Coal Co	51,013	4.8
6	Kerr-McGee Coal Corp.	31,350	2.9
7	Zeigler Coal Holding Co.	31,001	2.9
8	Marrowbone Development Co.	29,239	2.7
9	Texas Utilities Co.	28,214	2.6
10	A.T. Massey Coal Co.	27,327	2.6
11	North American Coal Corp.	26,284	2.5
12	Arch Mineral Corp.	20,153	1.9
13	Montana Power Co.	19,623	1.8
14	Ashland Coal Inc.	16,091	1.5
15	Marigold Land Co.	14,731	1.4
16	Pittston Coal Group	13,281	1.2
17	BHP Utah Minerals	13,228	1.2
18	Pittsburg & Midway Coal Mining Co.	12,946	1.2
19	Mapco Coal Inc.	12,844	1.2
20	Kiewit Coal Properties Inc.	9,863	.9
21	Costain Coal Inc.	9,342	.9
22	Coastal Corp (The)	8,932	.8
23	AEP Service Corp.	8,652	.8
24	Jamer River Coal Co.	8,025	.8
25	Anadalex Resources Inc.	7,613	.7
26	Drummond Company Inc.	7,342	.7
27	Rochester & Pittsburgh Coal Co.	7,315	.7
28	Jim Walter Resources Inc.	7,313	.7
29	U S steele Mining Co., Inc.	7,169	.7
30	Black Beauty Coal Co.	6,628	.6
31	Teco Coal Corp.	6,615	.6
32	Aluminum Company of America	5,379	.5
33	Westmoreland Resources Inc.	5,111	.5
34	General Dynamics Corp.	4,741	.4
35	Ohio Valley Resources Inc.	4,538	.4
36	Minnesota Power & Light	4,199	.4
37	Hanson PLC	4,132	.4
38	Lee Ranch Coal Company	3,828	.4
39	Exxon Corporation	3,689	.3
40	Sun Co., Inc.	3,554	.3
41	Kindill Mining Inc.	3,324	.3
42	Golden Oak Mining Co. LP	3,243	.3
43	San Miguel Electric CoOp	3,209	.3
44	Black Hills Corp.	2,982	.3
45	A N R Coal Co.	2,948	.3
46	Leslie Resources Inc.	2,931	.3
47	Addington Enterprises Inc.	2,758	.3
48	MDU Resources Group Inc.	2,660	.2
49	Pen Coal Corp.	2,482	.2
50	Fola Coal Co.	2,455	.2
51	Dorchester Coal Co., Inc.	2,434	.2
52	Mincorp Inc.	2,306	.2
53	Dolet Hills Mining Venture	2,225	.2
54	Anker Group Inc.	2,056	.2
55	Maple Creek Mining Inc.	2,056	.2
56	Appolo Fuels Inc.	2,014	.2
57	Waterloo Coal Co., Inc.	2,008	.2
*	Subtotal	875,548	82.3
*	All other coal producers	188,308	17.7
*	U.S. Total	1,063,856	100.0

Notes: Major coal producers are companies that produced more than 2 million short tons in 1996. The company is the firm owning the mineral rights to the mined coal.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Production Report."

Productive Capacity

*Total productivity for 1996 was 1,325 million short tons, a two percent increase since last year.
Capacity utilization was 80.2 percent.*

Table 16. Productive Capacity of Coal Mines by State, 1987, 1992-1996
(Thousand Short Tons)

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987 ¹	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Alabama.....	32,159	32,546	33,049	27,916	29,815	29,189	-1.2	1.9	1.1
Alaska.....	w	w	w	w	w	w	w	w	w
Arizona.....	w	w	w	w	w	w	w	w	w
Arkansas.....	-	w	w	w	w	w	w	w	w
California.....	-	-	-	-	w	w	w	w	w
Colorado.....	29,330	32,435	31,075	30,040	25,848	21,321	-9.6	3.2	3.6
Illinois.....	61,727	56,627	69,414	69,320	75,787	75,852	9.0	-5.0	-2.3
Indiana.....	35,564	35,256	38,931	43,955	42,990	45,344	.9	-4.6	-2.7
Iowa.....	-	-	w	w	w	w	w	w	w
Kansas.....	w	w	w	w	w	w	w	w	w
Kentucky Total.....	189,225	203,173	213,427	204,805	195,352	185,985	-6.9	-.8	.2
Eastern.....	145,691	152,111	161,731	157,318	149,046	128,874	-4.2	-.6	1.4
Western.....	43,534	51,062	51,696	47,486	46,306	57,110	-14.7	-1.5	-3.0
Louisiana.....	w	w	w	w	w	w	w	w	w
Maryland.....	4,935	4,408	4,332	3,927	3,902	4,647	11.9	6.0	.7
Missouri.....	1,046	1,081	1,209	w	w	w	-3.2	w	-16.6
Montana.....	56,175	51,597	51,104	50,849	48,582	42,848	8.9	3.7	3.0
New Mexico.....	32,695	32,760	32,807	33,360	29,512	33,295	-.2	2.6	-.2
North Dakota.....	32,184	34,464	35,920	36,371	36,986	39,166	-6.6	-3.4	-2.1
Ohio.....	37,584	34,011	43,925	42,236	41,329	46,337	10.5	-2.3	-2.3
Oklahoma.....	1,981	2,557	2,251	2,422	2,486	3,818	-22.5	-5.5	-7.0
Pennsylvania Total.....	81,684	77,187	80,975	82,148	82,968	86,765	5.8	-.4	-.7
Anthracite.....	5,504	6,547	5,776	5,806	4,143	3,871	-15.9	7.4	4.0
Bituminous.....	76,180	70,640	75,200	76,342	78,825	82,895	7.8	-.8	-.9
Tennessee.....	4,009	3,750	3,409	3,763	3,932	7,305	6.9	.5	-6.4
Texas.....	59,604	54,758	55,856	57,115	58,541	51,636	8.8	.4	1.6
Utah.....	30,230	30,888	27,640	25,933	25,534	22,976	-2.1	4.3	3.1
Virginia.....	41,593	43,037	46,462	50,879	54,471	49,676	-3.3	-6.5	-1.9
Washington.....	w	w	w	w	w	w	w	w	w
West Virginia Total.....	217,409	204,837	201,684	191,706	198,083	158,356	6.1	2.3	3.6
Northern.....	54,602	56,355	59,295	60,015	62,811	59,630	-3.1	-3.4	-1.0
Southern.....	162,807	148,482	142,388	131,691	135,271	98,726	9.6	4.7	5.7
Wyoming.....	350,908	337,184	321,046	277,875	253,312	247,476	4.1	8.5	3.9
Appalachian Total ²	565,064	551,888	575,568	559,893	563,545	511,150	2.4	.1	1.1
Interior Total ²	207,658	205,393	223,897	225,938	235,040	245,624	1.1	-3.0	-1.8
Western Total ²	551,990	541,773	521,191	476,042	442,469	426,630	1.9	5.7	2.9
East of Miss. River.....	705,890	694,832	735,609	720,654	728,628	689,457	1.6	-.8	.3
West of Miss. River.....	618,823	604,222	585,047	541,219	512,426	493,948	2.4	4.8	2.5
U.S. Total.....	1,324,712	1,299,054	1,320,656	1,261,873	1,241,054	1,183,404	2.0	1.6	1.3

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² For a definition of coal-producing regions, see Appendix C.

Notes: Productive capacity is the maximum amount of coal that can be produced annually as reported by mining companies on Form EIA-7A. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-7A, "Coal Production Report."

Table 17. Capacity Utilization of Coal Mines by State, 1987, 1992-1996
(Percent)

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987 ¹
Alabama.....	76.57	75.52	70.19	88.46	86.26	87.23
Alaska.....	w	w	w	w	w	w
Arizona.....	w	w	w	w	w	w
Arkansas.....	-	w	w	w	w	w
California.....	-	-	-	-	w	w
Colorado.....	84.85	79.27	81.41	72.84	74.35	67.59
Illinois.....	75.58	85.08	76.06	59.28	78.98	77.98
Indiana.....	83.42	73.70	79.37	66.60	70.86	75.36
Iowa.....	-	-	w	w	w	w
Kansas.....	w	w	w	w	w	w
Kentucky Total.....	80.38	75.49	75.54	76.11	82.15	88.03
Eastern.....	80.07	77.71	76.70	76.15	79.72	91.94
Western.....	81.40	68.89	71.89	76.00	89.95	79.20
Louisiana.....	w	w	w	w	w	w
Maryland.....	82.42	82.65	83.07	85.01	84.50	84.48
Missouri.....	67.85	49.88	69.35	w	w	w
Montana.....	67.45	76.44	81.47	70.64	80.03	80.28
New Mexico.....	73.61	81.85	85.47	84.74	83.18	57.46
North Dakota.....	92.78	87.37	89.88	87.89	85.83	64.19
Ohio.....	75.88	76.55	67.87	67.94	73.19	76.72
Oklahoma.....	85.16	73.14	83.98	71.95	69.73	74.77
Pennsylvania Total.....	82.53	78.81	75.89	71.79	82.20	80.04
Anthracite.....	82.56	67.12	74.02	68.80	75.22	79.83
Bituminous.....	82.53	79.89	76.03	72.02	82.57	80.05
Tennessee.....	90.32	85.51	87.27	79.73	86.50	86.94
Texas.....	92.55	96.21	93.72	95.54	94.07	97.86
Utah.....	90.97	81.48	88.27	84.22	83.57	71.85
Virginia.....	85.34	79.07	79.61	77.07	78.70	88.93
Washington.....	w	w	w	w	w	w
West Virginia Total.....	78.32	79.50	80.07	67.91	81.70	85.84
Northern.....	83.95	81.70	83.04	56.15	79.44	86.72
Southern.....	76.43	78.67	78.83	73.28	82.75	85.31
Wyoming.....	79.35	78.24	73.85	75.62	75.07	59.34
Appalachian Total ²	79.75	78.53	77.07	72.85	80.63	85.95
Interior Total ²	83.20	82.01	80.29	73.95	83.22	82.05
Western Total ²	79.55	79.29	78.33	77.41	78.04	64.18
East of Miss. River.....	79.68	78.11	76.73	71.37	80.47	83.82
West of Miss. River.....	80.82	80.88	79.85	79.29	79.80	68.18
U.S. Total.....	80.21	79.40	78.11	74.77	80.20	77.29

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² For a definition of coal-producing regions, see Appendix C.

Notes: Capacity utilization is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Source: Energy Information Administration, Form EIA-7A, "Coal Production Report."

Table 18. Production, Productive Capacity, and Capacity Utilization of Coal Mines by State and Mine Type, 1996
(Thousand Short Tons)

Coal-Producing State and Region	Underground			Surface			Total		
	Production	Productive Capacity	Capacity Utilization (percent)	Production	Productive Capacity	Capacity Utilization (percent)	Production	Productive Capacity	Capacity Utilization (percent)
Alabama.....	18,217	23,207	78.50	6,406	8,952	71.55	24,623	32,159	76.57
Alaska.....	-	-	-	1,481	w	w	1,481	w	w
Arizona.....	-	-	-	10,442	w	w	10,442	w	w
Colorado.....	15,581	18,530	84.08	9,305	10,800	86.16	24,886	29,330	84.85
Illinois.....	38,948	51,816	75.17	7,704	9,912	77.73	46,652	61,727	75.58
Indiana.....	2,963	w	w	26,704	w	w	29,667	35,564	83.42
Kansas.....	-	-	-	232	w	w	232	w	w
Kentucky Total.....	94,153	114,922	81.93	57,939	74,302	77.98	152,092	189,225	80.38
Eastern.....	69,018	86,042	80.21	47,635	59,649	79.86	116,654	145,691	80.07
Western.....	25,135	28,880	87.03	10,304	14,653	70.32	35,438	43,534	81.40
Louisiana.....	-	-	-	3,221	w	w	3,221	w	w
Maryland.....	3,296	w	w	772	w	w	4,068	4,935	82.42
Missouri.....	-	-	-	710	1,046	67.85	710	1,046	67.85
Montana.....	147	w	w	37,744	w	w	37,891	56,175	67.45
New Mexico.....	-	-	-	24,067	32,695	73.61	24,067	32,695	73.61
North Dakota.....	-	-	-	29,861	32,184	92.78	29,861	32,184	92.78
Ohio.....	15,912	17,313	91.91	12,608	20,272	62.19	28,520	37,584	75.88
Oklahoma.....	137	w	w	1,550	w	w	1,687	1,981	85.16
Pennsylvania Total.....	47,140	54,579	86.37	20,272	27,105	74.79	67,411	81,684	82.53
Anthracite.....	284	459	61.96	4,259	5,045	84.44	4,544	5,504	82.56
Bituminous.....	46,855	54,120	86.58	16,012	22,060	72.58	62,868	76,180	82.53
Tennessee.....	1,790	w	w	1,830	w	w	3,621	4,009	90.32
Texas.....	-	-	-	55,164	59,604	92.55	55,164	59,604	92.55
Utah.....	27,499	30,230	90.97	-	-	-	27,499	30,230	90.97
Virginia.....	25,500	30,146	84.59	9,995	11,448	87.31	35,495	41,593	85.34
Washington.....	-	-	-	4,565	w	w	4,565	w	w
West Virginia Total.....	115,497	143,797	80.32	54,776	73,612	74.41	170,273	217,409	78.32
Northern.....	40,251	46,028	87.45	5,587	8,575	65.16	45,838	54,602	83.95
Southern.....	75,246	97,769	76.96	49,189	65,038	75.63	124,435	162,807	76.43
Wyoming.....	2,641	w	w	275,799	w	w	278,440	350,908	79.35
Appalachian Total ¹	296,370	361,103	82.07	154,294	203,961	75.65	450,664	565,064	79.75
Interior Total ¹	67,183	84,166	79.82	105,588	123,492	85.50	172,771	207,658	83.20
Western Total ¹	45,868	52,160	87.94	393,265	499,830	78.68	439,133	551,990	79.55
East of Miss. River.....	363,416	444,969	81.67	199,006	260,920	76.27	562,422	705,890	79.68
West of Miss. River.....	46,005	52,460	87.70	454,141	566,363	80.19	500,146	618,823	80.82
Unknown ²	428	NA	NA	860	NA	NA	1,288	NA	NA
U.S. Total.....	409,849	497,429	82.31	654,007	827,283	78.95	1,063,856	1,324,712	80.21

¹ For a definition of coal-producing regions, see Appendix C.

² Includes mines with production of less than 10,000 short tons, which are required to provide only production data.

NA Not available.

Notes: Productive capacity is the maximum amount of coal that can be produced annually as reported by mining companies on Form EIA-7A. Capacity utilization is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Coal production excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

**Table 19. Productive Capacity and Capacity Utilization of Underground Coal Mines
by State and Mining Method, 1996**
(Thousand Short Tons)

Coal-Producing State and Region	Continuous ¹		Conventional ¹		Longwall ¹		Other ^{1 2}	
	Productive Capacity	Capacity Utilization (percent)	Productive Capacity	Capacity Utilization (percent)	Productive Capacity	Capacity Utilization (percent)	Productive Capacity	Capacity Utilization (percent)
Alabama.....	w	w	w	w	16,277	80.11	-	-
Colorado.....	w	w	w	w	9,677	96.60	w	w
Illinois.....	34,219	72.07	w	w	w	w	-	-
Indiana.....	w	w	-	-	-	-	-	-
Kentucky Total.....	87,876	82.75	w	w	12,450	87.52	w	w
Eastern.....	65,449	81.61	w	w	w	w	w	w
Western.....	22,427	86.09	w	w	w	w	-	-
Maryland.....	w	w	-	-	w	w	-	-
Montana.....	w	w	-	-	-	-	-	-
Ohio.....	4,633	80.34	-	-	12,680	96.13	-	-
Oklahoma.....	w	w	-	-	-	-	-	-
Pennsylvania Total.....	20,869	83.43	w	w	31,250	90.08	w	w
Anthracite.....	w	w	w	w	-	-	w	w
Bituminous.....	w	w	w	w	31,250	90.08	-	-
Tennessee.....	w	w	w	w	-	-	-	-
Utah.....	w	w	w	w	21,763	91.55	-	-
Virginia.....	14,781	89.14	w	w	w	w	-	-
West Virginia Total.....	82,132	76.69	16,700	76.71	44,965	86.42	-	-
Northern.....	13,357	81.42	2,486	71.92	30,185	91.29	-	-
Southern.....	68,776	75.78	14,213	77.55	14,780	76.49	-	-
Wyoming.....	w	w	-	-	w	w	-	-
Appalachian Total ³	198,144	79.93	w	w	w	w	w	w
Interior Total ³	60,116	78.29	w	w	w	w	-	-
Western Total ³	15,257	80.81	w	w	34,050	92.95	w	w
East of Miss. River.....	257,960	79.59	w	w	145,311	86.83	w	w
West of Miss. River.....	15,557	80.13	w	w	34,050	92.95	w	w
U.S. Total.....	273,517	79.62	43,910	72.16	179,361	87.99	640	63.11

¹ Calculated by multiplying reported mining method percentages by the individual mine capacity.

² Includes shortwall, scoop loading, hand loading and unknown.

³ For a definition of coal-producing regions, see Appendix C.

Notes: Productive capacity is the maximum amount of coal that can be produced annually as reported by mining companies on Form EIA-7A. Capacity utilization is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Excludes mines producing less than 10,000 short tons, which are not required to provide these data. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-7A, "Coal Production Report."

Table 20. Productive Capacity and Capacity Utilization of Coal Mines by State and Coal Rank, 1996
(Thousand Short Tons)

Coal-Producing State and Region	Bituminous		Subbituminous		Lignite		Anthracite	
	Productive Capacity	Capacity Utilization (percent)	Productive Capacity	Capacity Utilization (percent)	Productive Capacity	Capacity Utilization (percent)	Productive Capacity	Capacity Utilization (percent)
Alabama.....	32,159	76.57	-	-	-	-	-	-
Alaska.....	-	-	w	w	-	-	-	-
Arizona.....	w	w	-	-	-	-	-	-
Colorado.....	18,930	84.22	10,400	86.00	-	-	-	-
Illinois.....	61,727	75.58	-	-	-	-	-	-
Indiana.....	35,564	83.42	-	-	-	-	-	-
Kansas.....	w	w	-	-	-	-	-	-
Kentucky Total.....	189,225	80.38	-	-	-	-	-	-
Eastern.....	145,691	80.07	-	-	-	-	-	-
Western.....	43,534	81.40	-	-	-	-	-	-
Louisiana.....	-	-	-	-	w	w	-	-
Maryland.....	4,935	82.42	-	-	-	-	-	-
Missouri.....	1,046	67.85	-	-	-	-	-	-
Montana.....	-	-	w	w	w	w	-	-
New Mexico.....	w	w	w	w	-	-	-	-
North Dakota.....	-	-	-	-	32,184	92.78	-	-
Ohio.....	37,584	75.88	-	-	-	-	-	-
Oklahoma.....	1,981	85.16	-	-	-	-	-	-
Pennsylvania Total.....	76,180	82.53	-	-	-	-	5,504	82.56
Anthracite.....	-	-	-	-	-	-	5,504	82.56
Bituminous.....	76,180	82.53	-	-	-	-	-	-
Tennessee.....	4,009	90.32	-	-	-	-	-	-
Texas.....	w	w	-	-	w	w	-	-
Utah.....	30,230	90.97	-	-	-	-	-	-
Virginia.....	41,593	85.34	-	-	-	-	-	-
Washington.....	w	w	w	w	-	-	-	-
West Virginia Total.....	217,409	78.32	-	-	-	-	-	-
Northern.....	54,602	83.95	-	-	-	-	-	-
Southern.....	162,807	76.43	-	-	-	-	-	-
Wyoming.....	w	w	w	w	-	-	-	-
Appalachian Total ¹	559,560	79.73	-	-	-	-	5,504	82.56
Interior Total ¹	w	w	-	-	w	w	-	-
Western Total ¹	w	w	433,106	78.57	w	w	-	-
East of Miss. River.....	700,386	79.65	-	-	-	-	5,504	82.56
West of Miss. River.....	90,138	79.66	433,106	78.57	95,579	92.13	-	-
U.S. Total.....	790,523	79.65	433,106	78.57	95,579	92.13	5,504	82.56

¹ For a definition of coal-producing regions, see Appendix C.

w Withheld to avoid disclosure of individual company data.

Notes: Refer to the *Classification of Coals by Rank* table in Appendix C for coal rank definitions. Productive capacity is the maximum amount of coal that can be produced annually as reported by mining companies on Form EIA-7A. Capacity utilization is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-7A, "Coal Production Report."

Table 21. Productive Capacity and Capacity Utilization of Coal Mines by State and Mine Production Range, 1996
(Thousand Short Tons, Percent)

Coal-Producing State and Region	Productive Capacity					Capacity Utilization (percent)				
	Mine Production Range (thousand short tons)									
	1,000 and over	500 to 1,000	200 to 500	100 to 200	10 to 100	1,000 and over	500 to 1,000	200 to 500	100 to 200	10 to 100
Alabama.....	20,947	5,887	w	w	w	83.49	65.66	w	w	w
Alaska.....	w	—	—	—	—	w	—	—	—	—
Arizona.....	w	—	—	—	—	w	—	—	—	—
Colorado.....	23,700	w	1,420	w	w	92.49	w	93.19	w	w
Illinois.....	48,996	w	w	w	3,954	87.64	w	w	w	4.04
Indiana.....	19,988	10,305	4,187	w	w	92.19	71.18	79.43	w	w
Kansas.....	—	—	w	—	—	—	—	w	—	—
Kentucky Total.....	59,849	50,784	42,994	16,250	19,348	91.22	85.92	77.01	73.93	45.18
Eastern.....	37,253	37,518	38,421	15,371	17,128	91.46	88.89	77.86	72.75	47.50
Western.....	22,596	13,266	4,573	878	2,220	90.81	77.53	69.89	94.66	27.29
Louisiana.....	w	w	—	—	—	w	w	—	—	—
Maryland.....	w	—	w	w	850	w	—	w	w	51.42
Missouri.....	—	—	w	w	w	—	—	w	w	w
Montana.....	51,234	w	w	w	—	71.99	w	w	w	—
New Mexico.....	32,695	—	—	—	—	73.61	—	—	—	—
North Dakota.....	32,184	—	—	—	—	92.78	—	—	—	—
Ohio.....	19,851	4,421	3,974	3,824	5,515	89.80	71.69	81.73	64.94	32.50
Oklahoma.....	—	—	w	1,150	w	—	—	w	64.17	w
Pennsylvania Total.....	45,356	6,175	13,089	8,498	8,566	87.25	92.28	79.45	65.87	71.72
Anthracite.....	—	w	2,013	583	2,305	—	w	92.66	100.00	67.61
Bituminous.....	45,356	w	11,076	7,915	6,260	87.25	w	77.05	63.35	73.23
Tennessee.....	—	w	2,303	717	w	—	w	98.03	79.73	w
Texas.....	55,004	w	w	—	—	97.94	w	w	—	—
Utah.....	28,649	w	—	—	—	90.55	w	—	—	—
Virginia.....	w	w	12,713	5,858	6,096	w	w	88.90	86.46	68.08
Washington.....	w	—	—	w	—	w	—	—	w	—
West Virginia Total.....	119,864	35,418	29,692	7,655	24,780	84.75	91.17	80.83	77.20	26.16
Northern.....	39,698	5,396	4,317	1,434	3,757	89.76	74.55	76.69	90.60	41.87
Southern.....	80,166	30,022	25,375	6,221	21,023	82.27	94.16	81.54	74.12	23.35
Wyoming.....	340,508	w	w	w	w	81.16	w	w	w	w
Appalachian Total ¹	255,770	97,396	102,284	44,458	65,156	86.57	88.28	80.83	71.86	43.95
Interior Total ¹	149,584	32,703	15,048	w	w	92.38	65.07	65.12	w	w
Western Total ¹	529,234	10,056	3,861	w	w	81.50	48.76	48.12	w	w
East of Miss. River.....	347,351	125,649	115,009	45,848	72,033	87.32	84.29	78.53	72.61	41.09
West of Miss. River.....	587,238	14,506	6,184	10,197	698	83.04	43.14	64.94	20.22	24.08
U.S. Total.....	934,589	140,154	121,193	56,045	72,731	84.63	80.03	77.84	63.08	40.93

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Productive capacity is the maximum amount of coal that can be produced annually as reported by mining companies on Form EIA-7A. Capacity utilization is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-7A, "Coal Production Report."

Table 22. Productive Capacity and Productivity of Coal Mines by State and Capacity Utilization Range, 1996
(Thousand Short Tons, Short Tons per Miner per Hour)

Coal-Producing State and Region	Productive Capacity						Productivity					
	Capacity Utilization Range (percent)											
	90 and over	80 to 90	70 to 80	60 to 70	Less than 60	Total	90 and over	80 to 90	70 to 80	60 to 70	Less than 60	Total
Alabama.....	9,825	8,405	w	w	6,595	32,159	2.73	2.28	2.06	2.59	1.28	2.20
Alaska.....	-	-	-	w	-	w	-	-	-	6.81	-	6.81
Arizona.....	-	w	w	-	-	w	-	6.92	6.33	-	-	6.30
Colorado.....	19,700	w	w	w	w	29,330	9.02	2.80	7.92	6.22	2.62	7.32
Illinois.....	29,045	w	7,083	w	13,850	61,727	4.92	3.98	3.38	4.28	2.36	4.18
Indiana.....	19,239	w	w	w	6,075	35,564	4.86	5.23	5.96	5.54	4.56	4.98
Kansas.....	w	-	-	-	-	w	2.17	-	-	-	-	2.17
Kentucky Total.....	88,434	34,232	16,258	14,524	35,777	189,225	4.39	4.39	4.28	3.82	1.71	3.80
Eastern.....	70,120	24,050	w	w	28,667	145,691	4.33	4.39	4.10	3.77	1.55	3.68
Western.....	18,314	10,182	w	w	7,110	43,534	4.63	4.38	4.64	4.16	2.68	4.29
Louisiana.....	-	w	-	-	-	w	-	10.86	-	-	-	10.86
Maryland.....	3,191	w	-	w	1,039	4,935	5.22	2.98	-	2.26	2.26	4.13
Missouri.....	w	-	-	-	w	1,046	4.66	-	-	-	1.49	3.49
Montana.....	w	w	w	-	21,075	56,175	22.32	18.60	30.75	-	15.96	21.88
New Mexico.....	w	w	w	w	-	32,695	7.93	5.47	7.63	10.70	-	8.45
North Dakota.....	w	-	-	w	-	32,184	17.76	-	-	13.42	-	17.20
Ohio.....	18,220	3,838	2,772	1,900	10,854	37,584	4.11	4.51	4.56	4.19	2.95	3.95
Oklahoma.....	841	w	-	w	w	1,981	2.99	4.49	-	2.88	1.98	2.61
Pennsylvania Total.....	43,668	10,397	4,749	13,497	9,372	81,684	4.54	2.89	2.83	3.09	.97	3.36
Anthracite.....	2,522	1,732	w	w	1,046	5,504	2.91	3.75	.94	2.20	.37	1.92
Bituminous.....	41,146	8,666	w	w	8,326	76,180	4.70	2.76	2.85	3.11	1.24	3.56
Tennessee.....	3,224	-	w	w	568	4,009	2.78	-	2.36	1.01	.71	2.20
Texas.....	52,564	-	w	-	w	59,604	10.36	-	7.16	-	8.40	10.13
Utah.....	20,230	w	w	-	w	30,230	7.54	7.82	4.20	-	-	7.23
Virginia.....	23,847	7,584	1,690	3,114	5,358	41,593	3.19	3.46	2.73	2.98	.87	2.72
Washington.....	w	w	-	-	-	w	4.21	1.63	-	-	-	3.97
West Virginia Total.....	113,215	22,381	16,479	20,424	44,910	217,409	4.90	3.98	4.73	3.63	1.50	3.91
Northern.....	32,009	5,610	2,354	9,069	5,560	54,602	4.50	4.39	4.21	3.84	1.59	4.05
Southern.....	81,205	16,771	14,125	11,355	39,350	162,807	5.08	3.86	4.84	3.48	1.48	3.86
Wyoming.....	120,958	105,750	w	w	40,200	350,908	32.43	31.55	42.93	47.35	14.36	32.06
Appalachian Total ¹	285,310	76,944	41,672	53,775	107,364	565,064	4.31	3.57	3.57	3.41	1.44	3.48
Interior Total ¹	120,853	28,812	19,142	6,588	32,264	207,658	6.23	4.79	4.44	4.33	2.91	5.39
Western Total ¹	207,123	127,864	81,860	70,568	64,575	551,990	17.08	20.73	15.40	20.53	11.27	17.41
East of Miss. River.....	351,908	101,626	57,774	60,183	134,399	705,890	4.40	3.75	3.71	3.50	1.58	3.63
West of Miss. River.....	261,377	131,994	84,900	70,748	69,804	618,823	14.69	20.11	14.77	20.20	9.81	15.66
U.S. Total.....	613,285	233,620	142,674	130,931	204,202	1,324,712	6.25	6.92	6.71	6.34	2.23	5.69

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Productivity is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations. Excludes office workers. Includes mining operations management and all technical and engineering personnel. Productive capacity is the maximum amount of coal that can be produced annually as reported by mining companies on Form EIA-7A. Capacity utilization is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons and preparation plants with less than 5,000 employee hours, which are not required to provide these data. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 23. Productive Capacity and Capacity Utilization of Coal Mines by State and Recoverable Reserves Range, 1996
(Thousand Short Tons)

Coal-Producing State and Region	Recoverable Reserves Range (million short tons)							
	50 and over		10 to 50		0 to 10		Total	
	Productive Capacity	Capacity Utilization (percent)	Productive Capacity	Capacity Utilization (percent)	Productive Capacity	Capacity Utilization (percent)	Productive Capacity	Capacity Utilization (percent)
Alabama.....	12,093	84.41	6,996	77.60	13,070	68.75	32,159	76.57
Alaska.....	w	w	—	—	—	—	w	w
Arizona.....	w	w	—	—	—	—	w	w
Colorado.....	19,500	90.59	8,795	69.98	1,035	103.06	29,330	84.85
Illinois.....	16,361	88.87	30,808	64.03	14,559	85.08	61,727	75.58
Indiana.....	w	w	w	w	16,959	78.89	35,564	83.42
Kansas.....	—	—	—	—	w	w	w	w
Kentucky Total.....	10,913	85.00	38,572	78.39	139,740	80.56	189,225	80.38
Eastern.....	w	w	w	w	116,942	81.09	145,691	80.07
Western.....	w	w	w	w	22,798	77.87	43,534	81.40
Louisiana.....	w	w	w	w	—	—	w	w
Maryland.....	—	—	w	w	w	w	4,935	82.42
Missouri.....	—	—	—	—	1,046	67.85	1,046	67.85
Montana.....	w	w	w	w	—	—	56,175	67.45
New Mexico.....	w	w	w	w	—	—	32,695	73.61
North Dakota.....	32,184	92.78	—	—	—	—	32,184	92.78
Ohio.....	w	w	w	w	18,384	61.45	37,584	75.88
Oklahoma.....	—	—	w	w	w	w	1,981	85.16
Pennsylvania Total.....	31,456	88.31	14,024	82.32	36,204	77.59	81,684	82.53
Anthracite.....	—	—	w	w	w	w	5,504	82.56
Bituminous.....	31,456	88.31	w	w	w	w	76,180	82.53
Tennessee.....	—	—	w	w	w	w	4,009	90.32
Texas.....	48,852	97.90	w	w	w	w	59,604	92.55
Utah.....	w	w	15,549	91.32	w	w	30,230	90.97
Virginia.....	—	—	9,912	80.20	31,681	86.94	41,593	85.34
Washington.....	—	—	w	w	w	w	w	w
West Virginia Total.....	41,800	89.23	56,832	78.92	118,776	74.19	217,409	78.32
Northern.....	24,400	89.89	13,903	79.87	16,300	78.54	54,602	83.95
Southern.....	17,400	88.30	42,930	78.61	102,477	73.50	162,807	76.43
Wyoming.....	340,608	80.20	—	—	10,300	51.04	350,908	79.35
Appalachian Total ¹	99,399	89.19	125,237	78.81	340,428	77.35	565,064	79.75
Interior Total ¹	81,243	93.87	64,520	76.26	61,895	76.43	207,658	83.20
Western Total ¹	489,425	79.56	41,945	83.76	20,620	70.89	551,990	79.55
East of Miss. River.....	128,791	89.02	182,355	77.29	394,744	77.73	705,890	79.68
West of Miss. River.....	541,277	81.22	49,347	85.31	28,198	65.26	618,823	80.82
U.S. Total.....	670,067	82.72	231,702	79.00	422,942	76.90	1,324,712	80.21

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Recoverable reserves represent the quantity of coal that can be recovered (i.e., mined) from existing coal reserves at reporting mines. Productive capacity is the maximum amount of coal that can be produced annually as reported by mining companies on Form EIA-7A. Capacity utilization is the ratio of total production to productive capacity as reported by mining companies on Form EIA-7A. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

**Table 24. Productive Capacity and Capacity Utilization of Coal Mines by State,
Mine Type, and Union Type, 1996**
(Thousand Short Tons)

Coal-Producing State and Region	UMWA		Other Unions		Nonunion		Total	
	Productive Capacity	Capacity/ Utilization (percent)	Productive Capacity	Capacity Utilization (percent)	Productive Capacity	Capacity Utilization (percent)	Productive Capacity	Capacity Utilization (percent)
Alabama	22,685	75.20	—	—	9,474	79.82	32,159	76.57
Underground.....	w	w	—	—	w	w	23,207	78.50
Surface.....	w	w	—	—	w	w	8,952	71.55
Alaska	—	—	w	w	—	—	w	w
Surface.....	—	—	w	w	—	—	w	w
Arizona	w	w	—	—	—	—	w	w
Surface.....	w	w	—	—	—	—	w	w
Colorado	w	w	w	w	21,630	93.79	29,330	84.85
Underground.....	w	w	—	—	w	w	18,530	84.08
Surface.....	w	w	w	w	w	w	10,800	86.16
Illinois	46,792	68.61	w	w	w	w	61,727	75.58
Underground.....	38,332	66.88	w	w	w	w	51,816	75.17
Surface.....	8,460	76.47	w	w	w	w	9,912	77.73
Indiana	18,368	81.30	—	—	17,197	85.68	35,564	83.42
Underground.....	w	w	—	—	w	w	w	w
Surface.....	w	w	—	—	w	w	w	w
Kansas	w	w	—	—	—	—	w	w
Surface.....	w	w	—	—	—	—	w	w
Kentucky Total	w	w	w	w	163,284	80.16	189,225	80.38
Underground.....	w	w	w	w	97,216	80.24	114,922	81.93
Surface.....	w	w	w	w	66,068	80.04	74,302	77.98
Eastern	w	w	w	w	130,927	80.52	145,691	80.07
Underground.....	w	w	w	w	w	w	86,042	80.21
Surface.....	w	w	w	w	w	w	59,649	79.86
Western	w	w	—	—	32,356	78.70	43,534	81.40
Underground.....	w	w	—	—	w	w	28,880	87.03
Surface.....	w	w	—	—	w	w	14,653	70.32
Louisiana	—	—	—	—	w	w	w	w
Surface.....	—	—	—	—	w	w	w	w
Maryland	—	—	—	—	4,935	82.42	4,935	82.42
Underground.....	—	—	—	—	w	w	w	w
Surface.....	—	—	—	—	w	w	w	w
Missouri	—	—	—	—	1,046	67.85	1,046	67.85
Surface.....	—	—	—	—	1,046	67.85	1,046	67.85
Montana	21,041	77.19	w	w	w	w	56,175	67.45
Underground.....	—	—	—	—	w	w	w	w
Surface.....	21,041	77.19	w	w	w	w	w	w
New Mexico	w	w	w	w	w	w	32,695	73.61
Surface.....	w	w	w	w	w	w	32,695	73.61
North Dakota	w	w	w	w	w	w	32,184	92.78
Surface.....	w	w	w	w	w	w	32,184	92.78
Ohio	w	w	w	w	20,959	61.29	37,584	75.88
Underground.....	w	w	—	—	w	w	17,313	91.91
Surface.....	w	w	—	—	w	w	20,272	62.19
Oklahoma	—	—	—	—	1,981	85.16	1,981	85.16
Underground.....	—	—	—	—	w	w	w	w
Surface.....	—	—	—	—	w	w	w	w
Pennsylvania Total	w	w	w	w	50,350	82.32	81,684	82.53
Underground.....	w	w	—	—	w	w	54,579	86.37
Surface.....	w	w	w	w	w	w	27,105	74.79
Anthracite	w	w	w	w	4,124	84.68	5,504	82.56
Underground.....	—	—	—	—	w	w	459	61.96
Surface.....	w	w	w	w	w	w	5,045	84.44
Bituminous	29,954	83.17	—	—	46,226	82.11	76,180	82.53
Underground.....	28,856	83.14	—	—	25,264	90.50	54,120	86.58
Surface.....	1,097	83.85	—	—	20,963	72.00	22,060	72.58
Tennessee	—	—	—	—	4,009	90.32	4,009	90.32
Underground.....	—	—	—	—	2,146	83.44	2,146	83.44
Surface.....	—	—	—	—	1,863	98.24	1,863	98.24
Texas	—	—	36,664	98.56	22,940	82.94	59,604	92.55
Surface.....	—	—	36,664	98.56	22,940	82.94	59,604	92.55
Utah	w	w	—	—	w	w	30,230	90.97
Underground.....	w	w	—	—	w	w	30,230	90.97
Virginia	w	w	w	w	31,305	87.78	41,593	85.34
Underground.....	w	w	—	—	w	w	30,146	84.59
Surface.....	w	w	w	w	w	w	11,448	87.31

See footnotes at end of table.

Table 24. Productive Capacity and Capacity Utilization of Coal Mines by State, Mine Type, and Union Type, 1996 (Continued)
(Thousand Short Tons)

Coal-Producing State and Region	UMWA		Other Unions		Nonunion		Total	
	Productive Capacity	Capacity Utilization (percent)	Productive Capacity	Capacity Utilization (percent)	Productive Capacity	Capacity Utilization (percent)	Productive Capacity	Capacity Utilization (percent)
Washington	—	—	w	w	w	w	w	w
Surface.....	—	—	w	w	w	w	w	w
West Virginia Total	116,539	76.55	—	—	100,870	80.37	217,409	78.32
Underground.....	80,918	80.43	—	—	62,879	80.17	143,797	80.32
Surface.....	35,621	67.72	—	—	37,991	80.69	73,612	74.41
Northern	34,930	90.57	—	—	19,672	72.19	54,602	83.95
Underground.....	34,930	90.57	—	—	11,098	77.62	46,028	87.45
Surface.....	—	—	—	—	8,575	65.16	8,575	65.16
Southern	81,609	70.55	—	—	81,198	82.35	162,807	76.43
Underground.....	45,988	72.74	—	—	51,781	80.72	97,769	76.96
Surface.....	35,621	67.72	—	—	29,417	85.21	65,038	75.63
Wyoming	w	w	w	w	333,758	79.07	350,908	79.35
Underground.....	—	—	—	—	w	w	w	w
Surface.....	w	w	w	w	w	w	w	w
Appalachian Total¹	209,969	78.87	2,265	68.47	352,830	80.35	565,064	79.75
Underground.....	w	w	w	w	200,634	81.89	361,103	82.07
Surface.....	w	w	w	w	152,195	78.32	203,961	75.65
Interior Total¹	76,589	74.74	40,372	98.05	90,698	83.73	207,658	83.20
Underground.....	w	w	w	w	32,447	89.74	84,166	79.82
Surface.....	w	w	w	w	58,251	80.38	123,492	85.50
Western Total¹	69,125	75.55	65,143	74.13	417,722	81.06	551,990	79.55
Underground.....	13,000	78.95	—	—	39,160	90.92	52,160	87.94
Surface.....	56,125	74.77	65,143	74.13	378,562	80.04	499,830	78.68
East of Miss. River	286,306	77.76	5,973	83.71	413,610	80.95	705,890	79.68
Underground.....	209,082	79.93	3,106	97.26	232,781	83.03	444,969	81.67
Surface.....	77,224	71.88	2,867	69.04	180,829	78.26	260,920	76.27
West of Miss. River	69,377	75.61	101,807	82.93	447,639	81.15	618,823	80.82
Underground.....	13,000	78.95	—	—	39,460	90.58	52,460	87.70
Surface.....	56,377	74.85	101,807	82.93	408,179	80.24	566,363	80.19
U.S. Total	355,683	77.34	107,780	82.97	861,249	81.05	1,324,712	80.21
Underground.....	222,082	79.87	3,106	97.26	272,241	84.13	497,429	82.31
Surface.....	133,601	73.13	104,674	82.55	589,008	79.63	827,283	78.95

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Productive capacity is the maximum amount of coal that can be produced annually as reported by mining companies on Form EIA-7A. Capacity utilization is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data. Totals may not equal sum of components due to independent rounding. See Glossary for listing of other unions.

Source: Energy Information Administration, Form EIA-7A, "Coal Production Report."

Recoverable Coal Reserves at Producing Mines

Black Thunder, the 2nd largest coal mine in the world shipped some 39 million short tons of coal in 1996. The mine has a total permit area of 15,943 acres.

Figure 1. Recoverable Coal Reserves at Producing U.S. Mines by Mine Type and by Region, 1987 - 1996

Figure 2. Average Recovery Percentage at Producing U.S. Coal Mines by Mine Type and by Region, 1987 - 1996

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 25. Recoverable Coal Reserves at Producing Mines by State, 1987, 1992-1996
(Million Short Tons)

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Alabama.....	452	510	457	427	468	538	-11.5	-0.9	-1.9
Alaska.....	w	w	w	w	w	w	w	w	w
Arizona.....	w	w	w	w	w	w	w	w	w
Arkansas.....	-	w	w	w	w	w	w	w	w
California.....	-	-	-	-	w	w	w	w	w
Colorado.....	642	692	676	609	608	668	-7.3	1.3	-4
Illinois.....	891	882	963	1,064	1,199	1,431	1.0	-7.1	-5.1
Indiana.....	386	324	304	379	405	514	19.3	-1.2	-3.1
Iowa.....	-	-	w	w	w	36	w	w	w
Kansas.....	w	w	w	w	w	w	w	w	w
Kentucky Total.....	1,255	1,279	1,365	1,828	1,453	1,739	-1.8	-3.6	-3.5
Eastern.....	818	763	809	1,347	955	1,115	7.3	-3.8	-3.4
Western.....	437	516	556	481	498	624	-15.3	-3.2	-3.9
Louisiana.....	w	w	w	w	w	w	w	w	w
Maryland.....	71	58	89	66	59	75	23.1	4.7	-7
Missouri.....	3	2	12	w	w	155	13.1	w	-36.4
Montana.....	1,309	1,251	1,283	1,285	1,352	1,611	4.6	-8	-2.3
New Mexico.....	1,436	1,480	1,458	1,473	1,495	1,557	-2.9	-1.0	-9
North Dakota.....	1,301	1,668	1,695	1,411	1,335	1,384	-21.9	-6	-7
Ohio.....	415	468	479	520	576	755	-11.4	-7.9	-6.4
Oklahoma.....	19	19	43	46	48	49	-1.3	-21.1	-10.2
Pennsylvania Total.....	796	737	913	940	937	1,369	8.1	-4.0	-5.8
Anthracite.....	90	49	38	65	70	60	81.4	6.3	4.5
Bituminous.....	706	687	875	874	867	1,308	2.8	-5.0	-6.6
Tennessee.....	59	68	42	29	43	103	-12.9	8.3	-6.0
Texas.....	878	940	1,026	1,105	1,188	1,215	-6.5	-7.3	-3.5
Utah.....	284	375	423	447	488	490	-24.1	-12.6	-5.8
Virginia.....	188	203	237	336	366	508	-7.3	-15.3	-10.4
Washington.....	w	w	w	w	w	w	w	w	w
West Virginia Total.....	1,731	1,731	1,830	1,931	2,043	2,548	*	-4.0	-4.2
Northern.....	741	782	861	824	960	1,271	-5.2	-6.3	-5.8
Southern.....	990	949	969	1,107	1,083	1,277	4.3	-2.2	-2.8
Wyoming.....	6,591	6,724	6,999	6,831	6,751	6,596	-2.0	-6	*
Appalachian Total ¹	4,530	4,538	4,855	5,596	5,446	7,009	-2	-4.5	-4.7
Interior Total ¹	2,757	2,835	3,069	3,300	3,559	4,206	-2.8	-6.2	-4.6
Western Total ¹	12,141	12,732	13,093	12,639	12,622	13,027	-4.6	-1.0	-8
East of Miss. River.....	6,244	6,260	6,679	7,520	7,549	9,579	-2	-4.6	-4.6
West of Miss. River.....	13,184	13,845	14,337	14,016	14,078	14,663	-4.8	-1.6	-1.2
U.S. Total.....	19,428	20,105	21,017	21,535	21,627	24,241	-3.4	-2.6	-2.4

¹ For a definition of coal-producing regions, see Appendix C.

* Data round to zero.

Notes: Recoverable reserves represent the quantity of coal that can be recovered (i.e., mined) from existing coal reserves at reporting mines. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 26. Average Recovery Percentage at Producing Coal Mines by State, 1987, 1992-1996

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987
Alabama.....	55.56	58.74	60.20	63.16	61.97	63.87
Alaska.....	w	w	w	w	w	w
Arizona.....	w	w	w	w	w	w
Arkansas.....	-	w	w	w	w	w
California.....	-	-	-	-	w	w
Colorado.....	79.12	66.06	77.12	71.99	71.56	61.61
Illinois.....	54.20	52.05	52.92	51.19	51.53	47.35
Indiana.....	78.85	76.23	72.75	73.12	74.48	73.31
Iowa.....	-	-	w	w	w	84.96
Kansas.....	w	w	w	w	w	w
Kentucky Total.....	58.99	57.71	59.45	62.26	63.24	63.92
Eastern.....	62.59	60.87	62.60	64.00	66.84	68.72
Western.....	52.27	53.03	54.86	57.38	56.36	55.35
Louisiana.....	w	w	w	w	w	w
Maryland.....	61.45	58.34	55.50	67.82	66.16	66.33
Missouri.....	59.87	61.04	81.48	w	w	90.17
Montana.....	89.05	90.38	90.51	90.43	89.70	90.12
New Mexico.....	93.35	92.62	92.42	92.28	91.92	92.18
North Dakota.....	89.72	89.58	89.84	90.96	90.62	90.25
Ohio.....	71.61	68.73	67.81	68.86	69.15	67.30
Oklahoma.....	65.94	62.39	63.89	66.11	66.73	85.87
Pennsylvania Total.....	65.59	65.26	68.23	67.95	66.12	66.12
Anthracite.....	59.90	64.39	65.06	61.04	62.62	54.93
Bituminous.....	66.32	65.32	68.37	68.47	66.41	66.63
Tennessee.....	63.33	64.14	65.18	68.92	69.80	69.65
Texas.....	88.32	87.09	86.10	84.23	85.39	81.53
Utah.....	45.61	46.10	46.10	47.51	49.04	58.44
Virginia.....	54.81	58.14	58.37	62.72	64.78	64.06
Washington.....	w	w	w	w	w	w
West Virginia Total.....	63.49	62.44	61.10	61.30	62.05	59.97
Northern.....	58.91	55.10	53.06	52.17	54.04	52.42
Southern.....	66.92	68.49	68.24	68.09	69.15	67.48
Wyoming.....	92.16	92.27	92.98	91.94	91.19	93.71
Appalachian Total ¹	63.25	62.65	63.07	64.11	64.62	64.16
Interior Total ¹	70.15	68.71	68.29	68.27	68.46	65.83
Western Total ¹	89.74	88.81	89.72	88.98	88.31	89.29
East of Miss. River.....	62.16	61.06	61.36	62.31	62.52	61.56
West of Miss. River.....	89.60	88.66	89.32	88.48	87.96	88.66
U.S. Total.....	80.78	80.07	80.43	79.34	79.08	77.96

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Average recovery percentage represents the percentage of coal that can be recovered from coal reserves at reporting mines, weighted for all mines in the geographic area. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

**Table 27. Recoverable Coal Reserves and Average Recovery Percentage at Producing Mines
by State and Mine Type, 1996
(Million Short Tons)**

Coal-Producing State and Region	Underground		Surface		Total	
	Recoverable Coal Reserves	Average Recovery Percentage	Recoverable Coal Reserves	Average Recovery Percentage	Recoverable Coal Reserves	Average Recovery Percentage
Alabama.....	417	52.98	35	86.25	452	55.56
Alaska.....	-	-	w	w	w	w
Arizona.....	-	-	w	w	w	w
Colorado.....	411	73.72	230	88.76	642	79.12
Illinois.....	861	53.40	30	77.32	891	54.20
Indiana.....	w	w	w	w	386	78.85
Kansas.....	-	-	w	w	w	w
Kentucky Total.....	985	53.26	270	79.90	1,255	58.99
Eastern.....	605	55.68	213	82.17	818	62.59
Western.....	380	49.41	57	71.37	437	52.27
Louisiana.....	-	-	w	w	w	w
Maryland.....	w	w	w	w	71	61.45
Missouri.....	-	-	3	59.87	3	59.87
Montana.....	w	w	w	w	1,309	89.05
New Mexico.....	-	-	1,436	93.35	1,436	93.35
North Dakota.....	-	-	1,301	89.72	1,301	89.72
Ohio.....	228	56.85	186	89.68	415	71.61
Oklahoma.....	w	w	w	w	19	65.94
Pennsylvania Total.....	614	63.27	182	73.42	796	65.59
Anthracite.....	23	73.55	66	55.13	90	59.90
Bituminous.....	591	62.87	116	83.92	706	66.32
Tennessee.....	w	w	w	w	59	63.33
Texas.....	-	-	878	88.32	878	88.32
Utah.....	284	45.61	-	-	284	45.61
Virginia.....	171	51.47	18	86.77	188	54.81
Washington.....	-	-	w	w	w	w
West Virginia Total.....	1,256	58.41	475	76.93	1,731	63.49
Northern.....	641	57.81	100	65.96	741	58.91
Southern.....	615	59.03	375	79.85	990	66.92
Wyoming.....	w	w	w	w	6,591	92.16
Appalachian Total¹.....	3,410	57.79	1,120	79.89	4,530	63.25
Interior Total¹.....	1,295	52.12	1,462	86.12	2,757	70.15
Western Total¹.....	801	63.18	11,339	91.61	12,141	89.74
East of Miss. River.....	4,691	56.22	1,554	80.10	6,244	62.16
West of Miss. River.....	815	63.12	12,368	91.35	13,184	89.60
U.S. Total.....	5,506	57.24	13,922	90.09	19,428	80.78

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Recoverable reserves represent the quantity of coal that can be recovered (i.e., mined) from existing coal reserves at reporting mines. Average recovery percentage represents the percentage of coal that can be recovered from coal reserves at reporting mines, weighted for all mines in the reported geographic area. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 28. Recoverable Coal Reserves at Producing Underground Mines by State and Mining Method, 1996
(Million Short Tons)

Coal-Producing State and Region	Continuous ¹	Conventional ²	Longwall ³	Other ⁴	Total
Alabama.....	w	w	372	—	417
Colorado.....	w	w	296	—	411
Illinois.....	443	—	418	—	861
Indiana.....	w	—	—	—	w
Kentucky Total.....	827	w	121	w	985
Eastern.....	558	w	12	w	605
Western.....	269	1	109	—	380
Maryland.....	w	—	w	—	w
Montana.....	w	—	—	—	w
Ohio.....	5	—	223	—	228
Oklahoma.....	w	—	—	—	w
Pennsylvania Total.....	138	w	425	w	614
Anthracite.....	w	w	—	w	23
Bituminous.....	w	w	425	—	591
Tennessee.....	w	*	—	—	w
Utah.....	w	w	190	—	284
Virginia.....	84	w	w	—	171
West Virginia Total.....	433	53	771	—	1,256
Northern.....	54	18	570	—	641
Southern.....	378	35	201	—	615
Wyoming.....	—	w	w	—	w
Appalachian Total⁵.....	1,345	w	w	22	3,410
Interior Total⁵.....	w	1	w	—	1,295
Western Total⁵.....	w	w	w	—	801
East of Miss. River.....	2,096	w	w	22	4,691
West of Miss. River.....	270	w	w	—	815
U.S. Total.....	2,366	199	2,919	22	5,506

¹ Mines that produce greater than 50 percent of coal by continuous mining method.

² Mines that produce greater than 50 percent of coal by conventional mining method.

³ Mines that have any production from longwall mining method. A typical longwall mining operation uses 80 percent longwall mining and 20 percent continuous mining.

⁴ Mines that produce coal using shortwall, scoop loading, hand loading, or other mining methods or a 50/50 percent continuous/conventional split in mining method.

⁵ For a definition of coal-producing regions, see Appendix C.

* Data round to zero.

Notes: Recoverable reserves represent the quantity of coal that can be recovered (i.e., mined) from existing coal reserves at reporting mines. Excludes mines producing less than 10,000 short tons, which are not required to provide these data. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 29. Average Recovery Percentage at Producing Underground Coal Mines by State and Mining Method, 1996

Coal-Producing State and Region	Continuous ¹	Conventional ²	Longwall ³	Other ⁴	Total
Alabama.....	w	w	54.16	—	52.98
Colorado.....	w	w	83.66	—	73.72
Illinois.....	50.30	—	56.69	—	53.40
Indiana.....	w	—	—	—	w
Kentucky Total.....	53.22	w	52.18	w	53.26
Eastern.....	55.52	w	55.92	w	55.68
Western.....	48.45	49.00	51.78	—	49.41
Maryland.....	w	—	w	—	w
Montana.....	w	—	—	—	w
Ohio.....	54.90	—	56.90	—	56.85
Oklahoma.....	w	—	—	—	w
Pennsylvania Total.....	65.82	w	62.00	w	63.27
Anthracite.....	w	w	—	w	73.55
Bituminous.....	w	w	62.00	—	62.87
Tennessee.....	w	70.00	—	—	w
Utah.....	w	w	47.55	—	45.61
Virginia.....	60.46	w	w	—	51.47
West Virginia Total.....	55.78	54.31	60.16	—	58.41
Northern.....	64.89	64.67	56.93	—	57.81
Southern.....	54.48	49.06	69.31	—	59.03
Wyoming.....	—	w	w	—	w
Appalachian Total ⁵	57.01	w	w	74.58	57.79
Interior Total ⁵	w	49.00	w	—	52.12
Western Total ⁵	52.71	w	w	—	63.18
East of Miss. River.....	54.31	w	w	74.58	56.22
West of Miss. River.....	53.09	w	w	—	63.12
U.S. Total.....	54.17	56.44	59.65	74.58	57.24

¹ Mines that produce greater than 50 percent of coal by continuous mining method.

² Mines that produce greater than 50 percent of coal by conventional mining method.

³ Mines that have any production from longwall mining method. A typical longwall mining operation uses 80 percent longwall mining and 20 percent continuous mining.

⁴ Mines that produce coal using shortwall, scoop loading, hand loading, or other mining methods or a 50/50 percent continuous/conventional split in mining method.

⁵ For a definition of coal-producing regions, see Appendix C.

Notes: Average recovery percentage represents the percentage of coal that can be recovered from coal reserves at reporting mines, weighted for all mines in the reported geographic area. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 30. Recoverable Coal Reserves and Average Recovery Percentage at Producing U.S. Mines by Mine Production Range and Mine Type, 1996
(Million Short Tons)

Mine Production Range (thousand short tons)	Underground		Surface		Total	
	Recoverable Coal Reserves	Average Recovery Percentage	Recoverable Coal Reserves	Average Recovery Percentage	Recoverable Coal Reserves	Average Recovery Percentage
Over 1,000.....	3,938	57.19	12,637	91.00	16,575	82.97
500 to 1,000.....	653	53.04	651	82.54	1,304	67.77
200 to 500.....	378	59.41	313	80.11	691	68.78
100 to 200.....	262	62.64	211	83.34	473	71.88
50 to 100.....	77	64.09	42	67.98	119	65.46
10 to 50.....	199	58.18	68	74.46	267	62.32
U.S. Total.....	5,506	57.24	13,922	90.09	19,428	80.78

Notes: Recoverable reserves represent the quantity of coal that can be recovered (i.e., mined) from existing coal reserves at reporting mines. Average recovery percentage represents the percentage of coal that can be recovered from coal reserves at reporting mines, weighted for all mines in the reported geographic area. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 31. Recoverable Coal Reserves and Average Recovery Percentage at Producing U.S. Mines by Coalbed Thickness and Mine Type, 1996
(Million Short Tons)

Coalbed Thickness (inches)	Underground		Surface		Total	
	Recoverable Coal Reserves	Average Recovery Percentage	Recoverable Coal Reserves	Average Recovery Percentage	Recoverable Coal Reserves	Average Recovery Percentage
< 7.....	—	—	*	65.33	*	65.33
7-12.....	—	—	23	87.13	23	87.13
13-18.....	—	—	56	88.49	56	88.49
19-24.....	1	55.68	213	84.18	214	84.00
25-30.....	61	57.07	176	84.38	238	77.33
31-36.....	165	62.14	319	83.39	484	76.16
37-42.....	269	54.41	186	79.70	454	64.75
43-48.....	460	62.61	552	85.86	1,012	75.30
49-54.....	435	56.82	264	88.62	699	68.81
55-60.....	508	56.65	126	84.19	634	62.12
61-66.....	489	54.79	218	88.38	706	65.14
67-72.....	678	54.21	120	79.68	798	58.04
73-78.....	293	56.26	162	88.16	455	67.61
79-84.....	926	56.01	458	92.11	1,384	67.96
85-90.....	197	65.12	299	89.57	496	79.87
91-96.....	359	53.02	69	85.66	428	58.30
97-102.....	25	50.14	225	91.80	250	87.67
103-108.....	112	46.86	115	80.98	227	64.16
109-114.....	106	62.00	7	85.52	113	63.49
115-120.....	64	47.08	43	79.45	107	59.97
> 120.....	360	68.67	10,290	91.32	10,650	90.55
U.S. Total.....	5,506	57.24	13,922	90.09	19,428	80.78

* Data round to zero.

Notes: Recoverable reserves represent the quantity of coal that can be recovered (i.e., mined) from existing coal reserves at reporting mines. Average recovery percentage represents the percentage of coal that can be recovered from coal reserves at reporting mines, weighted for all mines in the reported geographic area. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 32. Recoverable Coal Reserves and Average Recovery Percentage at Producing Mines by State, Mine Type, and Union Type, 1996
(Million Short Tons)

Coal-Producing State and Region	UMWA		Other Unions		Nonunion		Total	
	Recoverable Coal Reserves	Average Recovery Percentage	Recoverable Coal Reserves	Average Recovery Percentage	Recoverable Coal Reserves	Average Recovery Percentage	Recoverable Coal Reserves	Average Recovery Percentage
Alabama	346	54.95	-	-	105	57.58	452	55.56
Underground.....	w	w	-	-	w	w	417	52.98
Surface.....	w	w	-	-	w	w	35	86.25
Alaska	-	-	w	w	-	-	w	w
Surface.....	-	-	w	w	-	-	w	w
Arizona	w	w	-	-	-	-	w	w
Surface.....	w	w	-	-	-	-	w	w
Colorado	w	w	w	w	504	79.94	642	79.12
Underground.....	w	w	-	-	w	w	411	73.72
Surface.....	w	w	w	w	w	w	230	88.76
Illinois	437	47.24	w	w	w	w	891	54.20
Underground.....	423	46.29	w	w	w	w	861	53.40
Surface.....	14	75.15	w	w	w	w	30	77.32
Indiana	179	82.53	-	-	207	75.66	386	78.85
Underground.....	w	w	-	-	w	w	w	w
Surface.....	w	w	-	-	w	w	w	w
Kansas	w	w	-	-	-	-	w	w
Surface.....	w	w	-	-	-	-	w	w
Kentucky Total	w	w	w	w	1,062	59.03	1,255	58.99
Underground.....	w	w	w	w	843	54.13	985	53.26
Surface.....	w	w	w	w	219	77.86	270	79.90
Eastern	w	w	w	w	744	61.16	818	62.59
Underground.....	w	w	w	w	w	w	605	55.68
Surface.....	w	w	w	w	w	w	213	82.17
Western	w	w	-	-	318	54.05	437	52.27
Underground.....	w	w	-	-	w	w	380	49.41
Surface.....	w	w	-	-	w	w	57	71.37
Louisiana	-	-	-	-	w	w	w	w
Surface.....	-	-	-	-	w	w	w	w
Maryland	-	-	-	-	71	61.45	71	61.45
Underground.....	-	-	-	-	w	w	w	w
Surface.....	-	-	-	-	w	w	w	w
Missouri	-	-	-	-	3	59.87	3	59.87
Surface.....	-	-	-	-	3	59.87	3	59.87
Montana	195	90.37	w	w	w	w	1,309	89.05
Underground.....	-	-	w	w	w	w	w	w
Surface.....	195	90.37	w	w	w	w	w	w
New Mexico	w	w	w	w	w	w	1,436	93.35
Surface.....	w	w	w	w	w	w	1,436	93.35
North Dakota	w	w	w	w	w	w	1,301	89.72
Surface.....	w	w	w	w	w	w	1,301	89.72
Ohio	w	w	-	-	115	84.48	415	71.61
Underground.....	w	w	-	-	w	w	228	56.85
Surface.....	w	w	-	-	w	w	186	89.68
Oklahoma	-	-	-	-	19	65.94	19	65.94
Underground.....	-	-	-	-	14	60.00	14	60.00
Surface.....	-	-	-	-	5	83.85	5	83.85
Pennsylvania Total	w	w	w	w	367	72.99	796	65.59
Underground.....	w	w	-	-	w	w	614	63.27
Surface.....	w	w	w	w	w	w	182	73.42
Anthracite	w	w	w	w	29	69.11	90	59.90
Underground.....	-	-	-	-	w	w	23	73.55
Surface.....	w	w	w	w	w	w	66	55.13
Bituminous	368	59.89	-	-	338	73.32	706	66.32
Underground.....	363	59.61	-	-	227	68.08	591	62.87
Surface.....	5	80.11	-	-	110	84.10	116	83.92
Tennessee	-	-	-	-	59	63.33	59	63.33
Underground.....	-	-	-	-	57	62.56	57	62.56
Surface.....	-	-	-	-	2	85.10	2	85.10
Texas	-	-	484	90.24	394	85.98	878	88.32
Surface.....	-	-	484	90.24	394	85.98	878	88.32
Utah	w	w	-	-	w	w	284	45.61
Underground.....	w	w	-	-	w	w	284	45.61
Virginia	w	w	w	w	126	59.18	188	54.81
Underground.....	w	w	-	-	w	w	171	51.47
Surface.....	w	w	w	w	w	w	18	86.77

See footnotes at end of table.

Table 32. Recoverable Coal Reserves and Average Recovery Percentage at Producing Mines by State, Mine Type, and Union Type, 1996 (Continued)
(Million Short Tons)

Coal-Producing State and Region	UMWA		Other Unions		Nonunion		Total	
	Recoverable Coal Reserves	Average Recovery Percentage	Recoverable Coal Reserves	Average Recovery Percentage	Recoverable Coal Reserves	Average Recovery Percentage	Recoverable Coal Reserves	Average Recovery Percentage
Washington.....	—	—	w	w	w	w	w	w
Surface.....	—	—	w	w	w	w	w	w
West Virginia Total.....	1,112	63.11	—	—	619	64.17	1,731	63.49
Underground.....	918	59.24	—	—	338	56.15	1,256	58.41
Surface.....	194	81.46	—	—	281	73.80	475	76.93
Northern.....	570	56.92	—	—	172	65.50	741	58.91
Underground.....	570	56.92	—	—	72	64.85	641	57.81
Surface.....	—	—	—	—	100	65.96	100	65.96
Southern.....	543	69.61	—	—	447	63.66	990	66.92
Underground.....	349	63.02	—	—	266	53.80	615	59.03
Surface.....	194	81.46	—	—	181	78.12	375	79.85
Wyoming.....	w	w	w	w	6,229	92.21	6,591	92.16
Underground.....	—	—	—	—	w	w	w	w
Surface.....	w	w	w	w	w	w	w	w
Appalachian Total ¹	2,314	61.64	11	58.22	2,206	64.97	4,530	63.25
Underground.....	w	w	w	w	1,495	58.25	3,410	57.79
Surface.....	w	w	w	w	711	79.09	1,120	79.89
Interior Total ¹	738	55.93	533	88.17	1,486	70.75	2,757	70.15
Underground.....	w	w	w	w	717	55.88	1,295	52.12
Surface.....	w	w	w	w	769	84.62	1,462	86.12
Western Total ¹	1,195	84.89	2,566	91.47	8,379	89.90	12,141	89.74
Underground.....	167	55.08	—	—	635	65.31	801	63.18
Surface.....	1,028	89.73	2,566	91.47	7,745	91.91	11,339	91.61
East of Miss. River.....	3,049	60.26	60	65.99	3,135	63.93	6,244	62.16
Underground.....	2,450	55.03	43	59.78	2,198	57.47	4,691	56.22
Surface.....	600	81.61	17	82.15	937	79.09	1,554	80.10
West of Miss. River.....	1,198	84.85	3,050	91.27	8,935	89.67	13,184	89.60
Underground.....	167	55.08	—	—	649	65.19	815	63.12
Surface.....	1,031	89.68	3,050	91.27	8,287	91.59	12,368	91.35
U.S. Total.....	4,247	67.19	3,111	90.78	12,070	82.98	19,428	80.78
Underground.....	2,617	55.03	43	59.78	2,846	59.23	5,506	57.24
Surface.....	1,630	86.71	3,067	91.22	9,224	90.32	13,922	90.09

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Recoverable reserves represent the quantity of coal that can be recovered (i.e., mined) from existing coal reserves at reporting mines. Average recovery percentage represents the percentage of coal that can be recovered from coal reserves at reporting mines, weighted for all mines in the reported geographic area. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data. Totals may not equal sum of components due to independent rounding. See Glossary for listing of other unions.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 33. Status of Recoverable Coal Reserves and Coal Production from Producing Federal Coal Leases by State, 1996
(Million Short Tons)

Coal-Producing State	Number of Leases	Recoverable Coal Reserves	Production
Alabama	1	30	*
Alaska	—	20	—
Colorado	31	1,506	18.8
Kentucky	3	10	.3
Montana	13	886	25.0
New Mexico	6	262	5.9
North Dakota	3	144	1.8
Oklahoma	6	48	.8
Utah	31	2,987	26.4
Washington	1	—	.6
Wyoming	39	6,148	248.9
U.S. Total	134	12,041	328.2

* Less than 0.05 million short tons.

Notes: Output from Federal Lands is reported as sales volume, the basis for royalties. It is approximately equivalent to production, which includes coal sold and coal added to stockpiles. Totals may not equal sum of components because of independent rounding.

Source: U.S. Department of the Interior, Minerals Management Service, *Mineral Revenues 1996* and Bureau of Land Management.

Producer/Distributor Stocks

Coal cars in rural West Virginia. Rail is the primary mode of coal transportation.

Table 34. Year-End Producer and Distributor Coal Stocks by State, 1992-1996
(Thousand Short Tons)

Coal-Producing State and Region	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Alabama	1,031	1,358	1,204	1,698	2,185	-24.1	-17.1
Alaska	6	26	58	19	71	-78.0	-46.8
Arizona	2,232	2,760	2,634	1,590	1,555	-19.1	9.4
Arkansas	1	4	2	5	6	-59.9	-28.9
California	-	-	-	-	36	-	-
Colorado	494	1,063	1,575	1,155	955	-53.5	-15.2
Illinois	1,190	2,069	1,651	713	1,969	-42.5	-11.8
Indiana	574	611	803	527	1,016	-6.1	-13.3
Kansas	19	27	31	25	28	-27.4	-9.2
Kentucky Total	4,460	4,777	5,025	3,216	3,796	-6.6	4.1
Eastern	3,720	4,088	4,235	2,558	2,809	-9.0	7.3
Western	740	689	790	658	987	7.4	-7.0
Louisiana	38	309	202	12	2	-87.8	100.2
Maryland	143	269	179	123	59	-47.0	24.9
Missouri	-	-	-	2	-	-	-
Montana	580	718	635	876	694	-19.3	-4.4
New Mexico	1,890	2,015	1,467	2,343	1,648	-6.2	3.5
North Dakota	1,574	1,797	1,812	1,607	1,614	-12.4	-6
Ohio	532	1,374	833	550	1,087	-61.3	-16.4
Oklahoma	7	2	4	5	19	188.8	-23.2
Pennsylvania Total	3,113	2,487	2,787	1,826	2,903	25.2	1.8
Anthracite	1,323	389	249	234	198	240.2	60.9
Bituminous	1,790	2,098	2,538	1,592	2,706	-14.7	-9.8
Tennessee	23	88	57	35	21	-73.7	2.4
Texas	1,254	864	1,430	1,237	543	45.1	23.3
Utah	1,337	1,946	1,301	1,203	1,827	-31.3	-7.5
Virginia	1,644	1,649	1,180	1,389	1,714	-3	-1.0
Washington	55	59	65	72	47	-5.9	3.9
West Virginia Total	4,947	6,176	6,692	4,059	7,405	-19.9	-9.6
Northern	584	1,959	1,940	685	3,222	-70.2	-34.8
Southern	4,362	4,217	4,752	3,374	4,183	3.4	1.1
Wyoming	1,504	1,997	1,592	998	2,794	-24.7	-14.3
Appalachian Total ¹	15,153	17,489	17,166	12,239	13,891	-13.3	-3.1
Interior Total ¹	3,823	4,575	4,913	3,182	4,570	-16.4	-4.4
Western Total ¹	9,672	12,381	11,140	9,863	11,241	-21.9	-3.7
East of Miss. River	17,657	20,858	20,410	14,137	17,680	-15.3	-5.4
West of Miss. River	10,991	13,587	12,809	11,147	11,838	-19.1	-1.8
U.S. Total	28,648	34,444	33,219	25,284	33,993	-16.8	-4.2

¹ For a definition of coal-producing regions, see Appendix C.
Note: Totals may not equal sum of components due to independent rounding.
Source: Energy Information Administration, Form EIA-6, "Coal Distribution Report."

Imports

Coal is shipped by rail or barge where it is loaded aboard large ocean-going bulk carriers for shipment to Europe, Asia and other major markets.

Figure 3. U.S. Coal Imports, 1987-1996

Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report IM 145."

Table 35. U.S. Coal Imports by Continent and Country of Origin, 1987, 1992-1996
(Short Tons)

Continent and Country of Origin	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
North America Total	1,433,813	1,344,614	1,253,417	1,053,576	1,020,852	549,292	6.6	8.9	11.2
Canada	1,426,504	1,319,742	1,253,196	1,051,273	1,020,852	506,760	8.1	8.7	12.2
Guatemala	-	-	-	4	-	-	-	-	-
Mexico	7,309	216	221	2,299	-	42,532	NM	-	-17.8
Netherlands Antilles	-	24,656	-	-	-	-	-100.0	-	-
South America Total	3,989,640	4,583,283	4,920,202	5,415,318	2,301,933	986,967	-12.9	14.7	16.8
Colombia	2,526,804	2,736,933	3,389,654	4,117,036	1,763,150	956,899	-7.7	9.4	11.4
Venezuela	1,462,836	1,846,350	1,530,548	1,298,282	538,783	30,068	-20.8	28.4	54.0
Europe Total	2,613	522	40	62	89	240	400.6	132.8	30.4
Belgium & Luxembourg	2,473	-	-	-	-	-	-	-	-
Denmark	-	236	-	60	-	-	-100.0	-	-
Poland	-	-	40	2	-	-	-	-	-
Spain	99	-	-	-	-	44	-	-	9.4
Turkey	41	-	-	-	-	-	-	-	-
United Kingdom	-	286	-	-	89	196	-100.0	-100.0	-100.0
Asia Total	1,534,989	1,018,512	1,153,561	708,080	373,145	-	50.7	42.4	-
China (Mainland)	-	53	111	-	284	-	-100.0	-100.0	-
Hong Kong	1	-	-	-	1	-	-	-	-
India	-	-	-	-	66,154	-	-	-100.0	-
Indonesia	1,534,986	1,018,433	1,130,468	708,080	253,287	-	50.7	56.9	-
Japan	2	26	1	-	-	-	-92.3	-	-
Malaysia	-	-	-	-	53,419	-	-	-100.0	-
Vietnam	-	-	22,981	-	-	-	-	-	-
Oceania & Australia Total	164,793	254,141	100,313	105,452	100,986	210,639	-35.1	13.0	-2.7
Australia	164,793	211,702	92,204	100,076	100,986	210,639	-22.1	13.0	-2.7
New Zealand	-	42,439	8,109	5,376	-	-	-100.0	-	-
Africa Total	-	-	156,452	26,419	5,762	-	-	-100.0	-
South Africa, Rep of	-	-	149,748	20,319	5,762	-	-	-100.0	-
Swaziland	-	-	6,704	6,100	-	-	-	-	-
Total	7,125,848	7,201,072	7,583,985	7,308,907	3,802,767	1,747,138	-1.0	17.0	16.9

NM Not meaningful as value is greater than 500 percent.
Note: Coal imports include coal to Puerto Rico and the Virgin Islands.
Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report IM 145."

Table 36. Coal Imports by Customs District, 1987, 1992-1996
(Short Tons)

Customs District	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Eastern Total	2,144,142	1,935,401	1,554,466	1,275,919	340,317	127,308	10.8	58.4	36.8
Boston, MA	1,803,234	1,484,886	977,473	674,086	128,667	28,736	21.4	93.5	58.4
Baltimore, MD	99	28,328	88,668	224,579	-	-	-99.6	-	-
Portland, ME	246,852	364,252	385,097	236,473	108,863	25,279	-32.2	22.7	28.8
Buffalo, NY	2,658	2,034	-	-	-	671	30.7	-	16.5
New York City, NY	65	522	-	2	-	222	-87.5	-	-12.8
Ogdensburg, NY	50	-	-	-	-	-	-	-	-
Philadelphia, PA	91,184	55,399	78,387	140,779	102,787	72,400	64.6	-2.9	2.6
Norfolk, VA	-	-	24,841	-	-	-	-	-	-
Southern Total	2,745,266	3,101,069	4,106,306	4,321,336	2,053,672	1,040,055	-11.5	7.5	11.4
Mobile, AL	288,484	1,108,555	1,033,368	935,232	-	155,173	-74.0	-	7.1
Savannah, GA	118,509	-	29,582	-	-	-	-	-	-
Miami, FL	-	26,035	7,496	-	-	-	-100.0	-	-
Tampa, FL	1,419,408	1,284,109	2,080,757	2,263,893	1,419,581	96,743	10.5	*	34.8
New Orleans, LA	808,592	387,861	524,256	675,827	154,600	422,590	108.5	51.2	7.5
Wilmington, NC	-	-	26,648	-	-	-	-	-	-
San Juan, PR	96,901	272,296	80,016	107,506	169,707	323,001	-64.4	-13.1	-12.5
Houston-Galveston, TX	6,063	-	154,938	121,505	83,466	16	-	-48.1	93.4
Laredo, TX	7,309	167	221	2,299	-	42,532	NM	-	-17.8
Virgin Islands	-	22,045	169,024	215,074	226,318	-	-100.0	-100.0	-
Western Total	830,157	863,707	710,576	730,662	461,675	273,772	-3.9	15.8	13.1
Los Angeles, CA	2	-	12	-	-	-	-	-	-
San Diego, CA	-	49	-	-	-	-	-100.0	-	-
San Francisco, CA	-	-	-	-	284	22,048	-	-100.0	-100.0
Honolulu, HI	810,176	844,785	670,005	660,379	407,692	89,832	-4.1	18.7	27.7
Great Falls, MT	25	645	34,426	41,580	36,237	104,798	-96.1	-83.8	-60.4
Seattle, WA	19,954	18,228	6,133	28,703	17,462	57,094	9.5	3.4	-11.0
Northern Total	1,406,283	1,300,895	1,212,637	980,990	947,103	306,003	8.1	10.4	18.5
Chicago, IL	238,592	64,394	283,106	134,485	230,677	244,481	270.5	.8	-3
Detroit, MI	374,566	421,633	312,214	203,067	58,937	79	-11.2	58.8	156.1
Duluth, MN	291,346	244,278	77,355	12,811	-	-	19.3	-	-
Pembina, ND	501,778	570,590	539,962	630,627	657,400	61,443	-12.0	-6.5	26.3
Cleveland, OH	-	-	-	-	89	-	-	-100.0	-
Total	7,125,848	7,201,072	7,583,985	7,308,907	3,802,767	1,747,138	-1.0	17.0	16.9

* Data round to zero.

NM Not meaningful as value is greater than 500 percent.

Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report IM 145."

Table 37. U.S. Receipts of Imported Coal by Country of Origin and Destination State, 1987, 1992-1996
(Short Tons)

Country of Origin and Destination State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996
Australia Total	147,204	211,099	109,737	98,947	—	83,174	-30.3
Florida.....	—	—	—	—	—	26,074	—
Hawaii.....	147,204	211,099	109,737	98,947	—	—	-30.3
Texas.....	—	—	—	—	—	57,100	—
Canada Total	1,332,243	1,401,960	1,317,929	664,835	48,090	15,600	-5.0
Illinois.....	215,959	222,876	346,192	50,936	—	—	-3.1
Indiana.....	735,342	760,508	592,655	582,689	—	—	-3.3
Massachusetts.....	—	—	—	—	32,800	—	—
Michigan.....	361,458	393,367	371,097	—	—	—	-8.1
New Hampshire.....	—	—	—	—	—	15,600	—
Ohio.....	1,454	1,410	1,635	2,000	—	—	3.1
Washington.....	18,030	23,799	6,350	29,210	15,290	—	-24.2
Colombia Total	2,285,840	2,202,005	3,150,128	3,642,728	1,504,138	568,116	3.8
Alabama.....	160,675	161,950	178,330	57,602	—	—	-8
Delaware.....	—	7,143	22,031	—	—	—	-100.0
Florida.....	1,417,220	1,340,640	2,348,550	2,999,303	1,418,580	426,846	5.7
Georgia.....	—	—	11,902	—	—	—	—
Maine.....	45,220	—	—	—	—	—	—
Maryland.....	—	—	88,000	224,000	—	—	—
Massachusetts.....	630,400	557,900	135,500	187,200	—	29,000	13.0
Mississippi.....	—	—	—	—	—	65,870	—
New Hampshire.....	32,325	134,372	163,311	52,143	48,400	9,200	-75.9
New Jersey.....	—	—	22,500	—	—	—	—
North Carolina.....	—	—	26,600	—	—	—	—
Texas.....	—	—	153,404	122,480	37,158	37,200	—
Indonesia Total	833,706	428,554	437,292	118,981	13,100	—	94.5
Florida.....	807,803	348,854	147,215	—	—	—	131.5
Indiana.....	—	—	—	11,100	—	—	—
Louisiana.....	—	—	169,181	—	—	—	—
Maine.....	—	—	—	3,135	—	—	—
Massachusetts.....	—	—	7,938	—	—	—	—
Mississippi.....	—	—	—	67,547	—	—	—
New Hampshire.....	25,903	79,700	112,958	37,199	—	—	-67.5
Ohio.....	—	—	—	—	13,100	—	—
Mexico Total	15,561	—	—	33,520	—	—	—
Texas.....	15,561	—	—	33,520	—	—	—
South Africa Total	—	—	127,300	—	—	79,300	—
Florida.....	—	—	127,300	—	—	79,300	—
Venezuela Total	1,861,504	2,073,645	1,456,645	936,945	240,584	19,266	-10.2
Alabama.....	—	—	—	30,278	—	—	—
Connecticut.....	28,000	—	—	—	—	—	—
Florida.....	298,200	891,400	421,674	312,193	—	19,266	-66.5
Georgia.....	209,907	—	26,835	—	—	—	—
Maine.....	13,966	81,392	91,436	9,123	—	—	-82.8
Massachusetts.....	1,135,500	903,700	916,700	476,100	163,800	—	25.6
New Hampshire.....	96,033	82,425	—	109,251	34,300	—	16.5
New York.....	—	28,189	—	—	—	—	-100.0
Pennsylvania.....	79,898	86,539	—	—	—	—	-7.7
Texas.....	—	—	—	—	42,484	—	—
Total	6,476,058	6,317,263	6,599,031	5,495,956	1,805,912	765,456	2.5
Alabama.....	160,675	161,950	178,330	87,880	—	—	-8
Connecticut.....	28,000	—	—	—	—	—	—
Delaware.....	—	7,143	22,031	—	—	—	-100.0
Florida.....	2,523,223	2,580,894	3,044,739	3,311,496	1,418,580	551,486	-2.2
Georgia.....	209,907	—	38,737	—	—	—	—
Hawaii.....	147,204	211,099	109,737	98,947	—	—	-30.3
Illinois.....	215,959	222,876	346,192	50,936	—	—	-3.1
Indiana.....	735,342	760,508	592,655	593,789	—	—	-3.3
Louisiana.....	—	—	169,181	—	—	—	—
Maine.....	59,186	81,392	91,436	12,258	—	—	-27.3
Maryland.....	—	—	88,000	224,000	—	—	—
Massachusetts.....	1,765,900	1,461,600	1,060,138	663,300	196,600	29,000	20.8
Michigan.....	361,458	393,367	371,097	—	—	—	-8.1

See footnotes at end of table.

Table 37. U.S. Receipts of Imported Coal by Country of Origin and Destination State, 1987, 1992-1996 (Continued)
(Short Tons)

Country of Origin and Destination State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996
Total (Continued)							
Mississippi	-	-	-	67,547	-	65,870	-
New Hampshire	154,261	296,497	276,269	198,593	82,700	24,800	-48.0
New Jersey	-	-	22,500	-	-	-	-
New York	-	28,189	-	-	-	-	-100.0
North Carolina	-	-	26,600	-	-	-	-
Ohio	1,454	1,410	1,635	2,000	13,100	-	3.1
Pennsylvania	79,898	86,539	-	-	-	-	-7.7
Texas	15,561	-	153,404	156,000	79,642	94,300	-
Washington	18,030	23,799	6,350	29,210	15,290	-	-24.2

Notes: Data for 1987 are only for receipts at electric utilities. Data for 1992 through 1996 are for receipts at electric utilities, manufacturing plants and coke plants. See Table 38 and Table 39 for related data. See Technical Note 1 for the difference between receipts of imported coal and U.S. coal imports.

Sources: • 1987: Federal Energy Regulatory Commission (FERC), FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."
• 1992-1996: Energy Information Administration, Form EIA-3A, "Annual Coal Quality Report - Manufacturing Plants"; Form EIA-5A, "Annual Coal Quality Report - Coke Plants"; and FERC, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

Table 38. Imported Coal Received at Electric Utilities by Country of Origin and Destination State, 1987, 1992-1996
(Short Tons)

Country of Origin and Destination State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Australia Total	-	-	-	-	-	83,174	-	-	-100.0
Florida.....	-	-	-	-	-	26,074	-	-	-100.0
Texas.....	-	-	-	-	-	57,100	-	-	-100.0
Canada Total	18,030	23,799	63,350	29,210	48,090	15,600	-24.2	-21.7	1.6
Massachusetts.....	-	-	-	-	32,800	-	-	-100.0	-
Michigan.....	-	-	57,000	-	-	-	-	-	-
New Hampshire.....	-	-	-	-	-	15,600	-	-	-100.0
Washington.....	18,030	23,799	6,350	29,210	15,290	-	-24.2	4.2	-
Colombia Total	2,079,945	2,040,055	2,971,798	3,585,126	1,504,138	568,116	1.9	8.4	15.5
Delaware.....	-	7,143	22,031	-	-	-	-100.0	-	-
Florida.....	1,417,220	1,340,640	2,348,550	2,999,303	1,418,580	426,846	5.7	*	14.3
Georgia.....	-	-	11,902	-	-	-	-	-	-
Maryland.....	-	-	88,000	224,000	-	-	-	-	-
Massachusetts.....	630,400	557,900	135,500	187,200	-	29,000	13.0	-	40.8
Mississippi.....	-	-	-	-	-	65,870	-	-	-100.0
New Hampshire.....	32,325	134,372	163,311	52,143	48,400	9,200	-75.9	-9.6	15.0
New Jersey.....	-	-	22,500	-	-	-	-	-	-
North Carolina.....	-	-	26,600	-	-	-	-	-	-
Texas.....	-	-	153,404	122,480	37,158	37,200	-	-100.0	-100.0
Indonesia Total	833,706	428,554	437,292	115,846	13,100	-	94.5	182.4	-
Florida.....	807,803	348,854	147,215	-	-	-	131.5	-	-
Indiana.....	-	-	-	11,100	-	-	-	-	-
Louisiana.....	-	-	169,181	-	-	-	-	-	-
Massachusetts.....	-	-	7,938	-	-	-	-	-	-
Mississippi.....	-	-	-	67,547	-	-	-	-	-
New Hampshire.....	25,903	79,700	112,958	37,199	-	-	-67.5	-	-
Ohio.....	-	-	-	-	13,100	-	-	-100.0	-
South Africa Total	-	-	127,300	-	-	79,300	-	-	-100.0
Florida.....	-	-	127,300	-	-	79,300	-	-	-100.0
Venezuela Total	1,767,640	1,905,714	1,365,209	897,544	240,584	19,266	-7.2	64.6	65.2
Connecticut.....	28,000	-	-	-	-	-	-	-	-
Florida.....	298,200	891,400	421,674	312,193	-	19,266	-66.5	-	35.6
Georgia.....	209,907	-	26,835	-	-	-	-	-	-
Massachusetts.....	1,135,500	903,700	916,700	476,100	163,800	-	25.6	62.3	-
New Hampshire.....	96,033	82,425	-	109,251	34,300	-	16.5	29.3	-
New York.....	-	28,189	-	-	-	-	-100.0	-	-
Texas.....	-	-	-	-	42,484	-	-	-100.0	-
Total	4,699,321	4,398,122	4,964,949	4,627,726	1,805,912	765,456	6.8	27.0	22.3
Connecticut.....	28,000	-	-	-	-	-	-	-	-
Delaware.....	-	7,143	22,031	-	-	-	-100.0	-	-
Florida.....	2,523,223	2,580,894	3,044,739	3,311,496	1,418,580	551,486	-2.2	15.5	18.4
Georgia.....	209,907	-	38,737	-	-	-	-	-	-
Indiana.....	-	-	-	11,100	-	-	-	-	-
Louisiana.....	-	-	169,181	-	-	-	-	-	-
Maryland.....	-	-	88,000	224,000	-	-	-	-	-
Massachusetts.....	1,765,900	1,461,600	1,060,138	663,300	196,600	29,000	20.8	73.1	57.9
Michigan.....	-	-	57,000	-	-	-	-	-	-
Mississippi.....	-	-	-	67,547	-	65,870	-	-	-100.0
New Hampshire.....	154,261	296,497	276,269	198,593	82,700	24,800	-48.0	16.9	22.5
New Jersey.....	-	-	22,500	-	-	-	-	-	-
New York.....	-	28,189	-	-	-	-	-100.0	-	-
North Carolina.....	-	-	26,600	-	-	-	-	-	-
Ohio.....	-	-	-	-	13,100	-	-	-100.0	-
Texas.....	-	-	153,404	122,480	79,642	94,300	-	-100.0	-100.0
Washington.....	18,030	23,799	6,350	29,210	15,290	-	-24.2	4.2	-

* Data round to zero.

Source: Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

Table 39. Imported Coal Received at Manufacturing and Coke Plants by Country of Origin and Destination State, 1994-1996
(Short Tons)

Country of Origin and Destination State	Manufacturing			Coke Plants			Total			
	1996	1995	1994	1996	1995	1994	1996	1995	1994	Percent Change 1995-1996
Australia Total	147,204	211,099	109,737	-	-	-	147,204	211,099	109,737	-30.3
Hawaii.....	147,204	211,099	109,737	-	-	-	147,204	211,099	109,737	-30.3
Canada Total	1,454	1,410	1,635	1,312,759	1,376,751	1,252,944	1,314,213	1,378,161	1,254,579	-4.6
Illinois.....	-	-	-	215,959	222,876	346,192	215,959	222,876	346,192	-3.1
Indiana.....	-	-	-	735,342	760,508	592,655	735,342	760,508	592,655	-3.3
Michigan.....	-	-	-	361,458	393,367	314,097	361,458	393,367	314,097	-8.1
Ohio.....	1,454	1,410	1,635	-	-	-	1,454	1,410	1,635	3.1
Colombia Total	205,895	161,950	178,330	-	-	-	205,895	161,950	178,330	27.1
Alabama.....	160,675	161,950	178,330	-	-	-	160,675	161,950	178,330	-8
Maine.....	45,220	-	-	-	-	-	45,220	-	-	-
Indonesia Total	-	-	-	-	-	-	-	-	-	-
Maine.....	-	-	-	-	-	-	-	-	-	-
Mexico Total	15,561	-	-	-	-	-	15,561	-	-	-
Texas.....	15,561	-	-	-	-	-	15,561	-	-	-
Venezuela Total	93,864	167,931	91,436	-	-	-	93,864	167,931	91,436	-44.1
Alabama.....	-	-	-	-	-	-	-	-	-	-
Maine.....	13,966	81,392	91,436	-	-	-	13,966	81,392	91,436	-82.8
Pennsylvania.....	79,898	86,539	-	-	-	-	79,898	86,539	-	-7.7
Total	463,978	542,390	381,138	1,312,759	1,376,751	1,252,944	1,776,737	1,919,141	1,634,082	-7.4
Alabama.....	160,675	161,950	178,330	-	-	-	160,675	161,950	178,330	-8
Hawaii.....	147,204	211,099	109,737	-	-	-	147,204	211,099	109,737	-30.3
Illinois.....	-	-	-	215,959	222,876	346,192	215,959	222,876	346,192	-3.1
Indiana.....	-	-	-	735,342	760,508	592,655	735,342	760,508	592,655	-3.3
Maine.....	59,186	81,392	91,436	-	-	-	59,186	81,392	91,436	-27.3
Michigan.....	-	-	-	361,458	393,367	314,097	361,458	393,367	314,097	-8.1
Ohio.....	1,454	1,410	1,635	-	-	-	1,454	1,410	1,635	3.1
Pennsylvania.....	79,898	86,539	-	-	-	-	79,898	86,539	-	-7.7
Texas.....	15,561	-	-	-	-	-	15,561	-	-	-

Sources: Energy Information Administration, Form EIA-3A, "Annual Coal Quality Report - Manufacturing Plants"; and Form EIA-5A, "Annual Coal Quality Report - Coke Plants."

Employment and Productivity

Employment

In 1996, the average number of miners working daily at mines and/or preparation plants producing or processing 10,000 or more short tons of coal dropped 7.5 percent from the 1995 level, to 83,462 miners (Table 40). Of the 25 coal-producing States, 18 had a decrease in employment. Although all three regions experienced a decline in employment, the Western Region which declined 13.1 percent, accounted for the largest share of the decrease. The Appalachian Region had a 7 percent decline, while the Interior Region showed a decline of 8 percent.

The average number of miners at underground mines in 1996 totaled 53,796 miners, accounting for 64 percent of all U.S. miners (Table 41). Employment at underground mines decreased 7 percent since 1995.

In 1996, the average number of miners at surface mines dropped 8.4 percent from the 1995 level to 29,666 miners (Table 42). All three regions had decreases in surface employment in 1996, with the Interior Region showing only a slight decline of 0.2 percent.

Mines that produced 1 million short tons or more of coal in 1996, accounted for 74 percent of total pro-

duction and employed 48 percent of the miners. Of this total, 32 percent worked in underground mines and 16 percent at surface mines. Over 36 thousand miners (43.8 percent) belong to a union.

The United Mine Workers of America (UMWA) represented 39 percent of the total coal mining workforce, while 4.6 percent belonged to "other unions" (Table 46).

Productivity

In 1996, coal miners working daily averaged 5.69 short tons per miner per hour, an increase of 5.8 percent from the 1995 level (Table 48). Increases occurred in all regions, with the Western Region showing the largest increase, 11 percent. Over the last decade, productivity has risen at an annual average rate of 6.3 percent, increasing both at underground and surface mines. Underground mines increased 5.5 percent over the last decade, while surface mines rose 6.9 percent during the same period.

Employment

Overburden is removed by giant excavators, such as draglines and power shovels until large areas of coal is exposed.

Figure 4. Average Number of U.S. Miners by Mine Type and by Region, 1987-1996

Figure 5. U.S. Coal Mining Productivity by Mine Type and by Region, 1987-1996

Note: Scale has been enlarged to show detail in the short tons per miner per hour by type of mining plot. Because vertical scales differ, graphs should not be compared. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons of coal during the year and preparation plants with less than 5,000 employee hours. Includes all employees engaged in production, preparation, processing, development, maintenance, repair, shop or yard work at mining operations. Excludes office workers. Includes mining operations management and all technical and engineering personnel. Short tons produced per miner per hour is calculated by dividing total coal production by the direct labor hours worked by all mine employees.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 40. Average Number of Miners by State, 1987, 1992-1996

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Alabama.....	5,031	5,567	5,418	5,399	5,386	6,718	-9.6	-1.7	-3.2
Alaska.....	102	102	105	96	111	93	-	-2.1	1.0
Arizona.....	651	831	864	876	888	900	-21.7	-7.5	-3.5
Arkansas.....	-	4	15	5	14	19	-100.0	-	-
California.....	-	-	-	-	8	37	-	-	-
Colorado.....	1,332	1,777	1,905	1,775	1,610	1,795	-25.0	-4.6	-3.3
Illinois.....	5,174	5,652	6,591	7,303	8,323	12,171	-8.4	-11.2	-9.1
Indiana.....	2,579	2,571	3,206	3,331	3,652	3,992	.3	-8.3	-4.7
Iowa.....	-	-	20	90	101	166	-	-	-
Kansas.....	54	54	63	81	96	247	-	-13.4	-15.5
Kentucky Total.....	18,826	21,125	23,368	24,063	24,624	32,590	-10.9	-6.5	-5.9
Eastern.....	15,130	16,840	18,577	18,711	19,419	25,640	-10.1	-6.0	-5.7
Western.....	3,696	4,285	4,791	5,352	5,205	6,950	-13.7	-8.2	-6.8
Louisiana.....	111	114	111	99	77	81	-2.6	9.6	3.6
Maryland.....	469	458	451	441	438	555	2.4	1.7	-1.8
Missouri.....	80	92	116	180	323	814	-13.0	-29.4	-22.7
Montana.....	705	722	705	660	715	847	-2.3	-3	-2.0
New Mexico.....	1,347	1,747	1,786	1,762	1,683	1,658	-22.9	-5.4	-2.3
North Dakota.....	640	716	645	782	744	961	-10.6	-3.7	-4.4
Ohio.....	3,232	3,386	3,983	3,866	4,515	7,827	-4.5	-8.0	-9.4
Oklahoma.....	233	241	253	273	334	653	-3.3	-8.6	-10.8
Pennsylvania Total.....	9,021	8,968	9,975	10,940	12,659	17,287	.6	-8.1	-7.0
Anthracite.....	1,171	1,069	1,183	1,124	1,217	1,602	9.5	-9	-3.4
Bituminous.....	7,850	7,899	8,792	9,816	11,442	15,685	-6	-9.0	-7.4
Tennessee.....	756	681	669	646	804	1,998	11.0	-1.5	-10.2
Texas.....	1,550	1,590	1,733	1,841	2,001	3,319	-2.5	-6.2	-8.1
Utah.....	1,804	1,893	1,675	1,769	1,997	2,544	-4.7	-2.5	-3.7
Virginia.....	6,241	6,919	8,121	8,339	9,138	12,047	-9.8	-9.1	-7.0
Washington.....	589	566	570	567	612	699	4.1	-9	-1.9
West Virginia Total.....	20,121	21,334	21,861	22,979	26,017	29,458	-5.7	-6.2	-4.1
Northern.....	5,279	6,114	6,659	7,274	8,481	9,863	-13.6	-11.2	-6.7
Southern.....	14,842	15,220	15,202	15,705	17,536	19,595	-2.5	-4.1	-3.0
Wyoming.....	2,814	3,142	3,291	3,159	3,326	3,191	-10.4	-4.1	-1.4
Appalachian Total ¹	60,001	64,153	69,055	71,321	78,376	101,530	-6.5	-6.5	-5.7
Interior Total ¹	13,477	14,603	16,899	18,555	20,126	28,412	-7.7	-9.5	-7.9
Western Total ¹	9,984	11,496	11,546	11,446	11,694	12,725	-13.1	-3.9	-2.6
East of Miss. River.....	71,450	76,661	83,643	87,307	95,556	124,643	-6.8	-7.0	-6.0
West of Miss. River.....	12,012	13,591	13,857	14,015	14,640	18,024	-11.6	-4.8	-4.4
U.S. Total.....	83,462	90,252	97,500	101,322	110,196	142,667	-7.5	-6.7	-5.8

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Includes all employees engaged in production, preparation, processing, development, maintenance, repair, shop or yard work at mining operations. Excludes office workers. Includes mining operations management and all technical and engineering personnel. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons and preparation plants with less than 5,000 employee hours, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 41. Average Number of Miners at Underground Mines by State, 1987, 1992-1996

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Alabama.....	4,145	4,314	3,775	3,707	3,810	4,461	-3.9	2.1	-0.8
Arkansas.....	-	-	10	-	-	-	-	-	-
Colorado.....	918	1,301	1,248	1,119	1,085	1,094	-29.4	-4.1	-1.9
Illinois.....	4,256	4,780	5,595	6,196	6,780	8,932	-11.0	-11.0	-7.9
Indiana.....	457	485	485	545	422	489	-5.8	2.0	-7
Iowa.....	-	-	-	-	-	87	-	-	-
Kentucky Total.....	12,876	14,542	15,837	16,493	16,888	21,505	-11.4	-6.5	-5.5
Eastern.....	10,275	11,366	12,849	13,028	13,405	16,900	-9.6	-6.4	-5.4
Western.....	2,601	3,176	2,988	3,465	3,483	4,605	-18.1	-7.0	-6.1
Maryland.....	308	293	284	260	228	286	5.1	7.8	.8
Montana.....	18	-	-	7	-	-	-	-	-
New Mexico.....	-	132	168	246	141	192	-100.0	-	-
Ohio.....	1,706	1,670	1,694	1,601	1,926	3,552	2.1	-3.0	-7.8
Oklahoma.....	26	12	32	40	24	-	116.7	2.0	-
Pennsylvania Total.....	5,599	5,659	6,192	6,853	8,113	10,402	-1.1	-8.8	-6.6
Anthracite.....	147	152	149	194	147	254	-3.3	-	-5.9
Bituminous.....	5,452	5,507	6,043	6,659	7,966	10,148	-1.0	-9.0	-6.7
Tennessee.....	467	473	511	375	599	1,552	-1.3	-0	-12.5
Utah.....	1,803	1,893	1,675	1,769	1,997	2,544	-4.8	-2.5	-3.8
Virginia.....	5,098	5,776	6,844	7,092	7,888	10,228	-11.7	-10.3	-7.4
West Virginia Total.....	16,003	16,347	16,956	18,040	20,738	24,513	-2.1	-6.3	-4.6
Northern.....	4,764	5,561	5,997	6,414	7,513	8,534	-14.3	-10.8	-6.3
Southern.....	11,239	10,786	10,959	11,626	13,225	15,979	4.2	-4.0	-3.8
Wyoming.....	116	202	256	261	268	20	-42.6	-18.9	21.6
Appalachian Total ¹	43,601	45,898	49,105	50,956	56,707	71,894	-5.0	-6.3	-5.4
Interior Total ¹	7,340	8,453	9,110	10,246	10,709	14,113	-13.2	-9.0	-7.0
Western Total ¹	2,855	3,528	3,347	3,402	3,491	3,850	-19.1	-4.9	-3.3
East of Miss. River.....	50,915	54,339	58,173	61,162	67,392	85,920	-6.3	-6.8	-5.6
West of Miss. River.....	2,881	3,540	3,389	3,442	3,515	3,937	-18.6	-4.8	-3.4
U.S. Total.....	53,796	57,879	61,562	64,604	70,907	89,857	-7.0	-6.7	-5.5

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Includes all employees engaged in production, preparation, processing, development, maintenance, repair, shop or yard work at mining operations. Excludes office workers. Includes mining operations management and all technical and engineering personnel. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons and preparation plants with less than 5,000 employee hours, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 42. Average Number of Miners at Surface Mines by State, 1987, 1992-1996

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Alabama.....	886	1,253	1,643	1,692	1,576	2,257	-29.3	-13.4	-9.9
Alaska.....	102	102	105	96	111	93	-	-2.1	1.0
Arizona.....	651	831	864	876	888	900	-21.7	-7.5	-3.5
Arkansas.....	-	4	5	5	14	19	-100.0	-	-
California.....	-	-	-	-	8	37	-	-	-
Colorado.....	414	476	657	656	525	701	-13.0	-5.8	-5.7
Illinois.....	918	872	996	1,107	1,543	3,239	5.3	-12.2	-13.1
Indiana.....	2,122	2,086	2,721	2,786	3,230	3,503	1.7	-10.0	-5.4
Iowa.....	-	-	20	90	101	79	-	-	-
Kansas.....	54	54	63	81	96	247	-	-13.4	-15.5
Kentucky Total.....	5,950	6,583	7,531	7,570	7,736	11,085	-9.6	-6.3	-6.7
Eastern.....	4,855	5,474	5,728	5,683	6,014	8,740	-11.3	-5.2	-6.3
Western.....	1,095	1,109	1,803	1,887	1,722	2,345	-1.3	-10.7	-8.1
Louisiana.....	111	114	111	99	77	81	-2.6	9.6	3.6
Maryland.....	161	165	167	181	210	269	-2.4	-6.4	-5.5
Missouri.....	80	92	116	180	323	814	-13.0	-29.4	-22.7
Montana.....	687	722	705	653	715	847	-4.8	-1.0	-2.3
New Mexico.....	1,347	1,615	1,618	1,516	1,542	1,466	-16.6	-3.3	-9
North Dakota.....	640	716	645	782	744	961	-10.6	-3.7	-4.4
Ohio.....	1,526	1,716	2,289	2,265	2,589	4,275	-11.1	-12.4	-10.8
Oklahoma.....	207	229	221	233	310	653	-9.6	-9.6	-12.0
Pennsylvania Total.....	3,422	3,309	3,783	4,087	4,546	6,885	3.4	-6.8	-7.5
Anthracite.....	1,024	917	1,034	930	1,070	1,348	11.7	-1.1	-3.0
Bituminous.....	2,398	2,392	2,749	3,157	3,476	5,537	.3	-8.9	-8.9
Tennessee.....	289	208	158	271	205	446	38.9	9.0	-4.7
Texas.....	1,550	1,590	1,733	1,841	2,001	3,319	-2.5	-6.2	-8.1
Utah.....	1	-	-	-	-	-	-	-	-
Virginia.....	1,143	1,143	1,277	1,247	1,250	1,819	-	-2.2	-5.0
Washington.....	589	566	570	567	612	699	4.1	-9	-1.9
West Virginia Total.....	4,118	4,987	4,905	4,939	5,279	4,945	-17.4	-6.0	-2.0
Northern.....	515	553	662	860	968	1,329	-6.9	-14.6	-10.0
Southern.....	3,603	4,434	4,243	4,079	4,311	3,616	-18.7	-4.4	*
Wyoming.....	2,698	2,940	3,035	2,898	3,058	3,171	-8.2	-3.1	-1.8
Appalachian Total ¹	16,400	18,255	19,950	20,365	21,669	29,636	-10.2	-6.7	-6.4
Interior Total ¹	6,137	6,150	7,789	8,309	9,417	14,299	-2	-10.1	-9.0
Western Total ¹	7,129	7,968	8,199	8,044	8,203	8,875	-10.5	-3.4	-2.4
East of Miss. River.....	20,535	22,322	25,470	26,145	28,164	38,723	-8.0	-7.6	-6.8
West of Miss. River.....	9,131	10,051	10,468	10,573	11,125	14,087	-9.1	-4.8	-4.7
U.S. Total.....	29,666	32,373	35,938	36,718	39,289	52,810	-8.4	-6.8	-6.2

¹ For a definition of coal-producing regions, see Appendix C.

* Data round to zero.

Notes: Includes all employees engaged in production, preparation, processing, development, maintenance, repair, shop or yard work at mining operations. Excludes office workers. Includes mining operations management and all technical and engineering personnel. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons and preparation plants with less than 5,000 employee hours, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 43. Average Number of Miners by State and Mine Production Range, 1996

Coal-Producing State and Region	Mine Production Range (thousand short tons)							Total
	1,000 and over	500 to 1,000	200 to 500	100 to 200	50 to 100	10 to 50	Zero ¹	
Alabama.....	3,624	765	148	133	142	115	104	5,031
Alaska.....	102	-	-	-	-	-	-	102
Arizona.....	630	-	-	-	-	-	21	651
Colorado.....	858	198	123	104	-	-	49	1,332
Illinois.....	4,330	378	176	19	7	92	172	5,174
Indiana.....	1,463	662	280	78	42	13	41	2,579
Kansas.....	-	-	54	-	-	-	-	54
Kentucky Total.....	4,217	3,655	3,705	2,233	1,588	1,498	1,930	18,826
Eastern.....	2,429	2,672	3,391	2,138	1,438	1,392	1,670	15,130
Western.....	1,788	983	314	95	150	106	260	3,696
Louisiana.....	78	33	-	-	-	-	-	111
Maryland.....	237	-	86	15	44	54	33	469
Missouri.....	-	-	27	14	30	9	-	80
Montana.....	637	39	11	18	-	-	-	705
New Mexico.....	1,347	-	-	-	-	-	-	1,347
North Dakota.....	636	-	-	-	-	-	4	640
Ohio.....	1,855	280	282	330	143	210	132	3,232
Oklahoma.....	-	-	114	106	-	13	-	233
Pennsylvania Total.....	3,704	1,041	1,384	656	506	765	965	9,021
Anthracite.....	-	27	246	67	154	294	383	1,171
Bituminous.....	3,704	1,014	1,138	589	352	471	582	7,850
Tennessee.....	-	54	368	154	12	58	110	756
Texas.....	1,378	96	76	-	-	-	-	1,550
Utah.....	1,587	179	-	-	-	-	38	1,804
Virginia.....	1,087	505	1,501	940	746	616	846	6,241
Washington.....	489	-	-	100	-	-	-	589
West Virginia Total.....	8,861	2,593	2,800	1,061	1,113	994	2,699	20,121
Northern.....	3,630	327	445	164	160	201	352	5,279
Southern.....	5,231	2,266	2,355	897	953	793	2,347	14,842
Wyoming.....	2,658	106	13	24	-	13	-	2,814
Appalachian Total ²	21,797	7,910	9,960	5,427	4,144	4,204	6,559	60,001
Interior Total ²	9,037	2,152	1,041	312	229	233	473	13,477
Western Total ²	8,944	522	147	246	-	13	112	9,984
East of Miss. River.....	29,378	9,933	10,730	5,619	4,343	4,415	7,032	71,450
West of Miss. River.....	10,400	651	418	366	30	35	112	12,012
U.S. Total.....	39,778	10,584	11,148	5,985	4,373	4,450	7,144	83,462

¹ Includes all employees at preparation plants and tipples not co-located with a mine.

² For a definition of coal-producing regions, see Appendix C.

Notes: Includes all employees engaged in production, preparation, processing, development, maintenance, repair, shop or yard work at mining operations. Excludes office workers. Includes mining operations management and all technical and engineering personnel. Excludes silt, culm refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons and preparation plants with less than 5,000 employee hours, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 44. Average Number of Miners at Underground Mines by State and Mine Production Range, 1996

Coal-Producing State and Region	Mine Production Range (thousand short tons)							Total
	1,000 and over	500 to 1,000	200 to 500	100 to 200	50 to 100	10 to 50	Zero ¹	
Alabama.....	3,471	567	—	—	32	—	75	4,145
Colorado.....	468	198	99	104	—	—	49	918
Illinois.....	3,829	78	105	19	—	81	144	4,256
Indiana.....	174	267	—	—	—	—	16	457
Kentucky Total.....	3,318	2,040	2,334	1,674	1,138	964	1,408	12,876
Eastern.....	1,596	1,597	2,218	1,674	1,063	950	1,177	10,275
Western.....	1,722	443	116	—	75	14	231	2,601
Maryland.....	237	—	26	—	—	12	33	308
Montana.....	—	—	—	18	—	—	—	18
Ohio.....	1,551	—	40	92	—	—	23	1,706
Oklahoma.....	—	—	—	26	—	—	—	26
Pennsylvania Total.....	3,593	705	581	119	71	141	389	5,599
Anthracite.....	—	—	—	33	—	63	51	147
Bituminous.....	3,593	705	581	86	71	78	338	5,452
Tennessee.....	—	—	248	100	12	34	73	467
Utah.....	1,587	179	—	—	—	—	37	1,803
Virginia.....	1,087	183	1,141	752	647	574	714	5,098
West Virginia Total.....	7,144	1,941	2,209	800	946	756	2,207	16,003
Northern.....	3,535	267	350	99	113	132	268	4,764
Southern.....	3,609	1,674	1,859	701	833	624	1,939	11,239
Wyoming.....	116	—	—	—	—	—	—	116
Appalachian Total ²	18,679	4,993	6,463	3,537	2,771	2,467	4,691	43,601
Interior Total ²	5,725	788	221	45	75	95	391	7,340
Western Total ²	2,171	377	99	122	—	—	86	2,855
East of Miss. River.....	24,404	5,781	6,684	3,556	2,846	2,562	5,082	50,915
West of Miss. River.....	2,171	377	99	148	—	—	86	2,881
U.S. Total.....	26,575	6,158	6,783	3,704	2,846	2,562	5,168	53,796

¹ Includes all employees at preparation plants and tipples not co-located with a mine.

² For a definition of coal-producing regions, see Appendix C.

Notes: Includes all employees engaged in production, preparation, processing, development, maintenance, repair, shop or yard work at mining operations. Excludes office workers. Includes mining operations management and all technical and engineering personnel. Excludes silt, culm refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons and preparation plants with less than 5,000 employee hours, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 45. Average Number of Miners at Surface Mines by State and Mine Production Range, 1996

Coal-Producing State and Region	Mine Production Range (thousand short tons)							Total
	1,000 and over	500 to 1,000	200 to 500	100 to 200	50 to 100	10 to 50	Zero ¹	
Alabama.....	153	198	148	133	110	115	29	886
Alaska.....	102	—	—	—	—	—	—	102
Arizona.....	630	—	—	—	—	—	21	651
Colorado.....	390	—	24	—	—	—	—	414
Illinois.....	501	300	71	—	7	11	28	918
Indiana.....	1,289	395	280	78	42	13	25	2,122
Kansas.....	—	—	54	—	—	—	—	54
Kentucky Total.....	899	1,615	1,371	559	450	534	522	5,950
Eastern.....	833	1,075	1,173	464	375	442	493	4,855
Western.....	66	540	198	95	75	92	29	1,095
Louisiana.....	78	33	—	—	—	—	—	111
Maryland.....	—	—	60	15	44	42	—	161
Missouri.....	—	—	27	14	30	9	—	80
Montana.....	637	39	11	—	—	—	—	687
New Mexico.....	1,347	—	—	—	—	—	—	1,347
North Dakota.....	636	—	—	—	—	—	4	640
Ohio.....	304	280	242	238	143	210	109	1,526
Oklahoma.....	—	—	114	80	—	13	—	207
Pennsylvania Total.....	111	336	803	537	435	624	576	3,422
Anthracite.....	—	27	246	34	154	231	332	1,024
Bituminous.....	111	309	557	503	281	393	244	2,398
Tennessee.....	—	54	120	54	—	24	37	289
Texas.....	1,378	96	76	—	—	—	—	1,550
Utah.....	—	—	—	—	—	—	1	1
Virginia.....	—	322	360	188	99	42	132	1,143
Washington.....	489	—	—	100	—	—	—	589
West Virginia Total.....	1,717	652	591	261	167	238	492	4,118
Northern.....	95	60	95	65	47	69	84	515
Southern.....	1,622	592	496	196	120	169	408	3,603
Wyoming.....	2,542	106	13	24	—	13	—	2,698
Appalachian Total ²	3,118	2,917	3,497	1,890	1,373	1,737	1,868	16,400
Interior Total ²	3,312	1,364	820	267	154	138	82	6,137
Western Total ²	6,773	145	48	124	—	13	26	7,129
East of Miss. River.....	4,974	4,152	4,046	2,063	1,497	1,853	1,950	20,535
West of Miss. River.....	8,229	274	319	218	30	35	26	9,131
U.S. Total.....	13,203	4,426	4,365	2,281	1,527	1,888	1,976	29,666

¹ Includes all employees at preparation plants and tipples not co-located with a mine.

² For a definition of coal-producing regions, see Appendix C.

Notes: Includes all employees engaged in production, preparation, processing, development, maintenance, repair, shop or yard work at mining operations. Excludes office workers. Includes mining operations management and all technical and engineering personnel. Excludes silt, culm refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons and preparation plants with less than 5,000 employee hours, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 46. Average Number of Miners by State, Mine Type, and Union Type, 1996

Coal-Producing State and Region	UMWA	Other Unions	Union Total	Nonunion	Total
Alabama	3,743	-	3,743	1,288	5,031
Underground.....	3,423	-	3,423	722	4,145
Surface.....	320	-	320	566	886
Alaska	-	102	102	-	102
Surface.....	-	102	102	-	102
Arizona	651	-	651	-	651
Surface.....	651	-	651	-	651
Colorado	350	129	479	853	1,332
Underground.....	245	-	245	673	918
Surface.....	105	129	234	180	414
Illinois	3,831	391	4,222	952	5,174
Underground.....	3,024	331	3,355	901	4,256
Surface.....	807	60	867	51	918
Indiana	1,317	-	1,317	1,262	2,579
Underground.....	162	-	162	295	457
Surface.....	1,155	-	1,155	967	2,122
Kansas	54	-	54	-	54
Surface.....	54	-	54	-	54
Kentucky Total	2,096	106	2,202	16,624	18,826
Underground.....	1,777	50	1,827	11,049	12,876
Surface.....	319	56	375	5,575	5,950
Eastern	978	106	1,084	14,046	15,130
Underground.....	772	50	822	9,453	10,275
Surface.....	206	56	262	4,593	4,855
Western	1,118	-	1,118	2,578	3,696
Underground.....	1,005	-	1,005	1,596	2,601
Surface.....	113	-	113	982	1,095
Louisiana	-	-	-	111	111
Surface.....	-	-	-	111	111
Maryland	-	-	-	469	469
Underground.....	-	-	-	308	308
Surface.....	-	-	-	161	161
Missouri	-	-	-	80	80
Surface.....	-	-	-	80	80
Montana	383	226	609	96	705
Underground.....	-	-	-	18	18
Surface.....	383	226	609	78	687
New Mexico	405	750	1,155	192	1,347
Surface.....	405	750	1,155	192	1,347
North Dakota	108	102	210	430	640
Surface.....	108	102	210	430	640
Ohio	1,700	-	1,700	1,532	3,232
Underground.....	1,440	-	1,440	266	1,706
Surface.....	260	-	260	1,266	1,526
Oklahoma	-	-	-	233	233
Underground.....	-	-	-	26	26
Surface.....	-	-	-	207	207
Pennsylvania Total	4,119	25	4,144	4,877	9,021
Underground.....	3,475	7	3,482	2,117	5,599
Surface.....	644	18	662	2,760	3,422
Anthracite	502	19	521	650	1,171
Underground.....	-	4	4	143	147
Surface.....	502	15	517	507	1,024
Bituminous	3,617	6	3,623	4,227	7,850
Underground.....	3,475	3	3,478	1,974	5,452
Surface.....	142	3	145	2,253	2,398
Tennessee	-	-	-	756	756
Underground.....	-	-	-	467	467
Surface.....	-	-	-	289	289
Texas	-	920	920	630	1,550
Surface.....	-	920	920	630	1,550
Utah	722	-	722	1,082	1,804
Underground.....	722	-	722	1,081	1,803
Surface.....	-	-	-	1	1
Virginia	1,167	56	1,223	5,018	6,241
Underground.....	1,089	-	1,089	4,009	5,098
Surface.....	78	56	134	1,009	1,143
Washington	-	489	489	100	589
Surface.....	-	489	489	100	589
West Virginia Total	11,671	42	11,713	8,408	20,121
Underground.....	9,894	2	9,896	6,107	16,003
Surface.....	1,777	40	1,817	2,301	4,118

See footnotes at end of table.

- 78 -

Table 46. Average Number of Miners by State, Mine Type, and Union Type, 1996 (Continued)

Coal-Producing State and Region	UMWA	Other Unions	Union Total	Nonunion	Total
Northern	3,537	—	3,537	1,742	5,279
Underground	3,525	—	3,525	1,239	4,764
Surface	12	—	12	503	515
Southern	8,134	42	8,176	6,666	14,842
Underground	6,369	2	6,371	4,868	11,239
Surface	1,765	40	1,805	1,798	3,603
Wyoming	352	540	892	1,922	2,814
Underground	—	—	—	116	116
Surface	352	540	892	1,806	2,698
Appalachian Total¹	23,378	229	23,607	36,394	60,001
Underground	20,093	59	20,152	23,449	43,601
Surface	3,285	170	3,455	12,945	16,400
Interior Total¹	6,320	1,311	7,631	5,846	13,477
Underground	4,191	331	4,522	2,818	7,340
Surface	2,129	980	3,109	3,028	6,137
Western Total¹	2,971	2,338	5,309	4,675	9,984
Underground	967	—	967	1,888	2,855
Surface	2,004	2,338	4,342	2,787	7,129
East of Miss. River	29,644	620	30,264	41,186	71,450
Underground	24,284	390	24,674	26,241	50,915
Surface	5,360	230	5,590	14,945	20,535
West of Miss. River	3,025	3,258	6,283	5,729	12,012
Underground	967	—	967	1,914	2,881
Surface	2,058	3,258	5,316	3,815	9,131
U.S. Total	32,669	3,878	36,547	46,915	83,462
Underground	25,251	390	25,641	28,155	53,796
Surface	7,418	3,488	10,906	18,760	29,666

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Includes all employees engaged in production, preparation, processing, development, maintenance, repair, shop or yard work at mining operations. Excludes office workers. Includes mining operations management and all technical and engineering personnel. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons and preparation plants with less than 5,000 employee hours, which are not required to provide these data. See Glossary for listing of other unions.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 47. U.S. Coal Mine Injuries, 1987, 1992-1996

Injury Type	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Injuries Total¹	5,896	R 7,386	R 8,765	8,446	10,110	12,417	-20.2	-12.6	-7.9
Fatal	38	47	45	47	55	63	-19.1	-8.8	-5.5
Nonfatal ²	5,858	R 7,339	R 8,720	8,399	10,055	12,354	-20.2	-12.6	-8.0
Injuries per 200,000									
Employee-Hours Total	5.96	R 6.26	R 6.89	6.86	7.33	7.88	-4.8	-5.0	-3.1
Fatal	.04	.04	.03	.04	.04	.04	.0	.0	.0
Nonfatal ²	5.92	R 6.22	R 6.86	6.82	7.29	7.84	-4.8	-5.1	-3.1

¹ Includes contractors and office workers.

² Includes only non-fatal injuries that resulted in absence from work.

R Revised.

Note: Calculations of growth rate are based using unrounded values.

Source: U.S. Department of Labor, Mine Safety and Health Administration, *Mine Injuries and Worktime, Quarterly*, various issues.

Figure 6. U.S. Coal Mine Injuries, 1987-1996

Figure 7. U.S. Coal Mine Fatalities, 1987-1996

Sources: U.S. Department of Labor, Mine Safety and Health Administration, *Mine Injuries and Worktime, Quarterly*, various issues.

Productivity

In 1996, the average coal mining productivity exceeded its 1995 record high of 5.4 short tons of coal per miner per hour to 5.7 short tons of coal per miner per hour (inset , coal cleaning facility located in Central City, PA). Productivity at surface mines was 9.1 and 3.6 at underground mines.

Table 48. Coal Mining Productivity by State, 1987, 1992-1996
(Short Tons of Coal Produced per Miner per Hour)

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Alabama.....	2.20	2.24	2.25	2.35	2.49	1.97	-1.6	-3.0	1.3
Alaska.....	6.81	7.46	6.94	7.40	6.93	6.84	-8.8	-4	*
Arizona.....	6.30	6.34	6.71	6.21	6.29	6.76	-6	*	-8
Arkansas.....	-	1.47	1.52	1.39	1.68	1.80	-100.0	-	-
California.....	-	-	-	-	11.12	5.19	-	-	-
Colorado.....	7.32	6.14	6.20	5.85	5.27	4.22	19.2	8.5	6.3
Illinois.....	4.18	3.87	3.59	3.23	3.42	2.52	8.2	5.2	5.8
Indiana.....	4.98	4.68	4.28	4.46	4.09	3.57	6.4	5.0	3.8
Iowa.....	-	-	1.52	.72	1.14	1.39	-	-	-
Kansas.....	2.17	2.22	1.93	2.30	2.21	3.75	-2.4	-5	-5.9
Kentucky Total.....	3.80	3.57	3.25	3.25	3.20	2.69	6.6	4.4	3.9
Eastern.....	3.68	3.47	3.24	3.18	3.10	2.59	6.1	4.3	4.0
Western.....	4.29	3.97	3.28	3.49	3.49	2.98	7.9	5.3	4.1
Louisiana.....	10.86	13.25	13.00	12.14	12.43	15.26	-18.0	-3.3	-3.7
Maryland.....	4.13	3.82	3.68	3.41	2.91	3.38	8.2	9.1	2.2
Missouri.....	3.49	2.55	3.59	1.84	3.10	2.28	36.9	3.0	4.8
Montana.....	21.88	21.06	21.92	19.49	20.16	18.70	3.9	2.1	1.8
New Mexico.....	8.45	6.92	6.77	6.68	6.68	5.74	22.1	6.0	4.4
North Dakota.....	17.20	16.80	18.84	17.66	18.12	13.46	2.4	-1.3	2.8
Ohio.....	3.95	3.62	3.42	3.46	3.04	2.28	9.1	6.8	6.3
Oklahoma.....	2.61	2.97	2.68	2.80	2.17	1.90	-12.1	4.7	3.6
Pennsylvania Total.....	3.36	3.23	2.98	2.80	2.67	1.97	4.1	5.9	6.1
Anthracite.....	1.92	2.08	1.93	1.85	1.33	1.13	-8.0	9.5	6.0
Bituminous.....	3.56	3.37	3.11	2.91	2.81	2.04	5.4	6.0	6.3
Tennessee.....	2.20	2.36	2.23	2.47	2.19	1.67	-6.8	.1	3.1
Texas.....	10.13	9.10	8.82	8.42	7.34	6.45	11.3	8.4	5.1
Utah.....	7.23	7.02	6.59	5.96	5.46	3.86	3.0	7.2	7.2
Virginia.....	2.72	2.50	2.51	2.41	2.37	2.08	8.4	3.5	3.0
Washington.....	3.97	4.04	4.11	4.00	4.51	3.06	-1.8	-3.1	2.9
West Virginia Total.....	3.91	3.74	3.69	3.27	3.27	2.47	4.4	4.5	5.3
Northern.....	4.05	3.72	3.63	2.98	3.17	2.61	8.9	6.3	5.0
Southern.....	3.86	3.75	3.72	3.39	3.32	2.38	2.8	3.8	5.5
Wyoming.....	32.06	30.05	26.05	24.46	21.50	17.91	6.6	10.5	6.7
Appalachian Total ¹	3.48	3.32	3.20	3.00	2.95	2.30	4.8	4.3	4.7
Interior Total ¹	5.39	4.97	4.43	4.43	4.18	3.33	8.4	6.6	5.5
Western Total ¹	17.41	15.68	14.58	13.53	12.73	10.42	11.0	8.1	5.9
East of Miss. River.....	3.63	3.45	3.28	3.11	3.07	2.42	5.3	4.3	4.6
West of Miss. River.....	15.66	14.18	13.22	12.14	11.03	8.73	10.4	9.2	6.7
U.S. Total.....	5.69	5.38	4.98	4.70	4.36	3.30	5.8	6.9	6.3

¹ For a definition of coal-producing regions, see Appendix C.

* Data round to zero.

Notes: Productivity is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, shop or yard work at mining operations, but excludes office workers. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 49. Underground Coal Mining Productivity by State, 1987, 1992-1996
(Short Tons of Coal Produced per Miner per Hour)

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Alabama.....	1.95	2.02	1.94	2.09	2.17	1.68	-3.6	-2.6	1.7
Arkansas.....	-	-	1.62	-	-	-	-	-	-
Colorado.....	6.67	5.86	5.81	5.21	4.52	2.75	13.7	10.2	10.3
Illinois.....	4.10	3.86	3.49	3.11	3.21	2.20	6.1	6.3	7.1
Indiana.....	3.09	3.22	2.82	2.49	2.80	2.05	-4.1	2.5	4.6
Iowa.....	-	-	-	-	-	1.22	-	-	-
Kentucky Total.....	3.53	3.25	2.89	2.93	2.91	2.40	8.6	5.0	4.4
Eastern.....	3.37	3.12	2.87	2.89	2.86	2.28	8.2	4.2	4.4
Western.....	4.05	3.70	2.96	3.10	3.05	2.74	9.4	7.3	4.4
Maryland.....	4.82	4.77	4.52	4.34	3.50	4.10	1.0	8.3	1.8
Montana.....	3.50	-	-	1.06	-	-	-	-	-
New Mexico.....	-	2.68	2.57	1.63	.40	1.74	-100.0	-	-
Ohio.....	4.19	3.81	3.51	3.27	3.01	1.80	9.9	8.6	9.8
Oklahoma.....	1.75	.74	1.70	1.03	1.04	-	138.0	13.9	-
Pennsylvania Total.....	3.74	3.49	3.18	2.91	2.81	1.81	7.1	7.4	8.4
Anthracite.....	.94	.86	.64	.74	.84	.84	8.7	2.9	1.2
Bituminous.....	3.81	3.56	3.25	2.98	2.84	1.83	6.9	7.6	8.5
Tennessee.....	1.76	2.02	1.90	2.34	1.81	1.58	-13.0	-8	1.2
Utah.....	7.24	7.02	6.59	5.96	5.46	3.86	3.1	7.3	7.2
Virginia.....	2.44	2.25	2.27	2.19	2.20	2.01	8.6	2.7	2.2
West Virginia Total.....	3.50	3.40	3.38	2.92	2.99	2.31	2.9	4.0	4.7
Northern.....	3.98	3.66	3.61	2.84	3.12	2.54	8.7	6.2	5.1
Southern.....	3.29	3.27	3.25	2.96	2.92	2.17	.7	3.0	4.7
Wyoming.....	9.18	5.97	5.07	3.56	4.19	2.71	53.6	21.7	14.5
Appalachian Total ¹	3.24	3.08	2.96	2.75	2.76	2.11	5.3	4.2	4.9
Interior Total ¹	4.01	3.76	3.26	3.06	3.14	2.38	6.7	6.3	6.0
Western Total ¹	7.09	6.35	5.98	5.23	4.88	3.40	11.8	9.8	8.5
East of Miss. River.....	3.36	3.19	3.02	2.81	2.82	2.16	5.3	4.5	5.1
West of Miss. River.....	7.03	6.32	5.93	5.18	4.85	3.39	11.2	9.7	8.4
U.S. Total.....	3.57	3.39	3.19	2.95	2.93	2.20	5.6	5.1	5.5

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Productivity is calculated by dividing total coal production by the total direct labor hours worked by all mine employees engaged in production, preparation, processing, development, maintenance, repair, shop or yard work at mining operations, but excludes office workers. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 50. Surface Coal Mining Productivity by State, 1987, 1992-1996
(Short Tons of Coal Produced per Miner per Hour)

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Alabama.....	3.50	3.07	3.07	3.01	3.28	2.53	14.2	1.6	3.7
Alaska.....	6.81	7.46	6.94	7.40	6.93	6.84	-8.8	-4	*
Arizona.....	6.30	6.34	6.71	6.21	6.29	6.76	-6	*	-8
Arkansas.....	-	1.47	1.46	1.39	1.68	1.80	-100.0	-	-
California.....	-	-	-	-	11.12	5.19	-	-	-
Colorado.....	8.76	6.79	7.06	7.07	6.52	6.44	29.0	7.7	3.5
Illinois.....	4.67	3.89	4.12	3.86	4.47	3.37	19.9	1.1	3.7
Indiana.....	5.34	5.04	4.56	4.82	4.28	3.79	6.0	5.7	3.9
Iowa.....	-	-	1.52	.72	1.14	1.43	-	-	-
Kansas.....	2.17	2.22	1.93	2.30	2.21	3.75	-2.4	-5	-5.9
Kentucky Total.....	4.35	4.23	3.96	3.84	3.75	3.18	2.9	3.8	3.5
Eastern.....	4.23	4.13	3.97	3.74	3.57	3.12	2.6	4.3	3.5
Western.....	5.02	4.77	3.93	4.14	4.31	3.37	5.1	3.9	4.5
Louisiana.....	10.86	13.25	13.00	12.14	12.43	15.26	-18.0	-3.3	-3.7
Maryland.....	2.56	2.16	2.18	2.07	2.13	2.66	18.5	4.7	-4
Missouri.....	3.49	2.55	3.59	1.84	3.10	2.28	36.9	3.0	4.8
Montana.....	22.34	21.06	21.92	19.59	20.16	18.70	6.1	2.6	2.0
New Mexico.....	8.45	7.19	7.18	7.26	7.11	6.23	17.4	4.4	3.4
North Dakota.....	17.20	16.80	18.84	17.66	18.12	13.46	2.4	-1.3	2.8
Ohio.....	3.69	3.46	3.34	3.58	3.06	2.67	6.9	4.8	3.7
Oklahoma.....	2.73	3.10	2.80	3.12	2.26	1.90	-12.0	4.8	4.1
Pennsylvania Total.....	2.72	2.79	2.67	2.63	2.45	2.23	-2.4	2.6	2.3
Anthracite.....	2.06	2.30	2.13	2.09	1.39	1.19	-10.3	10.3	6.3
Bituminous.....	2.97	2.95	2.84	2.78	2.74	2.43	.6	2.0	2.3
Tennessee.....	2.91	3.20	3.19	2.71	3.06	2.04	-9.1	-1.3	4.0
Texas.....	10.13	9.10	8.82	8.42	7.34	6.45	11.3	8.4	5.1
Virginia.....	3.79	3.73	3.73	3.55	3.50	2.52	1.7	2.0	4.6
Washington.....	3.97	4.04	4.11	4.00	4.51	3.06	-1.8	-3.1	2.9
West Virginia Total.....	5.18	4.74	4.62	4.35	4.27	3.29	9.4	5.0	5.2
Northern.....	4.72	4.31	3.78	3.70	3.52	3.16	9.5	7.6	4.5
Southern.....	5.24	4.79	4.75	4.49	4.43	3.33	9.4	4.3	5.2
Wyoming.....	32.84	31.02	27.37	26.03	22.76	17.98	5.9	9.6	6.9
Appalachian Total ¹	4.05	3.88	3.72	3.55	3.40	2.76	4.3	4.5	4.3
Interior Total ¹	6.89	6.39	5.71	5.71	5.21	4.14	7.8	7.2	5.8
Western Total ¹	20.96	18.93	17.68	16.49	15.46	12.82	10.7	7.9	5.6
East of Miss. River.....	4.25	4.03	3.85	3.74	3.61	2.97	5.4	4.2	4.1
West of Miss. River.....	17.89	16.23	15.19	13.94	12.49	9.86	10.2	9.4	6.8
U.S. Total.....	9.05	8.48	7.67	7.23	6.59	4.98	6.7	8.3	6.9

¹ For a definition of coal-producing regions, see Appendix C.

* Data round to zero.

Notes: Productivity is calculated by dividing total coal production by the total direct labor hours worked by all mine employees engaged in production, preparation, processing, development, maintenance, repair, shop or yard work at mining operations, but excludes office workers. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 51. Coal Mining Productivity by State and Mine Type, 1996

Coal-Producing State and Region	Number of Mining Operations ¹	Average Number of Miners Working Daily ²	Average Production per Miner per Hour (short tons) ³	Average Production per Miner per Shift (short tons) ⁴
Alabama.....	58	5,031	2.20	18.77
Underground.....	16	4,145	1.95	16.39
Surface.....	42	886	3.50	30.02
Alaska.....	1	102	6.81	61.29
Surface.....	1	102	6.81	61.29
Arizona.....	3	651	6.30	55.27
Surface.....	3	651	6.30	55.27
Colorado.....	18	1,332	7.32	66.07
Underground.....	14	918	6.67	60.39
Surface.....	4	414	8.76	78.07
Illinois.....	36	5,174	4.18	36.10
Underground.....	24	4,256	4.10	34.91
Surface.....	12	918	4.67	41.37
Indiana.....	40	2,579	4.98	47.11
Underground.....	5	457	3.09	26.24
Surface.....	35	2,122	5.34	51.28
Kansas.....	1	54	2.17	17.33
Surface.....	1	54	2.17	17.33
Kentucky Total.....	631	18,826	3.80	34.78
Underground.....	365	12,876	3.53	31.04
Surface.....	266	5,950	4.35	41.87
Eastern.....	560	15,130	3.68	33.73
Underground.....	334	10,275	3.37	29.71
Surface.....	226	4,855	4.23	41.08
Western.....	71	3,696	4.29	38.22
Underground.....	31	2,601	4.05	34.95
Surface.....	40	1,095	5.02	45.79
Louisiana.....	2	111	10.86	92.35
Surface.....	2	111	10.86	92.35
Maryland.....	15	469	4.13	35.39
Underground.....	4	308	4.82	39.15
Surface.....	11	161	2.56	22.36
Missouri.....	5	80	3.49	33.38
Surface.....	5	80	3.49	33.38
Montana.....	8	705	21.88	186.71
Underground.....	1	18	3.50	35.04
Surface.....	7	687	22.34	185.93
New Mexico.....	6	1,347	8.45	65.71
Surface.....	6	1,347	8.45	65.71
North Dakota.....	6	640	17.20	144.58
Surface.....	6	640	17.20	144.58
Ohio.....	104	3,232	3.95	36.99
Underground.....	15	1,706	4.19	36.70
Surface.....	89	1,526	3.69	34.93
Oklahoma.....	10	233	2.61	24.48
Underground.....	1	26	1.75	16.20
Surface.....	9	207	2.73	25.63
Pennsylvania Total.....	359	9,021	3.36	28.96
Underground.....	91	5,599	3.74	31.24
Surface.....	268	3,422	2.72	23.68
Anthracite.....	95	1,171	1.92	15.49
Underground.....	19	147	.94	7.31
Surface.....	76	1,024	2.06	16.79
Bituminous.....	264	7,850	3.56	31.31
Underground.....	72	5,452	3.81	32.36
Surface.....	192	2,398	2.97	26.53
Tennessee.....	33	756	2.20	20.50
Underground.....	18	467	1.76	15.51
Surface.....	15	289	2.91	28.88
Texas.....	13	1,550	10.13	103.71
Surface.....	13	1,550	10.13	103.71
Utah.....	15	1,804	7.23	63.84
Underground.....	14	1,803	7.24	63.80
Surface.....	1	1	.00	.00
Virginia.....	225	6,241	2.72	24.35
Underground.....	163	5,098	2.44	21.57
Surface.....	62	1,143	3.79	35.42
Washington.....	3	589	3.97	33.75
Surface.....	3	589	3.97	33.75
West Virginia Total.....	479	20,121	3.91	34.22
Underground.....	323	16,003	3.50	29.87
Surface.....	156	4,118	5.18	47.77

See footnotes at end of table.

Table 51. Coal Mining Productivity by State and Mine Type, 1996 (Continued)

Coal-Producing State and Region	Number of Mining Operations ¹	Average Number of Miners Working Daily ²	Average Production per Miner per Hour (short tons) ³	Average Production per Miner per Shift (short tons) ⁴
Northern	102	5,279	4.05	34.70
Underground.....	59	4,764	3.98	33.14
Surface.....	43	515	4.72	41.82
Southern	377	14,842	3.86	33.98
Underground.....	264	11,239	3.29	28.21
Surface.....	113	3,603	5.24	49.01
Wyoming	27	2,814	32.06	332.43
Underground.....	1	116	9.18	91.80
Surface.....	26	2,698	32.84	341.03
Appalachian Total⁵	1,833	60,001	3.48	31.04
Underground.....	964	43,601	3.24	28.12
Surface.....	869	16,400	4.05	37.25
Interior Total⁵	178	13,477	5.39	49.08
Underground.....	61	7,340	4.01	34.44
Surface.....	117	6,137	6.89	64.65
Western Total⁵	87	9,984	17.41	160.26
Underground.....	30	2,855	7.09	63.89
Surface.....	57	7,129	20.96	195.20
East of Miss. River	1,980	71,450	3.63	32.41
Underground.....	1,024	50,915	3.36	29.14
Surface.....	956	20,535	4.25	39.14
West of Miss. River	118	12,012	15.66	146.13
Underground.....	31	2,881	7.03	63.37
Surface.....	87	9,131	17.89	168.90
U.S. Total	2,098	83,462	5.69	50.90
Underground.....	1,055	53,796	3.57	30.99
Surface.....	1,043	29,666	9.05	83.46

¹ Mining operations that consist of a mine and preparation plant, or a preparation plant only processing both underground and surface coal will be counted as two operations.

² Includes all employees engaged in production, preparation, processing, development, maintenance, repair, shop or yard work at mining operations. Excludes office workers. Includes mining operations management and all technical and engineering employees.

³ Calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, shop or yard work at mining operations, but excludes office workers.

⁴ Calculated by multiplying average production per miner per hour by the average length of a miner shift.

⁵ For a definition of coal-producing regions, see Appendix C.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons of coal during the year, and preparation plants with less than 5,000 employee hours, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 52. Weighted Average Number of Days Worked by State and Mine Type, 1987, 1992-1996

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Alabama	267	260	240	250	245	250	2.8	2.3	0.7
Underground	268	259	246	249	236	237	3.4	3.2	1.4
Surface	265	262	231	253	258	267	1.1	.6	-.1
Alaska	239	251	246	250	224	250	-4.8	1.6	-.5
Surface	239	251	246	250	224	250	-4.8	1.6	-.5
Arizona	281	211	217	211	225	196	32.9	5.7	4.1
Surface	281	211	217	211	225	196	32.9	5.7	4.1
Arkansas	-	240	176	240	228	206	-100.0	-	-
Underground	-	-	85	-	-	-	-	-	-
Surface	-	240	240	240	228	206	-100.0	-	-
California	-	-	-	-	116	30	-	-	-
Surface	-	-	-	-	116	30	-	-	-
Colorado	316	287	258	243	278	266	10.2	3.3	1.9
Underground	325	287	288	282	268	249	13.2	5.0	3.0
Surface	301	286	204	188	290	277	5.1	.9	.9
Illinois	276	260	253	220	253	246	6.1	2.2	1.3
Underground	277	264	257	222	258	240	4.7	1.7	1.6
Surface	270	233	231	212	233	256	15.7	3.8	.6
Indiana	276	266	274	254	250	242	3.9	2.4	1.5
Underground	279	277	285	246	263	241	.6	1.4	1.6
Surface	276	264	272	255	249	242	4.5	2.5	1.4
Iowa	-	-	150	260	259	250	-	-	-
Underground	-	-	-	-	-	142	-	-	-
Surface	-	-	150	260	259	267	-	-	-
Kansas	246	265	269	259	242	256	-7.2	.4	-.4
Surface	246	265	269	259	242	256	-7.2	.4	-.4
Kentucky Total	261	254	261	255	259	239	2.5	.1	.9
Underground	257	252	257	247	254	236	2.1	.3	.9
Surface	266	258	268	267	267	243	3.3	*	1.0
Eastern	258	250	257	253	250	231	3.3	.8	1.2
Underground	249	246	249	244	246	223	.9	.2	1.2
Surface	271	254	268	266	255	240	6.6	1.5	1.3
Western	270	269	276	263	286	262	.2	-1.4	.3
Underground	279	267	283	256	278	270	4.8	.1	.4
Surface	247	276	266	270	296	251	-10.4	-4.4	-.2
Louisiana	305	299	290	293	335	286	2.1	-2.3	.7
Surface	305	299	290	293	335	286	2.1	-2.3	.7
Maryland	261	237	237	249	311	239	10.1	-4.3	1.0
Underground	271	241	236	249	339	240	12.5	-5.4	1.3
Surface	219	223	243	250	251	236	-1.5	-3.3	-.8
Missouri	290	278	263	181	345	248	4.1	-4.3	1.8
Surface	290	278	263	181	345	248	4.1	-4.3	1.8
Montana	322	341	341	341	344	301	-5.4	-1.6	.8
Underground	223	-	-	158	-	-	-	-	-
Surface	323	341	341	341	344	301	-5.2	-1.6	.8
New Mexico	275	282	283	297	284	242	-2.7	-.8	1.4
Underground	-	241	241	241	241	217	-100.0	-	-
Surface	275	283	284	299	284	243	-3.0	-.8	1.4
North Dakota	314	289	303	307	287	248	8.5	2.2	2.6
Surface	314	289	303	307	287	248	8.5	2.2	2.6
Ohio	264	242	257	266	268	240	9.0	-.4	1.0
Underground	271	239	265	266	268	238	13.4	.3	1.4
Surface	254	245	251	266	267	242	3.8	-1.2	.6
Oklahoma	296	296	305	294	282	260	-1.1	1.2	1.4
Underground	308	309	310	300	260	-	-3	4.3	-
Surface	295	296	305	293	283	260	-4	1.0	1.4
Pennsylvania Total	268	262	257	246	249	245	2.4	1.9	1.0
Underground	272	266	256	238	245	236	2.2	2.6	1.6
Surface	259	253	259	258	257	255	2.4	.2	.2
Anthracite	269	253	264	247	246	237	6.3	2.2	1.4
Underground	266	256	264	263	227	226	4.2	4.1	1.8
Surface	269	252	264	246	247	239	6.4	2.1	1.3
Bituminous	268	263	256	246	249	245	2.1	1.8	1.0
Underground	272	266	256	238	245	236	2.2	2.6	1.6
Surface	257	253	258	261	258	256	1.3	-.1	*
Tennessee	243	236	230	223	243	238	2.8	*	.2
Underground	254	245	233	254	241	241	3.7	1.4	.6
Surface	231	221	223	173	246	229	4.5	-1.5	.1

See footnotes at end of table.

Table 52. Weighted Average Number of Days Worked by State and Mine Type, 1987, 1992-1996 (Continued)

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Texas	349	345	346	350	348	268	1.3	*	3.0
Surface	349	345	346	350	348	268	1.3	*	3.0
Utah	251	241	257	249	246	239	4.1	0.5	.5
Underground	251	241	257	249	246	239	4.1	.5	.5
Virginia	260	254	245	246	253	227	2.3	.7	1.5
Underground	258	254	243	245	256	228	1.5	.2	1.4
Surface	266	255	251	247	241	220	4.2	2.5	2.1
Washington	231	262	263	252	231	255	-11.7	*	-1.1
Surface	231	262	263	252	231	255	-11.7	*	-1.1
West Virginia Total	272	255	252	227	246	235	6.9	2.6	1.6
Underground	257	244	244	217	243	235	5.3	1.4	1.0
Surface	306	278	270	248	255	234	10.0	4.7	3.0
Northern	263	242	246	194	235	243	8.7	2.9	.9
Underground	261	237	242	175	235	246	9.9	2.6	.6
Surface	284	283	278	271	236	226	.6	4.7	2.6
Southern	276	260	255	238	251	230	6.1	2.3	2.0
Underground	255	248	246	235	248	228	2.8	.7	1.2
Surface	308	277	268	243	258	236	11.1	4.6	3.0
Wyoming	351	352	341	345	339	316	-2	.9	1.2
Underground	248	245	243	258	238	208	1.2	1.0	2.0
Surface	352	353	342	346	341	316	-.1	.8	1.2
Appalachian Total¹	266	254	253	243	250	236	4.8	1.5	1.3
Underground	259	249	248	235	247	232	3.9	1.2	1.2
Surface	279	261	262	257	256	243	6.7	2.2	1.5
Interior Total¹	299	291	290	280	289	255	2.8	.8	1.8
Underground	278	266	267	236	265	252	4.5	1.2	1.1
Surface	312	308	304	302	304	257	1.4	.6	2.2
Western Total¹	330	326	319	320	316	289	1.3	1.1	1.5
Underground	276	259	267	261	252	241	6.6	2.3	1.5
Surface	337	334	325	327	323	293	.8	1.1	1.5
East of Miss. River	267	256	256	243	253	239	4.6	1.4	1.2
Underground	262	253	252	235	250	236	3.9	1.2	1.2
Surface	277	261	262	256	257	245	5.8	1.8	1.4
West of Miss. River	332	328	321	323	320	285	1.3	.9	1.7
Underground	276	259	267	261	252	240	6.6	2.3	1.5
Surface	338	335	327	329	326	288	.8	.9	1.8
U.S. Total	298	290	285	280	280	256	2.7	1.5	1.7
Underground	264	253	253	238	251	236	4.2	1.3	1.2
Surface	319	313	305	304	301	270	2.0	1.4	1.9

¹ For a definition of coal-producing regions, see Appendix C.

* Data round to zero.

Notes: Weighted average number of days worked is calculated by multiplying average days worked for each mine times its production and then summing these products over all mines in the region/State and then dividing the sum by the total production for the region/State. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 53. Weighted Average Number of Days Worked by Mine Production Range, 1996

Coal-Producing State and Region	Mine Production Range (thousand short tons)						Total ¹
	1,000 and over	500 to 1,000	200 to 500	100 to 200	50 to 100	10 to 50	
Alabama.....	268	278	280	261	237	176	267
Alaska.....	239	—	—	—	—	—	239
Arizona.....	281	—	—	—	—	—	281
Colorado.....	326	225	271	218	—	—	316
Illinois.....	278	263	207	277	211	196	276
Indiana.....	292	256	253	175	64	119	276
Kansas.....	—	—	246	—	—	—	246
Kentucky Total.....	286	278	246	203	166	125	261
Eastern.....	290	276	249	204	172	127	258
Western.....	280	283	217	201	78	102	270
Louisiana.....	323	250	—	—	—	—	305
Maryland.....	273	—	213	291	208	258	261
Missouri.....	—	—	300	304	229	204	290
Montana.....	325	230	245	223	—	—	322
New Mexico.....	275	—	—	—	—	—	275
North Dakota.....	314	—	—	—	—	—	314
Ohio.....	271	283	269	225	231	172	264
Oklahoma.....	—	—	306	288	—	214	296
Pennsylvania Total.....	275	265	270	261	243	221	268
Anthracite.....	—	261	296	278	259	220	269
Bituminous.....	275	265	264	259	239	221	268
Tennessee.....	—	247	254	192	325	211	243
Texas.....	353	55	301	—	—	—	349
Utah.....	253	212	—	—	—	—	251
Virginia.....	246	306	273	234	219	173	260
Washington.....	235	—	—	141	—	—	231
West Virginia Total.....	289	276	238	209	192	141	272
Northern.....	268	264	251	248	237	167	263
Southern.....	301	278	236	198	178	131	276
Wyoming.....	352	280	189	88	—	239	351
Appalachian Total ²	282	278	253	223	204	170	266
Interior Total ²	310	264	245	241	110	139	299
Western Total ²	332	239	255	181	—	239	330
East of Miss. River.....	282	277	251	222	201	169	267
West of Miss. River.....	334	224	278	237	229	216	332
U.S. Total.....	314	274	252	223	201	169	298

¹ Includes stand alone preparation plants.

² For a definition of coal-producing regions, see Appendix C.

Notes: Weighted average number of days worked is calculated by multiplying average days worked for each mine times its production and then summing these products over all mines in the region/State and then dividing the sum by the total production for the region/State. Excludes silt, culm refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons and preparation plants with less than 5,000 employee hours, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 54. Underground Coal Mining Productivity by State and Mining Method, 1996
(Short Tons of Coal Produced per Miner per Hour)

Coal-Producing State and Region	Continuous ¹	Conventional ²	Longwall ³	Other ⁴	Total
Alabama	1.83	1.24	1.96	—	1.95
Colorado	3.93	4.30	8.13	—	6.67
Illinois	3.77	2.89	4.62	—	4.10
Indiana	3.09	—	—	—	3.09
Kentucky Total	3.58	2.60	4.44	1.66	3.53
Eastern	3.44	2.55	4.98	1.66	3.37
Western	4.02	3.42	4.18	—	4.05
Maryland	4.35	—	4.88	—	4.82
Montana	3.50	—	—	—	3.50
Ohio	4.01	—	4.21	—	4.19
Oklahoma	1.75	—	—	—	1.75
Pennsylvania Total	2.50	2.39	4.74	.87	3.74
Anthracite	1.03	.85	—	.87	.94
Bituminous	2.54	2.59	4.74	—	3.81
Tennessee	1.76	2.50	—	—	1.76
Utah	4.58	2.82	7.91	—	7.24
Virginia	2.22	2.19	3.19	—	2.44
West Virginia Total	3.28	3.02	3.99	3.36	3.50
Northern	3.41	2.70	4.23	3.36	3.98
Southern	3.25	3.06	3.58	—	3.29
Wyoming	—	—	9.18	—	9.18
Appalachian Total⁵	3.08	2.66	3.64	1.80	3.24
Interior Total⁵	3.80	3.27	4.48	—	4.01
Western Total⁵	4.14	3.00	8.05	—	7.09
East of Miss. River	3.23	2.68	3.75	1.80	3.36
West of Miss. River	4.00	3.00	8.06	—	7.03
U.S. Total	3.26	2.70	4.18	2.30	3.57

¹ Mines that produce greater than 50 percent of coal by continuous mining method.

² Mines that produce greater than 50 percent of coal by conventional mining method.

³ Mines that have any production from longwall mining method. A typical longwall mining operation uses 80 percent longwall mining and 20 percent continuous mining.

⁴ Mines that produce coal using shortwall, scoop loading, hand loading, or other mining methods or a 50/50 percent continuous/conventional split in mining method.

⁵ For a definition of coal-producing regions, see Appendix C.

Notes: For each State, stand alone preparation plant hours are distributed across the mining methods by the proportion of production for all stand alone mines. Productivity is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, shop or yard work at mining operations, but excludes office workers. Excludes mines producing less than 10,000 short tons of coal during the year, and preparation plants with less than 5,000 employee hours, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 55. U.S. Coal Mining Productivity by Coalbed Thickness and Mining Method, 1996
(Short Tons of Coal Produced per Miner per Hour)

Coalbed Thickness (inches)	Underground				Surface	Total
	Continuous ¹	Conventional ²	Longwall ³	Other ⁴		
< 7	-	-	-	-	3.85	3.85
7-12	-	-	-	-	4.69	4.69
13-18	-	-	-	-	5.06	5.06
19-24	-	1.53	-	1.82	5.03	4.97
25-30	2.55	2.35	-	-	4.48	4.19
31-36	3.11	3.16	-	1.69	4.99	4.23
37-42	3.32	2.59	-	-	5.13	4.24
43-48	3.31	3.01	2.99	-	5.78	4.49
49-54	4.02	3.20	2.77	-	6.23	4.71
55-60	4.14	3.60	3.53	-	5.71	4.63
61-66	3.43	2.95	5.73	-	6.00	5.11
67-72	3.96	2.82	3.11	4.08	5.98	4.48
73-78	4.23	-	3.89	-	7.07	4.76
79-84	5.09	4.44	4.38	-	6.85	5.37
85-90	7.77	-	6.23	-	6.22	6.27
91-96	4.83	2.41	4.19	1.22	5.25	4.58
97-102	3.64	-	5.76	-	7.14	6.32
103-108	4.36	-	6.80	-	12.10	8.19
109-114	-	-	7.61	-	4.82	6.10
115-120	6.29	-	6.63	-	5.59	6.10
> 120	4.46	2.15	9.77	-	19.16	17.89
U.S. Total ⁵	3.26	2.70	4.18	2.30	9.05	5.69

¹ Mines that produce greater than 50 percent of coal by continuous mining method.

² Mines that produce greater than 50 percent of coal by conventional mining method.

³ Mines that have any production from longwall mining method. A typical longwall mining operation uses 80 percent longwall mining and 20 percent continuous mining.

⁴ Mines that produce coal using shortwall, scoop loading, hand loading, or other mining methods or a 50/50 percent continuous/conventional split in mining method.

⁵ Includes stand alone preparation plants.

Notes: Productivity is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, shop or yard work at mining operations, but excludes office workers. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons and preparation plants with less than 5,000 employee hours, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 56. Coal Mining Productivity by State, Mine Type, and Mine Production Range, 1996

(Short Tons of Coal Produced per Miner per Hour)

Coal-Producing State and Region	Mine Production Range (thousand short tons)						Total ¹
	1,000 and over	500 to 1,000	200 to 500	100 to 200	50 to 100	10 to 50	
Alabama.....	2.20	2.01	2.72	3.40	3.41	2.94	2.20
Underground.....	2.13	1.31	—	—	1.30	—	1.95
Surface.....	3.72	4.35	2.72	3.40	3.95	2.94	3.50
Alaska.....	6.81	—	—	—	—	—	6.81
Surface.....	6.81	—	—	—	—	—	6.81
Arizona.....	6.56	—	—	—	—	—	6.30
Surface.....	6.56	—	—	—	—	—	6.30
Colorado.....	8.88	2.84	4.60	2.61	—	—	7.32
Underground.....	8.99	2.84	3.84	2.61	—	—	6.67
Surface.....	8.73	—	9.61	—	—	—	8.76
Illinois.....	4.43	3.51	3.98	2.89	7.18	1.11	4.18
Underground.....	4.31	3.19	3.76	2.89	—	.27	4.10
Surface.....	5.67	3.63	4.18	—	7.18	2.60	4.67
Indiana.....	5.32	4.67	4.82	3.42	4.85	5.14	4.98
Underground.....	3.52	2.90	—	—	—	—	3.09
Surface.....	5.56	5.53	4.82	3.42	4.85	5.14	5.34
Kansas.....	—	—	2.17	—	—	—	2.17
Surface.....	—	—	2.17	—	—	—	2.17
Kentucky Total.....	4.97	4.67	4.14	3.13	2.73	2.58	3.80
Underground.....	4.75	4.40	3.87	2.90	2.39	2.24	3.53
Surface.....	5.61	4.97	4.59	3.78	3.77	3.14	4.35
Eastern.....	5.20	4.76	4.00	3.06	2.66	2.55	3.68
Underground.....	5.04	4.47	3.81	2.90	2.39	2.28	3.37
Surface.....	5.45	5.12	4.35	3.66	3.53	3.03	4.23
Western.....	4.62	4.39	6.12	4.26	4.43	3.08	4.29
Underground.....	4.49	4.17	5.25	—	2.32	.92	4.05
Surface.....	8.05	4.60	6.71	4.26	5.84	3.99	5.02
Louisiana.....	10.72	11.35	—	—	—	—	10.86
Surface.....	10.72	11.35	—	—	—	—	10.86
Maryland.....	5.48	—	4.34	3.22	2.98	1.56	4.13
Underground.....	5.48	—	6.34	—	—	1.89	4.82
Surface.....	—	—	3.04	3.22	2.98	1.47	2.56
Missouri.....	—	—	3.40	7.17	1.51	1.42	3.49
Surface.....	—	—	3.40	7.17	1.51	1.42	3.49
Montana.....	23.01	8.74	14.37	3.50	—	—	21.88
Underground.....	—	—	—	3.50	—	—	3.50
Surface.....	23.01	8.74	14.37	—	—	—	22.34
New Mexico.....	8.45	—	—	—	—	—	8.45
Surface.....	8.45	—	—	—	—	—	8.45
North Dakota.....	17.26	—	—	—	—	—	17.20
Surface.....	17.26	—	—	—	—	—	17.20
Ohio.....	4.26	4.41	4.41	3.94	2.86	2.66	3.95
Underground.....	4.30	—	3.65	3.34	—	—	4.19
Surface.....	4.06	4.41	4.50	4.11	2.86	2.66	3.69
Oklahoma.....	—	—	2.75	2.46	—	2.60	2.61
Underground.....	—	—	—	1.75	—	—	1.75
Surface.....	—	—	2.75	2.70	—	2.60	2.73
Pennsylvania Total.....	4.57	2.48	3.30	3.82	2.55	2.48	3.36
Underground.....	4.57	2.18	3.37	2.53	2.41	1.26	3.74
Surface.....	4.59	3.03	3.25	4.10	2.57	2.76	2.72
Anthracite.....	—	9.14	3.58	3.49	1.74	1.99	1.92
Underground.....	—	—	—	1.59	—	1.21	.94
Surface.....	—	9.14	3.58	5.66	1.74	2.24	2.06
Bituminous.....	4.57	2.31	3.24	3.86	2.90	2.77	3.56
Underground.....	4.57	2.18	3.37	3.00	2.41	1.32	3.81
Surface.....	4.59	2.56	3.12	4.00	3.02	3.02	2.97
Tennessee.....	—	4.15	2.64	2.48	1.58	1.53	2.20
Underground.....	—	—	2.25	2.25	1.58	1.27	1.76
Surface.....	—	4.15	3.32	3.41	—	1.83	2.91
Texas.....	10.42	11.11	3.23	—	—	—	10.13
Surface.....	10.42	11.11	3.23	—	—	—	10.13
Utah.....	7.76	4.03	—	—	—	—	7.23
Underground.....	7.76	4.03	—	—	—	—	7.24
Surface.....	—	—	—	—	—	—	.00
Virginia.....	3.55	4.46	3.09	2.68	2.18	2.04	2.72
Underground.....	3.55	3.71	2.76	2.59	2.07	1.90	2.44
Surface.....	—	4.99	4.06	3.04	3.36	3.44	3.79

See footnotes at end of table.

Table 56. Coal Mining Productivity by State, Mine Type, and Mine Production Range, 1996
(Continued)
(Short Tons of Coal Produced per Miner per Hour)

Coal-Producing State and Region	Mine Production Range (thousand short tons)						Total ¹
	1,000 and over	500 to 1,000	200 to 500	100 to 200	50 to 100	10 to 50	
Washington	4.21	—	—	1.63	—	—	3.97
Surface.....	4.21	—	—	1.63	—	—	3.97
West Virginia Total	4.82	5.21	4.17	3.19	2.55	2.34	3.91
Underground.....	4.17	4.86	4.04	3.19	2.64	2.48	3.50
Surface.....	6.88	6.12	4.57	3.16	2.22	2.10	5.18
Northern	4.47	5.51	3.48	3.69	2.88	2.69	4.05
Underground.....	4.28	5.12	3.60	4.06	2.29	2.39	3.98
Surface.....	9.70	7.28	3.10	3.16	4.15	3.11	4.72
Southern	5.04	5.17	4.31	3.07	2.47	2.23	3.86
Underground.....	4.08	4.83	4.13	3.04	2.71	2.50	3.29
Surface.....	6.71	6.03	4.85	3.16	1.43	1.72	5.24
Wyoming	33.26	5.34	10.52	9.52	—	.50	32.06
Underground.....	9.18	—	—	—	—	—	9.18
Surface.....	34.13	5.34	10.52	9.52	—	.50	32.84
Appalachian Total²	4.32	4.33	3.73	3.18	2.56	2.39	3.48
Underground.....	3.96	3.90	3.58	2.86	2.35	2.10	3.24
Surface.....	6.06	4.98	3.99	3.71	2.91	2.65	4.05
Interior Total²	6.01	4.53	4.37	3.44	3.71	2.27	5.39
Underground.....	4.34	3.72	4.68	2.17	2.32	.47	4.01
Surface.....	8.37	5.06	4.32	3.71	4.04	3.28	6.89
Western Total²	18.63	4.24	5.59	2.82	—	.50	17.41
Underground.....	8.19	3.43	3.84	2.77	—	—	7.09
Surface.....	21.56	5.98	10.94	2.92	—	.50	20.96
East of Miss. River	4.41	4.34	3.82	3.20	2.60	2.38	3.63
Underground.....	4.05	3.87	3.60	2.86	2.35	2.05	3.36
Surface.....	5.94	4.93	4.15	3.73	3.00	2.69	4.25
West of Miss. River	17.08	4.90	3.72	2.93	1.51	1.26	15.66
Underground.....	8.19	3.43	3.84	2.51	—	—	7.03
Surface.....	19.00	7.28	3.68	3.26	1.51	1.26	17.89
U.S. Total	8.13	4.36	3.82	3.18	2.59	2.37	5.69
Underground.....	4.40	3.85	3.61	2.85	2.35	2.05	3.57
Surface.....	14.34	5.04	4.11	3.69	2.97	2.65	9.05

¹ Includes stand alone preparation plants.

² For a definition of coal-producing regions, see Appendix C.

Notes: Productivity is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, shop or yard work at mining operations, but excludes office workers. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons and preparation plants with less than 5,000 employee hours, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 57. Coal Mining Productivity by State, Mine Type, and Union Type, 1996
(Short Tons of Coal Produced per Miner per Hour)

Coal-Producing State and Region	UMWA	Other Unions	Union Total	Nonunion	Total
Alabama	2.03	-	2.03	2.71	2.20
Underground.....	1.89	-	1.89	2.21	1.95
Surface.....	3.55	-	3.55	3.48	3.50
Alaska	-	6.81	6.81	-	6.81
Surface.....	-	6.81	6.81	-	6.81
Arizona	6.30	-	6.30	-	6.30
Surface.....	6.30	-	6.30	-	6.30
Colorado	4.78	7.92	5.78	7.79	7.32
Underground.....	2.77	-	2.77	7.39	6.67
Surface.....	8.90	7.92	8.32	9.05	8.76
Illinois	4.05	4.33	4.08	4.56	4.18
Underground.....	3.91	4.28	3.95	4.57	4.10
Surface.....	4.71	4.55	4.70	4.36	4.67
Indiana	5.18	-	5.18	4.79	4.98
Underground.....	2.80	-	2.80	3.23	3.09
Surface.....	5.48	-	5.48	5.20	5.34
Kansas	2.17	-	2.17	-	2.17
Surface.....	2.17	-	2.17	-	2.17
Kentucky Total	4.25	3.74	4.23	3.74	3.80
Underground.....	4.00	2.67	3.97	3.45	3.53
Surface.....	5.44	4.58	5.33	4.28	4.35
Eastern	4.66	3.74	4.59	3.60	3.68
Underground.....	4.28	2.67	4.20	3.30	3.37
Surface.....	5.79	4.58	5.58	4.15	4.23
Western	3.89	-	3.89	4.47	4.29
Underground.....	3.80	-	3.80	4.20	4.05
Surface.....	4.68	-	4.68	5.07	5.02
Louisiana	-	-	-	10.86	10.86
Surface.....	-	-	-	10.86	10.86
Maryland	-	-	-	4.13	4.13
Underground.....	-	-	-	4.82	4.82
Surface.....	-	-	-	2.56	2.56
Missouri	-	-	-	3.49	3.49
Surface.....	-	-	-	3.49	3.49
Montana	19.79	20.38	20.04	30.70	21.88
Underground.....	-	-	-	3.50	3.50
Surface.....	19.79	20.38	20.04	35.16	22.34
New Mexico	8.91	7.68	8.05	11.00	8.45
Surface.....	8.91	7.68	8.05	11.00	8.45
North Dakota	13.42	17.14	15.55	17.81	17.20
Surface.....	13.42	17.14	15.55	17.81	17.20
Ohio	4.14	-	4.14	3.75	3.95
Underground.....	4.25	-	4.25	3.73	4.19
Surface.....	3.32	-	3.32	3.76	3.69
Oklahoma	-	-	-	2.61	2.61
Underground.....	-	-	-	1.75	1.75
Surface.....	-	-	-	2.73	2.73
Pennsylvania Total	2.76	1.38	2.76	3.90	3.36
Underground.....	2.98	-	2.97	5.11	3.74
Surface.....	1.45	2.06	1.47	3.00	2.72
Anthracite	.98	2.07	1.01	2.62	1.92
Underground.....	-	-	-	.95	.94
Surface.....	.98	2.57	1.02	3.09	2.06
Bituminous	2.98	-	2.97	4.08	3.56
Underground.....	2.98	-	2.97	5.40	3.81
Surface.....	2.98	-	2.92	2.98	2.97
Tennessee	-	-	-	2.20	2.20
Underground.....	-	-	-	1.76	1.76
Surface.....	-	-	-	2.91	2.91
Texas	-	9.71	9.71	11.03	10.13
Surface.....	-	9.71	9.71	11.03	10.13
Utah	7.05	-	7.05	7.32	7.23
Underground.....	7.05	-	7.05	7.33	7.24
Surface.....	-	-	-	-	-
Virginia	2.90	4.76	3.00	2.64	2.72
Underground.....	2.97	-	2.97	2.29	2.44
Surface.....	1.93	4.76	3.29	3.86	3.79
Washington	-	4.21	4.21	1.63	3.97
Surface.....	-	4.21	4.21	1.63	3.97
West Virginia Total	3.54	-	3.52	4.44	3.91
Underground.....	3.13	-	3.13	4.13	3.50
Surface.....	5.43	-	5.33	5.07	5.18

See footnotes at end of table.

Table 57. Coal Mining Productivity by State, Mine Type, and Union Type, 1996 (Continued)
(Short Tons of Coal Produced per Miner per Hour)

Coal-Producing State and Region	UMWA	Other Unions	Union Total	Nonunion	Total
Northern	4.20	—	4.20	3.77	4.05
Underground	4.20	—	4.20	3.33	3.98
Surface	—	—	—	4.74	4.72
Southern	3.26	—	3.24	4.61	3.86
Underground	2.53	—	2.52	4.34	3.29
Surface	5.44	—	5.34	5.15	5.24
Wyoming	5.98	10.17	8.38	37.97	32.06
Underground	—	—	—	9.18	9.18
Surface	5.98	10.17	8.38	39.22	32.84
Appalachian Total¹	3.21	3.15	3.21	3.66	3.48
Underground	3.01	2.21	3.00	3.47	3.24
Surface	4.40	3.42	4.35	3.97	4.05
Interior Total¹	4.25	8.76	5.38	5.39	5.39
Underground	3.85	4.28	3.87	4.20	4.01
Surface	5.11	9.51	7.19	6.55	6.89
Western Total¹	8.69	9.44	9.03	24.01	17.41
Underground	6.12	—	6.12	7.43	7.09
Surface	9.68	9.44	9.55	32.54	20.96
East of Miss. River	3.43	3.88	3.44	3.78	3.63
Underground	3.15	3.97	3.16	3.56	3.36
Surface	4.67	3.73	4.63	4.12	4.25
West of Miss. River	8.57	9.55	9.15	21.40	15.66
Underground	6.12	—	6.12	7.34	7.03
Surface	9.50	9.55	9.54	27.05	17.89
U.S. Total	3.87	8.83	4.49	6.61	5.69
Underground	3.24	3.97	3.25	3.88	3.57
Surface	5.99	9.22	7.17	10.09	9.05

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Productivity is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, shop or yard work at mining operations, but excludes office workers. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons and preparation plants with less than 5,000 employee hours, which are not required to provide these data. See Glossary for listing of other unions.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Distribution

The amount of U.S. coal distributed during 1996 reached a record 1,059.9 million short tons, 2.9 percent more than the 1,030.3 million short tons distributed during 1995. Compared with 1995, distribution of U.S. coal to domestic consumers rose 2.9 percent to 968 million short tons, while foreign distribution rose 2.5 to 92.2 million short tons.

Texas was the leading destination for U.S. coal distributed domestically during 1996 with shipments totaling 95.4 million short tons, representing 9.9 percent of the total domestic distributions. Fifty-two percent of the U.S. coal distributed in Texas during 1996 was indigenous, with virtually all of the remainder arriving from Wyoming and Colorado.

Other major destination States included Indiana, Ohio, and Pennsylvania, which collectively received 183.6 million short tons, or 19 percent of total 1996 domestic distributions. As with distributions in Texas, a substantial portion of the coal distributed in these three States was indigenous.

West Virginia was the leading source of U.S. coal distributed abroad during 1996, with foreign shipments totaling 42 million short tons, representing 45.6 percent of total foreign distributions. Other leading sources of U.S. coal distributed abroad during 1996 were Virginia, Pennsylvania, and Kentucky. Collectively, foreign distributions of coal mined in these three States totaled 31.8 million short tons, accounting for 34.5 percent of the U.S. coal shipped abroad during 1996.

Rail continued to be the primary method of transporting the U.S. coal distributed domestically during 1996, accounting for 611.7 million short tons or 63 percent of domestic coal shipments. Coal transported by water (including shipment by river, shipments on the Great Lakes, and shipments through tidewater ports) accounted for 247.9 million short tons or 23.4 percent of the U.S. coal distributed. Distributions of coal by truck totaled 99.9 million short tons while distributions by tramway and conveyor totaled 98.9 million short tons.

Figure 8. Coal Distribution, 1987-1996

Source: Energy Information Administration, Form EIA-6, "Coal Distribution Report."

Table 58. Distribution of U.S. Coal by State of Origin, 1992-1996
(Thousand Short Tons)

Coal-Producing State and Region	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Alabama.....	24,636	25,159	23,750	25,556	25,491	-2.1	-0.8
Alaska.....	1,473	1,670	1,505	1,598	1,531	-11.8	-1.0
Arizona.....	10,970	11,783	12,011	12,138	12,418	-6.9	-3.0
Arkansas.....	7	11	28	25	32	-39.2	-32.0
California.....	-	-	-	-	142	-	-
Colorado.....	25,405	25,635	24,810	21,465	18,864	-9	7.7
Illinois.....	47,076	47,869	51,973	42,000	58,913	-1.7	-5.4
Indiana.....	29,674	25,695	30,684	29,664	31,393	15.5	-1.4
Iowa.....	-	-	46	175	287	-	-
Kansas.....	245	291	282	345	354	-15.9	-8.8
Kentucky Total.....	152,891	151,466	159,130	160,395	161,860	.9	-1.4
Eastern.....	117,404	117,831	124,257	125,041	120,186	-4	-6
Western.....	35,487	33,635	34,873	35,354	41,674	5.5	-3.9
Louisiana.....	3,222	3,426	3,463	3,103	3,208	-6.0	.1
Maryland.....	4,199	3,570	3,460	3,572	3,480	17.6	4.8
Missouri.....	846	464	679	638	2,795	82.3	-25.8
Montana.....	38,288	39,620	41,916	35,916	38,866	-3.4	-4
New Mexico.....	25,043	26,154	28,570	27,942	24,827	-4.3	.2
North Dakota.....	30,025	30,118	32,056	32,372	31,702	-3	-1.3
Ohio.....	28,881	24,345	28,749	28,315	29,550	18.6	-6
Oklahoma.....	2,216	2,158	1,925	2,309	1,954	2.7	3.2
Pennsylvania Total.....	69,128	62,240	61,508	58,990	67,649	11.1	.5
Anthracite.....	4,836	3,994	4,700	3,331	3,554	21.1	8.0
Bituminous.....	64,291	58,246	56,808	55,659	64,095	10.4	.1
Tennessee.....	3,052	2,627	2,547	2,577	2,837	16.2	1.8
Texas.....	49,655	52,832	52,256	54,224	54,447	-6.0	-2.3
Utah.....	23,868	25,521	23,225	22,243	21,052	-6.5	3.2
Virginia.....	36,208	34,024	38,548	41,639	45,728	6.4	-5.7
Washington.....	4,569	4,863	4,877	4,714	5,283	-6.1	-3.6
West Virginia Total.....	169,200	165,187	158,985	135,818	163,723	2.4	.8
Northern.....	46,436	42,615	45,535	37,100	50,646	9.0	-2.1
Southern.....	122,764	122,572	113,449	98,718	113,077	.2	2.1
Wyoming.....	279,117	263,601	235,540	211,713	190,260	5.9	10.0
Appalachian Total ¹	452,707	434,984	441,805	421,508	458,645	4.1	-3
Interior Total ¹	168,427	166,380	176,208	167,836	195,057	1.2	-3.6
Western Total ¹	438,758	428,966	404,510	370,102	344,945	2.3	6.2
East of Miss. River.....	564,944	542,182	559,334	528,525	590,624	4.2	-1.1
West of Miss. River.....	494,948	488,148	463,190	430,920	408,023	1.4	4.9
U.S. Total.....	1,059,892	1,030,330	1,022,523	959,445	998,647	2.9	1.5

¹ For a definition of coal-producing regions, see Appendix C.

Notes: See Technical Note 1 for the difference between production and distribution. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-6, "Coal Distribution Report."

Table 59. Domestic and Foreign Distribution of U.S. Coal by State of Origin, 1992-1996
(Thousand Short Tons)

Coal-Producing State and Region	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
							Domestic
Alabama	19,772	19,127	19,220	19,668	19,560	3.4	0.3
Alaska	697	815	789	855	797	-14.5	-3.3
Arizona	10,970	11,783	12,011	12,138	12,418	-6.9	-3.0
Arkansas	7	11	28	25	29	-39.2	-30.4
California	-	-	-	-	142	-	-
Colorado	23,990	24,734	24,059	20,338	18,195	-3.0	7.2
Illinois	45,190	45,170	51,737	41,330	57,670	*	-5.9
Indiana	29,664	25,625	30,477	29,475	31,216	15.8	-1.3
Iowa	-	-	46	175	287	-	-
Kansas	245	291	282	345	354	-15.9	-8.8
Kentucky Total	143,748	141,771	151,963	150,874	147,825	1.4	-7
Eastern	108,927	108,781	117,234	115,723	106,372	.1	.6
Western	34,821	32,990	34,729	35,151	41,453	5.5	-4.3
Louisiana	3,222	3,426	3,463	3,103	3,208	-6.0	.1
Maryland	3,555	3,382	3,277	3,278	3,246	5.1	2.3
Missouri	846	464	679	638	2,795	82.3	-25.8
Montana	37,770	39,362	41,672	35,795	38,804	-4.0	-7
New Mexico	25,035	25,640	28,540	27,942	24,823	-2.4	.2
North Dakota	30,025	30,118	32,056	32,372	31,702	-3	-1.3
Ohio	28,609	24,318	28,688	28,315	29,549	17.6	-8
Oklahoma	2,136	2,158	1,925	2,297	1,940	-1.0	2.4
Pennsylvania Total	59,882	53,961	55,207	53,482	61,208	11.0	-5
Anthracite	4,330	3,497	4,346	3,015	3,230	23.8	7.6
Bituminous	55,552	50,464	50,861	50,467	57,979	10.1	-1.1
Tennessee	3,052	2,627	2,547	2,577	2,835	16.2	1.9
Texas	49,538	52,812	52,256	54,224	54,447	-6.2	-2.3
Utah	18,563	21,591	20,527	19,283	18,792	-14.0	-3
Virginia	22,776	24,283	26,866	27,388	28,504	-6.2	-5.4
Washington	4,526	4,756	4,731	4,621	5,020	-4.8	-2.6
West Virginia Total	127,156	120,866	122,779	102,659	112,917	5.2	3.0
Northern	40,398	36,073	39,985	34,573	44,093	12.0	-2.2
Southern	86,757	84,793	82,794	68,086	68,824	2.3	6.0
Wyoming	276,723	261,333	234,016	210,739	188,983	5.9	10.0
Appalachian Total ¹	373,728	357,344	375,819	353,089	364,191	4.6	.6
Interior Total ¹	165,668	162,947	175,622	166,763	193,400	1.7	-3.8
Western Total ¹	428,297	420,132	398,402	364,083	339,676	1.9	6.0
East of Miss. River	483,402	461,128	492,762	459,045	494,530	4.8	-6
West of Miss. River	484,291	479,294	457,081	424,890	402,737	1.0	4.7
U.S. Total	967,693	940,423	949,843	883,934	897,267	2.9	1.9
Foreign							
Alabama	4,864	6,032	4,529	5,888	5,931	-19.4	-4.8
Alaska	776	855	716	743	734	-9.2	1.4
Arkansas	-	-	-	-	3	-	-
Colorado	1,415	900	752	1,128	669	57.2	20.6
Illinois	1,886	2,699	236	670	1,242	-30.1	11.0
Indiana	11	70	206	188	177	-84.7	-50.4
Kentucky Total	9,143	9,695	7,167	9,521	14,036	-5.7	-10.2
Eastern	8,477	9,051	7,023	9,318	13,815	-6.3	-11.5
Western	666	645	144	204	221	3.3	31.8
Maryland	645	188	184	295	234	242.0	28.8
Montana	518	259	243	121	62	100.2	70.2
New Mexico	9	514	30	-	5	-98.3	16.5
Ohio	271	28	61	-	2	NM	257.2
Oklahoma	80	-	-	11	14	-	54.5
Pennsylvania Total	9,246	8,279	6,301	5,508	6,440	11.7	9.5
Anthracite	506	497	354	316	324	1.9	11.8
Bituminous	8,740	7,782	5,947	5,192	6,116	12.3	9.3
Tennessee	-	-	-	-	2	-	-
Texas	117	20	-	-	-	494.0	-
Utah	5,305	3,930	2,698	2,959	2,260	35.0	23.8
Virginia	13,432	9,742	11,683	14,251	17,224	37.9	-6.0
Washington	43	107	146	94	264	-59.8	-36.4
West Virginia Total	42,044	44,321	36,205	33,159	50,806	-5.1	-4.6
Northern	6,038	6,542	5,550	2,527	6,553	-7.7	-2.0
Southern	36,006	37,779	30,655	30,632	44,254	-4.7	-5.0
Wyoming	2,395	2,269	1,524	974	1,277	5.5	17.0

See footnotes at end of table.

Table 59. Domestic and Foreign Distribution of U.S. Coal by State of Origin, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Producing State and Region	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Foreign							
Appalachian Total ¹	78,979	77,640	65,986	68,419	94,454	1.7	-4.4
Interior Total ¹	2,759	3,433	586	1,073	1,657	-19.6	13.6
Western Total ¹	10,460	8,834	6,108	6,018	5,269	18.4	18.7
East of Miss. River	81,542	81,054	66,572	69,481	96,094	.6	-4.0
West of Miss. River	10,657	8,854	6,108	6,030	5,286	20.4	19.2
U.S. Total	92,199	89,907	72,680	75,510	101,380	2.5	-2.3

¹ For a definition of coal-producing regions, see Appendix C.

* Data round to zero.

NM Not meaningful as value is greater than 500 percent.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-6, "Coal Distribution Report."

Table 60. Major U.S. Coal Distributors, 1996

Company Name	
Top Ten Distributors	
Atlantic Richfield Co.	Kerr-McGee Coal Corp.
A.T. Massey Coal Co., Inc.	Kiewit Coal Properties
Consol Energy Inc.	North American Coal Corp.
Cyprus AMAX Minerals Co.	Peabody Holding Co.
Kennecott Energy Co.	Zeigler Coal Holding Co.
Other Major Distributors	
Addington Enterprises Inc.	Knife River Coal Mining
AEP Service Corp.	Mapco Coal Co.
Aluminum Co. of America	Marigold Land Corp.
American Coal Sales, Inc.	Montana Power Co.
American Metals & Coal	Monterey Coal Co.
AMVEST Minerals	Mincorp, Inc.
Andalex Resources Inc.	Minnesota Power & Light
Anker Energy Corp.	Orion Resources Inc.
Arch Mineral Corp.	Pacificorp Electric
Ashland Coal Inc.	Pardee Coal Co., Inc.
BHP Minerals Int'l	Pen Holdings
Black Beauty Coal Co.	Phibro Energy Inc.
Blue Diamond Coal Co.	Quaker Coal Co.
Central Coal Co.	Rochester & Pittsburgh Co.
Chevron Corp.	San Miguel Electric CoOp.
Coal Arbed Int'l Trading Co.	Smoky Mountain Coal
Costain America Inc.	Sun Coal Co.
Dolet Hills Mining Venture	Teco Coal Corp.
Drummond Co.	Texas Utilities Co.
Electric Fuels Corp.	The Coastal Corp.
General Dynamics Corp.	The Pittston Co.
Golden Oak Mining Co.	United Coal Co.
James River Coal Co.	USX Corp.
Jim Walter Resources, Inc.	Westmoreland Coal Co.
Kindill Mining	Wyodak Resources Development

Notes: The top 10 distribution companies accounted for 51 percent of the total distribution. Companies are listed in alphabetical order to ensure nondisclosure of company data.

Source: Energy Information Administration, Form EIA-6A, "Coal Distribution Report."

Table 61. Domestic Distribution of U.S. Coal by Coal-Producing Region and State, and Destination Census Division and State, 1992-1996
(Thousand Short Tons)

Coal-Producing Region and State, and Destination Census Division and State	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Appalachian Total	373,728	357,344	375,819	353,089	364,191	4.6	0.6
Alabama.....	19,772	19,127	19,220	19,668	19,560	3.4	.3
Middle Atlantic.....	579	616	496	492	228	-6.0	26.3
Pennsylvania.....	579	616	496	492	228	-6.0	26.3
East North Central.....	108	-	-	-	-	-	-
Indiana.....	57	-	-	-	-	-	-
Ohio.....	51	-	-	-	-	-	-
West North Central.....	*	-	-	-	1	-	-17.9
Minnesota.....	*	-	-	-	-	-	-
Missouri.....	*	-	-	-	-	-	-
South Dakota.....	-	-	-	-	1	-	-
South Atlantic.....	385	253	89	207	287	52.1	7.7
Florida.....	8	115	85	202	185	-92.7	-53.8
Georgia.....	373	134	*	1	102	178.4	38.3
North Carolina.....	4	-	-	-	-	-	-
South Carolina.....	-	4	3	4	-	-100.0	-
East South Central.....	18,628	18,182	18,484	18,851	18,918	2.4	-4
Alabama.....	18,503	18,024	18,351	18,716	18,849	2.7	-5
Kentucky.....	15	-	-	-	-	-	-
Mississippi.....	110	156	129	132	68	-29.5	12.7
Tennessee.....	1	2	4	3	*	-65.5	21.3
West South Central.....	39	24	63	18	33	57.8	3.9
Arkansas.....	39	24	60	9	12	57.8	33.2
Texas.....	-	-	3	8	21	-	-
Kentucky, Eastern	108,927	108,781	117,234	115,723	106,372	.1	.6
New England.....	1,337	1,764	1,447	1,106	2,337	-24.2	-13.0
Connecticut.....	659	811	787	576	837	-18.7	-5.8
Maine.....	271	258	433	380	771	5.3	-23.0
Massachusetts.....	407	695	227	71	729	-41.5	-13.6
New Hampshire.....	-	-	-	79	-	-	-
Middle Atlantic.....	3,977	4,145	4,522	3,679	3,901	-4.0	.5
New Jersey.....	29	381	63	61	204	-92.3	-38.5
New York.....	1,227	996	1,288	1,188	1,288	23.2	-1.2
Pennsylvania.....	2,721	2,767	3,171	2,429	2,409	-1.7	3.1
East North Central.....	20,340	22,832	24,669	25,309	21,902	-10.9	-1.8
Illinois.....	1,478	1,442	1,555	2,333	1,575	2.5	-1.6
Indiana.....	1,962	2,397	2,109	2,074	2,645	-18.1	-7.2
Michigan.....	6,671	6,977	9,524	8,857	8,083	-4.4	-4.7
Ohio.....	9,490	11,200	10,532	11,294	8,648	-15.3	2.3
Wisconsin.....	738	816	949	751	951	-9.5	-6.1
West North Central.....	889	611	564	482	444	45.4	19.0
Iowa.....	439	160	40	25	65	174.5	61.4
Kansas.....	-	-	-	-	5	-	-
Minnesota.....	135	211	172	124	125	-36.1	2.0
Missouri.....	315	238	351	334	249	32.5	6.0
Nebraska.....	-	3	-	-	-	-100.0	-
South Dakota.....	-	-	1	-	-	-	-
South Atlantic.....	63,554	57,820	60,914	57,532	52,997	9.9	4.6
Delaware.....	-	-	37	27	-	-	-
District of Columbia.....	-	-	13	16	18	-	-
Florida.....	14,015	12,121	12,069	11,311	12,584	15.6	2.7
Georgia.....	14,689	15,803	15,649	14,163	11,770	-7.0	5.7
Maryland.....	105	29	423	958	296	265.6	-22.8
North Carolina.....	17,240	12,902	13,590	13,491	12,517	33.6	8.3
South Carolina.....	11,417	10,007	11,443	9,962	9,847	14.1	3.8
Virginia.....	5,662	6,129	6,539	6,672	5,246	-7.6	1.9
West Virginia.....	426	829	1,151	932	721	-48.6	-12.3
East South Central.....	18,182	20,332	22,813	26,008	22,917	-10.6	-5.6
Alabama.....	727	1,434	2,402	2,320	2,703	-49.3	-28.0
Kentucky.....	9,326	9,653	10,317	10,145	10,486	-3.4	-2.9
Mississippi.....	928	815	1,006	1,731	1,616	13.8	-12.9
Tennessee.....	7,202	8,430	9,088	11,811	8,112	-14.6	-2.9
West South Central.....	71	513	802	104	95	-86.1	-7.1
Arkansas.....	-	-	*	-	-	-	-
Louisiana.....	44	500	791	104	95	-91.2	-17.6
Oklahoma.....	2	4	-	-	-	-62.3	-
Texas.....	26	8	10	-	-	201.0	-
Mountain.....	-	2	10	-	2	-100.0	-

See footnotes at end of table.

Table 61. Domestic Distribution of U.S. Coal by Coal-Producing Region and State, and Destination Census Division and State, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Producing Region and State, and Destination Census Division and State	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Kentucky, Eastern (Continued)							
Idaho.....	-	2	-	-	2	-100.0	-
Wyoming.....	-	-	10	-	-	-	-
Pacific.....	24	15	15	4	-	58.9	-
Oregon.....	24	15	15	4	-	58.9	-
Maryland.....	3,555	3,382	3,277	3,278	3,246	5.1	2.3
New England.....	3	32	-	11	-	-90.2	-
Connecticut.....	3	32	-	-	-	-90.9	-
Massachusetts.....	*	-	-	11	-	-	-
Middle Atlantic.....	4	45	-	19	6	-91.9	-11.7
New York.....	-	-	-	-	4	-	-
Pennsylvania.....	4	45	-	19	2	-91.9	11.4
East North Central.....	19	-	-	-	-	-	-
Michigan.....	15	-	-	-	-	-	-
Wisconsin.....	3	-	-	-	-	-	-
South Atlantic.....	3,518	3,297	3,277	3,230	3,166	6.7	2.7
Delaware.....	130	97	125	37	-	33.9	-
Maryland.....	1,147	1,216	1,034	820	1,159	-5.7	-2
Virginia.....	27	12	1	-	1	119.9	111.4
West Virginia.....	2,213	1,971	2,116	2,373	2,006	12.3	2.5
Ohio.....	28,609	24,318	28,688	28,315	29,549	17.6	-8
New England.....	-	-	*	17	4	-	-
Connecticut.....	-	-	*	*	1	-	-
Massachusetts.....	-	-	-	17	4	-	-
Middle Atlantic.....	1,168	1,568	2,443	1,388	556	-25.5	20.4
New York.....	125	25	124	52	47	400.3	27.5
Pennsylvania.....	1,043	1,543	2,318	1,336	508	-32.4	19.7
East North Central.....	25,201	20,912	24,810	25,119	27,497	20.5	-2.2
Illinois.....	5	-	17	*	2	-	20.2
Indiana.....	464	243	345	274	134	91.1	36.3
Michigan.....	246	431	522	474	419	-43.0	-12.5
Ohio.....	24,478	20,228	23,907	24,370	26,941	21.0	-2.4
Wisconsin.....	9	10	18	-	-	-9.1	-
West North Central.....	-	10	33	83	-	-100.0	-
Iowa.....	-	-	15	67	-	-	-
Missouri.....	-	10	18	16	-	-100.0	-
South Atlantic.....	2,036	1,620	971	1,041	1,385	25.7	10.1
Delaware.....	-	-	29	48	-	-	-
West Virginia.....	2,036	1,620	942	993	1,385	25.7	10.1
East South Central.....	137	53	130	261	-	160.5	-
Alabama.....	103	18	37	151	-	468.5	-
Kentucky.....	30	14	93	29	-	118.8	-
Tennessee.....	4	21	-	81	-	-82.9	-
West South Central.....	-	-	-	-	*	-	-
Louisiana.....	-	-	-	-	*	-	-
Pennsylvania,							
Anthracite.....	4,330	3,497	4,346	3,015	3,230	23.8	7.6
New England.....	31	37	54	64	73	-15.6	-19.0
Connecticut.....	5	8	11	13	14	-34.1	-20.9
Maine.....	4	3	6	8	12	22.9	-25.0
Massachusetts.....	14	16	20	24	22	-12.7	-11.3
New Hampshire.....	4	5	8	10	14	-24.7	-28.6
Rhode Island.....	3	3	3	3	5	21.2	-9.6
Vermont.....	2	3	5	6	7	-39.0	-28.9
Middle Atlantic.....	3,985	2,922	3,227	2,618	2,916	36.4	8.1
New Jersey.....	14	15	17	20	17	-7.1	-5.4
New York.....	151	140	121	179	215	7.8	-8.5
Pennsylvania.....	3,821	2,768	3,089	2,420	2,685	38.0	9.2
East North Central.....	41	37	36	39	40	9.3	2
Illinois.....	7	9	8	14	8	-21.7	-3.4
Indiana.....	6	6	4	5	5	9.6	6.2
Michigan.....	3	9	2	*	1	-67.3	21.0
Ohio.....	19	8	21	19	26	137.7	-6.8
Wisconsin.....	5	6	2	1	*	-11.2	215.3
West North Central.....	64	46	31	34	35	38.5	15.8

See footnotes at end of table.

Table 61. Domestic Distribution of U.S. Coal by Coal-Producing Region and State, and Destination Census Division and State, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Producing Region and State, and Destination Census Division and State	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Pennsylvania,							
Anthracite (Continued)							
Iowa.....	54	39	26	28	27	39.3	18.5
Kansas.....	*	—	—	*	6	—	-63.6
Minnesota.....	7	7	3	3	*	-5.3	270.6
Missouri.....	*	*	2	2	*	-88.1	38.4
Nebraska.....	1	*	*	2	2	NM	-21.2
North Dakota.....	2	*	*	*	*	NM	260.2
South Dakota.....	—	—	*	—	*	—	—
South Atlantic.....	56	91	79	64	51	-38.7	2.3
Delaware.....	10	11	11	11	7	-6.1	10.0
District of Columbia.....	*	*	*	*	*	-62.0	3.1
Florida.....	6	9	8	6	7	-37.4	-4.1
Georgia.....	*	*	*	*	1	-25.4	-23.9
Maryland.....	1	27	6	4	3	-95.8	-22.4
North Carolina.....	*	*	*	*	*	-41.4	-6.2
South Carolina.....	*	3	8	11	*	-91.4	14.0
Virginia.....	6	9	11	14	13	-35.2	-17.9
West Virginia.....	32	31	35	18	20	2.2	12.9
East South Central.....	50	44	28	34	42	14.3	4.8
Alabama.....	2	1	1	3	6	58.3	-23.2
Kentucky.....	22	21	12	18	24	5.2	-1.9
Mississippi.....	*	*	*	*	*	17.9	-6.4
Tennessee.....	26	22	15	14	12	20.2	22.1
West South Central.....	8	12	8	11	10	-34.7	-4.9
Arkansas.....	*	*	1	*	4	14.3	-53.3
Louisiana.....	6	10	3	8	*	-38.8	132.1
Oklahoma.....	*	*	*	*	1	20.7	-14.9
Texas.....	1	2	3	3	5	-21.1	-30.2
Mountain.....	21	13	18	3	*	60.9	162.1
Arizona.....	1	*	*	*	*	NM	105.3
Colorado.....	16	12	15	3	*	32.1	165.8
Idaho.....	*	*	3	*	—	-94.8	—
Montana.....	2	—	*	*	—	—	—
Nevada.....	*	—	—	—	—	—	—
New Mexico.....	*	*	*	*	*	-71.7	5.0
Utah.....	*	*	*	*	—	-93.1	—
Wyoming.....	1	—	*	*	*	—	172.1
Pacific.....	12	12	7	10	*	2.1	246.9
Alaska.....	—	—	*	—	—	—	—
California.....	*	*	*	*	*	NM	53.5
Oregon.....	12	12	7	9	—	-1.4	—
Washington.....	—	*	—	—	*	-100.0	—
Pennsylvania,							
Bituminous.....	55,552	50,464	50,861	50,467	57,979	10.1	-1.1
New England.....	1,021	1,009	1,025	989	1,124	1.1	-2.4
Connecticut.....	227	516	12	*	131	-56.0	14.8
Maine.....	—	32	24	2	19	-100.0	—
Massachusetts.....	202	4	292	330	294	NM	-8.9
New Hampshire.....	592	458	698	656	681	29.3	-3.5
Vermont.....	*	—	—	*	—	—	—
Middle Atlantic.....	40,063	37,612	38,188	37,417	43,559	6.5	-2.1
New Jersey.....	538	558	537	153	15	-3.6	143.8
New York.....	4,125	3,675	5,551	6,228	8,532	12.3	-16.6
Pennsylvania.....	35,400	33,379	32,100	31,036	35,012	6.0	.3
East North Central.....	8,460	6,682	6,288	6,502	7,466	26.6	3.2
Illinois.....	—	—	206	43	69	—	—
Indiana.....	559	222	629	505	380	152.1	10.2
Michigan.....	2,075	2,650	1,756	1,607	1,862	-21.7	2.7
Ohio.....	4,463	2,707	2,769	3,848	3,567	64.9	5.8
Wisconsin.....	1,362	1,103	928	500	1,589	23.5	-3.8
West North Central.....	248	228	46	205	191	8.7	6.8
Iowa.....	225	227	46	103	162	-9	8.5
Minnesota.....	23	—	—	—	28	—	-4.9
Missouri.....	—	1	—	102	1	-100.0	—
North Dakota.....	—	—	—	*	—	—	—
South Atlantic.....	3,968	3,377	3,783	3,955	4,090	17.5	-8

See footnotes at end of table.

Table 61. Domestic Distribution of U.S. Coal by Coal-Producing Region and State, and Destination Census Division and State, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Producing Region and State, and Destination Census Division and State	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Pennsylvania,							
Bituminous (Continued)							
Delaware	528	452	314	252	226	16.7	23.6
Florida	-	-	135	-	-	-	-
Maryland	1,602	1,741	2,278	2,372	2,437	-8.0	-9.9
South Carolina	-	6	-	-	1	-100.0	-
Virginia	5	20	55	29	5	-74.2	-1.3
West Virginia	1,833	1,157	1,002	1,302	1,421	58.5	6.6
East South Central	1,144	1,078	993	772	83	6.1	92.5
Alabama	6	39	34	46	1	-85.3	83.1
Kentucky	500	363	460	225	31	37.5	99.7
Mississippi	-	-	-	3	6	-	-
Tennessee	639	675	500	498	46	-5.4	93.5
West South Central	195	6	-	*	*	NM	NM
Louisiana	195	-	-	-	-	-	-
Texas	*	6	-	*	*	-94.2	65.8
Mountain	230	215	183	240	290	7.3	-5.6
Utah	230	215	183	240	290	7.3	-5.6
Tennessee	3,052	2,627	2,547	2,577	2,835	16.2	1.9
East North Central	*	*	1	*	24	-33.5	-72.3
Illinois	-	-	1	-	-	-	-
Indiana	-	-	-	*	3	-	-
Michigan	-	*	-	-	21	-100.0	-
Ohio	*	*	-	-	-	-5.4	-
South Atlantic	141	251	301	303	387	-43.5	-22.2
Florida	-	39	40	-	-	-100.0	-
Georgia	141	189	202	204	259	-25.4	-14.1
North Carolina	1	23	58	96	114	-97.2	-72.8
South Carolina	-	-	-	3	13	-	-
Virginia	-	-	-	*	1	-	-
East South Central	2,902	2,363	2,223	2,215	2,376	22.8	5.1
Alabama	331	936	710	592	734	-64.6	-18.0
Kentucky	23	5	135	122	39	367.4	-12.9
Tennessee	2,548	1,422	1,378	1,501	1,603	79.2	12.3
Virginia	22,776	24,283	26,866	27,388	28,504	-6.2	-5.4
New England	18	19	-	-	281	-6.4	-49.8
Maine	-	-	-	-	44	-	-
Massachusetts	8	-	-	-	237	-	-57.4
New Hampshire	10	19	-	-	-	-47.4	-
Middle Atlantic	2,045	2,311	1,490	2,073	2,957	-11.5	-8.8
New Jersey	601	635	190	359	734	-5.4	-4.9
New York	146	362	156	108	96	-59.8	10.9
Pennsylvania	1,299	1,314	1,143	1,607	2,127	-1.2	-11.6
East North Central	3,237	3,557	2,455	3,475	3,794	-9.0	-3.9
Illinois	583	578	302	260	478	.8	5.1
Indiana	2,290	2,395	1,202	2,045	2,240	-4.4	.5
Michigan	25	83	376	188	68	-69.9	-22.3
Ohio	331	493	488	875	940	-32.8	-23.0
Wisconsin	9	9	86	108	68	1.0	-39.4
West North Central	-	8	-	-	*	-100.0	-
Missouri	-	8	-	-	-	-100.0	-
North Dakota	-	-	-	-	*	-	-
South Atlantic	13,507	14,600	18,898	18,553	16,839	-7.5	-5.4
Delaware	166	152	203	155	208	9.3	-5.5
Florida	549	377	531	457	451	45.4	5.0
Georgia	1,785	2,064	3,038	3,496	2,779	-13.5	-10.5
Maryland	1	392	90	8	79	-99.8	-70.3
North Carolina	1,883	4,056	5,634	5,867	5,207	-53.6	-22.4
South Carolina	1,605	1,468	1,604	1,663	1,356	9.4	4.3
Virginia	7,231	5,657	6,867	6,076	6,082	27.8	4.4
West Virginia	287	433	930	832	677	-33.8	-19.3
East South Central	3,581	3,413	3,658	3,026	3,432	4.9	1.1
Alabama	1,036	1,083	1,156	887	1,017	-4.3	.5
Kentucky	3	142	41	1	*	-98.2	266.9
Mississippi	13	-	-	-	-	-	-
Tennessee	2,529	2,187	2,462	2,138	2,415	15.6	1.2

See footnotes at end of table.

Table 61. Domestic Distribution of U.S. Coal by Coal-Producing Region and State, and Destination Census Division and State, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Producing Region and State, and Destination Census Division and State	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Virginia (Continued)							
West South Central.....	13	21	-	2	2	-38.9	55.8
Louisiana.....	-	21	-	-	-	-100.0	-
Texas.....	13	-	-	2	2	-	55.8
Mountain.....	332	313	320	103	192	6.3	14.7
Colorado.....	-	-	-	*	-	-	-
Utah.....	332	313	320	103	192	6.3	14.7
West Virginia, Northern	40,398	36,073	39,985	34,573	44,093	12.0	-2.2
New England.....	1,070	918	1,086	1,002	2,776	16.6	-21.2
Connecticut.....	683	572	166	-	*	19.3	NM
Maine.....	13	9	-	-	-	41.7	-
Massachusetts.....	53	113	648	613	2,379	-53.0	-61.4
New Hampshire.....	322	225	272	389	397	43.4	-5.1
Middle Atlantic.....	14,276	13,740	12,566	9,769	13,804	3.9	.8
New Jersey.....	1,530	1,182	1,096	1,234	1,213	29.4	6.0
New York.....	4,140	4,040	3,079	1,336	2,530	2.5	13.1
Pennsylvania.....	8,606	8,518	8,391	7,200	10,061	1.0	-3.8
East North Central.....	5,410	2,887	5,924	4,220	5,803	87.4	-1.7
Illinois.....	9	51	23	44	-	-82.4	-
Indiana.....	479	38	1,060	216	70	NM	61.6
Michigan.....	640	437	392	113	114	46.4	54.0
Ohio.....	3,966	1,977	4,098	3,659	5,365	100.6	-7.3
Wisconsin.....	317	384	350	188	254	-17.6	5.7
West North Central.....	*	3	12	54	9	-99.3	-77.6
Iowa.....	-	-	2	-	-	-	-
Minnesota.....	-	3	10	-	9	-100.0	-
Missouri.....	-	-	-	54	-	-	-
North Dakota.....	*	-	-	-	-	-	-
South Atlantic.....	17,820	17,213	19,270	17,772	20,988	3.5	-4.0
Delaware.....	449	737	969	1,096	1,111	-39.0	-20.3
District of Columbia.....	6	5	10	12	6	12.9	2.1
Florida.....	551	259	449	580	452	112.5	5.1
Maryland.....	4,773	3,341	3,443	4,314	3,466	42.9	8.3
North Carolina.....	13	-	7	-	*	-	143.0
South Carolina.....	3	-	1	-	-	-	-
Virginia.....	66	30	75	306	243	121.3	-27.8
West Virginia.....	11,959	12,841	14,316	11,464	15,710	-6.9	-6.6
East South Central.....	1,522	1,178	492	749	167	29.2	73.9
Alabama.....	419	604	34	27	-	-30.7	-
Kentucky.....	1,026	527	160	130	4	94.4	293.8
Mississippi.....	-	-	5	5	4	-	-
Tennessee.....	78	46	293	589	159	67.9	-16.3
West South Central.....	203	-	368	154	-	-	-
Louisiana.....	203	-	368	154	-	-	-
Mountain.....	-	*	-	-	-	-100.0	-
Nevada.....	-	*	-	-	-	-100.0	-
Pacific.....	-	-	-	*	*	-	-
California.....	-	-	-	*	*	-	-
West Virginia, Southern	86,757	84,793	82,794	68,086	68,824	2.3	6.0
New England.....	1,853	1,404	1,351	917	1,109	32.0	13.7
Connecticut.....	24	-	-	106	21	-	4.1
Maine.....	13	-	*	14	20	-	-10.5
Massachusetts.....	1,792	1,330	1,351	739	971	34.8	16.5
New Hampshire.....	24	74	-	58	97	-67.7	-29.5
Rhode Island.....	-	-	-	*	-	-	-
Vermont.....	-	-	*	-	-	-	-
Middle Atlantic.....	7,391	7,170	6,738	6,965	5,160	3.1	9.4
New Jersey.....	216	165	260	343	250	30.7	-3.6
New York.....	1,545	1,466	1,345	1,860	1,265	5.4	5.1
Pennsylvania.....	5,630	5,538	5,133	4,763	3,644	1.6	11.5
East North Central.....	30,404	28,905	27,503	22,906	25,560	5.2	4.4
Illinois.....	1,841	1,400	1,403	1,971	1,472	31.5	5.8
Indiana.....	4,809	5,142	4,918	3,401	4,920	-6.5	-6
Michigan.....	4,869	4,416	5,903	4,048	6,120	10.3	-5.6
Ohio.....	18,770	17,566	14,802	12,485	12,457	6.8	10.8

See footnotes at end of table.

Table 61. Domestic Distribution of U.S. Coal by Coal-Producing Region and State, and Destination Census Division and State, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Producing Region and State, and Destination Census Division and State	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
West Virginia,							
Southern (Continued)							
Wisconsin.....	115	381	478	1,002	592	-69.7	-33.5
West North Central.....	113	313	237	223	364	-64.0	-25.4
Iowa.....	44	119	70	69	77	-63.1	-13.0
Kansas.....	-	-	-	-	34	-	-
Minnesota.....	32	107	92	11	24	-70.0	7.3
Missouri.....	36	85	70	142	228	-58.3	-37.2
North Dakota.....	-	*	*	-	-	-100.0	-
South Dakota.....	1	2	6	-	-	-37.7	-
South Atlantic.....	37,986	36,164	36,045	26,459	28,512	5.0	7.4
Delaware.....	551	485	621	617	361	13.7	11.1
District of Columbia.....	17	-	24	23	27	-	-10.8
Florida.....	1,123	1,341	1,372	817	1,010	-16.3	2.7
Georgia.....	4,064	4,159	4,106	2,958	2,477	-2.3	13.2
Maryland.....	3,132	3,209	2,855	1,376	2,296	-2.4	8.1
North Carolina.....	8,274	7,169	6,910	6,167	7,963	15.4	1.0
South Carolina.....	347	257	394	107	121	34.9	30.0
Virginia.....	3,217	3,367	3,188	2,971	3,323	-4.4	-8
West Virginia.....	17,261	16,177	16,575	11,423	10,934	6.7	12.1
East South Central.....	8,677	10,433	10,551	10,095	7,054	-16.8	5.3
Alabama.....	2,922	3,487	4,392	3,736	2,362	-16.2	5.5
Kentucky.....	4,250	5,330	4,744	4,704	3,755	-20.3	3.1
Mississippi.....	24	44	93	87	34	-45.9	-8.3
Tennessee.....	1,482	1,571	1,322	1,569	904	-5.7	13.1
West South Central.....	81	48	60	49	22	67.7	37.8
Louisiana.....	-	-	4	2	-	-	-
Oklahoma.....	77	48	56	48	22	58.4	35.9
Texas.....	4	-	1	-	-	-	-
Mountain.....	18	206	212	135	-	-91.0	-
Idaho.....	-	-	*	-	-	-	-
Utah.....	18	206	211	135	-	-91.0	-
Pacific.....	28	2	1	*	-	NM	-
California.....	-	-	-	*	-	-	-
Oregon.....	2	2	1	-	-	-17.2	-
Washington.....	26	-	-	-	-	-	-
Interior Total.....	165,668	162,947	175,622	166,763	193,400	1.7	-3.8
Arkansas.....	7	11	28	25	29	-39.2	-30.4
New England.....	-	-	-	-	13	-	-
Vermont.....	-	-	-	-	13	-	-
West North Central.....	-	-	4	8	11	-	-
Missouri.....	-	-	4	8	11	-	-
West South Central.....	7	11	24	17	5	-39.2	7.1
Arkansas.....	7	11	13	12	-	-39.2	-
Oklahoma.....	-	-	*	5	5	-	-
Texas.....	-	-	12	-	-	-	-
Illinois.....	45,190	45,170	51,737	41,330	57,670	*	-5.9
New England.....	-	*	-	-	-	-100.0	-
Connecticut.....	-	*	-	-	-	-100.0	-
Middle Atlantic.....	*	*	*	*	*	-80.0	-9.9
New Jersey.....	*	*	-	-	*	-63.6	-35.4
New York.....	*	*	*	*	*	-91.5	-29.5
Pennsylvania.....	*	*	*	-	-	-50.0	-
East North Central.....	25,316	25,629	28,299	20,483	28,821	-1.2	-3.2
Illinois.....	16,052	15,587	17,517	15,206	18,167	3.0	-3.0
Indiana.....	8,178	8,559	9,574	4,541	9,595	-4.4	-3.9
Michigan.....	59	70	51	-	6	-15.0	76.9
Ohio.....	18	1	18	-	-	NM	-
Wisconsin.....	1,008	1,412	1,139	736	1,053	-28.6	-1.1
West North Central.....	5,347	6,270	9,448	7,783	13,499	-14.7	-20.7
Iowa.....	694	1,216	1,535	1,534	1,175	-42.9	-12.3
Kansas.....	149	128	193	179	640	16.3	-30.5
Minnesota.....	100	111	179	43	58	-9.8	14.4
Missouri.....	4,403	4,815	7,541	6,027	11,625	-8.5	-21.5
North Dakota.....	-	-	-	*	-	-	-
South Atlantic.....	7,255	6,651	8,403	8,137	10,485	9.1	-8.8

See footnotes at end of table.

Table 61. Domestic Distribution of U.S. Coal by Coal-Producing Region and State, and Destination Census Division and State, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Producing Region and State, and Destination Census Division and State	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Illinois (Continued)							
Florida	6,052	6,056	5,846	4,782	5,529	-0.1	2.3
Georgia	1,204	584	2,557	3,355	4,955	106.0	-29.8
Maryland	-	5	-	-	-	-100.0	-
North Carolina	-	*	-	-	-	-100.0	-
South Carolina	-	-	-	-	1	-	-
Virginia	*	*	-	*	-	-81.8	-
West Virginia	-	6	*	-	-	-100.0	-
East South Central	7,130	6,510	5,453	4,823	4,780	9.5	10.5
Alabama	2,155	1,146	750	401	632	88.1	35.9
Kentucky	1	274	343	535	7	-99.7	-39.8
Mississippi	1,749	1,304	1,164	1,106	1,879	34.1	-1.8
Tennessee	3,225	3,787	3,195	2,780	2,261	-14.8	9.3
West South Central	86	86	46	58	81	.5	1.4
Arkansas	76	76	30	37	81	.1	-1.7
Louisiana	-	-	-	21	-	-	-
Oklahoma	10	10	16	-	-	3.1	-
Mountain	40	-	-	-	-	-	-
Colorado	40	-	-	-	-	-	-
Indiana	29,664	25,625	30,477	29,475	31,216	15.8	-1.3
New England	*	-	*	21	-	-	-
Connecticut	*	-	*	-	-	-	-
Massachusetts	-	-	-	21	-	-	-
East North Central	26,318	22,461	27,088	26,347	27,677	17.2	-1.3
Illinois	1,444	963	1,597	1,562	1,021	50.0	9.1
Indiana	24,309	21,185	24,733	23,913	24,655	14.8	-3
Michigan	181	180	135	184	338	.3	-14.5
Ohio	34	26	36	60	135	30.3	-29.0
Wisconsin	350	106	587	628	1,528	228.4	-30.8
West North Central	655	454	973	1,249	756	44.1	-3.5
Iowa	638	435	426	646	746	46.8	-3.8
Kansas	-	-	-	18	-	-	-
Minnesota	-	-	43	-	-	-	-
Missouri	17	19	504	585	11	-14.7	11.7
South Atlantic	-	-	19	264	548	-	-
Florida	-	-	-	96	-	-	-
Georgia	-	-	19	153	548	-	-
Virginia	-	-	-	15	-	-	-
East South Central	2,677	2,586	2,313	1,506	2,071	3.5	6.6
Alabama	26	1	56	60	127	NM	-32.5
Kentucky	2,610	2,466	2,219	1,313	1,694	5.8	11.4
Mississippi	-	-	-	-	3	-	-
Tennessee	41	119	38	132	247	-65.6	-36.2
West South Central	6	1	4	1	-	NM	-
Oklahoma	4	-	3	1	-	-	-
Texas	2	1	*	-	-	140.9	-
Iowa	-	-	46	175	287	-	-
West North Central	-	-	46	175	287	-	-
Iowa	-	-	46	175	287	-	-
Kansas	245	291	282	345	354	-15.9	-8.8
West North Central	233	291	282	345	345	-19.9	-9.3
Kansas	164	160	165	167	165	2.3	-1
Missouri	69	131	117	178	181	-47.1	-21.3
West South Central	12	-	-	-	-	-	-
Oklahoma	12	-	-	-	-	-	-
Kentucky, Western	34,821	32,990	34,729	35,151	41,453	5.5	-4.3
Middle Atlantic	-	-	*	*	*	-	-
Pennsylvania	-	-	*	*	*	-	-
East North Central	1,016	542	2,762	4,169	4,346	87.7	-30.5
Illinois	119	-	192	659	214	-	-13.7
Indiana	680	243	2,214	3,229	3,275	180.3	-32.5
Michigan	-	-	12	28	8	-	-
Ohio	31	103	180	146	514	-70.3	-50.6
Wisconsin	187	196	165	108	336	-4.7	-13.7

See footnotes at end of table.

Table 61. Domestic Distribution of U.S. Coal by Coal-Producing Region and State, and Destination Census Division and State, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Producing Region and State, and Destination Census Division and State	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Kentucky, Western (Continued)							
West North Central.....	237	101	1,170	352	896	136.0	-28.3
Iowa.....	211	75	377	217	271	180.3	-6.1
Minnesota.....	22	19	26	32	27	13.0	-5.7
Missouri.....	5	6	766	102	598	-16.6	-69.4
South Atlantic.....	3,254	2,375	2,709	3,040	5,260	37.0	-11.3
Florida.....	3,254	2,375	2,706	3,039	3,910	37.0	-4.5
Georgia.....	-	-	-	-	1,350	-	-
North Carolina.....	-	-	*	-	-	-	-
South Carolina.....	-	-	*	-	-	-	-
Virginia.....	*	-	-	-	*	-	-40.8
West Virginia.....	-	-	3	1	*	-	-
East South Central.....	29,605	29,927	28,048	27,512	30,682	-1.1	-9
Alabama.....	3,142	1,717	2,038	1,761	2,310	83.0	8.0
Kentucky.....	16,375	17,488	16,401	17,990	17,455	-6.4	-1.6
Mississippi.....	107	-	-	10	190	-	-13.4
Tennessee.....	9,981	10,723	9,609	7,751	10,727	-6.9	-1.8
West South Central.....	657	13	8	12	204	NM	34.0
Arkansas.....	11	13	8	12	8	-14.9	8.2
Louisiana.....	646	-	-	-	196	-	34.8
Louisiana.....	3,222	3,426	3,463	3,103	3,208	-6.0	.1
West North Central.....	-	-	-	*	-	-	-
Missouri.....	-	-	-	*	-	-	-
West South Central.....	3,222	3,426	3,463	3,103	3,208	-6.0	.1
Louisiana.....	3,222	3,426	3,463	3,103	3,208	-6.0	.1
Missouri.....	846	464	679	638	2,795	82.3	-25.8
West North Central.....	846	464	679	614	2,783	82.3	-25.8
Kansas.....	345	91	77	23	54	278.3	59.0
Missouri.....	501	373	602	592	2,729	34.3	-34.6
West South Central.....	-	-	-	2	-	-	-
Oklahoma.....	-	-	-	2	-	-	-
Oklahoma.....	2,136	2,158	1,925	2,297	1,940	-1.0	2.4
West North Central.....	63	31	27	57	83	98.6	-6.8
Kansas.....	63	31	22	41	73	100.1	-3.7
Missouri.....	-	*	5	16	10	-100.0	-
East South Central.....	-	2	-	-	-	-100.0	-
Kentucky.....	-	2	-	-	-	-100.0	-
West South Central.....	2,066	2,121	1,896	2,240	1,857	-2.6	2.7
Arkansas.....	170	159	205	196	130	7.1	6.9
Oklahoma.....	1,712	1,790	1,532	1,869	1,601	-4.4	1.7
Texas.....	184	171	159	175	126	7.5	10.0
Pacific.....	-	-	*	*	-	-	-
California.....	-	-	*	*	-	-	-
Texas.....	49,538	52,812	52,256	54,224	54,447	-6.2	-2.3
West South Central.....	49,538	52,812	52,256	54,224	54,447	-6.2	-2.3
Texas.....	49,538	52,812	52,256	54,224	54,447	-6.2	-2.3
Western Total.....	428,297	420,132	398,402	364,083	339,676	1.9	6.0
Alaska.....	697	815	789	855	797	-14.5	-3.3
Pacific.....	697	815	789	855	797	-14.5	-3.3
Alaska.....	697	815	789	855	797	-14.5	-3.3
Arizona.....	10,970	11,783	12,011	12,138	12,418	-6.9	-3.0
Mountain.....	10,970	11,783	12,011	12,138	12,418	-6.9	-3.0
Arizona.....	6,499	6,956	7,580	7,566	7,441	-6.6	-3.3
Nevada.....	4,470	4,827	4,431	4,572	4,977	-7.4	-2.6
California.....	-	-	-	-	142	-	-
Pacific.....	-	-	-	-	142	-	-
California.....	-	-	-	-	142	-	-
Colorado.....	23,990	24,734	24,059	20,338	18,195	-3.0	7.2
East North Central.....	1,366	2,333	2,357	2,471	1,322	-41.4	.8
Illinois.....	640	1,628	1,439	1,246	518	-60.7	5.4

See footnotes at end of table.

Table 61. Domestic Distribution of U.S. Coal by Coal-Producing Region and State, and Destination Census Division and State, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Producing Region and State, and Destination Census Division and State	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Colorado (Continued)							
Indiana.....	-	20	457	978	794	-100.0	-
Michigan.....	-	44	-	-	-	-100.0	-
Wisconsin.....	726	641	462	246	10	13.3	189.8
West North Central.....	3,218	3,109	2,194	871	1,013	3.5	33.5
Iowa.....	591	550	171	135	122	7.6	48.3
Kansas.....	1,493	1,436	1,148	90	298	3.9	49.6
Minnesota.....	-	13	23	8	-	-100.0	-
Missouri.....	1,077	1,005	775	566	526	7.2	19.6
Nebraska.....	56	104	77	72	67	-46.6	-4.3
South Atlantic.....	136	811	435	44	181	-83.2	-6.9
Florida.....	136	811	423	-	181	-83.2	-6.9
Georgia.....	-	-	11	44	-	-	-
West Virginia.....	-	-	2	-	-	-	-
East South Central.....	3,817	2,797	2,038	711	-	36.5	-
Kentucky.....	260	1,098	710	-	-	-76.3	-
Mississippi.....	519	963	735	170	-	-46.1	-
Tennessee.....	3,038	736	593	541	-	312.6	-
West South Central.....	2,443	2,258	2,563	2,628	2,250	8.2	2.1
Oklahoma.....	-	31	26	121	-	-100.0	-
Texas.....	2,443	2,228	2,537	2,507	2,250	9.6	2.1
Mountain.....	12,861	13,353	14,362	13,497	13,369	-3.7	-1.0
Arizona.....	355	105	219	117	226	237.0	12.0
Colorado.....	10,704	11,820	12,035	11,181	11,241	-9.4	-1.2
Idaho.....	-	3	-	-	-	-100.0	-
Nevada.....	132	161	306	514	169	-18.0	-5.9
New Mexico.....	88	97	84	84	69	-9.9	6.0
Utah.....	1,204	1,113	1,714	1,598	1,604	8.1	-6.9
Wyoming.....	378	53	4	3	60	NM	58.2
Pacific.....	131	37	73	80	60	251.8	21.4
California.....	-	1	22	33	24	-100.0	-
Oregon.....	94	-	-	-	-	-	-
Washington.....	37	36	52	47	37	2.3	.4
Montana	37,770	39,362	41,672	35,795	38,804	-4.0	-.7
East North Central.....	15,814	16,582	17,875	15,841	15,717	-4.6	.1
Illinois.....	2,162	2,713	4,338	3,295	3,013	-20.3	-8.0
Indiana.....	869	720	749	433	451	20.6	17.8
Michigan.....	9,806	11,014	10,481	10,055	10,376	-11.0	-1.4
Ohio.....	26	-	-	-	-	-	-
Wisconsin.....	2,950	2,135	2,307	2,057	1,878	38.2	12.0
West North Central.....	11,622	11,338	10,668	9,411	9,152	2.5	6.1
Iowa.....	-	2	*	1	-	-100.0	-
Minnesota.....	9,791	10,199	10,038	8,852	8,566	-4.0	3.4
Missouri.....	-	6	-	-	-	-100.0	-
Nebraska.....	113	205	71	136	142	-44.9	-5.5
North Dakota.....	417	469	559	422	444	-11.0	-1.6
South Dakota.....	1,301	457	-	-	-	184.6	-
East South Central.....	2,226	1,234	1,314	178	84	80.4	127.0
Mississippi.....	2,226	1,234	1,314	178	82	80.4	128.1
Tennessee.....	-	-	-	-	2	-	-
Mountain.....	7,995	9,611	10,718	9,233	11,276	-16.8	-8.2
Colorado.....	26	63	89	86	106	-59.1	-29.8
Montana.....	7,844	9,477	10,581	9,115	11,159	-17.2	-8.4
Wyoming.....	125	71	49	31	11	75.0	82.5
Pacific.....	113	583	1,097	1,108	2,549	-80.7	-54.2
Oregon.....	-	-	-	355	1,835	-	-
Washington.....	113	583	1,097	753	715	-80.7	-37.0
New Mexico	25,035	25,640	28,540	27,942	24,823	-2.4	.2
East North Central.....	732	1,591	1,495	1,392	590	-54.0	5.5
Wisconsin.....	732	1,591	1,495	1,392	590	-54.0	5.5
West North Central.....	92	-	-	-	-	-	-
Nebraska.....	92	-	-	-	-	-	-
West South Central.....	334	160	296	350	216	109.1	11.5
Arkansas.....	1	-	-	-	-	-	-
Oklahoma.....	17	-	-	5	-	-	-
Texas.....	316	160	296	345	216	97.7	10.0

See footnotes at end of table.

Table 61. Domestic Distribution of U.S. Coal by Coal-Producing Region and State, and Destination Census Division and State, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Producing Region and State, and Destination Census Division and State	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
New Mexico (Continued)							
Mountain.....	23,877	23,889	26,749	26,201	24,005	*	-0.1
Arizona.....	8,860	9,259	11,284	11,263	9,175	-4.3	-9
Colorado.....	9	-	-	-	-	-	-
New Mexico.....	15,009	14,630	15,464	14,938	14,829	2.6	.3
Pacific.....	-	-	-	-	12	-	-
California.....	-	-	-	-	12	-	-
North Dakota.....	30,025	30,118	32,056	32,372	31,702	-3	-1.3
East North Central.....	-	-	*	*	-	-	-
Wisconsin.....	-	-	*	*	-	-	-
West North Central.....	30,025	30,113	32,055	32,367	31,702	-3	-1.3
North Dakota.....	30,025	28,838	29,731	30,215	29,573	4.1	.4
South Dakota.....	-	1,276	2,325	2,153	2,129	-100.0	-
Mountain.....	-	-	-	*	-	-	-
Montana.....	-	-	-	*	-	-	-
Utah.....	18,563	21,591	20,527	19,283	18,792	-14.0	-3
New England.....	-	17	-	-	-	-100.0	-
Connecticut.....	-	17	-	-	-	-100.0	-
Middle Atlantic.....	-	20	68	-	-	-100.0	-
Pennsylvania.....	-	20	68	-	-	-100.0	-
East North Central.....	2,650	1,932	656	421	233	37.1	83.6
Illinois.....	2,473	1,776	369	207	233	39.2	80.4
Indiana.....	-	-	178	204	-	-	-
Michigan.....	44	76	66	-	-	-41.8	-
Ohio.....	-	-	-	*	-	-	-
Wisconsin.....	133	81	43	10	-	65.0	-
West North Central.....	330	395	414	382	80	-16.4	42.7
Kansas.....	-	*	2	-	-	-100.0	-
Minnesota.....	-	1	-	-	-	-100.0	-
Missouri.....	330	393	412	382	79	-16.2	42.7
Nebraska.....	-	-	-	*	*	-	-
South Atlantic.....	-	-	-	159	32	-	-
Florida.....	-	-	-	155	32	-	-
West Virginia.....	-	-	-	4	-	-	-
East South Central.....	1,421	1,095	218	-	-	29.7	-
Tennessee.....	1,421	1,095	218	-	-	29.7	-
West South Central.....	-	4	33	-	-	-100.0	-
Texas.....	-	4	33	-	-	-100.0	-
Mountain.....	11,791	15,163	15,793	15,456	15,289	-22.2	-6.3
Arizona.....	69	80	86	89	101	-13.6	-9.2
Colorado.....	2	6	4	14	34	-61.6	-50.0
Idaho.....	65	141	59	95	61	-54.1	1.8
Montana.....	-	9	29	42	42	-100.0	-
Nevada.....	2,265	2,150	2,027	1,781	1,979	5.4	3.4
Utah.....	9,389	12,755	13,586	13,418	13,035	-26.4	-7.9
Wyoming.....	*	22	2	18	37	-98.5	-69.3
Pacific.....	2,366	2,965	3,317	2,843	3,143	-20.2	-6.8
California.....	2,240	2,838	3,074	2,575	2,777	-21.1	-5.2
Oregon.....	*	2	127	123	113	-71.9	-75.2
Washington.....	125	126	115	145	253	-4	-16.1
Washington.....	4,526	4,756	4,731	4,621	5,020	-4.8	-2.6
Pacific.....	4,526	4,756	4,731	4,621	5,020	-4.8	-2.6
Oregon.....	3	2	-	-	-	19.1	-
Washington.....	4,523	4,754	4,731	4,621	5,020	-4.9	-2.6
Wyoming.....	276,723	261,333	234,016	210,739	188,983	5.9	10.0
New England.....	-	-	*	14	-	-	-
Connecticut.....	-	-	*	-	-	-	-
Massachusetts.....	-	-	-	14	-	-	-
Middle Atlantic.....	-	-	-	-	*	-	-
Pennsylvania.....	-	-	-	-	*	-	-
East North Central.....	62,041	55,223	42,685	37,648	30,920	12.3	19.0
Illinois.....	17,734	15,480	9,779	7,593	4,417	14.6	41.5
Indiana.....	18,079	18,306	15,417	12,635	11,804	-1.2	11.3
Michigan.....	8,551	7,543	4,267	4,487	2,948	13.4	30.5

See footnotes at end of table.

Table 61. Domestic Distribution of U.S. Coal by Coal-Producing Region and State, and Destination Census Division and State, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Producing Region and State, and Destination Census Division and State	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Wyoming (Continued)							
Ohio.....	37	-	-	-	124	-	-26.2
Wisconsin.....	17,640	13,895	13,221	12,934	11,627	27.0	11.0
West North Central.....	82,593	77,051	67,523	61,641	52,269	7.2	12.1
Iowa.....	18,121	16,955	15,505	15,950	14,056	6.9	6.6
Kansas.....	11,772	14,243	16,490	16,484	13,526	-17.3	-3.4
Minnesota.....	8,569	8,816	9,911	9,093	8,385	-2.8	.5
Missouri.....	33,312	25,731	16,112	10,815	7,958	29.5	43.0
Nebraska.....	10,464	10,065	8,908	8,801	7,882	4.0	7.3
North Dakota.....	*	*	-	5	5	-61.7	-68.5
South Dakota.....	355	1,241	597	493	456	-71.4	-6.1
South Atlantic.....	7,409	7,432	5,836	938	12	-3	395.6
Florida.....	591	-	93	-	12	-	163.3
Georgia.....	6,818	6,796	4,914	726	-	.3	-
Maryland.....	-	636	829	213	-	-100.0	-
East South Central.....	4,010	2,970	594	317	156	35.0	125.3
Alabama.....	3,686	2,950	251	-	-	25.0	-
Kentucky.....	-	-	-	248	1	-	-
Mississippi.....	26	-	-	-	83	-	-25.0
Tennessee.....	298	20	342	68	72	NM	42.8
West South Central.....	86,413	82,918	80,246	76,692	72,339	4.2	4.5
Arkansas.....	14,614	14,033	12,184	10,826	11,571	4.1	6.0
Louisiana.....	9,209	10,309	11,215	11,133	10,039	-10.7	-2.1
Oklahoma.....	19,751	20,326	17,577	16,726	16,733	-2.8	4.2
Texas.....	42,839	38,250	39,270	38,007	33,995	12.0	5.9
Mountain.....	33,363	32,950	34,935	32,195	33,165	1.3	.1
Arizona.....	-	-	-	5	-	-	-
Colorado.....	6,124	5,602	5,132	5,538	4,952	9.3	5.4
Idaho.....	268	293	337	343	393	-8.4	-9.1
Montana.....	513	193	119	37	44	165.6	84.6
Nevada.....	204	342	1,014	753	802	-40.3	-29.0
Utah.....	1	*	-	-	586	NM	-78.9
Wyoming.....	26,253	26,521	28,334	25,519	26,388	-1.0	-.1
Pacific.....	894	2,775	2,198	1,271	120	-67.8	65.3
Oregon.....	894	1,485	2,197	1,270	114	-39.8	67.2
Washington.....	1	1,290	1	1	6	-99.9	-39.4
U.S. Total.....	967,693	940,423	949,843	883,934	897,267	2.9	1.9
New England.....	5,334	5,199	4,963	4,141	7,717	2.6	-8.8
Connecticut.....	1,602	1,955	976	695	1,003	-18.1	12.4
Maine.....	301	302	463	405	866	-4	-23.2
Massachusetts.....	2,475	2,157	2,538	1,840	4,634	14.8	-14.5
New Hampshire.....	951	780	978	1,192	1,189	21.9	-5.4
Rhode Island.....	3	3	3	3	5	21.2	-9.6
Vermont.....	2	3	5	6	20	-38.2	-45.8
Middle Atlantic.....	73,489	70,149	69,737	64,421	73,087	4.8	.1
New Jersey.....	2,927	2,936	2,163	2,169	2,433	-3	4.7
New York.....	11,459	10,705	11,664	10,950	13,977	7.0	-4.8
Pennsylvania.....	59,103	56,509	55,910	51,302	56,677	4.6	1.0
East North Central.....	228,473	212,105	214,903	196,343	201,713	7.7	3.2
Illinois.....	44,547	41,626	38,745	34,433	31,186	7.0	9.3
Indiana.....	62,741	59,476	63,589	54,452	60,970	5.5	.7
Michigan.....	33,186	33,928	33,487	30,041	30,363	-2.2	2.3
Ohio.....	61,713	54,310	56,850	56,755	58,716	13.6	1.3
Wisconsin.....	26,285	22,766	22,231	20,662	20,477	15.5	6.4
West North Central.....	136,573	130,836	126,407	116,337	113,921	4.4	4.6
Iowa.....	21,017	19,777	18,259	18,950	16,988	6.3	5.5
Kansas.....	13,987	16,091	18,097	17,002	14,801	-13.1	-1.4
Minnesota.....	18,679	19,488	20,498	18,166	17,224	-4.1	2.0
Missouri.....	40,064	32,821	27,278	19,921	24,207	22.1	13.4
Nebraska.....	10,726	10,377	9,055	9,011	8,093	3.4	7.3
North Dakota.....	30,444	29,307	30,290	30,642	30,022	3.9	.3
South Dakota.....	1,657	2,976	2,929	2,646	2,586	-44.3	-10.5
South Atlantic.....	161,026	151,954	161,029	141,701	145,219	6.0	2.6
Delaware.....	1,834	1,933	2,309	2,242	1,913	-5.1	-1.0
District of Columbia.....	23	6	47	51	50	309.2	-17.5
Florida.....	26,285	23,505	23,757	21,446	24,351	11.8	1.9
Georgia.....	29,074	29,730	30,497	25,101	24,242	-2.2	4.6

See footnotes at end of table.

Table 61. Domestic Distribution of U.S. Coal by Coal-Producing Region and State, and Destination Census Division and State, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Producing Region and State, and Destination Census Division and State	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
U.S. Total (Continued)							
Maryland	10,762	10,596	10,959	10,063	9,735	1.6	2.5
North Carolina	27,414	24,149	26,199	25,621	25,801	13.5	1.5
South Carolina	13,373	11,745	13,454	11,749	11,338	13.9	4.2
Virginia	16,214	15,225	16,735	16,084	14,915	6.5	2.1
West Virginia	36,047	35,065	37,071	29,343	32,874	2.8	2.3
East South Central	105,708	104,194	99,350	97,057	92,761	1.4	3.3
Alabama	33,057	31,440	30,210	28,698	28,741	5.1	3.6
Kentucky	34,438	37,382	35,636	35,461	33,497	-7.9	.7
Mississippi	5,702	4,516	4,446	3,421	3,965	26.3	9.5
Tennessee	32,510	30,856	29,057	29,477	26,559	5.4	5.2
West South Central	145,394	144,435	142,136	139,664	134,770	.7	1.9
Arkansas	14,918	14,317	12,501	11,094	11,807	4.2	6.0
Louisiana	13,526	14,267	15,844	14,524	13,539	-5.2	*
Oklahoma	21,584	22,210	19,210	18,777	18,362	-2.8	4.1
Texas	95,367	93,642	94,581	95,269	91,062	1.8	1.2
Mountain	101,497	107,497	115,311	109,200	110,007	-5.6	-2.0
Arizona	15,785	16,401	19,169	19,039	16,944	-3.8	-1.8
Colorado	16,920	17,502	17,274	16,821	16,333	-3.3	.9
Idaho	333	440	400	438	456	-24.2	-7.5
Montana	8,359	9,678	10,729	9,194	11,245	-13.6	-7.1
Nevada	7,072	7,479	7,777	7,621	7,926	-5.4	-2.8
New Mexico	15,097	14,727	15,549	15,022	14,899	2.5	.3
Utah	11,175	14,602	16,015	15,493	15,707	-23.5	-8.2
Wyoming	26,757	26,668	28,399	25,571	26,497	.3	.2
Pacific	8,790	11,962	12,228	10,791	11,844	-26.5	-7.2
Alaska	697	815	789	855	797	-14.5	-3.3
California	2,240	2,839	3,096	2,608	2,955	-21.1	-6.7
Oregon	1,028	1,518	2,347	1,761	2,062	-32.3	-16.0
Washington	4,825	6,790	5,996	5,567	6,030	-28.9	-5.4

* Data round to zero.

NM Not meaningful as value is greater than 500 percent.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-6, "Coal Distribution Report."

Table 62. Foreign Distribution of U.S. Coal by Major Coal-Exporting States and Destination, 1992-1996
(Thousand Short Tons)

Coal-Exporting State and Destination	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Alabama	4,864	6,032	4,529	5,888	5,931	-19.4	-4.8
Albania.....	-	-	-	-	21	-	-
Argentina.....	216	306	268	319	157	-29.5	8.3
Belgium & Luxembourg.....	703	574	627	866	861	22.3	-5.0
Brazil.....	566	564	42	193	-	.3	-
Bulgaria.....	208	128	35	109	-	63.2	-
China (Taiwan).....	-	-	-	42	45	-	-
Denmark.....	-	26	-	-	-	-100.0	-
Egypt.....	-	111	-	-	-	-100.0	-
France.....	-	-	*	-	-	-	-
Germany, FR.....	184	201	-	-	-	-8.0	-
Italy.....	659	930	565	429	506	-29.2	6.8
Japan.....	861	1,358	1,266	2,202	2,343	-36.6	-22.1
Morocco.....	-	-	-	39	-	-	-
Netherlands.....	73	276	88	-	-	-73.4	-
Romania.....	170	492	602	171	183	-65.5	-2.0
South Africa, Rep of.....	57	-	-	-	212	-	-28.0
Spain.....	52	48	27	-	-	8.4	-
Turkey.....	326	302	137	253	424	8.0	-6.4
United Kingdom.....	789	717	872	1,266	1,179	10.1	-9.6
Alaska	776	855	716	743	734	-9.2	1.4
Korea, Republic of.....	776	855	716	743	734	-9.2	1.4
Colorado	1,415	900	752	1,128	669	57.2	20.6
China (Taiwan).....	219	235	134	-	-	-6.5	-
Hong Kong.....	-	-	46	-	-	-	-
Israel.....	30	-	-	-	-	-	-
Japan.....	343	651	395	918	669	-47.3	-15.3
Korea, Republic of.....	65	-	177	209	-	-	-
Mexico.....	758	-	-	-	-	-	-
Turkey.....	-	14	-	-	-	-100.0	-
Illinois	1,886	2,699	236	670	1,242	-30.1	11.0
Belgium & Luxembourg.....	76	-	-	-	58	-	6.9
Brazil.....	1	-	-	-	298	-	-74.2
Denmark.....	364	516	-	-	45	-29.4	68.2
France.....	-	57	-	-	-	-100.0	-
Germany, FR.....	325	722	-	-	-	-54.9	-
Ireland.....	-	-	-	108	213	-	-
Italy.....	-	42	-	-	-	-100.0	-
Japan.....	66	49	236	109	53	35.0	5.8
Korea, Republic of.....	-	-	-	-	50	-	-
Morocco.....	103	775	-	452	350	-86.7	-26.3
Netherlands.....	120	-	-	-	-	-	-
Sweden.....	25	-	-	-	-	-	-
United Kingdom.....	805	538	-	-	175	49.7	46.4
Kentucky	9,143	9,695	7,167	9,521	14,036	-5.7	-10.2
Belgium & Luxembourg.....	67	366	472	493	1,242	-81.7	-51.8
Brazil.....	-	52	23	392	98	-100.0	-
Canada.....	1,178	777	1,099	1,416	2,078	51.5	-13.2
China (Taiwan).....	1,978	2,397	2,643	3,625	3,333	-17.5	-12.2
Denmark.....	-	-	-	33	172	-	-
Finland.....	4	-	-	2	-	-	-
France.....	548	262	146	665	1,812	108.6	-25.9
Germany, FR.....	-	187	-	-	-	-100.0	-
Iceland.....	119	76	7	-	31	56.3	40.0
Ireland.....	-	58	-	16	336	-100.0	-
Israel.....	-	217	-	-	-	-100.0	-
Italy.....	1,745	1,714	805	719	805	1.8	21.3
Jamaica.....	17	62	26	39	35	-73.0	-16.4
Japan.....	93	53	100	269	303	74.0	-25.6
Korea, Republic of.....	1,876	1,523	1,163	1,256	1,191	23.2	12.0
Netherlands.....	581	621	268	241	1,312	-6.5	-18.4
Norway.....	140	142	74	91	98	-1.4	9.3
Portugal.....	229	-	24	-	-	-	-
Saudi Arabia.....	22	-	-	-	-	-	-
Spain.....	-	231	-	-	98	-100.0	-

See footnotes at end of table.

Table 62. Foreign Distribution of U.S. Coal by Major Coal-Exporting States and Destination, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Exporting State and Destination	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Kentucky (Continued)							
Sweden	-	-	16	195	456	-	-
Turkey	-	197	-	-	151	-100.0	-
United Kingdom	548	758	301	70	447	-27.7	5.2
Yugoslavia, FR	-	-	-	-	38	-	-
Pennsylvania	9,246	8,279	6,301	5,508	6,440	11.7	9.5
Argentina	-	-	-	46	-	-	-
Belgium & Luxembourg	-	-	29	-	90	-	-
Brazil	261	380	338	156	148	-31.3	15.1
Bulgaria	-	-	-	71	73	-	-
Canada	1,050	713	844	597	1,599	47.4	-10.0
Chile	-	-	-	-	37	-	-
Costa Rica	-	-	-	-	*	-	-
Croatia	-	-	-	159	-	-	-
Denmark	801	1,589	508	187	1,441	-49.6	-13.7
Dominican Republic	50	18	65	59	157	172.7	-24.8
Finland	283	544	71	56	-	-48.1	-
France	89	9	-	188	184	NM	-16.7
Germany, FR	256	383	197	102	151	-33.3	14.0
Greece	491	-	-	-	-	-	-
Indonesia	-	-	-	-	*	-	-
Ireland	1,067	1,161	1,015	911	-	-8.0	-
Israel	1,068	995	922	940	1,090	7.4	-5
Italy	89	-	601	50	-	-	-
Japan	1,057	916	834	1,384	921	15.3	3.5
Korea, Republic of	195	109	214	91	-	78.4	-
Malaysia	-	-	-	-	*	-	-
Mexico	-	-	-	-	18	-	-
Morocco	173	-	-	-	-	-	-
Netherlands	732	593	261	-	2	23.5	349.7
Norway	30	28	14	30	48	5.1	-11.5
Panama	-	-	-	-	*	-	-
Paraguay	-	-	-	-	3	-	-
Portugal	592	472	378	467	302	25.5	18.3
Qatar	-	-	-	-	*	-	-
Saudi Arabia	-	-	-	*	-	-	-
South Africa, Rep of	112	-	-	-	-	-	-
Spain	-	18	-	-	-	-100.0	-
Surinam	-	-	-	*	*	-	-
Sweden	-	-	-	-	1	-	-
Trinidad & Tobago	-	-	-	1	2	-	-
Turkey	-	43	-	-	-	-100.0	-
United Arab Emirates	-	-	-	*	-	-	-
United Kingdom	851	299	-	*	-	184.9	-
Venezuela	1	9	11	15	39	-88.6	-59.5
Yugoslavia, FR	-	-	-	-	132	-	-
Utah	5,305	3,930	2,698	2,959	2,260	35.0	23.8
Canada	-	-	-	346	-	-	-
Chile	445	170	-	-	-	162.1	-
China (Taiwan)	648	323	321	849	721	100.4	-2.6
Hong Kong	-	-	-	-	359	-	-
Japan	4,058	3,000	2,377	1,764	1,180	35.3	36.2
Korea, Republic of	154	438	-	-	-	-64.7	-
Mexico	-	-	-	*	-	-	-
Virginia	13,432	9,742	11,683	14,251	17,224	37.9	-6.0
Algeria	206	166	269	344	534	24.1	-21.2
Argentina	-	-	53	52	-	-	-
Belgium & Luxembourg	1,078	764	884	1,147	2,284	41.2	-17.1
Brazil	1,228	1,091	1,218	1,741	2,252	12.5	-14.1
Bulgaria	-	-	-	242	172	-	-
Canada	387	445	786	1,229	1,331	-13.0	-26.5
China (Taiwan)	-	-	15	*	-	-	-
Croatia	-	-	-	251	-	-	-
Denmark	-	-	-	-	60	-	-
Egypt	835	333	436	234	239	150.7	36.8

See footnotes at end of table.

Table 62. Foreign Distribution of U.S. Coal by Major Coal-Exporting States and Destination, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Exporting State and Destination	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Virginia (Continued)							
France.....	910	625	563	737	915	45.7	-0.1
Germany, FR.....	-	68	9	50	37	-100.0	-
Italy.....	2,198	1,474	1,804	1,364	1,345	49.1	13.1
Japan.....	2,300	1,796	2,114	2,410	2,754	28.0	-4.4
Korea, Republic of.....	466	589	539	853	1,244	-20.9	-21.8
Netherlands.....	1,193	793	766	1,009	1,192	50.4	*
Portugal.....	145	105	91	-	284	38.0	-15.5
Romania.....	32	-	223	-	145	-	-31.3
South Africa, Rep of.....	76	-	-	-	-	-	-
Spain.....	1,370	847	1,297	1,682	1,339	61.7	.6
Sweden.....	185	115	37	-	-	60.9	-
Turkey.....	24	-	-	-	-	-	-
United Kingdom.....	798	531	579	905	1,054	50.3	-6.7
Yugoslavia, FR.....	-	-	-	-	44	-	-
West Virginia	42,044	44,321	36,205	33,159	50,806	-5.1	-4.6
Algeria.....	-	-	*	-	-	-	-
Argentina.....	-	-	35	132	169	-	-
Belgium & Luxembourg.....	2,182	2,020	2,312	2,209	1,785	8.0	5.1
Brazil.....	4,256	4,329	4,109	2,496	2,907	-1.7	10.0
Bulgaria.....	1,214	1,360	1,571	644	619	-10.8	18.3
Canada.....	7,222	5,784	5,644	4,108	8,911	24.9	-5.1
Chile.....	195	118	-	-	-	66.0	-
China (Taiwan).....	353	355	284	141	283	-7	5.7
Croatia.....	-	72	-	63	245	-100.0	-
Denmark.....	-	189	-	168	2,397	-100.0	-
Egypt.....	303	714	593	601	557	-57.5	-14.1
Finland.....	507	792	375	212	207	-36.0	25.0
France.....	3,676	4,408	3,514	3,400	6,311	-16.6	-12.6
Germany, FR.....	943	1,107	382	635	959	-14.9	-4
Iceland.....	-	-	-	-	8	-	-
India.....	11	-	-	-	-	-	-
Ireland.....	-	-	-	117	822	-	-
Israel.....	375	-	-	-	210	-	15.6
Italy.....	4,965	5,138	3,634	3,815	6,299	-3.4	-5.8
Jamaica.....	36	-	-	-	-	-	-
Japan.....	2,062	3,431	2,595	2,691	3,313	-39.9	-11.2
Korea, Republic of.....	1,050	1,013	523	318	-	3.7	-
Morocco.....	1,111	275	101	79	170	304.0	59.9
Netherlands.....	1,636	3,628	3,340	3,205	3,804	-54.9	-19.0
Nigeria.....	-	-	-	43	-	-	-
Norway.....	-	-	-	-	15	-	-
Portugal.....	1,128	1,390	674	1,144	962	-18.9	4.0
Romania.....	1,315	1,623	925	820	376	-19.0	36.7
Slovenia.....	-	-	-	-	69	-	-
South Africa, Rep of.....	947	946	771	577	408	.1	23.4
Spain.....	887	1,084	1,255	1,211	1,501	-18.1	-12.3
Sweden.....	882	1,352	886	603	819	-34.8	1.9
Turkey.....	1,655	1,560	1,468	1,370	1,429	6.1	3.7
United Kingdom.....	3,133	1,633	1,212	2,359	4,816	91.9	-10.2
Yugoslavia, FR.....	-	-	-	-	436	-	-
Wyoming	2,395	2,269	1,524	974	1,277	5.5	17.0
Canada.....	443	32	-	-	-	NM	-
Japan.....	-	-	-	*	-	-	-
Netherlands.....	63	-	-	-	-	-	-
Spain.....	1,889	2,237	1,524	974	1,277	-15.6	10.3
Major States Total	90,506	88,722	71,811	74,801	100,619	2.0	-2.6
Albania.....	-	-	-	-	21	-	-
Algeria.....	206	166	269	344	534	24.1	-21.2
Argentina.....	216	306	356	548	326	-29.5	-9.8
Belgium & Luxembourg.....	4,106	3,724	4,324	4,715	6,320	10.2	-10.2
Brazil.....	6,312	6,416	5,730	4,977	5,704	-1.6	2.6
Bulgaria.....	1,422	1,488	1,607	1,065	863	-4.4	13.3
Canada.....	10,280	7,750	8,373	7,696	13,919	32.6	-7.3
Chile.....	640	287	-	-	37	122.8	103.4

See footnotes at end of table.

Table 62. Foreign Distribution of U.S. Coal by Major Coal-Exporting States and Destination, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Exporting State and Destination	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Major States Total (Continued)							
China (Taiwan).....	3,197	3,310	3,397	4,656	4,382	-3.4	-7.6
Costa Rica.....	-	-	-	-	*	-	-
Croatia.....	-	72	-	473	245	-100.0	-
Denmark.....	1,165	2,320	508	388	4,116	-49.8	-27.1
Dominican Republic.....	50	18	65	59	157	172.7	-24.8
Egypt.....	1,138	1,158	1,029	834	796	-1.7	9.4
Finland.....	794	1,337	446	269	207	-40.6	39.9
France.....	5,223	5,362	4,223	4,990	9,222	-2.6	-13.3
Germany, FR.....	1,708	2,668	588	787	1,147	-36.0	10.5
Greece.....	491	-	-	-	-	-	-
Hong Kong.....	-	-	46	-	359	-	-
Iceland.....	119	76	7	-	39	56.3	32.3
India.....	11	-	-	-	-	-	-
Indonesia.....	-	-	-	-	*	-	-
Ireland.....	1,067	1,219	1,015	1,152	1,371	-12.4	-6.1
Israel.....	1,473	1,212	922	940	1,300	21.5	3.2
Italy.....	9,656	9,298	7,409	6,377	8,955	3.8	1.9
Jamaica.....	53	62	26	39	35	-15.6	11.1
Japan.....	10,840	11,254	9,918	11,747	11,537	-3.7	-1.5
Korea, Republic of.....	4,582	4,526	3,332	3,470	3,219	1.2	9.2
Malaysia.....	-	-	-	-	*	-	-
Mexico.....	758	-	-	*	18	-	156.3
Morocco.....	1,388	1,050	101	571	520	32.2	27.8
Netherlands.....	4,398	5,911	4,723	4,455	6,310	-25.6	-8.6
Nigeria.....	-	-	-	43	-	-	-
Norway.....	169	170	88	121	161	-3.3	1.2
Panama.....	-	-	-	-	*	-	-
Paraguay.....	-	-	-	-	3	-	-
Portugal.....	2,094	1,967	1,167	1,611	1,548	6.4	7.8
Qatar.....	-	-	-	-	*	-	-
Romania.....	1,517	2,115	1,750	991	705	-28.3	21.1
Saudi Arabia.....	22	-	-	*	-	-	-
Slovenia.....	-	-	-	-	69	-	-
South Africa, Rep of.....	1,192	946	771	577	620	26.0	17.8
Spain.....	4,197	4,465	4,103	3,867	4,215	-6.0	-1.1
Surinam.....	-	-	-	*	*	-	-
Sweden.....	1,091	1,466	939	798	1,276	-25.6	-3.8
Trinidad & Tobago.....	-	-	-	1	2	-	-
Turkey.....	2,005	2,116	1,606	1,623	2,003	-5.2	*
United Arab Emirates.....	-	-	-	*	-	-	-
United Kingdom.....	6,925	4,476	2,963	4,600	7,672	54.7	-2.5
Venezuela.....	1	9	11	15	39	-88.6	-59.5
Yugoslavia, FR.....	-	-	-	-	650	-	-
Other States Total	1,693	1,185	870	709	761	42.8	22.1
Brazil.....	-	188	184	295	-	-100.0	-
Canada.....	319	273	93	55	*	16.9	426.7
France.....	-	-	-	-	9	-	-
Ireland.....	80	-	-	-	10	-	68.5
Mexico.....	-	498	-	11	-	-100.0	-
Spain.....	-	-	153	-	53	-	-
United Kingdom.....	-	-	-	-	4	-	-
Unknown.....	1,294	226	439	348	685	471.6	17.3
U.S. Total	92,199	89,907	72,680	75,510	101,380	2.5	-2.3
Albania.....	-	-	-	-	21	-	-
Algeria.....	206	166	269	344	534	24.1	-21.2
Argentina.....	216	306	356	548	326	-29.5	-9.8
Belgium & Luxembourg.....	4,106	3,724	4,324	4,715	6,320	10.2	-10.2
Brazil.....	6,312	6,605	5,914	5,271	5,704	-4.4	2.6
Bulgaria.....	1,422	1,488	1,607	1,065	863	-4.4	13.3
Canada.....	10,599	8,023	8,467	7,751	13,919	32.1	-6.6
Chile.....	640	287	-	-	37	122.8	103.4
China (Taiwan).....	3,197	3,310	3,397	4,656	4,382	-3.4	-7.6
Costa Rica.....	-	-	-	-	*	-	-
Croatia.....	-	72	-	473	245	-100.0	-
Denmark.....	1,165	2,320	508	388	4,116	-49.8	-27.1

See footnotes at end of table.

Table 62. Foreign Distribution of U.S. Coal by Major Coal-Exporting States and Destination, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Exporting State and Destination	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
U.S. Total (Continued)							
Dominican Republic.....	50	18	65	59	157	172.7	-24.8
Egypt.....	1,138	1,158	1,029	834	796	-1.7	9.4
Finland.....	794	1,337	446	269	207	-40.6	39.9
France.....	5,223	5,362	4,223	4,990	9,230	-2.6	-13.3
Germany, FR.....	1,708	2,668	588	787	1,147	-36.0	10.5
Greece.....	491	-	-	-	-	-	-
Hong Kong.....	-	-	46	-	359	-	-
Iceland.....	119	76	7	-	39	56.3	32.3
India.....	11	-	-	-	-	-	-
Indonesia.....	-	-	-	-	*	-	-
Ireland.....	1,147	1,219	1,015	1,152	1,381	-5.8	-4.5
Israel.....	1,473	1,212	922	940	1,300	21.5	3.2
Italy.....	9,656	9,298	7,409	6,377	8,955	3.8	1.9
Jamaica.....	53	62	26	39	35	-15.6	11.1
Japan.....	10,840	11,254	9,918	11,747	11,537	-3.7	-1.5
Korea, Republic of.....	4,582	4,526	3,332	3,470	3,219	1.2	9.2
Malaysia.....	-	-	-	-	*	-	-
Mexico.....	758	498	-	11	18	52.2	156.3
Morocco.....	1,388	1,050	101	571	520	32.2	27.8
Netherlands.....	4,398	5,911	4,723	4,455	6,310	-25.6	-8.6
Nigeria.....	-	-	-	43	-	-	-
Norway.....	169	170	88	121	161	-3	1.2
Panama.....	-	-	-	-	*	-	-
Paraguay.....	-	-	-	-	3	-	-
Portugal.....	2,094	1,967	1,167	1,611	1,548	6.4	7.8
Qatar.....	-	-	-	-	*	-	-
Romania.....	1,517	2,115	1,750	991	705	-28.3	21.1
Saudi Arabia.....	22	-	-	*	-	-	-
Slovenia.....	-	-	-	-	69	-	-
South Africa, Rep of.....	1,192	946	771	577	620	26.0	17.8
Spain.....	4,197	4,465	4,256	3,867	4,268	-6.0	-4
Surinam.....	-	-	-	*	*	-	-
Sweden.....	1,091	1,466	939	798	1,276	-25.6	-3.8
Trinidad & Tobago.....	-	-	-	1	2	-	-
Turkey.....	2,005	2,116	1,606	1,623	2,003	-5.2	*
United Arab Emirates.....	-	-	-	*	-	-	-
United Kingdom.....	6,925	4,476	2,963	4,600	7,676	54.7	-2.5
Venezuela.....	1	9	11	15	39	-88.6	-59.5
Yugoslavia, FR.....	-	-	-	-	650	-	-
Unknown.....	1,294	226	439	348	685	471.6	17.3

* Data round to zero.

NM Not meaningful as value is greater than 500 percent.

Notes: Major coal-exporting States are those with total coal exports of over 600,000 short tons in 1996. Totals may not equal sum of components due to independent rounding. Foreign distribution to some countries for 1992 through 1995 have been revised.

Sources: Values shown for destinations other than Canada and Mexico are estimates based upon information reported on Energy Information Administration Form EIA-6, "Coal Distribution Report," and coal export data presented in King's COALBASE (King Publishing Corporation, Knoxville, Tennessee). See the Explanatory Notes for a complete description of the methodology used to develop these estimates. Values shown for Canada and Mexico are based upon Form EIA-6.

Table 63. Foreign Distribution of U.S. Metallurgical Coal by Major Coal-Exporting States and Destination, 1992-1996
(Thousand Short Tons)

Coal-Exporting State and Destination	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Alabama	4,523	5,330	4,359	5,846	5,800	-15.1	-6.0
Albania.....	-	-	-	-	21	-	-
Argentina.....	216	306	268	319	157	-29.5	8.3
Belgium & Luxembourg.....	703	574	627	866	861	22.3	-5.0
Brazil.....	566	564	42	193	-	.3	-
Bulgaria.....	208	128	35	109	-	63.2	-
China (Taiwan).....	-	-	-	42	45	-	-
Egypt.....	-	111	-	-	-	-100.0	-
France.....	-	-	*	-	-	-	-
Germany, FR.....	184	201	-	-	-	-8.0	-
Italy.....	318	314	421	429	378	1.5	-4.2
Japan.....	861	1,358	1,266	2,199	2,340	-36.6	-22.1
Netherlands.....	73	217	88	-	-	-66.1	-
Romania.....	170	492	602	171	183	-65.5	-2.0
South Africa, Rep of.....	57	-	-	-	212	-	-28.0
Spain.....	52	48	-	-	-	8.4	-
Turkey.....	326	302	137	253	424	8.0	-6.4
United Kingdom.....	789	717	872	1,266	1,179	10.1	-9.6
Colorado	30	-	-	-	-	-	-
Japan.....	30	-	-	-	-	-	-
Illinois	-	49	236	109	614	-100.0	-100.0
Belgium & Luxembourg.....	-	-	-	-	58	-	-
Brazil.....	-	-	-	-	298	-	-
Japan.....	-	49	236	109	32	-100.0	-
Korea, Republic of.....	-	-	-	-	50	-	-
United Kingdom.....	-	-	-	-	175	-	-
Kentucky	5,303	3,640	3,120	4,415	5,916	45.7	-2.7
Belgium & Luxembourg.....	67	-	66	56	665	-	-43.7
Brazil.....	-	52	23	392	98	-100.0	-
Canada.....	1,178	777	1,073	1,356	1,373	51.5	-3.8
China (Taiwan).....	-	76	98	140	123	-100.0	-
France.....	548	262	146	400	427	108.6	6.4
Germany, FR.....	-	93	-	-	-	-100.0	-
Iceland.....	119	76	7	-	31	56.3	40.0
Italy.....	132	-	42	-	-	-	-
Japan.....	93	53	67	219	303	74.0	-25.6
Korea, Republic of.....	1,876	1,523	1,163	1,256	1,191	23.2	12.0
Netherlands.....	581	102	45	241	766	468.8	-6.7
Norway.....	140	142	74	91	98	-1.4	9.3
Saudi Arabia.....	22	-	-	-	-	-	-
Sweden.....	-	-	16	195	456	-	-
Turkey.....	-	-	-	-	151	-	-
United Kingdom.....	548	483	301	70	197	13.5	29.1
Yugoslavia, FR.....	-	-	-	-	38	-	-
Pennsylvania	1,642	1,467	1,624	1,919	1,301	11.9	6.0
Argentina.....	-	-	-	46	-	-	-
Belgium & Luxembourg.....	-	-	29	-	-	-	-
Brazil.....	258	371	333	148	137	-30.4	17.2
Bulgaria.....	-	-	-	71	73	-	-
Canada.....	-	4	-	10	-	-100.0	-
Chile.....	-	-	-	-	37	-	-
Croatia.....	-	-	-	114	-	-	-
Dominican Republic.....	-	-	23	-	-	-	-
Finland.....	-	-	-	56	-	-	-
France.....	89	-	-	-	-	-	-
Germany, FR.....	-	66	174	-	-	-100.0	-
Japan.....	920	916	834	1,384	921	.4	*
Korea, Republic of.....	101	109	214	91	-	-7.8	-
Netherlands.....	162	-	17	-	-	-	-
South Africa, Rep of.....	112	-	-	-	-	-	-
Yugoslavia, FR.....	-	-	-	-	132	-	-
Utah	187	-	-	-	-	-	-
Japan.....	187	-	-	-	-	-	-

See footnotes at end of table.

Table 63. Foreign Distribution of U.S. Metallurgical Coal by Major Coal-Exporting States and Destination, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Exporting State and Destination	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Virginia	12,760	8,921	11,155	13,747	14,389	43.0	-3.0
Algeria	206	166	269	344	534	24.1	-21.2
Argentina	-	-	53	52	-	-	-
Belgium & Luxembourg	1,078	764	884	1,147	1,972	41.2	-14.0
Brazil	1,228	1,091	1,218	1,741	2,252	12.5	-14.1
Bulgaria	-	-	-	242	172	-	-
Canada	387	445	786	1,229	-	-13.0	-
China (Taiwan)	-	-	15	*	-	-	-
Croatia	-	-	-	251	-	-	-
Egypt	835	333	436	234	239	150.7	36.8
France	910	625	563	737	846	45.7	1.8
Germany, FR	-	68	9	50	37	-100.0	-
Italy	1,696	758	1,445	951	622	123.8	28.5
Japan	2,300	1,796	2,037	2,355	2,689	28.0	-3.8
Korea, Republic of	466	589	539	853	1,244	-20.9	-21.8
Netherlands	1,193	793	766	973	1,192	50.4	*
Portugal	-	-	-	-	73	-	-
Romania	32	-	223	-	145	-	-31.3
South Africa, Rep of	76	-	-	-	-	-	-
Spain	1,370	847	1,297	1,682	1,274	61.7	1.8
Sweden	185	115	37	-	-	60.9	-
United Kingdom	798	531	579	905	1,054	50.3	-6.7
Yugoslavia, FR	-	-	-	-	44	-	-
West Virginia	31,717	34,633	31,603	26,504	33,413	-8.4	-1.3
Algeria	-	-	*	-	-	-	-
Argentina	-	-	35	132	169	-	-
Belgium & Luxembourg	1,261	1,175	1,302	1,396	538	7.3	23.7
Brazil	4,247	4,329	4,109	2,496	2,907	-1.9	9.9
Bulgaria	1,152	1,360	1,571	644	619	-15.3	16.8
Canada	6,907	5,759	5,605	4,071	8,021	19.9	-3.7
Chile	43	-	-	-	-	-	-
China (Taiwan)	353	355	284	141	283	-7	5.7
Croatia	-	-	-	63	245	-	-
Egypt	303	714	593	601	557	-57.5	-14.1
Finland	507	683	375	212	207	-25.8	25.0
France	2,859	3,594	3,514	2,864	3,216	-20.4	-2.9
Germany, FR	584	254	382	286	314	130.4	16.8
Iceland	-	-	-	-	8	-	-
India	11	-	-	-	-	-	-
Italy	2,361	2,873	2,927	3,111	4,899	-17.8	-16.7
Japan	2,062	3,222	2,148	2,260	2,895	-36.0	-8.1
Korea, Republic of	1,050	1,013	523	318	-	3.7	-
Netherlands	1,223	1,523	1,717	2,014	2,486	-19.7	-16.3
Nigeria	-	-	-	43	-	-	-
Norway	-	-	-	-	15	-	-
Portugal	164	33	-	151	108	389.9	10.9
Romania	1,315	1,623	925	820	376	-19.0	36.7
South Africa, Rep of	947	946	771	577	408	.1	23.4
Spain	818	1,084	1,255	1,071	1,232	-24.5	-9.7
Sweden	882	1,352	886	603	819	-34.8	1.9
Turkey	1,643	1,560	1,468	1,370	1,429	5.3	3.5
United Kingdom	1,024	1,182	1,212	1,261	1,225	-13.3	-4.4
Yugoslavia, FR	-	-	-	-	436	-	-
Major States Total	56,162	54,039	52,098	52,541	61,432	3.9	-2.2
Albania	-	-	-	-	21	-	-
Algeria	206	166	269	344	534	24.1	-21.2
Argentina	216	306	356	548	326	-29.5	-9.8
Belgium & Luxembourg	3,109	2,513	2,908	3,465	4,094	23.7	-6.6
Brazil	6,298	6,407	5,725	4,969	5,692	-1.7	2.6
Bulgaria	1,361	1,488	1,607	1,065	863	-8.6	12.0
Canada	8,472	6,986	7,464	6,666	9,394	21.3	-2.5
Chile	43	-	-	-	37	-	3.4
China (Taiwan)	353	431	397	323	451	-18.2	-6.0
Croatia	-	-	-	428	245	-	-
Dominican Republic	-	-	23	-	-	-	-
Egypt	1,138	1,158	1,029	834	796	-1.7	9.4

See footnotes at end of table.

Table 63. Foreign Distribution of U.S. Metallurgical Coal by Major Coal-Exporting States and Destination, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Exporting State and Destination	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Major States Total (Continued)							
Finland	507	683	375	267	207	-25.8	25.0
France	4,406	4,481	4,223	4,001	4,489	-1.7	-5
Germany, FR	769	681	565	336	352	12.9	21.6
Iceland	119	76	7	-	39	56.3	32.3
India	11	-	-	-	-	-	-
Italy	4,507	3,944	4,836	4,491	5,899	14.3	-6.5
Japan	6,453	7,395	6,588	8,525	9,181	-12.7	-8.4
Korea, Republic of	3,493	3,234	2,438	2,517	2,485	8.0	8.9
Netherlands	3,233	2,635	2,633	3,228	4,444	22.7	-7.6
Nigeria	-	-	-	43	-	-	-
Norway	140	142	74	91	113	-1.4	5.4
Portugal	164	33	-	151	181	389.9	-2.5
Romania	1,517	2,115	1,750	991	705	-28.3	21.1
Saudi Arabia	22	-	-	-	-	-	-
South Africa, Rep of	1,192	946	771	577	620	26.0	17.8
Spain	2,240	1,979	2,552	2,754	2,505	13.2	-2.8
Sweden	1,066	1,466	939	798	1,276	-27.3	-4.4
Turkey	1,969	1,862	1,606	1,623	2,003	5.7	-4
United Kingdom	3,160	2,913	2,963	3,503	3,831	8.5	-4.7
Yugoslavia, FR	-	-	-	-	650	-	-
Other States Total	-	188	184	295	-	-100.0	-
Brazil	-	188	184	295	-	-100.0	-
U.S. Total	56,162	54,228	52,282	52,835	61,432	3.6	-2.2
Albania	-	-	-	-	21	-	-
Algeria	206	166	269	344	534	24.1	-21.2
Argentina	216	306	356	548	326	-29.5	-9.8
Belgium & Luxembourg	3,109	2,513	2,908	3,465	4,094	23.7	-6.6
Brazil	6,298	6,596	5,909	5,264	5,692	-4.5	2.6
Bulgaria	1,361	1,488	1,607	1,065	863	-8.6	12.0
Canada	8,472	6,986	7,464	6,666	9,394	21.3	-2.5
Chile	43	-	-	-	37	-	3.4
China (Taiwan)	353	431	397	323	451	-18.2	-6.0
Croatia	-	-	-	428	245	-	-
Dominican Republic	-	-	23	-	-	-	-
Egypt	1,138	1,158	1,029	834	796	-1.7	9.4
Finland	507	683	375	267	207	-25.8	25.0
France	4,406	4,481	4,223	4,001	4,489	-1.7	-5
Germany, FR	769	681	565	336	352	12.9	21.6
Iceland	119	76	7	-	39	56.3	32.3
India	11	-	-	-	-	-	-
Italy	4,507	3,944	4,836	4,491	5,899	14.3	-6.5
Japan	6,453	7,395	6,588	8,525	9,181	-12.7	-8.4
Korea, Republic of	3,493	3,234	2,438	2,517	2,485	8.0	8.9
Netherlands	3,233	2,635	2,633	3,228	4,444	22.7	-7.6
Nigeria	-	-	-	43	-	-	-
Norway	140	142	74	91	113	-1.4	5.4
Portugal	164	33	-	151	181	389.9	-2.5
Romania	1,517	2,115	1,750	991	705	-28.3	21.1
Saudi Arabia	22	-	-	-	-	-	-
South Africa, Rep of	1,192	946	771	577	620	26.0	17.8
Spain	2,240	1,979	2,552	2,754	2,505	13.2	-2.8
Sweden	1,066	1,466	939	798	1,276	-27.3	-4.4
Turkey	1,969	1,862	1,606	1,623	2,003	5.7	-4
United Kingdom	3,160	2,913	2,963	3,503	3,831	8.5	-4.7
Yugoslavia, FR	-	-	-	-	650	-	-

* Data round to zero.

Notes: Major coal-exporting States are those with total coal exports of over 600,000 short tons in 1996. Totals may not equal sum of components due to independent rounding. Foreign distribution to some countries for 1992 through 1995 have been revised.

Sources: Values shown for destinations other than Canada and Mexico are estimates based upon information reported on Energy Information Administration Form EIA-6, "Coal Distribution Report," and coal export data presented in King's COALBASE (King Publishing Corporation, Knoxville, Tennessee). See the Explanatory Notes for a complete description of the methodology used to develop these estimates. Values shown for Canada and Mexico are based upon Form EIA-6.

Table 64. Foreign Distribution of U.S. Steam Coal by Major Coal-Exporting States and Destination, 1992-1996
(Thousand Short Tons)

Coal-Exporting State and Destination	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Alabama	341	702	170	43	131	-51.5	27.0
Denmark.....	-	26	-	-	-	-100.0	-
Italy.....	341	617	144	-	128	-44.8	27.8
Japan.....	-	-	-	3	3	-	-
Morocco.....	-	-	-	39	-	-	-
Netherlands.....	-	59	-	-	-	-100.0	-
Spain.....	-	-	27	-	-	-	-
Alaska	776	855	716	743	734	-9.2	1.4
Korea, Republic of.....	776	855	716	743	734	-9.2	1.4
Colorado	1,385	900	752	1,128	669	53.9	20.0
China (Taiwan).....	219	235	134	-	-	-6.5	-
Hong Kong.....	-	-	46	-	-	-	-
Israel.....	30	-	-	-	-	-	-
Japan.....	314	651	395	918	669	-51.9	-17.3
Korea, Republic of.....	65	-	177	209	-	-	-
Mexico.....	758	-	-	-	-	-	-
Turkey.....	-	14	-	-	-	-100.0	-
Illinois	1,886	2,650	-	561	629	-28.8	31.6
Belgium & Luxembourg.....	76	-	-	-	-	-	-
Brazil.....	1	-	-	-	-	-	-
Denmark.....	364	516	-	-	45	-29.4	68.2
France.....	-	57	-	-	-	-100.0	-
Germany, FR.....	325	722	-	-	-	-54.9	-
Ireland.....	-	-	-	108	213	-	-
Italy.....	-	42	-	-	-	-100.0	-
Japan.....	66	-	-	-	21	-	33.8
Morocco.....	103	775	-	452	350	-86.7	-26.3
Netherlands.....	120	-	-	-	-	-	-
Sweden.....	25	-	-	-	-	-	-
United Kingdom.....	805	538	-	-	-	49.7	-
Kentucky	3,841	6,055	4,047	5,106	8,120	-36.6	-17.1
Belgium & Luxembourg.....	-	366	406	437	577	-100.0	-
Canada.....	-	-	26	60	705	-	-
China (Taiwan).....	1,978	2,321	2,545	3,485	3,211	-14.8	-11.4
Denmark.....	-	-	-	33	172	-	-
Finland.....	4	-	-	2	-	-	-
France.....	-	-	-	266	1,385	-	-
Germany, FR.....	-	95	-	-	-	-100.0	-
Ireland.....	-	58	-	16	336	-100.0	-
Israel.....	-	217	-	-	-	-100.0	-
Italy.....	1,613	1,714	763	719	805	-5.9	19.0
Jamaica.....	17	62	26	39	35	-73.0	-16.4
Japan.....	-	-	33	50	-	-	-
Netherlands.....	-	519	223	-	546	-100.0	-
Portugal.....	229	-	24	-	-	-	-
Spain.....	-	231	-	-	98	-100.0	-
Turkey.....	-	197	-	-	-	-100.0	-
United Kingdom.....	-	275	-	-	250	-100.0	-
Pennsylvania	7,604	6,812	4,677	3,589	5,139	11.6	10.3
Belgium & Luxembourg.....	-	-	-	-	90	-	-
Brazil.....	3	9	5	7	12	-71.1	-31.2
Canada.....	1,050	708	844	587	1,599	48.2	-10.0
Costa Rica.....	-	-	-	-	*	-	-
Croatia.....	-	-	-	45	-	-	-
Denmark.....	801	1,589	508	187	1,441	-49.6	-13.7
Dominican Republic.....	50	18	42	59	157	172.7	-24.8
Finland.....	283	544	71	-	-	-48.1	-
France.....	-	9	-	188	184	-100.0	-
Germany, FR.....	256	317	23	102	151	-19.3	14.0
Greece.....	491	-	-	-	-	-	-
Indonesia.....	-	-	-	-	*	-	-
Ireland.....	1,067	1,161	1,015	911	-	-8.0	-
Israel.....	1,068	995	922	940	1,090	7.4	-5
Italy.....	89	-	601	50	-	-	-

See footnotes at end of table.

Table 64. Foreign Distribution of U.S. Steam Coal by Major Coal-Exporting States and Destination, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Exporting State and Destination	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Pennsylvania (Continued)							
Japan	136	-	-	-	-	-	-
Korea, Republic of	94	-	-	-	-	-	-
Malaysia	-	-	-	-	*	-	-
Mexico	-	-	-	-	18	-	-
Morocco	173	-	-	-	-	-	-
Netherlands	570	593	244	-	2	-3.8	322.5
Norway	30	28	14	30	48	5.1	-11.5
Panama	-	-	-	-	*	-	-
Paraguay	-	-	-	-	3	-	-
Portugal	592	472	378	467	302	25.5	18.3
Qatar	-	-	-	-	*	-	-
Saudi Arabia	-	-	-	*	-	-	-
Spain	-	18	-	-	-	-100.0	-
Surinam	-	-	-	*	*	-	-
Sweden	-	-	-	-	1	-	-
Trinidad & Tobago	-	-	-	1	2	-	-
Turkey	-	43	-	-	-	-100.0	-
United Arab Emirates	-	-	-	*	-	-	-
United Kingdom	851	299	-	*	-	184.9	-
Venezuela	1	9	11	15	39	-88.6	-59.5
Utah	5,118	3,930	2,698	2,959	2,260	30.2	22.7
Canada	-	-	-	346	-	-	-
Chile	445	170	-	-	-	162.1	-
China (Taiwan)	648	323	321	849	721	100.4	-2.6
Hong Kong	-	-	-	-	359	-	-
Japan	3,871	3,000	2,377	1,764	1,180	29.1	34.6
Korea, Republic of	154	438	-	-	-	-64.7	-
Mexico	-	-	-	*	-	-	-
Virginia	671	821	527	503	2,835	-18.2	-30.2
Belgium & Luxembourg	-	-	-	-	312	-	-
Canada	-	-	-	-	1,331	-	-
Denmark	-	-	-	-	60	-	-
France	-	-	-	-	68	-	-
Italy	502	716	359	413	723	-29.9	-8.7
Japan	-	-	77	55	65	-	-
Netherlands	-	-	-	36	-	-	-
Portugal	145	105	91	-	210	38.0	-8.9
Spain	-	-	-	-	66	-	-
Turkey	24	-	-	-	-	-	-
West Virginia	10,327	9,688	4,602	6,655	17,393	6.6	-12.2
Belgium & Luxembourg	921	845	1,010	813	1,247	8.9	-7.3
Brazil	10	*	-	-	-	NM	-
Bulgaria	62	-	-	-	-	-	-
Canada	315	25	40	37	890	NM	-22.8
Chile	152	118	-	-	-	29.7	-
Croatia	-	72	-	-	-	-100.0	-
Denmark	-	189	-	168	2,397	-100.0	-
Finland	-	109	-	-	-	-100.0	-
France	817	815	-	536	3,095	.3	-28.3
Germany, FR	358	854	-	349	644	-58.0	-13.6
Ireland	-	-	-	117	822	-	-
Israel	375	-	-	-	210	-	15.6
Italy	2,604	2,266	707	705	1,400	14.9	16.8
Jamaica	36	-	-	-	-	-	-
Japan	-	209	448	431	418	-100.0	-
Morocco	1,111	275	101	79	170	304.0	59.9
Netherlands	413	2,105	1,623	1,191	1,318	-80.4	-25.2
Portugal	964	1,357	674	993	854	-29.0	3.1
Slovenia	-	-	-	-	69	-	-
Spain	69	-	-	140	269	-	-28.9
Turkey	12	-	-	-	-	-	-
United Kingdom	2,109	451	-	1,097	3,590	367.9	-12.5

See footnotes at end of table.

Table 64. Foreign Distribution of U.S. Steam Coal by Major Coal-Exporting States and Destination, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Exporting State and Destination	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
Wyoming.....	2,395	2,269	1,524	974	1,277	5.5	17.0
Canada.....	443	32	-	-	-	NM	-
Japan.....	-	-	-	*	-	-	-
Netherlands.....	63	-	-	-	-	-	-
Spain.....	1,889	2,237	1,524	974	1,277	-15.6	10.3
Major States Total.....	34,344	34,683	19,713	22,261	39,187	-1.0	-3.2
Belgium & Luxembourg.....	997	1,211	1,416	1,250	2,226	-17.7	-18.2
Brazil.....	14	9	5	7	12	51.8	4.2
Bulgaria.....	62	-	-	-	-	-	-
Canada.....	1,808	765	910	1,030	4,525	136.4	-20.5
Chile.....	597	287	-	-	-	107.9	-
China (Taiwan).....	2,845	2,879	3,000	4,334	3,931	-1.2	-7.8
Costa Rica.....	-	-	-	-	*	-	-
Croatia.....	-	72	-	45	-	-100.0	-
Denmark.....	1,165	2,320	508	388	4,116	-49.8	-27.1
Dominican Republic.....	50	18	42	59	157	172.7	-24.8
Finland.....	287	654	71	2	-	-56.1	-
France.....	817	882	-	989	4,732	-7.3	-35.5
Germany, FR.....	939	1,987	23	451	796	-52.7	4.2
Greece.....	491	-	-	-	-	-	-
Hong Kong.....	-	-	46	-	359	-	-
Indonesia.....	-	-	-	-	*	-	-
Ireland.....	1,067	1,219	1,015	1,152	1,371	-12.4	-6.1
Israel.....	1,473	1,212	922	940	1,300	21.5	3.2
Italy.....	5,149	5,354	2,573	1,886	3,056	-3.8	13.9
Jamaica.....	53	62	26	39	35	-15.6	11.1
Japan.....	4,387	3,860	3,330	3,222	2,356	13.7	16.8
Korea, Republic of.....	1,089	1,292	894	952	734	-15.7	10.4
Malaysia.....	-	-	-	-	*	-	-
Mexico.....	758	-	-	*	18	-	156.3
Morocco.....	1,388	1,050	101	571	520	32.2	27.8
Netherlands.....	1,165	3,276	2,090	1,227	1,866	-64.4	-11.1
Norway.....	30	28	14	30	48	5.1	-11.5
Panama.....	-	-	-	-	*	-	-
Paraguay.....	-	-	-	-	3	-	-
Portugal.....	1,930	1,933	1,167	1,460	1,366	-2	9.0
Qatar.....	-	-	-	-	*	-	-
Saudi Arabia.....	-	-	-	*	-	-	-
Slovenia.....	-	-	-	-	69	-	-
Spain.....	1,957	2,486	1,550	1,113	1,710	-21.3	3.4
Surinam.....	-	-	-	*	*	-	-
Sweden.....	25	-	-	-	1	-	129.1
Trinidad & Tobago.....	-	-	-	1	2	-	-
Turkey.....	37	254	-	-	-	-85.6	-
United Arab Emirates.....	-	-	-	*	-	-	-
United Kingdom.....	3,765	1,563	-	1,098	3,840	140.9	-5
Venezuela.....	1	9	11	15	39	-88.6	-59.5
Other States Total.....	1,693	997	686	414	761	69.9	22.1
Canada.....	319	273	93	55	*	16.9	426.7
France.....	-	-	-	-	9	-	-
Ireland.....	80	-	-	-	10	-	68.5
Mexico.....	-	498	-	11	-	-100.0	-
Spain.....	-	-	153	-	53	-	-
United Kingdom.....	-	-	-	-	4	-	-
Unknown.....	1,294	226	439	348	685	471.6	17.3
U.S. Total.....	36,037	35,680	20,399	22,675	39,948	1.0	-2.5
Belgium & Luxembourg.....	997	1,211	1,416	1,250	2,226	-17.7	-18.2
Brazil.....	14	9	5	7	12	51.8	4.2
Bulgaria.....	62	-	-	-	-	-	-
Canada.....	2,127	1,037	1,003	1,085	4,525	105.0	-17.2
Chile.....	597	287	-	-	-	107.9	-
China (Taiwan).....	2,845	2,879	3,000	4,334	3,931	-1.2	-7.8
Costa Rica.....	-	-	-	-	*	-	-
Croatia.....	-	72	-	45	-	-100.0	-
Denmark.....	1,165	2,320	508	388	4,116	-49.8	-27.1

See footnotes at end of table.

Table 64. Foreign Distribution of U.S. Steam Coal by Major Coal-Exporting States and Destination, 1992-1996 (Continued)
(Thousand Short Tons)

Coal-Exporting State and Destination	1996	1995	1994	1993	1992	Percent Change 1995-1996	Average Annual Percent Change
							1992-1996
U.S. Total (Continued)							
Dominican Republic.....	50	18	42	59	157	172.7	-24.8
Finland.....	287	654	71	2	-	-56.1	-
France.....	817	882	-	989	4,741	-7.3	-35.6
Germany, FR.....	939	1,987	23	451	796	-52.7	4.2
Greece.....	491	-	-	-	-	-	-
Hong Kong.....	-	-	46	-	359	-	-
Indonesia.....	-	-	-	-	*	-	-
Ireland.....	1,147	1,219	1,015	1,152	1,381	-5.8	-4.5
Israel.....	1,473	1,212	922	940	1,300	21.5	3.2
Italy.....	5,149	5,354	2,573	1,886	3,056	-3.8	13.9
Jamaica.....	53	62	26	39	35	-15.6	11.1
Japan.....	4,387	3,860	3,330	3,222	2,356	13.7	16.8
Korea, Republic of.....	1,089	1,292	894	952	734	-15.7	10.4
Malaysia.....	-	-	-	-	*	-	-
Mexico.....	758	498	-	11	18	52.2	156.3
Morocco.....	1,388	1,050	101	571	520	32.2	27.8
Netherlands.....	1,165	3,276	2,090	1,227	1,866	-64.4	-11.1
Norway.....	30	28	14	30	48	5.1	-11.5
Panama.....	-	-	-	-	*	-	-
Paraguay.....	-	-	-	-	3	-	-
Portugal.....	1,930	1,933	1,167	1,460	1,366	-2	9.0
Qatar.....	-	-	-	-	*	-	-
Saudi Arabia.....	-	-	-	*	-	-	-
Slovenia.....	-	-	-	-	69	-	-
Spain.....	1,957	2,486	1,704	1,113	1,763	-21.3	2.6
Surinam.....	-	-	-	*	*	-	-
Sweden.....	25	-	-	-	1	-	129.1
Trinidad & Tobago.....	-	-	-	1	2	-	-
Turkey.....	37	254	-	-	-	-85.6	-
United Arab Emirates.....	-	-	-	*	-	-	-
United Kingdom.....	3,765	1,563	-	1,098	3,844	140.9	-5
Venezuela.....	1	9	11	15	39	-88.6	-59.5
Unknown.....	1,294	226	439	348	685	471.6	17.3

* Data round to zero.

NM Not meaningful as value is greater than 500 percent.

Notes: Major coal-exporting States are those with total coal exports of over 600,000 short tons in 1996. Totals may not equal sum of components due to independent rounding. Foreign distribution to some countries for 1992 through 1995 have been revised.

Sources: Values shown for destinations other than Canada and Mexico are estimates based upon information reported on Energy Information Administration Form EIA-6, "Coal Distribution Report," and coal export data presented in King's COALBASE (King Publishing Corporation, Knoxville, Tennessee). See the Explanatory Notes for a complete description of the methodology used to develop these estimates. Values shown for Canada and Mexico are based upon Form EIA-6.

Table 65. Distribution of U.S. Coal by Origin, Destination, and Method of Transportation, 1996

(Thousand Short Tons)

Origin State and Destination State	Railroad	Water				Truck	Tramway, Conveyor, and Slurry Pipeline	Unknown	Total
		River	Great Lakes	Tidewater	Total				
Alabama.....	7,875	4,613	-	4,864	9,477	6,143	1,108	32	24,636
Alabama.....	7,323	4,012	-	-	4,012	6,059	1,108	-	18,503
Arkansas.....	29	-	-	-	-	9	-	-	39
Florida.....	-	-	-	-	-	8	-	-	8
Georgia.....	373	-	-	-	-	-	-	-	373
Indiana.....	57	-	-	-	-	-	-	-	57
Kentucky.....	9	-	-	-	-	5	-	-	15
Minnesota.....	-	-	-	-	-	*	-	-	*
Mississippi.....	80	22	-	-	22	9	-	-	110
Missouri.....	-	-	-	-	-	*	-	-	*
North Carolina.....	4	-	-	-	-	-	-	-	4
Ohio.....	-	-	-	-	-	51	-	-	51
Pennsylvania.....	-	579	-	-	579	-	-	-	579
Tennessee.....	-	-	-	-	-	1	-	-	1
Unknown State.....	-	-	-	-	-	-	-	32	32
Foreign.....	-	-	-	4,864	4,864	-	-	-	4,864
Alaska.....	519	-	-	776	776	177	-	-	1,473
Alaska.....	519	-	-	-	-	177	-	-	697
Foreign.....	-	-	-	776	776	-	-	-	776
Arizona.....	6,499	-	-	-	-	-	4,470	-	10,970
Arizona.....	6,499	-	-	-	-	-	-	-	6,499
Nevada.....	-	-	-	-	-	-	4,470	-	4,470
Arkansas.....	-	-	-	-	-	7	-	-	7
Arkansas.....	-	-	-	-	-	7	-	-	7
Colorado.....	18,817	1,030	73	793	1,896	4,673	-	18	25,405
Arizona.....	355	-	-	-	-	*	-	-	355
Colorado.....	6,566	-	-	-	-	4,138	-	-	10,704
Florida.....	-	-	-	136	136	-	-	-	136
Illinois.....	221	349	-	-	349	69	-	-	640
Iowa.....	587	5	-	-	5	-	-	-	591
Kansas.....	1,493	-	-	-	-	-	-	-	1,493
Kentucky.....	260	-	-	-	-	-	-	-	260
Mississippi.....	519	-	-	-	-	-	-	-	519
Missouri.....	1,055	22	-	-	22	-	-	-	1,077
Nebraska.....	56	-	-	-	-	-	-	-	56
Nevada.....	132	-	-	-	-	-	-	-	132
New Mexico.....	-	-	-	-	-	88	-	-	88
Oregon.....	94	-	-	-	-	-	-	-	94
Tennessee.....	3,038	-	-	-	-	-	-	-	3,038
Texas.....	2,443	-	-	-	-	-	-	-	2,443
Utah.....	1,204	-	-	-	-	-	-	-	1,204
Washington.....	37	-	-	-	-	-	-	-	37
Wisconsin.....	-	653	73	-	726	-	-	-	726
Wyoming.....	-	-	-	-	-	378	-	-	378
Unknown State.....	-	-	-	-	-	-	-	18	18
Foreign.....	758	-	-	657	657	-	-	-	1,415
Illinois.....	26,181	12,736	47	1,886	14,668	6,187	23	16	47,076
Alabama.....	-	2,155	-	-	2,155	-	-	-	2,155
Arkansas.....	76	-	-	-	-	-	-	-	76
Colorado.....	40	-	-	-	-	-	-	-	40
Florida.....	1,790	4,262	-	-	4,262	-	-	-	6,052
Georgia.....	1,204	-	-	-	-	-	-	-	1,204
Illinois.....	10,145	878	-	-	878	5,006	23	-	16,052
Indiana.....	7,806	109	-	-	109	263	-	-	8,178
Iowa.....	29	524	-	-	524	141	-	-	694
Kansas.....	149	-	-	-	-	-	-	-	149
Kentucky.....	-	-	-	-	-	1	-	-	1
Michigan.....	40	-	19	-	19	-	-	-	59
Minnesota.....	100	-	-	-	-	-	-	-	100
Mississippi.....	1,262	469	-	-	469	17	-	-	1,749
Missouri.....	3,038	660	-	-	660	705	-	-	4,403
New Jersey.....	-	-	-	-	-	*	-	-	*
New York.....	-	-	-	-	-	*	-	-	*
Ohio.....	17	-	-	-	-	1	-	-	18

See footnotes at end of table.

Table 65. Distribution of U.S. Coal by Origin, Destination, and Method of Transportation, 1996
(Continued)
(Thousand Short Tons)

Origin State and Destination State	Railroad	Water				Truck	Tramway, Conveyor, and Slurry Pipeline	Unknown	Total
		River	Great Lakes	Tidewater	Total				
Illinois (Continued)									
Oklahoma.....	-	10	-	-	10	-	-	-	10
Pennsylvania.....	-	-	-	-	-	*	-	-	*
Tennessee.....	203	3,021	-	-	3,021	-	-	-	3,225
Virginia.....	-	-	-	-	-	*	-	-	*
Wisconsin.....	282	647	28	-	675	52	-	-	1,008
Unknown State.....	-	-	-	-	-	-	-	16	16
Foreign.....	-	-	-	1,886	1,886	-	-	-	1,886
Indiana.....	16,570	2,756	447	11	3,214	9,378	505	8	29,674
Alabama.....	-	26	-	-	26	-	-	-	26
Connecticut.....	-	-	-	-	-	*	-	-	*
Illinois.....	662	206	-	-	206	575	-	-	1,444
Indiana.....	15,161	-	199	-	199	8,445	505	-	24,309
Iowa.....	504	134	-	-	134	-	-	-	638
Kentucky.....	-	2,297	-	-	2,297	312	-	-	2,610
Michigan.....	-	-	175	-	175	6	-	-	181
Missouri.....	-	12	-	-	12	4	-	-	17
Ohio.....	-	34	-	-	34	-	-	-	34
Oklahoma.....	-	4	-	-	4	-	-	-	4
Tennessee.....	-	41	-	-	41	-	-	-	41
Texas.....	-	-	-	-	-	2	-	-	2
Wisconsin.....	243	-	73	-	73	34	-	-	349
Unknown State.....	-	-	-	-	-	-	-	8	8
Foreign.....	-	-	-	11	11	-	-	-	11
Kansas.....	-	-	-	-	-	245	-	-	245
Kansas.....	-	-	-	-	-	164	-	-	164
Missouri.....	-	-	-	-	-	69	-	-	69
Oklahoma.....	-	-	-	-	-	12	-	-	12
Kentucky.....	95,648	32,375	2,043	10,061	44,479	12,161	-	603	152,891
Alabama.....	1,472	2,374	-	-	2,374	23	-	-	3,869
Arkansas.....	-	-	-	-	-	11	-	-	11
Connecticut.....	-	-	-	659	659	-	-	-	659
Florida.....	12,949	3,372	-	949	4,321	-	-	-	17,270
Georgia.....	14,569	-	-	-	-	120	-	-	14,689
Illinois.....	1,205	274	-	-	274	118	-	-	1,597
Indiana.....	2,113	430	-	-	430	99	-	-	2,642
Iowa.....	63	586	-	-	586	-	-	-	650
Kentucky.....	8,208	8,280	-	-	8,280	9,213	-	-	25,700
Louisiana.....	-	690	-	-	690	-	-	-	690
Maine.....	-	-	-	271	271	-	-	-	271
Maryland.....	97	8	-	-	8	-	-	-	105
Massachusetts.....	255	-	-	151	151	-	-	-	407
Michigan.....	5,717	310	537	-	846	108	-	-	6,671
Minnesota.....	-	113	43	-	156	*	-	-	156
Mississippi.....	928	107	-	-	107	-	-	-	1,035
Missouri.....	101	220	-	-	220	-	-	-	320
New Jersey.....	-	-	-	29	29	-	-	-	29
New York.....	1,184	8	-	36	43	-	-	-	1,227
North Carolina.....	16,885	52	-	-	52	302	-	-	17,240
Ohio.....	3,885	4,528	38	-	4,566	1,070	-	-	9,520
Oklahoma.....	-	2	-	-	2	-	-	-	2
Oregon.....	24	-	-	-	-	-	-	-	24
Pennsylvania.....	1,079	1,622	-	-	1,622	20	-	-	2,721
South Carolina.....	11,385	-	-	-	-	33	-	-	11,417
Tennessee.....	7,376	8,972	-	-	8,972	834	-	-	17,183
Texas.....	2	23	-	-	23	-	-	-	26
Virginia.....	5,535	-	-	-	-	126	-	-	5,662
West Virginia.....	189	187	-	-	187	50	-	-	426
Wisconsin.....	273	218	403	-	621	31	-	-	925
Unknown State.....	-	-	-	-	-	-	-	603	603
Foreign.....	154	-	1,022	7,966	8,987	2	-	-	9,143
Kentucky, Eastern.....	87,381	11,122	2,043	9,395	22,560	6,911	-	553	117,404

See footnotes at end of table.

Table 65. Distribution of U.S. Coal by Origin, Destination, and Method of Transportation, 1996
(Continued)
(Thousand Short Tons)

Origin State and Destination State	Railroad	Water				Truck	Tramway, Conveyor, and Slurry Pipeline	Unknown	Total
		River	Great Lakes	Tidewater	Total				
Kentucky, Eastern (Continued)									
Alabama.....	522	182	—	—	182	23	—	—	727
Connecticut.....	—	—	—	659	659	—	—	—	659
Florida.....	12,848	218	—	949	1,167	—	—	—	14,015
Georgia.....	14,569	—	—	—	—	120	—	—	14,689
Illinois.....	1,205	207	—	—	207	66	—	—	1,478
Indiana.....	1,737	126	—	—	126	99	—	—	1,962
Iowa.....	63	376	—	—	376	—	—	—	439
Kentucky.....	3,270	1,642	—	—	1,642	4,414	—	—	9,326
Louisiana.....	—	44	—	—	44	—	—	—	44
Maine.....	—	—	—	271	271	—	—	—	271
Maryland.....	97	8	—	—	8	—	—	—	105
Massachusetts.....	255	—	—	151	151	—	—	—	407
Michigan.....	5,717	310	537	—	846	108	—	—	6,671
Minnesota.....	—	91	43	—	134	*	—	—	135
Mississippi.....	928	—	—	—	—	—	—	—	928
Missouri.....	101	214	—	—	214	—	—	—	315
New Jersey.....	—	—	—	29	29	—	—	—	29
New York.....	1,184	8	—	36	43	—	—	—	1,227
North Carolina.....	16,885	52	—	—	52	302	—	—	17,240
Ohio.....	3,885	4,497	38	—	4,535	1,070	—	—	9,490
Oklahoma.....	—	2	—	—	2	—	—	—	2
Oregon.....	24	—	—	—	—	—	—	—	24
Pennsylvania.....	1,079	1,622	—	—	1,622	20	—	—	2,721
South Carolina.....	11,385	—	—	—	—	33	—	—	11,417
Tennessee.....	5,649	1,107	—	—	1,107	445	—	—	7,202
Texas.....	2	23	—	—	23	—	—	—	26
Virginia.....	5,535	—	—	—	—	126	—	—	5,662
West Virginia.....	189	187	—	—	187	50	—	—	426
Wisconsin.....	97	207	403	—	610	31	—	—	738
Unknown State.....	—	—	—	—	—	—	—	553	553
Foreign.....	154	—	1,022	7,299	8,321	2	—	—	8,477
Kentucky, Western.....	8,267	21,253	—	666	21,919	5,250	—	51	35,487
Alabama.....	950	2,192	—	—	2,192	—	—	—	3,142
Arkansas.....	—	—	—	—	—	11	—	—	11
Florida.....	101	3,154	—	—	3,154	—	—	—	3,254
Illinois.....	—	68	—	—	68	51	—	—	119
Indiana.....	376	304	—	—	304	—	—	—	680
Iowa.....	—	211	—	—	211	—	—	—	211
Kentucky.....	4,938	6,638	—	—	6,638	4,799	—	—	16,375
Louisiana.....	—	646	—	—	646	—	—	—	646
Minnesota.....	—	22	—	—	22	—	—	—	22
Mississippi.....	—	107	—	—	107	—	—	—	107
Missouri.....	—	5	—	—	5	—	—	—	5
Ohio.....	—	31	—	—	31	—	—	—	31
Tennessee.....	1,727	7,865	—	—	7,865	389	—	—	9,981
Virginia.....	—	—	—	—	—	*	—	—	*
Wisconsin.....	175	11	—	—	11	—	—	—	187
Unknown State.....	—	—	—	—	—	—	—	51	51
Foreign.....	—	—	—	666	666	—	—	—	666
Louisiana.....	—	—	—	—	—	787	2,435	—	3,222
Louisiana.....	—	—	—	—	—	787	2,435	—	3,222
Maryland.....	2,728	143	—	645	787	672	—	12	4,199
Connecticut.....	3	—	—	—	—	—	—	—	3
Delaware.....	130	—	—	—	—	—	—	—	130
Maryland.....	739	—	—	—	—	409	—	—	1,147
Massachusetts.....	—	—	—	—	—	*	—	—	*
Michigan.....	15	—	—	—	—	—	—	—	15
Pennsylvania.....	—	—	—	—	—	4	—	—	4
Virginia.....	—	—	—	—	—	27	—	—	27
West Virginia.....	1,838	143	—	—	143	232	—	—	2,213
Wisconsin.....	3	—	—	—	—	—	—	—	3
Unknown State.....	—	—	—	—	—	—	—	12	12

See footnotes at end of table.

Table 65. Distribution of U.S. Coal by Origin, Destination, and Method of Transportation, 1996
(Continued)
(Thousand Short Tons)

Origin State and Destination State	Railroad	Water				Truck	Tramway, Conveyor, and Slurry Pipeline	Unknown	Total
		River	Great Lakes	Tidewater	Total				
Maryland (Continued)									
Foreign	-	-	-	645	645	-	-	-	645
Missouri	184	-	-	-	-	662	-	-	846
Kansas	-	-	-	-	-	345	-	-	345
Missouri	184	-	-	-	-	316	-	-	501
Montana	23,181	-	6,948	243	7,192	611	7,303	*	38,288
Colorado	26	-	-	-	-	-	-	-	26
Illinois	2,162	-	-	-	-	-	-	-	2,162
Indiana	869	-	-	-	-	-	-	-	869
Michigan	3,361	-	6,445	-	6,445	-	-	-	9,806
Minnesota	9,688	-	49	-	49	54	-	-	9,791
Mississippi	2,226	-	-	-	-	-	-	-	2,226
Montana	125	-	-	-	-	416	7,303	-	7,844
Nebraska	113	-	-	-	-	-	-	-	113
North Dakota	417	-	-	-	-	-	-	-	417
Ohio	-	-	26	-	26	-	-	-	26
South Dakota	1,301	-	-	-	-	-	-	-	1,301
Washington	113	-	-	-	-	-	-	-	113
Wisconsin	2,758	-	165	-	165	27	-	-	2,950
Wyoming	10	-	-	-	-	115	-	-	125
Unknown State	-	-	-	-	-	-	-	*	*
Foreign	11	-	264	243	507	-	-	-	518
New Mexico	18,448	-	-	9	9	7	6,580	-	25,043
Arizona	8,859	-	-	-	-	*	-	-	8,860
Arkansas	1	-	-	-	-	-	-	-	1
Colorado	9	-	-	-	-	-	-	-	9
Nebraska	92	-	-	-	-	-	-	-	92
New Mexico	8,422	-	-	-	-	7	6,580	-	15,009
Oklahoma	17	-	-	-	-	-	-	-	17
Texas	316	-	-	-	-	-	-	-	316
Wisconsin	732	-	-	-	-	-	-	-	732
Foreign	-	-	-	9	9	-	-	-	9
North Dakota	336	-	-	-	-	4,581	25,107	-	30,025
North Dakota	336	-	-	-	-	4,581	25,107	-	30,025
Ohio	1,759	9,370	97	269	9,736	8,890	8,429	67	28,881
Alabama	-	103	-	-	103	-	-	-	103
Illinois	-	-	-	-	-	5	-	-	5
Indiana	23	338	-	-	338	102	-	-	464
Kentucky	-	22	-	-	22	9	-	-	30
Michigan	5	-	7	-	7	234	-	-	246
New York	123	-	-	-	-	2	-	-	125
Ohio	1,607	6,302	87	-	6,390	8,057	8,424	-	24,478
Pennsylvania	1	598	-	-	598	444	-	-	1,043
Tennessee	-	4	-	-	4	-	-	-	4
West Virginia	-	2,004	-	-	2,004	28	4	-	2,036
Wisconsin	-	-	-	-	-	9	-	-	9
Unknown State	-	-	-	-	-	-	-	67	67
Foreign	-	-	3	269	271	-	-	-	271
Oklahoma	-	-	-	80	80	2,129	-	7	2,216
Arkansas	-	-	-	-	-	170	-	-	170
Kansas	-	-	-	-	-	63	-	-	63
Oklahoma	-	-	-	-	-	1,712	-	-	1,712
Texas	-	-	-	-	-	184	-	-	184
Unknown State	-	-	-	-	-	-	-	7	7
Foreign	-	-	-	80	80	-	-	-	80
Pennsylvania	24,146	11,285	2,648	8,581	22,514	17,008	5,175	284	69,128
Alabama	1	6	-	-	6	1	-	-	8
Arizona	1	-	-	-	-	*	-	-	1
Arkansas	*	-	-	-	-	*	-	-	*
California	*	-	-	-	-	*	-	-	*
Colorado	16	-	-	-	-	-	-	-	16

See footnotes at end of table.

Table 65. Distribution of U.S. Coal by Origin, Destination, and Method of Transportation, 1996
(Continued)
(Thousand Short Tons)

Origin State and Destination State	Railroad	Water				Truck	Tramway, Conveyor, and Slurry Pipeline	Unknown	Total
		River	Great Lakes	Tidewater	Total				
Pennsylvania (Continued)									
Connecticut.....	217	9	—	—	9	6	—	—	232
Delaware.....	470	53	—	—	53	15	—	—	538
District of Columbia.....	—	—	—	—	—	*	—	—	*
Florida.....	5	—	—	—	—	*	—	—	6
Georgia.....	*	—	—	—	—	*	—	—	*
Idaho.....	*	—	—	—	—	—	—	—	*
Illinois.....	6	—	—	—	—	2	—	—	7
Indiana.....	*	559	—	—	559	6	—	—	565
Iowa.....	53	225	—	—	225	1	—	—	279
Kansas.....	*	—	—	—	—	—	—	—	*
Kentucky.....	488	25	—	—	25	9	—	—	522
Louisiana.....	6	195	—	—	195	—	—	—	201
Maine.....	1	—	—	—	—	3	—	—	4
Maryland.....	1,415	—	—	—	—	189	—	—	1,604
Massachusetts.....	197	—	—	—	—	19	—	—	216
Michigan.....	1,945	—	128	—	128	5	—	—	2,078
Minnesota.....	6	23	—	—	23	1	—	—	30
Mississippi.....	*	—	—	—	—	—	—	—	*
Missouri.....	—	—	—	—	—	*	—	—	*
Montana.....	2	—	—	—	—	*	—	—	2
Nebraska.....	*	—	—	—	—	1	—	—	1
Nevada.....	—	—	—	—	—	*	—	—	*
New Hampshire.....	527	—	—	60	60	8	—	—	595
New Jersey.....	538	—	—	—	—	14	—	—	551
New Mexico.....	—	—	—	—	—	*	—	—	*
New York.....	3,066	36	538	—	574	635	—	—	4,276
North Carolina.....	*	—	—	—	—	*	—	—	*
North Dakota.....	*	—	—	—	—	2	—	—	2
Ohio.....	1,499	2,259	608	—	2,867	117	—	—	4,483
Oklahoma.....	*	—	—	—	—	*	—	—	*
Oregon.....	12	—	—	—	—	*	—	—	12
Pennsylvania.....	12,727	5,537	—	—	5,537	15,783	5,175	—	39,222
Rhode Island.....	—	—	—	—	—	3	—	—	3
South Carolina.....	*	—	—	—	—	*	—	—	*
Tennessee.....	11	639	—	—	639	16	—	—	665
Texas.....	1	—	—	—	—	*	—	—	2
Utah.....	230	—	—	—	—	—	—	—	230
Vermont.....	*	—	—	—	—	2	—	—	2
Virginia.....	*	—	—	—	—	11	—	—	11
West Virginia.....	6	1,719	—	—	1,719	140	—	—	1,865
Wisconsin.....	546	—	812	—	812	9	—	—	1,367
Wyoming.....	1	—	—	—	—	—	—	—	1
Unknown State.....	—	—	—	—	—	—	—	284	284
Foreign.....	152	—	562	8,521	9,083	11	—	—	9,246
Pennsylvania Anthracite.....	1,313	—	—	343	343	3,119	—	62	4,836
Alabama.....	1	—	—	—	—	1	—	—	2
Arizona.....	1	—	—	—	—	*	—	—	1
Arkansas.....	*	—	—	—	—	*	—	—	*
California.....	*	—	—	—	—	*	—	—	*
Colorado.....	16	—	—	—	—	—	—	—	16
Connecticut.....	*	—	—	—	—	5	—	—	5
Delaware.....	*	—	—	—	—	10	—	—	10
District of Columbia.....	—	—	—	—	—	*	—	—	*
Florida.....	5	—	—	—	—	*	—	—	6
Georgia.....	*	—	—	—	—	*	—	—	*
Idaho.....	*	—	—	—	—	—	—	—	*
Illinois.....	6	—	—	—	—	2	—	—	7
Indiana.....	*	—	—	—	—	6	—	—	6
Iowa.....	53	—	—	—	—	1	—	—	54
Kansas.....	*	—	—	—	—	—	—	—	*
Kentucky.....	13	—	—	—	—	9	—	—	22
Louisiana.....	6	—	—	—	—	—	—	—	6
Maine.....	1	—	—	—	—	3	—	—	4
Maryland.....	*	—	—	—	—	1	—	—	1
Massachusetts.....	*	—	—	—	—	13	—	—	14
Michigan.....	*	—	—	—	—	3	—	—	3

See footnotes at end of table.

Table 65. Distribution of U.S. Coal by Origin, Destination, and Method of Transportation, 1996
(Continued)
(Thousand Short Tons)

Origin State and Destination State	Railroad	Water				Truck	Tramway, Conveyor, and Slurry Pipeline	Unknown	Total
		River	Great Lakes	Tidewater	Total				
Pennsylvania Anthracite (Continued)									
Minnesota.....	6	-	-	-	-	1	-	-	7
Mississippi.....	*	-	-	-	-	-	-	-	*
Missouri.....	-	-	-	-	-	*	-	-	*
Montana.....	2	-	-	-	-	*	-	-	2
Nebraska.....	*	-	-	-	-	1	-	-	1
Nevada.....	-	-	-	-	-	*	-	-	*
New Hampshire.....	*	-	-	-	-	3	-	-	4
New Jersey.....	*	-	-	-	-	13	-	-	14
New Mexico.....	-	-	-	-	-	*	-	-	*
New York.....	18	-	-	-	-	133	-	-	151
North Carolina.....	*	-	-	-	-	*	-	-	*
North Dakota.....	*	-	-	-	-	2	-	-	2
Ohio.....	-	-	-	-	-	19	-	-	19
Oklahoma.....	*	-	-	-	-	*	-	-	*
Oregon.....	12	-	-	-	-	*	-	-	12
Pennsylvania.....	1,006	-	-	-	-	2,815	-	-	3,821
Rhode Island.....	-	-	-	-	-	3	-	-	3
South Carolina.....	*	-	-	-	-	*	-	-	*
Tennessee.....	11	-	-	-	-	16	-	-	26
Texas.....	1	-	-	-	-	*	-	-	1
Utah.....	*	-	-	-	-	-	-	-	*
Vermont.....	*	-	-	-	-	2	-	-	2
Virginia.....	*	-	-	-	-	6	-	-	6
West Virginia.....	-	-	-	-	-	32	-	-	32
Wisconsin.....	*	-	-	-	-	5	-	-	5
Wyoming.....	1	-	-	-	-	-	-	-	1
Unknown State.....	-	-	-	-	-	-	-	62	62
Foreign.....	152	-	-	343	343	11	-	-	506
Pennsylvania Bituminous.....	22,834	11,285	2,648	8,238	22,171	13,889	5,175	222	64,291
Alabama.....	-	6	-	-	6	-	-	-	6
Connecticut.....	217	9	-	-	9	*	-	-	227
Delaware.....	470	53	-	-	53	5	-	-	528
Indiana.....	-	559	-	-	559	-	-	-	559
Iowa.....	-	225	-	-	225	-	-	-	225
Kentucky.....	475	25	-	-	25	-	-	-	500
Louisiana.....	-	195	-	-	195	-	-	-	195
Maryland.....	1,415	-	-	-	-	188	-	-	1,602
Massachusetts.....	196	-	-	-	-	6	-	-	202
Michigan.....	1,945	-	128	-	128	2	-	-	2,075
Minnesota.....	-	23	-	-	23	-	-	-	23
New Hampshire.....	527	-	-	60	60	4	-	-	592
New Jersey.....	538	-	-	-	-	*	-	-	538
New York.....	3,049	36	538	-	574	502	-	-	4,125
Ohio.....	1,499	2,259	608	-	2,867	97	-	-	4,463
Pennsylvania.....	11,721	5,537	-	-	5,537	12,968	5,175	-	35,400
Tennessee.....	-	639	-	-	639	-	-	-	639
Texas.....	*	-	-	-	-	*	-	-	*
Utah.....	230	-	-	-	-	-	-	-	230
Vermont.....	-	-	-	-	-	*	-	-	*
Virginia.....	-	-	-	-	-	5	-	-	5
West Virginia.....	6	1,719	-	-	1,719	108	-	-	1,833
Wisconsin.....	546	-	812	-	812	4	-	-	1,362
Unknown State.....	-	-	-	-	-	-	-	222	222
Foreign.....	-	-	562	8,177	8,740	-	-	-	8,740
Tennessee.....	1,605	458	-	-	458	980	-	9	3,052
Alabama.....	-	331	-	-	331	-	-	-	331
Georgia.....	140	-	-	-	-	1	-	-	141
Kentucky.....	-	-	-	-	-	23	-	-	23
North Carolina.....	-	-	-	-	-	1	-	-	1
Ohio.....	-	-	-	-	-	*	-	-	*
Tennessee.....	1,466	127	-	-	127	956	-	-	2,548
Unknown State.....	-	-	-	-	-	-	-	9	9
Texas.....	24,044	-	-	117	117	9,854	15,641	-	49,655

See footnotes at end of table.

Table 65. Distribution of U.S. Coal by Origin, Destination, and Method of Transportation, 1996
(Continued)
(Thousand Short Tons)

Origin State and Destination State	Railroad	Water				Truck	Tramway, Conveyor, and Slurry Pipeline	Unknown	Total
		River	Great Lakes	Tidewater	Total				
Texas (Continued)									
Texas.....	24,044	-	-	-	-	9,854	15,641	-	49,538
Foreign.....	-	-	-	117	117	-	-	-	117
Utah.....	13,409	-	44	5,305	5,349	5,104	-	6	23,868
Arizona.....	69	-	-	-	-	-	-	-	69
California.....	2,240	-	-	-	-	*	-	-	2,240
Colorado.....	1	-	-	-	-	1	-	-	2
Idaho.....	33	-	-	-	-	32	-	-	65
Illinois.....	2,473	-	-	-	-	-	-	-	2,473
Michigan.....	-	-	44	-	44	-	-	-	44
Missouri.....	330	-	-	-	-	-	-	-	330
Nevada.....	2,185	-	-	-	-	81	-	-	2,265
Oregon.....	-	-	-	-	-	*	-	-	*
Tennessee.....	1,421	-	-	-	-	-	-	-	1,421
Utah.....	4,402	-	-	-	-	4,988	-	-	9,389
Washington.....	124	-	-	-	-	1	-	-	125
Wisconsin.....	133	-	-	-	-	-	-	-	133
Wyoming.....	-	-	-	-	-	*	-	-	*
Unknown State.....	-	-	-	-	-	-	-	6	6
Foreign.....	-	-	-	5,305	5,305	-	-	-	5,305
Virginia.....	17,635	2,517	-	13,645	16,162	1,361	1,007	43	36,208
Alabama.....	1,022	5	-	-	5	9	-	-	1,036
Delaware.....	166	-	-	-	-	-	-	-	166
Florida.....	549	-	-	-	-	-	-	-	549
Georgia.....	1,785	-	-	-	-	*	-	-	1,785
Illinois.....	-	547	-	-	547	35	-	-	583
Indiana.....	1,338	951	-	-	951	-	-	-	2,290
Kentucky.....	*	2	-	-	2	-	-	-	3
Maryland.....	*	-	-	-	-	*	-	-	1
Massachusetts.....	8	-	-	-	-	-	-	-	8
Michigan.....	25	-	-	-	-	*	-	-	25
Mississippi.....	13	-	-	-	-	-	-	-	13
New Hampshire.....	10	-	-	-	-	-	-	-	10
New Jersey.....	-	-	-	601	601	-	-	-	601
New York.....	146	-	-	-	-	-	-	-	146
North Carolina.....	1,816	-	-	-	-	68	-	-	1,883
Ohio.....	228	103	-	-	103	*	-	-	331
Pennsylvania.....	403	896	-	-	896	*	-	-	1,299
South Carolina.....	1,591	-	-	-	-	14	-	-	1,605
Tennessee.....	2,525	-	-	-	-	4	-	-	2,529
Texas.....	13	-	-	-	-	-	-	-	13
Utah.....	332	-	-	-	-	-	-	-	332
Virginia.....	5,357	-	-	-	-	866	1,007	-	7,231
West Virginia.....	275	8	-	-	8	4	-	-	287
Wisconsin.....	5	4	-	-	4	-	-	-	9
Unknown State.....	-	-	-	-	-	-	-	43	43
Foreign.....	27	-	-	13,044	13,044	360	-	-	13,432
Washington.....	2	-	-	43	43	132	4,393	-	4,569
Oregon.....	2	-	-	-	-	1	-	-	3
Washington.....	-	-	-	-	-	131	4,393	-	4,523
Foreign.....	-	-	-	43	43	*	-	-	43
West Virginia.....	64,267	44,560	8,137	41,487	94,185	5,335	5,110	302	169,200
Alabama.....	1,986	1,348	-	-	1,348	6	-	-	3,340
Connecticut.....	17	-	-	690	690	-	-	-	707
Delaware.....	996	-	-	-	-	5	-	-	1,000
District of Columbia.....	3	14	-	-	14	6	-	-	23
Florida.....	658	25	-	992	1,016	-	-	-	1,674
Georgia.....	4,050	-	-	-	-	14	-	-	4,064
Illinois.....	973	773	105	-	877	-	-	-	1,850
Indiana.....	4,358	930	-	-	930	-	-	-	5,287
Iowa.....	27	17	-	-	17	-	-	-	44
Kentucky.....	1,956	3,146	-	-	3,146	174	-	-	5,276
Louisiana.....	-	203	-	-	203	-	-	-	203
Maine.....	26	-	-	-	-	-	-	-	26

See footnotes at end of table.

Table 65. Distribution of U.S. Coal by Origin, Destination, and Method of Transportation, 1996
(Continued)
(Thousand Short Tons)

Origin State and Destination State	Railroad	Water				Truck	Tramway, Conveyor, and Slurry Pipeline	Unknown	Total
		River	Great Lakes	Tidewater	Total				
West Virginia (Continued)									
Maryland.....	4,611	-	-	2,719	2,719	574	-	-	7,905
Massachusetts.....	443	-	-	1,401	1,401	-	-	-	1,845
Michigan.....	4,887	282	294	-	575	47	-	-	5,509
Minnesota.....	-	22	10	-	32	*	-	-	32
Mississippi.....	19	4	-	-	4	1	-	-	24
Missouri.....	-	36	-	-	36	-	-	-	36
New Hampshire.....	269	-	-	77	77	-	-	-	346
New Jersey.....	1,108	156	-	482	638	-	-	-	1,746
New York.....	5,433	253	-	-	253	-	-	-	5,685
North Carolina.....	8,287	-	-	-	-	-	-	-	8,287
North Dakota.....	-	-	-	-	-	*	-	-	*
Ohio.....	5,792	15,200	1,426	-	16,626	317	-	-	22,735
Oklahoma.....	2	25	-	50	75	-	-	-	77
Oregon.....	2	-	-	-	-	-	-	-	2
Pennsylvania.....	3,204	10,781	-	-	10,781	251	-	-	14,236
South Carolina.....	350	-	-	-	-	-	-	-	350
South Dakota.....	-	1	-	-	1	-	-	-	1
Tennessee.....	98	1,461	-	-	1,461	*	-	-	1,560
Texas.....	-	-	-	4	4	-	-	-	4
Utah.....	18	-	-	-	-	-	-	-	18
Virginia.....	3,040	46	-	-	46	197	-	-	3,283
Washington.....	26	-	-	-	-	-	-	-	26
West Virginia.....	10,647	9,726	-	-	9,726	3,737	5,110	-	29,220
Wisconsin.....	67	10	351	-	360	5	-	-	432
Unknown State.....	-	-	-	-	-	-	-	302	302
Foreign.....	916	105	5,953	35,071	41,128	-	-	-	42,044
West Virginia, Northern.....	15,640	14,521	2,103	6,572	23,196	2,898	4,606	96	46,436
Alabama.....	-	419	-	-	419	-	-	-	419
Connecticut.....	8	-	-	674	674	-	-	-	683
Delaware.....	445	-	-	-	-	5	-	-	449
District of Columbia.....	-	-	-	-	-	6	-	-	6
Florida.....	551	-	-	-	-	-	-	-	551
Illinois.....	9	-	-	-	-	-	-	-	9
Indiana.....	469	10	-	-	10	-	-	-	479
Kentucky.....	87	938	-	-	938	*	-	-	1,026
Louisiana.....	-	203	-	-	203	-	-	-	203
Maine.....	13	-	-	-	-	-	-	-	13
Maryland.....	3,972	-	-	622	622	178	-	-	4,773
Massachusetts.....	53	-	-	-	-	-	-	-	53
Michigan.....	622	-	18	-	18	-	-	-	640
New Hampshire.....	269	-	-	53	53	-	-	-	322
New Jersey.....	893	156	-	482	638	-	-	-	1,530
New York.....	4,140	-	-	-	-	-	-	-	4,140
North Carolina.....	13	-	-	-	-	-	-	-	13
North Dakota.....	-	-	-	-	-	*	-	-	*
Ohio.....	1,073	2,130	759	-	2,889	4	-	-	3,966
Pennsylvania.....	1,702	6,824	-	-	6,824	81	-	-	8,606
South Carolina.....	3	-	-	-	-	-	-	-	3
Tennessee.....	-	78	-	-	78	*	-	-	78
Virginia.....	66	-	-	-	-	*	-	-	66
West Virginia.....	965	3,764	-	-	3,764	2,624	4,606	-	11,959
Wisconsin.....	2	-	315	-	315	-	-	-	317
Unknown State.....	-	-	-	-	-	-	-	96	96
Foreign.....	286	-	1,011	4,740	5,751	-	-	-	6,038
West Virginia, Southern.....	48,627	30,040	6,034	34,916	70,989	2,437	504	206	122,764
Alabama.....	1,986	929	-	-	929	6	-	-	2,922
Connecticut.....	8	-	-	16	16	-	-	-	24
Delaware.....	551	-	-	-	-	-	-	-	551
District of Columbia.....	3	14	-	-	14	-	-	-	17
Florida.....	107	25	-	992	1,016	-	-	-	1,123
Georgia.....	4,050	-	-	-	-	14	-	-	4,064
Illinois.....	964	773	105	-	877	-	-	-	1,841
Indiana.....	3,889	920	-	-	920	-	-	-	4,809
Iowa.....	27	17	-	-	17	-	-	-	44
Kentucky.....	1,868	2,208	-	-	2,208	174	-	-	4,250

See footnotes at end of table.

Table 65. Distribution of U.S. Coal by Origin, Destination, and Method of Transportation, 1996
(Continued)
(Thousand Short Tons)

Origin State and Destination State	Railroad	Water				Truck	Tramway, Conveyor, and Slurry Pipeline	Unknown	Total
		River	Great Lakes	Tidewater	Total				
West Virginia, Southern (Continued)									
Maine.....	13	-	-	-	-	-	-	-	13
Maryland.....	639	-	-	2,097	2,097	396	-	-	3,132
Massachusetts.....	391	-	-	1,401	1,401	-	-	-	1,792
Michigan.....	4,265	282	275	-	557	47	-	-	4,869
Minnesota.....	-	22	10	-	32	*	-	-	32
Mississippi.....	19	4	-	-	4	1	-	-	24
Missouri.....	-	36	-	-	36	-	-	-	36
New Hampshire.....	-	-	-	24	24	-	-	-	24
New Jersey.....	216	-	-	-	-	-	-	-	216
New York.....	1,293	253	-	-	253	-	-	-	1,545
North Carolina.....	8,274	-	-	-	-	-	-	-	8,274
Ohio.....	4,720	13,070	667	-	13,736	314	-	-	18,770
Oklahoma.....	2	25	-	50	75	-	-	-	77
Oregon.....	2	-	-	-	-	-	-	-	2
Pennsylvania.....	1,502	3,958	-	-	3,958	170	-	-	5,629
South Carolina.....	347	-	-	-	-	-	-	-	347
South Dakota.....	-	1	-	-	1	-	-	-	1
Tennessee.....	98	1,383	-	-	1,383	*	-	-	1,482
Texas.....	-	-	-	4	4	-	-	-	4
Utah.....	18	-	-	-	-	-	-	-	18
Virginia.....	2,974	46	-	-	46	197	-	-	3,217
Washington.....	26	-	-	-	-	-	-	-	26
West Virginia.....	9,682	5,962	-	-	5,962	1,113	504	-	17,261
Wisconsin.....	65	10	36	-	45	5	-	-	115
Unknown State.....	-	-	-	-	-	-	-	206	206
Foreign.....	629	105	4,941	30,331	35,377	-	-	-	36,006
Wyoming.....	247,820	13,918	924	1,952	16,793	2,857	11,647	*	279,117
Alabama.....	3,686	-	-	-	-	-	-	-	3,686
Arkansas.....	14,614	-	-	-	-	-	-	-	14,614
Colorado.....	6,124	-	-	-	-	-	-	-	6,124
Florida.....	591	-	-	-	-	-	-	-	591
Georgia.....	6,818	-	-	-	-	-	-	-	6,818
Idaho.....	237	-	-	-	-	31	-	-	268
Illinois.....	17,734	-	-	-	-	-	-	-	17,734
Indiana.....	18,079	-	-	-	-	-	-	-	18,079
Iowa.....	17,580	541	-	-	541	-	-	-	18,121
Kansas.....	11,772	-	-	-	-	-	-	-	11,772
Louisiana.....	4,173	5,036	-	-	5,036	-	-	-	9,209
Michigan.....	8,551	-	-	-	-	-	-	-	8,551
Minnesota.....	8,115	-	444	-	444	10	-	-	8,569
Mississippi.....	26	-	-	-	-	-	-	-	26
Missouri.....	24,971	8,341	-	-	8,341	-	-	-	33,312
Montana.....	513	-	-	-	-	-	-	-	513
Nebraska.....	10,464	-	-	-	-	*	-	-	10,464
Nevada.....	204	-	-	-	-	-	-	-	204
North Dakota.....	-	-	-	-	-	*	-	-	*
Ohio.....	-	-	37	-	37	-	-	-	37
Oklahoma.....	19,751	-	-	-	-	-	-	-	19,751
Oregon.....	894	-	-	-	-	-	-	-	894
South Dakota.....	-	-	-	-	-	355	-	-	355
Tennessee.....	298	-	-	-	-	-	-	-	298
Texas.....	42,839	-	-	-	-	-	-	-	42,839
Utah.....	1	-	-	-	-	-	-	-	1
Washington.....	1	-	-	-	-	-	-	-	1
Wisconsin.....	17,640	-	-	-	-	-	-	-	17,640
Wyoming.....	12,145	-	-	-	-	2,461	11,647	-	26,253
Unknown State.....	-	-	-	-	-	-	-	*	*
Foreign.....	-	-	443	1,952	2,395	-	-	-	2,395
U.S. Total.....	611,674	135,760	21,408	90,767	247,935	99,941	98,934	1,408	1,059,892
Alabama.....	15,491	10,360	-	-	10,360	6,099	1,108	-	33,057
Alaska.....	519	-	-	-	-	177	-	-	697
Arizona.....	15,784	-	-	-	-	*	-	-	15,785
Arkansas.....	14,720	-	-	-	-	198	-	-	14,918
California.....	2,240	-	-	-	-	1	-	-	2,240
Colorado.....	12,781	-	-	-	-	4,140	-	-	16,920

See footnotes at end of table.

Table 65. Distribution of U.S. Coal by Origin, Destination, and Method of Transportation, 1996
(Continued)
(Thousand Short Tons)

Origin State and Destination State	Railroad	Water				Truck	Tramway, Conveyor, and Slurry Pipeline	Unknown	Total
		River	Great Lakes	Tidewater	Total				
U.S. Total (Continued)									
Connecticut	237	9	—	1,350	1,359	6	—	—	1,602
Delaware	1,762	53	—	—	53	20	—	—	1,834
District of Columbia	3	14	—	—	14	6	—	—	23
Florida	16,541	7,659	—	2,076	9,735	9	—	—	26,285
Georgia	28,938	—	—	—	—	135	—	—	29,074
Idaho	270	—	—	—	—	63	—	—	333
Illinois	35,581	3,028	105	—	3,133	5,810	23	—	44,547
Indiana	49,804	3,317	199	—	3,516	8,916	505	—	62,741
Iowa	18,843	2,032	—	—	2,032	142	—	—	21,017
Kansas	13,415	—	—	—	—	572	—	—	13,987
Kentucky	10,921	13,771	—	—	13,771	9,746	—	—	34,438
Louisiana	4,179	6,124	—	—	6,124	787	2,435	—	13,526
Maine	26	—	—	271	271	3	—	—	301
Maryland	6,863	8	—	2,719	2,727	1,172	—	—	10,762
Massachusetts	903	—	—	1,553	1,553	19	—	—	2,475
Michigan	24,546	591	7,648	—	8,240	401	—	—	33,186
Minnesota	17,909	158	546	—	705	65	—	—	18,679
Mississippi	5,073	602	—	—	602	27	—	—	5,702
Missouri	29,678	9,291	—	—	9,291	1,095	—	—	40,064
Montana	640	—	—	—	—	416	7,303	—	8,359
Nebraska	10,725	—	—	—	—	1	—	—	10,726
Nevada	2,520	—	—	—	—	81	4,470	—	7,072
New Hampshire	806	—	—	137	137	8	—	—	951
New Jersey	1,646	156	—	1,112	1,268	14	—	—	2,927
New Mexico	8,422	—	—	—	—	95	6,580	—	15,097
New York	9,951	297	538	36	870	637	—	—	11,459
North Carolina	26,992	52	—	—	52	370	—	—	27,414
North Dakota	753	—	—	—	—	4,583	25,107	—	30,444
Ohio	13,028	28,426	2,221	—	30,648	9,613	8,424	—	61,713
Oklahoma	19,769	40	—	50	91	1,724	—	—	21,584
Oregon	1,027	—	—	—	—	1	—	—	1,028
Pennsylvania	17,414	20,013	—	—	20,013	16,501	5,175	—	59,103
Rhode Island	—	—	—	—	—	3	—	—	3
South Carolina	13,326	—	—	—	—	47	—	—	13,373
South Dakota	1,301	1	—	—	1	355	—	—	1,657
Tennessee	16,436	14,264	—	—	14,264	1,810	—	—	32,510
Texas	69,657	23	—	4	28	10,041	15,641	—	95,367
Utah	6,188	—	—	—	—	4,988	—	—	11,175
Vermont	*	—	—	—	—	2	—	—	2
Virginia	13,933	46	—	—	46	1,228	1,007	—	16,214
Washington	301	—	—	—	—	132	4,393	—	4,825
West Virginia	12,955	13,787	—	—	13,787	4,191	5,115	—	36,047
Wisconsin	22,683	1,532	1,904	—	3,436	167	—	—	26,285
Wyoming	12,156	—	—	—	—	2,954	11,647	—	26,757
Unknown State	—	—	—	—	—	—	—	1,408	1,408
Foreign	2,017	105	8,246	81,457	89,808	374	—	—	92,199

* Data round to zero.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-6, "Coal Distribution Report."

Demand

Domestic Markets

U.S. coal consumption during 1996 reached a record 983.3 million short tons, surpassing by 5.0 percent the previous record of 940.8 million short tons consumed during 1995. Compared with 1995, the amount of coal consumed by U.S. electric utilities during 1996 increased 5.5 percent to a record 874.7 million short tons, accounting for 89 percent of total domestic coal consumption.

In contrast, compared with 1995, coal consumption at U.S. coke plants declined 3.9 percent to 31.7 million short tons, while coal consumption at other industrial plants declined 2.9 percent to 70.9 million short tons.

Electric Utility Use

Nearly one-half of the 1996 growth in total electric utility coal consumption was attributable to increases in the amount of coal consumed by electric utility generators located in the East North Central and South Atlantic Census Divisions. Collectively, electric utilities in these two Divisions accounted for 39.8 percent of the coal consumed by electric utilities during 1996.

In the East North Central Division, electric utility coal consumption rose 6.1 percent to 198.9 million short tons as utilities in Illinois and Ohio relied upon coal-fired generating units to compensate for reduced generation by nuclear and gas-fired units. Similarly, in the South Atlantic Division, electric utility coal consumption rose 8.1 percent to 149.4 million short tons as coal-fired generating units accounted for increased shares of the electricity produced in the Carolinas and Virginia.

Coal consumption by electric utilities in the West South Central Division increased by 5.9 percent to 140.5 million short tons in response to increased electricity demand coupled with a decline in the share of generation supplied by natural gas.

Coal consumption in the West North Central Division increased 4.9 percent to 122.4 million short tons as coal-fired generation rose in response to increased electricity demand. In the East South Central Division, the amount of coal consumed by electric utilities increased 4.9 percent to 96.8 million short tons as increased demand for electricity offset a decline in the coal-fired share of the Division's total generation.

Coke Plant Use

The decrease in the total amount of coal consumed by U.S. coke plants during 1996 was attributable primarily to coke plants in Ohio, where consumption of coking coal declined 33.7 percent to 1.8 million short tons. During 1996, coke plants in Pennsylvania and Indiana remained the Nation's leading consumers of coking coal as they collectively consumed 16.5 million short tons, accounting for 52.1 percent of total domestic coal consumption at coke plants.

Other Uses

Compared with 1995, coal consumption in the other industrial sector declined 2.9 percent to 70.9 million short tons, reflecting decreased coal consumption by this sector in all Census Divisions except the Middle Atlantic and East North Central Divisions. Coal consumption in the residential and commercial sectors in 1996 totaled 6.0 million short tons, an increase of 3.4 percent compared with 1995.

Coal Stocks

Stocks of coal held by domestic consumers at the close of 1996 totaled 123.0 million short tons, a decline of 8.6 percent compared with the 134.6 million short tons held in stock at the end of 1995. Compared with 1995, coal stocks at electric utility plants declined 9.2 percent to 114.7 million short tons, while stocks held at coke plants increased slightly to 2.7 million short tons. Coal stocks at other industrial plants remained relatively constant at 5.7 million short tons.

Foreign Markets

U.S. coal exports during 1996 totaled 90.5 million short tons, 2.2 percent more than the 88.5 million short tons exported during 1995. Compared with 1995, exports of metallurgical coal during 1996 increased 1.6 percent to 52.9 million short tons, accounting for 58.5 percent of total 1996 coal exports. Exports of steam coal during 1996 totaled 37.5 million short tons, an increase of 2.9 percent compared with 1995.

During 1996, Brazil replaced Japan as the leading destination for U.S. metallurgical coal exports. Compared with 1995, metallurgical coal shipments to Brazil increased 1.7 percent to 6.4 million short tons, while shipments of metallurgical coal to Japan declined 30.0 percent to 5.6 million short tons.

Exports of metallurgical coal to Europe during 1996 totaled 28.3 million short tons, an increase of 3.5 percent compared with 1995. Shipments to Italy, the leading European consumer of U.S. metallurgical coal, increased 17.5 percent to 5.3 million short tons. In North America, shipments of U.S. metallurgical coal to Canada increased 35.4 percent to 6.0 million short tons.

Compared with 1995, U.S. steam coal exports to Europe during 1996 declined 11.2 percent to 18.9 million short tons as significant increases in shipments to France and the United Kingdom were offset

by decreases in shipments to other European destinations. In North America, the amount of steam coal exported to Canada increased 20.6 percent to 6.0 million short tons and steam coal exports to Mexico increased 90 percent to over 1 million short tons. Exports of steam coal to Asia increased 13.4 percent to 9.2 million short tons as increases in exports to Japan and Israel offset decreased shipments to Taiwan and Korea.

Domestic Markets

In 1996, consumption of U.S. coal increased 4.5 percent to 983 million short tons. Consumption at electric utility plants accounted for 89 percent of total consumption. Distribution by truck accounted for 9 percent of total coal disbursed.

Figure 9. U.S. Coal Consumption, 1987-1996

Note: Total consumption does not include coal consumed by independent power producers.
 Sources: Energy Information Administration, Electric Utilities: Form EIA-759, "Monthly Power Plant Report."
 Coke Plants: Form EIA-5, "Coke Plant Report - Quarterly." Other Industrial: Form EIA-3, "Quarterly Coal
 Consumption Report - Manufacturing Plants" and Form EIA-6, "Coal Distribution Report." Residential and
 Commercial: Form EIA-6, "Coal Distribution Report."

Table 66. Major U.S. Coal Consumers, 1996

Rank	Company Name	Plant Locations
Electric Utilities		
1	Tennessee Valley Auth	(AL) (KY) (TN)
2	Texas Utilities Elec Co	(TX)
3	Pacificorp	(UT) (WA) (WY)
4	Georgia Power Co	(GA)
5	Alabama Power Co	(AL)
6	Detroit Edison Co (The)	(MI)
7	Houston Lighting & Pwr Co	(TX)
8	GPU Service Corp	(PA)
9	Ohio Power Co	(OH) (WV)
10	Duke Power Co	(NC) (SC)
11	Basin Elec Power Coop	(ND) (WY)
12	Commonwealth Edison Co	(IL)
13	Union Electric Co	(MO)
14	PSI Energy, Inc	(IN)
15	Northern States Power Co	(MN) (WI)
16	Arkansas Power & Light Co	(AR)
17	Virginia Elec & Power Co	(VA) (WV)
18	Indiana Michigan Power Co	(IN)
19	Appalachian Power Co	(VA) (WV)
20	Southwestern Elec Pwr Co	(AR) (TX)
21	Monongahela Power Co	(WV)
22	Kansas City Pwr & Lgt Co	(KS) (MO)
23	Midamerican Energy	(IA)
24	Cincinnati Gas Elec Co	(KY) (OH)
25	Wisconsin Electric Pwr Co	(MI) (WI)
26	Carolina Power & Light Co	(NC) (SC)
27	Arizona Public Service Co	(AZ) (NM)
28	KPL - Western Resources	(KS)
29	Oklahoma Gas & Elec Co	(OK)
30	Public Service Co of Colo	(CO)
31	Salt River Project	(AZ)
32	Associated Elec Coop	(MO)
33	Southwestern Pub Serv Co	(TX)
34	Wisconsin Pwr & Lgt Co	(WI)
35	Pennsylvania Pwr & Lgt Co	(PA)
36	Northern Ind Pub Serv Co	(IN)
37	Tampa Electric Co	(FL)
38	Dayton Pwr & Lgt Co (The)	(OH)
39	Montana Power Co (The)	(MT)
40	Consumers Power Co	(MI)
41	Illinois Power Co	(IL)
42	Ohio Edison Co	(OH)
43	Cooperative Power Asso	(ND)
44	Kentucky Utilities Co	(KY)
45	Indianapolis Pwr & Lgt Co	(IN)
46	Louisville Gas & Elec Co	(KY)
47	Pub Serv Co of New Mexico	(NM)
48	Pennsylvania Power Co	(PA)
49	Lower Colorado River Auth	(TX)
50	Central Ill Public Ser Co	(IL)
51	Potomac Electric Pwr Co	(MD) (VA)
52	Florida Power Corporation	(FL)
53	So Carolina Pub Serv Auth	(SC)
54	San Antonio Pub Serv Brd	(TX)
55	Cajun Elec Power Coop Inc	(LA)
56	Baltimore Gas & Elec Co	(MD)
57	Scana Corporation	(SC)
58	Nebraska Pub Power Dist	(NE)
59	Central Louisiana Elec Co	(LA)
60	Big Rivers Electric Corp	(KY)
61	Cleveland Elec Illum Co	(OH)
62	Indiana-Kentucky El Corp	(IN)
63	Electric Energy Inc	(IL)
64	Tri-State G & T Assn Inc	(CO)
65	Mississippi Power Co	(MS)
66	West Penn Power Co	(PA)
67	Southern Calif Edison Co	(NV)
68	Minnkota Power Coop Inc	(ND)
69	Los Angeles (City of)	(UT)
70	Minnesota Power & Lgt Co	(MN)
71	I E S Utilities Co	(IA)
72	Public Service Co of Okla	(OK)
73	Omaha Public Power Dist	(NE)

See footnotes at end of table.

Table 66. Major U.S. Coal Consumers, 1996 (Continued)

Company Name	Plant Location
Top Ten Manufacturers	
Aluminum Company of America	(IN) (OH) (TN) (TX)
Archer Daniels Midland Co	(IA) (IL) (MN)
Basin Electric Power Coop	(ND)
Champion International Corp	(AL) (FL) (ME) (MI) (MN) (NC) (NY) (OH)
E I Du Pont De Nemours & Co	(DE) (MS) (NC) (SC) (TN) (VA) (WV)
Eastman Chemical Company	(AR) (NY) (SC) (TN) (TX)
Hoechst AG	(SC) (TX) (VA)
Holnam Inc	(AL) (CO) (IA) (MI) (MO) (MS) (SC) (UT) (WA)
Inland Steel Industries Inc	(IN)
Westvaco Corporation	(MD) (PA) (SD) (VA)
Other Major Manufacturers	
A E Staley Manufacturing Co	(IL) (IN) (TN)
American Crystal Sugar Co	(MN) (ND)
Applied Energy Services Inc	(PA)
Ash Grove Cement Company	(AR) (KS) (MT) (NE) (OR) (TX) (UT)
Blue Circle Inc	(AL) (GA) (NY) (OK) (SC)
Cargill Incorporated	(GA) (IA) (MN) (NC) (OH) (TN) (VA)
CarMeuse/Marblehead Lime Co.	(IL) (IN) (MI)
Dravo Corporation	(AL) (KY)
Elkem A/S	(OH) (WV)
Florida Crushed Stone	(FL)
Fort Howard Corporation	(GA) (OK) (WI)
FMC Corporation	(NC) (WV) (WY)
G E Company	(IN) (KY) (PA)
General Chemical Corporation	(WY)
General Motors Corporation	(AL) (IL) (IN) (MI) (MO) (OH) (WI)
Georgia-Pacific Corp	(AR) (GA) (MI) (VA)
Heidelberger Zement Ag-Heidelb	(AL) (IA) (IN) (MD)
International Paper Company	(AL) (LA) (PA) (SC) (WI)
Jefferson Smurfit Corp	(AL) (FL) (IL) (IN) (OH) (PA)
Kerr-McGee Corporation	(CA)
Kimberly Clark Corporation	(AL) (MI) (PA) (WI)
Lafarge Corporation	(IA) (IL) (KS) (MI) (MO) (PA)
Lone Star Industries, Inc.	(FL) (IL) (IN) (MO) (OK) (TX)
Mead Corporation The	(MI) (OH) (TN)
Monsanto Company	(AL) (IA) (ID) (IL) (MA) (WV)
P H Glatfelter Co	(NC) (PA)
PPG Industries Inc	(WV)
Southdown Inc	(CA) (CO) (FL) (OH) (TN)
Stone Container Corporation	(AZ) (FL) (MI) (SC) (VA)
Union Camp Corporation	(AL) (GA) (OH) (SC) (VA)
Top Ten Coke Producers	
AK Steel Corp	(KY) (OH)
Bethlehem Steel Corp	(IN) (MD) (NY) (PA)
Citizens Gas & Coke Utility	(IN)
Drummond Company Inc	(AL)
Geneva Steel Company	(UT)
LTV Steel Company Inc	(IL) (IN) (OH) (PA)
National Steel Corp	(IL) (MI)
Sun Coal Co	(VA)
U S Steel Mining Company LLC	(PA)
USX Corporation	(IN)

Note: Major electric utility coal consumers are companies that consumed more than 3.6 million short tons of coal in 1996. Major manufacturers are the top 40 coal consumers in the manufacturing sector. Major coke producers are the top 10 coal consumers in the coke plant sector. Electric utilities are ranked by consumption and manufacturers and coke producers are listed in alphabetical order.

Sources: Energy Information Administration, • Electric Utilities: Form EIA-759, "Monthly Power Plant Report." • Manufacturers: Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants." • Coke Plants: Form EIA-5, "Coke Plant Report - Quarterly."

Table 67. Coal Consumption by Census Division and State, 1987, 1992-1996
(Thousand Short Tons)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
New England Total	7,024	6,662	6,553	6,485	7,298	6,767	5.4	-0.9	0.4
Connecticut.....	931	906	862	788	849	815	2.7	2.3	1.5
Maine.....	234	282	464	449	856	273	-17.0	-27.7	-1.7
Massachusetts.....	4,477	4,113	3,932	3,811	4,257	4,487	8.8	1.3	*
New Hampshire.....	1,377	1,355	1,287	1,428	1,311	1,176	1.6	1.2	1.8
Rhode Island.....	3	3	3	3	5	5	21.1	-9.6	-3.9
Vermont.....	2	3	5	6	20	12	-38.2	-45.8	-19.8
Middle Atlantic Total	70,965	68,462	67,536	70,389	71,418	70,211	3.6	-1.1	.1
New Jersey.....	2,402	2,074	1,969	2,353	2,348	3,434	15.8	.6	-3.9
New York.....	11,337	11,062	11,474	11,878	12,996	11,471	2.5	-3.3	-1.1
Pennsylvania.....	57,226	55,326	54,094	56,158	56,074	55,305	3.4	.5	.4
East North Central Total	229,000	217,702	213,188	210,632	200,660	201,833	5.2	3.3	1.4
Illinois.....	44,431	39,623	39,077	38,135	31,599	35,581	12.1	8.9	2.5
Indiana.....	64,021	62,631	59,996	60,353	58,765	51,385	2.2	2.2	2.5
Michigan.....	36,694	35,802	35,674	32,217	31,554	35,865	2.5	3.8	.3
Ohio.....	59,835	56,580	56,711	59,031	58,671	59,350	5.8	.5	.1
Wisconsin.....	24,019	23,066	21,731	20,897	20,071	19,652	4.1	4.6	2.3
West North Central Total	136,643	131,028	125,591	120,940	115,505	101,599	4.3	4.3	3.3
Iowa.....	21,171	20,636	19,341	19,188	17,992	15,191	2.6	4.1	3.8
Kansas.....	19,084	16,521	17,158	17,386	14,227	15,194	15.5	7.6	2.6
Minnesota.....	19,264	18,947	18,729	18,321	16,924	14,504	1.7	3.3	3.2
Missouri.....	34,382	31,753	27,663	23,381	25,180	24,764	8.3	8.1	3.7
Nebraska.....	10,379	10,396	9,300	9,666	8,212	6,744	-2	6.0	4.9
North Dakota.....	30,511	30,237	30,363	30,302	30,301	24,101	.9	.2	2.6
South Dakota.....	1,852	2,537	3,036	2,696	2,670	1,101	-27.0	-8.7	5.9
South Atlantic Total	165,545	155,259	151,935	150,580	144,178	146,569	6.6	3.5	1.4
Delaware.....	1,956	2,011	2,226	2,446	1,770	2,710	-2.7	2.5	-3.5
District of Columbia.....	23	6	47	51	50	70	309.0	-17.6	-11.5
Florida.....	28,443	26,526	26,082	26,430	26,368	23,644	7.2	1.9	2.1
Georgia.....	31,158	31,288	29,254	27,081	25,481	29,126	-4	5.1	.8
Maryland.....	11,366	11,198	10,491	10,268	9,713	11,311	1.5	4.0	*
North Carolina.....	27,624	24,084	23,282	25,760	24,075	19,965	14.7	3.5	3.7
South Carolina.....	13,852	12,279	12,993	12,914	11,285	11,701	12.8	5.3	1.9
Virginia.....	14,983	13,378	12,792	13,584	13,418	13,227	12.0	2.8	1.4
West Virginia.....	36,139	34,489	34,767	32,046	32,019	34,815	4.8	3.1	.4
East South Central Total	110,450	105,830	99,289	104,027	93,804	88,203	4.4	4.2	2.5
Alabama.....	37,052	34,309	31,473	33,047	31,510	26,632	8.0	4.1	3.7
Kentucky.....	40,863	39,516	38,090	39,095	34,704	32,023	3.4	4.2	2.7
Mississippi.....	5,791	4,606	4,285	4,030	3,485	4,846	25.7	13.5	2.0
Tennessee.....	26,744	27,399	25,440	27,854	24,106	24,702	-2.4	2.6	.9
West South Central Total	146,472	139,106	138,251	140,797	135,210	118,847	5.3	2.0	2.3
Arkansas.....	14,816	13,540	12,596	11,447	12,538	12,066	9.4	4.3	2.3
Louisiana.....	12,534	13,357	14,100	13,676	13,674	10,391	-6.2	-2.1	2.1
Oklahoma.....	20,125	19,596	17,726	18,866	17,430	13,476	2.7	3.7	4.5
Texas.....	98,997	92,612	93,829	96,809	91,568	82,915	6.9	2.0	2.0
Mountain Total	107,226	107,923	115,695	110,673	112,163	94,126	-6	-1.1	1.4
Arizona.....	16,792	16,682	19,580	18,991	17,915	13,375	.6	-1.6	2.6
Colorado.....	17,222	16,971	17,475	17,070	16,696	15,007	1.5	.8	1.5
Idaho.....	397	465	534	528	535	494	-14.5	-7.2	-2.4
Montana.....	8,032	10,005	11,089	9,247	11,040	7,730	-19.7	-7.6	.4
Nevada.....	7,604	7,340	7,968	7,806	8,088	6,920	3.6	-1.5	1.0
New Mexico.....	15,297	15,221	15,374	15,012	14,832	14,395	.5	.8	.7
Utah.....	15,237	15,307	16,216	15,848	15,719	11,807	-4	-8	2.9
Wyoming.....	26,646	25,933	27,459	26,171	27,339	24,399	2.8	-6	1.0
Pacific Total	10,008	8,908	12,162	11,422	12,186	8,294	12.3	-4.8	2.1
Alaska.....	706	815	796	863	792	274	-13.4	-2.8	11.1
California.....	2,317	2,618	2,498	2,453	2,821	1,934	-11.5	-4.8	2.0
Hawaii.....	169	192	86	73	47	63	-11.6	37.9	11.6
Oregon.....	1,134	1,125	2,479	2,099	2,124	205	.8	-14.5	20.9
Washington.....	5,682	4,158	6,303	5,934	6,402	5,819	36.6	-2.9	-3
U.S. Total	983,334	940,880	930,201	925,944	892,421	836,860	4.5	2.4	1.8

* Data round to zero.

Notes: U.S. Total does not include coal consumed by independent power producers. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-759, "Monthly Power Plant Report"; Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; and Form EIA-6, "Coal Distribution Report."

Figure 10. U.S. Consumer Coal Stocks, 1987-1996

Note: Each increment represents end-of-year data. Industrial stocks reflect manufacturing plants and coke plants.
 Sources: Energy Information Administration, Electric Utilities: Form EIA-759, "Monthly Power Plant Report."
 Industrial: Form EIA-5, "Coke Plant Report - Quarterly" and Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants."

Table 68. Year-End Consumer Coal Stocks by Census Division and State, 1987, 1992-1996
(Thousand Short Tons)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
New England Total	1,297	969	1,117	989	1,253	1,056	33.9	0.9	2.3
Connecticut.....	w	w	w	w	w	w	w	w	w
Maine.....	w	w	w	w	w	w	w	w	w
Massachusetts.....	w	w	w	w	w	w	w	w	w
New Hampshire.....	w	w	w	w	w	w	w	w	w
Rhode Island.....	-	-	-	-	-	w	-	-	-
Vermont.....	-	-	-	-	-	w	-	-	-
Middle Atlantic Total	10,899	12,404	14,068	14,060	19,486	19,598	-12.1	-13.5	-6.3
New Jersey.....	w	w	w	w	w	w	w	w	w
New York.....	w	w	w	w	w	w	w	w	w
Pennsylvania.....	8,860	10,303	12,060	12,265	15,976	16,121	-14.0	-13.7	-6.4
East North Central Total	30,823	33,818	35,833	30,162	43,661	51,835	-8.8	-8.3	-5.6
Illinois.....	w	w	w	w	w	w	w	w	w
Indiana.....	7,958	9,298	11,707	7,798	12,507	14,998	-14.4	-10.7	-6.8
Michigan.....	w	w	w	w	w	w	w	w	w
Ohio.....	5,431	5,936	7,815	7,630	10,804	11,164	-8.5	-15.8	-7.7
Wisconsin.....	4,458	3,656	w	w	w	w	21.9	w	w
West North Central Total	18,335	18,713	w	w	w	w	-2.0	w	w
Iowa.....	4,614	4,447	4,178	3,819	4,857	5,094	3.8	-1.3	-1.1
Kansas.....	2,986	3,860	2,623	2,024	2,759	3,327	-22.6	2.0	-1.2
Minnesota.....	1,739	1,985	2,234	1,250	2,252	3,427	-12.4	-6.3	-7.3
Missouri.....	5,320	4,779	w	w	w	w	11.3	w	w
Nebraska.....	w	w	w	w	w	w	w	w	w
North Dakota.....	w	w	w	w	w	w	w	w	w
South Dakota.....	w	w	w	w	w	w	w	w	w
South Atlantic Total	19,584	19,707	24,427	19,092	29,282	32,040	-6	-9.6	-5.3
Delaware.....	w	w	w	w	w	w	w	w	w
Florida.....	3,440	3,268	3,914	3,541	4,121	3,298	5.3	-4.4	.5
Georgia.....	3,848	3,786	4,843	2,926	4,836	6,712	1.6	-5.5	-6.0
Maryland.....	w	w	w	w	w	w	w	w	w
North Carolina.....	2,672	2,855	4,318	3,059	4,715	4,794	-6.4	-13.2	-6.3
South Carolina.....	2,178	2,194	2,533	1,893	2,451	2,376	-7	-2.9	-1.0
Virginia.....	w	w	w	w	w	w	w	w	w
West Virginia.....	w	w	w	w	w	w	w	w	w
East South Central Total	9,311	10,940	11,267	9,277	14,400	19,574	-14.9	-10.3	-7.9
Alabama.....	2,860	3,648	4,132	2,797	4,529	5,012	-21.6	-10.8	-6.0
Kentucky.....	w	w	w	w	w	w	w	w	w
Mississippi.....	w	w	w	w	w	w	w	w	w
Tennessee.....	1,501	1,884	w	w	w	w	-20.3	w	w
West South Central Total	19,894	20,564	15,959	15,105	w	w	-3.3	w	w
Arkansas.....	2,720	2,820	1,777	1,881	1,591	2,359	-3.5	14.3	1.6
Louisiana.....	2,481	2,669	1,922	2,000	1,755	2,820	-7.0	9.0	-1.4
Oklahoma.....	4,212	4,246	2,467	2,052	3,161	3,787	-8	7.4	1.2
Texas.....	10,481	10,829	9,793	9,172	w	w	-3.2	w	w
Mountain Total	w	w	w	w	w	w	w	w	w
Arizona.....	2,025	3,032	3,242	3,717	3,596	3,840	-33.2	-13.4	-6.9
Colorado.....	3,057	3,682	3,145	3,454	3,439	w	-17.0	-2.9	w
Idaho.....	77	118	78	86	101	116	-34.4	-6.5	-4.4
Montana.....	w	w	w	w	w	w	w	w	w
Nevada.....	w	w	w	w	w	w	w	w	w
New Mexico.....	w	w	w	w	w	w	w	w	w
Utah.....	w	w	w	w	w	w	w	w	w
Wyoming.....	2,269	2,936	2,553	1,841	2,242	2,867	-22.7	.3	-2.6
Pacific Total	1,275	2,586	877	918	1,529	1,470	-50.7	-4.4	-1.6
Alaska.....	1	1	2	5	w	w	-	w	w
California.....	150	133	126	93	109	174	12.4	8.3	-1.6
Hawaii.....	w	w	w	w	w	w	w	w	w
Oregon.....	w	w	w	w	w	w	w	w	w
Washington.....	857	1,969	569	459	736	681	-56.4	3.9	2.6
U.S. Total	123,024	134,639	136,139	120,458	163,692	185,459	-8.6	-6.9	-4.4

^w Withheld to avoid disclosure of individual company data.

Notes: Stocks for the residential and commercial sector are not included. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-759, "Monthly Power Plant Report"; Form EIA-5, "Coke Plant Report - Quarterly"; and Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants."

**Table 69. Coal Consumption at Electric Utility Plants by Census Division and State,
1987, 1992-1996**
(Thousand Short Tons)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
New England Total	6,701	6,272	5,945	5,736	6,112	6,217	6.8	2.3	0.8
Connecticut.....	925	881	821	745	817	787	5.0	3.1	1.8
Massachusetts.....	4,406	4,044	3,845	3,652	4,044	4,267	8.9	2.2	.3
New Hampshire.....	1,369	1,346	1,279	1,339	1,251	1,163	1.7	2.3	1.8
Middle Atlantic Total	51,718	49,357	48,326	51,079	52,488	52,172	4.8	-4	-1
New Jersey.....	2,387	2,054	1,887	2,123	2,118	3,081	16.2	3.0	-2.8
New York.....	8,254	8,051	8,395	8,699	9,963	7,828	2.5	-4.6	.6
Pennsylvania.....	41,076	39,252	38,044	40,257	40,407	41,263	4.6	.4	*
East North Central Total	198,900	187,490	183,282	179,833	169,029	161,833	6.1	4.1	2.3
Illinois.....	38,090	33,463	32,599	31,744	25,264	28,894	13.8	10.8	3.1
Indiana.....	52,855	52,089	50,554	48,836	46,937	36,987	1.5	3.0	4.0
Michigan.....	32,175	31,165	31,106	28,749	28,238	30,854	3.2	3.3	.5
Ohio.....	53,543	49,785	49,326	51,456	50,358	47,520	7.5	1.5	1.3
Wisconsin.....	22,236	20,987	19,696	19,049	18,231	17,579	5.9	5.1	2.6
West North Central Total	122,419	116,720	111,672	107,584	102,557	89,174	4.9	4.5	3.6
Iowa.....	17,864	17,785	16,565	16,623	15,357	12,997	.4	3.8	3.6
Kansas.....	18,853	16,345	16,989	17,226	14,068	14,942	15.3	7.6	2.6
Minnesota.....	17,459	17,282	17,046	16,844	15,841	13,495	1.0	2.5	2.9
Missouri.....	33,059	30,440	26,375	21,945	23,815	23,012	8.6	8.5	4.1
Nebraska.....	10,091	10,048	8,879	9,297	7,881	6,428	.4	6.4	5.1
North Dakota.....	23,640	22,680	23,248	23,290	23,192	17,434	4.2	.5	3.4
South Dakota.....	1,453	2,137	2,570	2,360	2,402	865	-32.0	-11.8	5.9
South Atlantic Total	149,354	138,134	133,984	132,885	126,093	125,582	8.1	4.3	1.9
Delaware.....	1,787	1,816	2,007	2,223	1,628	2,449	-1.6	2.4	-3.4
Florida.....	27,172	25,200	24,758	25,108	25,016	22,598	7.8	2.1	2.1
Georgia.....	29,171	29,280	27,293	25,339	23,656	27,130	-4	5.4	.8
Maryland.....	10,540	10,141	9,717	9,521	8,993	8,228	3.9	4.0	2.8
North Carolina.....	25,083	21,424	20,624	23,055	21,011	17,255	17.1	4.5	4.2
South Carolina.....	11,833	10,074	10,597	10,410	9,078	9,019	17.5	6.8	3.1
Virginia.....	10,994	9,543	8,670	9,447	8,661	8,297	15.2	6.1	3.2
West Virginia.....	32,775	30,657	30,318	27,782	28,050	30,605	6.9	4.0	.8
East South Central Total	96,809	92,262	85,622	90,365	80,203	74,573	4.9	4.8	2.9
Alabama.....	31,216	28,759	25,817	27,533	24,988	20,746	8.5	5.7	4.6
Kentucky.....	37,072	35,707	34,564	35,264	31,715	28,569	3.8	4.0	2.9
Mississippi.....	5,558	4,319	3,989	3,767	3,237	4,562	28.7	14.5	2.2
Tennessee.....	22,964	23,477	21,253	23,801	20,263	20,697	-2.2	3.2	1.2
West South Central Total	140,493	132,633	131,168	134,009	129,351	113,455	5.9	2.1	2.4
Arkansas.....	14,467	13,216	12,250	11,116	12,241	11,764	9.5	4.3	2.3
Louisiana.....	12,450	12,930	13,479	13,089	13,077	10,029	-3.7	-1.2	2.4
Oklahoma.....	19,386	18,130	16,961	17,668	16,699	12,861	6.9	3.8	4.7
Texas.....	94,189	88,358	88,479	92,135	87,333	78,802	6.6	1.9	2.0
Mountain Total	101,507	101,013	108,651	104,093	105,609	89,145	.5	-1.0	1.4
Arizona.....	16,117	16,021	18,853	18,316	17,280	12,706	.6	-1.7	2.7
Colorado.....	16,841	16,222	16,596	16,252	15,902	14,178	3.8	1.4	1.9
Montana.....	7,897	9,373	10,513	8,869	10,768	7,530	-15.8	-7.4	.5
Nevada.....	7,424	7,084	7,772	7,608	7,914	6,807	4.8	-1.6	1.0
New Mexico.....	15,215	15,137	15,297	14,942	14,775	14,340	.5	.7	.6
Utah.....	13,584	13,325	14,269	13,995	13,857	11,175	1.9	-5	2.2
Wyoming.....	24,430	23,850	25,350	24,111	25,114	22,408	2.4	-7	1.0
Pacific Total	6,780	5,127	8,621	7,924	8,419	5,742	32.2	-5.3	1.9
Alaska.....	229	293	271	298	277	274	-21.6	-4.6	-2.0
Oregon.....	1,044	977	2,333	1,981	1,994	-	6.8	-14.9	-
Washington.....	5,507	3,857	6,016	5,646	6,148	5,468	42.8	-2.7	.1
U.S. Total	874,681	829,007	817,270	813,508	779,860	717,894	5.5	2.9	2.2

* Data round to zero.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-759, "Monthly Power Plant Report."

Table 70. Year-End Coal Stocks at Electric Utility Plants by Census Division and State, 1987, 1992-1996
(Thousand Short Tons)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
New England Total	1,237	908	1,079	967	1,237	1,012	36.2	•	2.3
Connecticut.....	173	164	202	160	150	-	5.5	3.7	-
Massachusetts.....	704	425	629	449	727	677	65.7	-8	4
New Hampshire.....	360	319	248	358	361	307	12.6	-1	1.8
Rhode Island.....	-	-	-	-	-	28	-	-	-
Middle Atlantic Total	9,609	11,064	12,687	12,564	17,743	17,764	-13.1	-14.2	-6.6
New Jersey.....	824	804	688	501	771	842	2.4	1.7	-2
New York.....	905	1,015	999	953	2,106	1,889	-10.8	-19.0	-7.8
Pennsylvania.....	7,880	9,244	11,000	11,110	14,866	15,034	-14.8	-14.7	-6.9
East North Central Total	27,626	30,505	32,088	27,296	40,250	45,855	-9.4	-9.0	-5.5
Illinois.....	4,581	5,331	4,526	4,019	7,399	8,861	-14.1	-11.3	-7.1
Indiana.....	7,105	8,435	10,449	6,935	11,294	13,185	-15.8	-10.9	-6.6
Michigan.....	6,531	7,708	6,505	6,206	7,402	9,751	-15.3	-3.1	-4.3
Ohio.....	5,232	5,661	7,499	7,249	10,395	9,959	-7.6	-15.8	-6.9
Wisconsin.....	4,177	3,371	3,109	2,887	3,760	4,099	23.9	2.7	.2
West North Central Total	17,115	17,732	16,739	14,123	19,712	21,904	-3.5	-3.5	-2.7
Iowa.....	4,044	3,923	3,642	3,401	4,301	4,507	3.1	-1.5	-1.2
Kansas.....	2,970	3,850	2,610	2,008	2,747	3,286	-22.9	2.0	-1.1
Minnesota.....	1,462	1,898	2,134	1,182	2,175	3,346	-23.0	-9.5	-8.8
Missouri.....	5,162	4,641	4,410	3,555	6,211	4,958	11.2	-4.5	.4
Nebraska.....	1,692	1,409	1,276	1,272	1,798	1,880	20.1	-1.5	-1.2
North Dakota.....	1,642	1,858	2,406	2,417	2,194	3,586	-11.6	-7.0	-8.3
South Dakota.....	143	153	259	287	285	341	-6.5	-15.8	-9.2
South Atlantic Total	18,669	18,851	23,226	17,877	27,977	29,878	-1.0	-9.6	-5.1
Delaware.....	322	363	470	192	361	438	-11.3	-2.8	-3.3
Florida.....	3,350	3,204	3,813	3,451	4,021	3,196	4.5	-4.5	.5
Georgia.....	3,727	3,657	4,699	2,825	4,692	6,505	1.9	-5.6	-6.0
Maryland.....	1,347	1,038	1,306	1,455	2,400	1,604	29.8	-13.4	-1.9
North Carolina.....	2,560	2,715	4,139	2,887	4,512	4,465	-5.7	-13.2	-6.0
South Carolina.....	1,980	2,033	2,255	1,648	2,206	1,968	-2.6	-2.6	.1
Virginia.....	1,010	1,098	2,064	1,418	1,922	2,300	-7.9	-14.8	-8.7
West Virginia.....	4,372	4,744	4,479	4,001	7,863	9,401	-7.8	-13.6	-8.1
East South Central Total	8,518	10,148	10,317	8,370	13,401	18,183	-16.0	-10.7	-8.1
Alabama.....	2,528	3,282	3,652	2,331	4,071	4,450	-23.0	-11.2	-6.1
Kentucky.....	4,121	4,472	4,466	3,990	5,415	7,679	-7.8	-6.6	-6.7
Mississippi.....	603	724	690	417	899	837	-16.8	-9.5	-3.6
Tennessee.....	1,267	1,670	1,509	1,632	3,016	5,217	-24.1	-19.5	-14.5
West South Central Total	19,533	20,195	15,520	13,867	16,483	17,757	-3.3	4.3	1.1
Arkansas.....	2,702	2,790	1,751	1,866	1,572	2,329	-3.2	14.5	1.7
Louisiana.....	2,472	2,659	1,872	1,932	1,701	2,803	-7.0	9.8	-1.4
Oklahoma.....	4,069	4,118	2,319	1,944	3,066	3,634	-1.2	7.3	1.3
Texas.....	10,290	10,628	9,578	8,125	10,143	8,992	-3.2	.4	1.5
Mountain Total	11,309	14,562	14,559	15,529	16,009	17,265	-22.3	-8.3	-4.6
Arizona.....	1,993	2,998	3,197	3,687	3,543	3,813	-33.5	-13.4	-6.9
Colorado.....	3,030	3,622	3,118	3,428	3,410	3,635	-16.3	-2.9	-2.0
Montana.....	509	511	517	721	735	851	-5	-8.8	-5.6
Nevada.....	1,240	1,356	1,034	1,195	1,447	1,782	-8.6	-3.8	-3.9
New Mexico.....	814	967	1,462	1,506	1,570	1,246	-15.8	-15.1	-4.6
Utah.....	1,526	2,250	2,753	3,264	3,153	3,133	-32.2	-16.6	-7.7
Wyoming.....	2,198	2,857	2,476	1,728	2,153	2,805	-23.1	.5	-2.7
Pacific Total	1,052	2,341	683	748	1,317	1,180	-55.0	-5.4	-1.3
Alaska.....	1	1	2	5	6	4	-	-38.3	-15.1
Oregon.....	203	399	150	312	615	561	-49.2	-24.2	-10.7
Washington.....	849	1,941	531	431	697	615	-56.3	5.0	3.6
U.S. Total	114,669	126,304	126,897	111,341	154,130	170,797	-9.2	-7.1	-4.3

* Data round to zero.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-759, "Monthly Power Plant Report."

Table 71. Coal Consumption at Other Industrial Plants by Census Division and State, 1987, 1992-1996
(Thousand Short Tons)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
New England Total	268	321	553	647	1,045	398	-16.4	-28.8	-4.3
Connecticut	w	w	w	w	w	w	w	w	w
Maine	w	w	w	w	w	w	w	w	w
Massachusetts	w	w	w	w	w	w	w	w	w
New Hampshire	w	w	w	w	w	w	w	w	w
Rhode Island	w	w	w	w	w	w	w	w	w
Vermont	w	w	w	w	w	w	w	w	w
Middle Atlantic Total	w	w	w	w	w	w	w	w	w
New Jersey	w	w	w	w	w	w	w	w	w
New York	1,449	1,408	1,559	1,704	1,610	1,823	2.9	-2.6	-2.5
Pennsylvania	4,466	4,027	4,044	4,311	4,173	4,112	10.9	1.7	.9
East North Central Total	17,113	16,566	17,098	17,699	16,931	20,380	3.3	.3	-1.9
Illinois	3,740	3,653	4,187	3,970	3,736	3,900	2.4	*	-5
Indiana	4,987	4,373	4,244	4,587	4,263	5,016	14.0	4.0	-1
Michigan	2,914	2,983	2,890	3,230	3,127	3,826	-2.3	-1.7	-3.0
Ohio	3,794	3,609	3,794	4,100	3,970	5,657	5.1	-1.1	-4.3
Wisconsin	1,678	1,949	1,984	1,811	1,835	1,980	-13.9	-2.2	-1.8
West North Central Total	13,415	13,581	13,238	12,753	12,505	11,479	-1.2	1.8	1.7
Iowa	3,085	2,761	2,735	2,494	2,571	1,857	11.7	4.7	5.8
Kansas	154	138	137	137	158	252	11.6	-7	-5.3
Minnesota	1,649	1,401	1,455	1,370	1,059	838	17.7	11.7	7.8
Missouri	1,118	1,102	1,070	1,177	1,137	1,427	1.5	-4	-2.7
Nebraska	w	w	w	w	w	w	w	w	w
North Dakota	w	w	w	w	w	w	w	w	w
South Dakota	w	w	w	w	w	w	w	w	w
South Atlantic Total	w	w	w	w	w	w	w	w	w
Delaware	w	w	w	w	w	w	w	w	w
Florida	1,270	1,325	1,303	1,307	1,335	993	-4.1	-1.2	2.8
Georgia	1,985	1,949	1,933	1,720	1,787	1,960	1.8	2.7	.1
Maryland	785	760	738	731	706	972	3.2	2.7	-2.3
North Carolina	2,336	2,437	2,396	2,476	2,860	2,548	-4.1	-4.9	-1.0
South Carolina	2,000	2,188	2,334	2,395	2,177	2,562	-8.6	-2.1	-2.7
Virginia	2,613	2,585	2,838	2,863	3,592	3,662	1.1	-7.6	-3.7
West Virginia	1,630	1,984	2,637	2,406	2,266	2,326	-17.8	-7.9	-3.9
East South Central Total	w	w	w	w	w	w	w	w	w
Alabama	2,545	2,286	2,394	2,268	3,136	2,614	11.3	-5.1	-3
Kentucky	2,322	2,250	1,994	2,392	1,648	1,869	3.2	8.9	2.4
Mississippi	w	w	w	w	w	w	w	w	w
Tennessee	3,670	3,777	4,097	3,942	3,686	3,842	-2.8	-1	-5
West South Central Total	5,978	6,456	7,082	6,780	5,846	w	-7.4	.5	w
Arkansas	348	325	346	330	295	302	7.2	4.3	1.6
Louisiana	w	w	w	w	w	w	w	w	w
Oklahoma	w	w	w	w	w	613	w	w	w
Texas	4,808	4,255	5,350	4,667	4,225	4,083	13.0	3.3	1.8
Mountain Total	4,141	5,615	5,614	5,163	4,973	4,634	-26.3	-4.5	-1.2
Arizona	675	657	727	674	632	669	2.8	1.7	.1
Colorado	367	729	857	780	735	748	-49.6	-15.9	-7.6
Idaho	369	426	494	486	484	470	-13.3	-6.5	-2.7
Montana	w	w	w	w	w	w	w	w	w
Nevada	w	w	w	w	w	w	w	w	w
New Mexico	w	w	w	w	w	w	w	w	w
Utah	512	915	835	727	525	507	-44.1	-6	.1
Wyoming	1,835	1,937	1,867	1,873	2,126	1,887	-5.3	-3.6	-3
Pacific Total	2,553	3,047	2,769	2,677	3,161	2,496	-16.2	-5.2	.3
Alaska	w	w	5	2	w	w	w	w	w
California	2,140	2,485	2,332	2,311	2,821	1,933	-13.9	-6.7	1.1
Hawaii	w	w	w	w	w	w	w	w	w
Oregon	w	w	w	w	w	w	w	w	w
Washington	152	223	201	174	163	298	-31.9	-1.8	-7.2
U.S. Total	70,941	73,055	75,179	74,892	74,042	75,175	-2.9	-1.1	-6

* Data round to zero.

w Withheld to avoid disclosure of individual company data.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; and Form EIA-6, "Coal Distribution Report."

Table 72. Year-End Coal Stocks at Other Industrial Plants by Census Division and State, 1987, 1992-1996
(Thousand Short Tons)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
New England Total	60	60	38	21	16	44	*	39.7	3.5
Connecticut.....	-	-	-	-	-	w	w	w	w
Maine.....	w	w	w	w	w	w	w	w	w
Massachusetts.....	w	w	w	w	w	w	w	w	w
New Hampshire.....	-	-	-	-	-	w	w	w	w
Vermont.....	-	-	-	-	-	w	w	w	w
Middle Atlantic Total	w	w	w	w	w	w	w	w	w
New Jersey.....	w	w	w	w	w	w	w	w	w
New York.....	192	203	250	321	402	452	-5.4	-16.8	-9.1
Pennsylvania.....	231	218	298	287	306	465	6.2	-6.7	-7.4
East North Central Total	1,862	2,031	2,462	2,044	2,505	3,884	-8.3	-7.1	-7.8
Illinois.....	252	333	426	368	389	598	-24.2	-10.2	-9.1
Indiana.....	384	451	690	470	732	902	-14.9	-14.9	-9.0
Michigan.....	827	822	865	702	882	1,387	.5	-1.6	-5.6
Ohio.....	118	138	153	198	228	445	-14.9	-15.2	-13.7
Wisconsin.....	281	286	328	306	274	553	-1.8	.6	-7.3
West North Central Total	1,220	981	978	775	1,020	1,196	24.3	4.6	.2
Iowa.....	570	524	535	418	556	587	8.7	.6	-3
Kansas.....	16	10	13	16	11	41	64.6	8.6	-9.9
Minnesota.....	277	87	99	68	77	81	218.1	37.9	14.7
Missouri.....	158	138	159	148	227	293	14.5	-8.7	-6.6
Nebraska.....	w	w	w	w	w	w	w	w	w
North Dakota.....	w	w	w	w	w	w	w	w	w
South Dakota.....	w	w	w	w	w	w	w	w	w
South Atlantic Total	w	w	w	w	w	w	w	w	w
Delaware.....	w	w	w	w	w	w	w	w	w
Florida.....	89	64	101	90	100	102	40.2	-2.7	-1.4
Georgia.....	121	129	144	101	144	207	-6.3	-4.3	-5.8
Maryland.....	30	24	36	41	35	49	27.1	-3.7	-5.1
North Carolina.....	112	140	179	172	203	329	-19.8	-13.7	-11.3
South Carolina.....	198	160	278	245	245	409	23.5	-5.2	-7.7
Virginia.....	133	177	217	216	275	440	-25.0	-16.6	-12.4
West Virginia.....	136	105	130	167	156	268	30.0	-3.3	-7.3
East South Central Total	w	w	w	w	w	w	w	w	w
Alabama.....	135	133	183	132	127	183	1.2	1.6	-3.3
Kentucky.....	83	120	112	73	127	178	-30.3	-10.0	-8.1
Mississippi.....	w	w	w	w	w	w	w	w	w
Tennessee.....	234	215	256	246	270	434	9.0	-3.5	-6.6
West South Central Total	361	370	439	1,218	395	1,419	-2.3	-2.2	-14.1
Arkansas.....	18	29	26	15	19	30	-37.9	-1.2	-5.5
Louisiana.....	w	w	w	w	w	18	w	w	w
Oklahoma.....	w	w	w	w	w	154	w	w	w
Texas.....	190	201	215	1,026	228	1,218	-5.6	-4.4	-18.6
Mountain Total	231	313	267	332	360	324	-26.2	-10.4	-3.7
Arizona.....	32	34	45	30	53	26	-5.8	-11.7	2.3
Colorado.....	27	59	26	25	29	56	-54.2	-1.6	-7.7
Idaho.....	w	118	78	86	101	116	w	w	w
Montana.....	w	w	w	w	w	w	w	w	w
Nevada.....	w	w	w	w	w	w	w	w	w
New Mexico.....	w	w	w	w	w	w	w	w	w
Utah.....	5	7	13	20	26	39	-19.6	-32.3	-19.8
Wyoming.....	71	79	77	113	89	62	-10.7	-5.6	1.5
Pacific Total	222	245	194	170	211	290	-9.2	1.3	-2.9
California.....	150	133	126	93	109	174	12.4	8.3	-1.6
Hawaii.....	w	w	w	w	w	w	w	w	w
Oregon.....	w	w	w	w	w	w	w	w	w
Washington.....	8	28	38	27	39	66	-69.2	-31.5	-20.4
U.S. Total	5,688	5,702	6,585	6,716	6,965	10,777	-2	-4.9	-6.8

* Data round to zero.

w Withheld to avoid disclosure of individual company data.

Notes: Other industrial plants include manufacturing plants only. Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants."

**Table 73. Coal Carbonized at Coke Plants by Census Division and State,
1987, 1992-1996**
(Thousand Short Tons)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Middle Atlantic Total.....	w	w	w	w	w	w	w	w	w
New York.....	w	w	w	w	w	w	w	w	w
Pennsylvania.....	10,689	10,858	10,849	10,333	9,868	8,395	-1.5	2.0	2.7
East North Central Total.....	11,414	12,345	11,356	11,643	13,224	17,782	-7.5	-3.6	-4.8
Illinois.....	w	w	w	w	w	w	w	w	w
Indiana.....	5,823	5,883	4,841	6,591	7,153	8,841	-1.0	-5.0	-4.5
Michigan.....	w	w	w	-	-	w	w	w	w
Ohio.....	1,842	2,777	3,092	2,892	3,755	5,361	-33.7	-16.3	-11.2
West North Central Total.....	-	-	-	-	-	w	-	w	w
Missouri.....	-	-	-	-	-	w	-	w	w
South Atlantic Total.....	w	w	w	w	w	w	w	w	w
Maryland.....	-	-	-	-	-	w	w	w	w
Virginia.....	w	w	w	w	w	w	w	w	w
West Virginia.....	w	w	w	w	w	w	w	w	w
East South Central Total.....	w	w	w	w	w	w	w	w	w
Alabama.....	3,247	3,257	3,253	3,206	3,297	3,150	-3	-4	.3
Kentucky.....	w	w	w	w	w	w	w	w	w
Tennessee.....	-	-	-	-	-	w	-	w	w
Mountain Total.....	w	w	w	w	w	-	w	w	w
Utah.....	w	w	w	w	w	-	w	w	w
U.S. Total.....	31,706	33,011	31,740	31,323	32,366	36,877	-3.9	-.5	-1.7

^w Withheld to avoid disclosure of individual company data.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-5, "Coke Plant Report - Quarterly."

**Table 74. Year-End Coal Stocks at Coke Plants by Census Division and State,
1987, 1992-1996**
(Thousand Short Tons)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Middle Atlantic Total.....	w	w	w	w	w	w	w	w	w
New York.....	w	w	w	w	w	w	w	w	w
Pennsylvania.....	748	841	762	868	804	622	-11.0	-1.8	2.1
East North Central Total.....	1,335	1,282	1,282	822	906	2,095	4.1	10.2	-4.9
Illinois.....	w	w	w	w	w	w	w	w	w
Indiana.....	469	412	567	394	481	912	13.7	-.6	-7.1
Michigan.....	w	w	w	-	-	w	w	w	w
Ohio.....	81	136	163	183	180	760	-40.5	-18.1	-22.0
South Atlantic Total.....	w	w	w	w	w	w	w	w	w
Maryland.....	-	-	-	-	-	w	w	w	w
Virginia.....	-	-	-	-	-	w	w	w	w
West Virginia.....	w	w	w	w	w	w	w	w	w
East South Central Total.....	w	w	w	w	w	w	w	w	w
Alabama.....	197	233	297	333	332	379	-15.4	-12.2	-7.0
Kentucky.....	w	w	w	w	w	w	w	w	w
Tennessee.....	-	-	-	-	-	w	w	w	w
West South Central Total.....	-	-	-	21	w	w	-	w	w
Texas.....	-	-	-	21	w	w	-	w	w
Mountain Total.....	w	w	w	w	w	-	w	w	w
Utah.....	w	w	w	w	w	-	w	w	w
U.S. Total.....	2,667	2,632	2,657	2,401	2,597	3,884	1.3	.6	-4.1

^w Withheld to avoid disclosure of individual company data.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-5, "Coke Plant Report - Quarterly."

Table 75. Coal Consumption by Residential and Commercial Sector, by Census Division and State, 1987, 1992-1996
(Thousand Short Tons)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
New England Total	55	69	56	102	141	152	-20.3	-20.8	-10.6
Connecticut.....	w	w	w	w	w	w	w	w	w
Maine.....	w	w	w	w	w	w	w	w	w
Massachusetts.....	w	w	w	w	w	w	w	w	w
New Hampshire.....	w	w	w	w	w	w	w	w	w
Rhode Island.....	w	w	w	w	w	w	w	w	w
Vermont.....	w	w	w	w	w	w	w	w	w
Middle Atlantic Total	1,285	1,416	1,351	1,498	1,916	1,935	-9.2	-9.5	-4.4
New Jersey.....	w	w	w	w	w	w	w	w	w
New York.....	w	w	w	w	w	w	w	w	w
Pennsylvania.....	995	1,188	1,156	1,257	1,626	1,535	-16.3	-11.6	-4.7
East North Central Total	1,574	1,301	1,452	1,458	1,476	1,838	21.0	1.6	-1.7
Illinois.....	w	w	w	w	w	w	w	w	w
Indiana.....	356	287	356	339	411	541	24.3	-3.5	-4.5
Michigan.....	w	w	w	w	w	w	w	w	w
Ohio.....	656	409	498	584	588	812	60.4	2.8	-2.3
Wisconsin.....	w	w	w	w	w	w	w	w	w
West North Central Total	w	w	w	w	w	w	w	w	w
Iowa.....	222	90	40	70	64	337	147.0	36.5	-4.5
Kansas.....	78	38	32	23	*	1	107.2	359.7	66.2
Minnesota.....	156	264	229	107	25	171	-40.9	58.4	-1.0
Missouri.....	w	w	w	w	w	w	w	w	w
Nebraska.....	w	w	w	w	w	w	w	w	w
North Dakota.....	w	w	w	w	w	w	w	w	w
South Dakota.....	w	w	w	w	w	w	w	w	w
South Atlantic Total	803	954	887	904	632	1,107	-15.9	6.2	-3.5
Delaware.....	w	w	w	w	w	w	NM	w	w
District of Columbia.....	23	6	47	51	50	70	309.0	-17.6	-11.5
Florida.....	1	1	20	16	16	53	-24.2	-50.5	-35.8
Georgia.....	3	59	28	22	38	37	-94.8	-46.9	-24.2
Maryland.....	w	w	w	w	w	w	w	w	w
North Carolina.....	206	224	263	229	204	162	-8.1	.2	2.7
South Carolina.....	19	17	61	109	31	120	12.2	-11.3	-18.6
Virginia.....	w	w	w	w	w	w	w	w	w
West Virginia.....	w	w	w	w	w	w	w	w	w
East South Central Total	272	283	386	417	458	488	-3.8	-12.2	-6.3
Alabama.....	44	7	11	40	89	121	NM	-16.0	-10.7
Kentucky.....	w	w	w	w	w	w	w	w	w
Mississippi.....	-	-	-	w	w	w	w	w	w
Tennessee.....	w	w	w	w	w	w	w	w	w
West South Central Total	w	17	1	8	13	32	w	w	w
Arkansas.....	-	-	*	1	2	*	-	-	-
Louisiana.....	-	w	-	w	-	-	w	w	w
Oklahoma.....	w	w	w	w	1	2	w	w	w
Texas.....	-	-	*	6	w	w	-	w	w
Mountain Total	w	w	w	w	w	w	w	w	w
Arizona.....	*	5	*	1	w	w	-96.3	w	w
Colorado.....	13	20	23	38	w	w	-32.2	w	w
Idaho.....	28	39	40	43	51	24	-27.5	-13.8	2.0
Montana.....	w	w	w	w	w	w	w	w	w
Nevada.....	w	w	w	w	w	w	w	w	w
New Mexico.....	w	w	w	w	w	w	w	w	w
Utah.....	w	w	w	w	w	w	w	w	w
Wyoming.....	382	146	242	187	w	w	162.0	w	w
Pacific Total	675	734	773	821	w	w	-8.0	w	w
Alaska.....	474	523	520	563	w	w	-9.3	w	w
California.....	177	133	166	142	w	w	33.2	w	w
Hawaii.....	w	w	w	w	w	w	w	w	w
Oregon.....	w	w	w	w	w	w	w	w	w
Washington.....	23	78	86	114	91	52	-70.0	-28.8	-8.5
U.S. Total	6,006	5,807	6,013	6,221	6,153	6,914	3.4	-6	-1.5

* Data round to zero.

w Withheld to avoid disclosure of individual company data.

NM Not meaningful as value is greater than 500 percent.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Form EIA-6, "Coal Distribution Report."

Foreign Markets

Japan, Canada, and Italy continues to be the principal export markets for U.S. coal. Historically, Canada has been the principal purchaser of American coal.

Figure 11. U.S. Coal Exports, 1987-1996

Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545."

Table 76. U.S. Coal Exports by Destination, 1987, 1992-1996
(Thousand Short Tons)

Continent and Country of Destination	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
North America Total	13,609	10,411	9,505	9,219	15,331	16,464	30.7	-2.9	-2.1
Canada ¹	12,029	9,427	9,193	8,889	15,140	16,227	27.6	-5.6	-3.3
Jamaica.....	24	83	26	29	27	-	-71.1	-2.9	-
Mexico.....	1,509	871	241	250	77	106	73.3	110.6	34.3
Other ²	48	30	46	52	88	132	62.5	-13.8	-10.5
South America Total	7,505	6,968	5,946	5,750	6,769	6,720	7.7	2.6	1.2
Argentina.....	304	342	453	524	335	748	-11.1	-2.4	-9.5
Brazil.....	6,540	6,351	5,482	5,197	6,370	5,830	3.0	.7	1.3
Chile.....	574	227	*	*	27	93	152.9	114.5	22.4
Other ²	87	49	12	28	37	48	78.2	23.7	6.8
Europe Total	47,193	48,620	35,825	37,575	57,255	34,159	-2.9	-4.7	3.6
Belgium & Luxembourg.....	4,569	4,501	4,911	5,229	7,196	4,578	1.5	-10.7	*
Bulgaria.....	1,387	1,339	1,238	906	602	-	3.6	23.2	-
Denmark.....	1,316	2,100	477	336	3,832	934	-37.3	-23.4	3.9
Finland.....	704	1,308	377	252	205	172	-46.2	36.1	17.0
France.....	3,852	3,659	2,875	3,972	8,060	2,886	5.3	-16.8	3.3
Germany, FR.....	1,055	1,953	323	508	1,003	477	-46.0	1.3	9.2
Ireland.....	765	914	974	985	1,449	1,410	-16.3	-14.8	-6.6
Italy.....	9,204	9,063	7,543	6,918	9,344	9,537	1.6	-4	-4
Netherlands.....	7,058	7,301	4,874	5,562	9,148	4,093	-3.3	-6.3	6.2
Norway.....	85	120	87	101	118	173	-29.2	-7.9	-7.6
Portugal.....	1,803	1,752	1,057	1,491	1,479	1,287	2.8	5.1	3.8
Romania.....	1,512	1,984	1,553	720	753	1,098	-23.8	19.0	3.6
Spain.....	4,093	4,653	4,132	4,064	4,535	2,454	-12.0	-2.5	5.8
Sweden.....	1,070	1,117	702	736	1,165	668	-4.3	-2.1	5.4
Turkey.....	2,167	2,011	1,335	1,605	1,990	772	7.7	2.1	12.1
United Kingdom.....	6,196	4,726	3,363	4,111	5,595	2,589	31.1	2.6	10.2
Yugoslavia, FR.....	-	65	-	78	726	889	-100.0	-100.0	-100.0
Other ²	357	52	8	*	54	142	NM	60.1	10.8
Asia Total	17,980	19,095	17,957	19,500	20,540	20,206	-5.8	-3.3	-1.3
China (Taiwan).....	2,441	2,533	3,374	3,435	3,560	4,769	-3.6	-9.0	-7.2
Israel.....	1,202	760	864	849	824	243	58.0	9.9	19.4
Japan.....	10,529	11,787	10,158	11,878	12,304	11,082	-10.7	-3.8	-6
Korea, Republic of.....	3,773	4,012	3,558	3,316	3,352	4,025	-6.0	3.0	-7
Other ²	36	2	3	22	500	87	NM	-48.3	-9.3
Oceania & Australia Total	1	*	1	1	*	2	322.7	31.5	-5.9
Other ²	1	*	1	1	*	2	322.7	31.5	-5.9
Africa Total	4,184	3,453	2,124	2,474	2,621	2,056	21.2	12.4	8.2
Algeria.....	177	220	355	409	611	910	-19.8	-26.7	-16.6
Egypt.....	1,038	1,235	1,048	868	848	467	-16.0	5.2	9.3
Morocco.....	1,650	1,212	83	587	737	504	36.2	22.3	14.1
South Africa, Rep of.....	1,320	786	638	567	425	62	67.9	32.8	40.5
Other ²	-	-	-	42	-	114	-	-	-100.0
Total	90,473	88,547	71,359	74,519	102,516	79,607	2.2	-3.1	1.4

¹ Based on the U.S. - Canada Free Trade Agreement, as of January 1990, the U.S. Department of Commerce began reporting statistics on U.S. exports to Canada based on information on imports provided monthly by the Canadian government.

² Includes countries with exports less than or equal to 50,000 short tons in 1995.

* Data round to zero.

NM Not meaningful as value is greater than 500 percent.

Note: Totals may not equal sum of components due to independent rounding.

Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545."

Table 77. U.S. Metallurgical Coal Exports by Destination, 1987, 1992-1996
(Thousand Short Tons)

Continent and Country of Destination	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
North America Total	6,500	4,776	4,246	4,853	4,957	6,553	36.1	7.0	-0.1
Canada ¹	6,030	4,452	4,032	4,663	4,920	6,413	35.4	5.2	-7
Mexico	470	324	214	190	36	9	45.0	89.7	55.5
Other ²	-	-	-	*	*	131	-	-100.0	-100.0
South America Total	6,814	6,778	5,926	5,514	6,524	6,521	.5	1.1	.5
Argentina	291	336	449	487	332	747	-13.4	-3.3	-9.9
Brazil	6,445	6,336	5,477	5,027	6,165	5,681	1.7	1.1	1.4
Chile	78	106	-	-	27	93	-27.0	30.2	-2.0
Other ²	*	-	-	-	-	-	-	-	-
Europe Total	28,253	27,282	25,245	26,791	33,365	23,895	3.5	-4.1	1.9
Belgium & Luxembourg	3,445	3,468	3,706	4,030	5,165	3,937	-7	-9.6	-1.5
Bulgaria	1,214	1,339	1,184	849	602	-	-9.3	19.2	-
Denmark	-	-	-	106	-	-	-	-	-
Finland	540	724	311	252	205	172	-25.5	27.3	13.6
France	3,084	3,155	2,816	3,101	4,314	2,768	-2.3	-8.0	1.2
Germany, FR	538	231	288	203	247	324	133.1	21.4	5.8
Ireland	-	-	-	-	-	90	-	-	-100.0
Italy	5,293	4,504	5,045	4,965	6,180	5,265	17.5	-3.8	*
Netherlands	4,142	3,978	3,231	3,743	4,836	2,601	4.1	-3.8	5.3
Norway	61	92	73	70	91	135	-33.6	-9.5	-8.5
Portugal	174	30	-	149	135	197	476.1	6.6	-1.3
Romania	1,512	1,685	663	373	753	1,098	-10.2	19.0	3.6
Spain	2,103	2,178	2,656	2,994	2,795	2,354	-3.5	-6.9	-1.2
Sweden	987	1,109	702	736	1,165	668	-11.0	-4.1	4.4
Turkey	2,027	1,806	1,335	1,604	1,989	772	12.3	.5	11.3
United Kingdom	3,081	2,932	3,228	3,573	4,175	2,586	5.1	-7.3	2.0
Yugoslavia, FR	-	-	-	43	658	828	-	-100.0	-100.0
Other ²	54	52	7	-	54	100	4.4	*	-6.6
Asia Total	8,814	11,014	9,877	10,608	12,655	13,158	-20.0	-8.6	-4.3
China (Taiwan)	376	370	296	285	424	483	1.4	-3.0	-2.8
Israel	265	141	-	-	143	-	88.9	16.7	-
Japan	5,552	7,929	7,195	8,028	9,480	10,110	-30.0	-12.5	-6.4
Korea, Republic of	2,597	2,574	2,386	2,276	2,608	2,479	.9	-1.1	.5
Other ²	24	-	-	19	-	86	-	-	-13.4
Africa Total	2,570	2,239	2,040	1,886	1,925	1,553	14.8	7.5	5.8
Algeria	177	220	355	409	611	910	-19.8	-26.7	-16.6
Egypt	1,037	1,233	1,047	868	848	467	-15.9	5.2	9.3
Morocco	37	-	-	-	41	-	-	-2.8	-
South Africa, Rep of	1,320	786	638	567	425	62	68.0	32.8	40.5
Other ²	-	-	-	42	-	114	-	-	-100.0
Total	52,950	52,089	47,334	49,652	59,426	51,679	1.6	-2.8	.3

¹ Based on the U.S. - Canada Free Trade Agreement, as of January 1990, the U.S. Department of Commerce began reporting statistics on U.S. exports to Canada based on information on imports provided monthly by the Canadian government.

² Includes countries with exports less than or equal to 50,000 short tons in 1995.

* Data round to zero.

Note: Totals may not equal sum of components due to independent rounding.

Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545."

Table 78. U.S. Steam Coal Exports by Destination, 1987, 1992-1996
(Thousand Short Tons)

Continent and Country of Destination	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
North America Total	7,110	5,635	5,259	4,366	10,374	9,912	26.2	-9.0	-3.6
Canada ¹	5,999	4,975	5,161	4,225	10,219	9,814	20.6	-12.5	-5.3
Jamaica.....	24	83	26	29	27	-	-71.1	-2.9	-
Mexico.....	1,039	547	26	60	40	97	90.0	125.2	30.1
Other ²	48	30	46	52	88	1	62.5	-13.8	53.1
South America Total	691	190	20	236	245	199	263.3	29.6	14.8
Argentina.....	13	6	4	38	3	2	114.1	47.2	24.6
Brazil.....	95	15	5	170	205	149	NM	-17.5	-4.9
Chile.....	496	121	*	*	*	*	311.6	NM	211.4
Other ²	87	49	12	28	37	48	77.8	23.6	6.7
Europe Total	18,940	21,338	10,580	10,784	23,891	10,264	-11.2	-5.6	7.0
Belgium & Luxembourg.....	1,125	1,033	1,205	1,199	2,031	641	8.8	-13.7	6.4
Bulgaria.....	173	-	54	57	-	-	-	-	-
Denmark.....	1,316	2,100	477	230	3,832	934	-37.3	-23.4	3.9
Finland.....	164	584	66	1	-	-	-71.9	-	-
France.....	769	503	58	870	3,745	118	52.7	-32.7	23.1
Germany, FR.....	517	1,722	35	305	756	153	-70.0	-9.1	14.5
Ireland.....	765	914	974	985	1,449	1,319	-16.3	-14.8	-5.9
Italy.....	3,911	4,559	2,498	1,954	3,164	4,272	-14.2	5.4	-1.0
Netherlands.....	2,917	3,323	1,643	1,819	4,312	1,492	-12.2	-9.3	7.7
Norway.....	24	28	13	31	27	37	-14.7	-3.4	-4.9
Portugal.....	1,628	1,722	1,057	1,342	1,344	1,090	-5.4	4.9	4.6
Romania.....	-	299	890	347	-	-	-100.0	-	-
Spain.....	1,990	2,475	1,476	1,070	1,740	101	-19.6	3.4	39.3
Sweden.....	83	9	-	-	*	-	NM	327.7	-
Turkey.....	140	206	-	*	*	-	-31.8	359.0	-
United Kingdom.....	3,115	1,795	135	538	1,421	3	73.6	21.7	115.3
Yugoslavia, FR.....	-	65	-	35	68	61	-100.0	-100.0	-100.0
Other ²	303	*	*	*	*	42	NM	NM	24.5
Asia Total	9,166	8,081	8,080	8,892	7,885	7,048	13.4	3.8	3.0
China (Taiwan).....	2,066	2,163	3,078	3,150	3,136	4,286	-4.5	-9.9	-7.8
Israel.....	936	620	864	849	681	243	51.0	8.3	16.2
Japan.....	4,976	3,858	2,963	3,850	2,823	972	29.0	15.2	19.9
Korea, Republic of.....	1,175	1,438	1,172	1,040	744	1,546	-18.3	12.1	-3.0
Other ²	12	2	3	3	500	1	431.2	-60.4	32.2
Oceania & Australia Total	1	*	1	1	*	2	322.7	31.5	-5.9
Other ²	1	*	1	1	*	2	322.7	31.5	-5.9
Africa Total	1,615	1,214	85	588	696	504	33.0	23.4	13.8
Egypt.....	1	2	1	1	1	*	-41.1	5.4	48.4
Morocco.....	1,614	1,212	83	587	695	504	33.2	23.4	13.8
South Africa, Rep of.....	-	*	-	-	-	-	-100.0	-	-
Other ²	-	-	-	-	-	*	-	-	-100.0
Total	37,522	36,458	24,025	24,867	43,090	27,928	2.9	-3.4	3.3

¹ Based on the U.S. - Canada Free Trade Agreement, as of January 1990, the U.S. Department of Commerce began reporting statistics on U.S. exports to Canada based on information on imports provided monthly by the Canadian government.

² Includes countries with exports less than or equal to 50,000 short tons in 1995.

* Data round to zero.

NM Not meaningful as value is greater than 500 percent.

Note: Totals may not equal sum of components due to independent rounding.

Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545."

Table 79. Coal Exports by Customs District, 1987, 1992-1996
(Thousand Short Tons)

Customs District	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Eastern Total	58,161	55,374	43,474	45,138	64,826	46,077	5.0	-2.7	2.6
Boston, MA.....	-	33	-	33	-	*	-100.0	-	-100.0
Baltimore, MD.....	11,221	11,313	7,912	7,354	9,450	6,500	-8	4.4	6.3
Portland, ME.....	*	57	1	1	*	1	-99.8	-5.7	-18.4
Buffalo, NY.....	2,263	1,574	166	67	1,971	41	43.7	3.5	56.2
New York City, NY.....	6	87	1	1	4	249	-92.6	12.5	-33.4
Ogdensburg, NY.....	116	163	337	44	66	9	-28.8	15.3	33.4
Philadelphia, PA.....	406	339	213	190	252	1,975	19.9	12.6	-16.1
Norfolk, VA.....	44,148	41,808	34,845	37,448	53,083	37,303	5.6	-4.5	1.9
St. Albans, VT.....	1	*	*	*	*	-	NM	30.5	-
Southern Total	16,077	19,936	15,607	16,658	21,343	15,706	-19.3	-6.8	.3
Mobile, AL.....	5,897	8,283	4,997	6,262	6,853	7,085	-28.8	-3.7	-2.0
Savannah, GA.....	-	4	1	-	37	*	-100.0	-100.0	-100.0
Miami, FL.....	2	2	3	2	2	*	15.0	5.4	32.3
Tampa, FL.....	-	1	*	*	-	*	-100.0	-	-100.0
New Orleans, LA.....	8,669	10,522	9,475	9,705	13,480	7,733	-17.6	-10.4	1.3
Wilmington, NC.....	*	-	-	-	-	121	-	-	-60.5
San Juan, PR.....	*	*	26	*	-	*	420.0	-	39.6
Charleston, SC.....	154	401	957	475	791	566	-61.6	-33.6	-13.5
El Paso, TX.....	-	*	-	*	1	*	-100.0	-100.0	-100.0
Houston-Galveston, TX.....	297	179	121	155	145	106	65.4	19.7	12.1
Laredo, TX.....	1,057	542	26	59	36	62	94.9	133.3	36.9
Port Arthur, TX.....	-	-	-	-	-	32	-	-	-100.0
Virgin Islands.....	-	-	-	-	*	-	-	-100.0	-
Western Total	6,832	5,527	3,813	4,201	3,651	2,105	23.6	16.9	14.0
Anchorage, AK.....	784	919	719	733	728	839	-14.7	1.9	-7
Nogales, AZ.....	*	-	*	*	*	-	-	-42.3	-
Los Angeles, CA.....	5,899	4,475	2,963	3,358	2,721	1,233	31.8	21.3	19.0
San Diego, CA.....	-	*	1	1	4	1	-100.0	-100.0	-100.0
San Francisco, CA.....	1	*	1	-	60	1	72.2	-67.8	-2.6
Great Falls, MT.....	*	*	1	*	-	1	79.0	-	-4.3
Portland, OR.....	-	-	-	2	-	-	-	-	-
Seattle, WA.....	147	132	128	106	137	30	11.4	1.8	19.1
Northern Total	9,358	7,688	8,437	8,495	12,557	15,720	21.7	-7.1	-5.6
Chicago, IL.....	-	-	24	-	*	-	-	-100.0	-
Detroit, MI.....	3,804	1,845	2,600	609	2,181	49	106.2	14.9	62.3
Duluth, MN.....	247	210	161	134	119	*	17.6	20.1	149.9
Pembina, ND.....	1	19	10	1	*	6	-95.7	58.2	-19.5
Cleveland, OH.....	5,306	5,614	5,642	7,751	10,258	15,665	-5.5	-15.2	-11.3
Other Ports	45	22	28	26	138	-	100.3	-24.5	-
Total	90,473	88,547	71,359	74,519	102,516	79,607	2.2	-3.1	1.4

* Data round to zero.

NM Not meaningful as value is greater than 500 percent.

Note: Totals may not equal sum of components due to independent rounding.

Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545."

Coal Prices

Mine Prices

The average mine price of U.S. coal in 1996 was \$18.50 per short ton, a drop of 2 percent from 1995 and the 14th straight year of decline (Table 80). Since 1987 the average mine price of U.S. coal has declined at an average annual rate of 2.4 percent. During this period, the average mine price of coal east of the Mississippi River decreased at an annual average rate of 1.2 percent, whereas west of the Mississippi River the decline was 2.9 percent. In real dollars, the decline over this period for the United States was 5.4 percent (Table 81).

Compared with 1995, the average mine price of coal in all regions decreased. The decline in Appalachia was 2.4 percent; in the Interior, 2.1 percent; and in the West, 1.1 percent. In the three largest coal-producing States, prices fell more than the decline of the U.S. price. Kentucky's coal price dropped 3.6 percent, Wyoming's price fell 2.6 percent, and West Virginia's price declined 2.2 percent.

Consumer Prices

The average price of coal delivered to electric utilities during 1996 was \$26.45 per short ton, 2.1 percent less than the average price of \$27.01 per short ton reported for 1995 (Table 92). Similarly, compared with 1995, the average price of coal delivered to industrial consumers other than coke plants declined slightly to \$32.32 per short ton, while the average price of coal delivered to coke plants remained essentially unchanged at \$47.33 per short ton (Tables 94 and 96).

The average price of U.S. coal imports in 1996 was \$33.45 per short ton, a 2 percent decrease compared with the 1995 average of \$34.13 per short ton.

The average price of U.S. coal exported during 1996 was \$40.76 per short ton, 1.2 percent above the average of \$40.27 per short ton reported for 1995 (Table 99). Compared with 1995, the average price of metallurgical coal exported during 1996 increased 2.7 percent to \$45.49 per short ton, while the average price of steam coal dropped 1.2 percent to \$34.09 per short ton (Tables 101 and 103).

Figure 12. Coal Prices, 1987-1996

Note: Average mine prices exclude mines producing less than 10,000 short tons of coal during the year. Mine Price is calculated by dividing the total free on board (f.o.b.) mine value of the coal produced by the total production. Consumer Price is based on the cost including insurance and freight (c.i.f. cost) for electric utilities, and insurance, freight and taxes for manufacturing and coke plants, and does not include the residential and commercial sector. Export Price is based on the free alongside ship (f.a.s.) value. Import Price is based on the customs import value.

Sources: Mine Prices: Energy Information Administration (EIA), Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report." Consumer Prices: Federal Regulatory Commission (FERC), FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants"; EIA, Form EIA-5, "Coke Plant Report - Quarterly" and Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants." Export Prices: U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545." Import Prices: U.S. Department of Commerce, Bureau of the Census, "Monthly Report IM 145."

Mine Prices

In 1996, the average mine price of U.S. coal was \$18.50, a 2-percent decrease since last year.

Table 80. Average Mine Price of Coal by State, 1987, 1992-1996
(Nominal Dollars per Short Ton)

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Alabama.....	\$39.48	\$38.44	\$40.12	\$42.34	\$40.82	\$41.42	2.7	-0.8	-0.5
Alaska.....	w	w	w	w	w	w	w	w	w
Arizona.....	w	w	w	w	w	w	w	w	w
Arkansas.....	-	w	w	w	w	w	w	w	w
California.....	-	-	-	-	w	w	w	w	w
Colorado.....	\$17.94	\$19.26	\$19.76	\$20.35	\$21.33	\$23.58	-6.9	-4.2	-3.0
Illinois.....	22.74	23.05	23.14	25.27	27.66	29.56	-1.3	-4.8	-2.9
Indiana.....	20.24	21.71	22.28	22.89	23.41	24.57	-6.8	-3.6	-2.1
Iowa.....	-	-	w	w	w	25.89	w	w	w
Kansas.....	w	w	w	w	w	24.54	w	w	w
Kentucky Total.....	\$23.91	\$24.79	\$24.88	\$24.77	\$24.50	26.15	-3.6	-6	-1.0
Eastern.....	24.98	26.00	25.25	25.50	25.00	26.71	-3.9	*	-7
Western.....	20.38	20.75	23.63	22.36	23.10	24.68	-1.8	-3.1	-2.1
Louisiana.....	w	w	w	w	w	w	w	w	w
Maryland.....	\$24.40	\$24.69	\$26.34	\$25.21	\$25.39	\$24.31	-1.2	-1.0	*
Missouri.....	23.31	18.91	21.78	w	w	28.92	23.3	w	-2.4
Montana.....	9.96	9.62	10.39	\$11.05	\$10.20	12.43	3.5	-6	-2.4
New Mexico.....	24.66	23.80	23.29	22.96	23.14	21.78	3.6	1.6	1.4
North Dakota.....	8.01	7.99	7.62	7.63	7.48	7.91	2	1.7	.1
Ohio.....	24.85	25.97	29.13	28.04	26.93	30.80	-4.3	-2.0	-2.3
Oklahoma.....	26.54	24.13	25.57	24.91	25.76	31.83	9.9	.7	-2.0
Pennsylvania Total.....	25.78	26.78	26.18	26.50	28.61	29.81	-3.7	-2.6	-1.6
Anthracite.....	36.78	39.78	36.07	32.94	34.24	43.65	-7.5	1.8	-1.9
Bituminous.....	24.98	25.77	25.45	26.03	28.34	29.16	-3.0	-3.1	-1.7
Tennessee.....	27.79	26.94	27.17	27.23	27.11	27.65	3.1	.6	*
Texas.....	12.17	12.16	12.38	12.87	12.42	12.10	*	-5	.1
Utah.....	21.63	19.10	19.27	20.81	21.11	25.70	13.3	.6	-1.9
Virginia.....	28.45	28.47	26.84	26.80	27.55	27.42	-1	.8	.4
Washington.....	w	w	w	w	w	w	w	w	w
West Virginia Total.....	\$26.58	\$27.18	\$27.42	\$27.58	\$28.15	\$29.15	-2.2	-1.4	-1.0
Northern.....	24.86	24.91	26.77	28.09	29.03	28.67	-2	-3.8	-1.6
Southern.....	27.21	28.07	27.71	27.40	27.76	29.44	-3.1	-5	-9
Wyoming.....	6.41	6.58	6.83	7.32	8.14	9.80	-2.6	-5.8	-4.6
Appalachian Total ¹	26.78	27.45	27.36	27.64	27.95	29.20	-2.4	-1.1	-9
Interior Total ¹	18.41	18.81	19.87	20.03	21.61	23.02	-2.1	-3.9	-2.4
Western Total ¹	10.03	10.15	10.57	11.14	11.60	13.25	-1.1	-3.5	-3.0
East of Miss. River.....	25.70	26.35	26.44	26.81	27.34	28.61	-2.5	-1.5	-1.2
West of Miss. River.....	10.40	10.48	10.91	11.50	11.98	13.55	-.8	-3.5	-2.9
U.S. Total.....	18.50	18.83	19.41	19.85	21.03	23.07	-1.8	-3.1	-2.4

¹ For a definition of coal-producing regions, see Appendix C.

* Data round to zero.

Notes: Average mine price is calculated by dividing the total free on board (f.o.b.) mine value of the coal produced by the total production. A measure of dispersion of these average prices at the State level (interquartile range) is given in Appendix D, Table D2. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 81. Average Real Mine Price of Coal by State, 1987, 1992-1996
(Real Dollars per Short Ton)

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Alabama.....	\$35.99	\$35.73	\$38.24	\$41.27	\$40.82	\$49.85	0.7	-3.1	-3.5
Alaska.....	w	w	w	w	w	w	w	w	w
Arizona.....	w	w	w	w	w	w	w	w	w
Arkansas.....	-	w	w	w	w	w	w	w	w
California.....	-	-	-	-	w	w	w	w	w
Colorado.....	\$16.35	\$17.90	\$18.84	\$19.84	\$21.33	\$28.37	-8.6	-6.4	-5.9
Illinois.....	20.73	21.43	22.05	24.63	27.66	35.57	-3.2	-6.9	-5.8
Indiana.....	18.45	20.18	21.24	22.31	23.41	29.57	-8.5	-5.8	-5.1
Iowa.....	-	-	w	w	w	31.15	w	w	w
Kansas.....	w	w	w	w	w	29.53	w	w	w
Kentucky Total.....	\$21.80	\$23.04	\$23.72	\$24.15	\$24.50	31.47	-5.4	-2.9	-4.0
Eastern.....	22.77	24.16	24.07	24.86	25.00	32.15	-5.7	-2.3	-3.8
Western.....	18.58	19.29	22.53	21.79	23.10	29.70	-3.6	-5.3	-5.1
Louisiana.....	w	w	w	w	w	w	w	w	w
Maryland.....	\$22.24	\$22.95	\$25.11	\$24.57	\$25.39	\$29.25	-3.1	-3.3	-3.0
Missouri.....	21.25	17.57	20.76	w	w	34.80	20.9	w	-5.3
Montana.....	9.08	8.94	9.91	\$10.77	\$10.20	14.96	1.5	-2.8	-5.4
New Mexico.....	22.48	22.12	22.20	22.38	23.14	26.21	1.6	-7	-1.7
North Dakota.....	7.30	7.43	7.26	7.44	7.48	9.52	-1.7	-6	-2.9
Ohio.....	22.65	24.13	27.77	27.33	26.93	37.07	-6.1	-4.2	-5.3
Oklahoma.....	24.19	22.43	24.37	24.28	25.76	38.30	7.8	-1.6	-5.0
Pennsylvania Total.....	23.50	24.89	24.96	25.83	28.61	35.87	-5.6	-4.8	-4.6
Anthracite.....	33.53	36.97	34.38	32.11	34.24	52.52	-9.3	-5	-4.9
Bituminous.....	22.78	23.95	24.26	25.37	28.34	35.09	-4.9	-5.3	-4.7
Tennessee.....	25.33	25.04	25.90	26.54	27.11	33.27	1.2	-1.7	-3.0
Texas.....	11.09	11.30	11.81	12.54	12.42	14.56	-1.9	-2.8	-3.0
Utah.....	19.72	17.75	18.37	20.28	21.11	30.93	11.1	-1.7	-4.9
Virginia.....	25.93	26.46	25.59	26.13	27.55	33.00	-2.0	-1.5	-2.6
Washington.....	w	w	w	w	w	w	w	w	w
West Virginia Total.....	\$24.23	\$25.26	\$26.14	\$26.88	\$28.15	\$35.08	-4.1	-3.7	-4.0
Northern.....	22.66	23.16	25.52	27.38	29.03	34.50	-2.1	-6.0	-4.6
Southern.....	24.81	26.09	26.41	26.70	27.76	35.43	-4.9	-2.8	-3.9
Wyoming.....	5.84	6.11	6.51	7.13	8.14	11.80	-4.5	-8.0	-7.5
Appalachian Total ¹	24.41	25.51	26.08	26.94	27.95	35.14	-4.3	-3.3	-4.0
Interior Total ¹	16.78	17.48	18.94	19.52	21.61	27.71	-4.0	-6.1	-5.4
Western Total ¹	9.14	9.43	10.08	10.86	11.60	15.94	-3.0	-5.8	-6.0
East of Miss. River.....	23.42	24.49	25.21	26.13	27.34	34.43	-4.3	-3.8	-4.2
West of Miss. River.....	9.48	9.74	10.40	11.21	11.98	16.30	-2.7	-5.7	-5.8
U.S. Total.....	16.86	17.50	18.50	19.35	21.03	27.76	-3.6	-5.4	-5.4

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Real prices are in 1992 dollars, calculated using implicit Gross Domestic Product price deflators. See Appendix D, Table D3. Average mine price is calculated by dividing the total free on board (f.o.b.) mine value of the coal produced by the total production. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 82. Average Mine Price of Coal by State and Mine Type, 1996
(Dollars per Short Ton)

Coal-Producing State and Region	Underground		Surface		Total	
	Nominal	Real ¹	Nominal	Real ¹	Nominal	Real ¹
Alabama.....	\$40.75	\$37.15	\$35.87	\$32.69	\$39.48	\$35.99
Alaska.....	—	—	w	w	w	w
Arizona.....	—	—	w	w	w	w
Colorado.....	17.73	16.16	\$18.28	\$16.66	\$17.94	\$16.35
Illinois.....	23.12	21.07	20.86	19.02	22.74	20.73
Indiana.....	w	w	w	w	20.24	18.45
Kansas.....	—	—	w	w	w	w
Kentucky Total.....	\$24.66	\$22.48	\$22.68	\$20.68	\$23.91	\$21.80
Eastern.....	25.98	23.69	23.53	21.45	24.98	22.77
Western.....	21.04	19.18	18.79	17.12	20.38	18.58
Louisiana.....	—	—	w	w	w	w
Maryland.....	w	w	w	w	\$24.40	\$22.24
Missouri.....	—	—	\$23.31	\$21.25	23.31	21.25
Montana.....	w	w	w	w	9.96	9.08
New Mexico.....	—	—	24.66	22.94	24.66	22.48
North Dakota.....	—	—	\$8.01	\$7.30	8.01	7.30
Ohio.....	\$25.98	\$23.68	23.43	21.35	24.85	22.65
Oklahoma.....	w	w	w	w	26.54	24.19
Pennsylvania Total.....	\$25.79	\$23.51	\$25.76	\$23.49	25.78	23.50
Anthracite.....	27.99	25.52	37.37	34.06	36.78	33.53
Bituminous.....	25.77	23.49	22.68	20.67	24.98	22.78
Tennessee.....	w	w	w	w	27.79	25.33
Texas.....	—	—	\$12.17	\$11.09	12.17	11.09
Utah.....	\$21.63	\$19.72	—	—	21.63	19.72
Virginia.....	29.46	26.85	25.88	23.59	28.45	25.93
Washington.....	—	—	w	w	w	w
West Virginia Total.....	27.31	24.90	\$25.04	\$22.82	\$26.58	\$24.23
Northern.....	25.21	22.98	22.37	20.39	24.86	22.66
Southern.....	28.44	25.92	25.34	23.10	27.21	24.81
Wyoming.....	w	w	w	w	6.41	5.84
Appalachian Total ²	27.67	25.22	25.07	22.85	26.78	24.41
Interior Total ²	22.43	20.45	15.85	14.45	18.41	16.78
Western Total ²	20.04	18.27	8.86	8.08	10.03	9.14
East of Miss. River.....	26.70	24.34	23.86	21.75	25.70	23.42
West of Miss. River.....	20.07	18.30	9.42	8.59	10.40	9.48
U.S. Total.....	25.96	23.66	13.82	12.60	18.50	16.86

¹ Real prices are in 1992 dollars, calculated using implicit Gross Domestic Product price deflators. See Appendix D, Table D3.

² For a definition of coal-producing regions, see Appendix C.

Notes: Average mine price is calculated by dividing the total free on board (f.o.b.) mine value of the coal produced by the total production. A measure of dispersion of these average nominal prices at the State level (interquartile range) is given in Appendix D, Table D2. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 83. Average Mine Price of Coal by State and Underground Mining Method, 1996
(Nominal Dollars per Short Ton)

Coal-Producing State and Region	Continuous ¹	Conventional ²	Longwall ³	Other ⁴	Total
Alabama.....	w	w	\$40.84	—	\$40.75
Colorado.....	w	w	17.76	—	17.73
Illinois.....	\$23.34	w	w	—	23.12
Indiana.....	w	—	—	—	w
Kentucky Total.....	\$24.88	\$24.73	\$23.46	w	\$24.66
Eastern.....	26.36	w	w	w	25.98
Western.....	20.53	w	w	—	21.04
Maryland.....	w	—	w	—	w
Montana.....	w	—	—	—	w
Ohio.....	\$21.22	—	\$26.60	—	\$25.98
Oklahoma.....	w	—	—	—	w
Pennsylvania Total.....	w	\$24.06	w	w	\$25.79
Anthracite.....	w	34.80	—	w	27.99
Bituminous.....	w	23.31	w	—	25.77
Tennessee.....	w	w	—	—	w
Utah.....	w	w	\$21.69	—	\$21.63
Virginia.....	\$27.32	w	32.90	w	29.46
West Virginia Total.....	27.56	\$27.70	27.04	\$16.50	27.31
Northern.....	21.69	25.65	26.09	16.50	25.21
Southern.....	28.38	27.96	28.92	—	28.44
Wyoming.....	—	—	w	—	w
Appalachian Total⁵.....	27.14	26.95	28.42	22.25	27.67
Interior Total⁵.....	22.30	w	w	—	22.43
Western Total⁵.....	19.24	w	w	—	20.04
East of Miss. River.....	25.98	w	w	22.25	26.70
West of Miss. River.....	19.51	w	w	—	20.07
U.S. Total.....	25.79	26.55	26.03	22.25	25.96

¹ Mines that produce greater than 50 percent of coal by continuous mining method.

² Mines that produce greater than 50 percent of coal by conventional mining method.

³ Mines that have any production from longwall mining method. A typical longwall mining operation uses 80 percent longwall mining and 20 percent continuous mining.

⁴ Mines that produce coal using shortwall, scoop loading, hand loading, or other mining methods or a 50/50 percent continuous/conventional split in mining method.

⁵ For a definition of coal-producing regions, see Appendix C.

Notes: Average mine price is calculated by dividing the total free on board (f.o.b.) mine value of the coal produced by the total production. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

**Table 84. Coal Production, Number of Mines, and Average Mine Price,
by State and County, 1996**
(Thousand Short Tons, Nominal Dollars per Short Ton)

Coal-Producing State and County	Number of Mines	Production	Average Mine Price
Alabama	53	24,637	39.48
Bibb	1	33	w
Cullman	2	82	w
Fayette	1	2,066	w
Jackson	1	66	w
Jefferson	8	10,134	\$42.94
Marion	4	191	27.13
Shelby	2	878	w
Tuscaloosa	7	6,066	w
Walker	25	4,921	\$37.33
Winston	2	201	w
Alaska	1	1,481	w
Yukon River	1	1,481	w
Arizona	2	10,442	w
Navajo	2	10,442	w
Arkansas	5	21	-
Johnson	2	16	-
Scott	1	*	-
Sebastian	2	4	-
Colorado	15	24,886	17.94
Delta	1	603	w
Fremont	1	170	w
Gunnison	3	7,475	w
La Plata	1	199	w
Las Animas	1	129	w
Mesa	2	626	w
Moffat	2	7,721	w
Montrose	1	362	w
Rio Blanco	1	543	w
Routt	2	7,059	w
Illinois	31	46,656	22.74
Clinton	1	1,701	w
Franklin	2	3,635	w
Fulton	1	205	w
Gallatin	1	1,324	w
Jefferson	2	4,299	w
Logan	1	1,982	w
Macoupin	3	5,454	w
McDonough	1	533	w
Perry	4	7,064	w
Randolph	2	2,103	w
Saline	4	9,333	\$23.54
Schuyler	1	415	w
Vermilion	1	130	w
Wabash	1	2,340	w
Washington	1	3,674	w
White	1	1,796	w
Williamson	4	668	w
Indiana	37	29,670	20.24
Clay	4	1,893	\$20.28
Daviess	4	3,187	18.21
Dubois	1	370	w
Gibson	2	1,046	w
Greene	3	2,083	w
Knox	5	3,725	21.04
Owen	2	413	w
Pike	6	4,359	\$16.34
Sullivan	2	4,772	w
Vigo	2	1,694	w
Warrick	6	6,129	w
Kansas	1	232	w
Crawford	1	232	w
Kentucky	544	152,425	23.91
Bell	25	5,044	\$25.53
Breathitt	8	2,271	20.86
Butler	2	244	w
Christian	1	32	w
Clay	5	98	w
Daviess	6	894	18.60
Floyd	46	7,147	\$23.14
Harian	40	10,302	27.06

See footnotes at end of table.

**Table 84. Coal Production, Number of Mines, and Average Mine Price,
by State and County, 1996 (Continued)**
(Thousand Short Tons, Nominal Dollars per Short Ton)

Coal-Producing State and County	Number of Mines	Production	Average Mine Price
Kentucky (Continued)			
Henderson	3	2,084	w
Hopkins	18	8,655	\$19.98
Johnson	11	1,812	22.73
Knott	46	12,208	22.87
Knox	15	467	30.77
Laurel	1	52	w
Lawrence	3	69	w
Leslie	18	9,718	\$22.98
Letcher	39	8,046	24.52
Magoffin	8	978	21.59
Martin	23	11,785	\$28.25
McLean	3	194	w
Morgan	3	5	-
Muhlenberg	7	3,771	\$15.44
Ohio	11	2,142	17.78
Owsley	4	171	21.18
Perry	27	10,368	\$24.03
Pike	145	35,598	25.64
Union	3	7,361	w
Webster	6	10,097	\$22.50
Whitley	17	811	26.34
Louisiana	2	3,221	w
De Soto	1	2,434	w
Red River	1	787	w
Maryland	18	4,093	24.40
Allegany	10	597	w
Garrett	8	3,496	w
Missouri	5	710	23.31
Barton	1	88	w
Bates	2	487	w
Randolph	1	25	w
Vernon	1	110	w
Montana	8	37,891	9.96
Big Horn	4	24,686	\$10.64
Musselshell	1	147	w
Richland	1	256	w
Rosebud	2	12,802	w
New Mexico	6	24,067	24.66
Colfax	1	1,259	w
McKinley	2	9,527	w
San Juan	3	13,281	w
North Dakota	5	29,861	8.01
McLean	1	7,024	w
Mercer	2	16,908	w
Oliver	2	5,929	w
Ohio	99	28,572	24.85
Belmont	10	5,916	w
Carroll	6	329	\$18.59
Columbiana	11	569	18.28
Coshocton	5	757	w
Gallia	1	268	w
Guernsey	6	302	\$22.91
Harrison	9	1,411	20.72
Holmes	2	175	w
Jackson	3	1,042	w
Jefferson	11	833	\$21.33
Mahoning	1	4	-
Meigs	2	5,951	w
Monroe	1	3,383	w
Morgan	1	1,543	w
Muskingum	3	176	w
Noble	2	857	w
Perry	5	1,024	\$22.59
Stark	7	606	16.11
Tuscarawas	9	1,404	21.15
Vinton	4	2,020	20.61
Oklahoma	12	1,701	26.54
Craig	1	130	w
Latimer	1	193	w
Le Flore	7	1,184	\$26.44

See footnotes at end of table.

**Table 84. Coal Production, Number of Mines, and Average Mine Price,
by State and County, 1996 (Continued)**
(Thousand Short Tons, Nominal Dollars per Short Ton)

Coal-Producing State and County	Number of Mines	Production	Average Mine Price
Oklahoma (Continued)			
Nowata	2	187	w
Okmulgee	1	6	—
Pennsylvania	402	67,942	25.78
Allegheny	2	14	w
Armstrong	32	5,346	\$25.92
Beaver	4	239	w
Blair	1	59	w
Butler	6	56	w
Cambria	13	1,315	\$26.61
Carbon	1	318	w
Centre	3	328	w
Clarion	6	543	27.08
Clearfield	50	4,428	\$25.12
Columbia	6	411	25.11
Dauphin	2	11	—
Elk	6	460	\$25.01
Fayette	20	428	23.59
Greene	11	29,794	24.51
Indiana	27	5,143	30.33
Jefferson	25	1,423	25.15
Lackawanna	5	243	w
Lawrence	2	139	w
Luzerne	17	1,030	\$41.09
Lycoming	1	333	w
Mercer	2	5	—
Northumberland	17	281	23.22
Schuylkill	77	2,419	\$42.50
Snyder	1	1	—
Somerset	38	5,381	19.13
Sullivan	1	37	w
Venango	1	31	w
Washington	11	7,035	\$26.63
Westmoreland	14	690	23.40
Tennessee	26	3,651	27.79
Anderson	2	479	w
Bledsoe	1	3	—
Campbell	10	1,067	\$30.69
Claiborne	5	625	w
Fentress	1	256	w
Marion	2	46	w
Morgan	1	42	w
Scott	1	155	w
Sequatchie	3	978	w
Texas	13	55,164	12.17
Atascosa	1	3,324	w
Freestone	1	5,196	w
Grimes	1	567	w
Harrison	2	4,173	w
Hopkins	1	2,152	w
Leon	1	8,865	w
Milam	1	6,615	w
Panola	1	6,814	w
Robertson	1	1,933	w
Rusk	1	6,509	w
Titus	1	8,569	w
Webb	1	446	w
Utah	11	27,507	21.63
Carbon	6	12,066	\$22.52
Emery	4	11,238	w
Sevier	1	4,202	w
Virginia	191	35,590	28.45
Buchanan	74	14,784	\$29.62
Dickenson	21	2,988	28.71
Lee	10	2,036	28.23
Russell	7	1,346	29.40
Scott	1	5	—
Tazewell	17	1,840	\$29.68
Wise	61	12,591	26.77

See footnotes at end of table.

**Table 84. Coal Production, Number of Mines, and Average Mine Price,
by State and County, 1996 (Continued)**
(Thousand Short Tons, Nominal Dollars per Short Ton)

Coal-Producing State and County	Number of Mines	Production	Average Mine Price
Washington	3	4,565	w
King	1	173	w
Lewis	1	2,423	w
Thurston	1	1,969	w
West Virginia	386	170,433	26.58
Barbour	10	1,547	w
Boone	47	31,024	\$28.15
Braxton	1	42	w
Brooke	2	1,448	w
Clay	5	5,507	w
Fayette	11	3,964	\$28.91
Gilmer	1	30	w
Grant	4	3,039	w
Greenbrier	5	804	\$29.01
Harrison	11	4,682	w
Kanawha	11	8,964	\$22.88
Logan	29	18,789	24.31
Marion	4	3,135	w
Marshall	2	8,721	w
McDowell	77	6,135	\$25.77
Mineral	2	134	w
Mingo	49	22,963	\$28.46
Monongalia	13	12,951	23.69
Nicholas	16	2,522	\$27.16
Preston	15	1,929	24.02
Raleigh	19	11,209	29.10
Randolph	5	570	27.30
Tucker	2	602	w
Upshur	12	1,734	\$18.89
Wayne	6	4,131	24.14
Webster	9	5,345	\$21.68
Wyoming	18	8,510	30.66
Wyoming	27	278,440	6.41
Campbell	17	245,534	\$5.55
Carbon	3	4,473	w
Converse	2	15,839	w
Lincoln	2	4,419	w
Sheridan	1	16	w
Sweetwater	2	8,159	w
U.S. Total	1,903	1,063,856	18.50

* Data round to zero.

Notes: Average mine price is calculated by dividing the total free on board (f.o.b.) mine value of the coal produced by the total production and excludes mines producing less than 10,000 short tons, which are not required to provide these data. Coal production excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 85. Average Mine Price by State and Coal Rank, 1996
(Nominal Dollars per Short Ton)

Coal-Producing State and Region	Bituminous	Subbituminous	Lignite	Anthracite	Total
Alabama.....	\$39.48	-	-	-	\$39.48
Alaska.....	-	w	-	-	w
Arizona.....	w	-	-	-	w
Colorado.....	17.72	\$18.32	-	-	17.94
Illinois.....	22.74	-	-	-	22.74
Indiana.....	20.24	-	-	-	20.24
Kansas.....	w	-	-	-	w
Kentucky Total.....	23.91	-	-	-	23.91
Eastern.....	24.98	-	-	-	24.98
Western.....	20.38	-	-	-	20.38
Louisiana.....	-	-	w	-	w
Maryland.....	24.40	-	-	-	24.40
Missouri.....	23.31	-	-	-	23.31
Montana.....	-	w	w	-	9.96
New Mexico.....	w	w	-	-	24.66
North Dakota.....	-	-	\$8.01	-	8.01
Ohio.....	\$24.85	-	-	-	24.85
Oklahoma.....	26.54	-	-	-	26.54
Pennsylvania Total.....	24.98	-	-	\$36.78	25.78
Anthracite.....	-	-	-	36.78	36.78
Bituminous.....	24.98	-	-	-	24.98
Tennessee.....	27.79	-	-	-	27.79
Texas.....	w	-	w	-	12.17
Utah.....	\$21.63	-	-	-	21.63
Virginia.....	28.45	-	-	-	28.45
Washington.....	w	w	-	-	w
West Virginia Total.....	26.58	-	-	-	26.58
Northern.....	24.86	-	-	-	24.86
Southern.....	27.21	-	-	-	27.21
Wyoming.....	w	w	-	-	6.41
Appalachian Total ¹	26.68	-	-	36.78	26.78
Interior Total ¹	21.43	-	12.42	-	18.41
Western Total ¹	21.61	7.87	8.04	-	10.03
East of Miss. River.....	25.61	-	-	36.78	25.70
West of Miss. River.....	21.75	7.87	10.92	-	10.40
U.S. Total.....	25.17	7.87	10.92	36.78	18.50

¹ For a definition of coal-producing regions, see Appendix C.

w Withheld to avoid disclosure of individual company data.

Notes: Average mine price is calculated by dividing the total free on board (f.o.b.) mine value of the coal produced by the total production. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 86. Average Mine Price of U.S. Coal by Mine Production Range and Mine Type, 1996
(Nominal Dollars per Short Ton)

Mine Production Range (thousand short tons)	Underground	Surface	Total
Over 1,000	\$25.81	\$11.44	\$16.30
500 to 1,000	27.74	22.77	25.25
200 to 500	25.27	24.09	24.74
100 to 200	24.73	23.40	24.12
50 to 100	25.71	25.02	25.40
10 to 50	26.14	23.44	24.54
U.S. Total	25.96	13.82	18.50

Notes: Average mine price is calculated by dividing the total free on board (f.o.b.) mine value of the coal produced by the total production. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 87. Average Mine Price of U.S. Coal by Coalbed Thickness and Mine Type, 1996
(Nominal Dollars per Short Ton)

Coalbed Thickness (inches)	Underground	Surface	Total
< 7	-	\$25.61	\$25.61
7-12	-	25.32	25.32
13-18	-	23.69	23.69
19-24	\$33.30	20.57	20.82
25-30	25.41	24.10	24.37
31-36	27.26	23.16	25.19
37-42	26.91	23.29	25.30
43-48	27.91	23.37	25.84
49-54	26.51	23.93	25.70
55-60	27.63	22.25	26.33
61-66	26.14	21.79	25.23
67-72	28.22	18.98	25.21
73-78	26.03	22.21	25.12
79-84	24.99	22.22	24.34
85-90	23.75	20.91	22.26
91-96	25.14	26.21	25.34
97-102	21.68	17.19	18.64
103-108	27.36	12.07	18.09
109-114	15.90	23.47	17.36
115-120	25.40	26.37	25.75
> 120	19.28	8.34	8.97
U.S. Total	25.96	13.82	18.50

Notes: Average mine price is calculated by dividing the total free on board (f.o.b.) mine value of the coal produced by the total production. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 88. Average Mine Price of Coal by State and Productivity Range, 1996
(Nominal Dollars per Short Ton)

Coal-Producing State and Region	Productivity Range (short tons per miner per hour)					Total
	> = 16	8 to 16	4 to 8	2 to 4	0 to 2	
Alabama.....	w	w	\$29.38	\$40.87	\$42.84	\$39.48
Alaska.....	-	-	w	-	-	w
Arizona.....	-	-	w	-	-	w
Colorado.....	-	\$17.02	\$16.78	w	w	\$17.94
Illinois.....	-	w	21.82	\$26.31	w	22.74
Indiana.....	-	-	19.76	23.20	-	20.24
Kansas.....	-	-	-	w	-	w
Kentucky Total.....	\$16.37	\$22.48	23.57	\$24.67	\$26.84	\$23.91
Eastern.....	w	24.77	24.66	25.45	w	24.98
Western.....	w	19.90	20.41	20.59	w	20.38
Louisiana.....	-	w	-	-	-	w
Maryland.....	-	-	w	19.90	w	\$24.40
Missouri.....	-	w	w	w	w	23.31
Montana.....	\$9.83	w	-	w	-	9.96
New Mexico.....	-	w	w	-	-	24.66
North Dakota.....	w	w	-	-	-	8.01
Ohio.....	-	\$23.94	\$24.12	\$27.19	\$18.65	24.85
Oklahoma.....	-	-	w	26.02	w	26.54
Pennsylvania Total.....	\$21.06	24.84	\$23.59	25.72	\$36.80	25.78
Anthracite.....	21.06	38.25	23.30	26.74	54.61	36.78
Bituminous.....	-	23.47	23.59	25.68	32.08	24.98
Tennessee.....	-	-	w	25.57	w	27.79
Texas.....	-	12.04	w	w	-	12.17
Utah.....	-	w	\$21.49	w	-	21.63
Virginia.....	-	w	w	\$29.17	\$29.13	28.45
Washington.....	-	-	w	-	w	w
West Virginia Total.....	w	w	\$26.11	28.03	\$32.72	\$26.58
Northern.....	-	w	24.69	25.71	w	24.86
Southern.....	w	\$25.30	26.59	29.32	w	27.21
Wyoming.....	w	16.25	w	-	w	6.41
Appalachian Total ¹	w	24.83	25.27	28.26	w	26.78
Interior Total ¹	w	12.81	20.49	24.31	w	18.41
Western Total ¹	6.14	18.26	21.35	25.26	26.38	10.03
East of Miss. River.....	20.26	23.64	24.12	27.67	35.52	25.70
West of Miss. River.....	6.14	15.64	21.02	24.95	27.66	10.40
U.S. Total.....	6.19	17.80	23.65	27.60	35.24	18.50

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Average mine price is calculated by dividing the total free on board (f.o.b.) mine value of the coal produced by the total production. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 89. Average Mine Price of Underground Coal by State and Productivity Range, 1996
(Nominal Dollars per Short Ton)

Coal-Producing State and Region	Productivity Range (short tons per miner per hour)					
	> = 16	8 to 16	4 to 8	2 to 4	0 to 2	Total
Alabama.....	-	-	w	\$42.30	w	\$40.75
Colorado.....	-	w	w	28.87	w	17.73
Illinois.....	-	-	\$21.65	w	w	23.12
Indiana.....	-	-	-	w	-	w
Kentucky Total.....	-	\$27.06	23.96	\$25.43	\$27.42	\$24.66
Eastern.....	-	27.06	25.60	w	w	25.98
Western.....	-	-	20.99	w	w	21.04
Maryland.....	-	-	w	-	w	w
Montana.....	-	-	-	w	-	w
Ohio.....	-	-	\$23.71	\$33.81	-	\$25.98
Oklahoma.....	-	-	-	-	w	w
Pennsylvania Total.....	-	w	24.50	w	\$37.44	\$25.79
Anthracite.....	-	-	-	w	w	27.99
Bituminous.....	-	w	24.50	w	w	25.77
Tennessee.....	-	-	-	26.57	27.65	w
Utah.....	-	w	21.49	w	-	\$21.63
Virginia.....	-	-	26.11	\$29.92	\$28.81	29.46
West Virginia Total.....	-	\$27.13	26.49	28.11	34.15	27.31
Northern.....	-	w	24.83	25.77	w	25.21
Southern.....	-	w	27.52	29.42	w	28.44
Wyoming.....	-	w	-	-	-	w
Appalachian Total ¹	-	w	w	28.99	36.31	27.67
Interior Total ¹	-	-	21.37	24.62	28.41	22.43
Western Total ¹	-	w	w	25.26	22.37	20.04
East of Miss. River.....	-	w	w	28.34	36.28	26.70
West of Miss. River.....	-	w	w	25.26	25.44	20.07
U.S. Total.....	-	22.56	24.08	28.29	36.07	25.96

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Average mine price is calculated by dividing the total free on board (f.o.b.) mine value of the coal produced by the total production. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 90. Average Mine Price of Surface Coal by State and Productivity Range, 1996
(Nominal Dollars per Short Ton)

Coal-Producing State and Region	Productivity Range (short tons per miner per hour)					Total
	> = 16	8 to 16	4 to 8	2 to 4	0 to 2	
Alabama.....	w	w	\$33.12	\$37.62	w	\$35.87
Alaska.....	-	-	w	-	-	w
Arizona.....	-	-	w	-	-	w
Colorado.....	-	w	w	-	-	\$18.28
Illinois.....	-	w	w	27.66	w	20.86
Indiana.....	-	-	w	w	-	w
Kansas.....	-	-	-	w	-	w
Kentucky Total.....	\$16.37	\$19.88	\$23.05	\$22.56	\$23.31	\$22.68
Eastern.....	w	19.83	23.74	w	w	23.53
Western.....	w	19.90	18.10	w	w	18.79
Louisiana.....	-	w	-	-	-	w
Maryland.....	-	-	w	w	w	w
Missouri.....	-	w	w	w	w	\$23.31
Montana.....	w	\$15.62	-	-	-	9.97
New Mexico.....	-	w	w	-	-	24.66
North Dakota.....	w	w	-	-	-	\$8.01
Ohio.....	-	\$23.94	\$24.80	\$20.98	\$18.65	23.43
Oklahoma.....	-	-	w	w	w	w
Pennsylvania Total.....	\$21.06	w	\$21.20	w	\$36.33	\$25.76
Anthracite.....	21.06	\$38.25	23.30	\$26.66	w	37.37
Bituminous.....	-	21.46	21.05	23.35	w	22.68
Tennessee.....	-	-	w	w	w	w
Texas.....	-	12.04	w	w	-	\$12.17
Virginia.....	-	w	w	\$24.01	\$33.38	25.88
Washington.....	-	-	w	-	w	w
West Virginia Total.....	w	w	\$25.47	27.21	\$22.22	\$25.04
Northern.....	-	w	22.36	25.06	w	22.37
Southern.....	w	\$23.94	25.59	28.26	w	25.34
Wyoming.....	w	w	w	-	w	w
Appalachian Total ¹	20.80	23.97	24.72	25.47	33.17	25.07
Interior Total ¹	16.03	12.81	19.34	23.49	28.80	15.85
Western Total ¹	6.14	17.53	22.43	-	30.62	8.86
East of Miss. River.....	20.26	22.07	23.48	25.11	33.16	23.86
West of Miss. River.....	6.14	14.74	21.82	24.54	29.14	9.42
U.S. Total.....	6.19	16.22	23.12	25.08	32.83	13.82

¹ For a definition of coal-producing regions, see Appendix C.

Notes: Average mine price is calculated by dividing the total free on board (f.o.b.) mine value of the coal produced by the total production. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 91. Average Mine Price by State and Disposition, 1996
(Nominal Dollars per Short Ton)

Coal-Producing State and Region	Open Market ¹	Captive ²	Total
Alabama.....	w	w	39.48
Alaska.....	w	w	w
Arizona.....	w	-	w
Colorado.....	17.94	-	17.94
Illinois.....	w	w	22.74
Indiana.....	w	w	20.24
Kansas.....	w	-	w
Kentucky Total.....	23.81	29.04	23.91
Eastern.....	w	w	24.98
Western.....	w	w	20.38
Louisiana.....	w	-	w
Maryland.....	w	w	24.40
Missouri.....	23.31	-	23.31
Montana.....	w	w	9.96
New Mexico.....	24.66	-	24.66
North Dakota.....	w	w	8.01
Ohio.....	20.17	37.01	24.85
Oklahoma.....	26.54	-	26.54
Pennsylvania Total.....	25.80	25.25	25.78
Anthracite.....	42.53	27.08	36.78
Bituminous.....	25.03	21.02	24.98
Tennessee.....	w	w	27.79
Texas.....	13.09	11.82	12.17
Utah.....	24.05	15.96	21.63
Virginia.....	28.54	26.97	28.45
Washington.....	w	w	w
West Virginia Total.....	26.39	39.09	26.58
Northern.....	24.30	48.30	24.86
Southern.....	27.15	32.41	27.21
Wyoming.....	6.03	12.48	6.41
Appalachian Total ³	26.48	33.56	26.78
Interior Total ³	20.35	12.07	18.41
Western Total ³	9.65	14.82	10.03
East of Miss. River.....	25.42	33.43	25.70
West of Miss. River.....	9.93	13.16	10.40
U.S. Total.....	18.60	17.42	18.50

¹ Open Market includes all coal sold on the open market to other coal companies or consumers.

² Captive includes all coal used by the producing company or sold to affiliated or parent companies.

³ For a definition of coal-producing regions, see Appendix C.

Notes: Average mine price is calculated by dividing the total free on board (f.o.b.) mine value of the coal produced by the total production. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Consumer Prices

Figure 13. U.S. Coal Prices by Sector, 1987-1996

Sources: "Electric Utilities: Federal Energy Regulatory Commission (FERC), FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants." Coke Plants: Energy Information Administration (EIA), Form EIA-5, "Coke Plant Report - Quarterly." Industrial: EIA, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants."

Table 92. Average Price of Coal Delivered to Electric Utilities by Census Division and State, 1987, 1992-1996
(Nominal Dollars per Short Ton)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
New England Total	\$43.55	\$43.34	\$42.81	\$43.34	\$45.14	\$46.95	0.5	-0.9	-0.8
Connecticut.....	50.05	49.33	46.45	44.80	51.30	63.56	1.5	-6	-2.6
Massachusetts.....	42.64	42.63	43.00	43.39	44.11	42.37	*	-8	.1
New Hampshire.....	42.23	41.67	39.66	42.39	44.69	51.47	1.3	-1.4	-2.2
Middle Atlantic Total	35.08	34.63	36.33	36.66	37.56	36.60	1.3	-1.7	-5
New Jersey.....	45.53	47.17	48.49	47.50	46.62	46.80	-3.5	-6	-3
New York.....	37.15	36.86	37.63	38.63	38.62	39.46	.8	-1.0	-7
Pennsylvania.....	34.06	33.48	35.39	35.73	36.81	35.43	1.7	-1.9	-4
East North Central Total	28.29	29.67	30.56	30.98	32.05	36.62	-4.6	-3.1	-2.8
Illinois.....	32.14	32.58	32.69	35.30	37.06	42.80	-1.3	-3.5	-3.1
Indiana.....	24.67	25.94	26.79	26.73	27.89	31.93	-4.9	-3.0	-2.8
Michigan.....	29.34	30.95	32.90	33.17	34.23	40.55	-5.2	-3.8	-3.5
Ohio.....	32.31	34.44	34.70	34.05	34.40	37.15	-6.2	-1.5	-1.5
Wisconsin.....	19.55	21.23	23.13	22.96	25.92	28.35	-7.9	-6.8	-4.0
West North Central Total	15.53	16.10	16.76	16.88	18.92	21.23	-3.6	-4.8	-3.4
Iowa.....	16.30	17.13	17.39	17.53	19.58	22.81	-4.8	-4.5	-3.7
Kansas.....	17.51	17.83	17.85	17.69	20.99	22.22	-1.8	-4.4	-2.6
Minnesota.....	18.99	20.12	20.09	20.07	20.96	21.09	-5.6	-2.4	-1.1
Missouri.....	17.31	18.14	21.39	24.40	27.57	29.96	-4.6	-11.0	-5.9
Nebraska.....	12.37	12.86	13.11	12.92	12.77	16.26	-3.8	-8	-3.0
North Dakota.....	9.72	9.65	9.28	9.38	9.45	10.46	.7	.7	-8
South Dakota.....	16.94	14.35	13.10	13.30	13.68	14.95	18.0	5.5	1.4
South Atlantic Total	36.68	38.25	39.53	40.80	41.28	41.51	-4.1	-2.9	-1.4
Delaware.....	41.51	42.27	41.98	44.02	45.31	47.33	-1.8	-2.2	-1.4
Florida.....	42.40	43.93	43.71	43.58	45.03	44.98	-3.5	-1.5	-6
Georgia.....	36.54	38.62	39.82	43.29	43.36	43.56	-5.4	-4.2	-1.9
Maryland.....	38.49	39.00	39.84	40.78	40.68	39.97	-1.3	-1.4	-4
North Carolina.....	36.87	40.57	41.77	42.36	43.00	44.92	-9.1	-3.8	-2.2
South Carolina.....	37.54	38.86	39.84	40.17	39.13	44.01	-3.4	-1.0	-1.8
Virginia.....	35.73	36.90	37.05	37.57	37.81	40.52	-3.2	-1.4	-1.4
West Virginia.....	30.93	31.61	34.70	35.42	36.88	67.41	-2.1	-4.3	-101.5
East South Central Total	29.35	30.08	32.43	33.30	33.05	35.95	-2.4	-2.9	-2.2
Alabama.....	36.39	37.00	40.42	42.56	41.67	47.04	-1.6	-3.3	-2.8
Kentucky.....	24.43	25.71	27.16	27.29	27.01	28.94	-5.0	-2.5	-1.9
Mississippi.....	33.31	34.40	35.54	40.51	39.94	49.56	-3.2	-4.4	-4.3
Tennessee.....	27.64	27.94	30.61	30.94	31.01	32.74	-1.1	-2.8	-1.9
West South Central Total	20.13	20.66	20.79	22.14	22.55	23.92	-2.6	-2.8	-1.9
Arkansas.....	26.15	27.99	27.91	29.50	28.84	26.94	-6.5	-2.4	-3
Louisiana.....	24.74	25.13	25.04	25.65	24.93	26.84	-1.5	-2	-9
Oklahoma.....	16.79	17.00	17.50	21.32	21.47	27.56	-1.2	-5.9	-5.3
Texas.....	19.26	19.65	19.84	20.91	21.58	22.48	-1.9	-2.8	-1.7
Mountain Total	21.82	21.51	21.83	22.11	21.64	22.01	1.5	.2	-1
Arizona.....	29.55	28.65	28.26	27.78	28.31	27.56	3.1	1.1	.8
Colorado.....	20.24	20.73	21.01	21.59	21.67	22.01	-2.4	-1.7	-9
Montana.....	11.90	11.47	11.79	11.78	12.14	11.12	3.8	-5	.7
Nevada.....	30.44	29.02	32.37	32.34	32.32	31.28	4.9	-1.5	-3
New Mexico.....	26.04	25.59	25.48	24.61	23.83	21.87	1.8	2.2	2.0
Utah.....	24.66	25.27	26.10	27.34	27.54	29.09	-2.4	-2.7	-1.8
Wyoming.....	14.30	14.29	14.09	14.03	13.42	15.27	.1	1.6	-7
Pacific Total	23.96	22.83	21.93	21.55	22.17	26.82	5.0	2.0	-1.2
Oregon.....	18.81	18.79	19.18	19.75	21.23	23.78	.1	-3.0	-2.6
Washington.....	24.91	23.74	22.93	22.09	22.48	27.08	4.9	2.6	-9
U.S. Total	26.45	27.01	28.03	28.58	29.36	31.83	-2.1	-2.6	-2.0

* Data round to zero.

Note: Average prices are based on the cost including insurance and freight.

Source: Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

**Table 93. Average Real Price of Coal Delivered to Electric Utilities by
Census Division and State, 1987, 1992-1996**
(Real Dollars per Short Ton)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
New England Total	\$39.70	\$40.28	\$40.81	\$42.24	\$45.14	\$56.50	-1.4	-3.1	-3.8
Connecticut	45.63	45.84	44.28	43.66	51.30	76.48	-5	-2.9	-5.6
Massachusetts	38.87	39.62	40.99	42.29	44.11	50.99	-1.9	-3.1	-3.0
New Hampshire	38.49	38.72	37.81	41.32	44.69	61.93	-6	-3.7	-5.1
Middle Atlantic Total	31.98	32.18	34.63	35.73	37.56	44.04	-6	-3.9	-3.5
New Jersey	41.50	43.84	46.22	46.30	46.62	56.32	-5.3	-2.9	-3.3
New York	33.87	34.25	35.88	37.65	38.62	47.48	-1.1	-3.2	-3.7
Pennsylvania	31.05	31.12	33.73	34.82	36.81	42.63	-2	-4.2	-3.5
East North Central Total	25.79	27.57	29.13	30.20	32.05	44.07	-6.5	-5.3	-5.8
Illinois	29.30	30.28	31.17	34.41	37.06	51.50	-3.2	-5.7	-6.1
Indiana	22.49	24.11	25.54	26.06	27.89	38.42	-6.7	-5.2	-5.8
Michigan	26.74	28.76	31.36	32.33	34.23	48.79	-7.0	-6.0	-6.5
Ohio	29.45	32.00	33.08	33.19	34.40	44.70	-8.0	-3.8	-4.5
Wisconsin	17.82	19.73	22.05	22.38	25.92	34.11	-9.7	-8.9	-7.0
West North Central Total	14.15	14.97	15.97	16.45	18.92	25.55	-5.4	-7.0	-6.3
Iowa	14.86	15.92	16.58	17.08	19.58	27.45	-6.7	-6.7	-6.6
Kansas	15.96	16.57	17.02	17.24	20.99	26.74	-3.7	-6.6	-5.6
Minnesota	17.32	18.70	19.15	19.56	20.96	25.37	-7.4	-4.6	-4.1
Missouri	15.78	16.86	20.39	23.78	27.57	36.05	-6.4	-13.0	-8.8
Nebraska	11.28	11.96	12.50	12.59	12.77	19.56	-5.7	-3.0	-5.9
North Dakota	8.86	8.97	8.85	9.14	9.45	12.59	-1.2	-1.6	-3.8
South Dakota	15.44	13.34	12.49	12.96	13.68	18.00	15.7	3.1	-1.7
South Atlantic Total	33.44	35.55	37.68	39.77	41.28	49.95	-5.9	-5.1	-4.4
Delaware	37.84	39.29	40.02	42.91	45.31	56.96	-3.7	-4.4	-4.4
Florida	38.65	40.83	41.67	42.48	45.03	54.13	-5.3	-3.7	-3.7
Georgia	33.31	35.89	37.96	42.19	43.36	52.42	-7.2	-6.4	-4.9
Maryland	35.09	36.24	37.98	39.74	40.68	48.10	-3.2	-3.6	-3.4
North Carolina	33.61	37.70	39.82	41.28	43.00	54.05	-10.8	-6.0	-5.1
South Carolina	34.22	36.11	37.98	39.15	39.13	52.96	-5.2	-3.3	-4.7
Virginia	32.57	34.29	35.32	36.62	37.81	48.76	-5.0	-3.6	-4.4
West Virginia	28.19	29.38	33.08	34.53	36.88	81.12	-4.0	-6.5	-104.5
East South Central Total	26.75	27.96	30.92	32.46	33.05	43.26	-4.3	-5.1	-5.2
Alabama	33.17	34.39	38.53	41.48	41.67	56.61	-3.5	-5.5	-5.8
Kentucky	22.27	23.89	25.89	26.60	27.01	34.82	-6.8	-4.7	-4.8
Mississippi	30.36	31.97	33.88	39.48	39.94	59.64	-5.0	-6.6	-7.2
Tennessee	25.19	25.97	29.18	30.16	31.01	39.40	-3.0	-5.1	-4.8
West South Central Total	18.35	19.20	19.82	21.58	22.55	28.79	-4.4	-5.0	-4.9
Arkansas	23.84	26.01	26.60	28.75	28.84	32.42	-8.3	-4.6	-3.3
Louisiana	22.55	23.35	23.87	25.00	24.93	32.30	-3.4	-2.5	-3.9
Oklahoma	15.31	15.80	16.68	20.78	21.47	33.16	-3.1	-8.1	-8.2
Texas	17.56	18.26	18.91	20.38	21.58	27.05	-3.8	-5.0	-4.7
Mountain Total	19.89	19.99	20.81	21.55	21.64	26.48	-5	-2.1	-3.1
Arizona	26.93	26.63	26.94	27.08	28.31	33.16	1.1	-1.2	-2.3
Colorado	18.45	19.27	20.03	21.04	21.67	26.49	-4.2	-3.9	-3.9
Montana	10.85	10.66	11.24	11.48	12.14	13.39	1.8	-2.8	-2.3
Nevada	27.75	26.97	30.85	31.52	32.32	37.64	2.9	-3.7	-3.3
New Mexico	23.74	23.78	24.29	23.98	23.83	26.32	-2	-1	-1.1
Utah	22.48	23.48	24.88	26.64	27.54	35.01	-4.3	-4.9	-4.8
Wyoming	13.04	13.28	13.43	13.68	13.42	18.38	-1.8	-7	-3.7
Pacific Total	21.85	21.22	20.91	21.00	22.17	32.27	3.0	-4	-4.2
Oregon	17.14	17.47	18.28	19.25	21.23	28.62	-1.8	-5.2	-5.5
Washington	22.71	22.06	21.85	21.53	22.48	32.58	2.9	.2	-3.9
U.S. Total	24.11	25.10	26.72	27.86	29.36	38.30	-3.9	-4.8	-5.0

Notes: Real prices are in 1992 dollars, calculated using implicit Gross Domestic Product price deflators. See Appendix D, Table D3. Average prices are based on the cost including insurance and freight.

Source: Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

Table 94. Average Price of Coal Delivered to Other Industrial Plants By Census Division and State, 1987, 1992-1996
(Nominal Dollars per Short Ton)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
New England Total	\$57.36	\$56.90	\$55.73	\$57.83	\$65.71	\$59.23	0.8	-3.3	-0.3
Connecticut.....	-	-	-	-	-	w	w	w	w
Maine.....	w	w	w	w	w	w	w	w	w
Massachusetts.....	w	w	w	w	w	w	w	w	w
New Hampshire.....	-	-	-	-	-	w	w	w	w
Vermont.....	-	-	-	-	-	w	w	w	w
Middle Atlantic Total	w	w	w	w	w	w	w	w	w
New Jersey.....	w	w	w	w	w	w	w	w	w
New York.....	40.11	41.91	42.20	42.15	43.95	44.14	-4.3	-2.3	-1.0
Pennsylvania.....	33.84	34.07	33.66	34.04	35.70	36.62	-7	-1.3	-9
East North Central Total	34.44	34.89	34.72	34.54	35.05	35.72	-1.3	-4	-4
Illinois.....	29.69	29.03	29.13	29.42	29.24	33.15	2.3	.4	-1.2
Indiana.....	31.76	33.14	31.35	30.91	31.58	30.94	-4.2	.1	.3
Michigan.....	41.28	41.18	41.20	41.46	42.17	43.09	.2	-5	-5
Ohio.....	35.28	35.18	35.75	34.82	35.24	33.98	.3	*	.4
Wisconsin.....	40.02	40.21	41.23	40.85	42.27	43.99	-4	-1.3	-1.0
West North Central Total	19.05	18.92	18.61	18.00	17.76	17.62	.6	1.8	.9
Iowa.....	29.32	29.24	28.52	28.01	27.17	34.87	.3	1.9	-1.9
Kansas.....	32.46	32.42	32.25	33.06	31.96	34.49	.1	.4	-7
Minnesota.....	28.85	34.40	35.66	35.81	35.63	37.40	-16.1	-5.1	-2.8
Missouri.....	31.37	32.81	32.87	32.12	31.48	29.32	-4.4	-1	.8
Nebraska.....	w	w	w	w	w	w	w	w	w
North Dakota.....	w	w	w	w	w	w	w	w	w
South Dakota.....	w	w	w	w	w	w	w	w	w
South Atlantic Total	w	w	w	w	w	w	w	w	w
Delaware.....	w	w	w	w	w	w	w	w	w
Florida.....	45.69	46.63	46.60	48.28	48.27	46.69	-2.0	-1.4	-2
Georgia.....	44.21	44.64	45.71	45.20	45.18	43.67	-1.0	-5	.1
Maryland.....	32.52	31.66	32.18	32.18	32.83	32.37	2.7	-2	*
North Carolina.....	43.36	43.29	43.62	43.44	43.46	43.78	.2	*	-1
South Carolina.....	44.08	43.16	43.84	43.35	43.31	42.62	2.1	.4	.4
Virginia.....	43.51	42.50	41.56	41.27	40.97	38.92	2.4	1.5	1.2
West Virginia.....	33.37	33.61	32.73	32.91	31.93	31.39	-7	1.1	.7
East South Central Total	w	w	w	w	w	w	w	w	w
Alabama.....	40.15	39.53	38.74	39.01	39.76	40.38	1.5	.2	-1
Kentucky.....	44.02	44.09	43.22	42.30	43.78	43.12	-2	.1	.2
Mississippi.....	w	w	w	w	w	w	w	w	w
Tennessee.....	35.21	35.68	35.34	35.41	35.52	35.48	-1.3	-2	-1
West South Central Total	21.79	22.04	22.95	21.38	22.80	w	-1.1	-1.1	w
Arkansas.....	43.24	43.52	44.28	44.06	44.61	45.19	-6	-8	-5
Louisiana.....	w	w	w	w	w	w	w	w	w
Oklahoma.....	w	w	w	w	w	41.32	w	w	w
Texas.....	18.99	18.76	19.54	17.58	18.14	19.19	1.2	1.1	-1
Mountain Total	26.70	27.06	28.78	28.51	28.66	28.73	-1.3	-1.7	-8
Arizona.....	39.27	40.46	41.35	40.51	40.95	38.66	-2.9	-1.0	.2
Colorado.....	23.17	26.11	28.96	28.63	30.34	28.79	-11.2	-6.5	-2.4
Idaho.....	36.39	34.11	33.35	32.78	33.29	35.03	6.7	2.2	.4
Montana.....	w	w	w	w	w	w	w	w	w
Nevada.....	w	w	w	w	w	w	w	w	w
New Mexico.....	w	w	w	w	w	w	w	w	w
Utah.....	19.10	19.74	26.57	26.51	25.35	23.85	-3.2	-6.8	-2.4
Wyoming.....	22.32	22.72	22.87	23.43	23.67	23.61	-1.8	-1.4	-6
Pacific Total	42.45	43.68	44.92	43.83	43.37	47.73	-2.8	-5	-1.3
California.....	39.54	41.11	43.39	42.86	42.05	48.63	-3.8	-1.5	-2.3
Hawaii.....	w	w	w	w	w	w	w	w	w
Oregon.....	w	w	w	w	w	w	w	w	w
Washington.....	58.81	59.15	58.86	53.11	56.25	46.43	-6	1.1	2.7
U.S. Total	32.32	32.42	32.55	32.23	32.78	33.71	-3	-3	-5

* Data round to zero.

w Withheld to avoid disclosure of individual company data.

Notes: Price data are for manufacturing plants only. Average prices are based on the cost including insurance, freight, and taxes.

Source: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption - Manufacturing Plants."

**Table 95. Average Real Price of Coal Delivered to Other Industrial Plants by
Census Division and State, 1987, 1992-1996**
(Real Dollars per Short Ton)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
New England Total	\$52.28	\$52.88	\$53.13	\$56.37	\$65.71	\$71.27	-1.1	-5.5	-3.4
Connecticut.....	-	-	-	-	-	w	w	w	w
Maine.....	w	w	w	w	w	w	w	w	w
Massachusetts.....	w	w	w	w	w	w	w	w	w
New Hampshire.....	-	-	-	-	-	w	w	w	w
Vermont.....	-	-	-	-	-	w	w	w	w
Middle Atlantic Total	w	w	w	w	w	w	w	w	w
New Jersey.....	w	w	w	w	w	w	w	w	w
New York.....	36.56	38.95	40.23	41.09	43.95	53.12	-6.1	-4.5	-4.1
Pennsylvania.....	30.85	31.66	32.09	33.18	35.70	44.06	-2.6	-3.6	-3.9
East North Central Total	31.40	32.42	33.10	33.66	35.05	42.99	-3.2	-2.7	-3.4
Illinois.....	27.06	26.98	27.77	28.67	29.24	39.89	.3	-1.9	-4.2
Indiana.....	28.95	30.80	29.89	30.13	31.58	37.24	-6.0	-2.1	-2.8
Michigan.....	37.63	38.27	39.28	40.41	42.17	51.85	-1.7	-2.8	-3.5
Ohio.....	32.16	32.70	34.08	33.94	35.24	40.89	-1.6	-2.3	-2.6
Wisconsin.....	36.49	37.37	39.31	39.81	42.27	52.93	-2.4	-3.6	-4.0
West North Central Total	17.36	17.59	17.74	17.54	17.76	21.20	-1.3	-6	-2.2
Iowa.....	26.73	27.17	27.19	27.30	27.17	41.96	-1.6	-4	-4.9
Kansas.....	29.59	30.13	30.74	32.22	31.96	41.50	-1.8	-1.9	-3.7
Minnesota.....	26.30	31.97	33.99	34.90	35.63	45.01	-17.7	-7.3	-5.8
Missouri.....	28.60	30.49	31.34	31.30	31.48	35.28	-6.2	-2.4	-2.3
Nebraska.....	w	w	w	w	w	w	w	w	w
North Dakota.....	w	w	w	w	w	w	w	w	w
South Dakota.....	w	w	w	w	w	w	w	w	w
South Atlantic Total	w	w	w	w	w	w	w	w	w
Delaware.....	w	w	w	w	w	w	w	w	w
Florida.....	41.65	43.34	44.43	47.06	48.27	56.19	-3.9	-3.6	-3.3
Georgia.....	40.30	41.49	43.58	44.05	45.18	52.55	-2.8	-2.8	-2.9
Maryland.....	29.65	29.42	30.67	31.36	32.83	38.95	.8	-2.5	-3.0
North Carolina.....	39.53	40.23	41.58	42.34	43.46	52.68	-1.8	-2.3	-3.1
South Carolina.....	40.18	40.11	41.79	42.25	43.31	51.29	.2	-1.8	-2.7
Virginia.....	39.66	39.50	39.62	40.23	40.97	46.83	.4	-8	-1.8
West Virginia.....	30.42	31.24	31.20	32.08	31.93	37.77	-2.6	-1.2	-2.4
East South Central Total	w	w	w	w	w	w	w	w	w
Alabama.....	36.60	36.74	36.93	38.02	39.76	48.59	-4	-2.0	-3.1
Kentucky.....	40.12	40.97	41.20	41.23	43.78	51.89	-2.1	-2.1	-2.8
Mississippi.....	w	w	w	w	w	w	w	w	w
Tennessee.....	32.10	33.16	33.69	34.52	35.52	42.69	-3.2	-2.5	-3.1
West South Central Total	19.86	20.48	21.87	20.84	22.80	w	-3.0	-3.4	w
Arkansas.....	39.42	40.44	42.21	42.95	44.61	54.38	-2.5	-3.0	-3.5
Louisiana.....	w	w	w	w	w	w	w	w	w
Oklahoma.....	w	w	w	w	w	49.72	w	w	w
Texas.....	17.31	17.43	18.63	17.13	18.14	23.10	-7	-1.2	-3.1
Mountain Total	24.34	25.15	27.44	27.79	28.66	34.57	-3.2	-4.0	-3.8
Arizona.....	35.80	37.60	39.42	39.48	40.95	46.52	-4.8	-3.3	-2.9
Colorado.....	21.12	24.26	27.61	27.90	30.34	34.64	-12.9	-8.6	-5.3
Idaho.....	33.17	31.70	31.79	31.95	33.29	42.16	4.6	-1	-2.6
Montana.....	w	w	w	w	w	w	w	w	w
Nevada.....	w	w	w	w	w	w	w	w	w
New Mexico.....	w	w	w	w	w	w	w	w	w
Utah.....	17.41	18.34	25.33	25.84	25.35	28.70	-5.1	-8.9	-5.4
Wyoming.....	20.35	21.12	21.81	22.84	23.67	28.41	-3.6	-3.7	-3.6
Pacific Total	38.69	40.60	42.82	42.72	43.37	57.44	-4.7	-2.8	-4.3
California.....	36.04	38.21	41.37	41.78	42.05	58.52	-5.7	-3.8	-5.2
Hawaii.....	w	w	w	w	w	w	w	w	w
Oregon.....	w	w	w	w	w	w	w	w	w
Washington.....	53.61	54.97	56.11	51.76	56.25	55.87	-2.5	-1.2	-4
U.S. Total	29.46	30.13	31.03	31.41	32.78	40.56	-2.2	-2.6	-3.5

^w Withheld to avoid disclosure of individual company data.

Notes: Price data are for manufacturing plants only. Real prices are in 1992 dollars, calculated using implicit Gross Domestic Product price deflators. See Appendix D, Table D3. Average prices are based on the cost including insurance, freight, and taxes.

Source: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption - Manufacturing Plants."

Table 96. Average Price of Coal Delivered to Coke Plants by Census Division and State, 1987, 1992-1996
(Nominal Dollars per Short Ton)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Middle Atlantic Total.....	w	w	w	w	w	w	w	w	w
New York	w	w	w	w	w	w	w	w	w
Pennsylvania	\$45.16	\$46.11	\$46.25	\$46.41	\$46.49	\$42.54	-2.0	-0.7	0.7
East North Central Total.....	49.54	49.09	47.23	49.52	50.37	49.00	.9	-.4	.1
Illinois	w	w	w	w	w	w	w	w	w
Indiana	51.93	52.74	50.90	52.29	53.72	51.44	-1.5	-.8	.1
Michigan	w	w	w	-	-	w	w	w	w
Ohio	44.98	42.18	42.02	45.07	46.68	46.04	6.6	-.9	-.3
West North Central Total.....	-	-	-	-	-	w	-	w	w
Missouri	-	-	-	-	-	w	-	w	w
South Atlantic Total.....	w	w	w	w	w	w	w	w	w
Maryland	-	-	-	-	-	w	w	w	w
Virginia	w	w	w	w	w	w	w	w	w
West Virginia.....	w	w	w	w	w	w	w	w	w
East South Central Total.....	w	w	w	w	w	w	w	w	w
Alabama	49.37	48.42	47.45	47.50	47.80	45.89	1.9	.8	.8
Kentucky	w	w	w	w	w	w	w	w	w
Tennessee	-	-	-	-	-	w	-	w	w
Mountain Total.....	w	w	w	w	w	-	w	w	w
Utah	w	w	w	w	w	-	w	w	w
U.S. Total.....	47.33	47.34	46.56	47.44	47.92	46.55	*	-.3	.2

* Data round to zero.

w Withheld to avoid disclosure of individual company data.

Note: Average prices are based on the cost including insurance, freight, and taxes.

Source: Energy Information Administration, Form EIA-5, "Coke Plant Report - Quarterly."

Table 97. Average Real Price of Coal Delivered to Coke Plants by Census Division and State, 1987, 1992-1996
(Real Dollars per Short Ton)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Middle Atlantic Total.....	w	w	w	w	w	w	w	w	w
New York	w	w	w	w	w	w	w	w	w
Pennsylvania	\$41.17	\$42.85	\$44.09	\$45.24	\$46.49	\$51.19	-3.9	-3.0	-2.4
East North Central Total.....	45.16	45.63	45.02	48.26	50.37	58.96	-1.0	-2.7	-2.9
Illinois	w	w	w	w	w	w	w	w	w
Indiana	47.34	49.01	48.52	50.97	53.72	61.90	-3.4	-3.1	-2.9
Michigan	w	w	w	-	-	w	w	w	w
Ohio	41.00	39.21	40.05	43.92	46.68	55.40	4.6	-3.2	-3.3
West North Central Total.....	-	-	-	-	-	w	-	w	w
Missouri	-	-	-	-	-	w	-	w	w
South Atlantic Total.....	w	w	w	w	w	w	w	w	w
Maryland	-	-	-	-	-	w	w	w	w
Virginia	w	w	w	w	w	w	w	w	w
West Virginia.....	w	w	w	w	w	w	w	w	w
East South Central Total.....	w	w	w	w	w	w	w	w	w
Alabama	45.00	45.00	45.23	46.30	47.80	55.23	*	-1.5	-2.2
Kentucky	w	w	w	w	w	w	w	w	w
Tennessee	-	-	-	-	-	w	-	w	w
Mountain Total.....	w	w	w	w	w	-	w	w	w
Utah	w	w	w	w	w	-	w	w	w
U.S. Total.....	43.15	44.00	44.38	46.24	47.92	56.01	-1.9	-2.6	-2.8

* Data round to zero.

w Withheld to avoid disclosure of individual company data.

Notes: Real prices are in 1992 dollars, calculated using implicit Gross Domestic Product price deflators. See Appendix D, Table D3. Average prices are based on the cost including insurance, freight, and taxes.

Source: Energy Information Administration, Form EIA-5, "Coke Plant Report - Quarterly."

Import/Export Prices

The iron and steel industry is the primary user of coke, which is generally made from bituminous coal.

Table 98. Average Price of U.S. Coal Imports by Continent and Country of Origin, 1987, 1992-1996
(Nominal Dollars per Short Ton)

Continent and Country of Origin	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
North America Total	\$34.89	\$35.12	\$30.81	\$29.60	\$29.56	\$32.53	-0.7	4.2	0.8
Canada	34.90	35.12	30.81	29.62	29.56	33.19	-6	4.2	.5
Mexico	33.43	-	-	21.19	-	25.57	-	-	3.0
South America Total	31.24	32.76	29.00	27.64	33.04	32.96	-4.6	-1.4	-6
Colombia.....	31.40	31.15	27.46	27.26	32.25	32.89	.8	-7	-5
Venezuela.....	30.97	35.14	32.41	28.87	35.61	35.22	-11.9	-3.4	-1.4
Europe Total	-	25.70	-	32.08	34.12	28.70	-100.0	-100.0	-100.0
Denmark.....	-	-	-	32.08	-	-	-	-	-
Spain	-	-	-	-	-	28.70	-	-	-100.0
United Kingdom	-	25.70	-	-	34.12	-	-100.0	-100.0	-
Asia Total	32.45	35.13	34.09	42.70	38.75	-	-7.6	-4.3	-
India	-	-	-	-	23.65	-	-	-100.0	-
Indonesia.....	32.45	35.13	33.80	42.70	40.94	-	-7.6	-6	-
Malaysia.....	-	-	-	-	47.06	-	-	-100.0	-
Vietnam.....	-	-	48.08	-	-	-	-	-	-
Oceania & Australia Total	33.41	33.57	31.16	31.56	36.07	27.17	-5	-1.9	2.3
Australia.....	33.41	30.99	30.02	31.56	36.07	27.17	7.8	-1.9	2.3
New Zealand.....	-	46.42	44.15	-	-	-	-100.0	-	-
Africa Total	-	-	25.33	27.81	49.29	-	-	-100.0	-
South Africa, Rep of.....	-	-	25.33	-	49.29	-	-	-100.0	-
Swaziland.....	-	-	-	27.81	-	-	-	-	-
Total ¹	32.17	33.54	30.01	29.44	32.83	32.08	-4.1	-5	*
U.S. Total ²	33.45	34.13	30.21	29.89	33.46	32.04	-2.0	*	.5

¹ The average prices presented in this table, with the exception of U.S. Total, are considered to be representative prices for coal imports and fall within the range of \$20 to \$55 per short ton, inclusively.

² U.S. Total is the average price of all coal imports.

* Data round to zero.

Notes: Average price is based on the customs import value. Coal imports include coal to Puerto Rico and the Virgin Islands.

Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report IM 145."

Table 99. Average Price of U.S. Coal Exports by Destination, 1987, 1992-1996
(Nominal Dollars per Short Ton)

Continent and Country of Destination	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
North America Total	\$33.09	\$34.05	\$32.42	\$34.05	\$33.05	\$41.16	-2.8	*	-2.4
Canada ¹	32.23	33.49	32.08	33.76	32.98	41.19	-3.8	-0.6	-2.7
Jamaica.....	34.78	32.67	33.22	28.44	26.82	-	6.5	6.7	-
Mexico.....	39.70	39.96	44.28	44.04	44.69	39.20	-6	-2.9	.1
Other ²	39.65	39.04	36.98	36.80	36.54	38.77	1.6	2.1	.2
South America Total	43.81	43.46	42.28	43.77	45.49	44.03	.8	-.9	*
Argentina.....	46.36	43.40	42.48	43.21	45.41	43.27	6.8	.5	.8
Brazil.....	44.67	43.88	42.26	43.84	45.57	44.06	1.8	-.5	.1
Chile.....	32.37	31.70	34.47	46.78	47.38	45.97	2.1	-9.1	-3.8
Other ²	39.19	43.42	40.88	39.46	31.19	50.88	-9.8	5.9	-2.9
Europe Total	42.10	40.92	41.86	43.05	42.40	42.37	2.9	-.2	-.1
Belgium & Luxembourg.....	45.73	43.47	42.23	43.23	44.01	41.61	5.2	1.0	1.0
Bulgaria.....	44.26	44.04	42.09	41.96	41.70	-	.5	1.5	-
Denmark.....	29.30	29.37	29.23	34.95	32.69	33.01	-2	-2.7	-1.3
Finland.....	42.11	39.47	41.14	39.61	40.81	41.11	6.7	.8	.3
France.....	44.94	43.71	44.23	42.24	39.43	43.12	2.8	3.3	.4
Germany, FR.....	41.08	34.99	45.33	38.98	38.27	41.76	17.4	1.8	-.2
Ireland.....	37.35	36.07	33.82	35.84	36.81	43.58	3.6	.4	-1.7
Italy.....	45.05	44.14	43.00	44.33	45.43	41.58	2.0	-.2	.9
Netherlands.....	41.36	41.97	41.93	44.22	43.34	43.31	-1.4	-1.2	-.5
Norway.....	57.05	56.42	54.57	53.48	50.12	47.26	1.1	3.3	2.1
Portugal.....	36.53	36.46	36.25	37.70	40.74	42.91	.2	-2.7	-1.8
Romania.....	46.95	42.43	38.10	38.54	42.66	42.92	10.6	2.4	1.0
Spain.....	37.56	34.75	40.12	42.66	41.95	43.79	8.1	-2.7	-1.7
Sweden.....	47.50	48.21	45.56	45.96	46.66	43.34	-1.5	.4	1.0
Turkey.....	44.33	42.61	41.28	42.58	45.54	44.15	4.0	-.7	*
United Kingdom.....	38.90	40.92	45.06	45.94	45.59	44.26	-4.9	-3.9	-1.4
Yugoslavia, FR.....	-	38.06	-	39.60	42.83	42.83	-100.0	-100.0	-100.0
Other ²	38.03	55.95	38.14	40.67	41.89	42.89	-32.0	-2.4	-1.3
Asia Total	39.57	39.10	38.63	40.49	42.65	43.38	1.2	-1.8	-1.0
China (Taiwan).....	36.86	36.95	38.65	39.49	41.23	39.94	-.2	-2.8	-.9
Israel.....	36.40	35.79	33.23	34.79	39.11	36.56	1.7	-1.8	*
Japan.....	39.41	39.14	38.52	40.72	42.91	45.61	.7	-2.1	-1.6
Korea, Republic of.....	42.72	40.97	40.24	42.12	44.93	41.53	4.3	-1.3	.3
Other ²	48.89	30.41	37.24	44.23	37.06	54.29	60.8	7.2	-1.1
Oceania & Australia Total	40.71	39.87	39.99	34.46	34.50	38.13	2.1	4.2	.7
Other ²	40.71	39.87	39.99	34.46	34.50	38.13	2.1	4.2	.7
Africa Total	44.36	43.07	43.59	42.55	42.97	41.32	3.0	.8	.8
Algeria.....	50.23	47.80	43.24	44.32	46.35	43.72	5.1	2.0	1.5
Egypt.....	53.37	49.36	43.14	44.86	46.08	42.08	8.1	3.7	2.7
Morocco.....	33.93	33.00	35.03	33.86	33.80	35.55	2.8	.1	-.5
South Africa, Rep of.....	49.55	47.38	45.67	46.87	47.79	48.25	4.6	.9	.3
Other ²	-	-	-	40.53	-	40.82	-	-	-100.0
Total³	40.53	40.03	39.90	41.33	41.29	42.49	1.2	-.5	-.5
U.S. Total⁴	40.76	40.27	39.93	41.41	41.34	42.77	1.2	-.3	-.5

¹ Based on the U.S. - Canada Free Trade Agreement, as of January 1990, the U.S. Department of Commerce began reporting statistics on U.S. exports to Canada based on information on imports provided monthly by the Canadian government.

² Includes countries with exports less than or equal to 50,000 short tons in 1995.

³ The average prices presented in this table, with the exception of U.S. Total, are considered to be representative prices for coal exports and fall within the range of \$20 to \$60 per short ton, inclusively.

⁴ U.S. Total is the average price of all coal exports.

* Data round to zero.

Note: Average price is based on the free alongside ship (f.a.s.) value.

Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545."

**Table 100. Average Real Price of U.S. Coal Exports by Destination,
1987, 1992-1996**
(Real Dollars per Short Ton)

Continent and Country of Destination	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
North America Total	\$30.17	\$31.64	\$30.90	\$33.19	\$33.05	\$49.53	-4.7	-2.3	-5.4
Canada ¹	29.38	31.12	30.58	32.91	32.98	49.56	-5.6	-2.8	-5.6
Jamaica.....	31.71	30.36	31.67	27.72	26.82	-	4.4	4.3	-
Mexico.....	36.19	37.13	42.21	42.93	44.69	47.17	-2.5	-5.1	-2.9
Other ²	36.14	36.28	35.26	35.87	36.54	46.65	-4	-3	-2.8
South America Total	39.93	40.39	40.31	42.66	45.49	52.98	-1.1	-3.2	-3.1
Argentina.....	42.26	40.34	40.50	42.12	45.41	52.07	4.8	-1.8	-2.3
Brazil.....	40.72	40.78	40.29	42.73	45.57	53.02	-1	-2.8	-2.9
Chile.....	29.51	29.46	32.86	45.59	47.38	55.32	.2	-11.2	-6.7
Other ²	35.72	40.36	38.97	38.46	31.19	61.23	-11.5	3.4	-5.8
Europe Total	38.38	38.03	39.90	41.96	42.40	50.99	.9	-2.5	-3.1
Belgium & Luxembourg.....	41.69	40.40	40.26	42.13	44.01	50.07	3.2	-1.3	-2.0
Bulgaria.....	40.35	40.93	40.13	40.90	41.70	-	-1.4	-8	-
Denmark.....	26.71	27.29	27.86	34.07	32.69	39.72	-2.1	-4.9	-4.3
Finland.....	38.39	36.68	39.21	38.61	40.81	49.47	4.6	-1.5	-2.8
France.....	40.96	40.63	42.17	41.17	39.43	51.89	.8	.9	-2.6
Germany, FR.....	37.44	32.52	43.21	37.99	38.27	50.25	15.1	-5	-3.2
Ireland.....	34.05	33.52	32.24	34.93	36.81	52.44	1.6	-1.9	-4.7
Italy.....	41.07	41.02	40.99	43.20	45.43	50.04	.1	-2.5	-2.2
Netherlands.....	37.70	39.00	39.97	43.10	43.34	52.12	-3.3	-3.4	-3.5
Norway.....	52.01	52.44	52.02	52.12	50.12	56.87	-8	.9	-1.0
Portugal.....	33.30	33.88	34.56	36.74	40.74	51.64	-1.7	-4.9	-4.8
Romania.....	42.80	39.43	36.32	37.56	42.66	51.65	8.5	.1	-2.1
Spain.....	34.24	32.29	38.25	41.58	41.95	52.69	6.0	-4.9	-4.7
Sweden.....	43.30	44.80	43.43	44.80	46.66	52.15	-3.3	-1.8	-2.0
Turkey.....	40.41	39.60	39.35	41.50	45.54	53.13	2.0	-2.9	-3.0
United Kingdom.....	35.46	38.03	42.95	44.77	45.59	53.26	-6.8	-6.1	-4.4
Yugoslavia, FR.....	-	35.37	-	38.59	42.83	51.54	-100.0	-100.0	-100.0
Other ²	34.66	51.99	36.36	39.64	41.89	51.61	-33.3	-4.6	-4.3
Asia Total	36.07	36.34	36.83	39.46	42.65	52.20	-.7	-4.1	-4.0
China (Taiwan).....	33.60	34.34	36.84	38.49	41.23	48.07	-2.1	-5.0	-3.9
Israel.....	33.18	33.26	31.68	33.91	39.11	44.00	-2	-4.0	-3.1
Japan.....	35.93	36.38	36.73	39.68	42.91	54.89	-1.2	-4.3	-4.6
Korea, Republic of.....	38.95	38.08	38.36	41.05	44.93	49.98	2.3	-3.5	-2.7
Other ²	44.57	28.26	35.50	43.11	37.06	65.33	57.7	4.7	-4.1
Oceania & Australia Total	37.11	37.05	38.12	33.59	34.50	45.89	.1	1.8	-2.3
Other ²	37.11	37.05	38.12	33.59	34.50	45.89	.1	1.8	-2.3
Africa Total	40.44	40.03	41.56	41.47	42.97	49.73	1.0	-1.5	-2.3
Algeria.....	45.79	44.42	41.22	43.20	46.35	52.61	3.1	-3	-1.5
Egypt.....	48.65	45.88	41.12	43.72	46.08	50.64	6.0	1.4	-4
Morocco.....	30.93	30.67	33.40	33.00	33.80	42.78	.9	-2.2	-3.5
South Africa, Rep of.....	45.16	44.03	43.53	45.69	47.79	58.06	2.6	-1.4	-2.8
Other ²	-	-	-	39.51	-	49.13	-	-	-100.0
Total³	36.94	37.20	38.03	40.28	41.29	51.13	-.7	-2.7	-3.5
U.S. Total⁴	37.16	37.43	38.07	40.36	41.34	51.47	-.7	-2.6	-3.5

¹ Based on the U.S. - Canada Free Trade Agreement, as of January 1990, the U.S. Department of Commerce began reporting statistics on U.S. exports to Canada based on information on imports provided monthly by the Canadian government.

² Includes countries with exports less than or equal to 50,000 short tons in 1995.

³ The average prices presented in this table, with the exception of U.S. Total, are considered to be representative prices for coal exports and fall within the range of \$20 to \$60 (nominal) per short ton, inclusively.

⁴ U.S. Total is the average price of all coal exports.

Notes: Real prices are in 1992 dollars, calculated using implicit Gross Domestic Product price deflators. See Appendix D, Table D3. Average prices are based on the free alongside ship (f.a.s.) value.

Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545."

**Table 101. Average Price of U.S. Metallurgical Coal Exports by Destination,
1987, 1992-1996**
(Nominal Dollars per Short Ton)

Continent and Country of Destination	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
North America Total	\$36.79	\$37.25	\$35.08	\$36.03	\$36.39	\$44.53	-1.3	0.3	-2.1
Canada ¹	35.99	36.55	34.58	35.66	36.31	44.65	-1.5	-2	-2.4
Mexico.....	47.36	46.90	44.54	45.17	47.95	-	1.0	-3	-
Other ²	-	-	-	-	-	38.77	-	-	-100.0
South America Total	44.61	43.66	42.29	43.91	45.65	43.99	2.2	-6	.1
Argentina.....	46.87	43.54	42.56	43.63	45.45	43.27	7.6	.8	.9
Brazil.....	44.73	43.89	42.26	43.94	45.65	44.05	1.9	-5	.2
Chile.....	30.26	30.26	-	-	47.40	45.97	*	-10.6	-4.5
Other ²	50.76	-	-	-	-	-	-	-	-
Europe Total	47.68	46.02	44.56	45.62	46.61	43.68	3.6	.6	1.0
Belgium & Luxembourg.....	48.68	45.97	45.07	45.95	47.02	42.58	5.9	.9	1.5
Bulgaria.....	43.36	44.04	42.13	41.99	41.70	-	-1.5	1.0	-
Denmark.....	-	-	-	36.29	-	-	-	-	-
Finland.....	44.21	42.65	42.34	39.61	40.81	41.11	3.6	2.0	.8
France.....	47.13	45.08	44.36	45.17	44.45	43.40	4.5	1.5	.9
Germany, FR.....	49.87	47.52	45.88	46.17	45.79	43.50	4.9	2.1	1.5
Ireland.....	-	-	-	-	-	41.64	-	-	-100.0
Italy.....	47.90	46.61	45.32	45.93	47.54	44.37	2.8	.2	.8
Netherlands.....	47.29	46.56	44.96	46.17	47.00	44.04	1.6	.1	.8
Norway.....	57.05	56.42	54.57	53.48	50.12	46.23	1.1	3.3	2.4
Portugal.....	45.20	46.45	-	38.43	44.33	44.50	-2.7	.5	.2
Romania.....	46.95	43.02	34.71	40.64	42.66	42.92	9.1	2.4	1.0
Spain.....	50.92	49.02	46.36	47.47	48.58	44.28	3.9	1.2	1.6
Sweden.....	48.20	48.20	45.56	45.96	46.67	43.34	*	.8	1.2
Turkey.....	44.54	43.28	41.28	42.58	45.54	44.15	2.9	-5	.1
United Kingdom.....	49.08	47.22	45.15	46.64	47.72	44.27	3.9	.7	1.1
Yugoslavia, FR.....	-	-	-	48.31	45.04	42.43	-	-100.0	-100.0
Other ²	57.43	56.04	38.00	-	41.89	40.43	2.5	8.2	4.0
Asia Total	43.45	42.38	41.45	43.81	45.39	46.00	2.5	-1.1	-6
China (Taiwan).....	45.24	44.48	42.48	44.86	45.63	42.15	1.7	-2	.8
Israel.....	40.91	40.91	-	-	40.13	-	*	.5	-
Japan.....	42.19	41.14	40.57	43.24	44.98	46.40	2.5	-1.6	-1.0
Korea, Republic of.....	46.08	45.98	44.00	45.67	47.13	44.82	.2	-6	.3
Other ²	59.36	-	-	45.13	-	54.43	-	-	1.0
Africa Total	50.87	48.52	43.95	45.25	46.29	43.20	4.8	2.4	1.8
Algeria.....	50.23	47.80	43.24	44.32	46.35	43.72	5.1	2.0	1.5
Egypt.....	53.38	49.38	43.14	44.86	46.09	42.08	8.1	3.7	2.7
Morocco.....	30.30	-	-	-	34.22	-	-	-3.0	-
South Africa, Rep of.....	49.55	47.38	45.67	46.87	47.79	48.25	4.6	.9	.3
Other ²	-	-	-	40.53	-	40.82	-	-	-100.0
Total³	45.40	44.24	42.75	44.09	45.38	44.40	2.6	*	.2
U.S. Total⁴	45.49	44.30	42.77	44.11	45.41	44.49	2.7	*	.2

¹ Based on the U.S. - Canada Free Trade Agreement, as of January 1990, the U.S. Department of Commerce began reporting statistics on U.S. exports to Canada based on information on imports provided monthly by the Canadian government.

² Includes countries with exports less than or equal to 50,000 short tons in 1995.

³ The average prices presented in this table, with the exception of U.S. Total, are considered to be representative prices for coal exports and fall within the range of \$20 to \$60 per short ton, inclusively.

⁴ U.S. Total is the average price of all coal exports.

* Data round to zero.

Note: Average price is based on the free alongside ship (f.a.s.) value.

Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545."

Table 102. Average Real Price of U.S. Metallurgical Coal Exports by Destination, 1987, 1992-1996
(Real Dollars per Short Ton)

Continent and Country of Destination	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
North America Total	\$33.53	\$34.62	\$33.44	\$35.12	\$36.39	\$53.58	-3.1	-2.0	-5.1
Canada ¹	32.81	33.97	32.96	34.76	36.31	53.72	-3.4	-2.5	-5.3
Mexico	43.17	43.59	42.46	44.03	47.95	-	-1.0	-2.6	-
Other ²	-	-	-	-	-	46.65	-	-	-100.0
South America Total	40.67	40.58	40.31	42.80	45.65	52.94	.2	-2.8	-2.9
Argentina	42.73	40.46	40.57	42.52	45.45	52.07	5.6	-1.5	-2.2
Brazil	40.78	40.79	40.29	42.83	45.65	53.01	*	-2.8	-2.9
Chile	27.59	28.13	-	-	47.40	55.32	-1.9	-12.6	-7.4
Other ²	46.27	-	-	-	-	-	-	-	-
Europe Total	43.46	42.77	42.48	44.47	46.61	52.56	1.6	-1.7	-2.1
Belgium & Luxembourg	44.37	42.72	42.97	44.78	47.02	51.24	3.9	-1.4	-1.6
Bulgaria	39.53	40.93	40.16	40.93	41.70	-	-3.4	-1.3	-
Denmark	-	-	-	35.37	-	-	-	-	-
Finland	40.30	39.64	40.37	38.60	40.81	49.47	1.7	-.3	-2.3
France	42.96	41.90	42.29	44.02	44.45	52.23	2.5	-.8	-2.1
Germany, FR	45.46	44.16	43.74	45.00	45.79	52.35	2.9	-.2	-1.5
Ireland	-	-	-	-	-	50.11	-	-	-100.0
Italy	43.66	43.32	43.21	44.76	47.54	53.39	.8	-2.1	-2.2
Netherlands	43.11	43.27	42.86	45.00	47.00	53.00	-.4	-2.1	-2.3
Norway	52.01	52.44	52.02	52.12	50.12	55.63	-.8	.9	-.7
Portugal	41.21	43.17	-	37.46	44.33	53.55	-4.5	-1.8	-2.9
Romania	42.80	39.99	33.09	39.61	42.66	51.65	7.0	.1	-2.1
Spain	46.42	45.56	44.19	46.27	48.58	53.29	1.9	-1.1	-1.5
Sweden	43.93	44.80	43.43	44.80	46.67	52.15	-1.9	-1.5	-1.9
Turkey	40.60	40.22	39.35	41.51	45.54	53.13	.9	-2.8	-2.9
United Kingdom	44.74	43.88	43.04	45.46	47.72	53.27	2.0	-1.6	-1.9
Yugoslavia, FR	-	-	-	47.08	45.04	51.05	-	-100.0	-100.0
Other ²	52.35	52.09	36.23	-	41.89	48.65	.5	5.7	.8
Asia Total	39.61	39.39	39.52	42.70	45.39	55.35	.6	-3.3	-3.6
China (Taiwan)	41.24	41.34	40.50	43.73	45.63	50.72	-.2	-2.5	-2.3
Israel	37.30	38.02	-	-	40.13	-	-1.9	-1.8	-
Japan	38.46	38.23	38.67	42.15	44.98	55.84	.6	-3.8	-4.0
Korea, Republic of	42.00	42.74	41.94	44.52	47.13	53.94	-1.7	-2.8	-2.7
Other ²	54.11	-	-	43.99	-	65.50	-	-	-2.1
Africa Total	46.37	45.09	41.89	44.11	46.29	51.98	2.8	*	-1.3
Algeria	45.79	44.42	41.22	43.20	46.35	52.61	3.1	-.3	-1.5
Egypt	48.66	45.89	41.12	43.73	46.09	50.64	6.0	1.4	-.4
Morocco	27.62	-	-	-	34.22	-	-	-5.2	-
South Africa, Rep of	45.16	44.04	43.53	45.69	47.79	58.06	2.5	-1.4	-2.8
Other ²	-	-	-	39.51	-	49.13	-	-	-100.0
Total³	41.39	41.12	40.75	42.98	45.38	53.43	.6	-2.3	-2.8
U.S. Total⁴	41.46	41.17	40.77	42.99	45.41	53.54	.7	-2.2	-2.8

¹ Based on the U.S. - Canada Free Trade Agreement, as of January 1990, the U.S. Department of Commerce began reporting statistics on U.S. exports to Canada based on information on imports provided monthly by the Canadian government.

² Includes countries with exports less than or equal to 50,000 short tons in 1995.

³ The average prices presented in this table, with the exception of U.S. Total, are considered to be representative prices for coal exports and fall within the range of \$20 to \$60 (nominal) per short ton, inclusively.

⁴ U.S. Total is the average price of all coal exports.

* Data round to zero.

Notes: Real prices are in 1992 dollars, calculated using implicit Gross Domestic Product price deflators. See Appendix D, Table D3. Average prices are based on the free alongside ship (f.a.s.) value.

Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545."

**Table 103. Average Price of U.S. Steam Coal Exports by Destination,
1987, 1992-1996**
(Nominal Dollars per Short Ton)

Continent and Country of Destination	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
North America Total	\$29.41	\$31.06	\$30.09	\$31.68	\$31.41	\$38.83	-5.3	-1.6	-3.0
Canada ¹	28.06	30.46	29.97	31.50	31.33	38.83	-7.9	-2.7	-3.5
Jamaica.....	34.78	32.67	33.22	28.44	26.82	-	6.5	6.7	-
Mexico.....	36.21	35.60	41.42	40.40	41.59	39.20	1.7	-3.4	-9
Other ²	39.65	39.04	36.98	36.80	36.54	40.02	1.6	2.1	-1
South America Total	34.94	35.66	36.52	40.05	41.06	45.42	-2.0	-3.9	-2.9
Argentina.....	40.53	36.09	33.11	37.81	30.13	39.98	12.3	7.7	.1
Brazil.....	40.57	34.81	-	40.61	42.95	44.22	16.5	-1.4	-9
Chile.....	32.76	32.96	34.47	46.78	40.96	-	-6	-5.4	-
Other ²	39.16	43.42	40.88	39.46	31.19	50.88	-9.8	5.8	-2.9
Europe Total	33.71	34.33	35.01	36.50	36.44	39.30	-1.8	-1.9	-1.7
Belgium & Luxembourg.....	36.69	35.07	33.49	34.09	36.35	35.65	4.6	.2	.3
Bulgaria.....	50.55	-	41.40	41.51	-	-	-	-	-
Denmark.....	29.30	29.37	29.23	34.34	32.69	33.01	-2	-2.7	-1.3
Finland.....	35.23	35.53	35.47	40.85	-	-	-9	-	-
France.....	36.14	35.13	38.11	31.83	33.64	36.50	2.9	1.8	-1
Germany, FR.....	31.92	33.31	40.67	34.19	35.82	38.06	-4.2	-2.8	-1.9
Ireland.....	37.35	36.07	33.82	35.84	36.81	43.72	3.6	.4	-1.7
Italy.....	41.20	41.70	38.30	40.26	41.32	38.15	-1.2	-.1	.8
Netherlands.....	32.94	36.45	35.95	40.21	39.24	42.04	-9.6	-4.3	-2.7
Norway.....	-	-	-	-	-	57.76	-	-	-100.0
Portugal.....	35.60	36.28	36.25	37.62	40.38	42.62	-1.9	-3.1	-2.0
Romania.....	-	39.08	40.63	36.29	-	-	-100.0	-	-
Spain.....	22.14	21.37	21.19	25.21	28.38	30.45	3.6	-6.0	-3.5
Sweden.....	39.21	48.54	-	-	34.53	-	-19.2	3.2	-
Turkey.....	41.28	30.98	-	40.84	40.72	-	33.2	.3	-
United Kingdom.....	28.82	30.63	42.71	41.26	39.34	35.22	-5.9	-7.5	-2.2
Yugoslavia, FR.....	-	38.06	-	29.03	22.35	50.42	-100.0	-100.0	-100.0
Other ²	34.56	40.69	40.92	40.67	42.07	50.08	-15.1	-4.8	-4.0
Asia Total	35.84	34.63	35.18	36.52	38.27	38.53	3.5	-1.6	-8
China (Taiwan).....	35.33	35.66	38.28	39.01	40.63	39.70	-9	-3.4	-1.3
Israel.....	35.12	34.63	33.23	34.79	38.89	36.56	1.4	-2.5	-4
Japan.....	36.31	35.03	33.57	35.45	35.98	37.48	3.6	.2	-3
Korea, Republic of.....	35.32	32.01	32.56	34.34	37.24	36.26	10.3	-1.3	-3
Other ²	38.26	30.41	37.24	37.31	37.06	39.11	25.8	.8	-2
Oceania & Australia Total	40.71	39.87	39.99	34.46	34.50	38.13	2.1	4.2	.7
Other ²	40.71	39.87	39.99	34.46	34.50	38.13	2.1	4.2	.7
Africa Total	34.02	33.01	35.12	33.86	33.78	35.55	3.1	.2	-.5
Egypt.....	40.78	40.81	40.89	40.88	39.92	58.65	-.1	.5	-3.9
Morocco.....	34.01	33.00	35.03	33.86	33.77	35.55	3.1	.2	-.5
South Africa, Rep of.....	-	39.80	-	-	-	-	-100.0	-	-
Total³	33.51	33.89	34.03	35.67	35.57	38.91	-1.1	-1.5	-1.6
U.S. Total⁴	34.09	34.51	34.34	36.03	35.73	39.60	-1.2	-1.2	-1.6

¹ Based on the U.S. - Canada Free Trade Agreement, as of January 1990, the U.S. Department of Commerce began reporting statistics on U.S. exports to Canada based on information on imports provided monthly by the Canadian government.

² Includes countries with exports less than or equal to 50,000 short tons in 1995.

³ The average prices presented in this table, with the exception of U.S. Total, are considered to be representative prices for coal exports and fall within the range of \$20 to \$60 per short ton, inclusively.

⁴ U.S. Total is the average price of all coal exports.

Notes: Average price is based on the free alongside ship (f.a.s.) value. Steam coal includes bituminous, subbituminous, lignite, and anthracite.
Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545."

**Table 104. Average Real Price of U.S. Steam Coal Exports by Destination,
1987, 1992-1996**
(Real Dollars per Short Ton)

Continent and Country of Destination	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
North America Total	\$26.81	\$28.87	\$28.69	\$30.87	\$31.41	\$46.73	-7.1	-3.9	-6.0
Canada ¹	25.58	28.31	28.57	30.70	31.33	46.73	-9.7	-4.9	-6.5
Jamaica.....	31.71	30.36	31.67	27.72	26.82	-	4.4	4.3	-
Mexico.....	33.00	33.09	39.48	39.37	41.59	47.17	-3	-5.6	-3.9
Other ²	36.14	36.28	35.26	35.87	36.54	48.16	-4	-3	-3.1
South America Total	31.85	33.14	34.81	39.04	41.06	54.65	-3.9	-6.1	-5.8
Argentina.....	36.95	33.54	31.56	36.85	30.13	48.11	10.1	5.2	-2.9
Brazil.....	36.99	32.36	-	39.58	42.95	53.21	14.3	-3.7	-3.9
Chile.....	29.86	30.63	32.86	45.59	40.96	-	-2.5	-7.6	-
Other ²	35.69	40.36	38.97	38.46	31.19	61.23	-11.5	3.4	-5.8
Europe Total	30.73	31.90	33.38	35.57	36.44	47.29	-3.7	-4.2	-4.7
Belgium & Luxembourg.....	33.45	32.59	31.92	33.23	36.35	42.90	2.6	-2.0	-2.7
Bulgaria.....	46.08	-	39.46	40.46	-	-	-	-	-
Denmark.....	26.71	27.29	27.86	33.47	32.69	39.72	-2.1	-4.9	-4.3
Finland.....	32.11	33.02	33.81	39.81	-	-	-2.8	-	-
France.....	32.94	32.65	36.33	31.02	33.64	43.92	.9	-5	-3.1
Germany, FR.....	29.10	30.96	38.77	33.33	35.82	45.81	-6.0	-5.0	-4.9
Ireland.....	34.05	33.52	32.24	34.93	36.81	52.61	1.6	-1.9	-4.7
Italy.....	37.55	38.76	36.51	39.24	41.32	45.91	-3.1	-2.4	-2.2
Netherlands.....	30.03	33.88	34.27	39.19	39.24	50.59	-11.4	-6.5	-5.6
Norway.....	-	-	-	-	-	69.51	-	-	-100.0
Portugal.....	32.45	33.72	34.56	36.67	40.38	51.29	-3.8	-5.3	-4.9
Romania.....	-	36.32	38.74	35.37	-	-	-100.0	-	-
Spain.....	20.19	19.86	20.20	24.57	28.38	36.64	1.6	-8.2	-6.4
Sweden.....	35.74	45.11	-	-	34.53	-	-20.8	.9	-
Turkey.....	37.63	28.80	-	39.80	40.72	-	30.7	-1.9	-
United Kingdom.....	26.27	28.47	40.71	40.22	39.34	42.38	-7.7	-9.6	-5.2
Yugoslavia, FR.....	-	35.37	-	28.29	22.35	60.67	-100.0	-100.0	-100.0
Other ²	31.51	37.82	39.01	39.64	42.07	60.27	-16.7	-7.0	-6.9
Asia Total	32.67	32.18	33.54	35.59	38.27	46.36	1.5	-3.9	-3.8
China (Taiwan).....	32.21	33.14	36.49	38.02	40.63	47.77	-2.8	-5.6	-4.3
Israel.....	32.01	32.18	31.68	33.91	38.89	44.00	-5	-4.8	-3.5
Japan.....	33.10	32.55	32.00	34.55	35.98	45.10	1.7	-2.1	-3.4
Korea, Republic of.....	32.20	29.75	31.04	33.47	37.24	43.63	8.2	-3.6	-3.3
Other ²	34.87	28.26	35.50	36.37	37.06	47.06	23.4	-1.5	-3.3
Oceania & Australia Total	37.11	37.05	38.12	33.59	34.50	45.89	.1	1.8	-2.3
Other ²	37.11	37.05	38.12	33.59	34.50	45.89	.1	1.8	-2.3
Africa Total	31.01	30.68	33.48	33.01	33.78	42.78	1.1	-2.1	-3.5
Egypt.....	37.17	37.93	38.98	39.85	39.92	70.58	-2.0	-1.8	-6.9
Morocco.....	31.01	30.67	33.40	33.00	33.77	42.78	1.1	-2.1	-3.5
South Africa, Rep of.....	-	36.99	-	-	-	-	-100.0	-	-
Total³	30.55	31.49	32.44	34.76	35.57	46.82	-3.0	-3.7	-4.6
U.S. Total⁴	31.08	32.08	32.74	35.12	35.73	47.65	-3.1	-3.4	-4.6

¹ Based on the U.S. - Canada Free Trade Agreement, as of January 1990, the U.S. Department of Commerce began reporting statistics on U.S. exports to Canada based on information on imports provided monthly by the Canadian government.

² Includes countries with exports less than or equal to 50,000 short tons in 1995.

³ The average prices presented in this table, with the exception of U.S. Total, are considered to be representative prices for coal exports and fall within the range of \$20 to \$60 (nominal) per short ton, inclusively.

⁴ U.S. Total is the average price of all coal exports.

Notes: Real prices are in 1992 dollars, calculated using implicit Gross Domestic Product price deflators. See Appendix D, Table D3. Average prices are based on the free alongside ship (f.a.s.) value. Steam coal includes bituminous, subbituminous, lignite, and anthracite.

Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545."

Coal Quality and Emissions

As of January 1, 1995, recoverable U.S. coal reserves were estimated to total 274 billion short tons (Table 105). Reserves of low sulfur coal (defined as coal containing from 0 to 0.60 pounds of sulfur per million Btu) are estimated to represent 37 percent of all reserves, with medium sulfur coal (containing 0.61 to 1.67 pounds sulfur per million Btu) and high sulfur coal (containing more than 1.67 pounds sulfur per million Btu) each accounting for 32 percent of total reserves.

Compared with 1995, the average sulfur content of coal delivered to the Nation's electric utilities during

1996 increased 1.6 percent to 1.10 percent sulfur by weight, while the average ash content remained about the same at 9.22 percent by weight (Table 106). The average heat content of electric utility coal totaled 10,263 Btu per pound.

By comparison, the average heat content of coal delivered to manufacturing and coke plants during 1996 increased slightly (0.3 percent) to 11,405 Btu per pound, while the average ash content and average sulfur content of industrial coal was 7.58 percent and 1.17 percent, respectively.

Table 105. Estimate of Recoverable Reserves of Coal by Sulfur Range, State, and Mine Type
(Million Short Tons Remaining as of January 1, 1995)

State and Type of Mining	Sulfur Content (pounds of sulfur per million Btu)						Total
	< = 0.40	0.41 - 0.60	0.61 - 0.83	0.84 - 1.67	1.68 - 2.50	> 2.50	
Alabama	-	413	374	2,036	194	-	3,018
Surface.....	-	255	269	1,670	137	-	2,332
Underground.....	-	158	105	366	57	-	686
Alaska, Southern	2,453	94	-	-	-	-	2,548
Surface.....	386	41	-	-	-	-	427
Underground.....	2,067	53	-	-	-	-	2,120
Alaska, Northern	-	-	-	-	-	-	-
Surface.....	-	-	-	-	-	-	-
Underground.....	-	-	-	-	-	-	-
Arizona	-	121	-	-	-	-	121
Surface.....	-	69	-	-	-	-	69
Underground.....	-	51	-	-	-	-	51
Arkansas ¹	-	8	163	44	6	7	228
Surface.....	-	2	73	24	1	1	101
Underground.....	-	7	90	20	5	6	127
Colorado ¹	3,674	2,316	3,684	326	96	-	10,096
Surface.....	273	120	3,325	41	14	-	3,772
Underground.....	3,400	2,196	359	285	82	-	6,323
Georgia	1	1	*	*	*	*	2
Surface.....	*	*	*	*	*	*	1
Underground.....	*	*	*	*	*	*	1
Idaho	*	1	1	1	-	-	2
Surface.....	-	-	-	-	-	-	-
Underground.....	*	1	1	1	-	-	2
Illinois	5	113	350	1,456	1,567	30,477	33,969
Surface.....	-	-	1	43	291	9,031	9,366
Underground.....	5	113	349	1,413	1,276	21,445	24,603
Indiana	-	312	185	674	1,125	2,033	4,329
Surface.....	-	63	27	107	149	307	654
Underground.....	-	248	158	567	976	1,727	3,675
Iowa	-	-	-	-	407	720	1,127
Surface.....	-	-	-	-	320	-	320
Underground.....	-	-	-	-	87	720	807
Kansas	-	-	-	-	226	457	683
Surface.....	-	-	-	-	226	457	683
Underground.....	-	-	-	-	-	-	-
Kentucky, Eastern	175	2,077	1,434	1,769	860	657	6,973
Surface.....	140	1,657	1,144	1,412	686	525	5,563
Underground.....	35	420	290	358	174	133	1,410
Kentucky, Western	-	-	-	156	2,723	6,406	9,285
Surface.....	-	-	-	125	926	1,276	2,327
Underground.....	-	-	-	32	1,798	5,130	6,959
Louisiana	-	-	-	349	-	-	349
Surface.....	-	-	-	349	-	-	349
Underground.....	-	-	-	-	-	-	-
Maryland	-	31	58	118	205	-	412
Surface.....	-	3	8	13	32	-	56
Underground.....	-	28	50	105	173	-	356
Michigan	-	-	8	23	16	11	59
Surface.....	-	-	1	2	1	*	3
Underground.....	-	-	8	21	16	11	55
Missouri	-	-	-	-	170	3,681	3,851
Surface.....	-	-	-	-	150	3,012	3,162
Underground.....	-	-	-	-	20	670	689
Montana	33,577	16,828	16,776	4,815	2,022	1,371	75,389
Surface.....	18,014	6,995	9,499	2,444	1,610	906	39,466
Underground.....	15,563	9,833	7,277	2,371	413	466	35,923
New Mexico ¹	62	2,638	1,890	3,625	-	-	8,215
Surface.....	37	1,229	1,348	2,587	-	-	5,202
Underground.....	25	1,409	542	1,038	-	-	3,013
North Carolina	-	-	*	2	2	1	5
Surface.....	-	-	-	-	-	-	-
Underground.....	-	-	*	2	2	1	5
North Dakota	436	750	1,375	3,438	857	369	7,224
Surface.....	436	750	1,375	3,438	857	369	7,224
Underground.....	-	-	-	-	-	-	-
Ohio	82	169	335	1,049	2,636	7,447	11,718
Surface.....	20	96	168	416	863	2,304	3,867
Underground.....	62	73	168	634	1,773	5,143	7,852

See footnotes at end of table.

Table 105. Estimate of Recoverable Reserves of Coal by Sulfur Range, State, and Mine Type (Continued)
(Million Short Tons Remaining as of January 1, 1995)

State and Type of Mining	Sulfur Content (pounds of sulfur per million Btu)						Total
	< = 0.40	0.41 - 0.60	0.61 - 0.83	0.84 - 1.67	1.68 - 2.50	> 2.50	
Oklahoma	—	220	123	178	114	181	816
Surface	—	66	25	34	33	82	240
Underground	—	154	98	145	80	100	577
Oregon	4	1	3	—	1	1	9
Surface	1	*	1	—	*	*	2
Underground	3	1	2	—	1	1	7
Pennsylvania, Anthracite	180	468	96	17	2	*	763
Surface	85	263	62	11	1	*	422
Underground	95	205	35	6	1	—	341
Pennsylvania, Bituminous	—	283	807	5,001	4,151	1,517	11,757
Surface	—	22	64	307	227	135	756
Underground	—	260	742	4,694	3,923	1,381	11,001
South Dakota	—	—	104	1	172	—	277
Surface	—	—	104	1	172	—	277
Underground	—	—	—	—	—	—	—
Tennessee	—	106	62	224	99	—	491
Surface	—	39	23	93	40	—	195
Underground	—	67	38	131	59	—	295
Texas	—	—	590	5,681	3,409	376	10,057
Surface	—	—	590	5,681	3,409	376	10,057
Underground	—	—	—	—	—	—	—
Utah	378	678	554	864	225	301	3,001
Surface	8	32	19	85	35	34	212
Underground	370	646	535	780	190	267	2,788
Virginia¹	195	632	403	133	—	—	1,362
Surface	43	197	161	46	—	—	447
Underground	152	435	241	87	—	—	915
Washington	63	92	86	489	—	—	729
Surface	—	—	—	54	—	—	54
Underground	63	92	86	434	—	—	675
West Virginia	653	6,497	2,736	4,036	2,516	3,211	19,649
Surface	116	1,464	568	447	180	107	2,881
Underground	537	5,034	2,168	3,589	2,337	3,104	16,769
Wyoming	6,786	17,586	10,186	7,438	1,168	2,241	45,403
Surface	4,434	8,822	4,134	2,314	527	2,208	22,439
Underground	2,352	8,764	6,052	5,123	641	33	22,964
U.S. Total	48,723	52,434	42,380	43,943	24,968	61,466	273,913
Surface	23,993	22,185	22,987	21,742	10,888	21,130	122,925
Underground	24,730	30,249	19,393	22,201	14,080	40,336	150,988

¹ Data include minor amounts of anthracite (all occurring in heat content categories greater than 23.00 million short tons) as follows: Arkansas 52.2, Colorado 13.4, New Mexico 1.2, and Virginia 70.5, expressed in million short tons.

* Data round to zero.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, *U.S. Coal Reserves: A Review and Update* (DOE/EIA-0529(95)), August, 1996.

Table 106. Average Quality of Coal Received at Electric Utilities by Census Division and State, 1987, 1992-1996

Census Division and State and Quality ¹	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
New England									
Btu.....	12,793	12,848	12,897	13,033	13,120	13,185	*	-1	*
Sulfur.....	.85	.84	.98	1.11	1.18	1.29	0.9	-7.8	-4.5
Ash.....	7.75	7.48	7.49	7.62	7.66	7.77	3.6	.3	*
Connecticut									
Btu.....	13,100	13,110	13,094	13,144	13,167	13,134	*	*	*
Sulfur.....	.54	.56	.54	.55	.55	.49	-3.4	-5	1.3
Ash.....	7.14	7.05	7.38	6.95	6.25	6.74	1.3	3.4	.6
Massachusetts									
Btu.....	12,633	12,698	12,814	12,951	13,070	13,128	-1	-1	*
Sulfur.....	.71	.71	.91	1.03	1.17	1.18	-3	-11.7	-5.5
Ash.....	8.07	7.83	7.85	8.10	8.26	8.07	3.1	-5	*
New Hampshire									
Btu.....	13,146	13,111	13,032	13,179	13,260	13,416	*	*	*
Sulfur.....	1.56	1.38	1.52	1.62	1.61	2.20	13.2	-7	-3.7
Ash.....	7.02	6.74	6.40	6.75	6.52	7.44	4.1	1.9	-6
Middle Atlantic									
Btu.....	12,460	12,474	12,509	12,556	12,555	12,401	*	*	*
Sulfur.....	2.01	2.03	2.01	1.96	1.99	2.00	-8	.2	.1
Ash.....	11.80	11.93	11.52	11.29	11.45	12.64	-1.1	.8	-8
New Jersey									
Btu.....	12,993	13,282	13,341	13,397	13,465	13,236	-2	-1	*
Sulfur.....	1.36	1.21	1.29	1.29	1.29	1.32	12.2	1.3	.3
Ash.....	9.02	7.51	7.44	7.21	6.84	8.05	20.1	7.2	1.3
New York									
Btu.....	13,013	13,051	12,959	12,914	12,978	12,787	*	*	*
Sulfur.....	1.80	1.79	1.71	1.55	1.65	1.84	.3	2.1	-3
Ash.....	7.91	7.90	7.98	8.15	8.02	9.69	.2	-3	-2.2
Pennsylvania									
Btu.....	12,321	12,315	12,368	12,443	12,399	12,276	*	*	*
Sulfur.....	2.09	2.12	2.11	2.07	2.12	2.07	-1.4	-3	.1
Ash.....	12.72	12.97	12.49	12.11	12.56	13.48	-2.0	.3	-6
East North Central									
Btu.....	10,611	10,676	10,837	10,885	11,005	11,151	-1	-1	-1
Sulfur.....	1.36	1.28	1.55	1.61	1.77	1.86	5.8	-6.4	-3.4
Ash.....	8.07	8.00	8.34	8.41	8.72	9.04	.8	-1.9	-1.3
Illinois									
Btu.....	9,878	9,970	10,181	10,362	10,666	10,698	-1	-2	-1
Sulfur.....	1.16	1.14	1.46	1.63	1.91	1.93	2.5	-11.6	-5.4
Ash.....	6.98	7.01	7.44	7.51	8.19	8.56	-5	-3.9	-2.2
Indiana									
Btu.....	10,357	10,338	10,535	10,539	10,628	10,878	*	-1	-1
Sulfur.....	1.59	1.57	1.76	1.78	1.88	2.39	1.7	-4.0	-4.4
Ash.....	7.76	7.65	8.09	8.23	8.43	9.14	1.5	-2.0	-1.8
Michigan									
Btu.....	10,504	10,677	10,925	10,853	10,995	11,564	-2	-1	-1
Sulfur.....	.63	.63	.68	.68	.69	.76	*	-2.1	-2.0
Ash.....	6.59	6.66	6.97	6.61	6.76	6.97	-1.0	-6	-6
Ohio									
Btu.....	12,056	12,122	12,052	12,049	11,983	11,904	-1	*	*
Sulfur.....	2.08	1.89	2.34	2.39	2.57	2.44	9.9	-5.1	-1.8
Ash.....	11.01	10.84	10.91	11.01	11.24	11.39	1.5	-5	-4
Wisconsin									
Btu.....	9,222	9,351	9,565	9,490	9,725	9,630	-1	-1	*
Sulfur.....	.46	.46	.51	.49	.71	.85	-7	-10.5	-6.6
Ash.....	5.74	6.03	6.27	6.11	6.18	6.47	-4.8	-1.8	-1.3
West North Central									
Btu.....	8,430	8,418	8,480	8,366	8,602	8,810	*	-1	*
Sulfur.....	.53	.54	.68	.63	.91	1.14	-1.0	-12.5	-8.1
Ash.....	6.38	6.41	6.82	6.74	7.18	7.84	-4	-2.9	-2.2
Iowa									
Btu.....	8,658	8,678	8,783	8,660	8,867	9,152	*	-1	-1
Sulfur.....	.45	.49	.57	.52	.67	.86	-9.0	-9.8	-7.0
Ash.....	5.61	5.50	5.59	5.47	5.78	6.24	.2	-7	-1.2

See footnotes at end of table.

Table 106. Average Quality of Coal Received at Electric Utilities by Census Division and State, 1987, 1992-1996 (Continued)

Census Division and State and Quality ¹	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Kansas									
Btu.....	8,827	8,730	8,708	8,654	8,900	8,764	1	*	*
Sulfur.....	.49	.43	.49	.43	.49	.96	14.3	0.1	-7.2
Ash.....	5.52	5.46	5.63	5.19	5.74	7.52	1.1	-1.0	-3.4
Minnesota									
Btu.....	8,914	8,828	8,821	8,844	8,838	8,742	1	*	*
Sulfur.....	.45	.47	.46	.44	.45	.53	-3.9	*	-1.9
Ash.....	6.32	6.71	6.64	6.40	6.57	7.10	-5.8	-1.0	-1.3
Missouri									
Btu.....	9,063	9,216	9,718	9,860	10,321	10,598	-2	-3	-2
Sulfur.....	.58	.57	1.03	1.02	1.80	2.36	.3	-24.8	-14.5
Ash.....	5.62	5.69	6.65	6.54	7.71	9.37	-1.2	-7.6	-5.5
Nebraska									
Btu.....	8,599	8,594	8,571	8,561	8,553	8,601	*	*	*
Sulfur.....	.34	.33	.35	.35	.37	.35	2.1	-1.9	-4
Ash.....	5.11	5.16	5.17	5.11	5.00	5.13	-1.1	.5	*
North Dakota									
Btu.....	6,597	6,585	6,593	6,570	6,558	6,601	*	*	*
Sulfur.....	.72	.74	.75	.74	.87	.71	-2.7	-4.6	.1
Ash.....	9.32	9.29	9.39	9.47	9.29	8.83	.3	.1	.6
South Dakota									
Btu.....	9,034	6,972	6,049	6,057	6,034	6,062	30	11	5
Sulfur.....	.52	.87	.91	.90	.92	.87	-40.7	-13.4	-5.6
Ash.....	6.66	4.96	8.81	8.82	9.34	8.22	34.3	-8.1	-2.3
South Atlantic									
Btu.....	12,285	12,324	12,362	12,465	12,461	12,461	*	*	*
Sulfur.....	1.27	1.27	1.33	1.39	1.52	1.53	.2	-4.4	-2.0
Ash.....	9.75	9.71	9.72	9.81	9.95	10.10	.4	-5	-4
Delaware									
Btu.....	13,020	13,085	12,954	13,027	13,064	13,065	*	*	*
Sulfur.....	1.01	1.00	.92	.94	1.03	1.01	1.2	-5	*
Ash.....	8.72	8.56	9.09	9.08	8.83	8.72	1.9	-3	*
Florida									
Btu.....	12,193	12,296	12,293	12,332	12,370	12,399	-1	*	*
Sulfur.....	1.55	1.47	1.60	1.57	1.68	1.85	5.5	-2.0	-1.9
Ash.....	7.96	8.09	8.19	8.04	8.33	8.74	-1.7	-1.1	-1.0
Georgia									
Btu.....	11,581	11,576	11,774	12,148	12,039	12,175	*	-1	-1
Sulfur.....	.83	.81	1.05	1.37	1.68	1.73	1.8	-16.2	-7.8
Ash.....	8.84	8.87	8.99	9.94	10.29	9.92	-3	-3.7	-1.3
Maryland									
Btu.....	12,879	12,965	12,824	12,752	12,753	12,676	-1	*	*
Sulfur.....	1.11	1.06	1.16	1.31	1.36	1.47	5.0	-4.9	-3.1
Ash.....	9.49	9.32	9.91	10.02	10.47	10.99	1.8	-2.4	-1.6
North Carolina									
Btu.....	12,422	12,461	12,416	12,465	12,456	12,550	*	*	*
Sulfur.....	.89	.86	.95	.96	.92	.92	3.7	-8	-4
Ash.....	10.16	10.20	10.27	10.12	10.17	9.71	-4	*	.5
South Carolina									
Btu.....	12,757	12,852	12,771	12,802	12,817	12,649	-1	*	*
Sulfur.....	1.21	1.19	1.21	1.17	1.14	1.22	1.9	1.4	-1
Ash.....	8.90	8.53	8.87	8.92	8.77	9.50	4.3	.3	-7
Virginia									
Btu.....	12,597	12,743	12,778	12,817	12,830	12,814	-1	*	*
Sulfur.....	.99	1.03	.99	1.00	1.03	.91	-3.6	-9	.9
Ash.....	11.02	10.21	9.91	9.60	9.48	9.33	8.0	3.8	1.9
West Virginia									
Btu.....	12,378	12,418	12,468	12,489	12,524	24,792	*	*	-100
Sulfur.....	1.93	1.98	1.87	1.94	2.05	4.12	-2.5	-1.5	-99.1
Ash.....	11.78	11.88	11.50	11.61	11.32	23.77	-8	1.0	-99.8
East South Central									
Btu.....	11,714	11,808	11,909	11,988	11,933	11,886	-1	*	*
Sulfur.....	1.86	1.87	1.88	1.91	1.99	2.09	-6	-1.7	-1.3
Ash.....	10.60	10.58	10.66	10.92	10.70	11.16	.2	-2	-6
Alabama									
Btu.....	11,794	11,861	12,088	12,092	12,061	12,223	-1	-1	*
Sulfur.....	1.24	1.20	1.30	1.33	1.43	1.52	3.3	-3.6	-2.3
Ash.....	10.71	10.74	11.54	11.79	11.80	11.75	-3	-2.4	-1.0

See footnotes at end of table.

Table 106. Average Quality of Coal Received at Electric Utilities by Census Division and State, 1987, 1992-1996 (Continued)

Census Division and State and Quality ¹	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Kentucky									
Btu.....	11,536	11,625	11,683	11,697	11,620	11,496	-1	*	*
Sulfur.....	2.47	2.42	2.34	2.39	2.44	2.59	2.1	0.3	-0.5
Ash.....	12.15	11.91	11.35	11.64	11.60	12.26	2.0	1.2	-1
Mississippi									
Btu.....	11,023	11,221	11,312	12,338	12,507	12,674	-2	-3	-2
Sulfur.....	.93	1.04	1.02	1.41	1.69	1.36	-10.5	-13.9	-4.1
Ash.....	6.44	7.81	7.88	8.52	8.31	7.74	-17.5	-6.2	-2.0
Tennessee									
Btu.....	12,062	12,130	12,186	12,268	12,182	11,979	-1	*	*
Sulfur.....	1.87	1.97	2.00	1.92	2.02	2.05	-5.3	-1.9	-1.0
Ash.....	8.89	8.83	8.94	9.14	8.31	9.63	.7	1.7	-9
West South Central									
Btu.....	7,798	7,733	7,709	7,646	7,648	7,657	1	*	*
Sulfur.....	.60	.64	.62	.64	.65	.60	-6.1	-1.9	.1
Ash.....	9.19	9.53	9.50	10.06	10.25	10.15	-3.6	-2.7	-1.1
Arkansas									
Btu.....	8,703	8,687	8,707	8,665	8,724	8,682	*	*	*
Sulfur.....	.33	.33	.32	.32	.32	.32	.4	.3	.1
Ash.....	5.20	5.10	4.92	5.06	5.12	5.47	1.9	.3	-6
Louisiana									
Btu.....	8,171	8,110	8,136	8,092	8,122	8,160	1	*	*
Sulfur.....	.57	.58	.51	.52	.50	.49	-2.6	3.3	1.7
Ash.....	7.13	7.42	7.16	7.13	7.20	7.59	-4.0	-3	-7
Oklahoma									
Btu.....	8,600	8,557	8,573	8,621	8,700	8,851	1	*	*
Sulfur.....	.33	.36	.35	.37	.42	.44	-9.3	-6.0	-3.1
Ash.....	4.93	5.20	5.07	5.21	5.24	5.46	-5.3	-1.5	-1.1
Texas									
Btu.....	7,440	7,346	7,346	7,284	7,234	7,242	1	1	*
Sulfur.....	.71	.77	.73	.75	.76	.68	-7.2	-1.8	.4
Ash.....	10.98	11.50	11.31	11.95	12.33	11.97	-4.5	-2.9	-9
Mountain									
Btu.....	9,741	9,736	9,755	9,751	9,722	9,820	*	*	*
Sulfur.....	.55	.54	.55	.54	.55	.54	1.4	.2	.1
Ash.....	11.37	11.16	11.11	11.19	11.15	10.93	1.9	.5	.4
Arizona									
Btu.....	10,232	10,274	10,281	10,271	10,303	10,608	*	*	*
Sulfur.....	.55	.53	.51	.49	.51	.51	4.7	2.0	.8
Ash.....	12.41	12.13	11.97	12.08	12.19	11.29	2.3	.5	1.1
Colorado									
Btu.....	9,858	9,895	9,946	9,888	9,920	9,842	*	*	*
Sulfur.....	.39	.39	.40	.38	.38	.37	-7	.4	.6
Ash.....	6.94	7.16	7.12	6.97	7.01	6.94	-3.0	-2	*
Montana									
Btu.....	8,439	8,520	8,500	8,496	8,576	8,590	-1	*	*
Sulfur.....	.68	.68	.66	.65	.66	.62	.2	.8	1.1
Ash.....	9.00	9.15	9.05	8.99	8.92	8.82	-1.6	.2	.2
Nevada									
Btu.....	11,140	11,075	11,291	11,012	11,051	11,182	1	*	*
Sulfur.....	.49	.48	.49	.49	.49	.51	1.1	-3	-5
Ash.....	9.71	9.70	9.57	9.73	9.67	9.51	.1	.1	.2
New Mexico									
Btu.....	9,116	9,033	9,043	8,992	9,013	9,049	1	*	*
Sulfur.....	.80	.80	.82	.81	.81	.78	-3	-4	.3
Ash.....	22.78	22.51	22.44	22.77	22.49	21.64	1.2	.3	.6
Utah									
Btu.....	11,513	11,550	11,491	11,489	11,384	11,618	*	*	*
Sulfur.....	.47	.47	.47	.48	.47	.51	-1.3	*	-9
Ash.....	10.90	10.27	10.25	10.47	11.24	9.91	6.0	-8	1.0
Wyoming									
Btu.....	8,716	8,738	8,766	8,779	8,840	8,778	*	*	*
Sulfur.....	.52	.50	.52	.51	.52	.52	5.0	.2	*
Ash.....	8.12	8.06	8.00	7.78	7.54	7.63	.7	1.8	.7

See footnotes at end of table.

Table 106. Average Quality of Coal Received at Electric Utilities by Census Division and State, 1987, 1992-1996 (Continued)

Census Division and State and Quality ¹	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Pacific									
Btu.....	8,066	8,380	8,543	8,283	8,550	8,134	-4	-1	*
Sulfur	.64	.62	.57	.63	.59	.66	3.4	1.8	-0.3
Ash	13.62	11.79	11.14	12.58	11.39	13.67	15.6	4.6	*
Oregon									
Btu.....	8,782	8,882	8,937	8,801	9,642	8,484	-1	-2	*
Sulfur	.26	.30	.37	.38	.40	.32	-13.6	-10.0	-2.2
Ash	4.79	5.52	5.89	4.98	4.42	4.68	-13.2	2.0	.2
Washington									
Btu.....	7,936	8,267	8,400	8,125	8,189	8,104	-4	-1	*
Sulfur	.71	.69	.65	.71	.66	.69	2.7	1.8	.3
Ash	15.24	13.20	13.04	14.90	13.69	14.43	15.4	2.7	.6
U.S. Total									
Btu.....	10,263	10,248	10,338	10,315	10,395	10,569	*	*	*
Sulfur	1.10	1.08	1.17	1.18	1.29	1.38	1.6	-4.0	-2.5
Ash	9.22	9.23	9.36	9.55	9.71	10.00	-2	-1.3	-9

¹ Quality units are: Btu (per pound); sulfur (percent by weight); and ash (percent by weight).

* Data round to zero.

Source: Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

Table 107. Average Quality of Coal Received at Manufacturing and Coke Plants by Census Division and State, 1993-1996

Census Division and State and Quality ¹	1996	1995	1994	1993	Percent Change 1995-1996
New England					
Btu.....	13,028	13,410	13,383	13,232	-2.8
Sulfur.....	1.03	1.32	.72	1.20	-21.8
Ash.....	7.35	6.99	5.86	6.87	5.1
Maine					
Btu.....	12,935	13,392	13,162	13,062	-3.4
Sulfur.....	1.08	1.39	.71	1.29	-22.8
Ash.....	7.31	6.93	5.30	7.18	5.6
Massachusetts					
Btu.....	13,697	13,556	13,939	13,992	1.0
Sulfur.....	.74	.75	.73	.78	-1.3
Ash.....	7.65	7.55	7.26	5.48	1.3
Middle Atlantic					
Btu.....	12,780	12,559	12,549	12,367	1.8
Sulfur.....	1.20	1.15	1.14	1.06	4.3
Ash.....	7.12	7.11	6.95	7.37	.1
New Jersey					
Btu.....	12,474	12,575	12,515	11,685	-.8
Sulfur.....	1.36	.96	.93	.83	41.9
Ash.....	10.98	11.34	12.40	10.71	-3.2
New York²					
Btu.....	13,168	13,122	13,203	13,044	.3
Sulfur.....	1.41	1.29	1.34	1.69	9.6
Ash.....	6.84	7.20	6.69	7.73	-5.1
Pennsylvania²					
Btu.....	12,658	12,366	12,326	12,117	2.4
Sulfur.....	1.16	1.12	1.10	.99	3.3
Ash.....	7.17	7.09	7.00	7.30	1.1
East North Central					
Btu.....	11,990	12,022	11,947	11,956	-.3
Sulfur.....	1.52	1.46	1.52	2.40	4.2
Ash.....	7.34	7.59	7.61	6.98	-3.3
Illinois²					
Btu.....	11,332	11,290	11,387	11,372	.4
Sulfur.....	1.89	1.82	1.94	4.83	4.1
Ash.....	7.41	7.49	7.66	7.03	-1.1
Indiana²					
Btu.....	11,826	11,894	11,641	11,591	-.6
Sulfur.....	1.32	1.20	1.45	1.28	10.2
Ash.....	7.02	7.38	7.50	6.77	-4.8
Michigan²					
Btu.....	12,440	12,386	12,470	12,547	.4
Sulfur.....	.96	.96	1.02	1.05	-.7
Ash.....	6.80	7.60	7.82	6.98	-10.5
Ohio²					
Btu.....	12,415	12,424	12,429	12,476	-.1
Sulfur.....	1.82	1.69	1.60	1.40	7.9
Ash.....	8.27	7.79	7.66	7.10	6.2
Wisconsin					
Btu.....	12,330	12,450	11,873	11,745	-1.0
Sulfur.....	2.05	2.14	1.52	1.83	-4.3
Ash.....	7.72	8.40	7.30	7.25	-8.0
West North Central					
Btu.....	8,703	8,669	8,710	8,589	.4
Sulfur.....	.87	.89	.88	.90	-2.1
Ash.....	6.40	6.54	6.56	6.46	-2.2
Iowa					
Btu.....	10,373	10,332	10,480	10,344	.4
Sulfur.....	1.04	.96	.98	1.13	8.8
Ash.....	6.40	6.44	6.38	6.41	-.7
Kansas					
Btu.....	12,243	12,197	12,249	12,479	.4
Sulfur.....	3.07	3.41	3.11	3.14	-10.2
Ash.....	10.36	11.48	11.04	11.78	-9.8

See footnotes at end of table.

Table 107. Average Quality of Coal Received at Manufacturing and Coke Plants by Census Division and State, 1993-1996 (Continued)

Census Division and State and Quality ¹	1996	1995	1994	1993	Percent Change 1995-1996
Minnesota					
Btu	10,051	10,280	10,112	10,003	-2.2
Sulfur	.61	.56	.54	.51	9.6
Ash	5.08	4.95	5.15	4.56	2.6
Missouri²					
Btu	11,539	11,644	11,510	11,527	-9
Sulfur	2.03	1.91	1.92	2.01	6.3
Ash	8.31	9.92	10.10	10.11	-16.2
Nebraska					
Btu	10,622	10,096	9,931	9,979	5.2
Sulfur	.36	.42	.40	.37	-14.6
Ash	8.92	5.73	5.95	5.20	55.6
North Dakota					
Btu	7,136	7,171	7,142	7,172	-.5
Sulfur	.61	.71	.71	.70	-14.1
Ash	5.97	6.08	6.14	6.16	-1.8
South Dakota					
Btu	9,849	9,504	9,418	8,159	3.6
Sulfur	.83	.86	.77	.39	-3.8
Ash	7.55	7.72	7.15	5.42	-2.1
South Atlantic					
Btu	12,972	12,992	13,043	12,973	-.1
Sulfur	1.09	1.10	1.15	1.12	-1.7
Ash	8.11	8.07	7.96	7.62	.4
Delaware					
Btu	13,381	13,483	13,300	13,087	-.8
Sulfur	1.75	1.87	1.89	2.00	-6.3
Ash	7.01	7.01	7.73	9.26	.1
Florida					
Btu	12,903	12,865	12,933	12,742	.3
Sulfur	.87	.91	.93	.97	-3.8
Ash	8.07	8.14	8.93	9.46	-.9
Georgia					
Btu	12,873	12,895	13,267	12,870	-.2
Sulfur	1.11	1.23	1.29	1.30	-9.3
Ash	8.79	8.78	8.90	7.73	.1
Maryland²					
Btu	12,411	12,598	12,330	12,422	-1.5
Sulfur	1.92	1.92	1.89	1.93	.1
Ash	14.19	14.52	10.90	13.32	-2.3
North Carolina					
Btu	13,243	13,250	13,188	13,321	*
Sulfur	.93	.97	.91	.92	-3.9
Ash	7.10	6.99	7.20	6.89	1.7
South Carolina					
Btu	13,076	13,051	12,994	12,955	.2
Sulfur	1.02	1.08	1.12	1.22	-5.6
Ash	8.09	8.24	7.95	8.67	-1.8
Virginia²					
Btu	12,982	13,067	13,215	13,193	-.6
Sulfur	1.04	1.05	1.05	.99	-1.2
Ash	7.97	7.75	7.44	7.20	2.9
West Virginia²					
Btu	12,809	12,765	12,780	12,721	.3
Sulfur	1.14	1.06	1.24	1.06	7.6
Ash	7.24	7.28	7.54	6.32	-.5
East South Central					
Btu	12,916	12,941	12,869	12,838	-.2
Sulfur	1.06	1.09	1.09	.74	-3.2
Ash	7.20	7.32	7.51	4.54	-1.6
Alabama²					
Btu	12,632	12,612	12,694	12,628	.2
Sulfur	.98	.94	.98	.71	4.8
Ash	6.90	7.07	7.27	4.25	-2.4
Kentucky²					
Btu	13,072	13,086	13,150	12,686	-.1
Sulfur	1.05	1.03	.99	.90	2.5
Ash	6.59	6.61	6.59	6.04	-.4

See footnotes at end of table.

Table 107. Average Quality of Coal Received at Manufacturing and Coke Plants by Census Division and State, 1993-1996 (Continued)

Census Division and State and Quality ¹	1996	1995	1994	1993	Percent Change 1995-1996
Mississippi					
Btu	11,911	11,897	11,786	12,013	0.1
Sulfur	1.41	1.41	1.44	2.52	.2
Ash	9.73	10.66	9.98	10.33	-8.7
Tennessee²					
Btu	13,103	13,160	12,958	13,059	-.4
Sulfur	1.14	1.35	1.32	1.08	-15.5
Ash	7.94	8.04	8.47	8.38	-1.1
West South Central					
Btu	9,176	9,116	8,925	9,143	.7
Sulfur	1.06	1.00	1.00	1.05	6.3
Ash	11.36	10.78	11.18	11.55	5.4
Arkansas					
Btu	12,474	12,573	12,646	12,850	-.8
Sulfur	2.03	2.02	2.10	1.97	.7
Ash	10.27	9.96	10.11	9.78	3.1
Louisiana					
Btu	12,627	9,292	9,051	9,255	35.9
Sulfur	1.27	.39	.35	.39	221.7
Ash	10.23	5.29	5.09	5.83	93.4
Oklahoma					
Btu	9,835	9,995	10,118	11,263	-1.6
Sulfur	.89	.72	.73	.89	24.7
Ash	5.97	5.60	6.18	6.86	6.6
Texas²					
Btu	8,757	8,690	8,447	8,585	.8
Sulfur	1.01	1.02	1.04	1.09	-1.0
Ash	12.37	12.20	12.72	12.98	1.3
Mountain					
Btu	10,699	10,698	10,601	10,443	*
Sulfur	.67	.71	.68	.56	-4.8
Ash	7.79	7.28	7.05	6.75	6.9
Arizona					
Btu	10,603	10,969	11,072	10,690	-3.3
Sulfur	.53	.54	.48	.46	-2.1
Ash	13.15	12.23	11.09	11.17	7.6
Colorado					
Btu	11,308	11,262	10,785	10,564	.4
Sulfur	.54	.61	.58	.54	-12.6
Ash	7.79	7.24	7.00	6.52	7.6
Idaho					
Btu	10,148	10,232	9,988	10,089	-.8
Sulfur	.72	.78	.79	.71	-7.3
Ash	6.40	6.22	5.72	6.03	2.8
Montana					
Btu	8,695	8,368	8,496	8,065	3.9
Sulfur	.44	.59	.57	.46	-25.1
Ash	5.31	7.93	7.65	9.31	-33.0
Nevada					
Btu	11,533	11,698	11,907	12,042	-1.4
Sulfur	.51	.48	.26	.28	4.8
Ash	8.80	7.13	4.01	4.63	23.4
New Mexico					
Btu	12,302	12,518	12,688	12,776	-1.7
Sulfur	.82	.79	.94	.74	3.8
Ash	11.67	10.26	9.87	9.95	13.7
Utah²					
Btu	11,589	11,671	11,679	11,530	-.7
Sulfur	.82	.84	.82	.44	-2.6
Ash	8.01	8.08	7.68	7.12	-9
Wyoming					
Btu	10,365	10,170	10,098	10,074	1.9
Sulfur	.70	.71	.70	.72	-1.6
Ash	4.68	4.84	5.27	5.12	-3.3

See footnotes at end of table.

Table 107. Average Quality of Coal Received at Manufacturing and Coke Plants by Census Division and State, 1993-1996 (Continued)

Census Division and State and Quality ¹	1996	1995	1994	1993	Percent Change 1995-1996
Pacific					
Btu	11,677	11,551	11,749	12,218	1.1
Sulfur	.56	.53	.52	.49	6.8
Ash	9.15	9.17	8.98	8.65	-2
California					
Btu	11,899	11,912	11,950	12,441	-1
Sulfur	.55	.52	.52	.49	6.4
Ash	8.72	8.62	8.93	8.35	1.2
Hawaii					
Btu	9,157	9,275	9,576	9,776	-1.3
Sulfur	.53	.53	.51	.52	-7
Ash	14.99	15.37	16.72	15.96	-2.5
Oregon					
Btu	11,159	10,188	10,704	10,216	9.5
Sulfur	.65	.54	.53	.51	19.8
Ash	7.03	5.98	6.48	5.94	17.7
Washington					
Btu	11,622	11,846	11,818	12,151	-1.9
Sulfur	.65	.57	.58	.56	13.3
Ash	10.00	9.62	5.63	9.47	4.0
U.S. Total					
Btu	11,405	11,367	11,316	11,303	.3
Sulfur	1.17	1.15	1.16	1.23	1.8
Ash	7.58	7.61	7.63	6.34	-4

¹ Quality units are: Btu (per pound); sulfur (percent by weight); and ash (percent by weight).

² Includes sulfur and ash data for coke plants.

* Data round to zero.

Notes: Btu data are for manufacturing plants only. The national average of coke plant data ranges from .51 to 1.70 for sulfur and 2.6 to 10.1 for ash.

Sources: Energy Information Administration, Form EIA-3A, "Annual Coal Quality Report - Manufacturing Plants"; and Form EIA-5A, "Annual Coal Quality Report - Coke Plants."

Appendix A

Major Coal Producing States

Table A1. Alabama Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	451,760	510,406	457,144	426,635	467,741	537,592	-11.5	-0.9	-1.9
Productive Capacity ¹	32,159	32,546	33,049	27,916	29,815	29,189	-1.2	1.9	1.1
Production Total.....	24,637	24,640	23,266	24,768	25,796	25,540	*	-1.1	-4
Underground.....	18,217	17,605	14,471	15,557	15,944	14,342	3.5	3.4	2.7
Surface.....	6,420	7,036	8,795	9,211	9,852	11,198	-8.7	-10.1	-6.0
Capacity Utilization ²	76.57	75.52	70.19	88.46	86.26	87.23	1.4	-2.9	-1.4
Ratio of Recoverable									
Reserves to Production.....	18.3	20.7	19.6	17.2	18.1	21.0	-11.5	.3	-1.5
Number of Miners.....	5,031	5,567	5,418	5,399	5,386	6,718	-9.6	-1.7	-3.2
Productivity Total ²	2.20	2.24	2.25	2.35	2.49	1.97	-1.6	-3.0	1.3
Underground.....	1.95	2.02	1.94	2.09	2.17	1.68	-3.6	-2.6	1.7
Surface.....	3.50	3.07	3.07	3.01	3.28	2.53	14.2	1.6	3.7
Producer/Distributor Stocks.....	1,031	1,358	1,204	1,698	2,185	-	-24.1	-17.1	-
Imports ³	161	162	178	88	-	-	-8	-	-
Distribution (thousand short tons)									
Distribution Total.....	24,636	25,159	23,750	25,556	25,491	NA	-2.1	-8	NA
Domestic Distribution Total.....	19,772	19,127	19,220	19,668	19,560	NA	3.4	.3	NA
Within State.....	18,503	18,024	18,351	18,716	18,849	NA	2.7	-5	NA
To Other States.....	1,269	1,103	870	952	711	NA	15.1	15.6	NA
Foreign Distribution Total.....	4,864	6,032	4,529	5,888	5,931	NA	-19.4	-4.8	NA
Metallurgical.....	4,523	5,330	4,359	5,846	5,800	NA	-15.1	-6.0	NA
Steam.....	341	702	170	43	131	NA	-51.5	27.0	NA
Overseas Total ⁴	4,864	6,032	4,529	5,888	5,931	NA	-19.4	-4.8	NA
Metallurgical.....	4,523	5,330	4,359	5,846	5,800	NA	-15.1	-6.0	NA
Steam.....	341	702	170	43	131	NA	-51.5	27.0	NA
Demand (thousand short tons)									
Consumption Total.....	37,052	34,309	31,473	33,047	31,510	26,632	8.0	4.1	3.7
Electric Utility.....	31,216	28,759	25,817	27,533	24,988	20,746	8.5	5.7	4.6
Industrial.....	2,545	2,286	2,394	2,268	3,136	2,614	11.3	-5.1	-3
Coke.....	3,247	3,257	3,253	3,206	3,297	3,150	-3	-4	.3
Residential/Commercial.....	44	7	11	40	89	121	NM	-16.0	-10.7
Consumer Stocks Total.....	2,860	3,648	4,132	2,797	4,529	5,012	-21.6	-10.8	-6.0
Electric Utility.....	2,528	3,282	3,652	2,331	4,071	4,450	-23.0	-11.2	-6.1
All Other.....	332	366	480	466	458	562	-9.4	-7.7	-5.7
Coal Prices (nominal dollars per short ton)									
Mine Total.....	\$39.48	\$38.44	\$40.12	\$42.34	\$40.82	\$41.42	2.7	-8	-5
Underground.....	40.75	39.26	39.92	42.00	40.70	39.82	3.8	*	.3
Surface.....	35.87	36.38	40.45	42.91	41.02	43.49	-1.4	-3.3	-2.1
Consumer									
Electric Utility.....	36.39	37.00	40.42	42.56	41.67	47.04	-1.6	-3.3	-2.8
Industrial.....	40.15	39.53	38.74	39.01	39.76	40.38	1.5	.2	-1
Coke.....	49.37	48.42	47.45	47.50	47.80	45.89	1.9	.8	.8

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

³ Imports for 1992 through 1996 include imports to electric utilities, manufacturing plants and coke plants. Imports for 1987 include only imports to electric utilities.

⁴ Includes Mexico.

* Data round to zero.

NM Not meaningful as value is greater than 500 percent.

NA Not available.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Consumption Total does not include coal consumed by independent power producers. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Table A2. Arizona Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	w	w	w	w	w	w	w	w	w
Productive Capacity ¹	w	w	w	13,800	13,800	w	-4.3	-1.1	w
Production Total.....	10,442	11,947	13,056	12,173	12,512	11,379	-12.6	-4.4	-0.9
Surface.....	10,442	11,947	13,056	12,173	12,512	11,379	-12.6	-4.4	-0.9
Capacity Utilization ²	w	w	w	88.21	90.67	w	-8.6	-3.3	w
Ratio of Recoverable Reserves to Production.....	w	w	w	w	w	w	w	w	w
Number of Miners.....	651	831	864	876	888	900	-21.7	-7.5	-3.5
Productivity Total ²	6.30	6.34	6.71	6.21	6.29	6.76	-6	*	-8
Surface.....	6.30	6.34	6.71	6.21	6.29	6.76	-6	*	-8
Producer/Distributor Stocks.....	2,232	2,760	2,634	1,590	1,555	-	-19.1	9.4	-
Distribution (thousand short tons)									
Distribution Total.....	10,970	11,783	12,011	12,138	12,418	NA	-6.9	-3.0	NA
Domestic Distribution Total.....	10,970	11,783	12,011	12,138	12,418	NA	-6.9	-3.0	NA
Within State.....	6,499	6,956	7,580	7,566	7,441	NA	-6.6	-3.3	NA
To Other States.....	4,470	4,827	4,431	4,572	4,977	NA	-7.4	-2.6	NA
Demand (thousand short tons)									
Consumption Total.....	16,792	16,682	19,580	18,991	17,915	13,375	.6	-1.6	2.6
Electric Utility.....	16,117	16,021	18,853	18,316	17,280	12,706	.6	-1.7	2.7
Industrial.....	675	657	727	674	632	w	2.8	1.7	w
Residential/Commercial.....	*	5	*	1	w	w	-96.3	w	w
Consumer Stocks Total.....	2,025	3,032	3,242	3,717	3,596	w	-33.2	-13.4	w
Electric Utility.....	1,993	2,998	3,197	3,687	3,543	3,813	-33.5	-13.4	-6.9
All Other.....	32	34	45	30	53	w	-5.8	-11.7	w
Coal Prices (nominal dollars per short ton)									
Mine Total.....	w	w	w	w	w	w	w	w	w
Surface.....	w	w	w	w	w	w	w	w	w
Consumer.....									
Electric Utility.....	\$29.55	\$28.65	\$28.26	\$27.78	\$28.31	\$27.56	3.1	1.1	.8
Industrial.....	39.27	40.46	41.35	40.51	40.95	w	-2.9	-1.0	w

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

* Data round to zero.

w Withheld to avoid disclosure of individual company data.

NA Not available.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Consumption Total does not include coal consumed by independent power producers. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Table A3. Colorado Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	641,615	692,030	676,272	608,815	608,067	668,353	-7.3	1.3	-0.4
Productive Capacity ¹	29,330	32,435	31,075	30,040	25,848	21,321	-9.6	3.2	3.6
Production Total.....	24,886	25,710	25,304	21,886	19,226	14,420	-3.2	6.7	6.3
Underground.....	15,581	17,187	16,332	12,843	10,246	5,645	-9.3	11.0	11.9
Surface.....	9,305	8,523	8,972	9,043	8,981	8,775	9.2	.9	.6
Capacity Utilization ²	84.85	79.27	81.41	72.84	74.35	67.59	7.0	3.3	2.5
Ratio of Recoverable Reserves to Production.....	25.8	26.9	26.7	27.8	31.6	46.3	-4.2	-5.0	-6.3
Number of Miners.....	1,332	1,777	1,905	1,775	1,610	1,795	-25.0	-4.6	-3.3
Productivity Total ²	7.32	6.14	6.20	5.85	5.27	4.22	19.2	8.5	6.3
Underground.....	6.67	5.86	5.81	5.21	4.52	2.75	13.7	10.2	10.3
Surface.....	8.76	6.79	7.06	7.07	6.52	6.44	29.0	7.7	3.5
Producer/Distributor Stocks.....	494	1,063	1,575	1,155	955	-	-53.5	-15.2	-
Distribution (thousand short tons)									
Distribution Total.....	25,405	25,635	24,810	21,465	18,864	NA	-9	7.7	NA
Domestic Distribution Total.....	23,990	24,734	24,059	20,338	18,195	NA	-3.0	7.2	NA
Within State.....	10,704	11,820	12,035	11,181	11,241	NA	-9.4	-1.2	NA
To Other States.....	13,286	12,915	12,024	9,157	6,954	NA	2.9	17.6	NA
Foreign Distribution Total.....	1,415	900	752	1,128	669	NA	57.2	20.6	NA
Metallurgical.....	30	-	-	-	-	NA	-	-	NA
Steam.....	1,385	900	752	1,128	669	NA	53.9	20.0	NA
Overseas Total ³	1,415	900	752	1,128	669	NA	57.2	20.6	NA
Metallurgical.....	30	-	-	-	-	NA	-	-	NA
Steam.....	1,385	900	752	1,128	669	NA	53.9	20.0	NA
Demand (thousand short tons)									
Consumption Total.....	17,222	16,971	17,475	17,070	16,696	15,007	1.5	.8	1.5
Electric Utility.....	16,841	16,222	16,596	16,252	15,902	14,178	3.8	1.4	1.9
Industrial.....	367	729	857	780	735	748	-49.6	-15.9	-7.6
Residential/Commercial.....	13	20	23	38	w	w	-32.2	w	w
Consumer Stocks Total.....	3,057	3,682	3,145	3,454	3,439	w	-17.0	-2.9	w
Electric Utility.....	3,030	3,622	3,118	3,428	3,410	3,635	-16.3	-2.9	-2.0
All Other.....	27	59	26	25	29	w	-54.2	-1.6	w
Coal Prices (nominal dollars per short ton)									
Mine Total.....	\$17.94	\$19.26	\$19.76	\$20.35	\$21.33	\$23.58	-6.9	-4.2	-3.0
Underground.....	17.73	18.58	19.05	20.53	21.80	28.16	-4.5	-5.0	-5.0
Surface.....	18.28	20.63	21.05	20.10	20.80	20.63	-11.4	-3.2	-1.3
Consumer.....									
Electric Utility.....	20.24	20.73	21.01	21.59	21.67	22.01	-2.4	-1.7	-9
Industrial.....	23.17	26.11	28.96	28.63	30.34	28.79	-11.2	-6.5	-2.4

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

³ Includes Mexico.

^w Withheld to avoid disclosure of individual company data.

NA Not available.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Consumption Total does not include coal consumed by independent power producers. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Table A4. Illinois Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	891,109	882,323	963,470	1,063,832	1,199,313	1,431,240	1.0	-7.1	-5.1
Productive Capacity ¹	61,727	56,627	69,414	69,320	75,787	75,852	9.0	-5.0	-2.3
Production Total.....	46,656	48,180	52,797	41,098	59,857	59,155	-3.2	-6.0	-2.6
Underground.....	38,948	41,118	43,281	33,096	46,965	37,521	-5.3	-4.6	.4
Surface.....	7,707	7,062	9,516	8,002	12,892	21,634	9.1	-12.1	-10.8
Capacity Utilization ²	75.58	85.08	76.06	59.28	78.98	77.98	-11.2	-1.1	-3
Ratio of Recoverable Reserves to Production.....	19.1	18.3	18.3	25.9	20.0	24.2	4.3	-1.2	-2.6
Number of Miners.....	5,174	5,652	6,591	7,303	8,323	12,171	-8.4	-11.2	-9.1
Productivity Total ²	4.18	3.87	3.59	3.23	3.42	2.52	8.2	5.2	5.8
Underground.....	4.10	3.86	3.49	3.11	3.21	2.20	6.1	6.3	7.1
Surface.....	4.67	3.89	4.12	3.86	4.47	3.37	19.9	1.1	3.7
Producer/Distributor Stocks.....	1,190	2,069	1,651	713	1,969	-	-42.5	-11.8	-
Imports ³	216	223	346	51	-	-	-3.1	-	-
Distribution (thousand short tons)									
Distribution Total.....	47,076	47,869	51,973	42,000	58,913	NA	-1.7	-5.4	NA
Domestic Distribution Total.....	45,190	45,170	51,737	41,330	57,670	NA	*	-5.9	NA
Within State.....	16,052	15,587	17,517	15,206	18,167	NA	3.0	-3.0	NA
To Other States.....	29,137	29,582	34,220	26,124	39,503	NA	-1.5	-7.3	NA
Foreign Distribution Total.....	1,886	2,699	236	670	1,242	NA	-30.1	11.0	NA
Metallurgical.....	-	49	236	109	614	NA	-100.0	-100.0	NA
Steam.....	1,886	2,650	-	561	629	NA	-28.8	31.6	NA
Overseas Total ⁴	1,886	2,699	236	670	1,242	NA	-30.1	11.0	NA
Metallurgical.....	-	49	236	109	614	NA	-100.0	-	NA
Steam.....	1,886	2,650	-	561	629	NA	-28.8	31.6	NA
Demand (thousand short tons)									
Consumption Total.....	44,431	39,623	39,077	38,135	31,599	35,581	12.1	8.9	2.5
Electric Utility.....	38,090	33,463	32,599	31,744	25,264	28,894	13.8	10.8	3.1
Industrial.....	3,740	3,653	4,187	3,970	3,736	3,900	2.4	*	-5
Coke.....	w	w	w	w	w	2,515	w	w	w
Residential/Commercial.....	w	w	w	w	w	273	w	w	w
Consumer Stocks Total.....	w	w	w	w	w	9,676	w	w	w
Electric Utility.....	4,581	5,331	4,526	4,019	7,399	8,861	-14.1	-11.3	-7.1
All Other.....	w	w	w	w	w	815	w	w	w
Coal Prices (nominal dollars per short ton)									
Mine Total.....	\$22.74	\$23.05	\$23.14	\$25.27	\$27.66	\$29.56	-1.3	-4.8	-2.9
Underground.....	23.12	22.88	23.18	25.54	27.93	30.39	1.0	-4.6	-3.0
Surface.....	20.86	24.04	22.92	24.18	26.69	28.12	-13.2	-6.0	-3.3
Consumer.....									
Electric Utility.....	32.14	32.58	32.69	35.30	37.06	42.80	-1.3	-3.5	-3.1
Industrial.....	29.69	29.03	29.13	29.42	29.24	33.15	2.3	.4	-1.2
Coke.....	w	w	w	w	w	44.19	w	w	w

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

³ Imports for 1992 through 1996 include imports to electric utilities, manufacturing plants and coke plants. Imports for 1987 include only imports to electric utilities.

⁴ Includes Mexico.

* Data round to zero.

w Withheld to avoid disclosure of individual company data.

NA Not available.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Consumption Total does not include coal consumed by independent power producers. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Table A5. Indiana Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	386,063	323,667	304,225	379,294	404,549	514,341	19.3	-1.2	-3.1
Productive Capacity ¹	35,564	35,256	38,931	43,955	42,990	45,344	.9	-4.6	-2.7
Production Total.....	29,670	26,007	30,927	29,295	30,466	34,208	14.1	-.6	-1.6
Underground.....	2,963	3,540	3,324	2,583	2,641	2,447	-16.3	2.9	2.1
Surface.....	26,707	22,467	27,603	26,713	27,825	31,761	18.9	-1.0	-1.9
Capacity Utilization ²	83.42	73.70	79.37	66.60	70.86	75.36	13.2	4.2	1.1
Ratio of Recoverable Reserves to Production.....	13.0	12.4	9.8	12.9	13.3	15.0	4.5	-.5	-1.6
Number of Miners.....	2,579	2,571	3,206	3,331	3,652	3,992	.3	-8.3	-4.7
Productivity Total ²	4.98	4.68	4.28	4.46	4.09	3.57	6.4	5.0	3.8
Underground.....	3.09	3.22	2.82	2.49	2.80	2.05	-4.1	2.5	4.6
Surface.....	5.34	5.04	4.56	4.82	4.28	3.79	6.0	5.7	3.9
Producer/Distributor Stocks.....	574	611	803	527	1,016	-	-6.1	-13.3	-
Imports ³	735	761	593	594	-	-	-3.3	-	-
Distribution (thousand short tons)									
Distribution Total.....	29,674	25,695	30,684	29,664	31,393	NA	15.5	-1.4	NA
Domestic Distribution Total.....	29,664	25,625	30,477	29,475	31,216	NA	15.8	-1.3	NA
Within State.....	24,309	21,185	24,733	23,913	24,655	NA	14.8	-.3	NA
To Other States.....	5,354	4,439	5,744	5,562	6,561	NA	20.6	-4.9	NA
Foreign Distribution Total.....	11	70	206	188	177	NA	-84.7	-50.4	NA
Steam.....	11	70	206	188	177	NA	-84.7	-50.4	NA
Canada Total.....	-	*	-	-	-	NA	-100.0	-	NA
Steam.....	-	*	-	-	-	NA	-100.0	-	NA
Overseas Total ⁴	11	69	206	188	177	NA	-84.6	-50.4	NA
Steam.....	11	69	206	188	177	NA	-84.6	-50.4	NA
Demand (thousand short tons)									
Consumption Total.....	64,021	62,631	59,996	60,353	58,765	51,385	2.2	2.2	2.5
Electric Utility.....	52,855	52,089	50,554	48,836	46,937	36,987	1.5	3.0	4.0
Industrial.....	4,987	4,373	4,244	4,587	4,263	5,016	14.0	4.0	-.1
Coke.....	5,823	5,883	4,841	6,591	7,153	8,841	-1.0	-5.0	-4.5
Residential/Commercial.....	356	287	356	339	411	541	24.3	-3.5	-4.5
Consumer Stocks Total.....	7,958	9,298	11,707	7,798	12,507	14,998	-14.4	-10.7	-6.8
Electric Utility.....	7,105	8,435	10,449	6,935	11,294	13,185	-15.8	-10.9	-6.6
All Other.....	853	863	1,258	863	1,214	1,813	-1.2	-8.4	-8.0
Coal Prices (nominal dollars per short ton)									
Mine Total.....	\$20.24	\$21.71	\$22.28	\$22.89	\$23.41	\$24.57	-6.8	-3.6	-2.1
Underground.....	w	w	w	w	w	w	w	w	w
Surface.....	w	w	w	w	w	w	w	w	w
Consumer.....									
Electric Utility.....	\$24.67	\$25.94	\$26.79	\$26.73	\$27.89	\$31.93	-4.9	-3.0	-2.8
Industrial.....	31.76	33.14	31.35	30.91	31.58	30.94	-4.2	.1	.3
Coke.....	51.93	52.74	50.90	52.29	53.72	51.44	-1.5	-.8	.1

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

³ Imports for 1992 through 1996 include imports to electric utilities, manufacturing plants and coke plants. Imports for 1987 include only imports to electric utilities.

⁴ Includes Mexico.

* Data round to zero.

w Withheld to avoid disclosure of individual company data.

NA Not available.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Consumption Total does not include coal consumed by independent power producers. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Table A6. Kentucky Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	1,255,351	1,279,011	1,365,188	1,828,072	1,452,789	1,739,114	-1.8	-3.6	-3.5
Productive Capacity ¹	189,225	203,173	213,427	204,805	195,352	185,985	-6.9	-8	.2
Production Total.....	152,425	153,739	161,642	156,299	161,068	165,192	-8	-1.4	-9
Underground.....	94,306	94,207	95,414	92,207	96,053	92,882	.1	-4	.2
Surface.....	58,119	59,532	66,227	64,092	65,016	72,310	-2.4	-2.8	-2.4
Capacity Utilization ²	80.38	75.49	75.54	76.11	82.15	88.03	6.5	-5	-1.0
Ratio of Recoverable									
Reserves to Production.....	8.2	8.3	8.4	11.7	9.0	10.5	-1.0	-2.2	-2.7
Number of Miners.....	18,826	21,125	23,368	24,063	24,624	32,590	-10.9	-6.5	-5.9
Productivity Total ²	3.80	3.57	3.25	3.25	3.20	2.69	6.6	4.4	3.9
Underground.....	3.53	3.25	2.89	2.93	2.91	2.40	8.6	5.0	4.4
Surface.....	4.35	4.23	3.96	3.84	3.75	3.18	2.9	3.8	3.5
Producer/Distributor Stocks.....	4,460	4,777	5,025	3,216	3,796	-	-6.6	4.1	-
Distribution (thousand short tons)									
Distribution Total.....	152,891	151,466	159,130	160,395	161,860	NA	.9	-1.4	NA
Domestic Distribution Total.....	143,748	141,771	151,963	150,874	147,825	NA	1.4	-7	NA
Within State.....	25,700	27,140	26,719	28,136	27,941	NA	-5.3	-2.1	NA
To Other States.....	118,047	114,631	125,244	122,738	119,883	NA	3.0	-4	NA
Foreign Distribution Total.....	9,143	9,695	7,167	9,521	14,036	NA	-5.7	-10.2	NA
Metallurgical.....	5,303	R 3,640	R 3,120	R 4,415	R 5,916	NA	45.7	-2.7	NA
Steam.....	3,841	R 6,055	R 4,047	R 5,106	R 8,120	NA	-36.6	-17.1	NA
Canada Total.....	1,178	777	1,099	1,416	2,078	NA	51.5	-13.2	NA
Metallurgical.....	1,178	777	1,073	1,356	1,373	NA	51.5	-3.8	NA
Steam.....	-	-	26	60	705	NA	-	-	NA
Overseas Total ³	7,966	8,918	6,067	8,106	11,958	NA	-10.7	-9.7	NA
Metallurgical.....	4,125	R 2,863	R 2,047	R 3,059	R 4,544	NA	44.1	-2.4	NA
Steam.....	3,841	R 6,055	R 4,021	R 5,047	R 7,414	NA	-36.6	-15.2	NA
Demand (thousand short tons)									
Consumption Total.....	40,863	39,516	38,090	39,095	34,704	32,023	3.4	4.2	2.7
Electric Utility.....	37,072	35,707	34,564	35,264	31,715	28,569	3.8	4.0	2.9
Industrial.....	2,322	2,250	1,994	2,392	1,648	1,869	3.2	8.9	2.4
Coke.....	w	w	w	w	w	w	w	w	w
Residential/Commercial.....	w	w	w	w	w	w	w	w	w
Consumer Stocks Total.....	w	w	w	w	w	w	w	w	w
Electric Utility.....	4,121	4,472	4,466	3,990	5,415	7,679	-7.8	-6.6	-6.7
All Other.....	w	w	w	w	w	w	w	w	w
Coal Prices (nominal dollars per short ton)									
Mine Total.....	\$23.91	\$24.79	\$24.88	\$24.77	\$24.50	\$26.15	-3.6	-6	-1.0
Underground.....	24.66	25.18	26.14	25.07	25.18	26.80	-2.0	-5	-9
Surface.....	22.68	24.19	23.07	24.35	23.50	25.32	-6.2	-9	-1.2
Consumer									
Electric Utility.....	24.43	25.71	27.16	27.29	27.01	28.94	-5.0	-2.5	-1.9
Industrial.....	44.02	44.09	43.22	42.30	43.78	43.12	-2	.1	.2
Coke.....	w	w	w	w	w	w	w	w	w

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

³ Includes Mexico.

w Withheld to avoid disclosure of individual company data.

NA Not available.

R Revised Data.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Consumption Total does not include coal consumed by independent power producers. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Table A7. Montana Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	1,308,793	1,250,866	1,282,525	1,284,806	1,351,609	1,610,532	4.6	-0.8	-2.3
Productive Capacity ¹	56,175	51,597	51,104	50,849	48,582	42,848	8.9	3.7	3.0
Production Total.....	37,891	39,451	41,640	35,917	38,889	34,399	-3.9	-6	1.1
Underground.....	147	10	3	10	10	-	NM	97.7	-
Surface.....	37,744	39,441	41,636	35,907	38,879	34,399	-4.3	-7	1.0
Capacity Utilization ²	67.45	76.44	81.47	70.64	80.03	80.28	-11.8	-4.2	-1.9
Ratio of Recoverable Reserves to Production.....	34.5	31.7	30.8	35.8	34.8	46.8	8.9	-1	-3.3
Number of Miners.....	705	722	705	660	715	847	-2.3	-3	-2.0
Productivity Total ²	21.88	21.06	21.92	19.49	20.16	18.70	3.9	2.1	1.8
Underground.....	3.50	-	-	1.06	-	-	-	-	-
Surface.....	22.34	21.06	21.92	19.59	20.16	18.70	6.1	2.6	2.0
Producer/Distributor Stocks.....	580	718	635	876	694	-	-19.3	-4.4	-
Distribution (thousand short tons)									
Distribution Total.....	38,288	39,620	41,916	35,916	38,866	NA	-3.4	-4	NA
Domestic Distribution Total.....	37,770	39,362	41,672	35,795	38,804	NA	-4.0	-7	NA
Within State.....	7,844	9,477	10,581	9,115	11,159	NA	-17.2	-8.4	NA
To Other States.....	29,926	29,885	31,092	26,680	27,645	NA	.1	2.0	NA
Foreign Distribution Total.....	518	259	243	121	62	NA	100.2	70.2	NA
Steam.....	518	259	243	121	62	NA	100.2	70.2	NA
Canada Total.....	316	259	90	54	-	NA	22.1	-	NA
Steam.....	316	259	90	54	-	NA	22.1	-	NA
Overseas Total ³	202	-	153	67	62	NA	-	34.6	NA
Steam.....	202	-	153	67	62	NA	-	34.6	NA
Demand (thousand short tons)									
Consumption Total.....	8,032	10,005	11,089	9,247	11,040	7,730	-19.7	-7.6	.4
Electric Utility.....	7,897	9,373	10,513	8,869	10,768	7,530	-15.8	-7.4	.5
Industrial.....	w	w	w	w	w	w	w	w	w
Residential/Commercial.....	w	w	w	w	w	w	w	w	w
Consumer Stocks Total.....	w	w	w	w	w	w	w	w	w
Electric Utility.....	509	511	517	721	735	851	-5	-8.8	-5.6
All Other.....	w	w	w	w	w	w	w	w	w
Coal Prices (nominal dollars per short ton)									
Mine Total.....	\$9.96	\$9.62	\$10.39	\$11.05	\$10.20	\$12.43	3.5	-6	-2.4
Underground.....	w	w	-	w	-	-	-	-	-
Surface.....	w	w	10.39	w	10.20	12.43	w	w	w
Consumer.....									
Electric Utility.....	\$11.90	\$11.47	11.79	\$11.78	12.14	11.12	3.8	-5	.7
Industrial.....	w	w	w	w	w	w	w	w	w

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

³ Includes Mexico.

^w Withheld to avoid disclosure of individual company data.

^{NM} Not meaningful as value is greater than 500 percent.

^{NA} Not available.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Consumption Total does not include coal consumed by independent power producers. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Table A8. New Mexico Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	1,436,359	1,479,956	1,457,523	1,472,927	1,494,541	1,557,487	-2.9	-1.0	-0.9
Productive Capacity ¹	32,695	32,760	32,807	33,360	29,512	33,295	-2	2.6	-2
Production Total.....	24,067	26,813	28,041	28,268	24,549	19,131	-10.2	-5	2.6
Underground.....	-	640	950	719	93	620	-100.0	-	-
Surface.....	24,067	26,173	27,091	27,549	24,456	18,512	-8.0	-4	2.9
Capacity Utilization ²	73.61	81.85	85.47	84.74	83.18	57.46	-10.1	-3.0	2.8
Ratio of Recoverable Reserves to Production.....	59.7	55.2	52.0	52.1	60.9	81.4	8.1	-5	-3.4
Number of Miners.....	1,347	1,747	1,786	1,762	1,683	1,658	-22.9	-5.4	-2.3
Productivity Total ²	8.45	6.92	6.77	6.68	6.68	5.74	22.1	6.0	4.4
Underground.....	-	2.68	2.57	1.63	.40	1.74	-100.0	-	-
Surface.....	8.45	7.19	7.18	7.26	7.11	6.23	17.4	4.4	3.4
Producer/Distributor Stocks.....	1,890	2,015	1,467	2,343	1,648	-	-6.2	3.5	-
Distribution (thousand short tons)									
Distribution Total.....	25,043	26,154	28,570	27,942	24,827	NA	-4.3	.2	NA
Domestic Distribution Total.....	25,035	25,640	28,540	27,942	24,823	NA	-2.4	.2	NA
Within State.....	15,009	14,630	15,464	14,938	14,829	NA	2.6	.3	NA
To Other States.....	10,026	11,010	13,076	13,004	9,993	NA	-8.9	.1	NA
Foreign Distribution Total.....	9	514	30	-	5	NA	-98.3	16.5	NA
Steam.....	9	514	30	-	5	NA	-98.3	16.5	NA
Overseas Total ³	9	514	30	-	5	NA	-98.3	16.5	NA
Steam.....	9	514	30	-	5	NA	-98.3	16.5	NA
Demand (thousand short tons)									
Consumption Total.....	15,297	15,221	15,374	15,012	14,832	14,395	.5	.8	.7
Electric Utility.....	15,215	15,137	15,297	14,942	14,775	14,340	.5	.7	.6
Industrial.....	w	w	w	w	w	w	w	w	w
Residential/Commercial.....	w	w	w	w	w	w	w	w	w
Consumer Stocks Total.....	w	w	w	w	w	w	w	w	w
Electric Utility.....	814	967	1,462	1,506	1,570	1,246	-15.8	-15.1	-4.6
All Other.....	w	w	w	w	w	w	w	w	w
Coal Prices (nominal dollars per short ton)									
Mine Total.....	\$24.66	\$23.80	\$23.29	\$22.96	\$23.14	\$21.78	3.6	1.6	1.4
Underground.....	-	w	w	w	w	w	w	w	w
Surface.....	24.66	w	w	w	w	w	w	w	w
Consumer.....									
Electric Utility.....	26.04	\$25.59	\$25.48	\$24.61	\$23.83	\$21.87	1.8	2.2	2.0
Industrial.....	w	w	w	w	w	w	w	w	w

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

³ Includes Mexico.

w Withheld to avoid disclosure of individual company data.

NA Not available.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Consumption Total does not include coal consumed by independent power producers. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Table A9. North Dakota Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	1,301,400	1,667,596	1,694,548	1,411,026	1,335,164	1,384,343	-21.9	-0.6	-0.7
Productive Capacity ¹	32,184	34,464	35,920	36,371	36,986	39,166	-6.6	-3.4	-2.1
Production Total.....	29,861	30,112	32,286	31,973	31,744	25,142	-8	-1.5	1.9
Surface.....	29,861	30,112	32,286	31,973	31,744	25,142	-8	-1.5	1.9
Capacity Utilization ²	92.78	87.37	89.88	87.89	85.83	64.19	6.2	2.0	4.2
Ratio of Recoverable Reserves to Production.....	43.6	55.4	52.5	44.1	42.1	55.1	-21.3	.9	-2.6
Number of Miners.....	640	716	645	782	744	961	-10.6	-3.7	-4.4
Productivity Total ²	17.20	16.80	18.84	17.66	18.12	13.46	2.4	-1.3	2.8
Surface.....	17.20	16.80	18.84	17.66	18.12	13.46	2.4	-1.3	2.8
Producer/Distributor Stocks.....	1,574	1,797	1,812	1,607	1,614	-	-12.4	-6	-
Distribution (thousand short tons)									
Distribution Total.....	30,025	30,118	32,056	32,372	31,702	NA	-3	-1.3	NA
Domestic Distribution Total.....	30,025	30,118	32,056	32,372	31,702	NA	-3	-1.3	NA
Within State.....	30,025	28,838	29,731	30,215	29,573	NA	4.1	.4	NA
To Other States.....	-	1,281	2,325	2,157	2,129	NA	-100.0	-	NA
Demand (thousand short tons)									
Consumption Total.....	30,511	30,237	30,363	30,302	30,301	24,101	.9	.2	2.6
Electric Utility.....	23,640	22,680	23,248	23,290	23,192	17,434	4.2	.5	3.4
Industrial.....	w	w	w	w	w	w	w	w	w
Residential/Commercial.....	w	w	w	w	w	w	w	w	w
Consumer Stocks Total.....	w	w	w	w	w	w	w	w	w
Electric Utility.....	1,642	1,858	2,406	2,417	2,194	3,586	-11.6	-7.0	-8.3
All Other.....	w	w	w	w	w	w	w	w	w
Coal Prices (nominal dollars per short ton)									
Mine Total.....	\$8.01	\$7.99	\$7.62	\$7.63	\$7.48	\$7.91	.2	1.7	.1
Surface.....	8.01	7.99	7.62	7.63	7.48	7.91	.2	1.7	.1
Consumer.....									
Electric Utility.....	9.72	9.65	9.28	9.38	9.45	10.46	.7	.7	-8
Industrial.....	w	w	w	w	w	w	w	w	w

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

^w Withheld to avoid disclosure of individual company data.

^{NA} Not available.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Consumption Total does not include coal consumed by independent power producers. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Table A10. Ohio Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	414,759	467,984	479,235	519,768	575,973	754,690	-11.4	-7.9	-6.4
Productive Capacity ¹	37,584	34,011	43,925	42,236	41,329	46,337	10.5	-2.3	-2.3
Production Total.....	28,572	26,118	29,897	28,816	30,403	35,788	9.4	-1.5	-2.5
Underground.....	15,912	13,077	13,607	10,437	12,031	12,617	21.7	7.2	2.6
Surface.....	12,660	13,041	16,290	18,379	18,371	23,171	-2.9	-8.9	-6.5
Capacity Utilization ²	75.88	76.55	67.87	67.94	73.19	76.72	-9	9	-1
Ratio of Recoverable Reserves to Production.....	14.5	17.9	16.0	18.0	18.9	21.1	-19.0	-6.4	-4.1
Number of Miners.....	3,232	3,386	3,983	3,866	4,515	7,827	-4.5	-8.0	-9.4
Productivity Total ²	3.95	3.62	3.42	3.46	3.04	2.28	9.1	6.8	6.3
Underground.....	4.19	3.81	3.51	3.27	3.01	1.80	9.9	8.6	9.8
Surface.....	3.69	3.46	3.34	3.58	3.06	2.67	6.9	4.8	3.7
Producer/Distributor Stocks.....	532	1,374	833	550	1,087	-	-61.3	-16.4	-
Imports ³	1	1	2	2	13	-	3.1	-42.3	-
Distribution (thousand short tons)									
Distribution Total.....	28,881	24,345	28,749	28,315	29,550	NA	18.6	-6	NA
Domestic Distribution Total.....	28,609	24,318	28,688	28,315	29,549	NA	17.6	-8	NA
Within State.....	24,478	20,228	23,907	24,370	26,941	NA	21.0	-2.4	NA
To Other States.....	4,131	4,090	4,782	3,944	2,608	NA	1.0	12.2	NA
Foreign Distribution Total.....	271	28	61	-	2	NA	NM	257.2	NA
Steam.....	271	28	61	-	2	NA	NM	257.2	NA
Canada Total.....	3	13	-	-	*	NA	-78.7	60.2	NA
Steam.....	3	13	-	-	*	NA	-78.7	60.2	NA
Overseas Total ⁴	269	15	61	-	1	NA	NM	282.7	NA
Steam.....	269	15	61	-	1	NA	NM	282.7	NA
Demand (thousand short tons)									
Consumption Total.....	59,835	56,580	56,711	59,031	58,671	59,350	5.8	.5	.1
Electric Utility.....	53,543	49,785	49,326	51,456	50,358	47,520	7.5	1.5	1.3
Industrial.....	3,794	3,609	3,794	4,100	3,970	5,657	5.1	-1.1	-4.3
Coke.....	1,842	2,777	3,092	2,892	3,755	5,361	-33.7	-16.3	-11.2
Residential/Commercial.....	656	409	498	584	588	812	60.4	2.8	-2.3
Consumer Stocks Total.....	5,431	5,936	7,815	7,630	10,804	11,164	-8.5	-15.8	-7.7
Electric Utility.....	5,232	5,661	7,499	7,249	10,395	9,959	-7.6	-15.8	-6.9
All Other.....	199	275	316	381	408	1,205	-27.6	-16.4	-18.1
Coal Prices (nominal dollars per short ton)									
Mine Total.....	\$24.85	\$25.97	\$29.13	\$28.04	\$26.93	\$30.80	-4.3	-2.0	-2.3
Underground.....	25.98	28.98	31.61	30.73	30.11	37.20	-10.4	-3.6	-3.9
Surface.....	23.43	22.92	27.04	26.51	24.84	27.28	2.2	-1.4	-1.7
Consumer.....									
Electric Utility.....	32.31	34.44	34.70	34.05	34.40	37.15	-6.2	-1.5	-1.5
Industrial.....	35.28	35.18	35.75	34.82	35.24	33.98	.3	*	.4
Coke.....	44.98	42.18	42.02	45.07	46.68	46.04	6.6	-9	-3

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

³ Imports for 1992 through 1996 include imports to electric utilities, manufacturing plants and coke plants. Imports for 1987 include only imports to electric utilities.

⁴ Includes Mexico.

* Data round to zero.

NM Not meaningful as value is greater than 500 percent.

NA Not available.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Table A11. Pennsylvania Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	796,035	736,601	912,870	939,706	937,427	1,368,540	8.1	-4.0	-5.8
Productive Capacity ¹	81,684	77,187	80,975	82,148	82,968	86,765	5.8	-4	-7
Production Total	67,942	61,576	62,237	59,700	68,981	70,423	10.3	-4	-4
Underground	47,247	41,409	39,974	36,934	45,112	38,450	14.1	1.2	2.3
Surface	20,694	20,167	22,263	22,766	23,868	31,974	2.6	-3.5	-4.7
Capacity Utilization ²	82.53	78.81	75.89	71.79	82.20	80.04	4.7	.1	.3
Ratio of Recoverable Reserves to Production.....	11.7	12.0	14.7	15.7	13.6	19.4	-2.0	-3.6	-5.5
Number of Miners.....	9,021	8,968	9,975	10,940	12,659	17,287	.6	-8.1	-7.0
Productivity Total ²	3.36	3.23	2.98	2.80	2.67	1.97	4.1	5.9	6.1
Underground	3.74	3.49	3.18	2.91	2.81	1.81	7.1	7.4	8.4
Surface	2.72	2.79	2.67	2.63	2.45	2.23	-2.4	2.6	2.3
Producer/Distributor Stocks	3,113	2,487	2,787	1,826	2,903	-	25.2	1.8	-
Imports ³	80	87	-	-	-	-	-7.7	-	-
Distribution (thousand short tons)									
Distribution Total	69,128	62,240	61,508	58,990	67,649	NA	11.1	.5	NA
Domestic Distribution Total.....	59,882	53,961	55,207	53,482	61,208	NA	11.0	-.5	NA
Within State	39,222	36,147	35,189	33,456	37,696	NA	8.5	1.0	NA
To Other States.....	20,660	17,814	20,018	20,026	23,512	NA	16.0	-3.2	NA
Foreign Distribution Total.....	9,246	8,279	6,301	5,508	6,440	NA	11.7	9.5	NA
Metallurgical	1,642	1,467	1,624	1,919	1,301	NA	11.9	6.0	NA
Steam	7,604	6,812	4,677	3,589	5,139	NA	11.6	10.3	NA
Canada Total	1,050	713	844	597	1,599	NA	47.4	-10.0	NA
Metallurgical	-	4	-	10	-	NA	-100.0	-	NA
Steam.....	1,050	708	844	587	1,599	NA	48.2	-10.0	NA
Overseas Total ⁴	8,196	7,566	5,457	4,911	4,841	NA	8.3	14.1	NA
Metallurgical	1,642	1,463	1,624	1,909	1,301	NA	12.2	6.0	NA
Steam	6,554	6,103	3,833	3,002	3,540	NA	7.4	16.6	NA
Demand (thousand short tons)									
Consumption Total	57,226	55,326	54,094	56,158	56,074	55,305	3.4	.5	.4
Electric Utility	41,076	39,252	38,044	40,257	40,407	41,263	4.6	.4	*
Industrial	4,466	4,027	4,044	4,311	4,173	4,112	10.9	1.7	.9
Coke	10,689	10,858	10,849	10,333	9,868	8,395	-1.5	2.0	2.7
Residential/Commercial.....	995	1,188	1,156	1,257	1,626	1,535	-16.3	-11.6	-4.7
Consumer Stocks Total	8,860	10,303	12,060	12,265	15,976	16,121	-14.0	-13.7	-6.4
Electric Utility	7,880	9,244	11,000	11,110	14,866	15,034	-14.8	-14.7	-6.9
All Other.....	980	1,059	1,060	1,155	1,110	1,087	-7.5	-3.1	-1.1
Coal Prices (nominal dollars per short ton)									
Mine Total	\$25.78	\$26.78	\$26.18	\$26.50	\$28.61	\$29.81	-3.7	-2.6	-1.6
Underground	25.79	27.09	26.59	27.35	30.23	32.70	-4.8	-3.9	-2.6
Surface	25.76	26.14	25.43	25.09	25.48	26.27	-1.4	.3	-2
Consumer									
Electric Utility	34.06	33.48	35.39	35.73	36.81	35.43	1.7	-1.9	-4
Industrial	33.84	34.07	33.66	34.04	35.70	36.62	-7	-1.3	-9
Coke	45.16	46.11	46.25	46.41	46.49	42.54	-2.0	-7	.7

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

³ Imports for 1992 through 1996 include imports to electric utilities, manufacturing plants and coke plants. Imports for 1987 include only imports to electric utilities.

⁴ Includes Mexico.

* Data round to zero.

NA Not available.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Table A12. Texas Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	878,486	939,901	1,026,309	1,104,864	1,188,240	1,214,513	-6.5	-7.3	-3.5
Productive Capacity ¹	59,604	54,758	55,856	57,115	58,541	51,636	8.8	.4	1.6
Production Total.....	55,164	52,684	52,346	54,567	55,071	50,529	4.7	*	1.0
Surface.....	55,164	52,684	52,346	54,567	55,071	50,529	4.7	*	1.0
Capacity Utilization ²	92.55	96.21	93.72	95.54	94.07	97.86	-3.8	-4	-6
Ratio of Recoverable Reserves to Production.....	15.9	17.8	19.6	20.3	21.6	24.0	-10.7	-7.3	-4.5
Number of Miners.....	1,550	1,590	1,733	1,841	2,001	3,319	-2.5	-6.2	-8.1
Productivity Total ²	10.13	9.10	8.82	8.42	7.34	6.45	11.3	8.4	5.1
Surface.....	10.13	9.10	8.82	8.42	7.34	6.45	11.3	8.4	5.1
Producer/Distributor Stocks.....	1,254	864	1,430	1,237	543	-	45.1	23.3	-
Imports ³	16	-	153	156	80	94	-	-33.5	-18.1
Distribution (thousand short tons)									
Distribution Total.....	49,655	52,832	52,256	54,224	54,447	NA	-6.0	-2.3	NA
Domestic Distribution Total.....	49,538	52,812	52,256	54,224	54,447	NA	-6.2	-2.3	NA
Within State.....	49,538	52,812	52,256	54,224	54,447	NA	-6.2	-2.3	NA
Foreign Distribution Total.....	117	20	-	-	-	NA	494.0	-	NA
Steam.....	117	20	-	-	-	NA	494.0	-	NA
Overseas Total ⁴	117	20	-	-	-	NA	494.0	-	NA
Steam.....	117	20	-	-	-	NA	494.0	-	NA
Demand (thousand short tons)									
Consumption Total.....	98,997	92,612	93,829	96,809	91,568	82,915	6.9	2.0	2.0
Electric Utility.....	94,189	88,358	88,479	92,135	87,333	78,802	6.6	1.9	2.0
Industrial.....	4,808	4,255	5,350	4,667	4,225	4,083	13.0	3.3	1.8
Residential/Commercial.....	-	-	*	6	w	w	-	w	w
Consumer Stocks Total.....	10,481	10,829	9,793	9,172	w	w	-3.2	w	w
Electric Utility.....	10,290	10,628	9,578	8,125	10,143	8,992	-3.2	.4	1.5
All Other.....	190	201	215	1,047	w	w	-5.6	w	w
Coal Prices (nominal dollars per short ton)									
Mine Total.....	\$12.17	\$12.16	\$12.38	\$12.87	\$12.42	\$12.10	*	-.5	.1
Surface.....	12.17	12.16	12.38	12.87	12.42	12.10	*	-.5	.1
Consumer.....									
Electric Utility.....	19.26	19.65	19.84	20.91	21.58	22.48	-1.9	-2.8	-1.7
Industrial.....	18.99	18.76	19.54	17.58	18.14	19.19	1.2	1.1	-.1

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

³ Imports for 1992 through 1996 include imports to electric utilities, manufacturing plants and coke plants. Imports for 1987 include only imports to electric utilities.

⁴ Includes Mexico.

* Data round to zero.

w Withheld to avoid disclosure of individual company data.

NA Not available.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Table A13. Utah Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	284,433	374,750	423,349	446,729	488,109	489,634	-24.1	-12.6	-5.8
Productive Capacity ¹	30,230	30,888	27,640	25,933	25,534	22,976	-2.1	4.3	3.1
Production Total.....	27,507	25,167	24,399	21,847	21,339	16,508	9.3	6.5	5.8
Underground.....	27,507	25,167	24,399	21,847	21,339	16,508	9.3	6.5	5.8
Capacity Utilization ²	90.97	81.48	88.27	84.22	83.57	71.85	11.6	2.1	2.6
Ratio of Recoverable Reserves to Production.....	10.3	14.9	17.3	20.4	22.9	29.7	-30.5	-18.0	-11.0
Number of Miners.....	1,804	1,893	1,675	1,769	1,997	2,544	-4.7	-2.5	-3.7
Productivity Total ²	7.23	7.02	6.59	5.96	5.46	3.86	3.0	7.2	7.2
Underground.....	7.24	7.02	6.59	5.96	5.46	3.86	3.1	7.3	7.2
Producer/Distributor Stocks.....	1,337	1,946	1,301	1,203	1,827	-	-31.3	-7.5	-
Distribution (thousand short tons)									
Distribution Total.....	23,868	25,521	23,225	22,243	21,052	NA	-6.5	3.2	NA
Domestic Distribution Total.....	18,563	21,591	20,527	19,283	18,792	NA	-14.0	-3	NA
Within State.....	9,389	12,755	13,586	13,418	13,035	NA	-26.4	-7.9	NA
To Other States.....	9,174	8,836	6,941	5,866	5,758	NA	3.8	12.3	NA
Foreign Distribution Total.....	5,305	3,930	2,698	2,959	2,260	NA	35.0	23.8	NA
Metallurgical.....	187	-	-	-	-	NA	-	-	NA
Steam.....	5,118	3,930	2,698	2,959	2,260	NA	30.2	22.7	NA
Canada Total.....	-	-	-	346	-	NA	-	-	NA
Steam.....	-	-	-	346	-	NA	-	-	NA
Overseas Total ³	5,305	3,930	2,698	2,613	2,260	NA	35.0	23.8	NA
Metallurgical.....	187	-	-	-	-	NA	-	-	NA
Steam.....	5,118	3,930	2,698	2,613	2,260	NA	30.2	22.7	NA
Demand (thousand short tons)									
Consumption Total.....	15,237	15,307	16,216	15,848	15,719	11,807	-4	-8	2.9
Electric Utility.....	13,584	13,325	14,269	13,995	13,857	11,175	1.9	-5	2.2
Industrial.....	512	915	835	727	525	507	-44.1	-6	.1
Coke.....	w	w	w	w	w	w	w	w	w
Residential/Commercial.....	w	w	w	w	w	w	w	w	w
Consumer Stocks Total.....	w	w	w	w	w	w	w	w	w
Electric Utility.....	1,526	2,250	2,753	3,264	3,153	3,133	-32.2	-16.6	-7.7
All Other.....	w	w	w	w	w	w	w	w	w
Coal Prices (nominal dollars per short ton)									
Mine Total.....	\$21.63	\$19.10	\$19.27	\$20.81	\$21.11	\$25.70	13.3	.6	-1.9
Underground.....	21.63	19.10	19.27	20.81	21.11	25.70	13.3	.6	-1.9
Consumer.....									
Electric Utility.....	24.66	25.27	26.10	27.34	27.54	29.09	-2.4	-2.7	-1.8
Industrial.....	19.10	19.74	26.57	26.51	25.35	23.85	-3.2	-6.8	-2.4
Coke.....	w	w	w	w	w	w	w	w	w

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

³ Includes Mexico.

w Withheld to avoid disclosure of individual company data.

NA Not available.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Table A14. Virginia Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	188,344	203,159	236,773	335,883	365,823	507,545	-7.3	-15.3	-10.4
Productive Capacity ¹	41,593	43,037	46,462	50,879	54,471	49,676	-3.3	-6.5	-1.9
Production Total.....	35,590	34,099	37,129	39,317	43,024	44,543	4.4	-4.6	-2.5
Underground.....	25,568	25,372	28,054	30,166	34,715	36,943	.8	-7.4	-4.0
Surface.....	10,022	8,727	9,075	9,151	8,308	7,599	14.8	4.8	3.1
Capacity Utilization ²	85.34	79.07	79.61	77.07	78.70	88.93	7.9	2.0	-4
Ratio of Recoverable Reserves to Production.....	5.3	6.0	6.4	8.5	8.5	11.4	-11.2	-11.2	-8.2
Number of Miners.....	6,241	6,919	8,121	8,339	9,138	12,047	-9.8	-9.1	-7.0
Productivity Total ²	2.72	2.50	2.51	2.41	2.37	2.08	8.4	3.5	3.0
Underground.....	2.44	2.25	2.27	2.19	2.20	2.01	8.6	2.7	2.2
Surface.....	3.79	3.73	3.73	3.55	3.50	2.52	1.7	2.0	4.6
Producer/Distributor Stocks.....	1,644	1,649	1,180	1,389	1,714	-	-3	-1.0	-
Distribution (thousand short tons)									
Distribution Total.....	36,208	34,024	38,548	41,639	45,728	NA	6.4	-5.7	NA
Domestic Distribution Total.....	22,776	24,283	26,866	27,388	28,504	NA	-6.2	-5.4	NA
Within State.....	7,231	5,657	6,867	6,076	6,082	NA	27.8	4.4	NA
To Other States.....	15,545	18,625	19,999	21,312	22,422	NA	-16.5	-8.8	NA
Foreign Distribution Total.....	13,432	9,742	11,683	14,251	17,224	NA	37.9	-6.0	NA
Metallurgical.....	12,760	8,921	11,155	13,747	14,389	NA	43.0	-3.0	NA
Steam.....	671	821	527	503	2,835	NA	-18.2	-30.2	NA
Canada Total.....	387	445	786	1,229	1,331	NA	-13.0	-26.5	NA
Metallurgical.....	387	445	786	1,229	-	NA	-13.0	-	NA
Steam.....	-	-	-	-	1,331	NA	-	-	NA
Overseas Total ³	13,044	R 9,297	R 10,897	R 13,021	15,893	NA	40.3	-4.8	NA
Metallurgical.....	12,373	R 8,475	R 10,370	R 12,518	R 14,389	NA	46.0	-3.7	NA
Steam.....	671	R 821	R 527	R 503	R 1,505	NA	-18.2	-18.3	NA
Demand (thousand short tons)									
Consumption Total.....	14,983	13,378	12,792	13,584	13,418	13,227	12.0	2.8	1.4
Electric Utility.....	10,994	9,543	8,670	9,447	8,661	8,297	15.2	6.1	3.2
Industrial.....	2,613	2,585	2,838	2,863	3,592	3,662	1.1	-7.6	-3.7
Coke.....	w	w	w	w	w	w	w	w	w
Residential/Commercial.....	w	w	w	w	w	w	w	w	w
Consumer Stocks Total.....	w	w	w	w	w	w	w	w	w
Electric Utility.....	1,010	1,098	2,064	1,418	1,922	2,300	-7.9	-14.8	-8.7
All Other.....	w	w	w	w	w	w	w	w	w
Coal Prices (nominal dollars per short ton)									
Mine Total.....	\$28.45	\$28.47	\$26.84	\$26.80	\$27.55	\$27.42	-.1	.8	.4
Underground.....	29.46	29.20	27.33	27.26	27.88	27.94	.9	1.4	.6
Surface.....	25.88	26.34	25.33	25.29	26.17	24.90	-1.8	-3	.4
Consumer.....									
Electric Utility.....	35.73	36.90	37.05	37.57	37.81	40.52	-3.2	-1.4	-1.4
Industrial.....	43.51	42.50	41.56	41.27	40.97	38.92	2.4	1.5	1.2
Coke.....	w	w	w	w	w	w	w	w	w

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

³ Includes Mexico.

w Withheld to avoid disclosure of individual company data.

NA Not available.

R Revised Data.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Table A15. West Virginia Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	1,731,154	1,731,400	1,829,630	1,930,903	2,043,062	2,547,607	*	-4.0	-4.2
Productive Capacity ¹	217,409	204,837	201,684	191,706	198,083	158,356	6.1	2.3	3.6
Production Total.....	170,433	162,997	161,776	130,525	162,164	136,676	4.6	1.3	2.5
Underground.....	115,585	110,029	111,679	87,997	115,212	107,463	5.0	.1	.8
Surface.....	54,848	52,968	50,097	42,528	46,952	29,213	3.5	4.0	7.3
Capacity Utilization ²	78.32	79.50	80.07	67.91	81.70	85.84	-1.5	-1.0	-1.0
Ratio of Recoverable Reserves to Production.....	10.2	10.6	11.3	14.8	12.6	18.6	-4.4	-5.2	-6.5
Number of Miners.....	20,121	21,334	21,861	22,979	26,017	29,458	-5.7	-6.2	-4.1
Productivity Total ²	3.91	3.74	3.69	3.27	3.27	2.47	4.4	4.5	5.3
Underground.....	3.50	3.40	3.38	2.92	2.99	2.31	2.9	4.0	4.7
Surface.....	5.18	4.74	4.62	4.35	4.27	3.29	9.4	5.0	5.2
Producer/Distributor Stocks.....	4,947	6,176	6,692	4,059	7,405	-	-19.9	-9.6	-
Distribution (thousand short tons)									
Distribution Total.....	169,200	165,187	158,985	135,818	163,723	NA	2.4	.8	NA
Domestic Distribution Total.....	127,156	120,866	122,779	102,659	112,917	NA	5.2	3.0	NA
Within State.....	29,220	29,018	30,891	22,887	26,644	NA	.7	2.3	NA
To Other States.....	97,936	91,848	91,888	79,772	86,273	NA	6.6	3.2	NA
Foreign Distribution Total.....	42,044	44,321	36,205	33,159	50,806	NA	-5.1	-4.6	NA
Metallurgical.....	31,717	34,633	31,603	26,504	33,413	NA	-8.4	-1.3	NA
Steam.....	10,327	9,688	4,602	6,655	17,393	NA	6.6	-12.2	NA
Canada Total.....	7,222	5,784	5,644	4,108	8,911	NA	24.9	-5.1	NA
Metallurgical.....	6,907	5,759	5,605	4,071	8,021	NA	19.9	-3.7	NA
Steam.....	315	25	40	37	890	NA	NM	-22.8	NA
Overseas Total ³	34,822	38,537	30,561	29,052	41,895	NA	-9.6	-4.5	NA
Metallurgical.....	24,810	28,874	25,998	22,433	25,392	NA	-14.1	-6	NA
Steam.....	10,012	9,663	4,563	6,618	16,504	NA	3.6	-11.8	NA
Demand (thousand short tons)									
Consumption Total.....	36,139	34,489	34,767	32,046	32,019	34,815	4.8	3.1	.4
Electric Utility.....	32,775	30,657	30,318	27,782	28,050	30,605	6.9	4.0	.8
Industrial.....	1,630	1,984	2,637	2,406	2,266	2,326	-17.8	-7.9	-3.9
Coke.....	w	w	w	w	w	w	w	w	w
Residential/Commercial.....	w	w	w	w	w	w	w	w	w
Consumer Stocks Total.....	w	w	w	w	w	w	w	w	w
Electric Utility.....	4,372	4,744	4,479	4,001	7,863	9,401	-7.8	-13.6	-8.1
All Other.....	w	w	w	w	w	w	w	w	w
Coal Prices (nominal dollars per short ton)									
Mine Total.....	\$26.58	\$27.18	\$27.42	\$27.58	\$28.15	\$29.15	-2.2	-1.4	-1.0
Underground.....	27.31	27.77	27.93	28.54	29.14	29.86	-1.6	-1.6	-1.0
Surface.....	25.04	25.95	26.29	25.57	25.72	26.51	-3.5	-7	-6
Consumer.....									
Electric Utility.....	30.93	31.61	34.70	35.42	36.88	67.41	-2.1	-4.3	-101.5
Industrial.....	33.37	33.61	32.73	32.91	31.93	31.39	-7	1.1	.7
Coke.....	w	w	w	w	w	w	w	w	w

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

³ Includes Mexico.

* Data round to zero.

w Withheld to avoid disclosure of individual company data.

NM Not meaningful as value is greater than 500 percent.

NA Not available.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Table A16. Wyoming Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	6,591,293	6,723,963	6,999,460	6,830,720	6,750,718	6,596,139	-2.0	-0.6	*
Productive Capacity ¹	350,908	337,184	321,046	277,875	253,312	247,476	4.1	8.5	3.9
Production Total.....	278,440	263,822	237,092	210,129	190,172	146,850	5.5	10.0	7.4
Underground.....	2,641	2,008	2,735	2,136	2,511	107	31.5	1.3	42.8
Surface.....	275,799	261,814	234,357	207,993	187,661	146,743	5.3	10.1	7.3
Capacity Utilization ²	79.35	78.24	73.85	75.62	75.07	59.34	1.4	1.4	3.3
Ratio of Recoverable Reserves to Production.....	23.7	25.5	29.5	32.5	35.5	44.9	-7.1	-9.6	-6.9
Number of Miners.....	2,814	3,142	3,291	3,159	3,326	3,191	-10.4	-4.1	-1.4
Productivity Total ²	32.06	30.06	26.05	24.46	21.50	17.91	6.6	10.5	6.7
Underground.....	9.18	5.97	5.07	3.56	4.19	2.71	53.6	21.7	14.5
Surface.....	32.84	31.02	27.37	26.03	22.76	17.98	5.9	9.6	6.9
Producer/Distributor Stocks.....	1,504	1,997	1,592	998	2,794	-	-24.7	-14.3	-
Distribution (thousand short tons)									
Distribution Total.....	279,117	263,601	235,540	211,713	190,260	NA	5.9	10.0	NA
Domestic Distribution Total.....	276,723	261,333	234,016	210,739	188,983	NA	5.9	10.0	NA
Within State.....	26,253	26,521	28,334	25,519	26,388	NA	-1.0	-1	NA
To Other States.....	250,470	234,812	205,682	185,220	162,595	NA	6.7	11.4	NA
Foreign Distribution Total.....	2,395	2,269	1,524	974	1,277	NA	5.5	17.0	NA
Steam.....	2,395	2,269	1,524	974	1,277	NA	5.5	17.0	NA
Canada Total.....	443	32	-	-	-	NA	NM	-	NA
Steam.....	443	32	-	-	-	NA	NM	-	NA
Overseas Total ³	1,952	2,237	1,524	974	1,277	NA	-12.8	11.2	NA
Steam.....	1,952	2,237	1,524	974	1,277	NA	-12.8	11.2	NA
Demand (thousand short tons)									
Consumption Total.....	26,646	25,933	27,459	26,171	27,339	24,399	2.8	-6	1.0
Electric Utility.....	24,430	23,850	25,350	24,111	25,114	22,408	2.4	-7	1.0
Industrial.....	1,835	1,937	1,867	1,873	2,126	w	-5.3	-3.6	w
Residential/Commercial.....	382	146	242	187	w	w	162.0	w	w
Consumer Stocks Total.....	2,269	2,936	2,553	1,841	2,242	w	-22.7	.3	w
Electric Utility.....	2,198	2,857	2,476	1,728	2,153	2,805	-23.1	.5	-2.7
All Other.....	71	79	77	113	89	w	-10.7	-5.6	w
Coal Prices (nominal dollars per short ton)									
Mine Total.....	\$6.41	\$6.58	\$6.83	\$7.32	\$8.14	\$9.80	-2.6	-5.8	-4.6
Underground.....	w	w	w	w	w	w	w	w	w
Surface.....	w	w	w	w	w	w	w	w	w
Consumer.....									
Electric Utility.....	\$14.30	\$14.29	\$14.09	\$14.03	\$13.42	\$15.27	.1	1.6	-7
Industrial.....	22.32	22.72	22.87	23.43	23.67	w	-1.8	-1.4	w

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

³ Includes Mexico.

* Data round to zero.

w Withheld to avoid disclosure of individual company data.

NM Not meaningful as value is greater than 500 percent.

NA Not available.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Table A17. All Other States Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	427,163	420,998	476,538	506,419	514,739	803,845	1.5	-4.5	-6.8
Productive Capacity ¹	23,441	24,495	23,451	23,567	28,144	35,803	-4.3	-4.5	-4.6
Production Total.....	19,674	19,911	19,672	18,848	22,284	28,878	-1.2	-3.1	-4.2
Underground.....	5,227	4,880	4,880	4,523	4,367	7,329	7.1	4.6	-3.7
Surface.....	14,447	15,031	14,792	14,325	17,917	21,549	-3.9	-5.2	-4.3
Capacity Utilization ²	83.55	81.02	83.52	79.48	78.65	80.17	3.1	1.5	.4
Ratio of Recoverable Reserves to Production.....	21.7	21.1	24.2	26.9	23.1	27.8	2.7	-1.5	-2.7
Number of Miners.....	2,394	2,312	2,373	2,478	2,918	5,362	3.5	-4.8	-8.6
Productivity Total ²	3.73	3.96	3.82	3.59	3.40	2.58	-6.0	2.3	4.1
Underground.....	2.94	3.03	2.86	3.05	2.40	1.98	-3.1	5.2	4.5
Surface.....	4.13	4.41	4.30	3.80	3.78	2.88	-6.2	2.3	4.1
Producer/Distributor Stocks.....	292	784	598	297	289	-	-62.8	.3	-
Imports ³	5,267	5,084	5,327	4,605	1,713	671	3.6	32.4	25.7
Distribution (thousand short tons)									
Distribution Total.....	19,828	R 19,080	R 18,813	R 19,056	R 21,904	NA	3.9	-2.5	NA
Domestic Distribution Total.....	18,285	17,930	17,767	17,914	20,654	NA	2.0	-3.0	NA
Within State.....	28	26	25	100	143	NA	5.2	-33.6	NA
To Other States.....	18,257	17,904	17,743	17,814	20,511	NA	2.0	-2.9	NA
Foreign Distribution Total.....	1,544	1,150	1,046	1,142	1,250	NA	34.2	5.4	NA
Metallurgical.....	-	38	109	51	-	NA	-100.0	-	NA
Steam.....	1,544	1,112	937	1,092	1,250	NA	38.8	5.4	NA
Canada Total.....	*	1	3	1	-	NA	-82.9	-	NA
Steam.....	*	1	3	1	-	NA	-82.9	-	NA
Overseas Total ⁴	1,544	1,149	1,042	1,142	1,250	NA	34.3	5.4	NA
Metallurgical.....	-	38	109	51	-	NA	-100.0	-	NA
Steam.....	1,544	1,112	934	1,091	1,250	NA	38.9	5.4	NA
Demand (thousand short tons)									
Consumption Total.....	400,049	382,060	371,817	365,045	350,253	334,403	4.7	3.4	2.0
Electric Utility.....	365,146	344,785	334,773	329,279	315,259	296,439	5.9	3.7	2.3
Industrial.....	29,720	31,653	31,795	31,970	31,728	30,998	-6.1	-1.6	-5
Coke.....	2,686	2,784	2,723	1,243	1,148	4,603	-3.5	23.7	-5.8
Residential/Commercial.....	2,497	2,838	2,526	2,552	2,119	2,363	-12.0	4.2	.6
Consumer Stocks Total.....	60,142	62,368	57,506	48,850	68,257	78,115	-3.6	-3.1	-2.9
Electric Utility.....	55,838	58,348	53,253	45,411	64,006	71,867	-4.3	-3.3	-2.8
All Other.....	4,304	4,021	4,252	3,439	4,251	6,247	7.0	.3	-4.0
Coal Prices (nominal dollars per short ton)									
Mine Total.....	\$24.06	\$22.80	\$23.19	\$23.14	\$24.39	\$25.88	5.5	-.3	-.8
Underground.....	25.78	26.25	26.97	26.72	27.26	27.79	-1.8	-1.4	-.8
Surface.....	23.44	21.67	21.94	22.02	23.69	25.23	8.1	-.3	-.8
Consumer.....									
Electric Utility.....	27.46	28.22	29.70	30.68	31.79	34.55	-2.7	-3.6	-2.5
Industrial.....	38.22	38.51	38.72	38.95	39.35	40.68	-.8	-.7	-.7
Coke.....	51.21	51.67	50.89	58.19	53.10	51.49	-.9	-.9	*

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

³ Imports for 1992 through 1996 include imports to electric utilities, manufacturing plants and coke plants. Imports for 1987 include only imports to electric utilities.

⁴ Includes Mexico.

* Data round to zero.

^w Withheld to avoid disclosure of individual company data.

NA Not available.

R Revised Data.

Notes: Other States include Alaska, Arkansas, California, Iowa, Kansas, Louisiana, Maryland, Missouri, Oklahoma, Tennessee, and Washington. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Table A18. Total U.S. Coal Statistics, 1987, 1992-1996

Category	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Supply (thousand short tons)									
Recoverable Reserves.....	19,427,980	20,105,197	21,016,526	21,535,283	21,626,971	24,241,218	-3.4	-2.6	-2.4
Productive Capacity ¹	1,324,712	1,299,054	1,320,656	1,261,873	1,241,054	1,183,404	2.0	1.6	1.3
Production Total.....	1,063,856	1,032,974	1,033,504	945,424	997,545	918,762	3.0	1.6	1.6
Underground.....	409,849	396,249	399,103	351,053	407,239	372,874	3.4	.1	1.0
Surface.....	654,007	636,725	634,401	594,371	590,306	545,888	2.7	2.6	2.0
Capacity Utilization ²	80.21	79.40	78.11	74.77	80.20	77.29	1.0	*	.4
Ratio of Recoverable Reserves to Production.....	18.3	19.5	20.3	22.8	21.7	26.4	-6.2	-4.2	-4.0
Number of Miners.....	83,462	90,252	97,500	101,322	110,196	142,667	-7.5	-6.7	-5.8
Productivity Total ²	5.69	5.38	4.98	4.70	4.36	3.30	5.8	6.9	6.3
Underground.....	3.57	3.39	3.19	2.95	2.93	2.20	5.6	5.1	5.5
Surface.....	9.05	8.48	7.67	7.23	6.59	4.98	6.7	8.3	6.9
Producer/Distributor Stocks.....	28,648	34,444	33,219	25,284	33,993	34,090	-16.8	-4.2	-1.9
Imports ³	6,476	6,317	6,599	5,496	1,806	765	2.5	37.6	26.8
Distribution (thousand short tons)									
Distribution Total.....	1,059,892	1,030,330	1,022,523	959,445	998,647	NA	2.9	1.5	NA
Domestic Distribution Total.....	967,693	940,423	949,843	883,934	897,267	NA	2.9	1.9	NA
Within State.....	340,005	336,821	353,765	339,034	355,232	NA	.9	-1.1	NA
To Other States.....	627,688	603,602	596,078	544,900	542,035	NA	4.0	3.7	NA
Foreign Distribution Total.....	92,199	89,907	72,680	75,510	101,380	NA	2.5	-2.3	NA
Metallurgical.....	56,162	54,077	52,206	52,591	61,432	NA	3.9	-2.2	NA
Steam.....	36,037	35,830	20,474	22,919	39,948	NA	.6	-2.5	NA
Canada Total.....	10,599	8,023	8,467	7,751	13,919	NA	32.1	-6.6	NA
Metallurgical.....	8,472	6,986	7,464	6,666	9,394	NA	21.3	-2.5	NA
Steam.....	2,127	1,037	1,003	1,085	4,525	NA	105.0	-17.2	NA
Overseas Total ⁴	81,600	81,884	64,214	67,759	87,461	NA	-3	-1.7	NA
Metallurgical.....	47,690	47,091	44,743	45,925	52,038	NA	1.3	-2.2	NA
Steam.....	33,910	34,793	19,471	21,834	35,423	NA	-2.5	-1.1	NA
Demand (thousand short tons)									
Consumption Total.....	983,334	940,880	930,201	925,944	892,421	836,860	4.5	2.4	1.8
Electric Utility.....	874,681	829,007	817,270	813,508	779,860	717,894	5.5	2.9	2.2
Industrial.....	70,941	73,055	75,179	74,892	74,042	75,175	-2.9	-1.1	-6
Coke.....	31,706	33,011	31,740	31,323	32,366	36,877	-3.9	-5	-1.7
Residential/Commercial.....	6,006	5,807	6,013	6,221	6,153	6,914	3.4	-6	-1.5
Consumer Stocks Total.....	123,024	134,639	136,139	120,458	163,692	185,459	-8.6	-6.9	-4.4
Electric Utility.....	114,669	126,304	126,897	111,341	154,130	170,797	-9.2	-7.1	-4.3
All Other.....	8,355	8,334	9,243	9,117	9,562	14,662	.3	-3.3	-6.0
Coal Prices (nominal dollars per short ton)									
Mine Total.....	\$18.50	\$18.83	\$19.41	\$19.85	\$21.03	\$23.07	-1.8	-3.1	-2.4
Underground.....	25.96	26.18	26.39	26.92	27.83	29.63	-.9	-1.7	-1.5
Surface.....	13.82	14.25	15.02	15.67	16.34	18.58	-3.0	-4.1	-3.2
Consumer.....									
Electric Utility.....	26.45	27.01	28.03	28.58	29.36	31.83	-2.1	-2.6	-2.0
Industrial.....	32.32	32.42	32.55	32.23	32.78	33.71	-.3	-.3	-.5
Coke.....	47.33	47.34	46.56	47.44	47.92	46.55	*	-.3	.2

¹ For 1987, the Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² Capacity utilization (percent) is the ratio of total production to annual productive capacity as reported by mining companies on Form EIA-7A. Productivity (short tons per miner per hour) is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair, and shop or yard work at mining operations.

³ Imports for 1992 through 1996 include imports to electric utilities, manufacturing plants and coke plants. Imports for 1987 include only imports to electric utilities.

⁴ Includes Mexico.

* Data round to zero.

NA Not available.

Notes: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Consumption Total does not include coal consumed by independent power producers. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; Form EIA-6, "Coal Distribution Report"; Form EIA-7A, "Coal Production Report"; Form EIA-759, "Monthly Power Plant Report"; and U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545" and "Monthly Report IM 145."

Appendix B

Metric Tables

In response to requests from international users of U.S. coal statistics, certain summary data have been converted from the customary short tons to metric. This enables U.S. statistics to be compared with data published by countries using the metric system. The

conversion to metric tons is made by multiplying short tons by 0.907185.

The data converted to metric tons are from Tables ES3, 1, 16, 25, 35, 48, 67, 68, 76, 80, 92, 94, 96, 98, and 99.

Table B1. Trends in U.S. Coal Production, Imports, Consumption, Exports, and Stocks, 1987, 1992-1996
(Million Metric Tons)

Activity	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Production.....	965	937	938	858	905	833	3.0	1.6	1.6
Imports.....	6	7	7	7	3	2	-1.0	17.0	16.9
Producer and Distributor Stocks ¹	26	31	30	23	31	31	-16.8	-4.2	-1.9
Consumption.....	892	854	844	840	810	759	4.5	2.4	1.8
Exports.....	82	80	65	68	93	72	2.2	-3.1	1.4
Consumer Stocks ¹	112	122	124	109	148	168	-8.6	-6.9	-4.4

¹ Reported as of the last day of the quarter.

Note: Consumption does not include coal consumed by independent power producers.

Sources: • Production: Energy Information Administration (EIA), Form EIA-7A, "Coal Production Report"; U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report"; and State Mining Agency Coal Production Reports. • Imports: U.S. Department of Commerce, Bureau of the Census, "Monthly Report IM 145." • Producer and Distributor Stocks: EIA, Form EIA-6, "Coal Distribution Report." • Exports: U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545." • Consumption and Consumer Stocks: EIA, Form EIA-759, "Monthly Power Plant Report"; Form EIA-3, Quarterly Coal Consumption Report - Manufacturing Plants; Form EIA-5, "Coke Plant Report - Quarterly"; and Form EIA-6, "Coal Distribution Report."

Table B2. Coal Production by State, 1987, 1992-1996
(Thousand Metric Tons)

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Alabama.....	22,351	22,353	21,106	22,469	23,401	23,169	*	-1.1	-0.4
Alaska.....	1,343	1,540	1,422	1,452	1,392	1,354	-12.8	-9	-1
Arizona.....	9,473	10,838	11,844	11,043	11,351	10,323	-12.6	-4.4	-9
Arkansas.....	19	26	46	40	53	76	-28.0	-22.6	-14.3
California.....	-	-	-	-	94	42	-	-	-
Colorado.....	22,576	23,324	22,955	19,854	17,442	13,082	-3.2	6.7	6.3
Illinois.....	42,325	43,708	47,896	37,283	54,301	53,665	-3.2	-6.0	-2.6
Indiana.....	26,916	23,593	28,057	26,576	27,639	31,033	14.1	-6	-1.6
Iowa.....	-	-	42	159	262	425	-	-	-
Kansas.....	211	258	258	310	329	1,834	-18.4	-10.5	-21.4
Kentucky Total.....	138,278	139,470	146,639	141,792	146,119	149,859	-8	-1.4	-9
Eastern.....	106,096	107,539	112,897	109,036	108,302	108,777	-1.3	-5	-3
Western.....	32,182	31,931	33,742	32,756	37,817	41,082	8	-3.9	-2.7
Louisiana.....	2,922	3,374	3,141	2,843	2,939	2,495	-13.4	-1	1.8
Maryland.....	3,713	3,327	3,295	3,044	3,031	3,595	11.6	5.2	.3
Missouri.....	644	497	761	592	2,618	3,894	29.6	-29.6	-18.1
Montana.....	34,374	35,789	37,775	32,583	35,280	31,207	-3.9	-6	1.1
New Mexico.....	21,834	24,324	25,438	25,644	22,270	17,356	-10.2	-5	2.6
North Dakota.....	27,089	27,317	29,289	29,005	28,797	22,809	-8	-1.5	1.9
Ohio.....	25,920	23,694	27,122	26,141	27,581	32,466	9.4	-1.5	-2.5
Oklahoma.....	1,543	1,702	1,733	1,595	1,580	2,603	-9.3	-6	-5.6
Pennsylvania Total.....	61,636	55,860	56,460	54,159	62,578	63,887	10.3	-4	-4
Anthracite.....	4,310	4,248	4,192	3,906	3,160	3,230	1.5	8.1	3.3
Bituminous.....	57,325	51,613	52,268	50,253	59,419	60,657	11.1	-9	-6
Tennessee.....	3,312	2,922	2,709	2,764	3,154	5,844	13.3	1.2	-6.1
Texas.....	50,044	47,794	47,488	49,502	49,960	45,839	4.7	*	1.0
Utah.....	24,954	22,831	22,135	19,819	19,359	14,976	9.3	6.5	5.8
Virginia.....	32,286	30,934	33,683	35,668	39,030	40,409	4.4	-4.6	-2.5
Washington.....	4,142	4,416	4,439	4,300	4,764	4,036	-6.2	-3.4	.3
West Virginia Total.....	154,614	147,869	146,760	118,411	147,112	123,991	4.6	1.3	2.5
Northern.....	41,649	41,834	44,739	30,665	45,379	47,176	-4	-2.1	-1.4
Southern.....	112,965	106,034	102,022	87,746	101,734	76,814	6.5	2.6	4.4
Wyoming.....	252,597	239,336	215,086	190,626	172,522	133,220	5.5	10.0	7.4
Appalachian Total ¹	409,928	394,499	404,033	371,690	414,189	402,138	3.9	-3	.2
Interior Total ¹	156,805	152,884	163,164	151,658	177,499	182,946	2.6	-3.0	-1.7
Western Total ¹	398,381	389,715	370,382	334,327	313,270	248,404	2.2	6.2	5.4
East of Miss. River.....	511,351	493,732	513,729	468,306	533,946	527,917	3.6	-1.1	-3
West of Miss. River.....	453,763	443,367	423,851	389,369	371,012	305,570	2.3	5.2	4.5
U.S. Total.....	965,114	937,098	937,580	857,675	904,958	833,487	3.0	1.6	1.6

¹ For a definition of coal-producing regions, see Appendix C.

* Data round to zero.

Notes: Coal production excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table B3. Productive Capacity of Coal Mines by State, 1987, 1992-1996
(Thousand Metric Tons)

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987 ¹	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Alabama.....	29,174	29,526	29,982	25,325	27,048	26,480	-1.2	1.9	1.1
Alaska.....	w	w	w	w	w	w	w	w	w
Arizona.....	w	w	w	w	w	w	w	w	w
Arkansas.....	-	w	w	w	w	w	w	w	w
California.....	-	-	-	-	w	w	w	w	w
Colorado.....	26,608	29,425	28,191	27,252	23,449	19,342	-9.6	3.2	3.6
Illinois.....	55,998	51,371	62,971	62,886	68,753	68,812	9.0	-5.0	-2.3
Indiana.....	32,263	31,984	35,318	39,875	39,000	41,135	.9	-4.6	-2.7
Iowa.....	-	-	w	w	w	w	w	w	w
Kansas.....	w	w	w	w	w	w	w	w	w
Kentucky Total.....	171,662	184,316	193,618	185,796	177,220	168,722	-6.9	-8	.2
Eastern.....	132,169	137,993	146,720	142,717	135,212	116,913	-4.2	-6	1.4
Western.....	39,493	46,323	46,897	43,079	42,008	51,810	-14.7	-1.5	-3.0
Louisiana.....	w	w	w	w	w	w	w	w	w
Maryland.....	4,477	3,999	3,930	3,563	3,539	4,216	11.9	6.0	.7
Missouri.....	949	980	1,097	w	w	w	-3.2	w	-16.6
Montana.....	50,961	46,808	46,361	46,129	44,073	38,871	8.9	3.7	3.0
New Mexico.....	29,660	29,719	29,762	30,264	26,773	30,205	-2	2.6	-2
North Dakota.....	29,197	31,265	32,586	32,995	33,553	35,531	-6.6	-3.4	-2.1
Ohio.....	34,096	30,854	39,848	38,315	37,493	42,036	10.5	-2.3	-2.3
Oklahoma.....	1,797	2,320	2,042	2,197	2,256	3,464	-22.5	-5.5	-7.0
Pennsylvania Total.....	74,102	70,023	73,460	74,524	75,267	78,712	5.8	-4	-7
Anthracite.....	4,993	5,939	5,240	5,267	3,758	3,512	-15.9	7.4	4.0
Bituminous.....	69,109	64,083	68,220	69,256	71,509	75,201	7.8	-8	-9
Tennessee.....	3,637	3,402	3,092	3,414	3,567	6,627	6.9	.5	-6.4
Texas.....	54,072	49,676	50,672	51,814	53,108	46,843	8.8	.4	1.6
Utah.....	27,424	28,021	25,075	23,526	23,164	20,843	-2.1	4.3	3.1
Virginia.....	37,733	39,042	42,150	46,156	49,415	45,065	-3.3	-6.5	-1.9
Washington.....	w	w	w	w	w	w	w	w	w
West Virginia Total.....	197,230	185,825	182,964	173,913	179,697	143,658	6.1	2.3	3.6
Northern.....	49,534	51,124	53,792	54,445	56,981	54,095	-3.1	-3.4	-1.0
Southern.....	147,696	134,701	129,172	119,468	122,716	89,563	9.6	4.7	5.7
Wyoming.....	318,338	305,888	291,248	252,084	229,801	224,506	4.1	8.5	3.9
Appalachian Total ²	512,618	500,664	522,147	507,927	511,239	463,708	2.4	.1	1.1
Interior Total ²	188,385	186,329	203,116	204,968	213,225	222,826	1.1	-3.0	-1.8
Western Total ²	500,757	491,489	472,817	431,858	401,401	387,033	1.9	5.7	2.9
East of Miss. River.....	640,372	630,341	667,333	653,767	661,000	625,465	1.6	-8	.3
West of Miss. River.....	561,387	548,141	530,746	490,986	464,865	448,102	2.4	4.8	2.5
U.S. Total.....	1,201,759	1,178,482	1,198,079	1,144,753	1,125,866	1,073,567	2.0	1.6	1.3

¹ For 1987, Form EIA-7A solicited data on "Daily Productive Capacity." To obtain annual productive capacity for a mine in 1987, each mine's daily productive capacity was multiplied by the number of days worked during the year.

² For a definition of coal-producing regions, see Appendix C.

Notes: Productive capacity is the maximum amount of coal that can be produced as reported by mining companies on Form EIA-7A. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Source: Energy Information Administration, Form EIA-7A, "Coal Production Report."

Table B4. Recoverable Coal Reserves at Producing Mines by State, 1987, 1992-1996
(Million Metric Tons)

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Alabama.....	410	463	415	387	424	488	-11.5	-0.9	-1.9
Alaska.....	w	w	w	w	w	w	w	w	w
Arizona.....	w	w	w	w	w	w	w	w	w
Arkansas.....	-	w	w	w	w	w	w	w	w
California.....	-	-	-	-	w	w	w	w	w
Colorado.....	582	628	614	552	552	606	-7.3	1.3	-4
Illinois.....	808	800	874	965	1,088	1,298	1.0	-7.1	-5.1
Indiana.....	350	294	276	344	367	467	19.3	-1.2	-3.1
Iowa.....	-	-	w	w	w	33	w	w	w
Kansas.....	w	w	w	w	w	w	w	w	w
Kentucky Total.....	1,139	1,160	1,238	1,658	1,318	1,578	-1.8	-3.6	-3.5
Eastern.....	742	692	734	1,222	866	1,011	7.3	-3.8	-3.4
Western.....	396	468	505	436	452	566	-15.3	-3.2	-3.9
Louisiana.....	w	w	w	w	w	w	w	w	w
Maryland.....	64	52	80	60	53	68	23.1	4.7	-7
Missouri.....	2	2	11	w	w	140	13.1	w	-36.4
Montana.....	1,187	1,135	1,163	1,166	1,226	1,461	4.6	-8	-2.3
New Mexico.....	1,303	1,343	1,322	1,336	1,356	1,413	-2.9	-1.0	-9
North Dakota.....	1,181	1,513	1,537	1,280	1,211	1,256	-21.9	-6	-7
Ohio.....	376	425	435	472	523	685	-11.4	-7.9	-6.4
Oklahoma.....	17	17	39	42	44	45	-1.3	-21.1	-10.2
Pennsylvania Total.....	722	668	828	852	850	1,242	8.1	-4.0	-5.8
Anthracite.....	81	45	34	59	64	55	81.4	6.3	4.5
Bituminous.....	641	623	794	793	787	1,187	2.8	-5.0	-6.6
Tennessee.....	54	62	38	27	39	93	-12.9	8.3	-6.0
Texas.....	797	853	931	1,002	1,078	1,102	-6.5	-7.3	-3.5
Utah.....	258	340	384	405	443	444	-24.1	-12.6	-5.8
Virginia.....	171	184	215	305	332	460	-7.3	-15.3	-10.4
Washington.....	w	w	w	w	w	w	w	w	w
West Virginia Total.....	1,570	1,571	1,660	1,752	1,853	2,311	*	-4.0	-4.2
Northern.....	673	709	781	747	871	1,153	-5.2	-6.3	-5.8
Southern.....	898	861	879	1,005	982	1,158	4.3	-2.2	-2.8
Wyoming.....	5,980	6,100	6,350	6,197	6,124	5,984	-2.0	-6	*
Appalachian Total ¹	4,110	4,117	4,404	5,076	4,941	6,358	-2	-4.5	-4.7
Interior Total ¹	2,501	2,572	2,784	2,994	3,228	3,815	-2.8	-6.2	-4.6
Western Total ¹	11,014	11,550	11,878	11,466	11,450	11,818	-4.6	-1.0	-8
East of Miss. River.....	5,665	5,679	6,059	6,822	6,848	8,690	-2	-4.6	-4.6
West of Miss. River.....	11,960	12,560	13,007	12,715	12,772	13,302	-4.8	-1.6	-1.2
U.S. Total.....	17,625	18,239	19,066	19,536	19,620	21,991	-3.4	-2.6	-2.4

¹ For a definition of coal-producing regions, see Appendix C.

* Data round to zero.

Notes: Recoverable reserves represent the quantity of coal that can be recovered (i.e., mined) from existing coal reserves at reporting mines. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table B5. U.S. Coal Imports by Continent and Country of Origin, 1987, 1992-1996
(Metric Tons)

Continent and Country of Origin	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
North America Total	1,300,730	1,219,813	1,137,082	955,786	926,102	498,312	6.6	8.9	11.2
Canada	1,294,100	1,197,249	1,136,881	953,696	926,102	459,727	8.1	8.7	12.2
Guatemala	-	-	-	4	-	-	-	-	-
Mexico	6,630	196	201	2,086	-	38,585	NM	-	-17.8
Netherlands Antilles	-	22,368	-	-	-	-	-100.0	-	-
South America Total	3,619,341	4,157,892	4,463,532	4,912,696	2,088,277	895,361	-12.9	14.7	16.8
Colombia	2,292,279	2,482,908	3,075,043	3,734,915	1,599,502	868,084	-7.7	9.4	11.4
Venezuela	1,327,062	1,674,984	1,388,489	1,177,781	488,775	27,277	-20.8	28.4	54.0
Europe Total	2,369	474	36	56	81	218	399.8	132.5	30.3
Belgium & Luxembourg	2,243	-	-	-	-	-	-	-	-
Denmark	-	214	-	54	-	-	-100.0	-	-
Poland	-	-	36	2	-	-	-	-	-
Spain	90	-	-	-	-	40	-	-	9.4
Turkey	36	-	-	-	-	-	-	-	-
United Kingdom	-	260	-	-	81	178	-100.0	-100.0	-100.0
Asia Total	1,392,520	923,980	1,046,493	642,359	338,513	-	50.7	42.4	-
China (Mainland)	-	48	101	-	258	-	-100.0	-100.0	-
Hong Kong	1	-	-	-	1	-	-	-	-
India	-	-	-	-	60,014	-	-	-100.0	-
Indonesia	1,392,517	923,908	1,025,543	642,359	229,779	-	50.7	56.9	-
Japan	2	24	1	-	-	-	-91.7	-	-
Malaysia	-	-	-	-	48,461	-	-	-100.0	-
Vietnam	-	-	20,848	-	-	-	-	-	-
Oceania & Australia Total	149,498	230,554	91,002	95,664	91,613	191,088	-35.1	13.0	-2.7
Australia	149,498	192,054	83,646	90,787	91,613	191,088	-22.1	13.0	-2.7
New Zealand	-	38,500	7,356	4,877	-	-	-100.0	-	-
Africa Total	-	-	141,931	23,967	5,227	-	-	-100.0	-
South Africa, Rep of	-	-	135,849	18,433	5,227	-	-	-100.0	-
Swaziland	-	-	6,082	5,534	-	-	-	-	-
Total	6,464,458	6,532,713	6,880,076	6,630,528	3,449,813	1,584,979	-1.0	17.0	16.9

NM Not meaningful as value is greater than 500 percent.
Note: Coal imports include coal to Puerto Rico and the Virgin Islands.
Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report IM 145."

Table B6. Coal Mining Productivity by State, 1987, 1992-1996
(Metric Tons of Coal Produced per Miner per Hour)

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Alabama.....	2.00	2.03	2.04	2.14	2.26	1.79	-1.6	-3.0	1.3
Alaska.....	6.18	6.77	6.30	6.71	6.29	6.21	-8.8	-4	*
Arizona.....	5.72	5.75	6.08	5.63	5.71	6.13	-6	*	-8
Arkansas.....	-	1.33	1.38	1.26	1.52	1.64	-100.0	-	-
California.....	-	-	-	-	10.09	4.71	-	-	-
Colorado.....	6.64	5.57	5.62	5.30	4.78	3.83	19.2	8.5	6.3
Illinois.....	3.79	3.51	3.26	2.93	3.10	2.29	8.2	5.2	5.8
Indiana.....	4.52	4.24	3.88	4.04	3.71	3.24	6.4	5.0	3.8
Iowa.....	-	-	1.38	.65	1.03	1.27	-	-	-
Kansas.....	1.97	2.01	1.75	2.09	2.00	3.40	-2.4	-5	-5.9
Kentucky Total.....	3.45	3.24	2.95	2.94	2.90	2.44	6.6	4.4	3.9
Eastern.....	3.34	3.14	2.94	2.88	2.82	2.35	6.1	4.3	4.0
Western.....	3.89	3.60	2.97	3.16	3.17	2.70	7.9	5.3	4.1
Louisiana.....	9.86	12.02	11.79	11.02	11.27	13.84	-18.0	-3.3	-3.7
Maryland.....	3.74	3.46	3.34	3.10	2.64	3.07	8.2	9.1	2.2
Missouri.....	3.16	2.31	3.26	1.67	2.81	2.07	36.9	3.0	4.8
Montana.....	19.85	19.10	19.89	17.68	18.29	16.96	3.9	2.1	1.8
New Mexico.....	7.66	6.27	6.14	6.06	6.06	5.21	22.1	6.0	4.4
North Dakota.....	15.61	15.24	17.09	16.02	16.43	12.21	2.4	-1.3	2.8
Ohio.....	3.59	3.29	3.10	3.14	2.76	2.07	9.1	6.8	6.3
Oklahoma.....	2.37	2.69	2.43	2.54	1.97	1.72	-12.1	4.7	3.6
Pennsylvania Total.....	3.05	2.93	2.71	2.54	2.43	1.79	4.1	5.9	6.1
Anthracite.....	1.74	1.89	1.75	1.68	1.21	1.03	-8.0	9.5	6.0
Bituminous.....	3.23	3.06	2.82	2.64	2.55	1.85	5.4	6.0	6.3
Tennessee.....	1.99	2.14	2.03	2.24	1.98	1.52	-6.8	.1	3.1
Texas.....	9.19	8.25	8.00	7.63	6.66	5.85	11.3	8.4	5.1
Utah.....	6.56	6.37	5.98	5.41	4.96	3.50	3.0	7.2	7.2
Virginia.....	2.46	2.27	2.28	2.18	2.15	1.89	8.4	3.5	3.0
Washington.....	3.60	3.67	3.73	3.62	4.09	2.78	-1.8	-3.1	2.9
West Virginia Total.....	3.55	3.40	3.35	2.97	2.97	2.24	4.4	4.5	5.3
Northern.....	3.68	3.38	3.29	2.70	2.88	2.37	8.9	6.3	5.0
Southern.....	3.50	3.40	3.37	3.07	3.01	2.16	2.8	3.8	5.5
Wyoming.....	29.08	27.27	23.63	22.19	19.50	16.25	6.6	10.5	6.7
Appalachian Total ¹	3.16	3.01	2.90	2.73	2.67	2.09	4.8	4.3	4.7
Interior Total ¹	4.89	4.51	4.02	4.01	3.79	3.02	8.4	6.6	5.5
Western Total ¹	15.79	14.22	13.23	12.27	11.55	9.45	11.0	8.1	5.9
East of Miss. River.....	3.30	3.13	2.98	2.82	2.78	2.19	5.3	4.3	4.6
West of Miss. River.....	14.21	12.87	11.99	11.01	10.01	7.92	10.4	9.2	6.7
U.S. Total.....	5.16	4.88	4.51	4.26	3.96	2.99	5.8	6.9	6.3

¹ For a definition of coal-producing regions, see Appendix C.

* Data round to zero.

Notes: Productivity is calculated by dividing total coal production by the total direct labor hours worked by all mine employees. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table B7. Coal Consumption by Census Division and State, 1987, 1992-1996
(Thousand Metric Tons)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
New England Total	6,372	6,043	5,945	5,883	6,620	6,139	5.4	-0.9	0.4
Connecticut.....	845	822	782	715	770	739	2.7	2.3	1.5
Maine.....	212	256	421	407	777	247	-17.0	-27.7	-1.7
Massachusetts.....	4,062	3,732	3,567	3,457	3,862	4,071	8.8	1.3	*
New Hampshire.....	1,249	1,229	1,167	1,295	1,189	1,067	1.6	1.2	1.8
Rhode Island.....	3	2	3	3	4	4	21.1	-9.6	-3.9
Vermont.....	2	3	4	5	18	11	-38.2	-45.8	-19.8
Middle Atlantic Total	64,379	62,108	61,268	63,856	64,790	63,695	3.6	-1.1	.1
New Jersey.....	2,179	1,881	1,786	2,135	2,130	3,116	15.8	.6	-3.9
New York.....	10,284	10,036	10,409	10,776	11,790	10,407	2.5	-3.3	-1
Pennsylvania.....	51,915	50,191	49,073	50,945	50,870	50,172	3.4	.5	.4
East North Central Total	207,746	197,496	193,401	191,082	182,035	183,100	5.2	3.3	1.4
Illinois.....	40,307	35,946	35,450	34,595	28,667	32,279	12.1	8.9	2.5
Indiana.....	58,079	56,818	54,427	54,751	53,310	46,616	2.2	2.2	2.5
Michigan.....	33,288	32,479	32,363	29,226	28,626	32,536	2.5	3.8	.3
Ohio.....	54,282	51,328	51,447	53,552	53,225	53,841	5.8	.5	.1
Wisconsin.....	21,790	20,925	19,714	18,957	18,208	17,828	4.1	4.6	2.3
West North Central Total	123,961	118,867	113,935	109,715	104,785	92,169	4.3	4.3	3.3
Iowa.....	19,206	18,721	17,546	17,407	16,322	13,781	2.6	4.1	3.8
Kansas.....	17,313	14,987	15,566	15,772	12,906	13,784	15.5	7.6	2.6
Minnesota.....	17,476	17,189	16,991	16,620	15,354	13,158	1.7	3.3	3.2
Missouri.....	31,191	28,806	25,096	21,211	22,843	22,465	8.3	8.1	3.7
Nebraska.....	9,415	9,431	8,437	8,769	7,450	6,118	-2	6.0	4.9
North Dakota.....	27,679	27,431	27,545	27,490	27,488	21,864	.9	.2	2.6
South Dakota.....	1,680	2,302	2,754	2,445	2,422	998	-27.0	-8.7	5.9
South Atlantic Total	150,180	140,849	137,833	136,604	130,796	132,965	6.6	3.5	1.4
Delaware.....	1,775	1,825	2,020	2,219	1,605	2,458	-2.7	2.5	-3.5
District of Columbia.....	21	5	43	46	46	63	309.0	-17.6	-11.5
Florida.....	25,803	24,064	23,661	23,977	23,921	21,450	7.2	1.9	2.1
Georgia.....	28,266	28,384	26,539	24,567	23,116	26,423	-4	5.1	.8
Maryland.....	10,311	10,159	9,518	9,315	8,811	10,261	1.5	4.0	*
North Carolina.....	25,060	21,849	21,121	23,369	21,840	18,112	14.7	3.5	3.7
South Carolina.....	12,566	11,139	11,787	11,715	10,238	10,615	12.8	5.3	1.9
Virginia.....	13,592	12,136	11,605	12,323	12,173	11,999	12.0	2.8	1.4
West Virginia.....	32,785	31,288	31,540	29,072	29,047	31,584	4.8	3.1	.4
East South Central Total	100,199	96,008	90,074	94,371	85,097	80,016	4.4	4.2	2.5
Alabama.....	33,613	31,124	28,552	29,980	28,585	24,160	8.0	4.1	3.7
Kentucky.....	37,070	35,849	34,555	35,467	31,483	29,050	3.4	4.2	2.7
Mississippi.....	5,254	4,178	3,887	3,656	3,161	4,396	25.7	13.5	2.0
Tennessee.....	24,262	24,856	23,079	25,268	21,868	22,409	-2.4	2.6	.9
West South Central Total	132,877	126,195	125,419	127,729	122,660	107,816	5.3	2.0	2.3
Arkansas.....	13,441	12,284	11,427	10,384	11,374	10,946	9.4	4.3	2.3
Louisiana.....	11,371	12,118	12,791	12,407	12,405	9,426	-6.2	-2.1	2.1
Oklahoma.....	18,257	17,777	16,080	17,115	15,812	12,225	2.7	3.7	4.5
Texas.....	89,809	84,017	85,121	87,823	83,069	75,219	6.9	2.0	2.0
Mountain Total	97,274	97,906	104,957	100,401	101,752	85,390	-6	-1.1	1.4
Arizona.....	15,234	15,134	17,763	17,228	16,252	12,134	.6	-1.6	2.6
Colorado.....	15,623	15,395	15,853	15,485	15,146	13,614	1.5	.8	1.5
Idaho.....	360	421	484	479	485	448	-14.5	-7.2	-2.4
Montana.....	7,286	9,076	10,060	8,389	10,015	7,012	-19.7	-7.6	.4
Nevada.....	6,898	6,659	7,229	7,081	7,338	6,278	3.6	-1.5	1.0
New Mexico.....	13,877	13,809	13,947	13,619	13,455	13,059	.5	.8	.7
Utah.....	13,823	13,886	14,711	14,377	14,260	10,711	-4	-8	2.9
Wyoming.....	24,173	23,526	24,910	23,742	24,801	22,134	2.8	-6	1.0
Pacific Total	9,079	8,081	11,034	10,362	11,055	7,524	12.3	-4.8	2.1
Alaska.....	640	740	722	783	718	249	-13.4	-2.8	11.1
California.....	2,102	2,375	2,266	2,226	2,559	1,754	-11.5	-4.8	2.0
Hawaii.....	154	174	78	66	42	57	-11.6	37.9	11.6
Oregon.....	1,029	1,020	2,249	1,904	1,927	186	.8	-14.5	20.9
Washington.....	5,155	3,772	5,718	5,383	5,808	5,279	36.6	-2.9	-3
U.S. Total	892,066	853,552	843,865	840,003	809,591	759,187	4.5	2.4	1.8

* Data round to zero.

Note: U.S. Total does not include coal consumed by independent power producers. Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration, Form EIA-759, "Monthly Power Plant Report"; Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants"; Form EIA-5, "Coke Plant Report - Quarterly"; and Form EIA-6, "Coal Distribution Report."

Table B8. Year-End Consumer Coal Stocks by Census Division and State, 1987, 1992-1996
(Thousand Metric Tons)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
New England Total	1,177	879	1,013	897	1,137	958	33.9	0.9	2.3
Connecticut.....	w	w	w	w	w	w	w	w	w
Maine.....	w	w	w	w	w	w	w	w	w
Massachusetts.....	w	w	w	w	w	w	w	w	w
New Hampshire.....	w	w	w	w	w	w	w	w	w
Rhode Island.....	-	-	-	-	-	w	-	-	-
Vermont.....	-	-	-	-	-	w	-	-	-
Middle Atlantic Total	9,887	11,253	12,762	12,755	17,678	17,779	-12.1	-13.5	-6.3
New Jersey.....	w	w	w	w	w	w	w	w	w
New York.....	w	w	w	w	w	w	w	w	w
Pennsylvania.....	8,037	9,346	10,940	11,127	14,493	14,624	-14.0	-13.7	-6.4
East North Central Total	27,962	30,679	32,507	27,363	39,609	47,024	-8.8	-8.3	-5.6
Illinois.....	w	w	w	w	w	w	w	w	w
Indiana.....	7,219	8,435	10,620	7,074	11,347	13,606	-14.4	-10.7	-6.8
Michigan.....	w	w	w	w	w	w	w	w	w
Ohio.....	4,927	5,385	7,090	6,922	9,801	10,128	-8.5	-15.8	-7.7
Wisconsin.....	4,044	3,317	w	w	w	w	21.9	w	w
West North Central Total	16,634	16,976	w	w	w	w	-2.0	w	w
Iowa.....	4,186	4,034	3,790	3,465	4,406	4,621	3.8	-1.3	-1.1
Kansas.....	2,709	3,501	2,380	1,836	2,503	3,018	-22.6	2.0	-1.2
Minnesota.....	1,577	1,800	2,026	1,134	2,043	3,109	-12.4	-6.3	-7.3
Missouri.....	4,826	4,335	w	w	w	w	11.3	w	w
Nebraska.....	w	w	w	w	w	w	w	w	w
North Dakota.....	w	w	w	w	w	w	w	w	w
South Dakota.....	w	w	w	w	w	w	w	w	w
South Atlantic Total	17,766	17,878	22,160	17,320	26,565	29,066	-6	-9.6	-5.3
Delaware.....	w	w	w	w	w	w	w	w	w
Florida.....	3,120	2,965	3,550	3,212	3,739	2,992	5.3	-4.4	.5
Georgia.....	3,491	3,435	4,394	2,655	4,387	6,089	1.6	-5.5	-6.0
Maryland.....	w	w	w	w	w	w	w	w	w
North Carolina.....	2,424	2,590	3,917	2,776	4,277	4,349	-6.4	-13.2	-6.3
South Carolina.....	1,976	1,990	2,298	1,717	2,223	2,156	-7	-2.9	-1.0
Virginia.....	w	w	w	w	w	w	w	w	w
West Virginia.....	w	w	w	w	w	w	w	w	w
East South Central Total	8,447	9,925	10,221	8,416	13,063	17,757	-14.9	-10.3	-7.9
Alabama.....	2,594	3,310	3,748	2,538	4,109	4,547	-21.6	-10.8	-6.0
Kentucky.....	w	w	w	w	w	w	w	w	w
Mississippi.....	w	w	w	w	w	w	w	w	w
Tennessee.....	1,362	1,709	w	w	w	w	-20.3	w	w
West South Central Total	18,048	18,656	14,478	13,703	w	w	-3.3	w	w
Arkansas.....	2,468	2,558	1,612	1,706	1,444	2,140	-3.5	14.3	1.6
Louisiana.....	2,251	2,422	1,744	1,814	1,592	2,559	-7.0	9.0	-1.4
Oklahoma.....	3,821	3,852	2,238	1,862	2,867	3,436	-8	7.4	1.2
Texas.....	9,508	9,824	8,884	8,320	w	w	-3.2	w	w
Mountain Total	w	w	w	w	w	w	w	w	w
Arizona.....	1,837	2,751	2,941	3,372	3,263	3,483	-33.2	-13.4	-6.9
Colorado.....	2,773	3,340	2,853	3,133	3,120	w	-17.0	-2.9	w
Idaho.....	70	107	71	78	92	105	-34.4	-6.5	-4.4
Montana.....	w	w	w	w	w	w	w	w	w
Nevada.....	w	w	w	w	w	w	w	w	w
New Mexico.....	w	w	w	w	w	w	w	w	w
Utah.....	w	w	w	w	w	w	w	w	w
Wyoming.....	2,058	2,664	2,316	1,670	2,034	2,601	-22.7	.3	-2.6
Pacific Total	1,156	2,346	796	833	1,387	1,334	-50.7	-4.4	-1.6
Alaska.....	1	1	2	4	w	w	-	w	w
California.....	136	121	114	84	99	157	12.4	8.3	-1.6
Hawaii.....	w	w	w	w	w	w	w	w	w
Oregon.....	w	w	w	w	w	w	w	w	w
Washington.....	778	1,786	516	416	667	618	-56.4	3.9	2.6
U.S. Total	111,606	122,142	123,504	109,278	148,499	168,246	-8.6	-6.9	-4.4

^w Withheld to avoid disclosure of individual company data.

Notes: Totals may not equal sum of components due to independent rounding. Stocks for Residential and Commercial Sector are not included.

Sources: Energy Information Administration, Form EIA-759, "Monthly Power Plant Report"; Form EIA-5, "Coke Plant Report - Quarterly"; and Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants."

Table B9. U.S. Coal Exports by Destination, 1987, 1992-1996
(Thousand Metric Tons)

Continent and Country of Destination	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
North America Total	12,346	9,444	8,623	8,363	13,908	14,936	30.7	-2.9	-2.1
Canada ¹	10,912	8,552	8,340	8,064	13,734	14,721	27.6	-5.6	-3.3
Jamaica.....	22	75	23	26	24	-	-71.1	-2.9	-
Mexico.....	1,369	790	218	226	70	96	73.3	110.6	34.3
Other ²	44	27	41	47	80	120	62.5	-13.8	-10.5
South America Total	6,808	6,321	5,394	5,216	6,141	6,096	7.7	2.6	1.2
Argentina.....	276	310	411	476	304	679	-11.1	-2.4	-9.5
Brazil.....	5,933	5,761	4,973	4,715	5,778	5,289	3.0	.7	1.3
Chile.....	521	206	*	*	25	85	152.9	114.5	22.4
Other ²	79	44	11	25	34	44	78.2	23.7	6.8
Europe Total	42,813	44,107	32,500	34,088	51,941	30,989	-2.9	-4.7	3.6
Belgium & Luxembourg.....	4,145	4,084	4,455	4,744	6,528	4,153	1.5	-10.7	*
Bulgaria.....	1,258	1,214	1,123	822	546	-	3.6	23.2	-
Denmark.....	1,194	1,905	432	305	3,477	847	-37.3	-23.4	3.9
Finland.....	638	1,187	342	229	186	156	-46.2	36.1	17.0
France.....	3,495	3,319	2,608	3,603	7,312	2,618	5.3	-16.8	3.3
Germany, FR.....	957	1,772	293	461	910	433	-46.0	1.3	9.2
Ireland.....	694	829	883	894	1,314	1,279	-16.3	-14.8	-6.6
Italy.....	8,350	8,222	6,843	6,276	8,476	8,652	1.6	-4	-4
Netherlands.....	6,403	6,624	4,421	5,046	8,299	3,713	-3.3	-6.3	6.2
Norway.....	77	109	79	92	107	157	-29.2	-7.9	-7.6
Portugal.....	1,635	1,590	958	1,353	1,342	1,167	2.8	5.1	3.8
Romania.....	1,372	1,800	1,409	653	683	996	-23.8	19.0	3.6
Spain.....	3,713	4,221	3,748	3,687	4,114	2,227	-12.0	-2.5	5.8
Sweden.....	970	1,014	636	668	1,057	606	-4.3	-2.1	5.4
Turkey.....	1,966	1,825	1,211	1,456	1,805	700	7.7	2.1	12.1
United Kingdom.....	5,621	4,288	3,051	3,730	5,076	2,348	31.1	2.6	10.2
Yugoslavia, FR.....	-	59	-	71	659	807	-100.0	-100.0	-100.0
Other ²	324	47	7	*	49	129	NM	60.1	10.8
Asia Total	16,311	17,323	16,290	17,690	18,633	18,330	-5.8	-3.3	-1.3
China (Taiwan).....	2,215	2,298	3,061	3,117	3,230	4,326	-3.6	-9.0	-7.2
Israel.....	1,090	690	784	770	748	220	58.0	9.9	19.4
Japan.....	9,551	10,693	9,215	10,776	11,162	10,054	-10.7	-3.8	-6
Korea, Republic of.....	3,423	3,640	3,228	3,008	3,041	3,651	-6.0	3.0	-7
Other ²	32	2	3	20	454	79	NM	-48.3	-9.3
Oceania & Australia Total	1	*	*	1	*	1	322.4	31.6	-6.0
Other ²	1	*	*	1	*	1	322.4	31.6	-6.0
Africa Total	3,796	3,133	1,927	2,245	2,378	1,865	21.2	12.4	8.2
Algeria.....	160	200	322	371	555	826	-19.8	-26.7	-16.6
Egypt.....	941	1,120	951	788	770	424	-16.0	5.2	9.3
Morocco.....	1,497	1,099	76	533	668	457	36.2	22.3	14.1
South Africa, Rep of.....	1,197	713	578	515	385	56	67.9	32.8	40.5
Other ²	-	-	-	38	-	103	-	-	-100.0
Total	82,075	80,329	64,735	67,603	93,001	72,219	2.2	-3.1	1.4

¹ Based on the U.S. - Canada Free Trade Agreement, as of January 1990, the U.S. Department of Commerce began reporting statistics on U.S. exports to Canada based on information on imports provided monthly by the Canadian government.

² Includes countries with exports less than or equal to 50,000 short tons (45,359 metric tons) in 1995.

* Data round to zero.

NM Not meaningful as value is greater than 500 percent.

Note: Total may not equal sum of components due to independent rounding.

Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545."

Table B10. Average Mine Price of Coal by State, 1987, 1992-1996
(Nominal Dollars per Metric Ton)

Coal-Producing State and Region	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Alabama.....	\$43.52	\$42.38	\$44.22	\$46.67	\$45.00	\$45.66	2.7	-0.8	-0.5
Alaska.....	w	w	w	w	w	w	w	w	w
Arizona.....	w	w	w	w	w	w	w	w	w
Arkansas.....	-	w	w	w	w	w	w	w	w
California.....	-	-	-	-	w	w	w	w	w
Colorado.....	\$19.77	\$21.23	\$21.78	\$22.44	\$23.51	\$25.99	-6.9	-4.2	-3.0
Illinois.....	25.07	25.41	25.50	27.86	30.49	32.59	-1.3	-4.8	-2.9
Indiana.....	22.31	23.93	24.56	25.23	25.81	27.09	-6.8	-3.6	-2.1
Iowa.....	-	-	w	w	w	28.54	w	w	w
Kansas.....	w	w	w	w	w	27.05	w	w	w
Kentucky Total.....	\$26.36	\$27.33	\$27.42	\$27.31	\$27.01	28.83	-3.6	-6	-1.0
Eastern.....	27.54	28.66	27.83	28.11	27.55	29.45	-3.9	*	-7
Western.....	22.47	22.88	26.05	24.64	25.46	27.20	-1.8	-3.1	-2.1
Louisiana.....	w	w	w	w	w	w	w	w	w
Maryland.....	\$26.90	\$27.22	\$29.04	\$27.79	\$27.99	\$26.79	-1.2	-1.0	*
Missouri.....	25.70	20.84	24.01	w	w	31.87	23.3	w	-2.4
Montana.....	10.98	10.61	11.46	\$12.18	\$11.24	13.70	3.5	-6	-2.4
New Mexico.....	27.18	26.24	25.68	25.31	25.51	24.01	3.6	1.6	1.4
North Dakota.....	8.83	8.81	8.40	8.41	8.25	8.72	2	1.7	.1
Ohio.....	27.39	28.62	32.11	30.91	29.69	33.95	-4.3	-2.0	-2.3
Oklahoma.....	29.25	26.60	28.18	27.46	28.40	35.08	9.9	.7	-2.0
Pennsylvania Total.....	28.42	29.52	28.86	29.21	31.53	32.85	-3.7	-2.6	-1.6
Anthracite.....	40.54	43.85	39.76	36.31	37.74	48.11	-7.5	1.8	-1.9
Bituminous.....	27.54	28.41	28.05	28.70	31.24	32.14	-3.0	-3.1	-1.7
Tennessee.....	30.63	29.70	29.95	30.01	29.88	30.48	3.1	.6	*
Texas.....	13.41	13.41	13.65	14.19	13.69	13.33	*	-5	.1
Utah.....	23.85	21.06	21.24	22.94	23.27	28.33	13.3	.6	-1.9
Virginia.....	31.36	31.38	29.59	29.55	30.37	30.23	-1	.8	.4
Washington.....	w	w	w	w	w	w	w	w	w
West Virginia Total.....	\$29.30	\$29.96	\$30.23	\$30.40	\$31.03	\$32.13	-2.2	-1.4	-1.0
Northern.....	27.41	27.46	29.51	30.96	32.00	31.60	-2	-3.8	-1.6
Southern.....	30.00	30.94	30.54	30.20	30.60	32.45	-3.1	-5	-9
Wyoming.....	7.06	7.25	7.53	8.06	8.97	10.80	-2.6	-5.8	-4.6
Appalachian Total ¹	29.52	30.25	30.16	30.47	30.81	32.19	-2.4	-1.1	-9
Interior Total ¹	20.29	20.73	21.90	22.08	23.82	25.38	-2.1	-3.9	-2.4
Western Total ¹	11.06	11.19	11.65	12.28	12.78	14.60	-1.1	-3.5	-3.0
East of Miss. River.....	28.33	29.04	29.15	29.56	30.13	31.54	-2.5	-1.5	-1.2
West of Miss. River.....	11.46	11.56	12.03	12.68	13.21	14.93	-8	-3.5	-2.9
U.S. Total.....	20.39	20.76	21.40	21.88	23.18	25.43	-1.8	-3.1	-2.4

¹ For a definition of coal-producing regions, see Appendix C.

* Data round to zero.

Notes: Average mine price is calculated by dividing the total free on board (f.o.b.) mine value of the coal produced by the total production. A measure of dispersion of these average prices at the State level (interquartile range) is given in Appendix D, Table D2. Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons, which are not required to provide these data.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table B11. Average Price of Coal Delivered to Electric Utilities by Census Division and State, 1987, 1992-1996
(Nominal Dollars per Metric Ton)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
New England Total.....	\$48.01	\$47.78	\$47.19	\$47.78	\$49.76	\$51.76	0.5	-0.9	-0.8
Connecticut.....	55.17	54.37	51.20	49.38	56.55	70.06	1.5	-6	-2.6
Massachusetts.....	47.00	47.00	47.40	47.83	48.62	46.71	*	-8	.1
New Hampshire.....	46.55	45.93	43.72	46.73	49.26	56.73	1.3	-1.4	-2.2
Middle Atlantic Total.....	38.67	38.17	40.04	40.41	41.41	40.34	1.3	-1.7	-5
New Jersey.....	50.18	52.00	53.45	52.36	51.39	51.59	-3.5	-6	-3
New York.....	40.95	40.63	41.49	42.58	42.57	43.49	.8	-1.0	-7
Pennsylvania.....	37.55	36.91	39.01	39.39	40.58	39.05	1.7	-1.9	-4
East North Central Total.....	31.18	32.70	33.69	34.15	35.33	40.37	-4.6	-3.1	-2.8
Illinois.....	35.43	35.91	36.04	38.92	40.85	47.18	-1.3	-3.5	-3.1
Indiana.....	27.20	28.59	29.54	29.47	30.75	35.19	-4.9	-3.0	-2.8
Michigan.....	32.34	34.12	36.26	36.57	37.73	44.70	-5.2	-3.8	-3.5
Ohio.....	35.61	37.96	38.25	37.54	37.92	40.95	-6.2	-1.5	-1.5
Wisconsin.....	21.55	23.40	25.50	25.31	28.57	31.25	-7.9	-6.8	-4.0
West North Central Total.....	17.12	17.75	18.47	18.60	20.86	23.40	-3.6	-4.8	-3.4
Iowa.....	17.96	18.88	19.17	19.32	21.58	25.15	-4.8	-4.5	-3.7
Kansas.....	19.30	19.66	19.68	19.49	23.14	24.49	-1.8	-4.4	-2.6
Minnesota.....	20.94	22.18	22.14	22.12	23.10	23.24	-5.6	-2.4	-1.1
Missouri.....	19.08	20.00	23.58	26.90	30.39	33.02	-4.6	-11.0	-5.9
Nebraska.....	13.64	14.18	14.45	14.24	14.07	17.92	-3.8	-8	-3.0
North Dakota.....	10.71	10.64	10.23	10.34	10.42	11.53	.7	.7	-8
South Dakota.....	18.67	15.82	14.44	14.66	15.07	16.48	18.0	5.5	1.4
South Atlantic Total.....	40.43	42.17	43.57	44.98	45.50	45.75	-4.1	-2.9	-1.4
Delaware.....	45.76	46.60	46.28	48.53	49.95	52.18	-1.8	-2.2	-1.4
Florida.....	46.74	48.42	48.18	48.04	49.63	49.58	-3.5	-1.5	-6
Georgia.....	40.28	42.57	43.89	47.72	47.80	48.02	-5.4	-4.2	-1.9
Maryland.....	42.43	42.99	43.92	44.95	44.84	44.06	-1.3	-1.4	-4
North Carolina.....	40.65	44.72	46.04	46.69	47.40	49.51	-9.1	-3.8	-2.2
South Carolina.....	41.38	42.83	43.92	44.28	43.14	48.51	-3.4	-1.0	-1.8
Virginia.....	39.38	40.68	40.84	41.41	41.67	44.66	-3.2	-1.4	-1.4
West Virginia.....	34.09	34.84	38.25	39.05	40.65	74.31	-2.1	-4.3	-101.5
East South Central Total.....	32.35	33.16	35.75	36.71	36.43	39.62	-2.4	-2.9	-2.2
Alabama.....	40.11	40.78	44.55	46.91	45.93	51.86	-1.6	-3.3	-2.8
Kentucky.....	26.93	28.34	29.94	30.08	29.77	31.90	-5.0	-2.5	-1.9
Mississippi.....	36.71	37.92	39.18	44.66	44.02	54.63	-3.2	-4.4	-4.3
Tennessee.....	30.46	30.80	33.75	34.11	34.18	36.09	-1.1	-2.8	-1.9
West South Central Total.....	22.19	22.78	22.91	24.40	24.86	26.37	-2.6	-2.8	-1.9
Arkansas.....	28.83	30.85	30.76	32.52	31.79	29.70	-6.5	-2.4	-3
Louisiana.....	27.27	27.70	27.61	28.27	27.48	29.58	-1.5	-2	-9
Oklahoma.....	18.51	18.74	19.29	23.50	23.66	30.38	-1.2	-5.9	-5.3
Texas.....	21.24	21.66	21.86	23.05	23.79	24.78	-1.9	-2.8	-1.7
Mountain Total.....	24.05	23.71	24.07	24.37	23.85	24.26	1.5	.2	-1
Arizona.....	32.57	31.59	31.15	30.63	31.20	30.38	3.1	1.1	.8
Colorado.....	22.31	22.85	23.16	23.80	23.88	24.26	-2.4	-1.7	-9
Montana.....	13.12	12.64	12.99	12.98	13.38	12.26	3.8	-5	.7
Nevada.....	33.55	31.99	35.68	35.64	35.63	34.48	4.9	-1.5	-3
New Mexico.....	28.71	28.21	28.08	27.12	26.27	24.11	1.8	2.2	2.0
Utah.....	27.18	27.85	28.77	30.13	30.35	32.07	-2.4	-2.7	-1.8
Wyoming.....	15.76	15.75	15.53	15.47	14.79	16.83	.1	1.6	-7
Pacific Total.....	26.42	25.16	24.18	23.75	24.44	29.56	5.0	2.0	-1.2
Oregon.....	20.73	20.72	21.14	21.77	23.40	26.22	.1	-3.0	-2.6
Washington.....	27.46	26.17	25.27	24.35	24.78	29.85	4.9	2.6	-9
U.S. Total.....	29.16	29.77	30.89	31.51	32.36	35.09	-2.1	-2.6	-2.0

* Data round to zero.

Note: Average prices are based on the cost including insurance and freight.

Source: Federal Energy Regulatory Commission, FERC Form 423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

Table B12. Average Price of Coal Delivered to Other Industrial Plants by Census Division and State, 1987, 1992-1996
(Nominal Dollars per Metric Ton)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
New England Total	\$63.22	\$62.72	\$61.44	\$63.75	\$72.43	\$65.29	0.8	-3.3	-0.3
Connecticut.....	-	-	-	-	-	w	w	w	w
Maine.....	w	w	w	w	w	w	w	w	w
Massachusetts.....	w	w	w	w	w	w	w	w	w
New Hampshire.....	-	-	-	-	-	w	w	w	w
Vermont.....	-	-	-	-	-	w	w	w	w
Middle Atlantic Total	w	w	w	w	w	w	w	w	w
New Jersey.....	w	w	w	w	w	w	w	w	w
New York.....	44.21	46.19	46.52	46.47	48.44	48.66	-4.3	-2.3	-1.0
Pennsylvania.....	37.30	37.56	37.10	37.53	39.35	40.36	-7	-1.3	-9
East North Central Total	37.96	38.45	38.27	38.07	38.64	39.38	-1.3	-4	-4
Illinois.....	32.72	32.00	32.11	32.43	32.23	36.54	2.3	.4	-1.2
Indiana.....	35.01	36.53	34.56	34.07	34.81	34.11	-4.2	.1	.3
Michigan.....	45.50	45.39	45.42	45.70	46.49	47.49	.2	-5	-5
Ohio.....	38.89	38.78	39.40	38.38	38.84	37.46	.3	*	.4
Wisconsin.....	44.12	44.32	45.45	45.02	46.60	48.49	-4	-3	-1.0
West North Central Total	21.00	20.86	20.52	19.84	19.57	19.42	.6	1.8	.9
Iowa.....	32.32	32.23	31.44	30.87	29.94	38.44	.3	1.9	-1.9
Kansas.....	35.78	35.74	35.55	36.44	35.23	38.01	.1	.4	-7
Minnesota.....	31.80	37.92	39.31	39.47	39.27	41.23	-16.1	-5.1	-2.8
Missouri.....	34.58	36.17	36.24	35.40	34.70	32.32	-4.4	-1	.8
Nebraska.....	w	w	w	w	w	w	w	w	w
North Dakota.....	w	w	w	w	w	w	w	w	w
South Dakota.....	w	w	w	w	w	w	w	w	w
South Atlantic Total	w	w	w	w	w	w	w	w	w
Delaware.....	w	w	w	w	w	w	w	w	w
Florida.....	50.36	51.41	51.37	53.22	53.20	51.47	-2.0	-1.4	-2
Georgia.....	48.73	49.21	50.39	49.82	49.80	48.14	-1.0	-5	.1
Maryland.....	35.85	34.90	35.47	35.47	36.18	35.68	2.7	-2	*
North Carolina.....	47.80	47.72	48.08	47.89	47.91	48.26	.2	*	-1
South Carolina.....	48.59	47.58	48.32	47.78	47.74	46.99	2.1	.4	.4
Virginia.....	47.96	46.85	45.82	45.49	45.16	42.90	2.4	1.5	1.2
West Virginia.....	36.78	37.05	36.07	36.28	35.20	34.60	-7	1.1	.7
East South Central Total	w	w	w	w	w	w	w	w	w
Alabama.....	44.26	43.58	42.70	43.00	43.83	44.51	1.5	.2	-1
Kentucky.....	48.52	48.60	47.64	46.63	48.26	47.53	-2	.1	.2
Mississippi.....	w	w	w	w	w	w	w	w	w
Tennessee.....	38.82	39.33	38.96	39.04	39.16	39.11	-1.3	-2	-1
West South Central Total	24.02	24.29	25.29	23.57	25.13	w	-1.1	-1.1	w
Arkansas.....	47.67	47.97	48.81	48.57	49.18	49.81	-6	-8	-5
Louisiana.....	w	w	w	w	w	w	w	w	w
Oklahoma.....	w	w	w	w	w	45.54	w	w	w
Texas.....	20.93	20.68	21.54	19.38	19.99	21.16	1.2	1.1	-1
Mountain Total	29.44	29.83	31.73	31.43	31.59	31.67	-1.3	-1.7	-8
Arizona.....	43.29	44.60	45.58	44.65	45.14	42.62	-2.9	-1.0	.2
Colorado.....	25.54	28.78	31.92	31.56	33.44	31.73	-11.2	-6.5	-2.4
Idaho.....	40.11	37.60	36.76	36.13	36.70	38.62	6.7	2.2	.4
Montana.....	w	w	w	w	w	w	w	w	w
Nevada.....	w	w	w	w	w	w	w	w	w
New Mexico.....	w	w	w	w	w	w	w	w	w
Utah.....	21.06	21.76	29.29	29.23	27.94	26.29	-3.2	-6.8	-2.4
Wyoming.....	24.61	25.05	25.21	25.83	26.09	26.02	-1.8	-1.4	-6
Pacific Total	46.79	48.15	49.51	48.31	47.80	52.61	-2.8	-5	-1.3
California.....	43.58	45.32	47.83	47.25	46.35	53.61	-3.8	-1.5	-2.3
Hawaii.....	w	w	w	w	w	w	w	w	w
Oregon.....	w	w	w	w	w	w	w	w	w
Washington.....	64.83	65.20	64.89	58.54	62.00	51.18	-6	1.1	2.7
U.S. Total	35.63	35.74	35.88	35.53	36.14	37.15	-3	-3	-5

* Data round to zero.

w Withheld to avoid disclosure of individual company data.

Notes: Price data are for manufacturing plants only. Average prices are based on the cost including insurance, freight, and taxes.

Source: Energy Information Administration, Form EIA-3, "Quarterly Coal Consumption - Manufacturing Plants."

Table B13. Average Price of Coal Delivered to Coke Plants by Census Division and State, 1987, 1992-1996
(Nominal Dollars per Metric Ton)

Census Division and State	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
Middle Atlantic Total	w	w	w	w	w	w	w	w	w
New York.....	w	w	w	w	w	w	w	w	w
Pennsylvania.....	\$49.79	\$50.83	\$50.98	\$51.16	\$51.25	\$46.89	-2.0	-0.7	0.7
East North Central Total	54.61	54.12	52.06	54.58	55.53	54.01	.9	-4	.1
Illinois.....	w	w	w	w	w	w	w	w	w
Indiana.....	57.25	58.13	56.11	57.64	59.21	56.70	-1.5	-8	.1
Michigan.....	w	w	w	-	-	w	w	w	w
Ohio.....	49.58	46.50	46.32	49.68	51.45	50.75	6.6	-9	-3
West North Central Total	-	-	-	-	-	w	-	w	w
Missouri.....	-	-	-	-	-	w	-	w	w
South Atlantic Total	w	w	w	w	w	w	w	w	w
Maryland.....	-	-	-	-	-	w	w	w	w
Virginia.....	w	w	w	w	w	w	w	w	w
West Virginia.....	w	w	w	w	w	w	w	w	w
East South Central Total	w	w	w	w	w	w	w	w	w
Alabama.....	54.42	53.38	52.31	52.36	52.70	50.59	1.9	.8	.8
Kentucky.....	w	w	w	w	w	w	w	w	w
Tennessee.....	-	-	-	-	-	w	-	w	w
Mountain Total	w	w	w	w	w	-	w	w	w
Utah.....	w	w	w	w	w	-	w	w	w
U.S. Total	52.17	52.18	51.32	52.30	52.82	51.31	*	-3	.2

* Data round to zero.

w Withheld to avoid disclosure of individual company data.

Note: Average prices are based on the cost including insurance, freight, and taxes.

Source: Energy Information Administration, Form EIA-5, "Coke Plant Report - Quarterly."

Table B14. Average Price of U.S. Coal Imports by Continent and Country of Origin, 1987, 1992-1996
(Nominal Dollars per Metric Ton)

Continent and Country of Origin	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
North America Total	\$38.46	\$38.72	\$33.96	\$32.63	\$32.58	\$35.86	-0.7	4.2	0.8
Canada	38.47	38.72	33.96	32.65	32.58	36.59	-6	4.2	.5
Mexico	36.85	-	-	23.35	-	28.18	-	-	3.0
South America Total	34.44	36.11	31.97	30.46	36.42	36.33	-4.6	-1.4	-6
Colombia.....	34.61	34.33	30.27	30.04	35.55	36.25	.8	-7	-5
Venezuela.....	34.14	38.74	35.73	31.82	39.25	38.82	-11.9	-3.4	-1.4
Europe Total	-	28.27	-	35.65	37.49	31.57	-100.0	-100.0	-100.0
Denmark.....	-	-	-	35.65	-	-	-	-	-
Spain	-	-	-	-	-	31.57	-	-	-100.0
United Kingdom	-	28.27	-	-	37.49	-	-100.0	-100.0	-
Asia Total	35.77	38.73	37.58	47.07	42.71	-	-7.6	-4.3	-
India	-	-	-	-	26.07	-	-	-100.0	-
Indonesia.....	35.77	38.73	37.26	47.07	45.13	-	-7.6	-5.6	-
Malaysia.....	-	-	-	-	51.87	-	-	-100.0	-
Vietnam.....	-	-	53.00	-	-	-	-	-	-
Oceania & Australia Total	36.83	37.00	34.35	34.79	39.76	29.94	-5	-1.9	2.3
Australia.....	36.83	34.16	33.09	34.79	39.76	29.94	7.8	-1.9	2.3
New Zealand.....	-	51.17	48.67	-	-	-	-100.0	-	-
Africa Total	-	-	27.92	30.66	54.33	-	-	-100.0	-
South Africa, Rep of.....	-	-	27.92	-	54.33	-	-	-100.0	-
Swaziland.....	-	-	-	30.66	-	-	-	-	-
Total¹	35.46	36.97	33.08	32.46	36.19	35.37	-4.1	-5	*
U.S. Total²	36.87	37.62	33.30	32.94	36.88	35.32	-2.0	*	.5

¹ The average prices presented in this table, with the exception of U.S. Total, are considered to be representative prices for coal imports and fall within the range of \$20 to \$55 per short ton (\$18.14 to \$49.90 per metric ton), inclusively.

² U.S. Total is the average price of all coal imports.

* Data round to zero.

Notes: Average price is based on the customs import value. Coal imports include coal to Puerto Rico and the Virgin Islands.

Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report IM 145."

Table B15. Average Price of U.S. Coal Exports by Destination, 1987, 1992-1996
(Nominal Dollars per Metric Ton)

Continent and Country of Destination	1996	1995	1994	1993	1992	1987	Percent Change 1995-1996	Average Annual Percent Change	
								1992-1996	1987-1996
North America Total	\$36.48	\$37.53	\$35.73	\$37.53	\$36.43	\$45.37	-2.8	*	-2.4
Canada ¹	35.53	36.92	35.36	37.22	36.36	45.40	-3.8	-0.6	-2.7
Jamaica.....	38.34	36.01	36.62	31.35	29.56	-	6.5	6.7	-
Mexico.....	43.77	44.05	48.81	48.55	49.26	43.21	-6	-2.9	.1
Other ²	43.71	43.03	40.77	40.57	40.27	42.74	1.6	2.1	.2
South America Total	48.29	47.90	46.61	48.25	50.15	48.53	.8	-9	*
Argentina.....	51.11	47.84	46.83	47.63	50.06	47.70	6.8	.5	.8
Brazil.....	49.25	48.37	46.59	48.32	50.23	48.57	1.8	-.5	.1
Chile.....	35.69	34.94	38.12	51.59	52.23	50.67	2.1	-9.1	-3.8
Other ²	43.19	47.87	45.04	43.50	34.38	56.09	-9.8	5.9	-2.9
Europe Total	46.41	45.10	46.14	47.45	46.74	46.70	2.9	-2	-1
Belgium & Luxembourg.....	50.41	47.92	46.55	47.65	48.51	45.87	5.2	1.0	1.0
Bulgaria.....	48.79	48.54	46.40	46.25	45.97	-	.5	1.5	-
Denmark.....	32.29	32.37	32.22	38.53	36.03	36.39	-2	-2.7	-1.3
Finland.....	46.42	43.51	45.34	43.66	44.99	45.32	6.7	.8	.3
France.....	49.53	48.19	48.76	46.56	43.46	47.53	2.8	3.3	.4
Germany, FR.....	45.28	38.57	49.97	42.97	42.19	46.03	17.4	1.8	-2
Ireland.....	41.17	39.76	37.28	39.51	40.57	48.04	3.6	.4	-1.7
Italy.....	49.66	48.66	47.40	48.86	50.08	45.84	2.0	-2	.9
Netherlands.....	45.59	46.26	46.22	48.75	47.78	47.74	-1.4	-1.2	-.5
Norway.....	62.89	62.19	60.16	58.95	55.25	52.10	1.1	3.3	2.1
Portugal.....	40.26	40.18	39.96	41.56	44.91	47.30	.2	-2.7	-1.8
Romania.....	51.76	46.77	42.00	42.48	47.02	47.31	10.6	2.4	1.0
Spain.....	41.41	38.30	44.23	47.02	46.24	48.27	8.1	-2.7	-1.7
Sweden.....	52.36	53.14	50.22	50.66	51.44	47.77	-1.5	.4	1.0
Turkey.....	48.86	46.97	45.51	46.94	50.20	48.67	4.0	-.7	*
United Kingdom.....	42.88	45.11	49.67	50.64	50.26	48.78	-4.9	-3.9	-1.4
Yugoslavia, FR.....	-	41.95	-	43.65	47.21	47.21	-100.0	-100.0	-100.0
Other ²	41.92	61.67	42.04	44.91	46.17	47.28	-32.0	-2.4	-1.3
Asia Total	43.62	43.10	42.58	44.63	47.02	47.81	1.2	-1.8	-1.0
China (Taiwan).....	40.63	40.73	42.60	43.53	45.45	44.03	-2	-2.8	-.9
Israel.....	40.12	39.45	36.63	38.35	43.11	40.30	1.7	-1.8	*
Japan.....	43.44	43.14	42.47	44.88	47.30	50.28	.7	-2.1	-1.6
Korea, Republic of.....	47.10	45.17	44.35	46.43	49.53	45.78	4.3	-1.3	.3
Other ²	53.89	33.52	41.05	48.75	40.85	59.84	60.8	7.2	-1.1
Oceania & Australia Total	44.89	43.82	44.04	37.99	38.08	42.00	2.4	4.2	.7
Other ²	44.89	43.82	44.04	37.99	38.08	42.00	2.4	4.2	.7
Africa Total	48.90	47.47	48.05	46.90	47.37	45.55	3.0	.8	.8
Algeria.....	55.37	52.69	47.66	48.85	51.10	48.20	5.1	2.0	1.5
Egypt.....	58.83	54.42	47.55	49.45	50.80	46.39	8.1	3.7	2.7
Morocco.....	37.40	36.37	38.62	37.32	37.26	39.19	2.8	.1	-.5
South Africa, Rep of.....	54.61	52.23	50.34	51.67	52.68	53.18	4.6	.9	.3
Other ²	-	-	-	44.68	-	45.00	-	-	-100.0
Total³	44.67	44.13	43.98	45.55	45.51	46.84	1.2	-.5	-.5
U.S. Total⁴	44.93	44.39	44.02	45.65	45.57	47.15	1.2	-.3	-.5

¹ Based on the U.S. - Canada Free Trade Agreement, as of January 1990, the U.S. Department of Commerce began reporting statistics on U.S. exports to Canada based on information on imports provided monthly by the Canadian government.

² Includes countries with exports less than or equal to 50,000 short tons in 1995.

³ The average prices presented in this table, with the exception of U.S. Total, are considered to be representative prices for coal exports and fall within the range of \$20 to \$60 per short ton (\$18.14 to \$54.43 per metric ton), inclusively.

⁴ U.S. Total is the average price of all coal exports.

* Data round to zero.

Note: Average price is based on the free alongside ship (f.a.s.) value.

Source: U.S. Department of Commerce, Bureau of the Census, "Monthly Report EM 545."

Appendix C

References

Figure C1. Coal-Bearing Areas of the United States

Coal-Producing Regions

Appalachian

Alabama, Georgia, Eastern Kentucky, Maryland, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia

Interior

Arkansas, Illinois, Indiana, Iowa, Kansas, Western Kentucky, Louisiana, Missouri, Oklahoma, Texas

Western

Alaska, Arizona, California, Colorado, Montana, New Mexico, North Dakota, Utah, Washington, Wyoming

Table C1. Classification of Coals by Rank

Principles

The lower rank of coals can be classified based on heat content. The heat content of the higher rank coals is generally above 14,000 Btu per pound for each coal rank group (except for meta-anthracite, which trends slightly lower), and heat content ranges vary within a relatively narrow range. Since heat content is not a dependable criterion for these higher rank coals, their rank categories are instead described by degree of metamorphism, or "coalification," a property that is measured by fixed carbon content. Finally, the agglomerating character of bituminous coals is a critical attribute for certain coal consumers, and thus agglomerating character has come to define the distinctions between certain adjacent coal groups. Some high-volatile C bituminous and subbituminous A coals can be distinguished only on the basis of agglomerating character.

Coal Rank	Coal Group	Basis of Classification		
Coal Classified by Fixed Carbon		Fixed Carbon Percentage ¹		Agglomerating Character
		Equal to or Greater than	Less than	
I. Anthracite	1. Meta-anthracite	98	--	Non-agglomerating
	2. Anthracite	92	98	Non-agglomerating
	3. Semianthracite ²	86	92	Non-agglomerating
II. Bituminous	1. Low-volatile bituminous	78	86	Commonly agglomerating ³
	2. Medium-volatile bituminous	69 ⁴	78	Commonly agglomerating ³
	3. High-volatile A bituminous	--	69 ⁴	Commonly agglomerating ³
Coals Classified by Heat Content		Heat Content in Btu per Pound ⁵		Agglomerating Character
		Equal to or Greater than	Less than	
II. Bituminous	4. High-volatile B bituminous	13,000	14,000	Commonly agglomerating ³
	5. High-volatile C bituminous	11,500	13,000	Commonly agglomerating ³
	6. High-volatile C bituminous	10,500	11,500	Agglomerating
III. Subbituminous	1. Subbituminous A	10,500	11,500	Non-agglomerating
	2. Subbituminous B	9,500	10,500	Non-agglomerating
	3. Subbituminous C	8,300	9,500	Non-agglomerating
IV. Lignite	1. Lignite A	6,300	8,300	Non-agglomerating
	2. Lignite B	--	6,300	Non-agglomerating

¹Percentages are based on dry mineral-matter-free coal. Volatile matter (not shown) is the complement of fixed carbon; that is, the percentages of fixed carbon and volatile matter sum to 100 percent. As fixed carbon percentage decreases, therefore, volatile matter percentage increases by the same amount.

²If agglomerating, classify in low-volatile group of the bituminous class.

³There may be nonagglomerating varieties in the bituminous class, most notably in the high-volatile C bituminous group.

⁴Coals having 69 percent or more fixed carbon are classified according to fixed carbon, regardless of Btu value. Coals with less than 69 percent fixed carbon, but with 14,000 or more Btu per pound, are classified as high-volatile A bituminous.

⁵Calorific values in Btu per pound, on a moist mineral-matter-free basis.

Note: Terms in this table are defined in the Glossary.

Source: Adapted from American Society for Testing and Materials 1988, Standard Classification of Coal by Rank, ASTM Designation D 388-91a.

Coal Reports and Feature Articles

Coal Reports

- *Weekly Coal Production*, DOE/EIA-0218 (97-35).
- *Coal Data: A Reference*, DOE/EIA-0064 (93), February 1995.
- *State Coal Profiles*, DOE/EIA-0576, January 1994.
- *Quarterly Coal Report*, DOE/EIA-0121(97/1Q).
- *The Changing Structure of the U.S. Coal Industry: An Update*, DOE/EIA-0513(93), July 1993.
- *U.S. Coal Reserves: A Review and Update* DOE/EIA-0529(95), August 1996.
- *The U.S. Coal Industry, 1970-1990: Two Decades of Change*, DOA/EIA-0559, November 1992.
- *Trends in Contract Coal Transportation, 1979-1987*, DOE/EIA-0549, September 1991.
- *Electric Power Monthly*, DOE/EIA-0226(97/09), September 1997.
- *Electric Power Annual*, DOE/EIA-0348(96), Vol. 1, September 1997.
- *Longwall Mining*, DOE/EIA-TR-0588 March 1995.
- *Monthly Energy Review*, DOE/EIA-0035(97/07) July 1997.
- *Electric Utility Phase I Acid Rain Compliance Strategies for the Clean Air Act Amendments of 1990*, DOE/EIA-0582, March 1994.
- *Cost and Quality of Fuels for Electric Utility Plants 1994*, DOE/EIA-0191(94), July 1995.

Feature Articles

- "U.S. Coal Supply and Demand: 1996 Review," *Mining Engineering*, May 1997, Vol.49, No.5, May 1997, pp.43-50.
- "Carbon Dioxide Emission Factors for Coal," *Quarterly Coal Report*, DOE/EIA-0121 (94/1Q), August 1994.
- "Federal and Indian Coal Lands: A Growing Source of Energy and Revenue," *Coal Production 1992*, DOE/EIA-0118(92), October 1993.
- "Coal Supply and Demand in 1993: A Review, 1993," *Mining Engineering*, May 1994, pp.433-436.
- "Wyoming Coal: An Overview," *Coal Production 1991*, DOE/EIA-0118(91), October 1992.
- "Profile of New Coal Mines in the 1980's," *Coal Production 1990*, DOE/EIA-0118), September 1991.
- "The Comparability of Resource and Reserve Data for Crude Oil, Natural Gas, Coal, and Uranium," *Quarterly Coal Report October-December 1994*, DOE/EIA-0121 (94/4Q) May 1995.
- "Annual Review 1995: Coal Overview," *Mining Engineering*, Vol. 48, No. 5, May 1996, pp. 41-46.
- "Coal Geology, Reserves and Production in Northern and Central Appalachia," *Mining Engineering*, Special Edition, December 1995.

Table C2. Approximate Heat Content of Coal
(Million Btu per Short Ton)

Coal Rank Sector	1983	1984	1985	1986	1987	1988	1989
Anthracite							
Production.....	22.734	23.107	22.428	23.084	23.108	23.266	23.385
Consumption.....	21.583	22.322	20.817	21.512	22.435	22.423	22.623
Non-electric utility users.....	24.536	25.128	23.031	24.399	26.293	26.021	27.196
Electric utilities.....	16.516	17.018	16.784	15.578	15.962	17.312	16.310
Imports and exports.....	25.400	25.400	25.400	25.400	25.400	25.400	25.400
Bituminous Coal and Lignite							
Production.....	22.048	22.005	21.867	21.908	21.918	21.817	21.759
Consumption.....	21.576	21.570	21.368	21.462	21.514	21.324	21.268
Residential and commercial.....	22.438	22.406	22.568	22.669	22.800	23.135	22.917
Coke plants.....	26.800	26.800	26.800	26.800	26.800	26.800	26.800
Other industrial and transportation.....	22.680	22.525	22.013	22.185	22.360	22.341	22.324
Electric utilities.....	21.141	21.108	20.965	21.091	21.143	20.905	20.854
Imports.....	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Exports.....	26.300	26.410	26.320	26.308	26.304	26.308	26.166
Coal Coke.....	24.800	24.800	24.800	24.800	24.800	24.800	24.800
	1990	1991	1992	1993	1994	1995	1996
Anthracite							
Production.....	23.574	22.573	22.572	22.573	22.572	22.572	22.573
Consumption.....	21.668	21.410	21.423	21.262	20.828	20.808	20.860
Non-electric utility users.....	25.199	25.268	24.617	24.096	25.037	24.696	24.872
Electric utilities.....	16.140	15.858	16.944	16.534	14.680	14.572	14.568
Imports and exports.....	25.400	25.400	25.400	25.400	25.400	25.400	25.400
Bituminous Coal and Lignite							
Production.....	21.819	21.678	21.643	21.383	21.347	21.271	21.272
Consumption.....	21.330	21.146	21.142	20.983	21.011	20.845	20.852
Residential and commercial.....	22.678	22.635	22.768	22.749	22.683	22.767	22.785
Coke plants.....	26.800	26.800	26.800	26.800	26.800	26.800	26.800
Other industrial and transportation.....	22.444	22.448	22.242	22.111	22.046	21.931	21.887
Electric utilities.....	20.935	20.761	20.792	20.644	20.681	20.502	20.509
Imports.....	25.000	25.000	25.000	25.000	25.000	25.000	25.000
Exports.....	26.207	26.192	26.165	26.341	26.335	26.187	26.212
Coal Coke.....	24.800	24.800	24.800	24.800	24.800	24.800	24.800

Note: Values for 1996 are preliminary.

Source: Calculated by Energy Information Administration. See *Monthly Energy Review* DOE/EIA-0035 Appendix A for detailed description.

Appendix D

Explanatory Notes

Data Sources

All data in this report were collected by the Energy Information Administration (EIA), U.S. Department of Energy (DOE), except: import and export data, which were collected by the Bureau of the Census (Census Bureau), U.S. Department of Commerce; supplemental export data which were collected by King's Publishing Corporation, Knoxville, Tennessee; Federal and Indian land leasing data which were collected by the U.S. Department of the Interior (Bureau of Land Management and Minerals Management Service); and miner injury and fatality data which were collected by the U.S. Department of Labor (Mine Safety and Health Administration).

Coal Surveys

As early as the 1880's, the U.S. Geological Survey began collecting coal data under a voluntary reporting system. The responsibility for gathering this information was transferred to the Bureau of Mines in the 1920's, initially under the U.S. Department of Commerce and later under the U.S. Department of the Interior, which published the data in its *Minerals Yearbook*. Except for a brief period from 1937 to 1943, when bituminous coal data were collected under the mandatory authority of the Bituminous Coal Act, the Bureau of Mines continued to conduct voluntary coal surveys until the Department of Energy was created.

Coal Production Report (Form EIA-7A)

The Energy Information Administration (EIA) began collecting annual coal production data on October 1, 1977. The 1995 coal production and identification data in this report were collected on Form EIA-7A, "Coal Production Report," from companies that produced, processed, or prepared coal in 1995. All other data collected on Form EIA-7A are reported for

only those companies that owned a mining operation that produced, processed, or prepared 10,000 short tons or more of coal in 1995 and preparation plants with 5,000 or more employee hours.

So that the EIA may fulfill its data collection functions as specified in the Federal Energy Administration Act of 1974 (Public Law 93-275), response to this survey is mandatory. EIA compares respondents to this survey with lists of mining operations maintained by various State coal mining/licensing agencies and the Mine Safety and Health Administration (MSHA), U.S. Department of Labor, to identify new respondents. No sampling procedures are used. In 1995, there were 2,278 mining operations that produced, processed, or prepared 10,000 or more short tons of coal. Of these mining operations, 77.6 percent (1,767) responded to the EIA-7A survey. In 1995, there were 1,716 mines that produced 10,000 or more short tons of coal. Of these mines, 70.2 percent (1,205) responded to the EIA-7A survey; they accounted for 987 million short tons, or 95.6 percent of the 1995 production total. All of the data were collected by mail and were edited to ensure that they were complete and accurate.

As in all surveys, data from Form EIA-7A, "Coal Production Report," are subject to various sources of error: (1) coverage (the list of respondents may not be complete or, on the other hand, there may be double counting), (2) nonresponse (all units that are surveyed may not respond or may not provide all the information requested), (3) respondents (respondents may commit errors in reporting the data), (4) processing (the data collection agency may lose or incorrectly transcribe the submissions), (5) concept (the data collection elements may not measure the items they were intended to measure), and (6) adjustment (errors may be made in estimating values for missing data).

Because the annual coal production survey (Form EIA-7A) is not a sample survey, the estimates shown

Table D1. Sources of Data for Total U.S. Coal Production and Number of Mining Operations
(Thousand Short Tons)

Coal-Producing State	Received		Generated Data Sources		Total	
	Form EIA-7A		Derived From Mine Safety and Health Administration Data		Number of Operations	Production
	Number of Operations	Production	Number of Operations	Production		
Alabama	46	23,677	16	960	62	24,637
Alaska	1	1,481	-	-	1	1,481
Arizona	3	10,442	-	-	3	10,442
Arkansas	-	-	5	21	5	21
Colorado	17	24,757	1	129	18	24,886
Illinois	32	46,419	5	237	37	46,656
Indiana	40	29,667	1	3	41	29,670
Kansas	1	232	-	-	1	232
Kentucky Total	484	139,045	223	13,379	707	152,425
Eastern	429	105,211	201	11,740	630	116,951
Western	55	33,835	22	1,639	77	35,474
Louisiana	2	3,221	-	-	2	3,221
Maryland	14	4,058	5	35	19	4,093
Missouri	3	395	2	315	5	710
Montana	8	37,891	-	-	8	37,891
New Mexico	6	24,067	-	-	6	24,067
North Dakota	6	29,861	-	-	6	29,861
Ohio	97	28,248	22	324	119	28,572
Oklahoma	10	1,687	2	14	12	1,701
Pennsylvania Total	304	64,094	205	3,847	509	67,942
Anthracite	78	3,342	91	1,409	169	4,751
Bituminous	226	60,752	114	2,438	340	63,190
Tennessee	31	3,581	7	69	38	3,651
Texas	13	55,164	-	-	13	55,164
Utah	12	26,926	4	581	16	27,507
Virginia	159	29,862	91	5,727	250	35,590
Washington	3	4,565	-	-	3	4,565
West Virginia Total	361	158,182	162	12,251	523	170,433
Northern	91	45,136	36	774	127	45,910
Southern	270	113,046	126	11,476	396	124,523
Wyoming	27	278,440	-	-	27	278,440
U.S. Total	1,680	1,025,964	751	37,892	2,431	1,063,856

Notes: Coal production excludes silt, culm, refuse bank, slurry dam, and dredge production except for Pennsylvania anthracite. Number of mining operations includes preparation plants. All available State mining agency production data were reviewed, but none were included in this report because production data reported on Form EIA-7A to the Energy Information Administration and on Form 7000-1 to the Mine Safety and Health Administration were found to be complete. Totals may not equal sum of components because of independent rounding.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

in this report are not subject to sampling error.¹ It is not possible to present estimates of nonsampling error, but precautionary steps were taken at each stage of the survey design to minimize the possible occurrence of these errors. These steps are described below.

The forms are logged within 24 hours of receipt and assigned to a team of data editors consisting of Coal Data Systems Branch personnel. The editors screen the forms for legibility, completeness, and consistency. Names and address changes are updated in the files. The reported data are compared with data from previous years and with secondary sources such as Mine Safety and Health Administration and State mining agency reports. Inconsistencies are identified and the respondents contacted for clarification. Computer edits are generated to identify keypunch errors,

errors made by coders, out-of-range codes, and unlikely data combinations. Errors are corrected to conform to the data on the submissions or revised after telephone conversations with company representatives. All changes to reported data are documented. EIA maintains data from the Form EIA-7A on an automated database at its computing facility in Washington, D.C. The survey forms are filed by EIA identification number organized by State and county.

The survey forms were sent via regular mail in January with a due date of March 1, 1996. Nonresponse letters were mailed March 8 to those mining operations that had not submitted their forms. Subsequent to the letter, attempts were made to contact, by telephone, those nonrespondents whose reported 1994 production was 100,000 short tons or more.

¹ Sampling error is a measure of the variation that occurs by chance because a sample rather than a complete enumeration of units is surveyed.

Some forms could not be delivered. Where possible, address corrections were obtained. Some mining operations that had reported in earlier surveys or operated only in 1995 were no longer in business. Unobtainable data were derived from a secondary source: the Form 7000-2, "Quarterly Mine Employment and Coal Production Report," collected by the Mine Safety and Health Administration. Missing production quantity data were derived from the secondary source for 585 mines, which produced 45 million short tons, or 4.4 percent of total production. The received and generated data sources for total U.S. coal production are shown in Table D1. Of the mines whose production exceeded 10,000 or more short tons, missing production quantity data were derived from the secondary source for 511 mines, representing 4.3 percent (44.4 million short tons).

Since 1992, California has not reported coal production as the courts determined that the product mined in that State did not meet the standard classification for coal.

Missing *coalbed classification*, *coalbed thickness*, and *coal rank/group* data were estimated using State mining agency production reports, geological data, and previous years' reports for these mines.

When a mine had a missing *production value*, its production was multiplied by the county-level average mine price to estimate the value. County-level average mine prices were calculated by dividing the total value for the appropriate disposition (open/captive) and type of mining (underground or surface) by the corresponding total production. All missing production was classified as open market unless information was available to classify it as captive. Of those mines whose production was 10,000 or more short tons, value data were estimated for 562 mines, representing 5.2 percent (53.8 million short tons) of the production total.

When an underground mine had unreported *mining method*, it was assumed that the mining method was conventional.

Employment data include *direct labor hours*, *number of production days worked*, *average length of a production shift*, *average number of miners per shift*, and *average number of shifts per day*. Of those mines whose production exceeded 10,000 or more short tons, one or more of these data elements were derived from secondary sources or estimated for 532 mines representing 4.4 percent (45.2 million short tons) of their production total. Of the mining operations that produced, processed, or prepared 10,000 or more short tons, one or more of these data elements were derived from secondary sources or estimated for 868 mining operations, or 38.1 percent of the total operations in this category.

Missing *direct labor hours* were estimated using county-level or State-level productivity-per-hour averages. The averages were calculated by dividing the total production at the county or State level by total direct labor hours at the same level for the

appropriate type of mining (underground or surface). The quantity of production for the mine with missing data was divided by this productivity average to derive direct labor hours.

Missing *average number of production days worked* and *length of a production shift* were derived by using the corresponding county-level or State-level average for the appropriate type of mining (underground or surface).

Missing *average number of miners per shift* was estimated as the average number of miners working daily. The average number of miners working daily was calculated by multiplying the average length of a production shift by the number of production days worked, and then dividing this number into the total direct labor hours.

Missing *average number of shifts per day* was estimated as one shift per day.

Missing *recoverable coal reserves* data were estimated by using the mine's 1994 recoverable reserves minus the mine's 1995 production. If this calculation could not be made, the mine's projected production for 1996 was used. If recoverable coal reserves for 1994 and 1995 and projected production for 1996 were all missing, no estimate was made. In 1995, recoverable reserves were reported by or estimated for 1,186 mines, representing 976.9 million short tons, or 69.1 percent of the mines whose production exceeded 10,000 or more short tons.

Missing *recovery percentage* data were estimated by using 1995 recovery percentage averages at the State level for the appropriate type of mining (underground or surface).

Missing *productive capacity* data were estimated by assuming productive capacity was equal to 1995 production. If productive capacity was reported as less than annual production, productive capacity was equated to 1995 production. There were 627 in-scope mines with production of 177.8 million short tons for which 1995 production was used as a proxy for productive capacity, resulting in 100 percent capacity utilization.

These mines included the MSHA generated mines, mines with productive capacity less than 1995 production, and mines that did not report productive capacity and could not be contacted. If these mines were excluded from the calculation of percent utilization, the U.S. total becomes 76.13 versus 79.40, when those mines are included.

In 1995, there were 26 mines that produced 1.2 million short tons of refuse bituminous and subbituminous coal. Those operations are not included in this report. In 1995, there were 2.3 million short tons of anthracite refuse produced and included in this report. An additional 4 million short tons of anthracite refuse was recovered and used by nonutility power producers in Pennsylvania is not included in this report.

In order to protect the confidentiality of individual respondent's data, a policy was implemented to ensure that the reporting of survey data on mine prices and recoverable reserves in this publication would not associate those data with a particular company. The final phase in the data quality assurance and control procedures is determining which data must be suppressed (withheld) during publication to provide the necessary confidentiality for mines or companies that represent a significant portion of a reported data cell. All withholding analysis is done based upon production volumes. These procedures are performed as follows:

1. Primary Withholding Based on the Number of Respondents in a Cell -- All cells with three or fewer active coal mining operations are suppressed.
2. Residual Withholding Dominance Rule Phase 1
All cells containing between 4 and 10 active coal mining operations are examined. A cell is suppressed if any single respondent accounts for 75 percent or more of the volume for all respondents included in that cell.
3. Residual Withholding Dominance Rule Phase 2
All cells in which two active coal mining operations represent 90 percent or more of the volume for all respondents included in that cell are suppressed.
4. Complementary Suppression -- All tables are reviewed to identify cells which should have data withheld to prevent disclosure of already suppressed cells. An example of cells to be withheld during complementary suppression is underground price, if the surface price is withheld during primary or residual suppression. Because the total price is published, if the underground price is not withheld, the surface price could be calculated using the total price, the underground price, and the underground, surface, and total volumes.
5. Most complementary suppression involves type of mining considerations. Other complementary suppression is based on regional level data. A State or region must be withheld during complementary suppression because an already withheld State could be calculated using other States and the regional total. Cells are also selected for complementary suppression that represent the smallest volumes or that were withheld in prior years.
6. Inter-table effects are also examined regarding complementary suppression. For example, States that are withheld in one State table can influence the complementary suppression of an associated State table. This analysis is very similar to that done at the regional level, except that two tables are involved rather than one. Finally, similar tables are reviewed to ensure that all like suppressed cells are consistently withheld (suppressed) in all tables in which they appear.

The withholding/suppression of data is performed as an adjunct to the quality assurance (QA) procedures. The work is performed by survey editors, and the QA staff and is reviewed by the survey manager before being submitted to division-level QA review.

All sensitive cells identified in withholding analysis are denoted with the symbol/letter "w." The use of the symbol/letter applies to primary, complementary and inter-table suppressions as well as all withheld data. The symbol/letter "w" is footnoted as follows: "w Withheld to avoid disclosure of individual company data."

The interquartile range is a measure of dispersion of State-level average mine prices. Two States may have the same average mine price, but the spread about this price may be totally different. For a fixed average mine price, a larger interquartile range suggests a broader distribution of coal prices than a smaller interquartile range. The summary statistics (Table D2) given in this publication are weighted by production. The interquartile range (weighted by production) is computed in the following manner:

- Each cell is sorted according to average mine price, from the lowest to the highest.
- For each cell, the corresponding mine's production according to increasing average mine price is divided by that particular cell's total production and multiplied by 100. These percentages are then added as a cumulative percentage of production.
- The first quartile (Q1) is the associated mine price for which the cumulative percentage of production first passes 25 percent. Thus, at least 25 percent of that cell's total production is identified with prices at or lower than Q1.
- The third quartile (Q3), is the associated mine price for which the cumulative percentage of production first passes 75 percent. Thus, at least 75 percent of that cell's total production is identified with prices at or lower than Q3.

The interquartile range is Q3-Q1.

Quarterly Coal Consumption Report - Manufacturing Plants (Form EIA-3)

Form EIA-3 is used to survey U.S. manufacturers that consume 1,000 tons or more of coal per year for all uses other than coke production. These data were collected on a monthly basis until 1980, when the reporting cycle was revised to a quarterly schedule. Data on manufacturers' coal stocks, receipts, prices, and consumption are reported.

Through the end of 1988, all manufacturers that consumed coal were required to file Form EIA-3. Beginning with the first quarter of 1989, only those manufacturers that consumed 1,000 or more tons in the past year were required to report. In 1995, 730 manufacturers responded to the EIA-3 survey. The response rate for the current year was 100 percent. In order to identify undercoverage problems, the data from this survey are compared with shipments to *manufacturers* reported on EIA's "Coal Distribution Report," Form EIA-6. At present, the coal receipts reported by *manufacturers* on Form EIA-3 cover approximately 97 percent of the coal shipments to

manufacturers on Form EIA-6. Consequently, the coal consumption data gathered on the Form EIA-3 do not represent the total consumption at manufac-

Table D2. Interquartile Range and Average Mine Price by State and Mine Type, 1996
(Dollars per Short Ton)

Coal-Producing State and Region	Underground		Surface		Total	
	Average Mine Price	Interquartile Range	Average Mine Price	Interquartile Range	Average Mine Price	Interquartile Range
Alabama.....	40.75	10.00	35.87	10.13	39.48	7.76
Alaska.....	—	—	w	w	w	w
Arizona.....	—	—	w	w	w	w
Arkansas.....	—	—	w	w	w	w
Colorado.....	17.73	—	18.28	1.47	17.94	1.83
Illinois.....	23.12	4.75	20.86	13.84	22.74	4.51
Indiana.....	w	w	w	w	20.24	5.30
Kansas.....	—	—	w	w	w	w
Kentucky Total.....	24.66	5.43	22.68	5.20	23.91	5.68
Eastern.....	25.98	3.51	23.53	4.95	24.98	4.99
Western.....	21.04	3.76	18.79	2.29	20.38	3.20
Louisiana.....	—	—	w	w	w	w
Maryland.....	w	w	w	w	24.40	—
Missouri.....	—	—	23.31	—	23.31	—
Montana.....	—	—	9.97	9.51	9.96	9.51
New Mexico.....	w	w	w	w	24.66	4.05
North Dakota.....	—	—	8.01	.83	8.01	.83
Ohio.....	25.98	16.37	23.43	5.13	24.85	17.46
Oklahoma.....	w	w	w	w	26.54	5.30
Pennsylvania Total.....	25.79	3.28	25.76	8.36	25.78	8.36
Anthracite.....	27.99	12.19	37.37	29.06	36.78	28.06
Bituminous.....	25.77	2.70	22.68	7.95	24.98	4.18
Tennessee.....	w	w	w	w	27.79	2.83
Texas.....	—	—	12.17	1.08	12.17	1.08
Utah.....	21.63	8.07	—	—	21.63	8.07
Virginia.....	29.46	5.68	25.88	3.47	28.45	9.40
Washington.....	—	—	w	w	w	w
West Virginia Total.....	27.31	8.08	25.04	4.42	26.58	6.19
Northern.....	25.21	6.73	22.37	5.21	24.86	6.73
Southern.....	28.44	7.40	25.34	4.00	27.21	6.38
Wyoming.....	w	w	w	w	6.41	1.81
Appalachian Total ¹	27.67	6.70	25.07	6.28	26.78	7.13
Interior Total ¹	22.43	2.42	15.85	7.76	18.41	10.03
Western Total ¹	20.04	4.91	8.86	3.13	10.03	10.71
East of Miss. River.....	26.70	6.54	23.86	6.88	25.70	6.82
West of Miss. River.....	20.07	4.91	9.42	6.75	10.40	9.53
U.S. Total.....	25.96	8.27	13.82	16.62	18.50	18.26

¹ For a definition of coal-producing regions, see Appendix C.

w Withheld to avoid disclosure of individual company data.

Note: Excludes silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons of coal during the year. Average Mine Price is calculated by dividing the total free on board (f.o.b) mine value of the coal produced by the total production.

Sources: Energy Information Administration, Form EIA-7A, "Coal Production Report"; State Mining Agency Coal Production Reports; and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

turing plants. See Technical Note 5 for data adjustment procedures for coal consumption for the other industrial sector.

Current year data from this survey are preliminary and unrevised in the January - March, April - June, and July - September issues of the *Quarterly Coal Report* (DOE/EIA-0121). In the October - December issue, any revisions necessary for the entire year are applied and the data are considered final.

The respondent list of manufacturers for Form EIA-3 is compared with lists of coal-consuming manufacturing plants from State Air Quality and Energy

Offices. When new respondents are found, they are added to the survey mailing list.

Annual Coal Quality Report - Manufacturing Plants (Form EIA-3A)

Form EIA-3A contains questions on the origin of coal (State or Country), the quantity of coal receipts, the Btu, sulfur and ash content of the coal receipts, and the basis used to determine the coal quality data. The threshold for the annual collection will be the same as for the EIA-3: manufacturing plants that consume in excess of 1,000 short tons of coal per per year. In

1995, 730 manufacturers responded to the EIA-3A survey. The response rate for the current year was 100 percent.

Coke Plant Report (Form EIA-5)

Form EIA-5, a quarterly report of coal receipts, carbonization, and stocks, and of coke and breeze production, distribution, and stocks, is used to survey all U.S. coke plants.

Coke plants were surveyed monthly and a supplemental survey was taken annually until 1981, when the reporting cycle was revised to a quarterly schedule with an annual supplemental survey. In 1985, collection of the annual supplement was ended.

In 1995, there were 28 respondents to the EIA-5 survey, and the response rate was 100 percent. The respondent list for this survey is updated by continuous monitoring of the industry literature.

Current year data from this survey are preliminary and unrevised in the January - March, April - June, and July - September issues of the *Quarterly Coal Report* (DOE/EIA-0121). In the October - December issue, any revisions necessary for the entire year are applied and the data are considered final.

Annual Coal Quality Report - Coke Plants (Form EIA-5A)

This form contains questions on the origin of coal (State or country), the quantity of coal receipts, the volatile matter, sulfur and ash content, and the basis used to determine the coal quality data. There is no threshold for this form. In 1995, there were 28 respondents to the EIA-5A survey, and the response rate was 100 percent.

Coal Distribution Report (Form EIA-6)

Form EIA-6 is used to survey all U.S. companies (producers and/or distributors) that own or purchase and distribute more than 50,000 short tons annually.² Data on coal production and purchases, distribution by consumer category, and method of transportation are reported.

In 1995, there were about 1,100 respondents to the EIA-6 survey. Until the end of 1988, coal distribution companies were required to report production on a Bureau of Mines district basis. For the year 1989, respondents were required to report on a BOM district/State basis. Beginning with the first quarter of 1990, respondents were required to report on a State basis. The response rate for the current quarter was 100 percent. The annual production total reported on Form EIA-6 exceeds 99 percent of total production as

reported by all mines on Form EIA-7A, "Coal Production Report," due to the difference in reporting thresholds. The data gathered on the Form EIA-6 only represent the domestic coal distributed during the quarter. Therefore, imported coal distributed during the quarter is not included.

Current year data from this survey are preliminary and unrevised in the January - March, April - June, and July - September issues of the *Quarterly Coal Report* (DOE/EIA-0121). In the October - December issue, any revisions necessary for the entire year are applied and the data are considered final.

The respondent list for this survey is updated by comparing it with lists of coal producers from the Mine Safety and Health Administration (MSHA), U.S. Department of Labor, and from similar lists maintained by various State agencies. Also, new respondents are frequently identified on Form EIA-6 itself when other companies are named as sources of coal purchases.

Electric Utility Surveys

Coal data appear in this report from three surveys of electric utilities --from all generating electric utilities and from fossil-fueled plants.

The Census Bureau collected and published the results of a census taken every 5 years from 1902 to 1937 on the electric light and power industries and some data on industrial production of electric energy. The U.S. Geological Survey collected data on capacity and generation of electric utilities from 1920 to 1936, when this activity was turned over to the Federal Power Commission (FPC).

All data are presented as reported on the surveys. No estimates or other adjustments are made for missing data. The data are maintained in a computer system and are edited to ensure that they are reasonable, consistent, and complete. For additional information from these surveys and for other electric utility data, see the EIA publication, *Electric Power Monthly* (DOE/EIA-0226).

Monthly Power Plant Report (Form EIA-759)

Form EIA-759 (which, until 1982, was called FPC Form 4) is used to survey all generating electric utilities. The Federal Power Act and FPC Order Number 141 define the legislative authority to collect power production data. Consumption and stocks of coal and other fuels at each plant are reported. The respondents to Form EIA-759, approximately 3,000 plants, account for 100 percent of total electric utility generation.

² For the States of Arkansas, Maryland, Oklahoma, and the anthracite portion of Pennsylvania, the threshold is 10,000 tons.

Current year data from this survey are considered final.

Monthly Report of Cost and Quality of Fuels for Electric Plants (FERC Form 423)

Federal Energy Regulatory Commission (FERC) Form 423 is used to survey all fossil-fueled plants with a total steam-generating capacity of 50 megawatts or more. It is submitted by approximately 230 electric utilities. (Before 1983, this form was called FPC Form 423, and all fossil-fueled plants with a total generating capacity of 25 megawatts or more were surveyed.) In 1972, the FPC issued Order Number 453, which included the legislative authority to create FERC Form 423. Cost, quality, and source of fuels (by State or country of origin), including coal, are reported. Current year data from this survey are considered final.

Steam-Electric Plant Operation and Design Report (Form EIA-767)

The Form EIA-767 is a mandatory restricted-universe census of all electric power plants with a total existing or planned organic- or nuclear-fueled steam-electric generator nameplate rating of 10 or more megawatts. The entire form is filed by approximately 700 power plants with a nameplate capacity of 100 or more megawatts. An additional 200 power plants with a nameplate capacity between 10 and 100 megawatts submit information only on fuel consumption/quality, boiler/generator configuration, and flue-gas desulfurization equipment, if applicable. The Form EIA-767 is used to collect data annually on plant operations and equipment design (including boiler, generator, cooling system, flue gas desulfurization, flue gas particulate collectors, and stack data). Data from Form EIA-767 are used for economic, regulatory, and environmental analyses conducted by the DOE, the FERC, the Environmental Protection Agency, and the Department of Commerce.

Form EIA-767 data for 1995 are preliminary. Data for prior years are final.

Annual Nonutility Power Producer Report (Form EIA-867)

The Form EIA-867 is a restricted-universe census used to collect annual data from all existing and planned nonutility power producers in the United States. In 1992, the reporting threshold of the Form EIA-867 was lowered to include all facilities with a combined nameplate capacity of 1 or more megawatts. Previously data were collected every 3 years from

facilities with a nameplate capacity between 1 and 5 megawatts. For the purpose of this data collection, a nonutility power producer is an enterprise that has electric generating capacity and is not an electric utility. They include qualifying cogenerators, qualifying small power producers, and other nonutility generators (including independent power producers) without a designated franchised service area. The form is used to collect data on the installed capacity, energy consumption, generation, and electric energy sales to electric utilities from approximately 2,000 facilities.

Form EIA-867, coal consumption data for 1989 through 1995 are: 876, 1600, 6000, 10000, 12344, 15140 and 20800 thousand short tons.

Export and Import Data

Export and import data (except imports to electric utilities, manufacturing plants and coke plants, which are reported on the FERC Form 423, EIA-3A, and EIA-5A, respectively.) are obtained from the Census Bureau--export data from the monthly EM 545 (formerly EM 522) report, import data from the monthly IM 145 report. The Census Bureau compiles these data monthly from documents filed with the U.S. Customs Service as required by law. They include shippers' export declaration forms, import entry forms, and warehouse withdrawal forms. No sampling procedures are used. The Census Bureau publication *Guide to Foreign Trade Statistics* describes the foreign trade statistics program, including the EM 545 and IM 145 monthly reports. Data from these surveys are considered final at the time of publication.

Foreign distribution of U.S. coal, major exporting State, and destination, along with foreign distribution of metallurgical and steam coal (Tables 62, 63, and 64, respectively), was determined using EIA-6 distribution data by origin State, and coal export data from King's COALBASE (King Publishing Corporation, Knoxville, Tennessee) which gives the metallurgical and steam breakdown as well as the country destination data. The percentage of metallurgical and steam coal for each country of destination are applied to the EIA-6 export figures for each State of origin to derive coal distribution data that link State of origin to countries of destination by type of coal. The King's destination country data are considered to be more accurate than the Census country-of-destination data because it account for transshipments through intermediate countries to final destination countries, whereas the Census data would designate the destination as the intermediate country.

Copies of the survey forms and instructions used to collect data appearing in this publication can be obtained by calling EIA's National Energy Information Center at (202) 586-8800.

Technical Notes

1. Differences in Related Coal Data

Coal Production versus Coal Distribution. Coal production represents newly mined coal. Coal distribution represents shipments of newly mined coal and coal from producer/distributor stockpiles (previously mined coal).

Coal Distribution versus Coal Receipts. Differences in coal distribution data and coal receipts data are due to the time lag between distribution and receipt of coal shipments, and due to the survey threshold differences. In addition, coal distributed includes only domestic coal, whereas receipts include imported coal.

Foreign Distribution of U.S. Coal versus U.S. Coal Exports. Foreign distribution of U.S. coal does not equal U.S. coal exports because there are differences in reporting time and survey thresholds.

Receipts of Imported Coal versus U.S. Coal Imports. Receipts of imported coal at electric utilities and manufacturing and coke plants does not equal U.S. coal imports due to reporting time differences. In addition, it does not include receipts at independent power producers.

2. Other Industrial Plants and Manufacturing

The *other industrial plants* end-use sector includes the *manufacturing*, agriculture, forestry and fishing, mining, and construction industries. Manufacturing accounts for approximately 97 percent of the coal receipts and consumption and 100 percent of the coal stocks in the *other industrial plants* sector as reported herein. Data sources for the *other industrial plants* sector and the *manufacturing* sector are Forms EIA-6 and EIA-3, respectively. The source statement in each table identifies the survey used to collect coal data for the *other industrial plants* sector, and the following technical notes describe the methodology used when data were derived.

3. Residential and Commercial

To reduce the reporting burden to coal users, the EIA does not conduct any survey of coal data from residential and commercial users of coal. Shipments of coal to this sector, reported by producers and distributors of coal on Form EIA-6, are equated to coal receipts and consumption by the *residential and commercial* sector, assuming no stock changes.

4. Consumer Prices

Prices are derived for each end-use sector as follows:

Electric Utilities. Prices are reported for each plant in cents-per-million Btu on FERC Form 423. The price per ton of coal is calculated at each plant using cents-per-million Btu and the average Btu content per pound of coal for the appropriate rank of coal. The average prices appearing in the tables (e.g., across all States) are calculated by summing the dollar value at each plant (short tons of coal multiplied by price per short ton) and dividing by the corresponding total tons. For more information about prices of coal at *electric utilities*, see the EIA publication, *Electric Power Monthly* (DOE/EIA-0226).

Coke Plants. Respondents are asked to report the number of tons of coal received (or coke distributed) on Form EIA-5 and the total value of that coal (or coke) in dollars. Average prices are calculated by summing the reported values (e.g., across all States) and dividing by the corresponding total tons.

Other Industrial Plants. Respondents (manufacturing plants only) are asked to report the number of tons of coal received on Form EIA-3 and the total value of that coal in dollars. Average prices are calculated by summing the reported values across all States and dividing by the corresponding total tons.

Residential and Commercial. Data are not collected. See Technical Note 3.

5. Consumption

Annual Data

Annual coal consumption data are sums of quarterly or monthly data described below except for nonutility power producers whose coal consumption is not included in this report. These data are however, reported on Form EIA-867 and published in the *Electric Power Annual* (DOE/EIA-0348).

Electric Utilities. Consumption is reported on Form EIA-759.

Nonutility Electric Generating Facilities. Consumption is reported on Form EIA-867.

Coke Plants. Consumption is reported on Form EIA-5.

Other Industrial Plants. In deriving a quarterly estimate for coal consumption for the *other industrial plants* sector, the first step is to equate consumption to beginning stocks plus receipts minus ending stocks. In terms of an equation, consumption can be expressed as $C = Sb + R - Se$, where Sb = beginning stocks, R = receipts, and Se = ending stocks.

Therefore, consumption is $C = (Sb - Se \text{ (change in stocks)}) + R$. Next, stock change at the State level is equated to the stock change for that State as reported on Form EIA-3, receipts at the State level are derived as described in Section 3, and a computed consumption is derived using the same equation for each State. Finally, the quarterly consumption (C) at the State level is equated to the maximum of the computed consumption at the State level, as previously described, and the quarterly consumption for that State as reported on Form EIA-3. This process ensures that State-level consumption for the *other industrial plants* sector is always greater than or equal to the *manufacturing* sector consumption for that State. Total quarterly consumption for the *other industrial plants* sector is computed by summing the quarterly State-level consumption figures.

Residential and Commercial. Shipments to the *residential and commercial* sector as reported on Form EIA-6 are defined as consumption as well as receipts for this end-use sector.

EIA publishes monthly estimates of coal consumption in the *Monthly Energy Review* (DOE/EIA-0035).

Monthly coal consumption at electric utility plants is derived directly from Form EIA-759. Prior to 1980, monthly coal consumption at coke plants was derived directly from Form EIA-5. For 1981 through 1987, it was derived from the quarterly coal consumption reported on Form EIA-5, using the ratios of monthly to quarterly consumption in 1979, the last year that coke plant data were collected monthly on Form EIA-5. These ratios by month (January - December) are 0.3377, 0.3200, 0.3423; 0.3529, 0.3462, 0.3009; 0.3364, 0.3347, 0.3289; and 0.3273, 0.3301, 0.3426.

Starting with 1988, monthly coal consumption at coke plants is derived from quarterly coal consumption reported on Form EIA-5, using ratios derived from monthly data on raw steel production published by the American Iron and Steel Institute (AISI) on Form AIS7. The ratio is the proportion of monthly raw steel production from open hearth and basic oxygen process furnaces to the quarterly raw steel production from those furnace types.

Prior to 1978, coal consumption for the *other industrial plants* sector (i.e., industrial users minus coke plants) was derived by using monthly data reported on Form EIA-3 to modify baseline coal consumption figures from the most recent Census of Manufactures or Annual Survey of Manufactures, Bureau of the Census, U.S. Department of Commerce. For 1978 through 1987, data from Forms EIA-3 and EIA-6 are used to compute monthly coal consumption for the *other industrial plants* sector.

Given the quarterly consumption for the *other industrial plants* sector (C), the monthly consumption for the sector (C_m) is estimated for each month in the quarter as $C_m = (C_{m3}/C_3) \times C$ where C_{m3}/C_3 is the ratio of monthly to quarterly coal consumption as reported on Form EIA-3. For the 1978 coal consumption figures, the ratios used are based on 1978 EIA-3 data. For 1979 through 1987, the ratios used are based on the 1979 EIA-3 data. These 1979 ratios by month (January - December) are 0.3593, 0.3264, 0.3143; 0.3485, 0.3332, 0.3183; 0.3317, 0.3407, 0.3276; and 0.3045, 0.3253, 0.3702.

Starting with 1988, monthly coal consumption for the *other industrial plants* sector is derived from quarterly coal consumption reported on Form EIA-3 using monthly ratios derived from the industrial production indices published by the Board of Governors of the Federal Reserve System. Six major industry groups' indices are used as the basis for calculating the monthly ratios. These groups are foods (Standard Industrial Classification (SIC) 20), paper and products (SIC 26), chemicals and products (SIC 28), petroleum products (SIC 29), clay, glass, stone products (SIC 32), and primary metals (SIC 33).

The monthly ratios are computed as the monthly sum of weighted indices as a proportion of the quarterly sum of weighted indices, using the 1985 proportion as the weight.

Prior to 1980, monthly coal consumption for the *residential and commercial* sector was derived by using monthly data reported on Form EIA-2, "Monthly Coal Report -- Retail Dealers and Upper Lake Docks," to modify baseline coal consumption figures developed by the Bureau of Mines, U.S. Department of the Interior.

For 1980, the quarterly coal consumption figures in the *residential and commercial* sector are converted to monthly coal consumption figures using the ratios of monthly to quarterly coal deliveries to this sector in 1979 as reported on Form EIA-2. These 1979 ratios by month (January-December) are 0.4002, 0.3502,

0.2496; 0.4805, 0.2901, 0.2294; 0.3126, 0.2952, 0.3922; and 0.2931, 0.3101, 0.3968. The 1981 and 1982 monthly coal consumption figures were derived using the 1979 ratios but were also modified according to heating/cooling degree-days. For 1983 through 1987, coal consumption figures are converted to monthly coal consumption figures using only the ratios of monthly to quarterly coal deliveries to this sector in 1979.

Starting with 1988, monthly coal consumption figures are derived using the monthly national average population weighted heating/cooling degree-days obtained from the National Oceanic and Atmospheric Administration. The ratio is the proportion of the monthly national sum of heating and cooling degree-days to the quarterly sum.

6. Stocks

Annual stocks are calculated at the end of the year or the end of the fourth quarter. Coal stocks are derived for each end-use sector as follows:

Electric Utilities. Stocks are reported on Form EIA-759.

Coke Plants. Stocks are reported on Form EIA-5.

Other Industrial Plants. Stocks are reported on Form EIA-3, i.e., stocks at *manufacturing* plants only. Technical Note 2 discusses the difference between *other industrial plants* and *manufacturing plants*.

Residential and Commercial. Data are not available. See Technical Note 3.

Producer and Distributor. Stocks are reported on Form EIA-6.

7. Methods of Transportation

Rail: Shipments of coal moved to consumers by rail, either private or public/commercial. Included is coal hauled to or away from a railroad siding by truck.

Water Transportation: Shipments of coal moved by one of the three methods--river, Great Lakes, or tidewater piers and coastal ports. Included in these shipments is coal hauled to or from water loading facilities by other means of transportation.

River: Shipments of coal moved to consumers via river by barge, except shipments to Great Lakes coal loading docks or tidewater piers or coastal ports.

Great Lakes: Shipments of coal moved to consumers via the Great Lakes. These shipments are moved via the Great Lakes coal loading docks, which are iden-

tified by name and locations as follows: Superior Midwest Energy Terminal, Superior, Wisconsin; Bessemer & Lake Erie Coal Storage & Transfer Facility, Conneaut, Ohio; B&O Railroad Coal Loading Dock, Lorain, Ohio; C&O Railroad Presque Isle Docks, Toledo, Ohio; Lakefront Dock & Railroad Terminal Company Coal Loading Dock, Toledo, Ohio; N&W Sandusky Coal Pier No. 3, Sandusky, Ohio; ConRail Coal Transfer Facilities, Ashtabula, Ohio; Rail to Water Transfer Corporation Dock, Chicago, Illinois.

Tidewater Piers and Coastal Ports: Shipments of coal moved to tidewater piers and coastal ports for further shipments to consumers via coastal water or ocean. The tidewater piers are identified by name and location as follows: B&O Curtis Bay Coal Piers, Baltimore, Maryland; C&O Coal Piers Nos. 14 & 15, Newport News, Virginia; N&W Lamberts Point Coal Piers Nos. 5 & 6, Norfolk, Virginia; Alabama State Docks Bulk Handling Plant, Mobile, Alabama; Alabama State Docks/McDuffie Terminals, Mobile, Alabama; Canton Coal Piers, Baltimore Harbor on the Chesapeake Bay; Greenwich Coal Pier, Greenwich Point, Philadelphia, Pennsylvania, on Delaware River; Port Richmond Pier, Pier 18 Port Richmond, Philadelphia, Pennsylvania, on the Delaware River; Galveston Regional Coal Distribution Center, Pelican Island, Galveston, Texas; International Marine Terminals/Plaquemines Parish Terminal, Mile 57 AHP-Mississippi River, approximately 30 miles south of New Orleans; Energy Terminals of Houston, Inc., a Subsidiary of Soros Associates, Houston, Texas. Coastal Ports are those located at Charleston, South Carolina; New York, New York; San Diego, California; Los Angeles, California; and Seattle, Washington.

Truck: Shipments of coal moved to consumers by truck.

Tramway, Conveyor, or Slurry Pipeline: Shipments of coal moved to consumers by tramway, conveyor, or slurry pipeline.

8. Census Export and Import Data

Export and import data are obtained from the Bureau of the Census, U.S. Department of Commerce, where they are compiled monthly from documents filed with the U.S. Customs Service, as required by law.

Each coal shipment is reported in short tons with corresponding total dollar values. EIA converts all value data obtained from the Census Bureau to average price data by dividing the dollar value by the quantity.

Based on an analysis and sample validation of the Census Bureau import and export data conducted by the EIA, it was determined that some of the coal and coke data collected from the Census Bureau may be misleading or incorrect (particularly those data associ-

ated with very small quantities or very high prices). Because of this, a methodology was developed to edit the Census Bureau price data.

Prior to 1989, certain data cells had been suppressed for publication purposes only: (1) average import coal prices of \$50.00 or more per short ton; (2) average export coal prices of \$60.00 or more per short ton; (3) average coke prices of \$200.00 or more per short ton; (4) all percent changes of 500 percent or more.

Beginning with 1989, coal export data were categorized as metallurgical coal and steam coal, rather than as bituminous steam coal, lignite, anthracite, and bituminous metallurgical coal.

In addition, coal export tables were revised to present those countries to which the United States exported more than 50,000 short tons in the prior calendar year. The remaining countries in each continent were aggregated in an "other" category. This reduces the number of empty cells and highlights the major importers of U.S. coal. All coke export and import, and coal import countries and quantities are displayed.

The following methodology was used to derive the typical average prices as presented in the price tables. For all coal, a price distribution was derived from the prior calendar year export price data. Since extreme price variations in the Census Bureau data are the exception rather than the rule, the price distribution was used to identify a typical price range. The price distribution, from low to high, along with the frequency of each price (quantity) was analyzed to determine the representative prices. The extreme prices at both ends of the distribution were eliminated to arrive at a price range that covered at least 90 percent of the exports. This price range was considered to include typical or representative prices. Considering the records that fell within the typical price range, the weighted average price was calculated by country of destination and type of coal.

The same procedure was used to determine the typical average prices of coal imports. In addition to the average prices based on the above methodology, a U.S. total row is presented in the price tables, which represents the average price using all the Census Bureau data.

For reporting purposes, the month of exportation reflects the month in which the shipment leaves the United States. The month of importation generally is based on the month in which the U.S. Customs Service releases the merchandise to the importer. For both sets of data, however, there can exist a small carry-over from the actual month of exportation or importation to a subsequent month, usually the succeeding month. A number of factors in processing account for this, e.g., late receipt of a document for an end-of-month shipment, or rejection of a shipment by

the computer due to failure to meet established edit criteria. These limitations should be considered when making comparisons.

Based on the U.S. - Canada Free Trade Agreement, as of January 1990, the U.S. Department of Commerce began reporting statistics on U.S. exports to Canada based on information on imports provided monthly by the Canadian government.

Comparing Census reported imported coal figures in Table 34 with EIA reported imported coal receipts at electric utilities, manufacturers, and coke plants for 1994 shows a difference of about 1.8 million short tons. The main reason for this is that the EIA receipts data do not cover imported coal received by nonutility power producers who are not in the manufacturing sector.

9. Revisions

All data published in this report are considered final. The Office of Coal, Nuclear, Electric and Alternate Fuels has adopted the following policy with respect to the revision and correction of recurrent data in energy publications:

1. Annual survey data collected by this office are published either as preliminary or final when first appearing in a data report. Data initially released as preliminary will be so noted in the report. These data will be revised, if necessary, and declared final in the next publication of the data.
2. All monthly and quarterly survey data collected by this office are published as preliminary. These data are revised only after the completion of the 12-month cycle of the data. No revisions are made to the published data before this.
3. After data are published as final, corrections will be made only in the event of a greater than one percent difference at the national level. Corrections for differences that are less than the 1-percent threshold are left to the discretion of the Office Director.

10. Price Data and Taxes

F.O.B. mine coal prices and prices of coal delivered to or received by end-use consumers (electric utility plants, manufacturing plants, and coke plants) as reported in this publication include relevant local, State and Federal excise and sales taxes.

**Table D3. Implicit Price Deflator,
1987-1996**

Year	Implicit Price Deflator (1992 = 100)
1987	83.1
1988	86.1
1989	89.7
1990	93.6
1991	97.3
1992	100.0
1993	102.6
1994 ^R	104.9
1995 ^R	107.6
1996	109.7

^R Revised data.

Source: Bureau of Economic Analysis, U.S. Department of Commerce, *Survey of Current Business*.

Glossary

Agglomerating Character: Agglomeration describes the caking properties of coal. Agglomerating character is determined by examination and testing of the residue when a small powdered sample is heated to 950 degrees centigrade under specified conditions. If the sample is "agglomerating," the residue will be coherent, show swelling or cell structure, and be capable of supporting a 500-gram weight without pulverizing.

Anthracite: A hard, black lustrous coal, often referred to as hard coal, containing a high percentage of fixed carbon and a low percentage of volatile matter. Comprises three groups classified according to the following ASTM Specification D388-91a, on a dry mineral-matter-free (mmf) basis:

	Fixed Carbon Limits		Volatile Matter	
	GE	LT	GT	LE
Meta-Anthracite	98	-	-	2
Anthracite	92	98	2	8
Semianthracite	86	92	8	14

GE = Greater than or equal to
 LT = Less than
 GT = Greater than
 LE = Less than or equal to

Anthracite coal is non-agglomerating. If agglomerating, semianthracite is classified in the low-volatile group of the bituminous class.

Ash: Impurities consisting of silica, iron, alumina, and other incombustible matter that are contained in coal. Ash increases the weight of coal, adds to the cost of handling, and can affect the burning characteristics. Ash content is measured as a percent by weight of coal on an "as received" or a "dry" (moisture-free, usually part of a laboratory analysis) basis.

Auger Mine: A surface mine where coal is recovered through the use of a large-diameter drill driven into a coalbed in a hillside. It usually follows contour surface mining, particularly when the overburden is too costly to excavate.

Average Annual Percent Change:

$$\sqrt[n]{\frac{V_n}{V_0}} - 1 \quad (1)$$

Where: V_0 = the value for the base period.
 V_n = the value for the n^{th} period.
 n = the number of periods.

Average Daily Production: The ratio of the total production at a mining operation to the total number of production days worked at the operation.

Average Length of a Shift: The arithmetic mean number of hours worked during a production shift. Overtime is included if usually worked during the year.

Average Mine Price: The ratio of the total value of the coal produced at the mine to the total production tonnage. (See F.O.B. mine price.)

Average Number of Employees per Shift: The arithmetic mean number of employees working during a production shift. Includes all employees except office workers. (See direct labor hours.)

Average Number of Miners Working Daily: The arithmetic mean number of miners working each day at a mining operation. Includes maintenance as well as production work performed.

Average Number of Shifts per Day: The arithmetic mean number of shifts each day at a mining operation. Includes maintenance as well as production shifts.

Average Production per Miner per Day: The product of the average production per miner per hour at a mining operation and the average length of a production shift at the operation.

Average Production per Miner per Hour: The ratio of the total production at a mining operation to the total direct labor hours worked at the operation.

Average Production per Miner per Shift: Calculated by multiplying average production per miner per hour by the average length of a miner shift.

Average Quality of Coal: Refers to individual measurements such as heat value, fixed carbon, moisture, ash, sulfur, phosphorus, major, minor, and trace elements, coking properties, petrologic properties, and particular organic constituents. The individual quality elements may be aggregated in various ways to classify coal for such special purposes as metallurgical, gas, petrochemical, and blending usages.

Average Recovery Percentage: Average recovery percentage represents the percentage of coal that can be recovered from coal reserves at reporting mines, averaged for all mines in the reported geographic area.

Bituminous Coal: The most common coal. It is dense and black (often with well-defined bands of

bright and dull material). Its moisture content is usually less than 20 percent. It is used for generating electricity, making coke, and for space heating. Comprises five groups classified according to ASTM Specification D-388-91a, on a dry mineral-matter-free mmf basis for fixed-carbon and volatile matter and a moist mmf basis for calorific value. Coals having 69 percent or more fixed carbon on the dry, mineral-matter-free basis shall be classified according to fixed carbon, regardless of calorific (heating) value. High-volatile C bituminous coal is agglomerating, but other bituminous coals are commonly agglomerating. However, it is recognized that there may be nonagglomerating varieties in these groups of the bituminous class, and there are notable exceptions in the high-volatile C bituminous group. Coals with less than 69 percent fixed carbon, but with 14,000 or more Btu per pound, are classified as high-volatile A bituminous.

	Fixed Carbon Limits		Volatile Matter Limits		Calorific Value Limits Btu/lb.	
	GE	LT	GT	LT	GE	LE
lv	78	86	14	22	-	-
mv	69	78	22	31	-	-
hva	-	69	31	-	14000	-
hvb	-	-	-	-	13000	14000
hvc	-	-	-	-	10500	13000
lv	= Low-volatile bituminous coal					
mv	= Medium-volatile bituminous coal					
hva	= High-volatile A bituminous coal					
hvb	= High-volatile B bituminous coal					
hvc	= High-volatile C bituminous coal					
GE	= Greater than or equal to					
LT	= Less than					
GT	= Greater than					
LE	= Less than or equal to					

Btu (British thermal unit): The amount of heat needed to raise the temperature of 1 pound of water by 1 degree fahrenheit. The Btu is a convenient measure by which to compare the energy content of various fuels.

Cannel Coal: A variety of bituminous coal that is noncaking, contains a high percentage of volatile matter, ignites easily, and burns with a luminous smokey flame.

Capacity Utilization: Capacity utilization is computed by dividing production by productive capacity and multiplying by 100.

Captive Coal: Coal produced and consumed by the mine operator, a subsidiary, or parent company (for example, steel companies and electric utilities).

Carbon Dioxide: CO_2 A colorless, odorless, incombustible gas formed during combustion in fossil-fuel electric generation plants.

Census Divisions: The nine geographic divisions of the United States established by the Bureau of the Census, U.S. Department of Commerce for statistical analysis. The boundaries of Census divisions coincide with State boundaries. In some cases, the Pacific

Division is subdivided into the Pacific Contiguous and Pacific Noncontiguous areas.

CIF: See Cost, Insurance, Freight.

Coal Carbonized: The amount of coal decomposed into solid coke and gaseous products by heating in a coke oven in a limited air supply or in the absence of air.

Coal (Coke): See Coke (coal).

Coal Mining Productivity: Coal mining productivity is calculated by dividing total coal production by the total direct labor hours worked by all mine employees.

Coal Preparation: The process of sizing and cleaning coal to meet market specifications by removing impurities such as rock, sulfur, etc. May include crushing, screening, or mechanical cleaning.

Coal-Producing Regions: A geographic classification of coal-producing States. The States in the Appalachian Region are Alabama, Georgia, eastern Kentucky, Maryland, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia. The States in the Interior Region are Arkansas, Illinois, Indiana, Iowa, Kansas, western Kentucky, Louisiana, Missouri, Oklahoma, and Texas. The States in the Western Region are Alaska, Arizona, California, Colorado, Montana, New Mexico, North Dakota, Utah, Washington, and Wyoming.

Coal-Producing States: The States where mined and/or purchased coal originates are defined as follows: Alabama, Alaska, Arizona, Arkansas, California, Colorado, Illinois, Indiana, Iowa, Kansas, Kentucky Eastern, Kentucky Western, Louisiana, Maryland, Missouri, Montana, New Mexico, North Dakota, Ohio, Oklahoma, Pennsylvania anthracite, Pennsylvania bituminous, Tennessee, Texas, Utah, Virginia, Washington, West Virginia Northern, West Virginia Southern, and Wyoming. The following Coal-Producing States are split in origin of coal, as defined below:

- **Kentucky, Eastern** All mines located in counties other than the Western Kentucky counties.
- **Kentucky, Western** All mines in the following counties in Western Kentucky: Butler, Caldwell, Christian, Crittenden, Daviess, Edmonson, Grayson, Hancock, Henderson, Hopkins, Logan, McLean, Muhlenberg, Ohio, Simpson, Todd, Union, Warren, and Webster.
- **Pennsylvania Anthracite** All mines in the following counties: Carbon, Columbia, Dauphin, Lackawanna, Lebanon, Luzerne, Northumberland, Schuylkill, Sullivan, and Susquehanna. All anthracite mines in Bradford County.
- **Pennsylvania Bituminous** All mines located in counties other than the Pennsylvania anthracite counties and all bituminous mines in Bradford County.
- **West Virginia, Northern** All mines in the following counties (formerly defined as Coal-

Producing Districts 1, 3, & 6): Barbour, Brooke, Braxton, Calhoun, Doddridge, Gilmer, Grant, Hancock, Harrison, Jackson, Lewis, Marion, Marshall, Mineral, Monongalia, Ohio, Pleasants, Preston, Randolph, Ritchie, Roane, Taylor, Tucker, Upshur, Webster, Wetzel, Wirt, and Wood.

• **West Virginia, Southern** All mines in the following counties (formerly defined as Coal-Producing Districts 7 & 8): Boone, Cabell, Clay, Fayette, Greenbrier, Kanawha, Lincoln, Logan, Mason, McDowell, Mercer, Mingo, Monroe, Nicholas, Pocahontas, Putnam, Raleigh, Summers, Wayne, and Wyoming.

Coal Rank/Group: A classification of coal based on fixed carbon, volatile matter, calorific (heating) value, and agglomerating character. Coal is ranked progressively from lignite (least carbonaceous) to anthracite (most carbonaceous). The rank of coal can also be determined by measuring the reflectance of vitrinite, one of several organic components of coal. The lower rank coal can be classified based on heat content. The heat content of the higher rank coals is generally above 14 thousand Btu per pound for each coal rank group (except for meta-anthracite, which trends slightly lower), and heat content ranges vary within a relatively narrow range. Since heat content is not a dependable criterion for these higher rank coals, their rank categories are instead described by degree of metamorphism, or "coalification," a property that is measured by fixed carbon content. Finally, the agglomerating character of bituminous coals is a critical attribute for certain coal consumers, and thus agglomerating character has come to define the distinctions between certain adjacent coal groups. Some high-volatile C bituminous and subbituminous A coals can be distinguished only on the basis of agglomerating character. Percentages are based on dry mineral-matter-free coal. Volatile matter (not shown) is the complement of fixed carbon; that is, the percentages of fixed carbon and volatile matter sum to 100 percent. As fixed carbon percentage decreases, therefore, volatile matter percentage increases by the same amount.

Coal Stocks: The supply of coal at a mine, plant, or utility at the end of the reporting period.

Coalbed: A bed or stratum of coal. Also called a coal seam.

Cogenerator: A generating facility that produces electricity and another form of useful thermal energy (such as heat or steam) used for industrial, commercial, heating, and cooling purposes. To receive status as a qualifying facility (QF) under the Public Utility Regulatory Policies Act (PURPA), the facility must produce electric energy and "another form of useful thermal energy through the sequential use of energy," and meet certain ownership, operating, and efficiency criteria established by the Federal Energy Regulatory Commission (FERC). (See the Code of Federal Regulation, Title 18, Part 292.)

Coke (coal): In general, coke is made from bituminous coal (or blends of bituminous coal) from

which the volatile constituents are driven off by baking in an oven at temperatures as high as 2,000 degrees Fahrenheit, so that the fixed carbon and ash are fused together. Coke is hard and porous, has a gray, submetallic luster, and is strong enough to support a load of iron ore in a blast furnace. It is used both as a fuel and a reducing agent in smelting iron ore in a blast furnace. Coke has a heating value of 24.8 million Btu per short ton.

Coke Plants: Plants where coal is carbonized in slot or beehive ovens for the manufacture of coke.

Continuous Mining: A form of room-and-pillar mining in which a continuous mining machine extracts and removes coal from the working face in one operation; no blasting is required.

Conventional Mining: The oldest form of room-and-pillar mining which consists of a series of operations that involve cutting the coalbed so it breaks easily when blasted with explosives or high-pressure air, and then loading the broken coal.

Cost, Insurance, Freight (CIF): A type of sale in which the buyer of the product agrees to pay a unit price that includes the F.O.B. value of the product at the point of origin plus all costs of insurance and transportation. This type of transaction differs from a "delivered" purchase in that the buyer accepts the quantity as determined at the loading port (as certified by the Bill of Lading and Quality Report) rather than pay on the basis of the quantity and quality ascertained at the unloading port. It is similar to the terms of an F.O.B. sale, except that the seller, as a service for which he is compensated, arranges for transportation and insurance.

Crude Oil: A mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite and oil shale. Drip gases are also included, but topped crude (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following: or from its "outer continental shelf" as defined in 43 U.S.C. 1331. States. Imported Athabasca hydrocarbons are included.

Culm: Waste from Pennsylvania anthracite preparation plants, consisting of coarse rock fragments containing as much as 30 percent small-sized coal; sometimes defined as including very fine coal particles called silt. Its heat value ranges from 8 to 17 million Btu per short ton.

Customs District: Customs districts, as defined by the Bureau of the Census, U.S. Department of Commerce, "Monthly Report EM 545," are as follows

• **Eastern:** Bridgeport, CT, Washington, DC, Boston, MA, Baltimore, MD, Portland, ME, Buffalo, NY, New York City, NY, Ogdensburg,

NY, Philadelphia, PA, Providence, RI, Norfolk, VA, St. Albans, VT.

- **Southern:** Mobile, AL, Savannah, GA, Miami, FL, Tampa, FL, New Orleans, LA, Wilmington, NC, San Juan, PR, Charleston, SC, Dallas-Fort Worth, TX, El Paso, TX, Houston-Galveston, TX, Laredo, TX, Virgin Islands.
- **Western:** Anchorage, AK, Nogales, AZ, Los Angeles, CA, San Diego, CA, San Francisco, CA, Honolulu, HI, Great Falls, MT, Portland, OR, Seattle, WA.
- **Northern:** Chicago, IL, Detroit, MI, Duluth, MN, Minneapolis, MN, St. Louis, MO, Pembina, ND, Cleveland, OH, Milwaukee, WI.

Demonstrated Reserve Base: A collective term for the sum of coal in both measured and indicated resource categories of reliability which represents 100 percent of the coal in these categories in place as of a certain date. Includes beds of bituminous coal and anthracite 28 inches or more thick and beds of subbituminous coal 60 inches or more thick that occur at depths to 1 thousand feet. Includes beds of lignite 60 inches or more thick that can be surface mined. Includes also thinner and/or deeper beds that presently are being mined or for which there is evidence that they could be mined commercially at this time. Represents that portion of the identified coal resource from which reserves are calculated.

Depletion: The subtraction of both the tonnage produced and the tonnage lost to mining from identified resources to determine the remaining tonnage as of a certain time.

Depletion Factor: The multiplier applied to the tonnage produced to compute depletion. This multiplier takes into account both the tonnage recovered and the tonnage lost due to mining. The depletion factor is the reciprocal of the recovery factor in relation to a given quantity of production.

Direct Labor Hours: Direct labor hours worked by all mining employees at a mining operation during the year. Includes hours worked by those employees engaged in production, preparation, development, maintenance, repair, shop or yard work, management, and technical or engineering work. Excludes office workers. Excludes vacation and leave hours.

Distillate Fuel Oil: A general classification for one of the petroleum fractions produced in conventional distillation operations. Included are products known as No.1, No.2, and No.4 fuel oils and No.1, No.2, and No.4 diesel fuels. It is used primarily for space heating, on-and-off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation.

Dredge Mining: A method of recovering coal from rivers or streams.

Drift Mine: An underground mine that has a horizontal entry dug to a coalbed in a hillside.

Dry (Coal) Basis: Coal quality data calculated to a theoretical basis in which no moisture is associated with the sample. This basis is determined by measuring the weight loss of a sample when its inherent moisture is driven off under controlled conditions of low temperature air-drying followed by heating to just above the boiling point of water (104 to 110 degrees centigrade).

Electricity: A form of energy generated by friction, induction, or chemical change that is caused by the presence and motion of elementary charged particles of which matter consists.

Electricity Generation: The process of producing electric energy or transforming other forms of energy into electric energy. Also the amount of electric energy produced or expressed in watthours (Wh).

Electricity Generation, Gross: The total amount of electric energy produced by the generating station or stations, measured at the generator terminals.

Electricity Generation, Net: Gross generation less electricity consumed at the generating plant for station use. Electricity required for pumping at pumped-storage plants is regarded as plant use and is deducted from gross generation.

Electric Power Plant: A station containing prime movers, electric generators, and auxiliary equipment for converting mechanical, chemical, and/or fission energy into electric energy.

Electric Utility: A corporation, person, agency, authority, or other legal entity or instrumentality that owns and/or operates facilities within the United States, its territories, or Puerto Rico for the generation, transmission, distribution, or sale of electric energy primarily for use by the public and files forms listed in the Code of Federal Regulations, Title 18, Part 141. Facilities that qualify as cogenerators or small power producers under the Public Utility Regulatory Policies Act (PURPA) and exempt wholesale generators under Energy Policy Act of 1992 are not considered electric utilities. See definition of non-utility power producer.

Electric Utility Sector: The electric utility sector consists of privately and publicly owned establishments that generate, transmit, distribute, or sell electricity primarily for use by the public and that meet the definition of an electric utility. Nonutility power producers are not included in the electric utility sector.

Emissions: The pollutants discharged into the atmosphere in exhaust gases. For coal-burning plants, these emissions are primarily Carbon Dioxide (CO_2), Nitrogen Oxide (NO_x), and Sulfur Dioxide (SO_2).

Energy: The capacity for doing work as measured by the capability of doing work (potential energy) or the conversion of this capability to motion (kinetic energy). Energy has several forms, some of which are easily convertible and can be changed to another form useful for work. Most of the world's convertible

energy comes from fossil fuels that are burned to produce heat that is then used as a transfer medium to mechanical or other means in order to accomplish tasks. Electrical energy is usually measured in kilowatthours, while heat energy is usually measured in British thermal units.

Energy Consumption: The use of energy as a source of heat or power or as an input in the manufacturing process.

Exports: Shipments of goods from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Fahrenheit: A temperature scale on which the boiling point of water is at 212 degrees above zero on the scale and the freezing point is at 32 degrees above zero at standard atmospheric pressure.

F.A.S. Value: Free alongside ship value. The value of a commodity at the port of exportation, generally including the purchase price plus all charges incurred in placing the commodity alongside the carrier at the port of exportation in the country of exportation.

Federal Energy Regulatory Commission (FERC): A quasi-independent regulatory agency within the Department of Energy having jurisdiction over interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, oil pipeline rates, and gas pipeline certification.

Federal Coal Lease: A lease granted to a mining company to produce coal from land owned and administered by the Federal Government in exchange for royalties and other revenues.

Federal Power Act: Enacted in 1920, and amended in 1935, the Act consists of three parts. The first part incorporated the Federal Water Power Act administered by the former Federal Power Commission, whose activities were confined almost entirely to licensing non-Federal hydroelectric projects. Parts II and III were added with the passage of the Public Utility Act. These parts extended the Act's jurisdiction to include regulating the interstate transmission of electrical energy and rates for its sale as wholesale in interstate commerce. The Federal Energy Regulatory Commission is now charged with the administration of this law.

Federal Power Commission: The predecessor agency of the Federal Energy Regulatory Commission. The Federal Power Commission (FPC) was created by an Act of Congress under the Federal Water Power Act on June 10, 1920. It was charged originally with regulating the electric power and natural gas industries. The FPC was abolished on September 20, 1977, when the Department of Energy was created. The functions of the FPC were divided between the Department of Energy and the Federal Energy Regulatory Commission.

FERC: The Federal Energy Regulatory Commission.

Fixed Carbon: The nonvolatile matter in coal minus the ash. Fixed carbon is the solid residue other than ash obtained by prescribed methods of destructive distillation of a coal. Fixed carbon is the part of the total carbon that remains when coal is heated in a closed vessel until all volatile matter is driven off.

Flue Gas Desulfurization Unit (Scrubber): Equipment used to remove sulfur oxides from the combustion gases of a boiler plant before discharge to the atmosphere. Chemicals, such as lime, are used as the scrubbing media.

Flue Gas Particulate Collectors: Equipment used to remove fly ash from the combustion gases of a boiler plant before discharge to the atmosphere. Particulate collectors include electrostatic precipitators, mechanical collectors (cyclones), fabric filters (baghouses), and wet scrubbers.

F.O.B. Mine Price: The free on board mine price. This is the price paid for coal at the mining operation site. It excludes freight or shipping and insurance costs.

Foreign-Controlled Firms: Foreign-controlled firms are U.S. coal producers with more than 50 percent of their stock or assets owned by a foreign firm.

Fossil-Fuel Electric Generation: Electric generation in which the prime mover is a turbine rotated by high-pressure steam produced in a boiler by heat from burning fossil fuels.

Geothermal Energy: Energy from the internal heat of the earth, which may be residual heat, friction heat, or a result of radioactive decay. The heat is found in rocks and fluids at various depths and can be extracted by drilling and/or pumping.

Greenhouse Effect: The increasing mean global surface temperature of the earth caused by gases in the atmosphere (including carbon dioxide, methane, nitrous oxide, ozone, and chlorofluorocarbon). The greenhouse effect allows solar radiation to penetrate but absorbs the infrared radiation returning to space.

Gross Domestic Product (GDP): The total value of goods and services produced by labor and property in the United States. As long as the labor and property are located in the United States, the supplier (that is, the workers and, for property, the owners) may be either U.S. residents or residents of foreign countries.

Hand Loading: An underground loading method by which coal is removed from the working face by manual labor through the use of a shovel for conveyance to the surface. Though rapidly disappearing, it is still used in very small-tonnage mines.

Highwall: the unexcavated face of exposed overburden and coal in a surface mine.

High-Volatile A Bituminous Coal: See Bituminous coal.

High-Volatile B Bituminous Coal: See Bituminous coal.

High-Volatile C Bituminous Coal: See Bituminous coal.

High-Volatile (specific sub-group unknown): See Bituminous coal.

Hydroelectric Power: The harnessing of flowing water to produce mechanical or electrical energy.

Implicit Price Deflator: The implicit price deflator, published by the U.S. Department of Commerce, Bureau of Economic Analysis, is used to convert nominal figures to real figures.

Imports: Receipts of goods into the 50 States and the District of Columbia from foreign countries and from Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Indian Coal Lease: A lease granted to a mining company to produce coal from Indian lands in exchange for royalties and other revenues; obtained by direct negotiation with the Indians, but subject to approval and administration by the U.S. Department of the Interior.

Industrial Sector: The industrial sector comprises manufacturing industries which make up the largest part of the sector, along with mining, construction, agriculture, fisheries, and forestry. Establishments in the sector range from steel mills, to small farms, to companies assembling electronic components. The SIC codes used to classify establishments as industrial are 1 through 39.

Interquartile Range: The interquartile range is the range within which the middle 50 percent of observations are concentrated. See Appendix D, Section "Interquartile Range."

Jet Fuel: The term includes kerosene-type jet fuel and naphtha-type jet fuel. Kerosene-type jet fuel is a kerosene-quality product used primarily for commercial turbojet and turboprop aircraft engines. Naphtha-type jet fuel is a fuel in the heavy naphthas range used primarily for military turbojet and turboprop aircraft engines.

Lease Condensate: A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Lignite: A brownish-black coal of low rank with high inherent moisture and volatile matter (used almost exclusively for electric power generation). Similar coal in Europe and Australia are also referred to as brown coal. Lignite comprises two groups classified according to the following ASTM Specification D-388-91a for calorific values on a moist mineral-matter-free basis:

		Limits Btu/lb.	
		GE	LT
Lignite A		6300	8300
Lignite B		-	6300
GE = Greater than or equal to			
LT = Less than			
Lignite is non-agglomerating.			

Lignite A: See Lignite.

Lignite B: See Lignite.

Longwall Mining: A form of underground coal mining which is gaining in importance in the United States and can be used at greater depths than room-and-pillar mining. In longwall mining, a cutting machine is pulled back and forth across a panel of coal 300 to 600 feet wide and as much as a mile long, with the broken coal moved by conveyor. Longwall mining is done under movable roof supports that are advanced as the bed is cut. The roof in the mined-out area is allowed to fall as the mining advances.

Low-Volatile Bituminous Coal: See Bituminous Coal.

Major Coal-Producing States: Any State that produces more than 12 million short tons of coal during the year.

Manufacturing (except coke plants): Those industrial users/plants, not including coke plants, that are engaged in the mechanical or chemical transformation of materials or substances into new (i.e., finished or semifinished) products. Includes coal used for gasification/liquifaction.

Medium-Volatile Bituminous Coal: See Bituminous Coal.

Merchant Coke Plant: A coke plant where coke is produced primarily for sale on the commercial (open) market.

Meta-Anthracite: See Anthracite.

Metallurgical Coal: Coal that meets the requirements for making coke. It must be low in ash and sulfur and form a coke that is capable of supporting the charge of iron ore and limestone in a blast furnace. A blend of two or more bituminous coals is usually required to make coke.

Metric Ton: A unit of weight equal to 2,204.6 pounds.

Mine Type: See Surface Mine and Underground Mine.

Mineral-Matter-Free Basis: Mineral matter in coal is the parent material in coal from which ash is derived, and which comes from minerals present in the original plant materials that formed the coal, or from extraneous sources such as sediments and precipitates from mineralized water is called the mineral matter. Mineral matter in coal cannot be analytically determined and is commonly calculated using data on

ash and ash-forming constituents. Coal analyses are calculated to the mineral-matter-free basis by adjusting formulas used in calculations in order to deduct the weight of mineral matter from the total coal.

Moist (Coal) Basis: "Moist" coal contains its natural inherent or bed moisture, but does not include water adhering to the surface. Coal analyses expressed on a moist basis are performed or adjusted so as to describe the data when the coal contains only that moisture which exists in the bed in its natural state of deposition, and when the coal has not lost any moisture due to drying.

Naphtha: A genetic term applied to a petroleum fraction with an approximate boiling range between 122 and 400 degrees fahrenheit.

Natural Gas: A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas (Dry): The marketable portion of natural gas production, which is obtained by subtracting extraction losses, including natural gas liquids removed at natural gas processing plants, from total production.

Natural Gas Plant Liquids (NGPL): Natural gas liquids recovered from natural gas in processing plants and, in some situations, from natural gas field facilities, as well as those extracted by fractionators. Natural gas plant liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials as follows: ethane, propane, normal butane, isobutane, pentanes plus, and other products from natural gas processing plants (i.e., products meeting the standards for finished petroleum products produced at natural gas processing plants, such as finished motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Nitrogen Oxide: NO_x . A gas formed in high-temperature environments when nitrogen and oxygen are present together. This typically occurs in a combustion chamber such as those in fossil-fuel burning electric utilities. Nitrogen oxide emissions are a contributor to acid rain.

Nominal Price: The price paid for a product or service at the time of the transaction. The nominal price, which is expressed in current dollars, is not adjusted to remove the effect of changes in the purchasing power of the dollar.

Nonutility Power Producers: A corporation, person, agency, authority, or other legal entity or instrumentality that owns electric generating capacity and is not an electric utility. Nonutility power producers include qualifying cogenerators, qualifying small-power producers, and other nonutility generators (including independent power producers) without a designated franchised service area and which do not

file forms listed in the Code of Federal Regulations, Title 18, Part 141. (See Electric Utility.)

Nuclear Electric Power: Electricity generated by an electric power plant whose turbines are driven by steam generated in a reactor by heat from the fissioning of nuclear fuel.

Number of Mines: The number of mines, or mines collocated with preparation plants or tipples, located in a particular geographic area (State or region). If a mine is mining coal across two counties within a State, or across two States, then it is counted as two operations. This is done so that EIA can separate production by State and county.

Number of Mining Operations: The number of mining operations includes preparation plants with greater than 5,000 total direct labor hours. Mining operations that consist of a mine and preparation plant or a preparation plant only will be counted as two operations, if the preparation plant processes both underground and surface coal. Excluded are silt, culm, refuse bank, slurry dam, and dredge operations except for Pennsylvania anthracite. Excludes mines producing less than 10,000 short tons of coal during the year, and preparation plants with less than 5,000 employee hours.

Open Market Coal: Coal sold in the open market, i.e., coal sold to companies other than the reporting company's parent company or an operating subsidiary of the parent company.

Operating Subsidiary: A company which is controlled through the ownership of voting stock, or a corporate joint venture in which a corporation is owned by a small group of businesses as a separate and specific business or project for the mutual benefit of the members of the group.

Other Industrial Plant: Industrial users, not including coke plants, engaged in the mechanical or chemical transformation of materials or substances into new products (manufacturing); and companies engaged in the agriculture, mining, or construction industries.

Other Unions: See Union Type.

Overburden: Any material, consolidated or unconsolidated, that overlies a coal deposit.

Parent Company: A company which solely or jointly owns the reporting company and which is not itself a subsidiary of, or owned by, another company.

Percent Utilization: The ratio of total production to productive capacity, times 100.

Petroleum: Petroleum includes residential and distillate fuel oils, crude oil, and all other petroleum fuels, excluding petroleum coke.

Petroleum Coke: A residue that is the final product of the condensation process in cracking. The product

is either marketable petroleum coke or catalyst petroleum coke.

Petroleum Products: Products obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Photovoltaic and Solar Thermal Energy (as used at electric utilities): Energy radiated by the sun as electromagnetic waves (electromagnetic radiation) that is converted at electric utilities into electricity by means of solar (photovoltaic) cells or concentrating (focusing) collectors.

Preparation Plant: A mining facility at which coal is crushed, screened, and mechanically cleaned.

Producer and Distributor Coal Stocks: Producer and distributor coal stocks consist of coal held in stock by producers/distributors at the end of a reporting period.

Productive Capacity: The maximum amount of coal that a mining operation can produce or process during a period with the existing mining equipment and/or preparation plant in place, assuming that the labor and materials sufficient to utilize the plant and equipment are available, and that the market exists for the maximum production.

Quadrillion Btu: 10^{15} Btu.

Real Price: A price that has been adjusted to remove the effect of changes in the purchasing power of the dollar. Real prices, which are expressed in constant dollars, usually reflect buying power relative to a base year.

Recoverable Coal Reserves at Mines: The quantity of coal that can be recovered (i.e., mined) from existing coal reserves, as reported on Form EIA-7A.

Recoverable Reserves of Coal: An estimate of the amount of coal that can be recovered (mined) from the accessible reserves of the demonstrated reserve base.

Recovery Percentage: The percentage of coal that can be recovered from the coal deposits at existing mines.

Refuse Bank: A repository for waste material generated by the coal cleaning process.

Refuse Mine: A surface mine where coal is recovered from previously mined coal. It may also be known as a silt bank, culm bank, refuse bank, slurry dam, or dredge operation.

Report Year: The calendar year beginning at 12:00 a.m. January 1 and ending at 11:59 p.m. December 31.

Residential and Commercial Sector: Housing units; wholesale and retail businesses (except coal wholesale dealers); health institutions (hospitals); social and educational institutions (schools and universities); and Federal, State, and local governments (military installations, prisons, office buildings).

Residual Fuel Oil: The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations and that conform to ASTM Specifications D396 and 975. Included are No. 5, a residual fuel oil of medium viscosity; Navy Special, for use in steam-powered vessels in government service and in shore power plants; and No. 6, which includes Bunker C fuel oil and is used for commercial and industrial heating, electricity generation, and to power ships. Imports of residual fuel oil include imported crude oil burned as fuel.

Room-and-Pillar Mining: The most common method of underground mining in which the mine roof is supported mainly by coal pillars left at regular intervals. Rooms are places where the coal is mined; pillars are areas of coal left between the rooms. Room-and-pillar mining is done either by conventional or continuous mining.

Royalties: Payments, in money or kind, of a stated share of production from mineral deposits, by the lessee to the lessor. Royalties may be an established minimum, a sliding-scale, or a step-scale. A step-scale royalty rate increases by steps as the average production on the lease increases. A sliding-scale royalty rate is based on average production and applies to all production from the lease.

Sales Volume: The reported output from Federal and/or Indian lands, the basis of royalties. It is approximately equivalent to production, which includes coal sold, and coal added to stockpiles.

Scoop Loading: An underground loading method by which coal is removed from the working face by a tractor unit equipped with a hydraulically operated bucket attached to the front; also called a front-end loader.

Semianthracite: See Anthracite.

Shaft Mine: An underground mine that reaches the coalbed by means of a vertical shaft. In addition to the passages providing entry to the coalbed, a network of other passages are also dug, some to provide access to various parts of the mine and some for ventilation.

Short Ton: A unit of weight equal to 2,000 pounds.

Shortwall Mining: A form of underground mining that involves the use of a continuous mining machine and movable roof supports to shear coal panels 150 to 200 feet wide and more than half a mile long. Although similar to longwall mining, shortwall mining is generally more flexible because of the smaller working area. Productivity is lower than with

longwall mining because the coal is hauled to the mine face by shuttle cars as opposed to conveyors.

SIC: See Standard Industrial Classification.

Silt: Waste from Pennsylvania anthracite preparation plants, consisting of coarse rock fragments containing as much as 30 percent small-sized coal; sometimes defined as including very fine coal particles called silt. Its heat value ranges from 8 to 17 million Btu per short ton. Synonymous with culm.

Silt, Culm Refuse Bank, or Slurry Dam Mining: A mining operation producing coal from these sources of coal. (See refuse mine.)

Slope Mine: An underground mine in which the entry is driven at an angle to reach the coal deposit.

Slurry Dam: A repository for the silt or culm from a preparation plant.

Solar Energy: The radiant energy of the sun, which can be converted into other forms of energy, such as heat or electricity.

Solar Thermal Collector: A device designed to receive solar radiation and convert it into thermal energy. Normally, a solar thermal collector includes a frame, glazing, and an absorber, together with appropriate insulation. The heat collected by the solar thermal collector may be used immediately or stored for later use.

Standard Industrial Classification (SIC): A set of codes developed by the Office of Management and Budget which categorizes industries to groups with similar economic activities.

Steam Coal: All noncoking coal.

Stocks: The supply of coal or coke at a mine, plant, or utility at the end of the reporting period.

Strategic Petroleum Reserve (SPR): Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Strip (Surface) Mining: A method used on flat terrain to recover coal by mining long strips successively. The material excavated from the strip being mined is deposited in the strip previously mined.

Subbituminous Coal: A dull black coal of rank intermediate between lignite and bituminous, consisting of subbituminous A coal, subbituminous B coal, and subbituminous C coal, classified according to the following ASTM Specification D-388-91a on a moist mineral-matter-free basis:

	Calorific Value Limits Btu/lb.	
	GE	LT
Subbituminous A Coal	10500	11500
Subbituminous B Coal	9500	10500
Subbituminous C Coal	8300	9500
GE = Greater than or equal to		
LT = Less than		
Subbituminous coal is non-agglomerating.		

Subbituminous A Coal: See Subbituminous Coal.

Subbituminous B Coal: See Subbituminous Coal.

Subbituminous C Coal: See Subbituminous Coal.

Sulfur: One of the elements present in varying quantities in coal that contributes to environmental degradation when coal is burned. In terms of sulfur content by weight, coal is generally classified as low (less than or equal to 1 percent), medium (greater than 1 percent and less than or equal to 3 percent), and high (greater than 3 percent). Sulfur content is measured as a percent by weight of coal on an "as received" or a "dry" (moisture-free, usually part of a laboratory analysis) basis.

Sulfur Dioxide: SO_2 . A caustic, corrosive gas that is a by-product of combustion and emissions from fossil-fuel burning electric utility plants. The primary agent in the production of acid rain.

Supplemental Gaseous Fuels: Any gaseous substance that, introduced into or commingled with natural gas, increases the volume available for disposition. Such substances include, but are not limited to, propane-air, refinery gas, coke oven gas, still gas, manufactured gas, biomass gas, or air or inert gases added for Btu stabilization.

Surface Mine: A coal-producing mine that is usually within a few hundred feet of the surface. Earth and rock above or around the coal (overburden) is removed to expose the coalbed, which is then mined with surface excavation equipment such as draglines, power shovels, bulldozers, loaders, and augers. It may also be known as an area, contour, open-pit, strip, or auger mine.

Tipple: A central facility used in loading coal for transportation by rail or truck.

Transportation Sector: The transportation sector consists of private and public vehicles that move people and commodities. Included are automobiles, trucks, buses, motorcycles, railroads and railways (including streetcars), aircraft, ships, barges, and natural gas pipelines.

Underground Mine: A mine where coal is produced by tunneling into the earth to the coalbed, which is then mined with underground mining equipment such as cutting machines and continuous, longwall, and shortwall mining machines. Underground mines are classified according to the type of opening used to

reach the coal, i.e., drift (level tunnel), slope (inclined tunnel), or shaft (vertical tunnel).

Unfinished Oils: All oils requiring further refinery processing, except those requiring only mechanical blending. Includes naphthas and lighter oils, kerosene and light gas oils, heavy gas oils, and residuum.

Union Type: Union type consists of United Mine Workers of America (UMWA), and the following "Other Union" types: Southern Labor Union (SLU), Appalachian Miners of America (AMA), Scotia Employees Association (SEA), International Union of Operation Engineers (IUOE), Utility Workers of America (UWA), Progressive Mine Workers Association (PMWA), International Brotherhood of Electrical Workers (IBEW), International Chemical Workers Union (ICWU), Redstone Workers Association (RWA), Chariton Valley Independent Union (CVIU), American Federation of Labor - Congress of Industrial Organization (AFL-CIO), Labors International (LABO), Crow Hollow Miners (CROW), Coal Strippers (COAL), United Steel Workers (USW), Independent Miners Association (IMA), Independent Union (INUN), Independence Miners, Brokers, and Truckers Association (IMBT), Council of Southern Mountains (CSM), International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers Union (TEAM), Thompson Creek Workers Association (TCWA), United Brotherhood of Clay Workers (UBCW), Wilmot Employees Independent Union (WEIU), Independent Strip Miners Union (ISMU), Independent Miners (IM), Independent Workers (IW), Coal Strippers Union (CSU), Independent Miners Union (IMU), Independent Coal Workers (ICW), Independent Strip Mining Workers (ISMW), Independent Strip Union (ISU), Association of Bituminous Contractors (ABC), Arch Minerals Employees Associ-

ation (AMEA), United Paperworkers International Union (UPIU), Welch Miners Union (WMU), Falcon Coal Employees Association (FCEA), Justus Employees Association (JEA), International Construction Union (ICU), Brotherhood of Miners (BOM), Western Energy Workers (WEW), Carlin Independent Union (CIU), International Association of United Workers Union (IAWU), and Stove, Furnace and Allied Appliance Workers International Union of N. A. (SFAW).

U.S. Coal Exports: Amount of U.S. coal shipped to foreign destinations, as reported in the U.S. Department of Commerce, Bureau of Census, "Monthly Report EM 545."

U.S. Coal Imports: Amount of foreign coal shipped to the United States, as reported in the U.S. Department of Commerce, Bureau of the Census, "Monthly Report IM 145."

Wind Energy (as used at electric utilities): The kinetic energy of wind converted at electric utilities into mechanical energy by wind turbines (i.e., blades rotating from the hub) that drive generators to produce electricity for distribution.

Wood and Waste (as used at electric utilities): Wood energy, garbage, bagasse, sewerage gas, and other industrial, agricultural, and urban refuse used to generate electricity for distribution.

Volatile Matter: Those products, exclusive of moisture, given off by a material as gas or vapor. Volatile matter is determined by heating the coal to 950 degrees centigrade under carefully controlled conditions and measuring the weight loss, excluding weight of moisture driven off at 105 degrees centigrade.