

Annual Coal Report

2003

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Preface

The *Annual Coal Report* (ACR) provides information about U.S. coal production, number of mines, prices, productivity, employment, productive capacity, and recoverable reserves to a wide audience, including Congress, Federal and State agencies, the coal industry, and the general public. This report is published by the Energy Information Administration (EIA) to fulfill data collection and dissemination responsibilities as specified in the Federal Energy Administration Act of 1974 (Public Law 93-275), as amended.

This report presents annual data on coal production, prices, recoverable reserves, employment, productivity, productive capacity, consumption, and stocks. U.S. coal production, employment, and productivity are based on the U.S. Department of Labor's Mine Safety and Health Administration's Form 7000-2, "Quarterly Mine

Employment and Coal Production Report." Prices, recoverable reserves, and productive capacity are based on EIA's annual survey form, EIA-7A, "Coal Production Report."

This report is the 28th 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 acknowledges the cooperation of the respondents in supplying the information published in the *Annual Coal Report* and appreciates the valuable assistance of State coal mining agencies and the U.S. Department of Labor, Mine Safety and Health Administration.

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Executive Summary

U.S. coal production fell for the second year in a row in 2003, declining by 22.5 million short tons to end the year at 1,071.8 million short tons, according to data from the Energy Information Administration (Table ES1), down 2.1 percent from the 2002 level of 1,094.3 million short tons. (Note: All percentage change calculations are done at the short ton level.) Total U.S. coal consumption rose in 2003, with all but one coal-consuming sector increasing for the year. Coal consumption in the electric power sector increased by 2.7 percent. However, there were only slight gains in consumption by most of the other sectors. Consumer coal stocks declined during the year, as consumers used their stockpiles to help meet increased demands that were experienced in 2003.

In 2003 the rebounding economy, coupled with the slightly warmer than normal summer experienced in the western part of the country, helped to drive up the demand for coal during the year. Although preliminary data show that total electricity generation decreased by 0.2 percent in 2003, coal-based generation increased by 1.6 percent, resulting in a 26.8-million-short-ton increase in coal consumed in the electric power sector. Total coal use in the non-electricity sector (coke plants, other industrial plants, and the residential and commercial sectors) rose by 1.8 percent to a level of 90.4 million short tons.

The average delivered price of coal increased in the electric utility sector (a subset of the electric power sector), while declining in the coking coal and other industrial sectors in 2003. The electric utility price increase was 2.2 percent, while the decrease was less than 0.1 percent for coking coal prices, and 2.2 percent for the other industrial sector.

Production

U.S. coal production decreased in 2003 by 2.1 percent to a level of 1,071.8 million short tons (Figure ES1 and Table ES1), a production level just slightly above the 1996 level of 1063.9 million short tons. For the first time since 2000, all three coal-producing regions declined for the year, with a slight drop in production in the Interior and Western Regions, while the large decline in Appalachia accounted for over 89 percent of the total decrease in U.S. coal production (Figure ES2 and Table ES2). As coal demand increased during the year, the decrease in U.S. coal production in 2003 of 22.5 million short tons was offset by a decrease in both consumer and producer stockpiles of 26.9 million short tons.

There were several issues that had an impact on coal production in 2003. Some of them were minor and had temporary effects (weather and transportation), while some

were major and could affect the coal industry well into the future (legal and financial).

Among the minor issues were weather (rain or the lack thereof), transportation bottlenecks, and a one-day disruption in the electric power grid. The weather played a part in some of the transportation bottlenecks. The lack of rain led to low water levels in the river transportation system, in particular on the Mississippi River in January and again in August, which resulted in delayed coal barge shipments. There were severe rains in the Powder River Basin in June that impacted both coal production (causing some mine pit flooding and collapsing highwalls) and transportation (delays in train deliveries). Rail congestion problems continued to occur periodically in some States in the Western Region during the year. In August of 2003, there was an electricity blackout that affected over 50 million customers in the northeast United States and portions of Canada.

The major issues that had an effect on coal production in 2003 were primarily legal and financial, but also included operational problems. Legal issues continue to swirl around all aspects of the coal industry. The industry was still mired in the aftereffects of some actions that had been working their way through the legal system for several years, as well as some new legal challenges that occurred during the year.

The subject of increasing the legal weight of coal trucks used to transport coal in southern West Virginia was resolved in 2003, with an increase in the amount of coal that trucks could transport on designated highways. Also, with the circuit court overturning the suspension in the issuing of permits by the Army Corps of Engineers office in Huntington, West Virginia (covering eastern Kentucky, Ohio, and southern West Virginia), the resumption in the permitting system was slowed due to the backlog that had occurred while the lawsuit progressed through the legal system. The backlog contributed to the delay in the opening of new mines in that area with the renewal of existing permits taking precedence.

Also, there were new legal challenges to the coal industry in 2003. A new lawsuit was filed over the level of environmental review needed in the permitting system process as well as new challenges to the New Source Review program requirements for power plants. A coalition of environmental groups filed a lawsuit stating that all applications for permits should get full environmental review, while a coalition of several States and local governments sued the Environmental Protection Agency (EPA) to block the implementation of the new rule published at the end of October.

Table ES1. U.S. Coal Supply, Disposition, and Prices, 2002-2003
(Million Short Tons and Dollars per Short Ton)

Item	2002	2003
Production by Region		
Appalachian	396.2	376.0
Interior	146.6	146.0
Western	550.4	548.7
Refuse Recovery	1.0	1.1
Total	1,094.3	1,071.8
Consumption by Sector		
Electric Power	977.5	1,004.3
Coke Plants	23.7	24.2
Other Industrial Plants	60.7	62.0
Residential/Commercial	4.4	4.2
Total	1,066.4	1,094.7
Year-End Coal Stocks		
Electric Power	141.7	121.4
Coke Plants	1.4	1.0
Other Industrial Plants	5.8	4.7
Producers/Distributors	43.3	38.3
Total	192.1	165.3
Average Delivered Price		
Electric Utilities	\$24.74	\$25.29
Independent Power Producers	\$27.96	\$27.02
Coke Plants	\$50.67	\$50.63
Other Industrial Plants	\$35.49	\$34.70

Notes: Totals may not equal sum of components due to independent rounding. Sum of stock changes and consumption may not equal production, primarily because the supply and disposition data are obtained from different surveys.

Sources: Energy Information Administration, *Annual Coal Report 2003*, tables 1; 26; 27; and 34; DOE/EIA-0584 (2003) (Washington, DC, September 2004); *Electric Power Monthly*, April 2004, table 4.3; DOE/EIA-0226 (2004/04).

Bankruptcies continued to exert their influence on the coal industry as several producers and a few consumers were still trying to emerge from Chapter 11 during the year and another mid-sized coal company filed for bankruptcy protection in 2003 as it tried to realign its finances. The year also saw the continuing effort of several companies trying to exit the coal business by selling their mining interests to other parties. Adverse geological conditions and equipment problems continue to trouble some mining operations in both the Appalachian and Western Regions, while underground fires in Appalachia caused some mining operations to temporarily suspend production during 2003.

Appalachian Region

Although there was a slight increase in U.S. coal exports

in 2003 (which are primarily produced in the East), the Appalachian region experienced another decline in coal production, the fifth drop in the last six years. Coal production in the Appalachian Region declined in 2003 to a total of 376.0 million short tons, the lowest level seen since 1978, when coal production was curtailed by a United Mine Workers of America strike which lasted from December 6, 1977, to March 25, 1978.

The decline in coal production in 2003 in the Appalachian Region was a result of several factors. The legacy of past lawsuits, that had temporarily halted the issuance of needed permits to open new mines, continued to constrain the amount of coal produced. Bankruptcies continued to plague Appalachia as another mid-sized coal company filed for Chapter 11 in early 2003, while several other coal companies were still working through their bankruptcy processes. Geological problems and underground mine fires added to the decline in coal production in some Appalachian States. Finally, several

mines closed as they reached the end of their reserve base adding to the continuing reserve depletion that is affecting coal production in the East. Declining productivity and increasing labor costs also contributed to lower production levels in the region.

West Virginia, the largest coal-producing State in the Appalachian Region and the second largest in the United States, declined 6.9 percent to end the year with 139.7 million short tons of production, a level not seen since 1993. The Pinnacle mine was closed in the fall of 2003 as a consequence of ventilation problems and was unable to produce coal for the rest of the year, while a fire in the Loveridge underground mine early in the year disrupted its production for some time. Geological problems slowed production at other mines in the State, while depleted reserves led to the closure of some mines. Four other million-ton mines, Windsor, Lightfoot No. 2, Triad No. 1, and Fourmile Fork, were placed into a non-producing status in 2003 as a result of either the bankruptcy process or until market conditions support the reopening of the mines.

Eastern Kentucky produced 91.2 million short tons of coal in 2003, down by 8.2 million short tons, a level not seen since 1976. The drop in Eastern Kentucky is in part due to the closing of several mines due to reserve depletion and also due to the ongoing bankruptcies among several coal producers that have numerous operations in Kentucky.

Pennsylvania produced 63.7 million short tons, a drop of 6.8 percent from 2002. Some of the decline in coal production in Pennsylvania was a result of the idling of three mines in 2003. Two of the mines, Burrell and Dilworth, were idle the entire year, while the Maple Creek mine was idle for the majority of the year. These three mines accounted for a total of 6.6 million short tons of production in 2002. Alabama, Ohio, and Virginia had increased coal production in 2003, while Maryland and Tennessee had decreased coal production. Alabama benefited from the resumption of mining at the Jim Walter's Mine No. 5, which had experienced an explosion in 2002 that halted production for several months. Virginia saw an increase as several new mines began producing coal during 2003.

Interior Region

The Interior Region experienced a slight decrease in coal production in 2003, declining by 0.6 million short tons, or 0.4 percent. One reason coal production in the Interior Region did not fall further was the increased coal production in Mississippi and Texas. The demand for coal by the electric power sector in both States helped to keep total coal production in the Interior Region from eroding further. Mississippi, in its fifth year of recorded coal production, increased production by 1.4 million short tons, to a level of 3.7 million short tons. This

additional production was a result of the increased coal needs of the mine's only customer, a power plant, for its first full year of operation in 2003. Texas, the largest coal-producing State in the Interior Region showed an increase in its coal production, ending the year at 47.5 million short tons, up 5.0 percent. This total brought Texas back to production levels of the early 1990's, as two of the three largest mines in the State, Jewett and Sandow, expanded production, while another mine previously idle, Tatum, came back into production during the year. The increase in coal production in Texas was due to increased demand by the electric power sector as a result of the high natural gas prices as well as the somewhat hotter than normal summer experienced in the region during 2003.

Indiana, the second largest coal-producing State in the Interior Region increased slightly in 2003 to 35.4 million short tons. Coal production decreased in Illinois by 5.0 percent to end the year at 31.6 million short tons due to the suspension of production in mid-2002 of the Rend mine and the closing of the Pattiki mine during early 2003. Western Kentucky coal production declined in 2003 by 13.1 percent, to a level of 21.5 million short tons due in part to idling of two large mines, the Baker and East Volunteer, and the closure of the Camp No. 11 mine due to depleted reserves. The other States in the Interior region (Arkansas, Kansas, Louisiana, Missouri, and Oklahoma), which accounted for a total of 4.5 percent of the entire region's production in 2003, all differed only slightly from their 2002 coal production levels.

Western Region

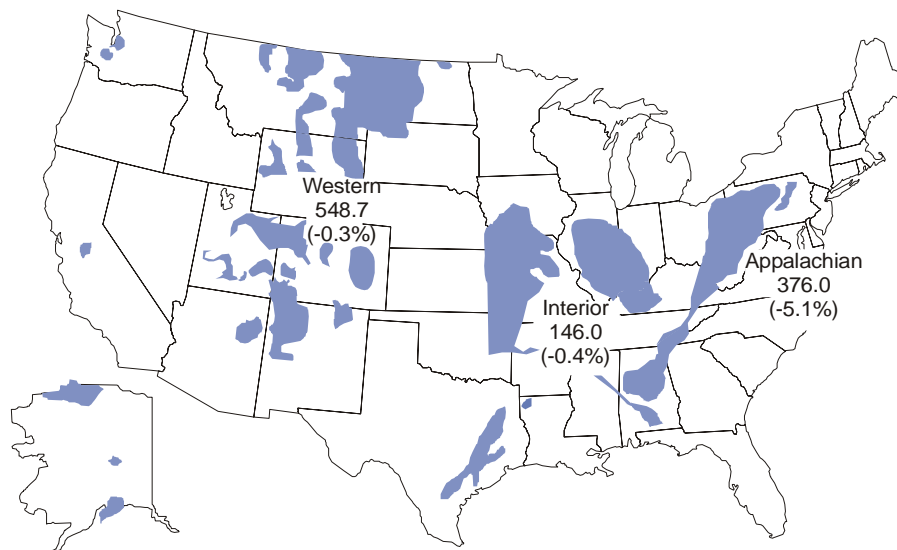
Coal production in the Western Region declined slightly in 2003 by a total of 1.7 million short tons, or 0.3 percent. This decrease was only the fourth one experienced for the Western Region in the last 20 years. Of the nine States in the Western Region, only three had higher coal production levels in 2003: Colorado, Washington, and Wyoming. Five of the other six States had declines in coal production ranging from 64,000 short tons to 2.5 million short tons, with the causes of the declines ranging from lost coal contracts to the closing of some mines in the region due to depleted reserves. Wyoming continued its dominance as the biggest coal-producing State in the Nation, a position it has held for 17 consecutive years. In 2003, Wyoming produced a record 376.3 million short tons of coal, an increase of 0.8 percent for the year. This production level was 12.6 million short tons more than the combined total of the next four largest coal-producing States (West Virginia, Kentucky, Pennsylvania, and Texas). The sheer dominance of Wyoming's coal industry in the United States is further illustrated by the fact that Wyoming accounted for about 35 percent of the total U.S. coal production, while West Virginia, the Nation's second

Figure ES1. Coal Production by Coal-Producing Region, 2003

(Million Short Tons and Percent Change from 2002)

Regional totals do not include refuse recovery

U.S. Total: 1,071.8 Million Short Tons (-2.1%)



Source: Energy Information Administration, "Annual Coal Report 2003", Table 1; DOE/EIA-0584(2003) (Washington, D.C., September 2004).

largest coal-producing State, accounted for about 13 percent of the U.S. total.

Colorado produced 35.8 million short tons of coal in 2003, an increase of 0.7 million short tons. The increase in production for Colorado is credited to the increase in coal production at the Elk Creek mine in its second year of operation. The mine finished installing a longwall mining machine at the beginning of 2003. Coal production in Washington was up in 2003, ending the year at 6.2 million short tons, an increase of 6.9 percent. The higher production level was used to generate electricity to help replace some of the losses due to the still lower-than-normal hydroelectric generation totals in the State.

Montana, the second largest coal-producing State in the region, had a slight decline in coal production in 2003 of 0.4 million short tons, to end the year at 37.0 million short tons. Coal production in North Dakota was flat in 2003, ending the year at 30.8 million short tons.

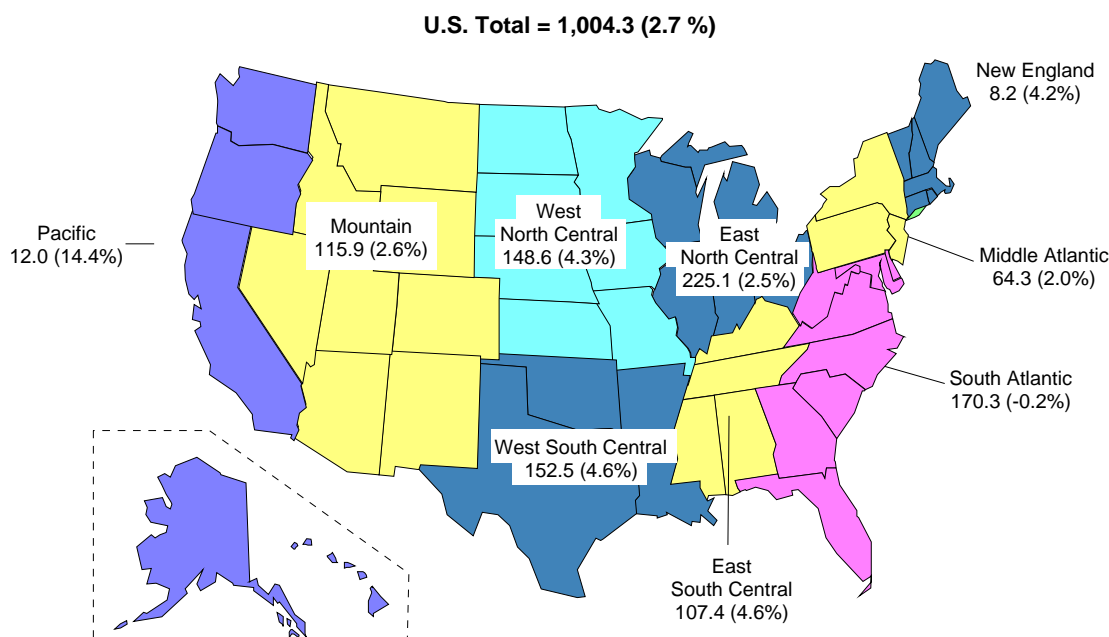
Coal production in Utah fell to 23.1 million short tons, a drop of 2.2 million short tons, as a result of two mines experiencing problems of lower coal seam thickness or

water intrusion, and one mine suspending production in the second half of 2003. Coal production in New Mexico declined by 2.5 million short tons, or 8.7 percent, the largest decline of any State in the Western Region. The drop in coal production in New Mexico was a consequence of the closure of the La Plata mine at the end of 2002, as well as the down time experienced by a longwall mining machine move at another mine and an outage at a customer plant that lowered coal demand. The other two States in the Western Region (Alaska and Arizona) both had declines in their coal production levels in 2003.

Consumption

As the economy recovered in 2003, so did total U.S. coal consumption. Total coal consumption increased 28.3 million short tons to reach a level of 1,094.7 million short tons, surpassing the consumption level of 1,084.1 million short tons achieved in 2000 (Table ES1). Almost 92 percent of all coal consumed in the United States was in the electric power sector, the driving force for all coal consumption.

Figure ES2. Electric Power Sector Consumption of Coal by Census Division, 2003
(Million Short Tons and Percent Change from 2002)



Sources: Energy Information Administration, *Annual Coal Report 2003*, Table 26, DOE/EIA-0584(2004) (Washington, DC, September 2004).

Coal consumption in the electric power sector increased by 26.8 million short tons to end 2003 at a record level of 1,004.3 million short tons, surpassing the 2000 consumption total of 985.8 million short tons (Figure ES2). Nationally, gains in electricity generation by hydroelectric plants and other sources, as well as coal, helped to make up the loss in generation experienced by the nuclear and natural gas sectors. The decline in electric generation by natural gas was due to its high prices during 2003. Part of the decline in nuclear generation was a consequence of the shutdown of nine reactors in the northeastern United States as a result of the blackout in August. It was estimated that the total days of lost generation by those reactors was 43 days.

Another factor helping to drive the increase in total coal consumption for electric generation was the hotter-than-normal summer weather experienced during July and August over the western portion of the country in 2003. Overall, the United States experienced a 7.2-percent increase above normal in cooling degree-days during the summer, while the western portion of the country experienced a 13.9-percent increase above normal. Of the eight Census Divisions that had increases in coal consumption in 2003, two of the western divisions, the West North Central and the West South Central accounted for 47.6 percent of the increase in total coal consumption in the electric power sector.

Only one of the nine Census Divisions had lower coal consumption for electricity generation in 2003, the South Atlantic. The South Atlantic Census Division is one of the five Census Divisions, (East North Central, West

North Central, South Atlantic, East South Central, and Mountain) where coal usually accounts for over 50 percent of total electric power generation from all energy sources. The other four of those five divisions, the East North Central, the West North Central, the East South Central and the Mountain, all had an increase in coal consumption in the electric power sector in 2003 ranging from an increase of 2.7 million short tons in the East South Central to 6.1 million short tons in the West North Central Division. Together, these four Census Divisions accounted for 17.3 million short tons (64.7 percent) of the total increase in electric power coal consumption. In the one Census Division that had the largest increase in total coal consumption, the West South Central, where coal and natural gas compete to be the leading fuel for electricity generation, (together the two fuel sources typically account for 80 to 85 percent of total generation during a year), coal consumption for electric power generation increased 6.6 million short tons in 2003 as coal displaced the higher-priced natural gas.

For the first time since 2000, overall coal consumption in the non-electric power sector increased in 2003, with gains in coking coal consumption and other industrial coal consumption. Coal consumption in the residential and commercial sector declined slightly in 2003.

It was a good-news/bad-news year for the coking coal industry. In 2003, increased demand for steel in the United States resulted in an increase in coal consumption at coke plants for the first time in three years. Coal consumption at coke plants was 24.2 million short tons, an increase of 2.5 percent. However, in November, the

U.S. Government lifted the tariffs on foreign steel imports that had been in place since early 2002, in part, as a response to a World Trade Organization report that stated the tariffs were inconsistent with safeguards against protectionism. In April, the EPA enacted final rules to control emissions from coke plants that could result in the closure of some of the aging coke ovens. The good news for the coking coal industry was that, in December, construction began on a new coke plant in Ohio that should be on line in early 2005. The new plant will use a process that virtually eliminates coke oven emissions, thereby meeting the new EPA regulations.

The economic recovery did not extend very deeply into the coal-consuming manufacturing sector in 2003, but did result in an increase in coal consumption in the other industrial sector of only 2.0 percent to end the year at 62.0 million short tons. The manufacturing sectors that experienced increases in coal consumption in 2003 include the food, beverage, primary metal, fabricated metal, and furniture manufacturing.

Coal Prices

Coal prices declined slightly in 2003 at the national level for mines. The average open market price of coal was \$17.85 per ton in 2003, a drop of 14 cents per ton from 2002. The price per ton of surface mined coal declined in 2003 by 23 cents per ton, while the price of underground coal increased by 3 cents per ton at the national level. Coal prices in the consuming sectors were mixed in 2003. Coal prices to electric utilities (a subset of the electric power sector) increased for the third year. However, the delivered price of coal declined in the other sectors in 2003. The average delivered price of coal to electric utilities was \$25.29 per short ton (124.3 cents per million Btu), up 2.2 percent from the annual 2002 level of \$24.74 per short ton (121.8 cents per million Btu) (Table ES1). Coal prices at independent power producers showed a decline in average delivered price from \$27.96 per short ton (137.5 cents per million Btu) in 2002 to \$27.02 per short ton (135.8 cents per million Btu) in 2003. Although there was an increase in consumption by the domestic coking coal market, the average delivered price of coal to coke plants decreased slightly in 2003 by less than 0.1 percent to \$50.63 per short ton. The average price of coal delivered to the other industrial sector was lower in 2003 by 2.2 percent, ending the year at \$34.70 per short ton.

Coal Stocks

Total coal stocks at the end of 2003 totaled 165.3 million short tons, a decrease of 26.8 million short tons from the prior year. Coal stocks held by coal producers and distributors decreased by 5.0 million short tons, a drop of 11.5 percent as producers used their stockpiles to supplement the lower production level. Industrial users, including coke plants, held a total of 5.7 million short tons at the end of 2003, 1.5 million short tons less than the level at the start of the year. Coal stocks in the electric power sector dropped 20.3 million short tons, down 14.3 percent, as facilities used their stockpiles to meet increasing demand for electricity.

Table ES2. U.S. Coal Production by Coal-Producing Region and State, 2002-2003
(Million Short Tons)

Coal-Producing Region and State	2002	2003
Appalachian Total	396.2	376.0
Alabama	18.9	20.1
Kentucky, Eastern	99.4	91.2
Maryland	5.1	5.1
Ohio	21.2	22.0
Pennsylvania Total	68.4	63.7
Anthracite	1.3	1.3
Bituminous	67.1	62.5
Tennessee	3.2	2.6
Virginia	30.0	31.6
West Virginia	150.1	139.7
Northern	34.0	34.9
Southern	116.0	104.8
Interior Total	146.6	146.0
Arkansas	*	*
Illinois	33.3	31.6
Indiana	35.3	35.4
Kansas	0.2	0.2
Kentucky, Western	24.7	21.5
Louisiana	3.8	4.0
Mississippi	2.3	3.7
Missouri	0.2	0.5
Oklahoma	1.4	1.6
Texas	45.2	47.5
Western Total	550.4	548.7
Alaska	1.1	1.1
Arizona	12.8	12.1
Colorado	35.1	35.8
Montana	37.4	37.0
New Mexico	28.9	26.4
North Dakota	30.8	30.8
Utah	25.3	23.1
Washington	5.8	6.2
Wyoming	373.2	376.3
Refuse Recovery	1.0	1.1
U.S. Total	1,094.3	1,071.8

* = Less than 50 thousand short tons.

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

Sources: U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Coal Production

Table 1. Coal Production and Number of Mines by State and Mine Type, 2003-2002
(Thousand Short Tons)

Coal-Producing State and Region ¹	2003		2002		Percent Change	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Alabama	43	20,118	41	18,931	4.9	6.3
Underground.....	9	15,375	9	14,916	-	3.1
Surface.....	34	4,742	32	4,015	6.3	18.1
Alaska	1	1,081	1	1,146	-	-5.6
Surface.....	1	1,081	1	1,146	-	-5.6
Arizona	2	12,059	2	12,804	-	-5.8
Surface.....	2	12,059	2	12,804	-	-5.8
Arkansas	2	8	4	14	-50.0	-45.1
Underground.....	1	1	1	1	-	11.9
Surface.....	1	7	3	13	-66.7	-49.1
Colorado	12	35,831	13	35,103	-7.7	2.1
Underground.....	8	27,177	8	25,332	-	7.3
Surface.....	4	8,654	5	9,771	-20.0	-11.4
Illinois	22	31,640	22	33,314	-	-5.0
Underground.....	14	25,985	15	26,931	-6.7	-3.5
Surface.....	8	5,655	7	6,383	14.3	-11.4
Indiana	31	35,355	34	35,337	-8.8	*
Underground.....	8	8,635	6	7,909	33.3	9.2
Surface.....	23	26,720	28	27,428	-17.9	-2.6
Kansas	1	154	1	205	-	-24.9
Surface.....	1	154	1	205	-	-24.9
Kentucky	399	112,680	427	124,142	-6.6	-9.2
Underground.....	213	69,238	233	75,589	-8.6	-8.4
Surface.....	186	43,442	194	48,553	-4.1	-10.5
Eastern	374	91,184	399	99,398	-6.3	-8.3
Underground.....	201	52,078	219	56,413	-8.2	-7.7
Surface.....	173	39,106	180	42,984	-3.9	-9.0
Western	25	21,496	28	24,744	-10.7	-13.1
Underground.....	12	17,160	14	19,176	-14.3	-10.5
Surface.....	13	4,337	14	5,569	-7.1	-22.1
Louisiana	2	4,028	2	3,803	-	5.9
Surface.....	2	4,028	2	3,803	-	5.9
Maryland	16	5,056	17	5,147	-5.9	-1.8
Underground.....	2	3,300	3	3,328	-33.3	-0.8
Surface.....	14	1,756	14	1,820	-	-3.5
Mississippi	1	3,695	1	2,305	-	60.3
Surface.....	1	3,695	1	2,305	-	60.3
Missouri	2	533	2	248	-	115.1
Surface.....	2	533	2	248	-	115.1
Montana	7	36,994	6	37,386	16.7	-1.0
Underground.....	1	32	-	-	-	-
Surface.....	6	36,962	6	37,386	-	-1.1
New Mexico	5	26,389	7	28,916	-28.6	-8.7
Underground.....	1	5,890	1	1,753	-	235.9
Surface.....	4	20,499	6	27,163	-33.3	-24.5
North Dakota	4	30,775	4	30,799	-	*
Surface.....	4	30,775	4	30,799	-	*
Ohio	54	22,009	60	21,157	-10.0	4.0
Underground.....	7	12,828	9	10,851	-22.2	18.2
Surface.....	47	9,182	51	10,306	-7.8	-10.9
Oklahoma	7	1,565	6	1,406	16.7	11.3
Underground.....	1	393	1	463	-	-15.3
Surface.....	6	1,172	5	943	20.0	24.4
Pennsylvania	242	63,725	254	68,393	-4.7	-6.8
Underground.....	58	52,212	69	55,781	-15.9	-6.4
Surface.....	184	11,512	185	12,612	-0.5	-8.7
Anthracite	64	1,260	67	1,303	-4.5	-3.4
Underground.....	22	282	26	305	-15.4	-7.6
Surface.....	42	977	41	998	2.4	-2.1
Bituminous	178	62,465	187	67,090	-4.8	-6.9
Underground.....	36	51,930	43	55,476	-16.3	-6.4
Surface.....	142	10,535	144	11,614	-1.4	-9.3
Tennessee	23	2,564	23	3,166	-	-19.0
Underground.....	10	657	12	1,085	-16.7	-39.5
Surface.....	13	1,907	11	2,081	18.2	-8.3
Texas	13	47,517	12	45,247	8.3	5.0
Surface.....	13	47,517	12	45,247	8.3	5.0
Utah	14	23,069	13	25,304	7.7	-8.8
Underground.....	13	23,044	12	25,036	8.3	-8.0

See footnotes at end of table.

Table 1. Coal Production and Number of Mines by State and Mine Type, 2003-2002 (Continued)
(Thousand Short Tons)

Coal-Producing State and Region ¹	2003		2002		Percent Change	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Utah (continued)						
Surface.....	1	25	1	268	-	-90.6
Virginia.....	123	31,596	137	29,956	-10.2	5.5
Underground.....	79	21,225	95	20,491	-16.8	3.6
Surface.....	44	10,371	42	9,465	4.8	9.6
Washington.....	1	6,232	1	5,827	-	6.9
Surface.....	1	6,232	1	5,827	-	6.9
West Virginia.....	249	139,711	291	150,078	-14.4	-6.9
Underground.....	155	86,793	180	87,918	-13.9	-1.3
Surface.....	94	52,919	111	62,160	-15.3	-14.9
Northern.....	58	34,949	64	34,032	-9.4	2.7
Underground.....	32	30,029	38	28,683	-15.8	4.7
Surface.....	26	4,921	26	5,350	-	-8.0
Southern.....	191	104,762	227	116,045	-15.9	-9.7
Underground.....	123	56,764	142	59,235	-13.4	-4.2
Surface.....	68	47,998	85	56,810	-20.0	-15.5
Wyoming.....	18	376,270	18	373,161	-	0.8
Surface.....	18	376,270	18	373,161	-	0.8
Appalachian Total.....	1,124	375,962	1,222	396,226	-8.0	-5.1
Underground.....	521	244,468	596	250,783	-12.6	-2.5
Surface.....	603	131,494	626	145,443	-3.7	-9.6
Northern.....	370	125,739	395	128,730	-6.3	-2.3
Underground.....	99	98,369	119	98,642	-16.8	-0.3
Surface.....	271	27,370	276	30,088	-1.8	-9.0
Central.....	711	230,106	786	248,565	-9.5	-7.4
Underground.....	413	130,724	468	137,225	-11.8	-4.7
Surface.....	298	99,382	318	111,340	-6.3	-10.7
Southern.....	43	20,118	41	18,931	4.9	6.3
Underground.....	9	15,375	9	14,916	-	3.1
Surface.....	34	4,742	32	4,015	6.3	18.1
Interior Total.....	106	145,992	112	146,622	-5.4	-0.4
Underground.....	36	52,173	37	54,480	-2.7	-4.2
Surface.....	70	93,819	75	92,142	-6.7	1.8
Illinois Basin Total.....	78	88,491	84	93,395	-7.1	-5.3
Underground.....	34	51,779	35	54,016	-2.9	-4.1
Surface.....	44	36,712	49	39,380	-10.2	-6.8
Western Total.....	64	548,701	65	550,446	-1.5	-0.3
Underground.....	23	56,144	21	52,122	9.5	7.7
Surface.....	41	492,557	44	498,324	-6.8	-1.2
Powder River Basin.....	18	399,953	18	396,663	-	0.8
Underground.....	-	-	-	-	-	-
Surface.....	18	399,953	18	396,663	-	0.8
Uinta Region.....	24	58,154	23	59,504	4.3	-2.3
Underground.....	20	49,828	19	50,056	5.3	-0.5
Surface.....	4	8,326	4	9,448	-	-11.9
East of Miss. River.....	1,203	468,149	1,307	491,927	-8.0	-4.8
West of Miss. River.....	91	602,506	92	601,368	-1.1	0.2
U.S. Subtotal.....	1,294	1,070,655	1,399	1,093,295	-7.5	-2.1
Refuse Recovery.....	22	1,098	27	988	-18.5	11.1
U.S. Total.....	1,316	1,071,753	1,426	1,094,283	-7.7	-2.1

¹ For a definition of coal producing regions, see the Glossary.

* = The unit of measure is less than 0.5 or percent change is less than 0.1%.

Note: • Totals may not equal sum of components because of independent rounding.

Source: • U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 2. Coal Production and Number of Mines by State, County, and Mine Type, 2003
(Thousand Short Tons)

Coal-Producing State and County	Underground		Surface		Total	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Alabama	9	15,375	34	4,742	43	20,118
Cullman	-	-	1	177	1	177
Franklin	-	-	1	46	1	46
Jackson	1	1	1	55	2	56
Jefferson	3	5,710	6	685	9	6,395
Marion	-	-	1	37	1	37
Shelby	-	-	2	40	2	40
Tuscaloosa	4	9,563	5	1,070	9	10,633
Walker	1	102	15	2,540	16	2,643
Winston	-	-	2	91	2	91
Alaska	-	-	1	1,081	1	1,081
Yukon-Koyukuk Division	-	-	1	1,081	1	1,081
Arizona	-	-	2	12,059	2	12,059
Navajo	-	-	2	12,059	2	12,059
Arkansas	1	1	1	7	2	8
Sebastian	1	1	1	7	2	8
Colorado	8	27,177	4	8,654	12	35,831
Delta	1	4,943	-	-	1	4,943
Garfield	1	287	-	-	1	287
Gunnison	3	11,581	-	-	3	11,581
La Plata	1	394	-	-	1	394
Moffat	-	-	2	6,843	2	6,843
Montrose	-	-	1	353	1	353
Rio Blanco	1	1,943	-	-	1	1,943
Routt	1	8,029	1	1,457	2	9,486
Illinois	14	25,985	8	5,655	22	31,640
Gallatin	-	-	3	3,080	3	3,080
Jackson	-	-	1	1,401	1	1,401
Macoupin	2	4,377	-	-	2	4,377
McDonough	-	-	1	199	1	199
Montgomery	1	2,169	-	-	1	2,169
Perry	-	-	1	375	1	375
Randolph	1	2,557	-	-	1	2,557
Saline	4	9,573	-	-	4	9,573
Sangamon	1	2,133	-	-	1	2,133
Vermilion	2	1,786	-	-	2	1,786
Wabash	1	1,567	1	333	2	1,901
White	2	1,822	-	-	2	1,822
Williamson	-	-	1	267	1	267
Indiana	8	8,635	23	26,720	31	35,355
Clay	-	-	2	1,083	2	1,083
Daviess	-	-	2	3,454	2	3,454
Gibson	3	3,013	4	9,777	7	12,790
Greene	-	-	2	337	2	337
Knox	4	3,400	3	1,000	7	4,400
Parke	-	-	1	6	1	6
Pike	1	2,221	3	3,484	4	5,705
Spencer	-	-	1	336	1	336
Sullivan	-	-	1	1,406	1	1,406
Vigo	-	-	2	4,630	2	4,630
Warrick	-	-	2	1,208	2	1,208
Kansas	-	-	1	154	1	154
Linn	-	-	1	154	1	154
Kentucky	213	69,238	186	43,442	399	112,680
Bell	5	917	8	1,164	13	2,081
Breathitt	-	-	5	1,751	5	1,751
Clay	1	149	4	169	5	318
Daviess	-	-	1	79	1	79
Floyd	21	1,741	9	1,452	30	3,193
Harlan	33	8,282	16	2,266	49	10,548
Henderson	1	1,558	1	1,385	2	2,944
Hopkins	3	2,790	4	1,000	7	3,790
Jackson	-	-	3	31	3	31
Johnson	4	379	4	96	8	475
Knott	22	6,580	15	3,621	37	10,201
Knox	8	254	11	265	19	519
Laurel	-	-	1	53	1	53
Lawrence	2	662	5	805	7	1,466
Lee	-	-	1	18	1	18

See footnotes at end of table.

Table 2. Coal Production and Number of Mines by State, County, and Mine Type, 2003 (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)						
Leslie	5	3,105	4	2,115	9	5,220
Letcher	18	4,535	15	1,914	33	6,449
Magoffin	-	-	1	67	1	67
Martin	12	4,503	7	4,397	19	8,900
McLean	-	-	1	36	1	36
Muhlenberg	1	2,634	6	1,836	7	4,470
Ohio	1	1,271	-	-	1	1,271
Owsley	-	-	2	105	2	105
Perry	8	3,914	16	8,131	24	12,045
Pike	61	16,930	43	10,617	104	27,547
Union	3	2,713	-	-	3	2,713
Webster	3	6,194	-	-	3	6,194
Whitley	1	129	3	67	4	196
Louisiana	-	-	2	4,028	2	4,028
De Soto	-	-	1	3,464	1	3,464
Red River	-	-	1	564	1	564
Maryland	2	3,300	14	1,756	16	5,056
Allegany	1	48	11	1,578	12	1,626
Garrett	1	3,252	3	178	4	3,429
Mississippi	-	-	1	3,695	1	3,695
Choctaw	-	-	1	3,695	1	3,695
Missouri	-	-	2	533	2	533
Bates	-	-	2	533	2	533
Montana	1	32	6	36,962	7	36,994
Big Horn	-	-	3	22,962	3	22,962
Musselshell	1	32	-	-	1	32
Richland	-	-	1	369	1	369
Rosebud	-	-	2	13,632	2	13,632
New Mexico	1	5,890	4	20,499	5	26,389
Mckinley	-	-	2	11,510	2	11,510
San Juan	1	5,890	2	8,989	3	14,879
North Dakota	-	-	4	30,775	4	30,775
McLean	-	-	1	7,921	1	7,921
Mercer	-	-	2	18,725	2	18,725
Oliver	-	-	1	4,129	1	4,129
Ohio	7	12,828	47	9,182	54	22,009
Athens	1	1,162	-	-	1	1,162
Belmont	1	4,886	7	1,488	8	6,374
Carroll	1	196	2	40	3	236
Columbiana	-	-	4	409	4	409
Coshocton	-	-	1	424	1	424
Gallia	-	-	1	167	1	167
Harrison	1	1,342	7	1,941	8	3,283
Jackson	-	-	2	382	2	382
Jefferson	2	613	6	505	8	1,118
Mahoning	-	-	2	15	2	15
Monroe	1	4,628	-	-	1	4,628
Muskingum	-	-	1	132	1	132
Noble	-	-	1	361	1	361
Perry	-	-	1	773	1	773
Stark	-	-	3	473	3	473
Tuscarawas	-	-	7	991	7	991
Vinton	-	-	2	1,080	2	1,080
Oklahoma	1	393	6	1,172	7	1,565
Craig	-	-	1	238	1	238
Haskell	-	-	1	506	1	506
Le Flore	1	393	2	302	3	695
Okmulgee	-	-	1	3	1	3
Rogers	-	-	1	124	1	124
Pennsylvania	58	52,212	184	11,512	242	63,725
Allegheny	1	*	-	-	1	*
Armstrong	10	4,166	9	623	19	4,790
Beaver	1	193	-	-	1	193
Butler	-	-	2	83	2	83
Cambria	2	314	9	604	11	918
Centre	-	-	1	27	1	27
Clarion	-	-	5	342	5	342
Clearfield	-	-	31	2,927	31	2,927
Columbia	-	-	4	180	4	180
Dauphin	1	2	-	-	1	2

See footnotes at end of table.

Table 2. Coal Production and Number of Mines by State, County, and Mine Type, 2003 (Continued)
(Thousand Short Tons)

Coal-Producing State and County	Underground		Surface		Total	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Pennsylvania (continued)						
Elk	1	83	6	434	7	517
Fayette	-	-	11	333	11	333
Greene	7	37,887	5	417	12	38,303
Indiana	6	2,423	17	539	23	2,963
Jefferson	1	151	13	762	14	913
Lackawanna	-	-	2	11	2	11
Lawrence	-	-	2	26	2	26
Luzerne	-	-	6	338	6	338
Lycoming	-	-	1	299	1	299
Mercer	-	-	1	35	1	35
Northumberland	6	189	2	6	8	194
Schuylkill	15	92	28	443	43	535
Somerset	4	1,706	18	2,545	22	4,251
Venango	-	-	1	4	1	4
Washington	3	5,006	3	349	6	5,355
Westmoreland	-	-	7	185	7	185
Tennessee	10	657	13	1,907	23	2,564
Anderson	1	36	2	75	3	111
Campbell	3	174	3	368	6	542
Claiborne	4	313	6	1,230	10	1,542
Cumberland	-	-	1	219	1	219
Fentress	-	-	1	15	1	15
Scott	2	135	-	-	2	135
Texas	-	-	13	47,517	13	47,517
Atascosa	-	-	1	3,104	1	3,104
Freestone	-	-	1	4,276	1	4,276
Harrison	-	-	1	4,233	1	4,233
Hopkins	-	-	1	2,465	1	2,465
Leon	-	-	1	7,461	1	7,461
Milam	-	-	1	6,091	1	6,091
Panola	-	-	2	7,771	2	7,771
Robertson	-	-	1	2,223	1	2,223
Rusk	-	-	1	4,667	1	4,667
Titus	-	-	2	5,208	2	5,208
Webb	-	-	1	18	1	18
Utah	13	23,044	1	25	14	23,069
Carbon	6	9,795	1	25	7	9,820
Emery	6	6,124	-	-	6	6,124
Sevier	1	7,126	-	-	1	7,126
Virginia	79	21,225	44	10,371	123	31,596
Buchanan	21	8,262	13	2,551	34	10,813
Dickenson	14	2,061	7	674	21	2,735
Lee	2	368	1	206	3	574
Russell	1	68	3	488	4	556
Tazewell	6	1,047	1	247	7	1,294
Wise	35	9,420	19	6,205	54	15,625
Washington	-	-	1	6,232	1	6,232
Lewis	-	-	1	6,232	1	6,232
West Virginia	155	86,793	94	52,919	249	139,711
Barbour	5	808	3	180	8	989
Boone	22	16,168	13	14,140	35	30,308
Clay	1	109	2	3,770	3	3,879
Fayette	3	1,075	5	1,262	8	2,337
Grant	2	147	1	1,218	3	1,364
Greenbrier	2	576	-	-	2	576
Harrison	4	6,434	4	203	8	6,637
Kanawha	8	9,738	8	6,875	16	16,613
Lincoln	2	235	-	-	2	235
Logan	8	3,919	12	6,618	20	10,537
Marion	1	304	3	116	4	421
Marshall	1	6,792	-	-	1	6,792
McDowell	32	2,334	9	1,810	41	4,144
Mineral	-	-	2	70	2	70
Mingo	15	7,220	9	6,756	24	13,976
Monongalia	3	5,008	5	325	8	5,333
Nicholas	4	739	2	4,559	6	5,298
Ohio	1	3,844	-	-	1	3,844
Preston	2	2,380	4	25	6	2,406
Raleigh	12	6,875	1	4	13	6,879
Tucker	-	-	1	67	1	67

See footnotes at end of table.

Table 2. Coal Production and Number of Mines by State, County, and Mine Type, 2003 (Continued)
(Thousand Short Tons)

Coal-Producing State and County	Underground		Surface		Total	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Upshur	7	2,056	2	57	9	2,113
Wayne.....	4	4,424	1	337	5	4,761
Webster.....	6	2,256	1	2,659	7	4,915
Wyoming	10	3,351	6	1,867	16	5,218
Wyoming	-	-	18	376,270	18	376,270
Campbell	-	-	12	333,827	12	333,827
Carbon	-	-	2	276	2	276
Converse.....	-	-	1	29,533	1	29,533
Lincoln.....	-	-	1	4,067	1	4,067
Sweetwater	-	-	2	8,567	2	8,567
U.S. Subtotal	580	352,785	714	717,870	1,294	1,070,655
Refuse Recovery	-	-	-	-	22	1,098
U.S. Total.....	580	352,785	714	717,870	1,316	1,071,753

* = The unit of measure is less than 0.5 or percent change is less than 0.1%.

Note: • Totals may not equal sum of components because of independent rounding.

Source: • U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 3. Underground Coal Production by State and Mining Method, 2003
(Thousand Short Tons)

Coal-Producing State and Region ¹	Continuous ²	Conventional ³	Longwall ⁴	Other ⁵	Total
Alabama.....	241	-	15,134	1	15,375
Arkansas.....	-	-	-	1	1
Colorado.....	394	287	26,496	-	27,177
Illinois.....	16,958	-	9,020	7	25,985
Indiana.....	8,635	-	-	-	8,635
Kentucky Total.....	60,527	5,844	2,686	180	69,238
Eastern.....	43,480	5,844	2,686	68	52,078
Western.....	17,047	-	-	113	17,160
Maryland.....	48	-	3,252	-	3,300
Montana.....	32	-	-	-	32
New Mexico.....	-	-	5,890	-	5,890
Ohio.....	1,971	1,342	9,514	-	12,828
Oklahoma.....	393	-	-	-	393
Pennsylvania Total.....	9,682	45	42,437	49	52,212
Anthracite.....	197	45	-	41	282
Bituminous.....	9,486	-	42,437	8	51,930
Tennessee.....	640	-	-	17	657
Utah.....	1,864	-	21,180	-	23,044
Virginia.....	14,450	187	6,566	22	21,225
West Virginia Total.....	44,928	472	41,348	45	86,793
Northern.....	8,921	28	21,076	4	30,029
Southern.....	36,007	444	20,272	41	56,764
Appalachian Total.....	115,441	7,890	120,936	201	244,468
Northern.....	20,622	1,416	76,279	52	98,369
Central.....	94,577	6,475	29,524	148	130,724
Southern.....	241	-	15,134	1	15,375
Interior Total.....	43,032	-	9,020	121	52,173
Illinois Basin.....	42,640	-	9,020	120	51,779
Western Total.....	2,290	287	53,567	-	56,144
Powder River Basin.....	-	-	-	-	-
Uinta Region.....	1,864	287	47,676	-	49,828
East of Miss. River.....	158,081	7,890	129,956	320	296,247
West of Miss. River.....	2,683	287	53,567	1	56,538
U.S. Total.....	160,763	8,178	183,523	321	352,785

¹ For a definition of coal producing regions, see the Glossary.

² Mines that produce greater than 50 percent of their coal by continuous mining methods.

³ Mines that produce greater than 50 percent of their coal by conventional mining methods.

⁴ Mines that have any production from the longwall mining method. A typical longwall mining operation uses 80 percent longwall mining and 20 percent continuous mining.

⁵ 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, or mines that produce less than 10,000 short tons, which are not required to provide data.

Note: • Totals may not equal sum of components because of independent rounding.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 4. Coal Production by Coalbed Thickness and Mine Type, 2003
(Thousand Short Tons)

Coalbed Thickness (inches)	Underground	Surface	Total
< 7.....	-	36	36
7-12.....	-	2,721	2,721
13-18.....	-	6,644	6,644
19-24.....	224	13,919	14,143
25-30.....	3,093	21,727	24,820
31-36.....	15,472	21,546	37,018
37-42.....	21,288	21,742	43,030
43-48.....	41,366	28,290	69,655
49-54.....	25,865	13,927	39,793
55-60.....	48,720	18,609	67,330
61-66.....	28,857	17,297	46,154
67-72.....	48,267	11,539	59,806
73-78.....	19,577	13,484	33,062
79-84.....	28,196	9,804	38,000
85-90.....	11,987	3,833	15,820
91-96.....	7,041	6,038	13,079
97-102.....	15,702	6,354	22,055
103-108.....	3,937	9,261	13,198
109-114.....	5,387	4,848	10,236
115-120.....	891	17,229	18,121
> 120.....	26,705	468,546	495,251
Unknown¹.....	209	475	1,781
U.S. Total.....	352,785	717,870	1,071,753

¹ Includes mines with production of less than 10,000 short tons, which are not required to provide data, and refuse recovery.

Note: • Totals may not equal sum of components because of independent rounding.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 5. Coal Production and Coalbed Thickness by Major Coalbeds and Mine Type, 2003

Coalbed ID Number ¹ Coalbed Name	Production (thousand short tons)			Thickness (inches)		
	Underground	Surface	Total	Average ²	Low	High
1699 Wyodak	-	320,551	320,551	755	76	900
0036 Pittsburgh	74,417	2,994	77,411	71	24	159
0489 No. 9	31,387	10,404	41,791	63	36	86
1569 Beulah-Zap	-	28,838	28,838	184	144	210
1697 Canyon	-	27,861	27,861	572	240	817
0111 Hazard No. 5-A	6,333	19,908	26,241	74	11	183
0151 Upper Elkhorn No. 3	16,660	4,483	21,143	52	12	120
0484 Herrin (Illinois No. 6)	15,192	4,337	19,529	71	36	96
0103 Stockton-Lewiston	5,919	12,754	18,673	76	12	240
0084 Lower Kittanning	8,335	9,897	18,232	55	10	105
1808 Rosebud	-	16,978	16,978	266	216	288
0135 Hazard No. 4	9,262	5,797	15,059	46	18	84
1787 Roland	-	14,948	14,948	537	240	660
1696 Anderson-Dietz 1-Dietz 2	-	14,316	14,316	839	600	984
0176 Eagle	12,398	1,392	13,790	58	22	104
0168 Pond Creek	11,073	1,128	12,201	57	14	96
0344 Pocahontas No. 3	9,857	-	9,857	60	36	68
1755 D	9,540	-	9,540	136	112	162
0142 Williamson (Amburgy)	7,137	2,340	9,477	40	16	70
1750 Wadge	8,029	1,253	9,282	103	100	120
0071 Upper Freeport	5,858	3,264	9,121	61	15	84
0480 No. 7	3,421	5,612	9,033	45	12	95
1753 Somerset B	8,928	-	8,928	135	72	264
1488 Fruitland No. 8	5,890	2,911	8,802	164	135	207
0483 Hymera (Indiana No. VI)	-	8,547	8,547	46	15	72
Major Coalbeds Total	249,634	520,514	770,149	405	10	984
Other Coalbeds	102,942	196,881	299,823	87	5	830
Unknown³	209	475	1,781	NA	NA	NA
U.S. Total	352,785	717,870	1,071,753	316	5	984

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. See Coalbed name discussion in note below.

² Average thickness is the bed thickness weighted by bed production.

³ Includes mines with production of less than 10,000 short tons, which are not required to provide data, and refuse recovery.

NA = This estimated value is not available due to insufficient data or inadequate data/model performance.

Notes: • Major coalbeds for this table are the top 25 producing coalbeds. The category "Other Coalbeds" includes all coalbeds from which less than 8.5 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 8.5 million short tons. Totals may not equal sum of components due to independent rounding. • The coalbed name given is the name most commonly used in the State having the greatest production from that coalbed. The States having greatest production for each coalbed are Eastern Kentucky (coalbeds 0111, 0135, 0142, 0151, 0168, and 0176); West Virginia (0036, 0084, 0103, and 0344); Pennsylvania (0071); Western Kentucky (0489); Illinois (0484); Indiana (0483); Colorado (1750, 1753, and 1755); New Mexico (1488); North Dakota (1569); Montana (1696, and 1808); and Wyoming (1697, 1699, and 1787). In some other States where these are major producing beds, the following alternative 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); 0168, No 2 Gas (West Virginia); 0176, Middle Eagle (West Virginia); 0484, No 11 (Western Kentucky); 0489, No 5 (Illinois and Indiana).

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 6. Coal Production and Number of Mines by State and Coal Rank, 2003
(Thousand Short Tons)

Coal-Producing State and Region ¹	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.....	41	20,114	-	-	-	-	-	-	41	20,114
Alaska.....	-	-	1	1,081	-	-	-	-	1	1,081
Arizona.....	2	12,059	-	-	-	-	-	-	2	12,059
Colorado.....	10	28,988	2	6,843	-	-	-	-	12	35,831
Illinois.....	21	31,633	-	-	-	-	-	-	21	31,633
Indiana.....	29	35,344	-	-	-	-	-	-	29	35,344
Kansas.....	1	154	-	-	-	-	-	-	1	154
Kentucky Total.....	353	112,499	-	-	-	-	-	-	353	112,499
Eastern.....	328	91,003	-	-	-	-	-	-	328	91,003
Western.....	25	21,496	-	-	-	-	-	-	25	21,496
Louisiana.....	-	-	-	-	2	4,028	-	-	2	4,028
Maryland.....	14	5,042	-	-	-	-	-	-	14	5,042
Mississippi.....	-	-	-	-	1	3,695	-	-	1	3,695
Missouri.....	2	533	-	-	-	-	-	-	2	533
Montana.....	-	-	6	36,625	1	369	-	-	7	36,994
New Mexico ²	3	10,547	2	15,842	-	-	-	-	5	26,389
North Dakota.....	-	-	-	-	4	30,775	-	-	4	30,775
Ohio.....	49	21,999	-	-	-	-	-	-	49	21,999
Oklahoma.....	6	1,562	-	-	-	-	-	-	6	1,562
Pennsylvania Total.....	136	62,300	-	-	-	-	29	1,146	165	63,446
Anthracite.....	-	-	-	-	-	-	29	1,146	29	1,146
Bituminous.....	136	62,300	-	-	-	-	-	-	136	62,300
Tennessee.....	19	2,542	-	-	-	-	-	-	19	2,542
Texas.....	1	18	-	-	12	47,499	-	-	13	47,517
Utah.....	14	23,069	-	-	-	-	-	-	14	23,069
Virginia.....	114	31,545	-	-	-	-	-	-	114	31,545
Washington.....	-	-	1	6,232	-	-	-	-	1	6,232
West Virginia Total.....	227	139,617	-	-	-	-	-	-	227	139,617
Northern.....	48	34,915	-	-	-	-	-	-	48	34,915
Southern.....	179	104,702	-	-	-	-	-	-	179	104,702
Wyoming.....	2	276	16	375,994	-	-	-	-	18	376,270
Appalachian Total.....	928	374,162	-	-	-	-	29	1,146	957	375,308
Northern.....	247	124,255	-	-	-	-	29	1,146	276	125,401
Central.....	640	229,792	-	-	-	-	-	-	640	229,792
Southern.....	41	20,114	-	-	-	-	-	-	41	20,114
Interior Total.....	85	90,740	-	-	15	55,222	-	-	100	145,962
Illinois Basin.....	75	88,473	-	-	-	-	-	-	75	88,473
Western Total.....	31	74,939	28	442,618	5	31,144	-	-	64	548,701
Powder River Basin.....	-	-	18	399,953	-	-	-	-	18	399,953
Uinta Region.....	22	51,310	2	6,843	-	-	-	-	24	58,154
East of Miss. River.....	1,003	462,635	-	-	1	3,695	29	1,146	1,033	467,476
West of Miss. River.....	41	77,206	28	442,618	19	82,671	-	-	88	602,495
U.S. Subtotal.....	1,044	539,841	28	442,618	20	86,366	29	1,146	1,121	1,069,971
Unknown³.....	-	-	-	-	-	-	-	-	181	718
Refuse Recovery⁴.....	12	1,030	-	-	-	-	2	33	14	1,063
U.S. Total.....	1,056	540,871	28	442,618	20	86,366	31	1,179	1,316	1,071,753

¹ For a definition of coal producing regions, see Glossary.

² One Mine in New Mexico periodically produces both bituminous and subbituminous coal. When this occurs, it is double counted as a subbituminous and bituminous mine, but is not double counted in the total.

³ Includes all mines and refuse recovery operations producing less than 10,000 short tons.

⁴ Excludes refuse recovery operations producing less than 10,000 short tons.

Note: • Totals may not equal sum of components because of independent rounding.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 7. Coal Production by State, Mine Type, and Union Status, 2003
(Thousand Short Tons)

Coal-Producing State and Region ¹	Union		Nonunion		Total	
	Underground	Surface	Underground	Surface	Underground	Surface
Alabama.....	15,134	-	241	4,740	15,375	4,740
Alaska.....	-	1,081	-	-	-	1,081
Arizona.....	-	12,059	-	-	-	12,059
Colorado.....	1,943	3,655	25,235	4,999	27,177	8,654
Illinois.....	14,225	732	11,752	4,924	25,978	5,655
Indiana.....	-	3,496	8,635	23,213	8,635	26,709
Kansas.....	-	-	-	154	-	154
Kentucky Total.....	3,161	2,821	66,009	40,508	69,170	43,329
Eastern.....	-	2,221	52,010	36,772	52,010	38,993
Western.....	3,161	600	13,999	3,736	17,160	4,337
Louisiana.....	-	-	-	4,028	-	4,028
Maryland.....	-	-	3,300	1,742	3,300	1,742
Mississippi.....	-	-	-	3,695	-	3,695
Missouri.....	-	-	-	533	-	533
Montana.....	-	28,068	32	8,894	32	36,962
New Mexico.....	5,890	13,594	-	6,905	5,890	20,499
North Dakota.....	-	6,926	-	23,850	-	30,775
Ohio.....	4,886	741	7,942	8,430	12,828	9,171
Oklahoma.....	-	-	393	1,169	393	1,169
Pennsylvania Total.....	23,322	498	28,842	10,784	52,164	11,282
Anthracite.....	-	212	241	692	241	905
Bituminous.....	23,322	285	28,601	10,092	51,923	10,377
Tennessee.....	41	-	599	1,902	640	1,902
Texas.....	-	30,477	-	17,039	-	47,517
Utah.....	4,895	-	18,149	25	23,044	25
Virginia.....	3,520	538	17,683	9,804	21,203	10,342
Washington.....	-	6,232	-	-	-	6,232
West Virginia Total.....	36,566	9,247	50,182	43,622	86,748	52,870
Northern.....	21,076	-	8,949	4,890	30,025	4,890
Southern.....	15,490	9,247	41,233	38,732	56,723	47,979
Wyoming.....	-	9,672	-	366,598	-	376,270
Appalachian Total.....	83,468	13,245	160,800	117,795	244,267	131,040
Northern.....	49,284	1,239	49,033	25,846	98,316	27,085
Central.....	19,051	12,006	111,526	87,210	130,576	99,216
Southern.....	15,134	-	241	4,740	15,375	4,740
Interior Total.....	17,386	35,305	34,779	58,492	52,165	93,798
Illinois Basin.....	17,386	4,828	34,386	31,873	51,772	36,701
Western Total.....	12,728	81,287	43,416	411,271	56,144	492,557
Powder River Basin.....	-	27,699	-	372,254	-	399,953
Uinta Region.....	6,838	3,302	42,990	5,024	49,828	8,326
East of Miss. River.....	100,854	18,073	195,186	153,364	296,039	171,437
West of Miss. River.....	12,728	111,764	43,809	434,194	56,537	545,959
Unknown².....	-	-	-	-	209	475
U.S. Total.....	113,581	129,837	238,995	587,558	352,785	717,870

¹ For a definition of coal producing regions, see Glossary.

² Includes mines with production of less than 10,000 short tons, which are not required to provide data.

Note: • Totals may not equal sum of components because of independent rounding. Excludes refuse recovery operations.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 8. Coal Disposition by State, 2003
(Thousand Short Tons)

Coal-Producing State	Open Market Sales ¹	Captive Sales/Transactions ²	Total
Alabama.....	20,563	-	20,563
Alaska.....	W	-	W
Arizona.....	W	-	W
Colorado.....	33,819	2,249	36,068
Illinois.....	31,262	53	31,315
Indiana.....	32,590	2,679	35,269
Kansas.....	W	-	W
Kentucky Total.....	110,001	2,866	112,867
Eastern.....	90,151	1,322	91,473
Western.....	19,850	1,545	21,394
Louisiana.....	W	W	W
Maryland.....	5,192	-	5,192
Mississippi.....	W	-	W
Missouri.....	W	-	W
Montana.....	36,176	767	36,942
New Mexico.....	26,452	-	26,452
North Dakota.....	31,119	-	31,119
Ohio.....	20,854	1,317	22,171
Oklahoma.....	1,626	-	1,626
Pennsylvania Total.....	63,532	627	64,159
Anthracite.....	1,265	-	1,265
Bituminous.....	62,267	627	62,894
Tennessee.....	2,525	-	2,525
Texas.....	13,719	33,855	47,574
Utah.....	18,815	4,740	23,555
Virginia.....	23,920	7,853	31,773
Washington.....	-	W	W
West Virginia Total.....	130,051	10,026	140,077
Northern.....	28,026	6,554	34,580
Southern.....	102,025	3,473	105,497
Wyoming.....	359,271	17,499	376,770
U.S. Total³.....	981,378	92,495	1,073,873

¹ Open market sales include all coal sold on the open market to other coal companies or consumers.

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

³ Excludes mines producing less than 10,000 short tons, which are not required to provide data, and refuse recovery.

W = Withheld to avoid disclosure of individual company data.

Note: • Totals may not equal sum of components because of independent rounding.

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

Table 9. Major U.S. Coal Mines, 2003

Rank	Mine Names/Company	Mine Type	State	Production (short tons)
1	North Antelope Rochelle Complex/Powder River Coal Company	Surface	Wyoming	80,083,444
2	Black Thunder/Thunder Basin Coal Company LLC	Surface	Wyoming	62,620,417
3	Cordero Mine/Cordero Mining Co.	Surface	Wyoming	36,083,743
4	Jacobs Ranch Mine/Jacobs Ranch Coal Company	Surface	Wyoming	35,491,218
5	Antelope Coal Mine/Antelope Coal Company	Surface	Wyoming	29,533,072
6	Eagle Butte Mine/RAG Coal West, Inc.	Surface	Wyoming	24,728,392
7	North Rochelle/Triton Coal Company LLC	Surface	Wyoming	23,923,145
8	Caballo Mine/Caballo Coal Company	Surface	Wyoming	22,743,284
9	Belle Ayr Mine/RAG Coal West Inc.	Surface	Wyoming	17,844,826
10	Buckskin Mine/Triton Coal Company	Surface	Wyoming	17,539,156
11	Freedom Mine/The Coteau Properties Company	Surface	North Dakota	15,928,841
12	Rosebud #6 Mine&Crusher & Conv/Western Energy Company	Surface	Montana	11,034,262
13	Enlow Fork Mine/Consol Pennsylvania Coal Company	Underground	Pennsylvania	9,888,511
14	Bailey Mine/Consol Pennsylvania Coal Company	Underground	Pennsylvania	9,391,318
15	Navajo Mine/BHP Navajo Coal Company	Surface	New Mexico	8,937,403
16	Spring Creek Coal Company/Spring Creek Coal Company	Surface	Montana	8,894,014
17	Decker Mine/Decker Coal Co.	Surface	Montana	8,092,348
18	Foidel Creek Mine/Twentymile Coal Company	Underground	Colorado	8,028,720
19	Falkirk Mine/The Falkirk Mining Company	Surface	North Dakota	7,921,080
20	Kayenta Mine/Peabody Western Coal Company	Surface	Arizona	7,780,490
21	Jewett Mine/Northwestern Resources Company	Surface	Texas	7,460,693
22	Sufco/Canyon Fuel Company LLC	Underground	Utah	7,125,797
23	Lee Ranch Coal Co/Lee Ranch Coal Company	Surface	New Mexico	6,904,803
24	Beckville Strip/TXU Mining Company LP	Surface	Texas	6,849,246
25	McElroy Mine/McElroy Coal Company	Underground	West Virginia	6,791,716
26	Emerald Mine #1/RAG Emerald Resources LP	Underground	Pennsylvania	6,619,501
27	West Elk Mine/Mountain Coal Company LLC	Underground	Colorado	6,490,688
28	Cumberland Mine/RAG Cumberland Resources LP	Underground	Pennsylvania	6,246,827
29	Centralia Coal Mine/Trans Alta Centralia Mining LLC	Surface	Washington	6,231,874
30	Sandow Mine/Alcoa Incorporated	Surface	Texas	6,091,061
31	Galatia Mine/The American Coal Company	Underground	Illinois	6,011,356
32	Absaloka Mine/Washington Group International	Surface	Montana	5,975,323
33	San Juan South/San Juan Coal Company	Underground	New Mexico	5,890,246
34	Robinson Run No. 95/Consolidation Coal Company	Underground	West Virginia	5,738,542
35	Jim Bridger Mine/Bridger Coal Company	Surface	Wyoming	5,604,516
36	Blacksville No 2/Consolidation Coal Company	Underground	Pennsylvania	5,449,779
37	Colowyo Mine/Colowyo Coal Company LP	Surface	Colorado	4,998,615
38	Bowie Mine #2/Bowie Resources Ltd	Underground	Colorado	4,943,355
39	Powhatan No. 6 Mine/The Ohio Valley Coal Company	Underground	Ohio	4,885,918
40	Dotiki Mine/Webster County Coal LLC	Underground	Kentucky	4,882,023
41	Samples Mine/Catenary Coal Company	Surface	West Virginia	4,786,260
42	Wyodak/Wyodak Resources Development Co.	Surface	Wyoming	4,772,544
43	Hobet 21 Surface Mine/Hobet Mining, Inc.	Surface	West Virginia	4,738,112
44	Buchanan Mine #1/Consolidation Coal Company	Underground	Virginia	4,686,453
45	Oak Hill Strip/TXU Mining Company LP	Surface	Texas	4,666,829
46	Century Mine/American Energy Corporation	Underground	Ohio	4,628,223
47	McKinley/Pittsburg & Midway Coal Mining	Surface	New Mexico	4,605,116
48	Elk Creek Mine/Oxbow Mining, LLC	Underground	Colorado	4,596,324
49	No 1 Surface/Alex Energy, Inc.	Surface	West Virginia	4,525,521
50	Federal No 2/Eastern Associated Coal Corp	Underground	West Virginia	4,397,317
51	Dry Fork Mine/Dry Fork Coal Company	Surface	Wyoming	4,363,683
52	Black Mesa/Peabody Western Coal Company	Surface	Arizona	4,278,604
53	Big Brown Strip/TXU Mining Company LP	Surface	Texas	4,275,765
54	South Hallsville No 1 Mine/The Sabine Mining Company	Surface	Texas	4,233,031
55	Farmersburg Mine/Black Beauty Coal Company	Surface	Indiana	4,232,859
56	Center Mine/BNI Coal, Ltd.	Surface	North Dakota	4,129,330
57	American Eagle Mine/Speed Mining Inc	Underground	West Virginia	4,127,533
58	Kemmerer Mine/Pittsburg & Midway Coal Mining	Surface	Wyoming	4,067,346
	Subtotal			647,790,413
	All Other Mines			423,962,160
	U.S. Total			1,071,752,573

Note: • Major mines are mines that produced more than 4 million short tons in 2003. The company is the firm operating the mine.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and/or U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 10. Major U.S. Coal Producers, 2003

Rank	Company Name	Production (thousand short tons)	Percent of Total Production
1	Peabody Coal Co.	156,845	14.6
2	Kennecott Energy & Coal Co.	115,001	10.7
3	Arch Coal, Inc.	107,731	10.1
4	RAG American Coal Holding, Inc.	63,306	5.9
5	CONSOL Energy Inc	58,499	5.5
6	Vulcan Partners, L.P.	41,480	3.9
7	A.T. Massey Coal Co., Inc.	39,719	3.7
8	Horizon Natural Resources Inc.	32,742	3.1
9	North American Coal Corp.	31,778	3.0
10	Westmoreland Mining LLC	27,635	2.6
11	TXU Corp.	24,386	2.3
12	Black Beauty Coal Co.	19,895	1.9
13	Robert Murray	19,407	1.8
14	Alliance Coal, LLC	19,068	1.8
15	Alpha Natural Resources., LLC	16,117	1.5
16	BHP Minerals Group	14,326	1.3
17	Pittsburg & Midway Coal Mining Co.	12,190	1.1
18	PacifiCorp	9,543	0.9
19	James River Coal Co.	9,357	0.9
20	Wexford Capital LLC	8,880	0.8
21	Peter Kiewit/Kennecott	8,092	0.8
22	Transalta Centralia Mining LLC	6,232	0.6
23	Alcoa, Inc.	6,091	0.6
24	Walter Industries, Inc.	6,045	0.6
25	TECO Energy, Inc.	5,742	0.5
26	Andalex Resources Inc	5,231	*
	Subtotal	865,337	80.7
	All Other Coal Producers	206,416	19.3
	U.S. Total	1,071,753	100.0

* = The unit of measure is less than 0.5 or percent change is less than 0.1%.

Note: • Major coal producers are companies that produced more than 5 million short tons in 2003. A controlling company of a mine is defined as the company "controlling the coal, particularly the sale of the coal." Most often, but not always, this is the owner of the mine.

Source: • COALdat, a product of RDI/Platts and U.S. Department of Labor, Mine Safety and Health Administration Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Productive Capacity

Table 11. Productive Capacity of Coal Mines by State, 2003, 2002
(Thousand Short Tons)

Coal-Producing State	2003			2002			Percent Change		
	Underground	Surface	Total	Underground	Surface	Total	Underground	Surface	Total
Alabama.....	16,143	6,269	22,413	18,728	5,204	23,932	-13.8	20.5	-6.3
Alaska.....	-	W	W	-	W	W	-	W	W
Arizona.....	-	W	W	-	W	W	-	W	W
Arkansas.....	-	-	-	-	W	W	-	-100.0	W
Colorado.....	31,245	9,433	40,678	33,786	10,104	43,891	-7.5	-6.6	-7.3
Illinois.....	31,455	7,371	38,826	40,286	6,996	47,283	-21.9	5.4	-17.9
Indiana.....	11,622	32,543	44,165	9,417	33,512	42,929	23.4	-2.9	2.9
Kansas.....	-	W	W	-	W	W	-	W	W
Kentucky Total.....	96,831	64,953	161,785	104,845	70,014	174,859	-7.6	-7.2	-7.5
Eastern.....	74,474	59,433	133,907	80,175	63,094	143,269	-7.1	-5.8	-6.5
Western.....	22,357	5,520	27,877	24,670	6,919	31,589	-9.4	-20.2	-11.8
Louisiana.....	-	W	W	-	W	W	-	W	W
Maryland.....	W	W	5,659	W	W	5,362	W	W	5.5
Mississippi.....	-	W	W	-	W	W	-	W	W
Missouri.....	-	W	W	-	W	W	-	W	W
Montana.....	W	W	53,734	-	51,584	51,584	W	W	4.2
New Mexico.....	W	W	29,951	W	W	40,648	W	W	-26.3
North Dakota.....	-	32,600	32,600	-	32,400	32,400	-	0.6	0.6
Ohio.....	13,811	15,683	29,494	15,781	18,044	33,825	-12.5	-13.1	-12.8
Oklahoma.....	W	W	2,159	W	W	1,955	W	W	10.5
Pennsylvania Total.....	60,748	17,096	77,844	67,497	19,423	86,920	-10.0	-12.0	-10.4
Anthracite.....	279	2,435	2,714	272	3,220	3,492	2.3	-24.4	-22.3
Bituminous.....	60,469	14,661	75,130	67,224	16,204	83,428	-10.0	-9.5	-9.9
Tennessee.....	1,096	3,069	4,164	1,411	2,878	4,289	-22.3	6.6	-2.9
Texas.....	-	49,621	49,621	-	48,428	48,428	-	2.5	2.5
Utah.....	W	W	29,611	W	W	31,294	W	W	-5.4
Virginia.....	25,690	12,317	38,007	26,475	12,518	38,993	-3.0	-1.6	-2.5
Washington.....	-	W	W	-	W	W	-	W	W
West Virginia Total.....	115,972	67,214	183,186	119,615	77,761	197,376	-3.0	-13.6	-7.2
Northern.....	38,246	5,492	43,738	37,441	6,271	43,712	2.1	-12.4	*
Southern.....	77,727	61,721	139,448	82,175	71,490	153,664	-5.4	-13.7	-9.3
Wyoming.....	-	432,484	432,484	-	428,177	428,177	-	1.0	1.0
U.S. Total.....	445,950	862,362	1,308,312	480,090	884,900	1,364,990	-7.1	-2.5	-4.2

* = The unit of measure is less than 0.5 or percent change is less than 0.1%.

W = Withheld to avoid disclosure of individual company data.

Note: • Productive capacity is the maximum amount of coal that can be produced annually as reported by mining companies on Form EIA-7A. Excludes mines producing less than 10,000 short tons, which are not required to provide data and refuse recovery. Totals may not equal sum of components because of independent rounding.

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

Table 12. Capacity Utilization of Coal Mines by State, 2003, 2002
(Percent)

Coal-Producing State	2003			2002		
	Underground	Surface	Total	Underground	Surface	Total
Alabama.....	95.24	75.60	89.75	79.65	76.94	79.06
Alaska.....	-	W	W	-	W	W
Arizona.....	-	W	W	-	W	W
Arkansas.....	-	-	-	-	W	W
Colorado.....	86.98	91.74	88.08	74.98	96.70	79.98
Illinois.....	82.59	76.73	81.47	66.85	91.13	70.44
Indiana.....	74.29	82.07	80.03	83.98	81.80	82.28
Kansas.....	-	W	W	-	W	W
Kentucky Total.....	71.43	66.71	69.54	72.02	69.09	70.85
East.....	69.84	65.61	67.96	70.27	67.84	69.20
West.....	76.75	78.56	77.11	77.73	80.48	78.33
Louisiana.....	-	W	W	-	W	W
Maryland.....	W	W	89.10	W	W	95.53
Mississippi.....	-	W	W	-	W	W
Missouri.....	-	W	W	-	W	W
Montana.....	W	W	68.85	-	72.48	72.48
New Mexico.....	W	W	88.11	W	W	71.14
North Dakota.....	-	94.40	94.40	-	95.06	95.06
Ohio.....	92.88	58.48	74.59	68.76	56.85	62.41
Oklahoma.....	W	W	72.33	W	W	71.80
Pennsylvania Total.....	85.87	65.99	81.50	82.56	63.77	78.36
Anthracite.....	86.57	37.16	42.24	91.03	29.23	34.06
Bituminous.....	85.87	70.78	82.92	82.52	70.63	80.21
Tennessee.....	58.39	61.97	61.03	76.20	72.14	73.48
Texas.....	-	95.76	95.76	-	93.43	93.43
Utah.....	W	W	77.91	W	W	80.85
Virginia.....	82.53	83.97	83.00	77.28	75.49	76.70
Washington.....	-	W	W	-	W	W
West Virginia Total.....	74.80	78.66	76.22	73.44	79.85	75.97
Northern.....	78.51	89.05	79.83	76.58	84.96	77.78
Southern.....	72.98	77.74	75.08	72.02	79.40	75.45
Wyoming.....	-	87.00	87.00	-	87.15	87.15
U.S. Total.....	79.06	83.19	81.78	74.39	83.09	80.03

W = Withheld to avoid disclosure of individual company data.

Note: • Capacity utilization is the ratio of annual production to annual productive capacity. Excludes mines producing less than 10,000 short tons, which are not required to provide data and refuse recovery. Totals may not equal sum of components because of independent rounding.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," for productive capacity, and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report," for annual production.

Table 13. Productive Capacity and Capacity Utilization of Underground Coal Mines by State and Mining Method, 2003
(Thousand Short Tons)

Coal-Producing State	Continuous		Conventional		Longwall		Other		Total	
	Productive Capacity	Capacity Utilization Percent	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	-	-	16,143	95.24
Colorado.....	W	W	W	W	30,095	88.04	-	-	31,245	86.98
Illinois.....	W	W	-	-	W	W	-	-	31,455	82.59
Indiana.....	11,622	74.29	-	-	-	-	-	-	11,622	74.29
Kentucky Total.....	82,780	73.12	10,513	55.59	W	W	W	W	96,831	71.43
Eastern.....	W	W	10,513	55.59	W	W	-	-	74,474	69.84
Western.....	W	W	-	-	-	-	W	W	22,357	76.75
Maryland.....	W	W	-	-	W	W	-	-	W	W
Montana.....	W	W	-	-	-	-	-	-	W	W
New Mexico.....	-	-	-	-	W	W	-	-	W	W
Ohio.....	2,125	92.76	W	W	W	W	-	-	13,811	92.88
Oklahoma.....	W	W	-	-	-	-	-	-	W	W
Pennsylvania Total.....	10,669	90.75	W	W	W	W	-	-	60,748	85.87
Anthracite.....	W	W	W	W	-	-	-	-	279	86.57
Bituminous.....	W	W	-	-	W	W	-	-	60,469	85.87
Tennessee.....	1,096	58.39	-	-	-	-	-	-	1,096	58.39
Utah.....	2,824	66.01	-	-	26,762	79.14	-	-	29,586	77.89
Virginia.....	17,650	81.87	W	W	W	W	-	-	25,690	82.53
West Virginia Total.....	62,290	72.13	690	68.42	52,992	78.03	-	-	115,972	74.80
Northern.....	W	W	W	W	W	W	-	-	38,246	78.51
Southern.....	W	W	W	W	W	W	-	-	77,727	72.98
U.S. Total.....	214,051	75.11	13,922	58.74	217,865	84.24	113	100.00	445,950	79.06

W = Withheld to avoid disclosure of individual company data.

Note: • Productive capacity is the maximum amount of coal that can be produced annually. Capacity utilization is the ratio of total production to annual productive capacity. Excludes mines producing less than 10,000 short tons, which are not required to provide data and recovery operations. Totals may not equal sum of components because of independent rounding.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," for productive capacity, and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report," for annual production.

Recoverable Reserves

Table 14. Recoverable Coal Reserves and Average Recovery Percentage at Producing Mines by State, 2003, 2002
(Million Short Tons)

Coal-Producing State	2003		2002		Percent Change Recoverable Coal Reserves
	Recoverable Coal Reserves	Average Recovery Percentage	Recoverable Coal Reserves	Average Recovery Percentage	
Alabama.....	308	56.16	366	55.54	-15.9
Alaska.....	W	W	W	W	W
Arizona.....	W	W	W	W	W
Arkansas.....	-	-	W	W	W
Colorado.....	427	69.87	629	72.46	-32.1
Illinois.....	913	58.41	900	58.91	1.5
Indiana.....	432	68.84	381	67.04	13.5
Kansas.....	-	-	W	W	W
Kentucky Total.....	994	56.93	1,010	56.87	-1.6
Eastern.....	639	59.38	703	58.16	-9.1
Western.....	355	52.52	307	53.91	15.6
Louisiana.....	W	W	W	W	W
Maryland.....	61	61.65	65	61.35	-6.3
Mississippi.....	W	W	W	W	W
Missouri.....	W	W	W	W	W
Montana.....	1,197	87.86	1,115	91.26	7.4
New Mexico.....	1,351	91.21	1,385	91.05	-2.4
North Dakota.....	1,211	89.36	1,211	89.53	*
Ohio.....	336	74.15	356	72.97	-5.5
Oklahoma.....	17	68.34	18	68.52	-4.8
Pennsylvania Total.....	536	68.87	576	68.57	-6.9
Anthracite.....	26	54.55	26	49.71	-2.0
Bituminous.....	511	69.58	550	69.46	-7.1
Tennessee.....	22	76.43	16	72.00	41.2
Texas.....	623	92.31	673	92.12	-7.4
Utah.....	331	57.64	356	51.51	-7.0
Virginia.....	226	58.40	261	58.60	-13.5
Washington.....	W	W	W	W	W
West Virginia Total.....	1,497	59.93	1,433	63.07	4.4
Northern.....	418	61.14	451	61.25	-7.4
Southern.....	1,078	59.46	982	63.91	9.8
Wyoming.....	6,707	93.43	6,673	92.96	0.5
U.S. Total.....	17,955	81.65	18,216	81.64	-1.4

* = The unit of measure is less than 0.5 or percent change is less than 0.1%.

W = Withheld to avoid disclosure of individual company data.

Note: • 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 mines producing less than 10,000 short tons, which are not required to provide data and refuse recovery. Totals may not equal sum of components because of independent rounding.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 15. Recoverable Coal Reserves at Producing Mines, Estimated Recoverable Reserves, and Demonstrated Reserve Base by Mining Method, 2003
(Million Short Tons)

Coal-Resource State	Underground - Minable Coal			Surface - Minable Coal			Total		
	Recoverable Reserves at Producing Mines	Estimated Recoverable Reserves	Demonstrated Reserve Base	Recoverable Reserves at Producing Mines	Estimated Recoverable Reserves	Demonstrated Reserve Base	Recoverable Reserves at Producing Mines	Estimated Recoverable Reserves	Demonstrated Reserve Base
Alabama.....	283	537	1,066	25	2,290	3,215	308	2,828	4,282
Alaska.....	-	2,745	5,423	W	547	691	W	3,292	6,114
Arizona.....	-	-	-	W	18	23	W	18	23
Arkansas.....	-	127	272	-	101	144	-	228	417
Colorado.....	360	6,087	11,599	67	3,750	4,766	427	9,837	16,365
Georgia.....	-	1	2	-	1	2	-	2	4
Idaho.....	-	2	4	-	-	-	-	2	4
Illinois.....	873	27,961	88,025	40	10,079	16,563	913	38,040	104,589
Indiana.....	262	3,638	8,784	170	469	802	432	4,107	9,586
Iowa.....	-	807	1,732	-	320	457	-	1,127	2,189
Kansas.....	-	-	-	-	681	973	-	681	973
Kentucky Total.....	796	7,563	17,346	198	7,546	13,076	994	15,109	30,422
Eastern.....	468	775	1,387	171	5,270	9,437	639	6,045	10,824
Western.....	328	6,788	15,959	27	2,276	3,639	355	9,064	19,597
Louisiana.....	-	-	-	W	320	431	W	320	431
Maryland.....	W	324	591	W	47	70	61	371	661
Michigan.....	-	55	123	-	3	5	-	59	128
Mississippi.....	-	-	-	W	-	-	W	-	-
Missouri.....	-	689	1,479	W	3,158	4,512	W	3,848	5,991
Montana.....	W	35,923	70,958	W	39,107	48,372	1,197	75,030	119,330
New Mexico.....	W	2,855	6,187	W	4,103	6,025	1,351	6,958	12,212
North Carolina.....	-	5	11	-	-	-	-	5	11
North Dakota.....	-	-	-	1,211	6,963	9,128	1,211	6,963	9,128
Ohio.....	202	7,746	17,606	134	3,781	5,777	336	11,527	23,382
Oklahoma.....	W	574	1,233	W	229	327	17	803	1,559
Pennsylvania Total.....	439	10,825	23,437	97	1,065	4,283	536	11,889	27,719
Anthracite.....	2	340	3,845	23	420	3,358	26	760	7,203
Bituminous.....	437	10,484	19,592	74	644	925	511	11,129	20,517
South Dakota.....	-	-	-	-	277	366	-	277	366
Tennessee.....	4	282	515	18	182	269	22	464	783
Texas.....	-	-	-	623	9,622	12,500	623	9,622	12,500
Utah.....	W	2,559	5,221	W	212	268	331	2,771	5,488
Virginia.....	192	676	1,204	34	378	590	226	1,054	1,794
Washington.....	-	674	1,332	W	12	16	W	687	1,348
West Virginia Total.....	1,153	15,770	29,548	343	2,476	3,925	1,497	18,246	33,473
Northern.....	393	NA	NA	25	NA	NA	418	NA	NA
Southern.....	760	NA	NA	319	NA	NA	1,078	NA	NA
Wyoming.....	-	22,950	42,501	6,707	19,282	22,320	6,707	42,232	64,821
U.S. Total.....	5,225	151,376	336,199	12,730	117,019	159,893	17,955	268,396	496,092

W = Withheld to avoid disclosure of individual company data.

NA = This estimated value is not available due to insufficient data or inadequate data/model performance.

Note: • Recoverable coal reserves at producing mines represent the quantity of coal that can be recovered (i.e. mined) from existing coal reserves at reporting mines. EIA's estimated recoverable reserves include the coal in the demonstrated reserve base considered recoverable after excluding coal estimated to be unavailable due to land use restrictions or currently economically unattractive for mining, and after applying assumed mining recovery rates; see Glossary for criteria. The effective date for the demonstrated reserve base, as customarily worded, is "Remaining as of January 1, 2004." These data are contemporaneous with the Recoverable reserves at Producing Mines, customarily presented as of the end of the past year's mining, that is in this case, December 31, 2003. The demonstrated reserve base includes publicly available data on coal mapped to measured and indicated degrees of accuracy and found at depths and in coalbed thicknesses considered technologically minable at the time of determinations; see Glossary for criteria. 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 data and refuse recovery.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report," and EIA estimates.

Table 16. Recoverable Coal Reserves and Average Recovery Percentage at Producing Underground Coal Mines by State and Mining Method, 2003
(Million Short Tons)

Coal-Producing State	Continuous ¹		Conventional ²		Longwall ³		Other ⁴		Total	
	Recoverable Coal Reserves at Producing Mines	Average Recovery Percentage	Recoverable Coal Reserves at Producing Mines	Average Recovery Percentage	Recoverable Coal Reserves at Producing Mines	Average Recovery Percentage	Recoverable Coal Reserves at Producing Mines	Average Recovery Percentage	Recoverable Coal Reserves at Producing Mines	Average Recovery Percentage
Alabama.....	W	W	-	-	W	W	-	-	283	53.48
Colorado.....	W	W	W	W	326	66.74	-	-	360	66.31
Illinois.....	W	W	-	-	W	W	-	-	873	57.49
Indiana.....	262	62.05	-	-	-	-	-	-	262	62.05
Kentucky Total.....	723	50.34	W	W	W	W	W	W	796	50.01
Eastern.....	W	W	W	W	W	W	-	-	468	50.45
Western.....	W	W	-	-	-	-	W	W	328	49.38
Maryland.....	W	W	-	-	W	W	-	-	W	W
Montana.....	W	W	-	-	-	-	-	-	W	W
New Mexico.....	-	-	-	-	W	W	-	-	W	W
Ohio.....	3	55.53	W	W	W	W	-	-	202	66.15
Oklahoma.....	W	W	-	-	-	-	-	-	W	W
Pennsylvania Total.....	83	62.79	W	W	W	W	-	-	439	66.64
Anthracite.....	W	W	W	W	-	-	-	-	2	77.93
Bituminous.....	W	W	-	-	W	W	-	-	437	66.58
Tennessee.....	4	50.04	-	-	-	-	-	-	4	50.04
Utah.....	46	66.59	-	-	285	56.13	-	-	330	57.57
Virginia.....	145	53.72	W	W	W	W	-	-	192	53.43
West Virginia Total.....	587	51.71	5	48.89	561	56.30	-	-	1,153	53.94
Northern.....	W	W	W	W	W	W	-	-	393	60.51
Southern.....	W	W	W	W	W	W	-	-	760	50.53
U.S. Total.....	2,419	53.97	81	60.22	2,712	61.21	12	53.00	5,225	57.83

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

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

³ Mines that have any production from the 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 50/50 percent continuous conventional split in mining method.

W = Withheld to avoid disclosure of individual company data.

Note: • Recoverable coal reserves at producing mines 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 mines producing less than 10,000 short tons, which are not required to provide data and refuse recovery.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 17. Recoverable Coal Reserves and Average Recovery Percentage at Producing U.S. Mines by Mine Production Range and Mine Type, 2003
(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.....	3,883	58.49	12,043	91.95	15,926	83.79
500 to 1,000.....	328	52.65	213	85.14	541	65.45
200 to 500.....	506	54.49	245	81.08	751	63.16
100 to 200.....	198	54.24	93	84.99	291	64.04
50 to 100.....	49	57.29	64	78.61	113	69.43
10 to 50.....	260	63.71	72	78.42	332	66.90
U.S. Total.....	5,225	57.83	12,730	91.43	17,955	81.65

Note: • Recoverable coal reserves at producing mines 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 mines producing less than 10,000 short tons, which are not required to provide data and refuse recovery.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Employment

Table 18. Average Number of Employees by State and Mine Type, 2003, 2002

Coal-Producing State and Region ¹	2003			2002			Percent Change		
	Underground	Surface	Total	Underground	Surface	Total	Underground	Surface	Total
Alabama.....	2,615	800	3,415	2,722	667	3,389	-3.9	19.9	0.8
Alaska.....	-	81	81	-	99	99	-	-18.2	-18.2
Arizona.....	-	661	661	-	681	681	-	-2.9	-2.9
Arkansas.....	19	3	22	22	5	27	-13.6	-40.0	-18.5
Colorado.....	1,521	597	2,118	1,416	649	2,065	7.4	-8.0	2.6
Illinois.....	3,188	467	3,655	3,046	531	3,577	4.7	-12.1	2.2
Indiana.....	1,060	1,712	2,772	908	1,794	2,702	16.7	-4.6	2.6
Kansas.....	-	8	8	-	8	8	-	-	-
Kentucky Total.....	9,916	5,336	15,252	11,310	5,732	17,042	-12.3	-6.9	-10.5
Eastern.....	8,143	4,893	13,036	9,281	5,237	14,518	-12.3	-6.6	-10.2
Western.....	1,773	443	2,216	2,029	495	2,524	-12.6	-10.5	-12.2
Louisiana.....	-	214	214	-	205	205	-	4.4	4.4
Maryland.....	229	222	451	283	228	511	-19.1	-2.6	-11.7
Mississippi.....	-	195	195	-	135	135	-	44.4	44.4
Missouri.....	-	19	19	-	13	13	-	46.2	46.2
Montana.....	15	742	757	-	806	806	-	-7.9	-6.1
New Mexico.....	252	1,163	1,415	229	1,445	1,674	10.0	-19.5	-15.5
North Dakota.....	-	917	917	-	939	939	-	-2.3	-2.3
Ohio.....	1,203	1,203	2,406	1,255	1,312	2,567	-4.1	-8.3	-6.3
Oklahoma.....	36	111	147	39	99	138	-7.7	12.1	6.5
Pennsylvania Total.....	4,607	2,319	6,926	5,062	2,601	7,663	-9.0	-10.8	-9.6
Anthracite.....	243	577	820	229	643	872	6.1	-10.3	-6.0
Bituminous.....	4,364	1,742	6,106	4,833	1,958	6,791	-9.7	-11.0	-10.1
Tennessee.....	223	344	567	297	322	619	-24.9	6.8	-8.4
Texas.....	-	2,369	2,369	-	2,375	2,375	-	-0.3	-0.3
Utah.....	1,515	37	1,552	1,524	24	1,548	-0.6	54.2	0.3
Virginia.....	3,350	1,370	4,720	3,720	1,321	5,041	-9.9	3.7	-6.4
Washington.....	-	577	577	-	548	548	-	5.3	5.3
West Virginia Total.....	10,374	4,531	14,905	11,019	5,228	16,247	-5.9	-13.3	-8.3
Northern.....	3,440	474	3,914	3,260	510	3,770	5.5	-7.1	3.8
Southern.....	6,934	4,057	10,991	7,759	4,718	12,477	-10.6	-14.0	-11.9
Wyoming.....	-	4,800	4,800	-	4,699	4,699	-	2.1	2.1
Appalachian Total.....	30,744	15,682	46,426	33,639	16,916	50,555	-8.6	-7.3	-8.2
Northern.....	9,479	4,218	13,697	9,860	4,651	14,511	-3.9	-9.3	-5.6
Central.....	18,650	10,664	29,314	21,057	11,598	32,655	-11.4	-8.1	-10.2
Southern.....	2,615	800	3,415	2,722	667	3,389	-3.9	19.9	0.8
Interior Total.....	6,076	5,541	11,617	6,044	5,660	11,704	0.5	-2.1	-0.7
Illinois Basin.....	6,021	2,622	8,643	5,983	2,820	8,803	0.6	-7.0	-1.8
Western Total.....	3,303	9,575	12,878	3,169	9,890	13,059	4.2	-3.2	-1.4
Powder River Basin.....	-	4,741	4,741	-	4,646	4,646	-	2.0	2.0
Uinta Region.....	2,979	608	3,587	2,874	614	3,488	3.7	-1.0	2.8
East of Miss. River.....	36,765	18,499	55,264	39,622	19,871	59,493	-7.2	-6.9	-7.1
West of Miss. River.....	3,358	12,299	15,657	3,230	12,595	15,825	4.0	-2.4	-1.1
U.S. Subtotal.....	40,123	30,798	70,921	42,852	32,466	75,318	-6.4	-5.1	-5.8
Refuse Recovery.....	-	-	102	-	-	148	-	-	-31.1
U.S. Total.....	40,123	30,798	71,023	42,852	32,466	75,466	-6.4	-5.1	-5.9

¹ For a definition of coal producing regions, see Glossary.

Note: • Includes all employees engaged in production, preparation, processing, development, maintenance, repair shop, or yard work at mining operations, including office workers. Excludes preparation plants with less than 5,000 employee hours per year, which are not required to provide data.

Source: • U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 19. Average Number of Employees at Underground and Surface Mines by State and Mine Production Range, 2003

Coal-Producing State, Region ¹ , and Mine Type	Mine Production Range (thousand short tons)								Total Number of Employees
	1,000 and Greater	500 to 1,000	200 to 500	100 to 200	50 to 100	10 to 50	Less Than 10	Zero ²	
Alabama	2,492	92	124	356	125	80	14	132	3,415
Underground.....	2,492	-	-	63	-	-	3	57	2,615
Surface.....	-	92	124	293	125	80	11	75	800
Alaska	81	-	-	-	-	-	-	-	81
Surface.....	81	-	-	-	-	-	-	-	81
Arizona	625	-	-	-	-	-	-	36	661
Surface.....	625	-	-	-	-	-	-	36	661
Arkansas	-	-	-	-	-	-	22	-	22
Underground.....	-	-	-	-	-	-	19	-	19
Surface.....	-	-	-	-	-	-	3	-	3
Colorado	1,890	-	222	-	-	-	-	6	2,118
Underground.....	1,319	-	196	-	-	-	-	6	1,521
Surface.....	571	-	26	-	-	-	-	-	597
Illinois	2,924	374	129	57	-	4	15	152	3,655
Underground.....	2,691	314	60	-	-	-	15	108	3,188
Surface.....	233	60	69	57	-	4	-	44	467
Indiana	2,124	200	209	19	15	83	19	103	2,772
Underground.....	843	61	41	-	-	83	-	32	1,060
Surface.....	1,281	139	168	19	15	-	19	71	1,712
Kansas	-	-	-	8	-	-	-	-	8
Surface.....	-	-	-	8	-	-	-	-	8
Kentucky	3,816	2,571	3,211	1,398	949	1,145	317	1,845	15,252
Underground.....	2,919	1,476	1,830	1,057	627	626	198	1,183	9,916
Surface.....	897	1,095	1,381	341	322	519	119	662	5,336
Eastern	2,559	2,022	3,127	1,258	926	1,132	317	1,695	13,036
Underground.....	1,731	1,103	1,785	982	627	626	198	1,091	8,143
Surface.....	828	919	1,342	276	299	506	119	604	4,893
Western	1,257	549	84	140	23	13	-	150	2,216
Underground.....	1,188	373	45	75	-	-	-	92	1,773
Surface.....	69	176	39	65	23	13	-	58	443
Louisiana	180	34	-	-	-	-	-	-	214
Surface.....	180	34	-	-	-	-	-	-	214
Maryland	190	60	64	-	26	71	5	35	451
Underground.....	190	-	-	-	-	7	-	32	229
Surface.....	-	60	64	-	26	64	5	3	222
Mississippi	195	-	-	-	-	-	-	-	195
Surface.....	195	-	-	-	-	-	-	-	195
Missouri	-	-	9	10	-	-	-	-	19
Surface.....	-	-	9	10	-	-	-	-	19
Montana	729	-	13	-	-	15	-	-	757
Underground.....	-	-	-	-	-	15	-	-	15
Surface.....	729	-	13	-	-	-	-	-	742
New Mexico	1,210	-	-	-	167	-	-	38	1,415
Underground.....	240	-	-	-	12	-	-	-	252
Surface.....	970	-	-	-	155	-	-	38	1,163
North Dakota	917	-	-	-	-	-	-	-	917
Surface.....	917	-	-	-	-	-	-	-	917
Ohio	1,050	228	565	239	51	83	13	177	2,406
Underground.....	1,050	-	69	15	-	2	-	67	1,203
Surface.....	-	228	496	224	51	81	13	110	1,203
Oklahoma	-	36	87	12	-	10	2	-	147
Underground.....	-	-	36	-	-	-	-	-	36
Surface.....	-	36	51	12	-	10	2	-	111
Pennsylvania	3,234	561	651	747	278	404	229	822	6,926
Underground.....	3,129	392	297	302	37	68	73	309	4,607
Surface.....	105	169	354	445	241	336	156	513	2,319
Anthracite	-	-	-	89	105	128	120	378	820
Underground.....	-	-	-	44	-	33	62	104	243
Surface.....	-	-	-	45	105	95	58	274	577
Bituminous	3,234	561	651	658	173	276	109	444	6,106
Underground.....	3,129	392	297	258	37	35	11	205	4,364
Surface.....	105	169	354	400	136	241	98	239	1,742
Tennessee	-	-	208	83	85	91	32	68	567
Underground.....	-	-	30	28	52	44	29	40	223
Surface.....	-	-	178	55	33	47	3	28	344
Texas	2,280	57	-	-	-	32	-	-	2,369
Surface.....	2,280	57	-	-	-	32	-	-	2,369
Utah	1,123	39	282	-	21	35	-	52	1,552
Underground.....	1,123	39	282	-	21	14	-	36	1,515

See footnotes at end of table.

Table 19. Average Number of Employees at Underground and Surface Mines by State and Mine Production Range, 2003 (Continued)

Coal-Producing State, Region ¹ , and Mine Type	Mine Production Range (thousand short tons)								Total Number of Employees
	1,000 and Greater	500 to 1,000	200 to 500	100 to 200	50 to 100	10 to 50	Less Than 10	Zero ²	
Utah (continued)									
Surface.....	-	-	-	-	-	21	-	16	37
Virginia.....	855	664	1,322	585	264	318	108	604	4,720
Underground.....	737	404	790	479	228	205	57	450	3,350
Surface.....	118	260	532	106	36	113	51	154	1,370
Washington.....	577	-	-	-	-	-	-	-	577
Surface.....	577	-	-	-	-	-	-	-	577
West Virginia.....	7,487	1,519	2,013	787	516	500	101	1,982	14,905
Underground.....	5,078	946	1,560	695	369	312	58	1,356	10,374
Surface.....	2,409	573	453	92	147	188	43	626	4,531
Northern Total.....	2,536	255	486	118	89	119	39	272	3,914
Underground.....	2,300	255	465	88	56	77	15	184	3,440
Surface.....	236	-	21	30	33	42	24	88	474
Southern Total.....	4,951	1,264	1,527	669	427	381	62	1,710	10,991
Underground.....	2,778	691	1,095	607	313	235	43	1,172	6,934
Surface.....	2,173	573	432	62	114	146	19	538	4,057
Wyoming.....	4,676	-	-	44	-	-	-	80	4,800
Surface.....	4,676	-	-	44	-	-	-	80	4,800
Appalachian Total.....	17,867	5,146	8,074	4,055	2,271	2,679	819	5,515	46,426
Underground.....	14,407	2,845	4,531	2,564	1,313	1,264	418	3,402	30,744
Surface.....	3,460	2,301	3,543	1,491	958	1,415	401	2,113	15,682
Northern.....	7,010	1,104	1,766	1,104	444	677	286	1,306	13,697
Underground.....	6,669	647	831	405	93	154	88	592	9,479
Surface.....	341	457	935	699	351	523	198	714	4,218
Central.....	8,365	3,950	6,184	2,595	1,702	1,922	519	4,077	29,314
Underground.....	5,246	2,198	3,700	2,096	1,220	1,110	327	2,753	18,650
Surface.....	3,119	1,752	2,484	499	482	812	192	1,324	10,664
Southern.....	2,492	92	124	356	125	80	14	132	3,415
Underground.....	2,492	-	-	63	-	-	3	57	2,615
Surface.....	-	92	124	293	125	80	11	75	800
Interior Total.....	8,960	1,250	518	246	38	142	58	405	11,617
Underground.....	4,722	748	182	75	-	83	34	232	6,076
Surface.....	4,238	502	336	171	38	59	24	173	5,541
Illinois Basin.....	6,305	1,123	422	216	38	100	34	405	8,643
Underground.....	4,722	748	146	75	-	83	15	232	6,021
Surface.....	1,583	375	276	141	38	17	19	173	2,622
Western Total.....	11,828	39	517	44	188	50	-	212	12,878
Underground.....	2,682	39	478	-	33	29	-	42	3,303
Surface.....	9,146	-	39	44	155	21	-	170	9,575
Powder River Basin.....	4,661	-	-	-	-	-	-	80	4,741
Surface.....	4,661	-	-	-	-	-	-	80	4,741
Uinta Region.....	3,013	39	421	-	21	35	-	58	3,587
Underground.....	2,442	39	421	-	21	14	-	42	2,979
Surface.....	571	-	-	-	-	21	-	16	608
East of Miss. River.....	24,367	6,269	8,496	4,271	2,309	2,779	853	5,920	55,264
Underground.....	19,129	3,593	4,677	2,639	1,313	1,347	433	3,634	36,765
Surface.....	5,238	2,676	3,819	1,632	996	1,432	420	2,286	18,499
West of Miss. River.....	14,288	166	613	74	188	92	24	212	15,657
Underground.....	2,682	39	514	-	33	29	19	42	3,358
Surface.....	11,606	127	99	74	155	63	5	170	12,299
Subtotal.....	38,655	6,435	9,109	4,345	2,497	2,871	877	6,132	70,921
Underground.....	21,811	3,632	5,191	2,639	1,346	1,376	452	3,676	40,123
Surface.....	16,844	2,803	3,918	1,706	1,151	1,495	425	2,456	30,798
Refuse Recovery.....	-	-	-	39	20	22	18	3	102
U.S. Total.....	38,655	6,435	9,109	4,384	2,517	2,893	895	6,135	71,023

¹ For a definition of coal producing regions, see Glossary.

² Includes all employees at preparation plants and tipples not co-located with a mine.

Note: • Includes all employees engaged in production, preparation, processing, development, maintenance, repair shop, or yard work at mining operations, including office workers. Excludes preparation plants with less than 5,000 employee hours per year, which are not required to provide data.

Source: • U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 20. Average Number of Employees at Underground and Surface Mines by State and Union Status, 2003

Coal-Producing State and Region ¹	Union ²		Nonunion ²	
	Underground	Surface	Underground	Surface
Alabama.....	2,515	23	97	774
Alaska.....	-	81	-	-
Arizona.....	-	661	-	-
Colorado.....	170	291	1,351	306
Illinois.....	1,750	143	1,423	338
Indiana.....	4	308	1,056	1,390
Kansas.....	-	-	-	8
Kentucky Total.....	579	281	9,139	4,966
Eastern.....	50	166	7,895	4,638
Western.....	529	115	1,244	328
Louisiana.....	-	-	-	214
Maryland.....	-	-	229	217
Mississippi.....	-	-	-	195
Missouri.....	-	-	-	19
Montana.....	-	626	15	116
New Mexico.....	252	873	-	290
North Dakota.....	-	273	-	644
Ohio.....	426	90	777	1,100
Oklahoma.....	-	-	36	109
Pennsylvania Total.....	2,408	256	2,126	1,914
Anthracite.....	-	198	181	326
Bituminous.....	2,408	58	1,945	1,588
Tennessee.....	25	-	169	341
Texas.....	-	1,519	-	850
Utah.....	504	-	1,011	39
Virginia.....	583	74	2,710	1,254
Washington.....	-	577	-	-
West Virginia Total.....	4,516	1,071	5,800	3,426
Northern.....	2,140	-	1,285	450
Southern.....	2,376	1,071	4,515	2,976
Wyoming.....	-	626	-	4,174
Appalachian Total.....	10,523	1,680	19,803	13,664
Northern.....	4,974	346	4,417	3,681
Central.....	3,034	1,311	15,289	9,209
Southern.....	2,515	23	97	774
Interior Total.....	2,283	2,085	3,759	3,451
Illinois Basin.....	2,283	566	3,723	2,056
Western Total.....	926	4,008	2,377	5,569
Powder River Basin.....	-	613	-	4,128
Uinta Region.....	674	265	2,305	345
East of Miss. River.....	12,806	2,246	23,526	15,915
West of Miss. River.....	926	5,527	2,413	6,769
U.S. Total.....	13,732	7,773	25,939	22,684

¹ For a definition of coal producing regions, see Glossary.

² Includes all employees at preparation plants and tipples not co-located with a mine.

Note: • Includes all employees engaged in production, preparation, processing, development, maintenance, repair shop, or yard work at mining operations, including office workers. Excludes mines producing less than 10,000 short tons and preparation plants with less than 5,000 employee hours per year, which are not required to provide data.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Productivity

Table 21. Coal Mining Productivity by State and Mine Type, 2003, 2002

Coal-Producing State, Region ¹ , and Mine Type	Number of Mining Operations ²			Number of Employees ³			Average Production per Employee per Hour (short tons) ⁴		
	2003	2002	Percent Change	2003	2002	Percent Change	2003	2002	Percent Change
Alabama	50	49	2.0	3,415	3,389	0.8	2.66	2.56	4.0
Underground.....	13	14	-7.1	2,615	2,722	-3.9	2.58	2.49	3.4
Surface.....	37	35	5.7	800	667	19.9	2.98	2.85	4.6
Alaska	1	1	-	81	99	-18.2	6.08	4.98	22.2
Surface.....	1	1	-	81	99	-18.2	6.08	4.98	22.2
Arizona	3	3	-	661	681	-2.9	8.16	7.21	13.1
Surface.....	3	3	-	661	681	-2.9	8.16	7.21	13.1
Arkansas	2	4	-50.0	22	27	-18.5	*	*	-38.7
Underground.....	1	1	-	19	22	-13.6	*	*	27.3
Surface.....	1	3	-66.7	3	5	-40.0	1.08	2.15	-49.6
Colorado	13	14	-7.1	2,118	2,065	2.6	8.60	8.29	3.7
Underground.....	9	9	-	1,521	1,416	7.4	9.14	8.81	3.8
Surface.....	4	5	-20.0	597	649	-8.0	7.25	7.20	0.8
Illinois	34	31	9.7	3,655	3,577	2.2	3.91	4.23	-7.6
Underground.....	21	20	5.0	3,188	3,046	4.7	3.72	4.07	-8.7
Surface.....	13	11	18.2	467	531	-12.1	5.08	5.05	0.6
Indiana	45	46	-2.2	2,772	2,702	2.6	5.25	5.35	-1.8
Underground.....	15	13	15.4	1,060	908	16.7	3.58	3.79	-5.6
Surface.....	30	33	-9.1	1,712	1,794	-4.6	6.19	6.07	1.9
Kansas	1	1	-	8	8	-	8.70	11.04	-21.2
Surface.....	1	1	-	8	8	-	8.70	11.04	-21.2
Kentucky	518	556	-6.8	15,252	17,042	-10.5	3.46	3.47	-0.3
Underground.....	274	299	-8.4	9,916	11,310	-12.3	3.26	3.22	1.2
Surface.....	244	257	-5.1	5,336	5,732	-6.9	3.83	3.94	-2.7
Eastern	484	520	-6.9	13,036	14,518	-10.2	3.32	3.32	-0.2
Underground.....	257	279	-7.9	8,143	9,281	-12.3	3.04	3.03	0.6
Surface.....	227	241	-5.8	4,893	5,237	-6.6	3.77	3.82	-1.1
Western	34	36	-5.6	2,216	2,524	-12.2	4.23	4.22	0.4
Underground.....	17	20	-15.0	1,773	2,029	-12.6	4.19	4.00	4.7
Surface.....	17	16	6.3	443	495	-10.5	4.42	5.19	-14.8
Louisiana	2	2	-	214	205	4.4	8.78	8.73	0.5
Surface.....	2	2	-	214	205	4.4	8.78	8.73	0.5
Maryland	18	19	-5.3	451	511	-11.7	5.42	4.71	15.0
Underground.....	3	4	-25.0	229	283	-19.1	6.92	5.38	28.6
Surface.....	15	15	-	222	228	-2.6	3.84	3.83	0.4
Mississippi	1	1	-	195	135	44.4	8.77	8.42	4.2
Surface.....	1	1	-	195	135	44.4	8.77	8.42	4.2
Missouri	2	2	-	19	13	46.2	12.57	10.64	18.2
Surface.....	2	2	-	19	13	46.2	12.57	10.64	18.2
Montana	7	6	16.7	757	806	-6.1	24.10	23.42	2.9
Underground.....	1	-	-	15	-	-	0.85	-	-
Surface.....	6	6	-	742	806	-7.9	24.68	23.42	5.4
New Mexico	7	8	-12.5	1,415	1,674	-15.5	9.10	8.29	9.8
Underground.....	2	2	-	252	229	10.0	11.59	3.44	236.7
Surface.....	5	6	-16.7	1,163	1,445	-19.5	8.57	9.12	-6.0
North Dakota	4	4	-	917	939	-2.3	17.69	17.00	4.1
Surface.....	4	4	-	917	939	-2.3	17.69	17.00	4.1
Ohio	71	77	-7.8	2,406	2,567	-6.3	3.90	3.58	8.7
Underground.....	16	17	-5.9	1,203	1,255	-4.1	4.50	3.91	15.0
Surface.....	55	60	-8.3	1,203	1,312	-8.3	3.28	3.29	-0.3
Oklahoma	7	6	16.7	147	138	6.5	4.54	4.17	8.9
Underground.....	1	1	-	36	39	-7.7	4.68	4.98	-6.1
Surface.....	6	5	20.0	111	99	12.1	4.50	3.86	16.5
Pennsylvania	325	338	-3.8	6,926	7,663	-9.6	4.18	4.18	*
Underground.....	91	100	-9.0	4,607	5,062	-9.0	4.96	5.02	-1.1
Surface.....	234	238	-1.7	2,319	2,601	-10.8	2.44	2.40	1.7
Anthracite	109	112	-2.7	820	872	-6.0	0.82	0.78	5.7
Underground.....	38	40	-5.0	243	229	6.1	0.70	0.78	-10.3
Surface.....	71	72	-1.4	577	643	-10.3	0.86	0.78	11.5
Bituminous	216	226	-4.4	6,106	6,791	-10.1	4.56	4.57	-0.2
Underground.....	53	60	-11.7	4,364	4,833	-9.7	5.13	5.18	-0.8
Surface.....	163	166	-1.8	1,742	1,958	-11.0	2.94	2.93	0.4
Tennessee	31	31	-	567	619	-8.4	2.42	2.70	-10.3
Underground.....	14	16	-12.5	223	297	-24.9	1.92	2.39	-19.6
Surface.....	17	15	13.3	344	322	6.8	2.66	2.90	-8.1
Texas	13	12	8.3	2,369	2,375	-0.3	9.50	9.05	4.9
Surface.....	13	12	8.3	2,369	2,375	-0.3	9.50	9.05	4.9
Utah	20	17	17.6	1,552	1,548	0.3	7.22	7.70	-6.2
Underground.....	17	15	13.3	1,515	1,524	-0.6	7.32	7.77	-5.7

See footnotes at end of table.

Table 21. Coal Mining Productivity by State and Mine Type, 2003, 2002 (Continued)

Coal-Producing State, Region ¹ , and Mine Type	Number of Mining Operations ²			Number of Employees ³			Average Production per Employee per Hour (short tons) ⁴		
	2003	2002	Percent Change	2003	2002	Percent Change	2003	2002	Percent Change
Utah (continued)									
Surface.....	3	2	50.0	37	24	54.2	0.53	4.13	-87.1
Virginia.....	170	185	-8.1	4,720	5,041	-6.4	3.17	2.94	7.9
Underground.....	105	120	-12.5	3,350	3,720	-9.9	3.07	2.81	9.1
Surface.....	65	65	-	1,370	1,321	3.7	3.41	3.25	4.7
Washington.....	1	1	-	577	548	5.3	4.92	4.81	2.4
Surface.....	1	1	-	577	548	5.3	4.92	4.81	2.4
West Virginia.....	367	411	-10.7	14,905	16,247	-8.3	4.16	4.33	-4.0
Underground.....	220	247	-10.9	10,374	11,019	-5.9	3.79	3.89	-2.6
Surface.....	147	164	-10.4	4,531	5,228	-13.3	4.95	5.15	-4.0
Northern.....	77	81	-4.9	3,914	3,770	3.8	4.13	4.48	-7.8
Underground.....	41	47	-12.8	3,440	3,260	5.5	4.05	4.42	-8.5
Surface.....	36	34	5.9	474	510	-7.1	4.70	4.79	-2.0
Southern.....	290	330	-12.1	10,991	12,477	-11.9	4.17	4.29	-2.8
Underground.....	179	200	-10.5	6,934	7,759	-10.6	3.67	3.68	-0.2
Surface.....	111	130	-14.6	4,057	4,718	-14.0	4.97	5.19	-4.2
Wyoming.....	19	18	5.6	4,800	4,699	2.1	37.99	38.10	-0.3
Surface.....	19	18	5.6	4,800	4,699	2.1	37.99	38.10	-0.3
Appalachian Total.....	1,516	1,630	-7.0	46,426	50,555	-8.2	3.71	3.71	-0.2
Underground.....	719	797	-9.8	30,744	33,639	-8.6	3.64	3.61	0.9
Surface.....	797	833	-4.3	15,682	16,916	-7.3	3.82	3.91	-2.1
Northern.....	491	515	-4.7	13,697	14,511	-5.6	4.15	4.16	-0.1
Underground.....	151	168	-10.1	9,479	9,860	-3.9	4.62	4.70	-1.6
Surface.....	340	347	-2.0	4,218	4,651	-9.3	3.04	3.02	0.7
Central.....	975	1,066	-8.5	29,314	32,655	-10.2	3.62	3.64	-0.6
Underground.....	555	615	-9.8	18,650	21,057	-11.4	3.28	3.23	1.6
Surface.....	420	451	-6.9	10,664	11,598	-8.1	4.18	4.31	-3.0
Southern.....	50	49	2.0	3,415	3,389	0.8	2.66	2.56	4.0
Underground.....	13	14	-7.1	2,615	2,722	-3.9	2.58	2.49	3.4
Surface.....	37	35	5.7	800	667	19.9	2.98	2.85	4.6
Interior Total.....	141	141	-	11,617	11,704	-0.7	5.56	5.54	0.5
Underground.....	55	55	-	6,076	6,044	0.5	3.83	4.00	-4.2
Surface.....	86	86	-	5,541	5,660	-2.1	7.43	7.17	3.7
Illinois Basin.....	113	113	-	8,643	8,803	-1.8	4.44	4.59	-3.2
Underground.....	53	53	-	6,021	5,983	0.6	3.84	4.00	-4.2
Surface.....	60	60	-	2,622	2,820	-7.0	5.73	5.75	-0.3
Western Total.....	75	72	4.2	12,878	13,059	-1.4	20.82	20.07	3.7
Underground.....	29	26	11.5	3,303	3,169	4.2	8.42	7.89	6.8
Surface.....	46	46	-	9,575	9,890	-3.2	25.01	23.93	4.5
Powder River Basin.....	19	18	5.6	4,741	4,646	2.0	40.62	40.92	-0.7
Underground.....	-	-	-	-	-	-	-	-	-
Surface.....	19	18	5.6	4,741	4,646	2.0	40.62	40.92	-0.7
Uinta Region.....	31	28	10.7	3,587	3,488	2.8	8.09	8.17	-1.0
Underground.....	25	23	8.7	2,979	2,874	3.7	8.31	8.37	-0.7
Surface.....	6	5	20.0	608	614	-1.0	6.97	7.26	-4.0
East of Miss. River.....	1,630	1,744	-6.5	55,264	59,493	-7.1	3.84	3.86	-0.5
Underground.....	772	850	-9.2	36,765	39,622	-7.2	3.68	3.67	*
Surface.....	858	894	-4.0	18,499	19,871	-6.9	4.17	4.22	-1.2
West of Miss. River.....	102	99	3.0	15,657	15,825	-1.1	18.67	18.06	3.4
Underground.....	31	28	10.7	3,358	3,230	4.0	8.33	7.80	6.8
Surface.....	71	71	-	12,299	12,595	-2.4	21.42	20.67	3.6
Subtotal.....	1,732	1,843	-6.0	70,921	75,318	-5.8	6.95	6.81	2.1
Underground.....	803	878	-8.5	40,123	42,852	-6.4	4.04	3.98	1.3
Surface.....	929	965	-3.7	30,798	32,466	-5.1	10.76	10.38	3.7
Refuse Recovery.....	25	32	-21.9	102	148	-31.1	5.69	3.86	47.4
U.S. Total.....	1,757	1,875	-6.3	71,023	75,466	-5.9	6.95	6.80	2.1

¹ For a definition of coal producing regions, see Glossary.

² Mining operations that consist of a mine and preparation plant or preparation plant only processing both underground and surface coal are reported as two operations.

³ Includes all employees engaged in production, preparation, processing, development, maintenance, repair shop, or yard work at mining operations, including office workers.

⁴ Calculated by dividing total coal production by the total labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair shop, or yard work at mining operations, including office workers.

* = The unit of measure is less than 0.5 or percent change is less than 0.1%.

Note: • Excludes preparation plants with less than 5,000 employee hours per year, which are not required to provide data.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 22. Underground Coal Mining Productivity by State and Mining Method, 2003
(Short Tons Produced per Employee per Hour)

Coal-Producing State and Region ¹	Continuous ²	Conventional ³	Longwall ⁴	Other ⁵	Total
Alabama.....	1.56	-	2.61	-	2.58
Colorado.....	3.12	5.76	9.48	-	9.14
Illinois.....	3.84	-	3.52	-	3.72
Indiana.....	3.60	-	-	-	3.60
Kentucky Total.....	3.31	2.64	4.75	2.18	3.28
East.....	3.04	2.64	4.75	-	3.05
West.....	4.28	-	-	2.18	4.25
Maryland.....	6.96	-	6.92	-	6.92
Montana.....	0.85	-	-	-	0.85
New Mexico.....	-	-	12.18	-	12.18
Ohio.....	4.61	3.04	4.83	-	4.52
Oklahoma.....	4.68	-	-	-	4.68
Pennsylvania Total.....	4.02	0.51	5.36	-	5.01
Anthracite.....	0.79	0.51	-	-	0.72
Bituminous.....	4.39	-	5.36	-	5.15
Tennessee.....	2.07	-	-	-	2.07
Utah.....	2.77	-	8.57	-	7.32
Virginia.....	2.67	3.88	4.70	-	3.09
West Virginia Total.....	3.35	2.97	4.46	-	3.80
Northern.....	3.63	2.00	4.28	-	4.06
Southern.....	3.29	3.07	4.66	-	3.68
Appalachian Total.....	3.17	2.67	4.42	-	3.66
Northern.....	3.89	2.61	4.99	-	4.65
Central.....	3.06	2.69	4.68	-	3.29
Southern.....	1.56	-	2.61	-	2.58
Interior Total.....	3.15	-	3.52	1.36	3.20
Illinois Basin.....	3.95	-	3.52	2.18	3.86
Western Total.....	2.73	5.76	9.31	-	8.46
Powder River Basin.....	-	-	-	-	-
Uinta Region.....	2.77	5.75	9.05	-	8.31
East of Miss. River.....	3.35	2.67	4.34	2.18	3.69
West of Miss. River.....	2.91	5.76	9.31	-	8.41
U.S. Total.....	3.34	2.72	5.14	2.18	4.06

¹ For a definition of coal producing regions, see Glossary.

² Mines that produce greater than 50 percent of their coal by continuous mining methods.

³ Mines that produce greater than 50 percent of their coal by conventional mining methods.

⁴ Mines that have any production from longwall mining method. A typical longwall mining operation uses 80 percent longwall mining and 20 percent continuous mining.

⁵ Mines that produce coal using shortwall, scoop loading, hand loading, or other mining methods, or a 50/50 percent conventional/conventional split in mining method.

Note: • For each State, stand alone preparation plant hours are distributed across 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, including office workers. Excludes mines producing less than 10,000 short tons of coal and preparation plants with less than 5,000 employee hours during the year, which are not required to provide data.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 23. Coal Mining Productivity by State, Mine Type, and Mine Production Range, 2003
(Short Tons Coal Produced per Employee per Hour)

Coal-Producing State, Region ¹ , and Mine Type	Mine Production Range							Total ²
	1,000 and Greater	500 to 1,000	200 to 500	100 to 200	50 to 100	10 to 50	Less Than 10	
Alabama	2.65	4.04	3.51	2.56	3.14	3.40	*	2.66
Underground.....	2.65	-	-	1.76	-	-	*	2.58
Surface.....	-	4.04	3.51	2.74	3.14	3.40	*	2.98
Alaska	6.08	-	-	-	-	-	-	6.08
Surface.....	6.08	-	-	-	-	-	-	6.08
Arizona	8.56	-	-	-	-	-	-	8.16
Surface.....	8.56	-	-	-	-	-	-	8.16
Arkansas	-	-	-	-	-	-	*	*
Underground.....	-	-	-	-	-	-	*	*
Surface.....	-	-	-	-	-	-	1.08	1.08
Colorado	8.84	-	5.58	-	-	-	-	8.60
Underground.....	9.51	-	5.14	-	-	-	-	9.14
Surface.....	7.23	-	7.80	-	-	-	-	7.25
Illinois	4.21	3.42	3.90	1.77	-	7.40	*	3.91
Underground.....	3.95	3.42	2.22	-	-	-	*	3.72
Surface.....	6.93	3.41	5.27	1.77	-	7.40	-	5.08
Indiana	5.47	5.59	5.52	6.40	2.26	1.96	*	5.25
Underground.....	3.64	4.02	4.96	-	-	1.96	-	3.58
Surface.....	6.60	6.17	5.65	6.40	2.26	-	*	6.19
Kansas	-	-	-	8.70	-	-	-	8.70
Surface.....	-	-	-	8.70	-	-	-	8.70
Kentucky	4.62	4.31	3.73	2.95	2.80	2.32	*	3.46
Underground.....	4.46	3.58	3.62	2.79	2.60	1.88	*	3.26
Surface.....	5.15	5.27	3.88	3.46	3.15	2.94	*	3.83
Eastern	4.39	4.54	3.75	2.86	2.76	2.26	*	3.32
Underground.....	4.14	3.78	3.63	2.77	2.60	1.88	*	3.04
Surface.....	4.93	5.46	3.89	3.18	3.05	2.82	*	3.77
Western	5.10	3.38	3.26	4.09	4.43	6.27	-	4.23
Underground.....	4.93	2.86	2.81	3.17	-	-	-	4.19
Surface.....	7.81	4.31	3.78	4.82	4.43	6.27	-	4.42
Louisiana	8.86	8.29	-	-	-	-	-	8.78
Surface.....	8.86	8.29	-	-	-	-	-	8.78
Maryland	8.12	4.70	4.93	-	3.18	2.00	*	5.42
Underground.....	8.12	-	-	-	-	8.16	-	6.92
Surface.....	-	4.70	4.93	-	3.18	1.64	1.23	3.84
Mississippi	8.77	-	-	-	-	-	-	8.77
Surface.....	8.77	-	-	-	-	-	-	8.77
Missouri	-	-	16.59	8.71	-	-	-	12.57
Surface.....	-	-	16.59	8.71	-	-	-	12.57
Montana	24.81	-	16.48	-	-	0.85	-	24.10
Underground.....	-	-	-	-	-	0.85	-	0.85
Surface.....	24.81	-	16.48	-	-	-	-	24.68
New Mexico	10.58	-	-	-	*	-	-	9.10
Underground.....	12.18	-	-	-	-	-	-	11.59
Surface.....	10.19	-	-	-	*	-	-	8.57
North Dakota	17.69	-	-	-	-	-	-	17.69
Surface.....	17.69	-	-	-	-	-	-	17.69
Ohio	4.81	3.91	4.00	3.16	4.14	1.29	*	3.90
Underground.....	4.81	-	3.95	5.35	-	-	-	4.50
Surface.....	-	3.91	4.01	3.01	4.14	1.34	*	3.28
Oklahoma	-	5.31	4.30	5.73	-	2.64	0.55	4.54
Underground.....	-	-	4.68	-	-	-	-	4.68
Surface.....	-	5.31	4.05	5.73	-	2.64	0.55	4.50
Pennsylvania	5.72	3.97	4.81	2.64	2.68	2.36	*	4.18
Underground.....	5.74	4.41	6.30	1.95	2.99	1.03	*	4.96
Surface.....	5.11	2.81	3.64	3.11	2.64	2.54	*	2.44
Anthracite	-	-	-	1.97	1.67	1.66	*	0.82
Underground.....	-	-	-	1.84	-	1.25	*	0.70
Surface.....	-	-	-	2.11	1.67	1.78	*	0.86
Bituminous	5.72	3.97	4.81	2.72	3.32	2.73	*	4.56
Underground.....	5.74	4.41	6.30	1.97	2.99	0.68	*	5.13
Surface.....	5.11	2.81	3.64	3.21	3.38	2.89	*	2.94
Tennessee	-	-	3.04	3.19	2.53	1.98	*	2.42
Underground.....	-	-	3.96	2.84	2.60	1.77	*	1.92
Surface.....	-	-	2.90	3.31	2.43	2.24	*	2.66
Texas	9.57	14.02	-	-	-	*	-	9.50
Surface.....	9.57	14.02	-	-	-	*	-	9.50
Utah	9.07	6.06	2.23	-	4.85	2.50	-	7.22
Underground.....	9.07	6.06	2.23	-	4.85	1.95	-	7.32

See footnotes at end of table.

Table 23. Coal Mining Productivity by State, Mine Type, and Mine Production Range, 2003 (Continued)
(Short Tons Coal Produced per Employee per Hour)

Coal-Producing State, Region ¹ , and Mine Type	Mine Production Range							Total ²
	1,000 and Greater	500 to 1,000	200 to 500	100 to 200	50 to 100	10 to 50	Less Than 10	
Utah (continued)								
Surface.....	-	-	-	-	-	3.59	-	0.53
Virginia.....	4.64	4.07	3.59	2.82	2.37	2.30	*	3.17
Underground.....	4.65	3.77	3.39	2.80	2.51	2.41	*	3.07
Surface.....	4.63	4.54	3.85	2.92	1.68	2.18	*	3.41
Washington.....	4.92	-	-	-	-	-	-	4.92
Surface.....	4.92	-	-	-	-	-	-	4.92
West Virginia.....	5.36	5.26	3.54	2.91	3.45	2.30	-	4.16
Underground.....	4.88	5.11	3.37	2.79	2.96	2.51	*	3.79
Surface.....	6.30	5.48	4.10	3.81	4.89	2.03	*	4.95
Northern Total.....	4.85	5.46	2.28	3.60	4.40	2.04	*	4.13
Underground.....	4.64	5.46	2.15	3.38	3.87	1.49	*	4.05
Surface.....	6.79	-	5.14	4.18	4.94	2.59	*	4.70
Southern Total.....	5.60	5.23	3.92	2.80	3.23	2.40	*	4.17
Underground.....	5.07	5.01	3.87	2.71	2.83	2.81	*	3.67
Surface.....	6.25	5.48	4.05	3.64	4.87	1.77	*	4.97
Wyoming.....	38.97	-	-	2.98	-	-	-	37.99
Surface.....	38.97	-	-	2.98	-	-	-	37.99
Appalachian Total.....								
Underground.....	4.87	4.58	3.76	2.82	2.88	2.25	*	3.71
Surface.....	4.61	4.29	3.68	2.66	2.69	2.06	*	3.64
Surface.....	5.89	4.93	3.85	3.07	3.11	2.38	*	3.82
Northern.....	5.33	4.26	3.87	2.84	3.12	2.12	*	4.15
Underground.....	5.28	4.73	3.78	2.34	3.46	1.43	*	4.62
Surface.....	6.35	3.62	3.95	3.12	3.06	2.25	*	3.04
Central.....	5.13	4.68	3.73	2.85	2.78	2.28	*	3.62
Underground.....	4.69	4.15	3.66	2.76	2.64	2.16	*	3.28
Surface.....	5.84	5.33	3.83	3.20	3.15	2.44	*	4.18
Southern.....	2.65	4.04	3.51	2.56	3.14	3.40	*	2.66
Underground.....	2.65	-	-	1.76	-	-	*	2.58
Surface.....	-	4.04	3.51	2.74	3.14	3.40	*	2.98
Interior Total.....	6.12	4.22	4.76	4.10	3.44	1.78	*	5.56
Underground.....	4.16	3.20	3.45	3.17	-	1.96	*	3.83
Surface.....	8.31	5.62	5.42	4.37	3.44	1.70	*	7.43
Illinois Basin.....	4.85	3.81	4.61	3.46	3.44	3.29	*	4.44
Underground.....	4.16	3.20	3.14	3.17	-	1.96	*	3.84
Surface.....	6.70	4.87	5.33	3.57	3.44	6.41	*	5.73
Western Total.....	22.31	6.06	3.56	2.98	*	1.44	-	20.82
Underground.....	9.56	6.06	3.00	-	1.95	1.15	-	8.42
Surface.....	26.04	-	10.67	2.98	*	3.59	-	25.01
Powder River Basin.....	41.31	-	-	-	-	-	-	40.62
Surface.....	41.31	-	-	-	-	-	-	40.62
Uinta Region.....	8.92	6.06	2.98	-	4.85	2.50	-	8.09
Underground.....	9.31	6.06	2.98	-	4.85	1.95	-	8.31
Surface.....	7.23	-	-	-	-	3.59	-	6.97
East of Miss. River.....	4.89	4.45	3.80	2.84	2.89	2.27	*	3.84
Underground.....	4.50	4.08	3.66	2.67	2.69	2.06	*	3.68
Surface.....	6.23	4.92	3.96	3.11	3.13	2.42	*	4.17
West of Miss. River.....	20.04	7.91	3.93	4.84	*	0.97	*	18.67
Underground.....	9.56	6.06	3.15	-	1.95	1.15	*	8.33
Surface.....	22.44	8.69	7.38	4.84	*	0.87	*	21.42
Subtotal.....	10.03	4.52	3.81	2.88	2.66	2.22	*	6.95
Underground.....	5.06	4.10	3.62	2.67	2.67	2.03	*	4.04
Surface.....	16.73	5.05	4.04	3.18	2.65	2.35	*	10.76
Refuse Recovery.....	-	-	-	7.71	6.46	3.29	1.39	5.69
U.S. Total.....	10.03	4.52	3.81	2.93	2.69	2.23	*	6.95

¹ For a definition of coal producing regions, see Glossary.

² Includes all employees at preparation plants and tipples not co-located with a mine.

* = The unit of measure is less than 0.5 or percent change is less than 0.1%.

Note: • Productivity is calculated by dividing total coal production by the total labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair shop, or yard work at mining operations, including office workers. Excludes preparation plants with less than 5,000 employee hours during the year, which are not required to provide data.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 24. Coal Mining Productivity by State, Mine Type, and Union Status, 2003
(Short Tons Produced per Employee per Hour)

Coal-Producing State and Region ¹	Union		Nonunion	
	Underground	Surface	Underground	Surface
Alabama.....	2.63	-	1.24	3.08
Alaska.....	-	6.08	-	-
Arizona.....	-	8.16	-	-
Colorado.....	5.70	6.05	9.59	8.48
Illinois.....	3.84	2.24	3.60	6.25
Indiana.....	-	5.00	3.59	6.43
Kansas.....	-	-	-	8.70
Kentucky Total.....	2.57	4.31	3.31	3.81
Eastern.....	-	5.84	3.07	3.70
Western.....	2.85	2.19	4.69	5.29
Louisiana.....	-	-	-	8.78
Maryland.....	-	-	6.92	3.85
Mississippi.....	-	-	-	8.77
Missouri.....	-	-	-	12.57
Montana.....	-	22.01	0.85	40.06
New Mexico.....	11.59	7.60	-	11.45
North Dakota.....	-	14.79	-	18.76
Ohio.....	4.45	3.61	4.53	3.26
Oklahoma.....	-	-	4.68	4.59
Pennsylvania Total.....	4.22	0.94	5.88	2.68
Anthracite.....	-	0.53	0.72	1.07
Bituminous.....	4.22	2.23	6.26	2.99
Tennessee.....	1.76	-	2.09	2.66
Texas.....	-	9.32	-	9.84
Utah.....	4.83	-	8.51	0.53
Virginia.....	2.67	3.16	3.17	3.42
Washington.....	-	4.92	-	-
West Virginia Total.....	3.61	3.91	3.95	5.25
Northern.....	4.28	-	3.58	4.78
Southern.....	2.97	3.91	4.04	5.32
Wyoming.....	-	8.06	-	42.11
Appalachian Total.....	3.48	3.58	3.75	3.87
Northern.....	4.27	1.68	5.09	3.20
Central.....	2.85	4.12	3.38	4.20
Southern.....	2.63	-	1.24	3.08
Interior Total.....	3.60	7.72	3.98	7.28
Illinois Basin.....	3.60	3.72	3.97	6.25
Western Total.....	6.83	9.84	9.04	35.96
Powder River Basin.....	-	22.11	-	43.32
Uinta Region.....	5.05	5.91	9.27	7.89
East of Miss. River.....	3.50	3.61	3.79	4.27
West of Miss. River.....	6.83	9.69	8.97	31.14
U.S. Total.....	3.70	7.85	4.24	11.78

¹ For a definition of coal producing regions, see Glossary.

Note: • 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, including office workers. Excludes mines producing less than 10,000 short tons of coal and preparation plants with less than 5,000 employee hours during the year, which are not required to provide data.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Domestic Markets

Table 25. Coal Consumers in the Manufacturing and Coke Sectors, 2003

Company Name	Plant Location
Top Ten Manufacturers	
Aluminum Co of America	(IN)(TX)
Archer Daniels Midland	(IA)(IL)(MN)(ND)
Carmeuse North American Group	(AL)(IL)(IN)(KY)(MI)(OH)(PA)
Dakota Coal Company	(ND)
E I DuPont DE Nemours & Co	(DE)(MS)(NC)(SC)(TN)(WV)
Eastman Chemical Company	(AR)(NY)(SC)(TN)
Georgia-Pacific Corp	(AL)(GA)(OK)(VA)(WI)
International Paper Co	(AL)(FL)(GA)(IN)(LA)(MI)(MN)(NC)(SC)(VA)(WI)
Lafarge North America	(AL)(GA)(IA)(IL)(KS)(MI)(MO)(NY)(OK)(PA)(SC)(WA)
Mead Westvaco Corporation	(MD)(MI)(OH)(SC)(VA)
Other Major Manufacturers	
A E Stanley Manufacturing Co	(IL)(IN)(TN)
Abitibi Consolidated Sales Corp	(AZ)
Amalgamated Sugar Co, LLC	(ID)
American Crystal Sugar Co	(MN)(ND)
Ash Grove Cement Co	(AR)(KS)(MT)(NE)(UT)
Blue Ridge Paper Prod Inc	(NC)
Bowater Newsprint	(AL)(TN)
California Portland Cement Co	(AZ)(CA)
Cargill Incorporated	(AL)(GA)(IA)(MI)(NC)(NY)(OH)(TN)
Celanese Ltd	(TX)
Cemex, Inc	(AL)(CO)(GA)(KY)(MI)(OH)(PA)(TN)(TX)
Central Power & Lime Inc	(FL)
Corn Prod International	(IL)(NC)
ESSROC Materials Inc	(IN)(MD)(PA)
FMC Corporation	(WV)(WY)
G E Company	(IN)(KY)(PA)
General Chemical Corporation	(WY)
Holcim Inc	(AL)(CO)(IA)(MI)(MS)(SC)(UT)
IMC Chemical Co	(CA)
ISG/ Bethlehem Steel Corp	(IN)
Ispat US Holdings BV	(IN)
Kennecott Utah Copper	(UT)
Lehigh Cement Co	(AL)(IA)(IN)(MD)(PA)
PPG Industries Inc	(WV)
Silver Bay Power Company	(MN)
Smurfit Stone Container Corp	(FL)(MI)(SC)(VA)
Solutia Inc	(AL)(MA)
Stora Enso North America	(WI)
TXI Operations, LP	(TX)
Weverhaeuser Inc	(AL)(NC)(PA)(TN)(WA)
Top Ten Coke Producers	
AK Steel Corp	(KY)(OH)
Bethlehem Steel Corp	(IN)
Citizens Gas & Coke Utility	(IN)
DTE Energy Services	(IN)
Drummond Company Inc	(AL)
Indiana Harbor Coke Co LP	(IN)
Jewell Coke Company LP	(VA)
National Steel Corp	(IL)(MI)
U S Steel Mining Company LLC	(IN)(PA)
Wheeling-Pittsburgh Steel Corp	(WV)

Note: • Major manufactures are the top 40 coal consumers in the manufacturing sector. Major coke producers are the top 10 coal consumers in the coke plant sector. Manufacturers and coke producers are listed in alphabetical order.

Source: • Energy Information Administration, Manufacturers: Form EIA-3, "Quarterly Coal Consumption Report, Manufacturing Plants;" and, Coke Plants: Form EIA-5, "Coke Plant Report - Quarterly."

Table 26. U.S. Coal Consumption by End Use Sector, by Census Division and State, 2003, 2002
(Thousand Short Tons)

Census Division and State	2003				2002				Total		
	Electric Power ¹	Other Industrial	Coke	Residential and Commercial	Electric Power ¹	Other Industrial	Coke	Residential and Commercial	2003	2002	Percent Change
New England	8,184	W	-	W	7,858	W	-	W	8,424	8,092	4.1
Connecticut.....	2,054	-	-	W	1,508	-	-	W	W	W	36.2
Maine.....	145	W	-	W	221	W	-	W	266	311	-14.6
Massachusetts.....	4,390	W	-	W	4,603	W	-	W	4,498	4,735	-5.0
New Hampshire.....	1,595	-	-	W	1,527	-	-	W	W	W	4.4
Rhode Island.....	-	-	-	W	-	-	-	W	W	W	29.1
Vermont.....	-	-	-	W	-	-	-	W	W	W	21.0
Middle Atlantic	64,342	W	W	W	63,084	W	W	W	77,086	75,570	2.0
New Jersey.....	3,935	W	-	W	4,070	W	-	W	3,946	4,079	-3.3
New York.....	9,818	1,100	W	84	9,154	1,155	W	45	W	W	6.6
Pennsylvania.....	50,590	3,046	W	700	49,860	3,121	W	587	W	W	1.6
East North Central	225,090	14,401	11,410	1,013	219,573	14,147	11,154	1,253	251,914	246,127	2.4
Illinois.....	52,313	3,444	W	266	49,266	3,297	W	173	W	W	6.3
Indiana.....	56,977	5,298	8,008	357	57,692	5,196	8,093	331	70,639	71,311	-0.9
Michigan.....	34,065	1,834	W	32	33,367	1,802	W	266	W	W	1.5
Ohio.....	57,334	2,101	W	203	55,917	2,136	W	357	W	W	2.4
Wisconsin.....	24,401	1,723	-	155	23,331	1,716	-	127	26,280	25,174	4.4
West North Central	148,588	13,419	-	659	142,462	W	-	W	162,666	155,801	4.4
Iowa.....	22,046	2,898	-	289	21,504	2,860	-	313	25,233	24,676	2.3
Kansas.....	22,580	158	-	*	22,660	178	-	*	22,738	22,838	-0.4
Minnesota.....	20,056	1,982	-	1	19,088	1,261	-	106	22,040	20,455	7.7
Missouri.....	43,834	1,001	-	192	39,703	994	-	188	45,027	40,885	10.1
Nebraska.....	12,725	385	-	5	12,210	388	-	7	13,115	12,605	4.1
North Dakota.....	25,173	W	-	W	25,247	W	-	W	31,970	31,984	*
South Dakota.....	2,174	W	-	W	2,051	306	-	1	2,543	2,358	7.8
South Atlantic	170,342	W	W	W	170,625	W	W	W	184,555	185,155	-0.3
Delaware.....	1,519	W	-	W	1,541	W	-	W	1,619	1,640	-1.3
District of Columbia.....	-	-	-	W	-	-	-	W	W	W	93.3
Florida.....	26,433	1,111	-	8	28,139	1,196	-	10	27,553	29,345	-6.1
Georgia.....	33,398	1,761	-	-	32,637	1,828	-	5	35,159	34,470	2.0
Maryland.....	11,780	1,254	-	6	11,245	1,323	-	3	13,039	12,571	3.7
North Carolina.....	29,433	1,590	-	130	29,478	1,597	-	132	31,153	31,208	-0.2
South Carolina.....	14,798	1,983	-	-	14,341	1,923	-	*	16,781	16,263	3.2
Virginia.....	15,546	2,221	W	105	15,417	2,152	W	77	W	W	1.3
West Virginia.....	37,435	1,402	W	43	37,828	1,536	W	34	W	W	-1.6
East South Central	107,372	W	2,541	W	104,649	W	2,319	W	117,019	114,044	2.6
Alabama.....	35,598	2,055	W	3	33,545	2,133	W	4	W	W	5.5
Kentucky.....	38,536	1,210	W	203	38,605	1,134	W	252	W	W	0.2
Mississippi.....	10,049	W	-	W	7,869	W	-	W	10,196	8,018	27.2
Tennessee.....	23,189	3,354	-	134	24,630	3,340	-	64	26,677	28,034	-4.8
West South Central	152,456	W	-	W	145,825	W	-	W	157,977	151,138	4.5
Arkansas.....	14,310	417	-	-	14,165	422	-	*	14,726	14,587	1.0
Louisiana.....	15,462	W	-	W	14,623	W	-	W	15,592	14,676	6.2
Oklahoma.....	21,580	W	-	W	21,365	W	-	W	22,283	22,090	0.9
Texas.....	101,103	4,132	-	140	95,673	4,046	-	65	105,376	99,785	5.6
Mountain	115,880	4,075	-	458	112,921	3,773	-	550	120,413	117,244	2.7
Arizona.....	19,378	681	-	1	19,328	626	-	1	20,059	19,955	0.5
Colorado.....	19,592	W	-	W	19,446	W	-	W	20,149	19,877	1.4
Idaho.....	-	490	-	14	-	469	-	19	503	487	3.2
Montana.....	10,927	W	-	W	9,746	W	-	W	11,022	9,841	12.0
Nevada.....	7,365	W	-	W	7,885	W	-	W	7,591	8,071	-6.0
New Mexico.....	16,539	W	-	W	15,197	W	-	W	16,623	15,275	8.8
Utah.....	16,217	611	-	61	15,644	592	-	198	16,890	16,434	2.8
Wyoming.....	25,861	1,614	-	100	25,675	1,535	-	94	27,575	27,305	1.0
Pacific	12,028	W	-	W	10,511	W	-	W	14,687	13,183	11.4
Alaska.....	518	W	-	W	562	W	-	W	967	1,034	-6.5
California.....	889	1,976	-	*	970	1,973	-	*	2,865	2,943	-2.6
Hawaii.....	734	W	-	W	698	W	-	W	786	748	5.1
Oregon.....	2,533	W	-	W	2,155	W	-	W	2,598	2,205	17.8
Washington.....	7,355	W	-	W	6,126	W	-	W	7,471	6,252	19.5
U.S. Total	1,004,283	61,976	24,248	4,236	977,507	60,747	23,656	4,445	1,094,742	1,066,355	2.7

¹ The electric power sector (electric utilities and independent power producers) comprises electricity-only and combined-heat-and-power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public -- i.e. NAICS 22 plants

* = The unit of measure is less than 0.5 or percent change is less than 0.1%.

W = Withheld to avoid disclosure of individual company data.

Note: • Totals may not equal sum of components because of independent rounding. Electric power sector data is preliminary.

Source: • Energy Information Administration, Form EIA-906, "Power Plant Report," Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants," Form EIA-5, "Coke Plant Report - Quarterly," Form EIA-6A, "Coal Distribution Report," Form EIA-7A, "Coal Production Report," and Form EIA-906, "Power Plant Report."

Table 27. Year-End Coal Stocks by End-Use Sector, by Census Division, 2003, 2002
(Thousand Short Tons)

Census Division and State	2003			2002			Total		
	Electric Power ¹	Other Industrial	Coke	Electric Power ¹	Other Industrial	Coke	2003	2002	Percent Change
New England.....	2,054	42	-	1,034	48	-	2,096	1,082	93.7
Middle Atlantic.....	4,727	377	W	7,480	447	W	W	W	-35.6
East North Central.....	32,825	1,346	382	37,373	1,761	570	34,552	39,704	-13.0
West North Central.....	20,751	1,183	-	23,446	1,301	-	21,934	24,748	-11.4
South Atlantic.....	19,077	614	W	24,265	715	W	W	W	-21.2
East South Central.....	12,347	353	143	12,736	401	208	12,843	13,345	-3.8
West South Central.....	17,549	257	-	21,077	349	-	17,806	21,427	-16.9
Mountain.....	10,726	344	-	13,094	560	-	11,071	13,654	-18.9
Pacific.....	1,314	202	-	1,208	209	-	1,516	1,417	7.0
U.S. Total.....	121,371	4,718	905	141,714	5,792	1,364	126,994	148,870	-14.7

¹ The electric power sector (electric utilities and independent power producers) comprises electricity-only and combined-heat-and-power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public -- i.e. NAICS 22 plants.

W = Withheld to avoid disclosure of individual company data.

Note: • Stocks for residential and commercial sector are not included. Electric power sector data is preliminary. Totals may not equal sum of components because of independent rounding.

Source: • Energy Information Administration, Form EIA-906, "Power Plant Report," Form EIA-3, "Quarterly Coal Consumption Report - Manufacturing Plants," and Form EIA-5, "Coke Plants Report - Quarterly."

Average Mine Sales Price

Table 28. Average Open Market Sales Price of Coal by State and Mine Type, 2003, 2002
(Dollars per Short Ton)

Coal-Producing State	2003			2002			Percent Change		
	Underground	Surface	Total	Underground	Surface	Total	Underground	Surface	Total
Alabama.....	33.36	35.03	33.75	34.11	34.87	34.28	-2.2	0.5	-1.6
Alaska.....	-	W	W	-	W	W	-	W	W
Arizona.....	-	W	W	-	W	W	-	W	W
Arkansas.....	-	-	-	-	W	W	-	W	W
Colorado.....	17.35	20.72	18.21	16.58	20.37	17.72	4.6	1.7	2.8
Illinois.....	23.98	24.81	24.13	23.50	26.30	24.04	2.1	-5.7	0.4
Indiana.....	26.74	21.25	22.48	25.92	21.24	22.20	3.2	*	1.2
Kansas.....	-	W	W	-	W	W	-	W	W
Kentucky Total.....	28.10	28.21	28.15	28.03	27.38	27.77	0.3	3.1	1.4
Eastern.....	29.83	29.02	29.49	29.77	28.11	29.04	0.2	3.2	1.5
Western.....	22.23	21.44	22.05	22.37	21.81	22.23	-0.6	-1.7	-0.8
Louisiana.....	-	W	W	-	W	W	-	W	W
Maryland.....	W	W	22.66	W	W	23.08	W	W	-1.8
Mississippi.....	-	W	W	-	W	W	-	W	W
Missouri.....	-	W	W	-	W	W	-	W	W
Montana.....	W	W	9.42	-	9.27	9.27	W	W	1.7
New Mexico.....	W	W	23.18	W	W	22.47	W	W	3.2
North Dakota.....	-	8.76	8.76	-	8.46	8.46	-	3.5	3.5
Ohio.....	21.58	22.90	22.10	20.88	22.00	21.44	3.4	4.1	3.1
Oklahoma.....	W	W	28.32	W	W	27.86	W	W	1.6
Pennsylvania Total.....	26.43	28.23	26.75	25.52	27.42	25.87	3.6	2.9	3.4
Anthracite.....	45.66	50.34	49.55	40.73	49.55	47.78	12.1	1.6	3.7
Bituminous.....	26.35	25.98	26.29	25.45	25.49	25.46	3.5	1.9	3.3
Tennessee.....	32.92	27.68	29.00	33.53	27.57	29.56	-1.8	0.4	-1.9
Texas.....	-	14.76	14.76	-	17.02	17.02	-	-13.3	-13.3
Utah.....	W	W	17.08	W	W	18.30	W	W	-6.7
Virginia.....	30.32	30.28	30.30	31.68	29.77	31.09	-4.3	1.7	-2.5
West Virginia Total.....	30.72	29.00	30.02	30.20	28.77	29.59	1.7	0.8	1.4
Northern.....	25.61	26.36	25.74	24.42	27.93	24.98	4.9	-5.6	3.0
Southern.....	32.96	29.25	31.19	33.03	28.84	30.92	-0.2	1.4	0.9
Wyoming.....	-	6.74	6.74	-	6.37	6.37	-	5.8	5.8
U.S. Total.....	26.71	13.42	17.85	26.68	13.65	17.98	0.1	-1.7	-0.7

* = The unit of measure is less than 0.5 or percent change is less than 0.1%.

W = Withheld to avoid disclosure of individual company data.

Note: • Open market includes all coal sold on the open market to other coal companies or consumers. An average open market sales price is calculated by dividing the total free on board (f.o.b) rail/barge value of the open market coal sold by the total open market coal sold. Excludes mines producing less than 10,000 short tons, which are not required to provide data. Excludes silt, culm, refuse bank, slurry dam, and dredge operations. Totals may not equal sum of components because of independent rounding.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 29. Average Open Market Sales Price of Coal by State and Underground Mining Method, 2003
(Dollars per Short Ton)

Coal-Producing State	Continuous ¹	Conventional ²	Longwall ³	Other ⁴	Total
Alabama.....	W	-	W	-	33.36
Colorado.....	W	W	17.24	-	17.35
Illinois.....	W	-	W	-	23.98
Indiana.....	26.74	-	-	-	26.74
Kentucky Total.....	27.83	30.02	W	W	28.10
Eastern.....	W	30.02	W	-	29.83
Western.....	W	-	-	W	22.23
Maryland.....	W	-	W	-	W
Montana.....	W	-	-	-	W
New Mexico.....	-	-	W	-	W
Ohio.....	19.26	W	W	-	21.58
Oklahoma.....	W	-	-	-	W
Pennsylvania Total.....	25.12	W	W	-	26.43
Anthracite.....	W	W	-	-	45.66
Bituminous.....	W	-	W	-	26.35
Tennessee.....	32.92	-	-	-	32.92
Utah.....	21.53	-	16.58	-	17.08
Virginia.....	28.90	W	W	-	30.32
West Virginia Total.....	31.09	28.24	30.37	-	30.72
Northern.....	21.13	W	26.20	-	25.61
Southern.....	31.82	W	35.55	-	32.96
U.S. Total.....	27.86	29.26	25.63	25.83	26.71

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

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

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 conventional/conventional split in mining method.

W = Withheld to avoid disclosure of individual company data.

Note: • Open market includes all coal sold on the open market to other coal companies or consumers. An average open market sales price is calculated by dividing the total free on board (f.o.b) rail/barge value of the open market coal sold by the total open market coal sold. Excludes mines producing less than 10,000 short tons, which are not required to provide data. Excludes silt, culm, refuse bank, slurry dam, and dredge operations. Totals may not equal sum of components because of independent rounding.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 30. Average Open Market Sales Price of Coal by State, County, and Number of Mines, 2003
(Thousand Short Tons, Dollars per Short Ton)

Coal-Producing State and County	Number of Mines	Open Market Sales	Average Open Market Sales Price
Alabama	41	20,563	33.75
Cullman	1	W	W
Franklin	1	W	W
Jackson	1	W	W
Jefferson	8	W	W
Marion	1	W	W
Shelby	2	W	W
Tuscaloosa	9	10,966	30.15
Walker	16	2,646	33.92
Winston	2	W	W
Alaska	1	W	W
Yukon-Koyukuk Division	1	W	W
Arizona	2	W	W
Navajo	2	W	W
Colorado	12	33,819	18.21
Delta	1	W	W
Garfield	1	W	W
Gunnison	3	W	W
La Plata	1	W	W
Moffat	2	W	W
Montrose	1	W	W
Rio Blanco	1	-	-
Routt	2	W	W
Illinois	21	31,262	24.13
Gallatin	3	W	W
Jackson	1	W	W
Macoupin	2	W	W
Mcdonough	1	W	W
Montgomery	1	W	W
Perry	1	W	W
Randolph	1	W	W
Saline	3	W	W
Sangamon	1	W	W
Vermilion	2	W	W
Wabash	2	W	W
White	2	W	W
Williamson	1	W	W
Indiana	29	32,590	22.48
Clay	2	W	W
Daviess	2	W	W
Gibson	7	11,405	21.57
Greene	1	W	W
Knox	7	3,959	27.43
Pike	4	4,813	22.22
Spencer	1	W	W
Sullivan	1	W	W
Vigo	2	W	W
Warrick	2	W	W
Kansas	1	W	W
Linn	1	W	W
Kentucky	353	110,001	28.15
Bell	13	2,122	29.08
Breathitt	5	1,698	28.65
Clay	2	W	W
Daviess	1	W	W
Floyd	25	3,145	28.22
Harlan	46	10,667	27.84
Henderson	2	W	W
Hopkins	7	W	W
Jackson	2	W	W
Johnson	7	461	30.97
Knott	33	10,456	30.26
Knox	10	502	33.25
Laurel	1	W	W
Lawrence	6	W	W
Lee	1	W	W
Leslie	9	5,207	28.33
Letcher	29	5,680	29.65
Magoffin	1	W	W

See footnotes at end of table.

Table 30. Average Open Market Sales Price of Coal by State, County, and Number of Mines, 2003 (Continued)
(Thousand Short Tons, Dollars per Short Ton)

Coal-Producing State and County	Number of Mines	Open Market Sales	Average Open Market Sales Price
Kentucky (continued)			
Martin	19	8,288	28.62
McLean	1	W	W
Muhlenberg	7	W	W
Ohio	1	W	W
Owsley	2	W	W
Perry	23	12,007	29.11
Pike	91	27,720	30.65
Union	3	W	W
Webster	3	W	W
Whitley	3	W	W
Louisiana	2	W	W
De Soto	1	W	W
Red River	1	W	W
Maryland	14	5,192	22.66
Allegany	10	W	W
Garrett	4	W	W
Mississippi	1	W	W
Choctaw	1	W	W
Missouri	2	W	W
Bates	2	W	W
Montana	7	36,176	9.42
Big Horn	3	W	W
Musselshell	1	W	W
Richland	1	W	W
Rosebud	2	W	W
New Mexico	5	26,452	23.18
Mckinley	2	W	W
San Juan	3	W	W
North Dakota	4	31,119	8.76
McLean	1	W	W
Mercer	2	W	W
Oliver	1	W	W
Ohio	49	20,854	22.10
Athens	1	W	W
Belmont	8	W	W
Carroll	3	W	W
Columbiana	3	W	W
Coshocton	1	W	W
Gallia	1	W	W
Harrison	7	3,178	23.94
Jackson	2	W	W
Jefferson	8	736	20.12
Mahoning	1	W	W
Monroe	1	W	W
Muskingum	1	W	W
Noble	1	W	W
Perry	1	W	W
Stark	3	W	W
Tuscarawas	5	W	W
Vinton	2	W	W
Oklahoma	6	1,626	28.32
Craig	1	W	W
Haskell	1	W	W
Le Flore	3	W	W
Rogers	1	W	W
Pennsylvania	165	63,532	26.75
Armstrong	17	4,760	24.62
Beaver	1	W	W
Butler	1	W	W
Cambria	7	942	26.14
Centre	1	W	W
Clarion	3	W	W
Clearfield	23	2,991	28.76
Columbia	3	W	W
Elk	5	505	25.39
Fayette	7	W	W
Greene	10	38,088	26.13
Indiana	19	2,828	25.52
Jefferson	11	890	26.98
Lawrence	2	W	W

See footnotes at end of table.

Table 30. Average Open Market Sales Price of Coal by State, County, and Number of Mines, 2003 (Continued)
(Thousand Short Tons, Dollars per Short Ton)

Coal-Producing State and County	Number of Mines	Open Market Sales	Average Open Market Sales Price
Pennsylvania (continued)			
Luzerne.....	4	W	W
Lycoming.....	1	W	W
Mercer.....	1	W	W
Northumberland.....	1	W	W
Schuylkill.....	21	471	41.77
Somerset.....	17	4,212	22.29
Washington.....	5	W	W
Westmoreland.....	5	235	23.18
Tennessee.....	19	2,525	29.00
Anderson.....	3	W	W
Campbell.....	6	W	W
Claiborne.....	7	1,473	27.96
Cumberland.....	1	W	W
Fentress.....	1	W	W
Scott.....	1	W	W
Texas.....	13	13,719	14.76
Atascosa.....	1	-	-
Freestone.....	1	-	-
Harrison.....	1	W	W
Hopkins.....	1	-	-
Leon.....	1	W	W
Milam.....	1	-	-
Panola.....	2	-	-
Robertson.....	1	W	W
Rusk.....	1	-	-
Titus.....	2	-	-
Webb.....	1	W	W
Utah.....	14	18,815	17.08
Carbon.....	7	9,214	18.45
Emery.....	6	W	W
Sevier.....	1	W	W
Virginia.....	114	23,920	30.30
Buchanan.....	28	9,503	31.54
Dickenson.....	20	881	29.81
Lee.....	3	W	W
Russell.....	4	W	W
Tazewell.....	6	1,272	34.16
Wise.....	53	11,198	28.74
Washington.....	1	-	-
Lewis.....	1	-	-
West Virginia.....	227	130,051	30.02
Barbour.....	8	702	17.62
Boone.....	33	30,182	30.65
Clay.....	3	W	W
Fayette.....	7	2,538	34.79
Grant.....	3	W	W
Greenbrier.....	2	W	W
Harrison.....	7	W	W
Kanawha.....	15	16,828	30.33
Lincoln.....	2	-	-
Logan.....	18	10,691	30.57
Marion.....	2	W	W
Marshall.....	1	W	W
Mcdowell.....	37	4,190	30.83
Mineral.....	2	W	W
Mingo.....	24	14,422	30.97
Monongalia.....	6	W	W
Nicholas.....	6	W	W
Ohio.....	1	W	W
Preston.....	3	W	W
Raleigh.....	12	W	W
Tucker.....	1	W	W
Upshur.....	7	W	W
Wayne.....	5	W	W
Webster.....	7	W	W
Wyoming.....	15	W	W
Wyoming.....	18	359,271	6.74
Campbell.....	12	322,707	6.52
Carbon.....	2	W	W
Converse.....	1	W	W

See footnotes at end of table.

Table 30. Average Open Market Sales Price of Coal by State, County, and Number of Mines, 2003 (Continued)
(Thousand Short Tons, Dollars per Short Ton)

Coal-Producing State and County	Number of Mines	Open Market Sales	Average Open Market Sales Price
Wyoming (continued)			
Lincoln.....	1	W	W
Sweetwater.....	2	W	W
U.S. Total.....	1,121	981,378	17.85

W = Withheld to avoid disclosure of individual company data.

Note: • Open market includes all coal sold on the open market to other coal companies or consumers. An average open market sales price is calculated by dividing the total free on board (f.o.b) rail/barge value of the open market coal sold by the total open market coal sold. Excludes mines producing less than 10,000 short tons, which are not required to provide data. Excludes silt, culm, refuse bank, slurry dam, and dredge operations. Totals may not equal sum of components because of independent rounding.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 31. Average Open Market Sales Price of Coal by State and Coal Rank, 2003
(Dollars per Short Ton)

Coal-Producing State	Bituminous	Subbituminous	Lignite	Anthracite	Total
Alabama.....	33.75	-	-	-	33.75
Alaska.....	-	W	-	-	W
Arizona.....	W	-	-	-	W
Colorado.....	W	W	-	-	18.21
Illinois.....	24.13	-	-	-	24.13
Indiana.....	22.48	-	-	-	22.48
Kansas.....	W	-	-	-	W
Kentucky Total.....	28.15	-	-	-	28.15
Eastern.....	29.49	-	-	-	29.49
Western.....	22.05	-	-	-	22.05
Louisiana.....	-	-	W	-	W
Maryland.....	22.66	-	-	-	22.66
Mississippi.....	-	-	W	-	W
Missouri.....	W	-	-	-	W
Montana.....	-	W	W	-	9.42
New Mexico.....	W	W	-	-	23.18
North Dakota.....	-	-	8.76	-	8.76
Ohio.....	22.10	-	-	-	22.10
Oklahoma.....	28.32	-	-	-	28.32
Pennsylvania Total.....	26.29	-	-	49.55	26.75
Anthracite.....	-	-	-	49.55	49.55
Bituminous.....	26.29	-	-	-	26.29
Tennessee.....	29.00	-	-	-	29.00
Texas.....	W	-	W	-	14.76
Utah.....	17.08	-	-	-	17.08
Virginia.....	30.30	-	-	-	30.30
West Virginia Total.....	30.02	-	-	-	30.02
Northern.....	25.74	-	-	-	25.74
Southern.....	31.19	-	-	-	31.19
Wyoming.....	W	W	-	-	6.74
U.S. Total.....	26.73	7.73	11.20	49.55	17.85

W = Withheld to avoid disclosure of individual company data.

Note: • Open market includes all coal sold on the open market to other coal companies or consumers. An average open market sales price is calculated by dividing the total free on board (f.o.b) rail/barge value of the open market coal sold by the total open market coal sold. Excludes mines producing less than 10,000 short tons, which are not required to provide data. Excludes silt, culm, refuse bank, slurry dam, and dredge operations. Totals may not equal sum of components because of independent rounding.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 32. Average Open Market Sales Price of Coal by Mine Production Range and Mine Type, 2003
(Dollars per Short Ton)

Mine Production Range (thousand short tons)	Underground	Surface	Total
Over 1,000.....	25.77	11.05	15.42
500 to 1,000.....	29.08	27.60	28.33
200 to 500.....	28.53	27.38	27.95
100 to 200.....	30.67	28.44	29.66
50 to 100.....	29.82	32.23	31.15
10 to 50.....	31.06	27.85	29.05
U.S. Total.....	26.71	13.42	17.85

Note: • Open market includes all coal sold on the open market to other coal companies or consumers. An average open market sales price is calculated by dividing the total free on board (f.o.b) rail/barge value of the open market coal sold by the total open market coal sold. Excludes mines producing less than 10,000 short tons, which are not required to provide data. Excludes silt, culm, refuse bank, slurry dam, and dredge operations. Totals may not equal sum of components because of independent rounding.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Table 33. Average Sales Price of U.S. Coal by State and Disposition, 2003
(Dollars per Short Ton)

Coal-Producing State	Open Market ¹	Captive ²
Alabama.....	33.75	-
Alaska.....	W	-
Arizona.....	W	-
Colorado.....	18.21	32.11
Illinois.....	24.13	20.44
Indiana.....	22.48	20.84
Kansas.....	W	-
Kentucky Total.....	28.15	26.95
Eastern.....	29.49	31.65
Western.....	22.05	22.93
Louisiana.....	W	W
Maryland.....	22.66	-
Mississippi.....	W	-
Missouri.....	W	-
Montana.....	9.42	6.27
New Mexico.....	23.18	-
North Dakota.....	8.76	-
Ohio.....	22.10	20.21
Oklahoma.....	28.32	-
Pennsylvania Total.....	26.75	22.52
Anthracite.....	49.55	-
Bituminous.....	26.29	22.52
Tennessee.....	29.00	-
Texas.....	14.76	13.39
Utah.....	17.08	18.26
Virginia.....	30.30	31.46
Washington.....	-	W
West Virginia Total.....	30.02	30.36
Northern.....	25.74	29.02
Southern.....	31.19	32.87
Wyoming.....	6.74	12.02
U.S. Total.....	17.85	18.70

¹ Open market includes 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.

W = Withheld to avoid disclosure of individual company data.

Note: • An average open market sales price is calculated by dividing the total free on board (f.o.b.) rail/barge value of the open market coal sold, by the total open market coal sold. An average captive market sales price is calculated by dividing the total free on board (f.o.b.) rail/barge value of the captive market coal sold, by the total captive market coal sold. Excludes mines producing less than 10,000 short tons, which are not required to provide data. Excludes silt, culm, refuse bank, slurry dam, and dredge operations.

Source: • Energy Information Administration Form EIA-7A, "Coal Production Report," and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

Average Consumer Prices

Table 34. Average Price of Coal Delivered to End Use Sector by Census Division and State, 2003, 2002
(Dollars per Short Ton)

Census Division and State	2003			2002			Annual Percent Change		
	Electric Utility Plants	Other Industrial Plants	Coke Plants	Electric Utility Plants	Other Industrial Plants	Coke Plants	Electric Utility Plants	Other Industrial Plants	Coke Plants
New England	46.40	W	-	48.78	W	-	-4.9	W	-
Connecticut.....	-	W	-	-	W	-	-	-	-
Maine.....	-	W	-	-	W	-	-	W	-
Massachusetts.....	52.59	W	-	56.43	W	-	-6.8	W	-
New Hampshire.....	45.07	W	-	47.75	W	-	-5.6	-	-
Rhode Island.....	-	W	-	-	W	-	-	-	-
Vermont.....	-	W	-	-	W	-	-	-	-
Middle Atlantic	47.05	W	W	41.80	W	W	12.6	W	W
New Jersey.....	63.47	W	-	60.60	W	-	4.7	W	-
New York.....	38.81	45.90	W	40.10	49.78	W	-3.2	-7.8	W
Pennsylvania.....	31.13	36.47	W	30.62	37.60	W	1.7	-3.0	W
East North Central	25.58	38.04	52.94	25.03	38.64	52.80	2.2	-1.6	0.2
Illinois.....	21.74	29.71	W	22.50	30.23	W	-3.4	-1.7	W
Indiana.....	24.99	36.95	54.33	24.62	38.54	54.67	1.5	-4.1	-0.6
Michigan.....	27.05	46.30	W	26.66	44.75	W	1.5	3.5	W
Ohio.....	29.02	41.32	W	28.95	40.59	W	0.2	1.8	W
Wisconsin.....	19.96	45.32	-	19.90	46.24	-	0.3	-2.0	-
West North Central	15.05	20.07	-	14.69	W	-	2.5	W	-
Iowa.....	14.95	29.93	-	14.95	30.87	-	-	-3.0	-
Kansas.....	17.52	36.84	-	16.85	36.40	-	4.0	1.2	-
Minnesota.....	19.02	31.93	-	18.68	32.01	-	1.8	-0.3	-
Missouri.....	16.14	33.83	-	15.82	35.89	-	2.0	-5.8	-
Nebraska.....	10.21	22.82	-	10.05	23.52	-	1.6	-3.0	-
North Dakota.....	9.67	W	-	9.76	W	-	-0.9	W	-
South Dakota.....	23.00	W	-	22.14	20.23	-	3.9	W	-
South Atlantic	39.32	W	W	38.91	W	W	1.1	W	W
Delaware.....	-	W	-	-	W	-	-	W	-
District of Columbia.....	-	W	-	-	W	-	-	-	-
Florida.....	42.69	47.28	-	42.48	46.27	-	0.5	2.2	-
Georgia.....	40.22	48.58	-	39.17	51.51	-	2.7	-5.7	-
Maryland.....	-	39.16	-	-	40.94	-	-	-4.4	-
North Carolina.....	43.58	47.36	-	43.22	50.43	-	0.8	-6.1	-
South Carolina.....	40.91	48.95	-	40.25	51.94	-	1.6	-5.7	-
Virginia.....	38.95	45.32	W	40.79	49.71	W	-4.5	-8.8	W
West Virginia.....	31.42	38.69	W	30.08	40.13	W	4.5	-3.6	W
East South Central	29.72	W	48.20	29.04	W	50.03	2.4	W	-3.7
Alabama.....	31.52	42.83	W	30.64	42.72	W	2.9	0.2	W
Kentucky.....	28.31	45.52	W	27.25	47.31	W	3.9	-3.8	W
Mississippi.....	37.41	W	-	38.86	W	-	-3.7	W	-
Tennessee.....	28.15	39.10	-	27.73	40.17	-	1.5	-2.6	-
West South Central	18.95	W	-	18.41	W	-	2.9	W	-
Arkansas.....	20.01	46.20	-	14.52	46.28	-	37.8	-0.2	-
Louisiana.....	21.38	W	-	20.27	W	-	5.5	W	-
Oklahoma.....	16.61	W	-	16.27	W	-	2.1	W	-
Texas.....	19.38	22.40	-	20.66	22.54	-	-6.2	-0.6	-
Mountain	21.17	29.90	-	20.50	30.02	-	3.3	-0.4	-
Arizona.....	25.46	41.88	-	25.52	42.85	-	-0.2	-2.2	-
Colorado.....	18.80	W	-	18.58	W	-	1.2	W	-
Idaho.....	-	35.50	-	-	35.61	-	-	-0.3	-
Montana.....	10.55	W	-	10.29	W	-	2.5	W	-
Nevada.....	32.22	W	-	30.21	W	-	6.7	W	-
New Mexico.....	27.85	W	-	28.87	W	-	-3.5	W	-
Utah.....	23.12	26.90	-	21.88	25.84	-	5.7	4.1	-
Wyoming.....	13.70	24.66	-	13.76	25.09	-	-0.4	-1.7	-
Pacific	21.27	W	-	23.11	W	-	-8.0	W	-
Alaska.....	-	W	-	-	W	-	-	W	-
California.....	-	40.60	-	-	39.16	-	-	3.7	-
Hawaii.....	-	W	-	-	W	-	-	W	-
Oregon.....	21.27	W	-	23.11	W	-	-8.0	W	-
Washington.....	-	W	-	-	W	-	-	W	-
U.S. Total	25.29	34.70	50.63	24.74	35.49	50.67	2.2	-2.2	*

* = The unit of measure is less than 0.5 or percent change is less than 0.1%.

W = Withheld to avoid disclosure of individual company data.

Note: • Includes manufacturing plants only.

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

Glossary

American Indian Coal Lease: A lease granted to a mining company to produce coal from American Indian lands in exchange for royalties and other revenues; obtained by direct negotiation with Indian tribal authorities, but subject to approval and administration by the U.S. Department of the Interior.

Anthracite: The highest rank of coal; used primarily for residential and commercial space heating. It is a hard, brittle, and black lustrous coal, often referred to as hard coal, containing a high percentage of fixed carbon and a low percentage of volatile matter. The moisture content of fresh-mined anthracite generally is less than 15 percent. The heat content of anthracite ranges from 22 to 28 million Btu per short ton on a moist, mineral-matter-free basis. The heat content of anthracite coal consumed in the United States averages 25 million Btu per short ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter). Note: Since the 1980's, anthracite refuse or mine waste has been used for steam electric power generation. This fuel typically has a heat content of 15 million Btu per short ton or less.

Appalachian Region: See Coal-Producing Regions.

Area (Surface) Mining: A method used on flat terrain to recover coal by mining long cuts or pits successively. The material excavated from the cut being mined is deposited in the cut previously mined.

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 Number of Employees: The arithmetic mean number of employees working each day at a mining operation. Includes maintenance, office, as well as production-related employees.

Average Open Market Sales Price: The ratio of the total value of the open market sales of coal produced at the mine to the total open market sales tonnage.

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 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.

Bed, Coalbed: All the coal and partings lying between a roof and floor.

Bituminous Coal: A dense coal, usually black, sometimes dark brown, often with well-defined bands of bright and dull material, used primarily as fuel in steam-electric power generation, with substantial quantities also used for heat and power applications in manufacturing and to make coke. Bituminous coal is the most abundant coal in active U.S. mining regions. Its moisture content usually is less than 20 percent. The heat content of bituminous coal ranges from 21 to 30 million Btu per ton on a moist, mineral-matter-free basis. The heat content of bituminous coal consumed in the United States averages 24 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

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).

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.

Central Appalachian Region: See Coal-Producing Regions.

CIF: See Cost, Insurance, Freight.

Coal: A readily combustible black or brownish-black rock whose composition, including inherent moisture, consists of more than 50 percent by weight and more than 70 percent by volume of carbonaceous material. It is formed from plant remains that have been compacted, hardened, chemically altered, and metamorphosed by heat and pressure over geologic time.

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/Washing: The treatment of coal to reject waste. In its broadest sense, preparation is any processing of mined coal to prepare it for market, including crushing and screening or sieving the coal to reach a uniform size, which normally results in removal of some non-coal material. The term coal preparation most commonly refers to processing, including crushing and screening, passing the material through one or more processes to remove impurities, sizing the product, and loading for shipment. Many of the processes separate rock, clay, and other minerals from coal in a liquid medium; hence the term washing is widely used. In some cases coal passes through a drying step before loading.

Coal-Producing Regions: A geographic classification of areas where coal is produced.

Appalachian Region. Consists of Alabama, Eastern Kentucky, Maryland, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia.

Northern Appalachian Region. Consists of Maryland, Ohio, Pennsylvania, and Northern West Virginia.

Central Appalachian Region. Consists of Eastern Kentucky, Virginia, Southern West Virginia, and the Tennessee counties of: Anderson, Campbell, Claiborne, Cumberland, Fentress, Morgan, Overton, Pickett, Putnam, Roane, and Scott.

Southern Appalachian Region: Consists of Alabama, and the Tennessee counties of: Bledsoe, Coffee, Franklin, Grundy, Hamilton, Marion, Rhea, Sequatchie, Van Buren, Warren, and White.

Interior Region (with Gulf Coast). Consists of Arkansas, Illinois, Indiana, Kansas, Louisiana, Mississippi, Missouri, Oklahoma, Texas, and Western Kentucky.

Illinois Basin: Consists of Illinois, Indiana, and Western Kentucky.

Western Region. Consists of Alaska, Arizona, Colorado, Montana, New Mexico, North Dakota, Utah, Washington, and Wyoming.

Powder River Basin: Consists of the Montana counties of Big Horn, Custer, Powder River, Rosebud, and Treasure and the Wyoming counties of Campbell, Converse, Crook, Johnson, Natrona, Niobrara, Sheridan, and Weston.

Uinta Basin: Consists of the Colorado counties of Delta, Garfield, Gunnison, Mesa, Moffat, Pitkin, Rio Blanco, Routt and the Utah counties of Carbon, Duchesne, Emery, Grand, Sanpete, Sevier, Uintah, Utah, and Wasatch.

Coal-Producing States: The States where mined and/or purchased coal originates are defined as follows:

Alabama, Alaska, Arizona, Arkansas, Colorado, Illinois, Indiana, Kansas, Kentucky Eastern, Kentucky Western, Louisiana, Maryland, Mississippi, 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 by:

Kentucky, Eastern. All mines in the following counties in Eastern Kentucky: Bell, Boyd, Breathitt, Carter, Clay, Clinton, Elliot, Estill, Floyd, Greenup, Harlan, Jackson, Johnson, Knott, Knox, Laurel, Lawrence, Lee, Leslie, Letcher, Lewis, Magoffin, Martin, McCreary, Menifee, Morgan, Owsley, Perry, Pike, Powell, Pulaski, Rockcastle, Rowan, Wayne, Whitley, and Wolfe.

Kentucky, Western. All mines in the following counties in Western Kentucky: Breckinridge, Butler, Caldwell, Christian, Crittenden, Daviess, Edmonson, Grayson, Hancock, Hart, Henderson, Hopkins, Logan, McLean, Muhlenberg, Ohio, 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 the following counties: Allegheny, Armstrong, Beaver, Bedford, Butler, Cambria, Clarion, Clearfield, Elk, Fayette, Greene, Indiana, Jefferson, Lawrence, Lycoming, Somerset, Venango, Washington, and Westmoreland, 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, Tyler, Upshur, Webster, Wetzell, 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, Nicholas, Pocahontas, Putnam, Raleigh, Summers, Wayne, and Wyoming.

Coal Rank: The classification of coals according to their degree of progressive alteration from lignite to anthracite. In the United States, the standard ranks of coal include lignite, subbituminous coal, bituminous coal, and anthracite and are based on fixed carbon, volatile matter, heating value, and agglomerating (or caking) properties.

Coal Stocks: Coal quantities that are held in storage for future use and disposition. Note: When coal data are collected for a particular reporting period (month, quarter, or year), coal stocks are commonly measured as of the last day of this 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): A solid carbonaceous residue derived from low-ash, low-sulfur 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 residual ash are fused together. Coke is used as a fuel and as a reducing agent in smelting iron ore in a blast furnace. Coke from coal is grey, hard, and porous and 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.

Coking Coal: Bituminous coal suitable for making coke. See Coke (coal).

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.

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.

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 identified coal resources from which reserves are calculated.

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, office workers, and technical or engineering work.

Dredge Mining: A method of recovering coal from rivers or streams.

Drift Mine: An underground mine that has a horizontal or nearly horizontal entry driven along to a coalbed exposed in a hillside.

Electric Power Sector: The electric power sector (electric utilities and independent power producers) comprises electricity-only and combined-heat-and-power (CHP) plants whose primary business is to sell electricity, or electricity and heat, to the public.

Estimated Recoverable Reserves: See recoverable reserves.

F.O.B. Rail/Barge Price: The free on board price of coal at the point of first sale. It excludes freight or shipping and insurance costs.

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.

Illinois Basin: See Coal-Producing Regions.

Indicated Resources: Coal for which estimates of the rank, quality, and quantity have been computed partly from sample analyses and measurements and partly from reasonable geologic projections. Indicated resources are computed partly from specified measurements and partly from projection of visible data for a reasonable distance on the basis of geologic evidence. The points of observation are 0.5 to 1.5 miles apart. Indicated coal is projected to extend as a 0.5-mile-wide belt that lies more than 0.25 miles from the outcrop or points of observation or measurement.

Industrial Sector: The industrial sector is comprised of 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.

Interior Region: See Coal-Producing Regions.

Lignite: The lowest rank of coal, often referred to as brown coal, used almost exclusively as fuel for steam-electric power generation. It is brownish-black and has a high inherent moisture content, sometimes as high as 45 percent. The heat content of lignite ranges from 9 to 17 million Btu per ton on a moist, mineral-matter-free basis. The heat content of lignite consumed in the United States averages 13 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

Longwall Mining: An automated form of underground coal mining characterized by high recovery and extraction rates, feasible only in relatively flat-lying, thick, and uniform coalbeds. A high-powered cutting machine is passed across the exposed face of coal, shearing away broken coal, which is continuously hauled away by a floor-level conveyor system. Longwall mining extracts all machine-minable coal between the floor and ceiling within a contiguous block of coal, known as a panel, leaving no support pillars within the panel area. Panel dimensions vary over time and with mining conditions but currently average about 900 feet wide (coal face width) and more than 8,000 feet long (the minable extent of the panel, measured in direction of

mining). 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.

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 and coal used for coal synfuels.

Minable: Capable of being mined under current mining technology and environmental and legal restrictions, rules, and regulations.

Mine Type: See Surface Mine and Underground Mine.

Northern Appalachian: See Coal-Producing Regions.

Number of Mines: The number of mines, or mines collocated with preparation plants or tipples, located in a particular geographic area (State or region).

Number of Mining Operations: The number of mining operations includes preparation plants. 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.

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.

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.

Powder River Basin: See Coal-Producing Regions.

Preparation Plant: A facility at which coal is crushed, screened, and mechanically cleaned.

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.

Recoverability: In reference to accessible coal resources, the condition of being physically, technologically, and economically minable. Recovery rates and recovery factors may be determined or estimated for coal resources without certain knowledge of their economic minability; therefore, the availability of recovery rates or factors does not predict recoverability.

Recoverable Coal: Coal that is, or can be, extracted from a coal bed during mining.

Recoverable Reserves at Producing Mines: The amount of in situ coal that can be recovered by mining existing reserves at mines reporting on Form EIA-7A.

Recoverable Reserves, Estimated Recoverable Reserves: Reserve estimates (broad meaning) based on a demonstrated reserve base adjusted for assumed accessibility factors and recovery factors. The term is used by EIA to distinguish estimated recoverable reserves, which are derived without specific economic feasibility criteria by factoring (downward) from a demonstrated reserve base for one or more study areas or regions, from recoverable reserves at active mines, which are aggregated (upward) from reserve estimates reported by currently active, economically viable mines 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 Factor: The percentage of total tons of coal estimated to be recoverable from a given area in relation to the total tonnage estimated to be in the demonstrated reserve base. For the purpose of calculating depletion factors only, the estimated recovery factors for the demonstrated reserve base generally are 50 percent for underground mining methods and 80 percent for surface mining methods. More precise recovery factors can be computed by determining the total coal in place and the total coal recoverable in any specific locale.

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 Recovery: 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.

Remaining (Resources/Reserves): The amount of coal in the ground after some mining, excluding coal in the ground spoiled or left in place for which later recovery is not feasible.

Reserve(s): Root meaning: The amount of in-situ coal in a defined area that can be recovered by mining at a sustainable profit at the time of determination. Broad meaning: That portion of the demonstrated reserve base that is estimated to be recoverable at the time of determination. The reserve is derived by applying a recovery factor to that component of the identified resources of coal designated as the demonstrated reserve base.

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).

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.

Run-of-mine: The raw coal recovered from a mine, prior to any treatment.

Salable Coal: The shippable product of a coal mine or preparation plant. Depending on customer specifications, salable coal may be run-of-mine, crushed-and-screened (sized) coal, or the clean coal yield from a preparation plant.

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.

Seam: A bed of coal lying between a roof and floor. Equivalent term to bed, commonly used by industry.

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.

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 recovery.)

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.

Southern Appalachian: See Coal-Producing Regions.

Stocks: The supply of coal or coke at a mine, plant, or utility at the end of the reporting period.

Subbituminous Coal: A coal whose properties range from those of lignite to those of bituminous coal and used primarily as fuel for steam-electric power generation. It may be dull, dark brown to black, soft and crumbly, at the lower end of the range, to bright, jet black, hard, and relatively strong, at the upper end. Subbituminous coal contains 20 to 30 percent inherent moisture by weight. The heat content of subbituminous coal ranges from 17 to 24 million Btu per ton on a moist, mineral-matter-free basis. The heat content of subbituminous coal consumed in the United States averages 17 to 18 million Btu per ton, on the as-received basis (i.e., containing both inherent moisture and mineral matter).

Surface Mine: A coal 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. Surface mines include: area, contour, open-pit, strip, or auger mine.

Tipple: A central facility used in loading coal for transportation by rail or truck.

Uinta Region: See Coal-Producing Regions.

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).

Underground Mining: The extraction of coal or its products from between enclosing rock strata by underground mining methods, such as room and pillar, longwall, and shortwall, or through in-situ gasification.

Western Region: See Coal-Producing Regions.

