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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 31st 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

Coal production in the United States reached another record level in 2006, ending the year at 1,162.8 million short tons according to data from the Energy Information Administration (Table ES1). Production in 2006 was 31.3 million short tons higher than the prior record set in 2005 of 1,131.5 million short tons. Although coal production rose in 2006, U.S. total coal consumption declined for the year with lower demand by all sectors. Coal consumption decreased in the electric power sector by 1.0 percent, the coking coal sector by 2.0 percent, and the other industrial sector by 1.4 percent. (Note: All percentage change calculations are done at the short-tons level.) The excess production over consumption allowed total coal stocks to increase significantly during the year, as electric generators rebuilt their stockpiles that had fallen substantially in 2005 due to missed shipments in the second half of that year.

The weather in 2006 was the primary driver for the decline in consumption of coal during the year, but the drop was also partially due to declining natural gas prices during the year. Data show that total generation in the electric power sector (electric utilities and independent power producers) in the United States increased slightly in 2006. However, coal-based generation declined, resulting in a 10.8- million-short-ton decrease in coal consumed in the electric power sector. Coal use in the non-electricity sector decreased by 3.2 percent to a level of 85.7 million short tons.

For a third consecutive year, the average delivered price of coal increased in all markets in 2006, but the increases were smaller than those experienced in 2005. In the domestic markets, the delivered price-per-short-ton for electric utilities increased 9.7 percent, while the increase was 6.5 percent for independent power producers. Delivered coking coal prices increased by 10.8 percent, while the delivered price for the other industrial sector increased by 8.5 percent in 2006. The average open market minemouth coal price increased in 2006 by 6.7 percent.

Production

U.S. coal production increased in 2006 by 2.8 percent to reach a record level of 1,162.8 million short tons (Figure ES1 and Table ES1), 31.3 million short tons higher than the 2005 production. Although total U.S. coal production was higher in 2006, not all of the coal-producing regions shared in the increase. Exclusive of refuse production, the Interior and Western Regions had an increase in their production levels in 2006 of 1.5 percent and 5.9 percent respectively, while Appalachian coal production declined by 1.4 percent (Figure ES1 and Table ES1). In the amount of tons of coal produced, the increase in the Western Region production was more than six times the decrease in Appalachian Region production in 2006.

One of the most important aspects for the coal industry in 2006 was the lack of any major transportation issues related to coal moving from the mines to the consumers. Although there were some partial train derailments and sunken barges during the year, and the continuing rail track improvements and river lock repairs that slowed some coal shipments, 2006 was free of the major transportation problem that the coal industry experienced in 2005 (track maintenance work on rail lines in the Powder River Basin).

For the second time in four years, the coal industry was brought to the forefront of the Nation's consciousness in 2006, as two separate events unfolded which involved coal miners trapped underground. Unfortunately, the tragic results of the 2006 incidents were not the same as in 2002 when the trapped miners were all successfully rescued. In January, two different incidents, both in West Virginia, focused the public's attention on the dangers that miners face on a daily basis. As a result of these unfortunate events, new legislation requiring improvement in safety in underground mines passed at both the Federal and state levels. For the year 2006, a total of 47 miners died on the job, matching the total number that occurred in 1995, and more than double the 22 killed in 2005.

Appalachian Region

Coal production in the Appalachian Region decreased in 2006 by 5.5 million short tons, to end the year at 391.2 million short tons, a decline of 1.4 percent, making it the fifth year in a row that the region has experienced coal production of less than 400 million short tons. The decrease in 2006 in coal production in the region was in part, a response to the drop in coal consumption for electricity generation, the slight decrease in coal exports, which are primarily produced in the East, and the increase in coal imports, which are in competition with Appalachian production. The decline in the Appalachian Region in 2006 brought the production level down to the 2004 level.

West Virginia, the largest coal-producing State in the Appalachian Region and the second largest in the U.S., decreased its production 0.8 percent in 2006 to end the year with 152.4 million short tons of production, 1.3 million short tons under the 2005 level. The decline in coal production in West Virginia was in part a result of the suspensions of production after accidents that occurred in January at two new mines in the state: Sago and Aracoma mines. Although there were a few new mines in 2006

Table ES1. U.S. Coal Supply, Disposition, and Prices, 2005-2006
(Million Short Tons and Dollars per Short Ton)

Item	2005	2006
Production by Region		
Appalachian	396.7	391.2
Interior	149.2	151.4
Western	585.0	619.4
Refuse Recovery	0.7	0.8
Total	**1,131.5**	**1,162.8**
Consumption by Sector		
Electric Power	1,037.5	1,026.6
Coke Plants	23.4	23.0
Other Industrial Plants	60.3	59.5
Residential/Commercial	4.7[R]	3.2
Total	**1,126.0[R]**	**1,112.3**
Year-End Coal Stocks		
Electric Power	101.1	141.0
Coke Plants	2.6	2.9
Other Industrial Plants	5.6	6.5
Producers/Distributors	35.0	36.5
Total	**144.3**	**186.9**
Average Delivered Price		
Electric Utilities	$31.22	$34.26
Independent Power Producers	$30.39	$32.38
Coke Plants	$83.79	$92.87
Other Industrial Plants	$47.63	$51.67
Average U.S. Open Market Mine Price	$23.59	$25.16

R = Revised data.

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.

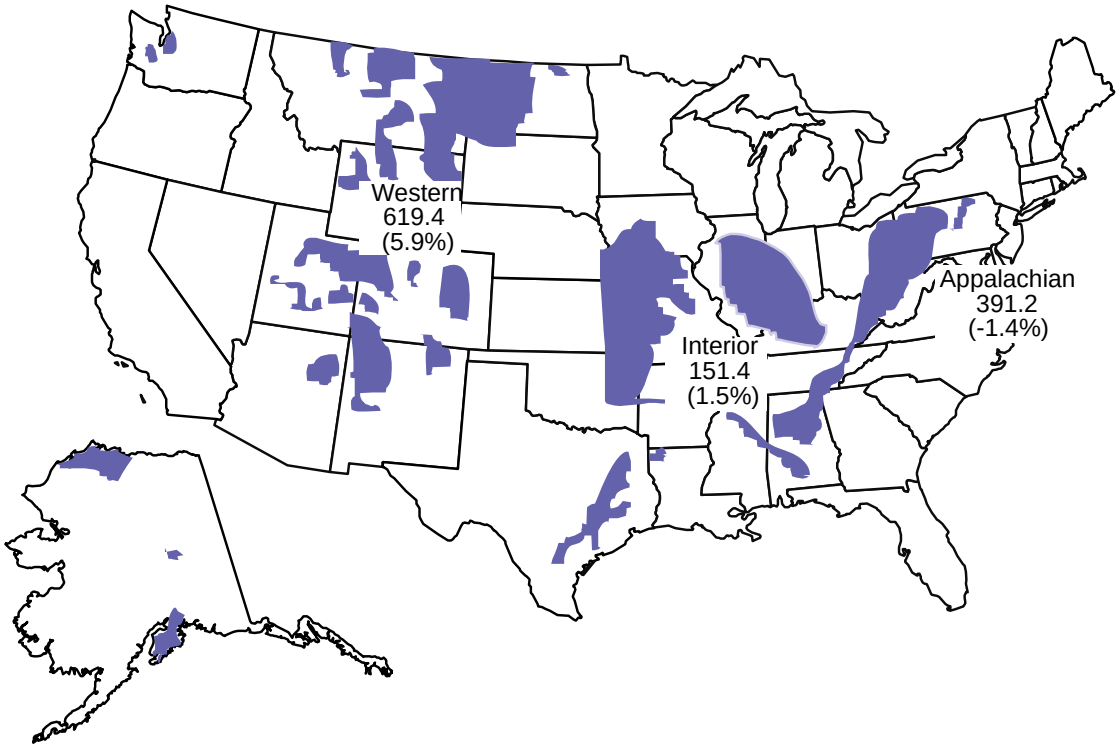
Sources: Energy Information Administration, *Annual Coal Report 2006*, tables 1; 26; 27; 28; and 34; DOE/EIA-0584 (2006) (Washington, DC, November 2007).

and a full year's production from mines that came on line during 2005 (Toney's Fork, Grapevine South, Camp Branch, and No. 130 mines), those increases in coal production were more than offset by the declines in production at other mines in the State (Upper Big Branch, American Eagle, Harris No. 1, and Alex Energy's No. 1) in combination with the idling of the Shoemaker mine in April of 2006.

Eastern Kentucky produced 93.6 million short tons of coal in 2006, a slight increase of 0.3 million short tons or 0.3 percent. Although there were six mines in eastern Kentucky that had an increase in coal production of at least a half-a-million short tons, production decreases by numerous other mines mostly offset those increases resulting in a slight increase in annual production. Two mines with lower 2006 coal production in Eastern Kentucky, the Halfway Branch Surface and the Branham mine, were placed into non-producing status during the year. Pennsylvania produced 66.0 million short tons, a decrease of 2.2 percent, or 1.5 million short tons from 2005. The decrease in coal production level at Consol's Bailey mine and the idling of ANR's Ridge Deep mine accounted for most of the drop in production in 2006.

Coal production in Virginia increased in 2006, the only state in the Appalachian Region to have substantially higher production than 2005. Virginia produced a total of 29.7 million short tons, an increase of 7.2 percent. The increase in coal production in Virginia was primarily a result of the resumption of production at Consol's Buchanan mine that had experienced both a fire and later mechanical problems in 2005 that had substantially reduced production. Ohio's coal production declined in 2006 by 8.1 percent to end the year at 22.7 million short

Figure ES1. Coal Production by Coal-Producing Region, 2006
(Million Short Tons and Percent Change from 2005)
Regional totals do not include refuse recovery
U.S. Total: 1,162.8 Million Short Tons (2.8%)



Source: Energy Information Administration, *Annual Coal Report*, *2006*, DOE/EIA-0584(2006) (Washington, DC, November 2007).

tons. The lower production was a result of the drop in production at Ohio Valley's Powhatan longwall mine and Consol's Mahoning Valley No. 36 mine, which only had production in the first quarter of 2006. Coal production decreased in Alabama in 2006 by 11.8 percent to 18.8 million short tons. The Jim Walter Resources No. 4 mine had lower production in 2006 as a result of a longwall move combined with some roof control issues. Production also decreased in 2006 at Drummond's Shoal Creek mine due to a series of methane ignitions in February that resulted in suspension of production for an extended period of time during the year. Maryland and Tennessee both had slightly decreased coal production in 2006 from their prior year levels.

Interior Region

The Interior Region experienced an increase in coal production in 2006 of 2.2 million short tons, or 1.5 percent to achieve a total of 151.4 million short tons, the highest level seen in the region since 1999. The increase in coal production in the Interior Region was primarily a result of the increased coal production in Indiana and Western Kentucky, which accounted for almost two-thirds of the total regional increase. Indiana coal production rose 0.7 million short tons in 2006 to end the year at 35.1 million short tons, an increase of 1.9 percent. Most of the increase in Indiana's coal production in 2006 can be attributed to Black Beauty Coal Company's Miller Creek Mine - Knox Pit that began production in the fourth quarter of 2005. Western Kentucky coal production in 2006 was 27.2 million short tons, an increase of 0.8 million short tons or 3.1 percent. While a few mines in Western Kentucky ceased production in 2006, a full year's production by two mines that started in the last half of 2005, Advent Mining's Onton No. 9 and Hopkins County Coal's Elk Creek mine, accounted for the majority of the production increase for the year.

Texas is the largest coal-producing State in the Interior Region and in 2006 it accounted for slightly less than one-third of the region's coal production with a total of 45.5 million short tons, a slight decrease of 0.9 percent from 2005. Coal production in Illinois rose by 2.2 percent to end the year at 32.7 million short tons, an increase of 0.7 million short tons. The other States in the Interior Region (Arkansas, Kansas, Louisiana, Mississippi, Missouri, and Oklahoma), which together produced 10.8 million short tons of coal and accounted for a total of 7.1 percent of the entire region's production in 2006, all fluctuated some from their 2005 coal production levels.

Table ES2. U.S. Coal Production by Coal-Producing Region and State, 2005-2006
(Million Short Tons)

Coal-Producing Region and State	2005	2006
Appalachian Total	**396.7**	**391.2**
Alabama	21.3	18.8
Kentucky, Eastern	93.3	93.6
Maryland	5.2	5.1
Ohio	24.7	22.7
Pennsylvania Total	67.5	66.0
Anthracite	1.6	1.5
Bituminous	65.8	64.5
Tennessee	3.2	2.8
Virginia	27.7	29.7
West Virginia	153.6	152.4
Northern	42.6	42.4
Southern	111.0	110.0
Interior Total	**149.2**	**151.4**
Arkansas	s	s
Illinois	32.0	32.7
Indiana	34.5	35.1
Kansas	0.2	0.4
Kentucky, Western	26.4	27.2
Louisiana	4.2	4.1
Mississippi	3.6	3.8
Missouri	0.6	0.4
Oklahoma	1.9	2.0
Texas	45.9	45.5
Western Total	**585.0**	**619.4**
Alaska	1.5	1.4
Arizona	12.1	8.2
Colorado	38.5	36.3
Montana	40.4	41.8
New Mexico	28.5	25.9
North Dakota	30.0	30.4
Utah	24.5	26.0
Washington	5.3	2.6
Wyoming	404.3	446.7
Refuse Recovery	**0.7**	**0.8**
U.S. Total	**1,131.5**	**1,162.8**

s Value is less than 0.5 of the table metric, but value is included in any associated totals.
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."

Western Region

Coal production in the Western Region increased in 2006 by 5.9 percent to a total of 619.4 million short tons, and accounted for over 53 percent of total U.S. coal production for the year. The increase of 34.5 million short tons resulted in another record level for the region, the third year in a row that the region achieved a record. Despite the record level of coal production, only four of the nine States in the Western Region had higher production levels in 2006: Montana, North Dakota, Utah, and Wyoming. Wyoming is by far the largest coal-producing State in the Nation, a position it has held since 1988. In 2006, Wyoming produced 446.7 million short tons of coal, an increase of 42.4 million short tons or 10.5 percent for the year. Although five of the twenty-one mines in Wyoming had slight decreases in coal production in 2006, the increased production levels at the rest of the mines pushed the State to a new record level for the year. The dominance of Wyoming in U.S. coal production is reflected by the fact that the largest mine in the State (and the United States) is the Black Thunder mine which produced 92.7 million short tons in 2006. This Wyoming mine alone produced more coal than 23 other individual coal-producing states. Other examples of Wyoming's dominance are: in 2006, it accounted for about 72 percent of the Western Region production total; was 55.5 million short tons more than the entire Appalachian Region; was almost three times the Interior Region; and was 38.4 percent of the total U.S. coal production for the year. Also, if the 26 States that produced coal in 2006 were ranked by descending total production levels, Wyoming produced 108.1 million short tons more than the next three largest coal-producing States (West Virginia, Kentucky, and Pennsylvania), and 70.1 million short tons more coal than the summation of the States ranked 5th through 26th. Wyoming was able to transport more coal by rail in 2006. Improved railroad capacity in Wyoming resulted in increased shipments which allowed utilities to rebuild stockpiles during the year and was able to alleviate the pent-up demand caused by the restrictions the railroads experienced during the repair and maintenance work on the southern Powder River Basin (PRB) rail line in 2005.

In 2006, Montana, the second largest coal-producing State in the Western Region, produced a total of 41.8 million short tons, an increase of 3.6 percent. Although there was a decrease in production at Western Energy's Rosebud mine, the increase in coal production at Spring Creek Coal's Spring Creek mine due to the completion of an expansion project more than offset the decline. Total coal production in North Dakota increased in 2006 by 1.5 percent to end the year at 30.4 million short tons. Declines in production by two of the four North Dakota mines, Beulah and Center, were offset by increases in the other two mines, Falkirk and Freedom. Coal production in Utah in 2006 increased by 6.1 percent to a level of 26.0 million short tons. The 1.5-million-short-ton increase in Utah was primarily a result of the increase in production at Canyon Fuel's Skyline No. 3 mine.

Colorado had a decline in coal production in 2006, ending the year with a total of 36.3 million short tons, a decrease of 2.2 million short tons, due in part to the closing of HNR's Bowie No. 3 mine at the end of 2005 and the idling of Peabody's Seneca mine at the beginning of 2006. New Mexico had a decrease of 2.6 million short tons in 2006 to end the year with a total of 25.9 million short tons, a decline of 9.1 percent, which was attributable to the decreased production levels at BHP's Navajo and San Juan South mines. Coal production in 2006 in Alaska was 1.4 million short tons, slightly below the prior year total.

Arizona and Washington both had major declines in coal production in 2006 as a consequence of mine closures. Coal production in Arizona in 2006 was 8.2 million short tons, a decrease of 3.9 million short tons, or 31.9 percent. This decline was due to the idling of the Peabody's Black Mesa mine which had provided coal to the jointly-owned Mohave electric generation facility that closed at the end of 2005, due to an agreement with several organizations that required the plant to install environmental equipment or cease operation. Coal production in Washington in 2006 declined by 51.0 percent to 2.6 million short tons. The only mine in the State, TransAlta's Centralia mine, had deteriorating mining conditions and escalating mining costs that resulted in the company deciding to close the mine at the end of November 2006.

Employment

The number of employees in U.S. coal mines increased in 2006 by 4.6 percent to a level of 82,959. Increases in the number of employees were experienced in both underground and surface mining in 2006 at the national level. The largest increase in total employees in a State was in West Virginia, which added 1,465 employees to the payroll. However, not all States had increases in the number of total employees working in 2006. Arizona had the biggest decrease in employment as one of the two mines in the State shut down at the end of 2005 resulting in a decline of 149 employees.

Productivity

Productivity at coal mines in 2006 decreased by 1.5 percent to a level of 6.26 tons per miner per hour. Although total productivity declined for the year, surface productivity actually increased from 2005 by 1.5 percent to a level of 10.19 short tons per miner per hour. Underground productivity dropped in 2006 by 7.0 percent to a level of 3.37 short tons per miner per hour

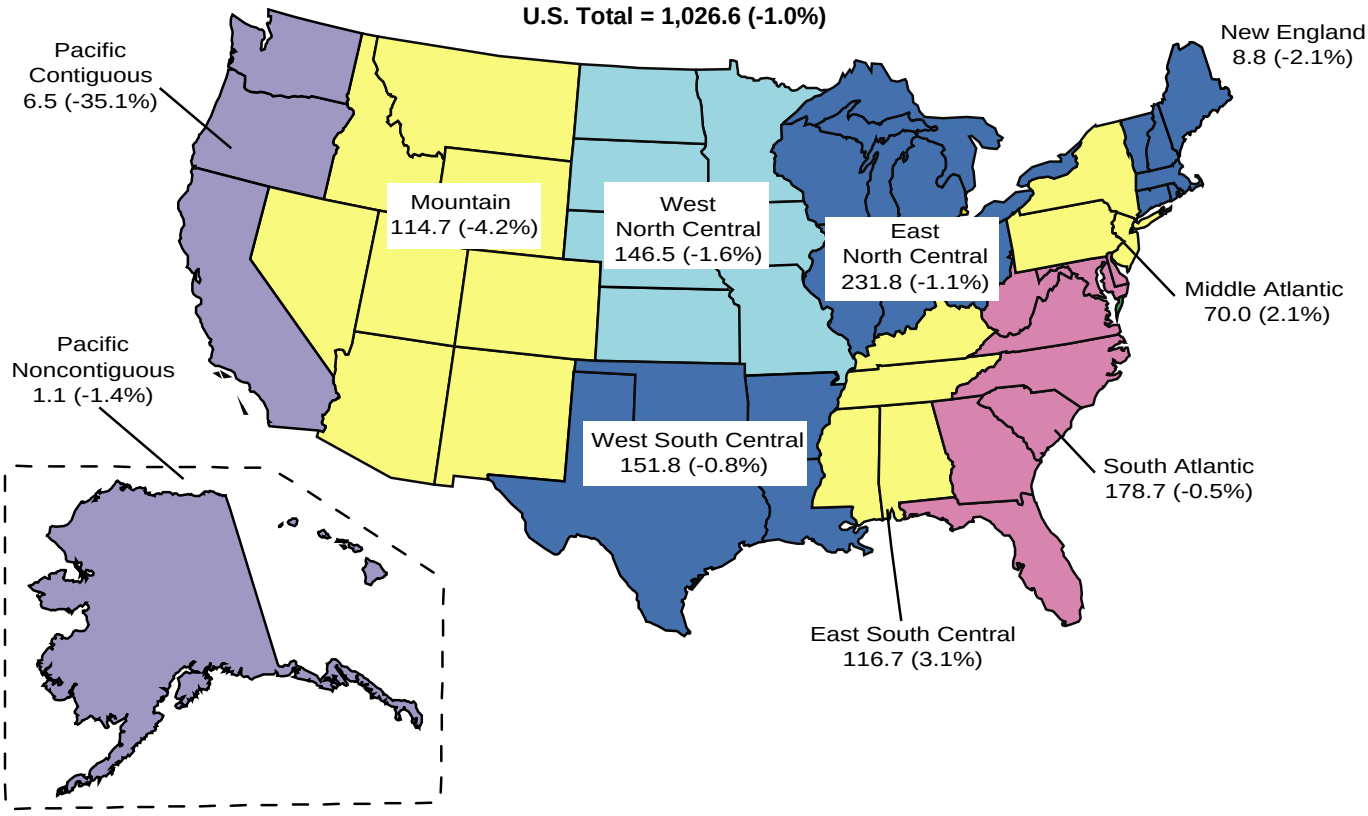
resulting in the decrease in total productivity for the year. Part of the decline in underground productivity was a result of miners having increasing hours used in safety and health work in compliance with the MINER Act of 2006 that affected the ability to mine coal.

Changes in regional productivity varied across the U.S. in 2006, with the largest decline in the Appalachian Region and the smallest in Western Region. Total productivity in the Appalachian Region decreased by 4.6 percent in 2006 to a level of 3.13 short tons per miner per hour. This drop was a reflection of the decrease in underground productivity in the region, which declined by 7.6 percent, while the surface productivity actually increased slightly by 0.4 percent in 2006. Total productivity in the Interior Region declined by 3.7 percent to a level of 5.10 short tons per miner per hour in 2006, with declines in both underground and surface productivity. Underground productivity in the Interior Region decreased in 2006 by 4.3 percent to a level of 3.54 short tons per miner per hour while surface productivity decreased by 1.0 percent to a level of 7.35 short tons per miner per hour. Reflecting the large number of surface mines in the region, the Western Region had the smallest drop in total productivity in 2006, 1.4 percent to 20.19 short tons per miner per hour. Productivity in underground mines in the Western Region dropped by 10.1 percent to 6.77 short tons per miner per hour, while surface productivity increased slightly by 0.3 percent to a level of 25.70 short tons per miner per hour.

Consumption

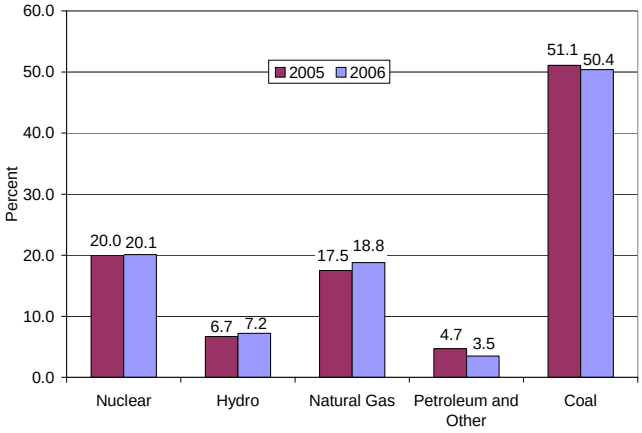
The combination of moderate weather and declining natural gas prices resulted in lower coal consumption in the electric power sector, which in turn reduced total coal consumption in the United States in 2006. Total U.S. coal consumption decreased 13.7 million short tons to a level of 1,112.3 million short tons, a decline of 1.2 percent. The electric power sector (electric utilities and independent power producers) accounts for about 92 percent of all coal consumed in the United States and is the driving force for the Nation's coal consumption. The other coal consuming sectors (coking coal, other industrial, and residential and commercial sectors) had minor changes in their consumption totals. The other industrial sector had a decrease in coal consumption in 2006 of 1.4 percent, while the coking coal sector had a decrease of 2.0 percent. The residential and commercial sector (which is the smallest of all coal consuming sectors, accounting for less than one-half of one percent of total consumption), declined by 1.5 million short tons in 2006.

Figure ES2. Electric Power Sector Consumption of Coal by Census Division, 2006
(Million Short Tons and Percent Change from 2005)



Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

Figure ES3. Share of Electric Power Sector Net Generation by Energy Source, 2005 vs. 2006



Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

Coal consumption in the electric power sector decreased by 1.0 percent or 10.8 million short tons to end 2006 at 1,026.6 million short tons (Figure ES2). However, coal-based generation decreased at a slightly higher rate of 1.1 percent for the year. This apparent inconsistency is explained by the increased usage of lower-Btu western coals (subbituminous and lignite) to generate electricity.

Generation

Nationally, total generation in the electric power sector from all fuels increased marginally in 2006 by 0.2 percent. However, there were substantial gains in electricity generation by natural gas and hydroelectric generation facilities in the United States (Figure ES3). The increase of 7.4 percent in electricity generation by hydroelectric facilities in the United States was a direct result of the increased precipitation during the year. The increase in electric generation by natural gas plants of 7.5 percent in 2006 was due in part to the decreasing costs of natural gas during the year combined with the numerous new gas-fired generating facilities that opened during the last several years. In 2006, 71 percent of the new capacity to come on line during the year was natural gas-fired, while new coal-fired capacity was less than 5 percent. The average cost of natural gas delivered to the electricity sector in 2006 compared to 2005 decreased by 15.7 percent, while the cost of coal increased by 8.9 percent in the same time period although the average cost of coal continued to be much lower than that of natural gas.

There are two major factors that influence total electric generation: economic growth and weather. Even though economic growth continued throughout 2006, with the gross domestic product (GDP) of the United States increasing by 3.3 percent for the year, the moderate weather across the country for most of the year was enough to dampen the demand for electricity. According to data from the National Weather Service Climate Prediction Center of the National Oceanic and Atmospheric Administration (NOAA), compared to 2005, cooling degree-days in 2006 were slightly lower for the country as a whole (2.4 percent), while heating degree-days were 8.0 percent lower. Although the summer weather in 2006 was hotter than normal (30-year average) for the Nation by 15.8 percent, the winter weather (warmest January ever recorded) was warmer than normal and the heating degree-days for 2006 were 13.3 percent below normal.

Of the nine Census Divisions, coal is less than 20 percent of the fuel mix for electricity generation in two divisions, New England and Pacific, and more than 50 percent of the fuel mix in five divisions, East North Central, West North Central, South Atlantic, East South Central, and Mountain. In the other two divisions, coal is one of two main fuel sources for the electric power sector. In the Middle Atlantic, coal competes with nuclear power for dominance, while in the West South Central coal competes with natural gas.

Seven of the nine Census Divisions had decreases in coal consumption in the electric power sector in 2006, with six of those seven having a decline of at least half a million short tons. One of the Census Divisions, the Mountain, accounted for almost 50 percent of the decrease in total coal consumption in the electric power sector. Total generation in the Mountain Census Division increased slightly in 2006 by 0.9 percent (Table ES3). Coal is the primary fuel for electricity generation in the Mountain division and it accounted for 60.0 percent of total generation for the year. The combination of increases in generation of both natural gas, up 15.2 percent, and hydroelectric facilities, up 14.8 percent in 2006, resulted in a decline in coal consumption for the division of 5.0 million short tons, a drop of 4.2 percent.

The Pacific Census Division (Pacific Contiguous and Pacific Non-contiguous) was one of five divisions to have an increase in total generation in the electric power sector in 2006, increasing by 7.9 percent. However, coal is a small portion of total generation, usually less than 5 percent. Even though coal is such a small part of the total generation for the division, the decrease in coal consumption for the electric power sector was the second-largest in the Nation in 2006. Total coal consumption for the electric power sector in the Pacific Census Division declined by 3.5 million short tons or 31.6 percent. Increases in generation by natural gas and hydroelectric facilities in the division of 9.6 percent and 17.4 percent respectively, helped push down the need for

coal to generate electricity. In the East North Central Census Division, coal accounts for about 70 percent of total generation in the electric power sector. For 2006, total electricity generation in this division decreased by 1.9 percent from the 2005 level, while the coal-based generation declined by 1.6 percent. The drop in coal-based generation resulted in a decrease in coal consumption for the electric power sector of 2.6 million short tons for the year.

In the West North Central Census Division, where coal accounts for about three-fourths of generation, total generation in the electric power sector in 2006 was about the same as the prior year, increasing by 0.6 percent. However, a large increase in generation by nuclear plants resulted in a decrease in generation by coal plants. Total coal-fired generation in the West North Central division declined by 1.0 percent while coal consumption for generation decreased by 1.6 percent, or 2.4 million short tons. In the West South Central Census Division coal competes with natural gas as the primary fuel for electricity generation, both typically accounting for over 40 percent of total generation. In 2006, total generation in the West South Central division increased by 0.6 percent, with natural gas generation increasing by 0.3 percent and nuclear-powered generation increasing by 8.3 percent. As a consequence of the increases in generation by those fuels in the division, coal-based generation declined by 0.3 percent with coal consumption for electric power generation decreasing in 2006 by 1.2 million short tons.

In the South Atlantic Census Division total generation in the electric power sector declined in 2006 by 1.6 percent. Coal typically accounts for over half of the generation in the South Atlantic division and in 2006 coal-based generation decreased by 0.4 percent resulting in a decrease in coal consumption for electric power generation of 0.8 million short tons. Coal accounts for less than one-sixth of total generation in the New England Census Division, and in 2006 total coal consumption for electricity generation decreased by 0.2 million short tons, or 2.1 percent.

Of the two Census Divisions (the East South Central and the Middle Atlantic) that had increases in coal consumption for electricity generation, the East South Central Division accounted for 70 percent of the total increase. Coal is the primary fuel for generation in the East South Central division, typically accounting for over two-thirds of total generation in a year, while nuclear power accounts for just under 20 percent. Total electricity generation in the East South Central division increased slightly by 0.5 percent in 2006. Nuclear power generation declined in the division by 3.7 percent while coal-based generation increased by 2.1 percent for the year. This resulted in an increase in coal consumption of 3.5 million short tons over the 2005 level.

The Middle Atlantic Census Division had a decrease in electric power sector generation in 2006 of 0.8 percent. Natural gas generation increased by 24.2 percent while coal-based generation increased by only 0.8 percent in 2006. This resulted in an increase in coal consumption for electric power generation in the Middle Atlantic division of 1.5 million short tons.

Table ES3. Electric Power Sector Net Generation, 2005-2006 (Million Kilowatthours)

Census Division	2005	2006	Percent Change
New England			
Coal	20,220	19,411	-4.0
Total	129,550	125,708	-3.0
Middle Atlantic			
Coal	151,190	152,454	0.8
Total	418,614	415,192	-0.8
East North Central			
Coal	459,062	451,517	-1.6
Total	651,726	639,456	-1.9
West North Central			
Coal	230,271	228,067	-1.0
Total	299,713	301,627	0.6
South Atlantic			
Coal	424,999	423,402	-0.4
Total	801,066	788,587	-1.6
East South Central			
Coal	241,173	246,322	2.1
Total	367,904	368,837	0.5
West South Central			
Coal	227,675	226,940	-0.3
Total	540,497	544,000	0.6
Mountain			
Coal	219,829	209,239	-4.8
Total	345,705	348,918	0.9
Pacific			
Coal	17,641	12,422	-29.6
Total	347,415	374,753	7.9
U.S. Total			
Coal	1,992,060	1,969,776	-1.1
Total	3,902,192	3,908,077	0.2

Source: Energy Information Administration, Form EIA-906, "Power Plant Report."

Coal consumption in the non-electric power sector declined in 2006. Coal consumption at coke plants decreased by 0.5 million short tons to end the year at 23.0 million short tons, a decline of 2.0 percent. Although there was a decline in U.S. coke production in 2006 due to a slowing in the demand for coke both domestically and internationally, a previously announced expansion at the newest coke plant (another 100 batteries to be built) is still planned but the start of the construction has been delayed.

Although the Gross Domestic Product grew by 3.3 percent, the economic growth did not extend into the entire manufacturing sector in 2006, and as a result, coal consumption in the other industrial sector decreased by only 0.9 million short tons to end the year at 59.5 million short tons. The increases in coal consumption in 2006 experienced in some of the manufacturing sectors (nonmetallic mineral products and primary metal manufacturing) offset the decreases in other manufacturing sectors (food, beverage, textile, paper, chemical, fabricated metal, and transportation equipment). Coal consumption in the residential and commercial sector decreased in 2006.

Coal Prices

For the third consecutive year, coal prices rose across the board. The average open market f.o.b. (free on board) mine price increased in 2006 to $25.16 per ton, an increase of 6.7 percent over 2005, a price level not seen since the mid-1980's. Even though spot coal prices for some of the producing regions declined in 2006, average delivered prices in the consuming sectors increased for the year. The majority of coal sold in the electric power sector is through long-term contracts, in conjunction with spot purchases to supplement the demand. Average delivered coal prices at electric utilities (a subset of the electric power sector) increased for a sixth consecutive year, to $34.26 per short ton ($1.69 per million Btu), an increase of 9.7 percent over the 2005 price. Delivered coal prices at independent power producers increased to $32.38 per short ton ($1.68 per million Btu), an increase of 6.8 percent. The delivered price of coal to the other coal-consuming sectors also increased in 2006. The average delivered price of coal to the other industrial sector increased by 8.5 percent to an average price of $51.67 per short ton in 2006. However, the largest increase in consumer prices was in the coking coal sector. The limited availability and the tight specifications needed for coal to produce coke influence the price. High international prices for metallurgical coal in 2006 also affected prices in the U.S. market. In 2006 the average delivered price of coal to U.S. coke plants increased by 10.8 percent to reach an average price of $92.87 per short ton.

Coal Stocks

Total coal stocks at the end of 2006 were 186.9 million short tons, an increase of 42.6 million short tons from the prior year. Coal stocks held by producers and distributors increased by 1.6 million short tons. Industrial users, including coke plants, held a total of 9.4 million short tons at the end of 2006, 1.2 million short tons more than the level at the start of the year. Coal stocks in the electric power sector, which by the end of 2005 had dropped to its lowest level since 1997, increased substantially in 2006. As no atypical transportation problems arose during the year, coal stocks in the electric power sector increased by 39.8 million short tons, or 39.4 percent to end 2006 at a level of 141.0 million short tons.

Coal Production

Table 1. Coal Production and Number of Mines by State and Mine Type, 2006-2005
(Thousand Short Tons)

Coal-Producing State and Region[1]	2006		2005		Percent Change	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Alabama	**57**	**18,830**	**53**	**21,339**	**7.5**	**-11.8**
Underground	9	10,737	9	13,295	-	-19.2
Surface	48	8,092	44	8,044	9.1	0.6
Alaska	**1**	**1,425**	**1**	**1,454**	**-**	**-2.0**
Surface	1	1,425	1	1,454	-	-2.0
Arizona	**1**	**8,216**	**2**	**12,072**	**-50.0**	**-31.9**
Surface	1	8,216	2	12,072	-50.0	-31.9
Arkansas	**2**	**23**	**1**	**3**	**100.0**	**NM**
Underground	1	18	-	-	-	-
Surface	1	5	1	3	-	102.4
Colorado	**12**	**36,322**	**13**	**38,510**	**-7.7**	**-5.7**
Underground	7	26,659	8	28,439	-12.5	-6.3
Surface	5	9,663	5	10,071	-	-4.1
Illinois	**22**	**32,729**	**20**	**32,014**	**10.0**	**2.2**
Underground	15	27,120	12	26,343	25.0	3.0
Surface	7	5,609	8	5,671	-12.5	-1.1
Indiana	**28**	**35,119**	**29**	**34,457**	**-3.4**	**1.9**
Underground	7	10,736	8	11,189	-12.5	-4.0
Surface	21	24,383	21	23,268	-	4.8
Kansas	**2**	**426**	**1**	**171**	**100.0**	**149.6**
Surface	2	426	1	171	100.0	149.6
Kentucky Total	**442**	**120,848**	**432**	**119,734**	**2.3**	**0.9**
Underground	227	73,182	224	73,702	1.3	-0.7
Surface	215	47,666	208	46,032	3.4	3.5
Eastern	**416**	**93,607**	**404**	**93,322**	**3.0**	**0.3**
Underground	214	49,312	211	52,054	1.4	-5.3
Surface	202	44,295	193	41,269	4.7	7.3
Western	**26**	**27,241**	**28**	**26,412**	**-7.1**	**3.1**
Underground	13	23,870	13	21,648	-	10.3
Surface	13	3,370	15	4,763	-13.3	-29.2
Louisiana	**2**	**4,114**	**2**	**4,161**	**-**	**-1.1**
Surface	2	4,114	2	4,161	-	-1.1
Maryland	**19**	**5,054**	**16**	**5,183**	**18.8**	**-2.5**
Underground	3	2,826	3	3,175	-	-11.0
Surface	16	2,228	13	2,009	23.1	10.9
Mississippi	**1**	**3,797**	**1**	**3,555**	**-**	**6.8**
Surface	1	3,797	1	3,555	-	6.8
Missouri	**2**	**394**	**2**	**598**	**-**	**-34.1**
Surface	2	394	2	598	-	-34.1
Montana	**6**	**41,823**	**6**	**40,354**	**-**	**3.6**
Underground	1	321	1	162	-	97.8
Surface	5	41,502	5	40,192	-	3.3
New Mexico	**4**	**25,913**	**4**	**28,519**	**-**	**-9.1**
Underground	1	6,993	1	7,905	-	-11.5
Surface	3	18,919	3	20,613	-	-8.2
North Dakota	**4**	**30,411**	**4**	**29,956**	**-**	**1.5**
Surface	4	30,411	4	29,956	-	1.5
Ohio	**52**	**22,722**	**54**	**24,718**	**-3.7**	**-8.1**
Underground	11	15,126	10	15,823	10.0	-4.4
Surface	41	7,596	44	8,896	-6.8	-14.6
Oklahoma	**10**	**1,998**	**9**	**1,856**	**11.1**	**7.6**
Underground	2	464	1	465	100.0	-0.3
Surface	8	1,534	8	1,391	-	10.3
Pennsylvania Total	**270**	**66,029**	**266**	**67,494**	**1.5**	**-2.2**
Underground	54	53,801	53	54,563	1.9	-1.4
Surface	216	12,228	213	12,931	1.4	-5.4
Anthracite	**74**	**1,529**	**68**	**1,645**	**8.8**	**-7.1**
Underground	17	272	14	264	21.4	3.0
Surface	57	1,256	54	1,380	5.6	-9.0
Bituminous	**196**	**64,500**	**198**	**65,849**	**-1.0**	**-2.0**
Underground	37	53,529	39	54,298	-5.1	-1.4
Surface	159	10,972	159	11,551	-	-5.0
Tennessee	**23**	**2,804**	**28**	**3,217**	**-17.9**	**-12.8**
Underground	10	1,191	13	1,224	-23.1	-2.7
Surface	13	1,613	15	1,993	-13.3	-19.1
Texas	**12**	**45,548**	**13**	**45,939**	**-7.7**	**-0.9**
Surface	12	45,548	13	45,939	-7.7	-0.9
Utah	**13**	**26,018**	**13**	**24,521**	**-**	**6.1**
Underground	13	26,018	13	24,521	-	6.1

See footnotes at end of table.

Table 1. Coal Production and Number of Mines by State and Mine Type, 2006-2005 (Continued)
(Thousand Short Tons)

Coal-Producing State and Region [1]	2006		2005		Percent Change	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Virginia	**127**	**29,740**	**132**	**27,743**	**-3.8**	**7.2**
Underground	76	18,681	83	16,386	-8.4	14.0
Surface	51	11,059	49	11,357	4.1	-2.6
Washington	**1**	**2,580**	**1**	**5,266**	**-**	**-51.0**
Surface	1	2,580	1	5,266	-	-51.0
West Virginia Total	**290**	**152,374**	**277**	**153,650**	**4.7**	**-0.8**
Underground	174	84,628	166	91,009	4.8	-7.0
Surface	116	67,746	111	62,641	4.5	8.2
Northern	**49**	**42,398**	**50**	**42,628**	**-2.0**	**-0.5**
Underground	29	36,074	29	37,590	-	-4.0
Surface	20	6,324	21	5,037	-4.8	25.6
Southern	**241**	**109,976**	**227**	**111,022**	**6.2**	**-0.9**
Underground	145	48,554	137	53,419	5.8	-9.1
Surface	96	61,421	90	57,603	6.7	6.6
Wyoming	**21**	**446,742**	**18**	**404,319**	**16.7**	**10.5**
Underground	1	519	1	410	-	26.6
Surface	20	446,223	17	403,908	17.6	10.5
Appalachian Total	**1,254**	**391,159**	**1,230**	**396,666**	**2.0**	**-1.4**
Underground	551	236,303	548	247,528	0.5	-4.5
Surface	703	154,856	682	149,139	3.1	3.8
Northern	**390**	**136,203**	**386**	**140,023**	**1.0**	**-2.7**
Underground	97	107,827	95	111,151	2.1	-3.0
Surface	293	28,376	291	28,873	0.7	-1.7
Central	**807**	**236,127**	**790**	**235,297**	**2.2**	**0.4**
Underground	445	117,739	443	123,075	0.5	-4.3
Surface	362	118,388	347	112,222	4.3	5.5
Southern	**57**	**18,830**	**54**	**21,347**	**5.6**	**-11.8**
Underground	9	10,737	10	13,303	-10.0	-19.3
Surface	48	8,092	44	8,044	9.1	0.6
Interior Total	**107**	**151,389**	**106**	**149,165**	**0.9**	**1.5**
Underground	38	62,209	34	59,645	11.8	4.3
Surface	69	89,180	72	89,520	-4.2	-0.4
Illinois Basin Total	**76**	**95,089**	**77**	**92,883**	**-1.3**	**2.4**
Underground	35	61,727	33	59,180	6.1	4.3
Surface	41	33,362	44	33,703	-6.8	-1.0
Western Total	**63**	**619,449**	**62**	**584,970**	**1.6**	**5.9**
Underground	23	60,510	24	61,438	-4.2	-1.5
Surface	40	558,939	38	523,532	5.3	6.8
Powder River Basin	**18**	**472,202**	**16**	**429,996**	**12.5**	**9.8**
Underground	-	-	-	-	-	-
Surface	18	472,202	16	429,996	12.5	9.8
Uinta Region	**23**	**61,446**	**24**	**62,145**	**-4.2**	**-1.1**
Underground	19	52,189	20	52,495	-5.0	-0.6
Surface	4	9,257	4	9,650	-	-4.1
East of Miss. River	**1,331**	**490,046**	**1,308**	**493,105**	**1.8**	**-0.6**
West of Miss. River	**93**	**671,952**	**90**	**637,697**	**3.3**	**5.4**
U.S. Subtotal	**1,424**	**1,161,997**	**1,398**	**1,130,802**	**1.9**	**2.8**
Refuse Recovery	**14**	**752**	**17**	**696**	**-17.6**	**8.0**
U.S. Total	**1,438**	**1,162,750**	**1,415**	**1,131,498**	**1.6**	**2.8**

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

- = No data are reported.

NM = Not meaningful due to changes of 500 percent or more.

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, 2006

(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**	**10,737**	**48**	**8,092**	**57**	**18,830**
Bibb	-	-	1	19	1	19
Cullman	-	-	1	634	1	634
Franklin	-	-	1	190	1	190
Jackson	1	6	3	155	4	161
Jefferson	2	2,233	10	1,470	12	3,704
Marion	-	-	2	178	2	178
Shelby	1	82	2	113	3	195
Tuscaloosa	4	8,315	6	1,593	10	9,907
Walker	1	102	19	3,382	20	3,483
Winston	-	-	3	359	3	359
Alaska	**-**	**-**	**1**	**1,425**	**1**	**1,425**
Yukon-Koyukuk Division	-	-	1	1,425	1	1,425
Arizona	**-**	**-**	**1**	**8,216**	**1**	**8,216**
Navajo	-	-	1	8,216	1	8,216
Arkansas	**1**	**18**	**1**	**5**	**2**	**23**
Sebastian	1	18	1	5	2	23
Colorado	**7**	**26,659**	**5**	**9,663**	**12**	**36,322**
Delta	1	4,420	-	-	1	4,420
Garfield	1	263	-	-	1	263
Gunnison	2	11,140	-	-	2	11,140
La Plata	1	488	-	-	1	488
Moffat	-	-	3	9,200	3	9,200
Montrose	-	-	1	406	1	406
Rio Blanco	1	1,713	-	-	1	1,713
Routt	1	8,636	1	57	2	8,693
Illinois	**15**	**27,120**	**7**	**5,609**	**22**	**32,729**
Gallatin	-	-	1	2,046	1	2,046
Jackson	-	-	2	1,811	2	1,811
Macoupin	3	5,682	-	-	3	5,682
Perry	1	65	3	1,412	4	1,477
Randolph	1	2,439	-	-	1	2,439
Saline	4	11,646	-	-	4	11,646
Sangamon	1	2,085	-	-	1	2,085
Vermilion	2	1,428	-	-	2	1,428
Wabash	1	1,175	1	339	2	1,515
White	1	2,505	-	-	1	2,505
Williamson	1	94	-	-	1	94
Indiana	**7**	**10,736**	**21**	**24,383**	**28**	**35,119**
Clay	1	92	1	280	2	373
Daviess	-	-	2	3,305	2	3,305
Dubois	-	-	1	80	1	80
Gibson	3	5,192	4	9,939	7	15,132
Knox	2	2,662	4	2,827	6	5,489
Pike	1	2,789	4	2,331	5	5,121
Sullivan	-	-	1	28	1	28
Vigo	-	-	2	4,366	2	4,366
Warrick	-	-	2	1,226	2	1,226
Kansas	**-**	**-**	**2**	**426**	**2**	**426**
Bourbon	-	-	1	254	1	254
Linn	-	-	1	172	1	172
Kentucky	**227**	**73,182**	**215**	**47,666**	**442**	**120,848**
Bell	6	1,112	13	1,392	19	2,503
Breathitt	2	731	7	1,781	9	2,512
Christian	-	-	1	7	1	7
Clay	1	57	3	30	4	87
Elliott	-	-	1	9	1	9
Floyd	27	1,444	9	1,770	36	3,214
Harlan	35	8,278	17	2,801	52	11,079
Henderson	1	1,314	2	1,359	3	2,673
Hopkins	5	6,583	3	99	8	6,682
Jackson	-	-	4	61	4	61
Johnson	1	77	5	303	6	380
Knott	22	5,442	13	3,037	35	8,479
Knox	7	132	6	766	13	897
Laurel	-	-	1	135	1	135
Lawrence	2	259	12	1,727	14	1,986
Lee	-	-	1	24	1	24
Leslie	5	3,118	7	2,015	12	5,133

See footnotes at end of table.

Table 2. Coal Production and Number of Mines by State, County, and Mine Type, 2006 (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)						
Letcher	22	5,723	15	2,042	37	7,765
Magoffin	-	-	4	2,093	4	2,093
Martin	9	4,182	3	1,171	12	5,354
Morgan	1	s	3	123	4	124
Muhlenberg	1	2,342	6	1,881	7	4,223
Ohio	1	1,284	-	-	1	1,284
Owsley	-	-	2	62	2	62
Perry	9	4,144	24	11,475	33	15,620
Pike	63	14,503	50	11,269	113	25,773
Rockcastle	-	-	1	61	1	61
Union	2	4,851	1	24	3	4,875
Webster	3	7,496	-	-	3	7,496
Whitley	2	108	1	149	3	256
Louisiana	**-**	**-**	**2**	**4,114**	**2**	**4,114**
De Soto	-	-	1	3,331	1	3,331
Red River	-	-	1	783	1	783
Maryland	**3**	**2,826**	**16**	**2,228**	**19**	**5,054**
Allegany	1	153	11	1,318	12	1,472
Garrett	2	2,673	5	909	7	3,582
Mississippi	**-**	**-**	**1**	**3,797**	**1**	**3,797**
Choctaw	-	-	1	3,797	1	3,797
Missouri	**-**	**-**	**2**	**394**	**2**	**394**
Bates	-	-	2	394	2	394
Montana	**1**	**321**	**5**	**41,502**	**6**	**41,823**
Big Horn	-	-	3	28,392	3	28,392
Musselshell	1	321	-	-	1	321
Richland	-	-	1	378	1	378
Rosebud	-	-	1	12,732	1	12,732
New Mexico	**1**	**6,993**	**3**	**18,919**	**4**	**25,913**
Mckinley	-	-	2	10,481	2	10,481
San Juan	1	6,993	1	8,439	2	15,432
North Dakota	**-**	**-**	**4**	**30,411**	**4**	**30,411**
Mclean	-	-	1	8,155	1	8,155
Mercer	-	-	2	17,953	2	17,953
Oliver	-	-	1	4,303	1	4,303
Ohio	**11**	**15,126**	**41**	**7,596**	**52**	**22,722**
Athens	1	800	-	-	1	800
Belmont	1	4,370	4	1,370	5	5,740
Carroll	1	269	2	237	3	506
Columbiana	-	-	4	442	4	442
Coshocton	-	-	2	211	2	211
Harrison	2	1,646	8	1,587	10	3,233
Jackson	-	-	1	444	1	444
Jefferson	3	787	5	189	8	975
Mahoning	-	-	2	8	2	8
Monroe	1	6,451	-	-	1	6,451
Muskingum	-	-	1	169	1	169
Noble	-	-	2	571	2	571
Perry	1	355	2	549	3	904
Stark	-	-	3	179	3	179
Tuscarawas	1	448	4	1,107	5	1,555
Vinton	-	-	1	533	1	533
Oklahoma	**2**	**464**	**8**	**1,534**	**10**	**1,998**
Craig	-	-	1	368	1	368
Haskell	-	-	1	351	1	351
Le Flore	2	464	4	595	6	1,059
Nowata	-	-	1	217	1	217
Okmulgee	-	-	1	4	1	4
Pennsylvania	**54**	**53,801**	**216**	**12,228**	**270**	**66,029**
Allegheny	-	-	3	134	3	134
Armstrong	11	3,823	13	948	24	4,772
Beaver	1	296	-	-	1	296
Bedford	-	-	1	12	1	12
Butler	-	-	6	484	6	484
Cambria	2	893	9	470	11	1,362
Cameron	-	-	1	25	1	25
Centre	-	-	1	21	1	21
Clarion	-	-	3	347	3	347
Clearfield	2	871	42	2,901	44	3,773
Columbia	-	-	4	425	4	425

See footnotes at end of table.

Table 2. Coal Production and Number of Mines by State, County, and Mine Type, 2006 (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)						
Dauphin	2	4	-	-	2	4
Elk	1	418	7	398	8	816
Fayette	-	-	12	574	12	574
Greene	8	39,913	1	9	9	39,923
Indiana	5	2,064	19	903	24	2,967
Jefferson	1	185	10	415	11	600
Lackawanna	-	-	2	27	2	27
Lawrence	-	-	2	19	2	19
Luzerne	-	-	7	139	7	139
Lycoming	-	-	1	224	1	224
Mercer	-	-	1	96	1	96
Northumberland	4	185	7	106	11	291
Schuylkill	11	84	37	559	48	643
Somerset	5	1,560	17	2,600	22	4,160
Venango	-	-	2	3	2	3
Washington	1	3,505	3	278	4	3,783
Westmoreland	-	-	5	111	5	111
Tennessee	**10**	**1,191**	**13**	**1,613**	**23**	**2,804**
Anderson	1	27	2	72	3	98
Campbell	4	486	2	305	6	791
Claiborne	4	666	8	1,236	12	1,902
Cumberland	1	13	-	-	1	13
Morgan	-	-	1	1	1	1
Texas	**-**	**-**	**12**	**45,548**	**12**	**45,548**
Atascosa	-	-	1	3,637	1	3,637
Bastrop	-	-	1	6,725	1	6,725
Freestone	-	-	1	4,462	1	4,462
Harrison	-	-	1	3,973	1	3,973
Hopkins	-	-	1	2,535	1	2,535
Leon	-	-	1	6,782	1	6,782
Panola	-	-	2	7,193	2	7,193
Robertson	-	-	1	1,788	1	1,788
Rusk	-	-	1	4,844	1	4,844
Titus	-	-	2	3,609	2	3,609
Utah	**13**	**26,018**	**-**	**-**	**13**	**26,018**
Carbon	6	11,409	-	-	6	11,409
Emery	6	6,701	-	-	6	6,701
Sevier	1	7,908	-	-	1	7,908
Virginia	**76**	**18,681**	**51**	**11,059**	**127**	**29,740**
Buchanan	23	7,149	15	3,032	38	10,181
Dickenson	12	2,054	4	529	16	2,583
Lee	2	560	2	310	4	870
Russell	5	388	3	593	8	981
Tazewell	5	1,214	2	136	7	1,350
Wise	29	7,317	25	6,459	54	13,776
Washington	**-**	**-**	**1**	**2,580**	**1**	**2,580**
Lewis	-	-	1	2,580	1	2,580
West Virginia	**174**	**84,628**	**116**	**67,746**	**290**	**152,374**
Barbour	6	748	4	631	10	1,379
Boone	28	13,393	18	17,335	46	30,728
Brooke	-	-	1	418	1	418
Clay	1	142	1	3,883	2	4,025
Fayette	7	1,655	12	2,911	19	4,567
Grant	3	173	1	33	4	206
Greenbrier	5	411	-	-	5	411
Harrison	3	6,276	4	117	7	6,393
Kanawha	12	7,052	8	5,597	20	12,648
Lincoln	3	1,175	-	-	3	1,175
Logan	10	2,326	11	10,339	21	12,665
Marion	1	6,383	3	58	4	6,441
Marshall	2	11,442	-	-	2	11,442
Mason	1	15	-	-	1	15
Mcdowell	32	2,851	13	2,682	45	5,533
Mercer	-	-	1	13	1	13
Mineral	-	-	1	48	1	48
Mingo	15	6,235	13	9,339	28	15,574
Monongalia	3	5,680	3	702	6	6,382
Nicholas	4	819	8	3,164	12	3,982
Preston	1	1,377	1	4	2	1,381
Raleigh	13	5,159	3	2,870	16	8,029

See footnotes at end of table.

Table 2. Coal Production and Number of Mines by State, County, and Mine Type, 2006 (Continued)
(Thousand Short Tons)

Coal-Producing State and County	Underground		Surface		Total	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Randolph	2	1,265	-	-	2	1,265
Tucker	1	561	-	-	1	561
Upshur	3	673	-	-	3	673
Wayne	3	3,672	2	1,179	5	4,851
Webster	4	1,495	2	4,314	6	5,809
Wyoming	11	3,649	6	2,109	17	5,758
Wyoming	**1**	**519**	**20**	**446,223**	**21**	**446,742**
Campbell	-	-	13	397,199	13	397,199
Carbon	-	-	1	28	1	28
Converse	-	-	1	33,879	1	33,879
Hot Springs	-	-	1	1	1	1
Lincoln	-	-	1	4,565	1	4,565
Sweetwater	1	519	3	10,551	4	11,070
U.S. Subtotal	**612**	**359,022**	**812**	**802,976**	**1,424**	**1,161,997**
Refuse Recovery	**-**	**-**	**-**	**-**	**14**	**752**
U.S. Total	**612**	**359,022**	**812**	**802,976**	**1,438**	**1,162,750**

s Value is less than 0.05 of the table metric, but value is included in any associated total.
- = No data are reported.
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, 2006

(Thousand Short Tons)

Coal-Producing State and Region[1]	Continuous[2]	Conventional and Other[3]	Longwall[4]	Total
Alabama	183	6	10,548	10,737
Arkansas	18	-	-	18
Colorado	751	-	25,908	26,659
Illinois	17,139	-	9,981	27,120
Indiana	10,736	-	-	10,736
Kentucky Total	70,839	1,028	1,315	73,182
Eastern	47,038	959	1,315	49,312
Western	23,801	70	-	23,870
Maryland	511	-	2,316	2,826
Montana	321	-	-	321
New Mexico	-	-	6,993	6,993
Ohio	2,659	1,646	10,821	15,126
Oklahoma	464	-	-	464
Pennsylvania Total	10,842	99	42,860	53,801
Anthracite	173	99	-	272
Bituminous	10,669	-	42,860	53,529
Tennessee	1,186	5	-	1,191
Utah	1,397	8	24,613	26,018
Virginia	13,353	34	5,294	18,681
West Virginia Total	44,115	698	39,814	84,628
Northern	7,318	7	28,748	36,074
Southern	36,797	691	11,066	48,554
Wyoming	519	-	-	519
Appalachian Total	**119,888**	**3,447**	**112,968**	**236,303**
Northern	21,330	1,752	84,745	107,827
Central	98,375	1,688	17,675	117,739
Southern	183	6	10,548	10,737
Interior Total	**52,158**	**70**	**9,981**	**62,209**
Illinois Basin	51,676	70	9,981	61,727
Western Total	**2,988**	**8**	**57,514**	**60,510**
Powder River Basin	-	-	-	-
Uinta Region	1,659	8	50,521	52,189
East of Miss. River	**171,564**	**3,517**	**122,949**	**298,030**
West of Miss. River	**3,469**	**8**	**57,514**	**60,992**
U.S. Total	**175,034**	**3,525**	**180,463**	**359,022**

[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 or mines that produce coal using shortwall, scoop loading, hand loading, or other methods or a 50/50 percent continuous conventional split in mining methods, or mines that produce less than 10,000 short tons, which are not required to provide data.

[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.

- = No data are reported.

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, 2006
(Thousand Short Tons)

Coalbed Thickness (inches)	Underground	Surface	Total
< 7	-	38	38
7-12	-	3,107	3,107
13-18	180	6,576	6,756
19-24	824	15,187	16,011
25-30	5,528	22,915	28,442
31-36	17,250	29,636	46,886
37-42	29,966	18,074	48,040
43-48	37,986	24,031	62,017
49-54	27,459	19,591	47,050
55-60	38,365	25,322	63,687
61-66	34,773	12,789	47,562
67-72	61,717	22,212	83,930
73-78	7,041	8,972	16,013
79-84	19,961	6,339	26,300
85-90	8,140	6,113	14,253
91-96	11,976	6,687	18,663
97-102	13,576	6,575	20,151
103-108	5,319	9,281	14,600
109-114	6,545	5,955	12,500
115-120	374	8,792	9,167
> 120	31,808	544,102	575,909
Unknown[1]	**235**	**680**	**1,668**
U.S. Total	**359,022**	**802,976**	**1,162,750**

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

- = No data are reported.

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, 2006

Coalbed ID Number[1] Coalbed Name	Production (thousand short tons)			Thickness (inches)		
	Underground	Surface	Total	Average[2]	Low	High
1699 Wyodak	-	381,090	381,090	781	90	900
0036 Pittsburgh	82,493	4,616	87,109	72	20	108
0489 No. 9	41,825	9,757	51,582	62	24	77
0111 Coalburg	7,253	25,936	33,190	75	9	169
1697 Canyon	-	31,683	31,683	632	415	804
1569 Beulah-Zap	-	28,389	28,389	183	144	210
0151 Upper Elkhorn No. 3	16,249	7,519	23,768	51	12	150
0484 Herrin (Illinois No. 6)	15,802	4,191	19,993	71	46	96
1696 Anderson-Dietz 1-Dietz 2	-	19,331	19,331	886	660	960
0084 Lower Kittanning	8,304	10,595	18,899	49	12	94
1787 Roland	-	18,306	18,306	516	382	660
1808 Rosebud	-	16,544	16,544	262	216	276
0135 Hazard No. 4	7,364	5,979	13,343	59	12	138
0168 Lower Elkhorn	10,499	2,725	13,224	52	11	84
0103 Stockton-Lewiston	3,886	8,719	12,605	65	12	99
1753 Somerset B	11,844	-	11,844	174	102	240
1488 Fruitland No. 8	6,993	3,797	10,791	167	126	195
0071 Upper Freeport	6,382	3,185	9,567	54	20	84
0121 Winifrede	4,245	5,284	9,529	60	10	120
0344 Pocahontas No. 3	9,378	36	9,414	58	30	68
0176 Eagle	7,686	1,425	9,112	45	11	108
0480 No. 7	2,658	6,270	8,927	43	24	72
0280 Blue Creek	7,604	1,132	8,736	55	8	200
1750 Wadge	8,636	18	8,654	100	100	120
0080 Middle Kittanning	2,643	5,568	8,211	53	9	96
Major Coalbeds Total	**261,744**	**602,095**	**863,839**	**439**	**8**	**960**
Other Coalbeds	**97,042**	**200,200**	**297,243**	**81**	**4**	**368**
Unknown[3]	**235**	**680**	**1,668**	**NA**	**NA**	**NA**
U.S. Total	**359,022**	**802,976**	**1,162,750**	**347**	**4**	**960**

[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.

- = No data are reported.

NA = Not Available.

Notes: • Major coalbeds for this table are the top 25 producing coalbeds. The category "Other Coalbeds" includes all coalbeds from which less than 8.2 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 8.2 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 Alabama (coalbed 0280), Colorado (1750 and 1753); Illinois (0484); Indiana (0480); Eastern Kentucky (0135, 0151, and 0168); Western Kentucky (0489); Montana (1696 and 1808); New Mexico (1488); North Dakota (1569); Ohio (0080); Pennsylvania (0036 and 0071); Virginia (0344); West Virginia (0080, 0084, 0103, 0111, 0121, and 0176); 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, Hazard No 5A (Eastern Kentucky); 0121, Hazard No. 5 (Eastern Kentucky); Quakertown (Pennsylvania); 0135, Windrock (Tennessee); Phillips (Virginia); 0151, Jellico (Tennessee); Taggert (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, 2006

(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	57	18,830	-	-	-	-	-	-	57	18,830
Alaska	-	-	1	1,425	-	-	-	-	1	1,425
Arizona	1	8,216	-	-	-	-	-	-	1	8,216
Arkansas	2	23	-	-	-	-	-	-	2	23
Colorado	9	27,122	3	9,200	-	-	-	-	12	36,322
Illinois	22	32,729	-	-	-	-	-	-	22	32,729
Indiana	28	35,119	-	-	-	-	-	-	28	35,119
Kansas	2	426	-	-	-	-	-	-	2	426
Kentucky Total	442	120,848	-	-	-	-	-	-	442	120,848
Eastern	416	93,607	-	-	-	-	-	-	416	93,607
Western	26	27,241	-	-	-	-	-	-	26	27,241
Louisiana	-	-	-	-	2	4,114	-	-	2	4,114
Maryland	19	5,054	-	-	-	-	-	-	19	5,054
Mississippi	-	-	-	-	1	3,797	-	-	1	3,797
Missouri	2	394	-	-	-	-	-	-	2	394
Montana	-	-	5	41,445	1	378	-	-	6	41,823
New Mexico[2]	2	11,971	2	13,941	-	-	-	-	4	25,913
North Dakota	-	-	-	-	4	30,411	-	-	4	30,411
Ohio	52	22,722	-	-	-	-	-	-	52	22,722
Oklahoma	10	1,998	-	-	-	-	-	-	10	1,998
Pennsylvania Total	196	64,500	-	-	-	-	74	1,529	270	66,029
Anthracite	-	-	-	-	-	-	74	1,529	74	1,529
Bituminous	196	64,500	-	-	-	-	-	-	196	64,500
Tennessee	23	2,804	-	-	-	-	-	-	23	2,804
Texas	-	-	-	-	12	45,548	-	-	12	45,548
Utah	13	26,018	-	-	-	-	-	-	13	26,018
Virginia	127	29,740	-	-	-	-	-	-	127	29,740
Washington	-	-	1	2,580	-	-	-	-	1	2,580
West Virginia Total	290	152,374	-	-	-	-	-	-	290	152,374
Northern	49	42,398	-	-	-	-	-	-	49	42,398
Southern	241	109,976	-	-	-	-	-	-	241	109,976
Wyoming	-	-	21	446,742	-	-	-	-	21	446,742
Appalachian Total	**1,180**	**389,631**	**-**	**-**	**-**	**-**	**74**	**1,529**	**1,254**	**391,159**
Northern	316	134,674	-	-	-	-	74	1,529	390	136,203
Central	807	236,127	-	-	-	-	-	-	807	236,127
Southern	57	18,830	-	-	-	-	-	-	57	18,830
Interior Total	**92**	**97,930**	**-**	**-**	**15**	**53,459**	**-**	**-**	**107**	**151,389**
Illinois Basin	76	95,089	-	-	-	-	-	-	76	95,089
Western Total	**26**	**73,328**	**32**	**515,332**	**5**	**30,789**	**-**	**-**	**63**	**619,449**
Powder River Basin	-	-	18	472,202	-	-	-	-	18	472,202
Uinta Region	20	52,246	3	9,200	-	-	-	-	23	61,446
East of Miss. River	**1,256**	**484,720**	**-**	**-**	**1**	**3,797**	**74**	**1,529**	**1,331**	**490,046**
West of Miss. River	**42**	**76,169**	**32**	**515,332**	**19**	**80,451**	**-**	**-**	**93**	**671,952**
U.S. Subtotal	**1,298**	**560,889**	**32**	**515,332**	**20**	**84,248**	**74**	**1,529**	**1,424**	**1,161,997**
Refuse Recovery	**12**	**743**	**-**	**-**	**-**	**-**	**2**	**9**	**14**	**752**
U.S. Total	**1,310**	**561,632**	**32**	**515,332**	**20**	**84,248**	**76**	**1,538**	**1,438**	**1,162,750**

[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.

- = No data are reported.

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, 2006

(Thousand Short Tons)

Coal-Producing State and Region[1]	Union		Nonunion		Total	
	Underground	Surface	Underground	Surface	Underground	Surface
Alabama	10,548	53	183	8,016	10,732	8,069
Alaska	-	1,425	-	-	-	1,425
Arizona	-	8,216	-	-	-	8,216
Arkansas	-	-	18	-	18	-
Colorado	1,713	2,543	24,947	7,119	26,659	9,663
Illinois	10,795	-	16,325	5,609	27,120	5,609
Indiana	-	-	10,736	24,375	10,736	24,375
Kansas	-	-	-	426	-	426
Kentucky Total	5,484	1,021	67,596	46,474	73,080	47,495
Eastern	636	1,021	48,573	43,122	49,209	44,143
Western	4,848	-	19,022	3,352	23,870	3,352
Louisiana	-	-	-	4,114	-	4,114
Maryland	-	-	2,826	2,201	2,826	2,201
Mississippi	-	-	-	3,797	-	3,797
Missouri	-	-	-	394	-	394
Montana	-	26,961	321	14,541	321	41,502
New Mexico	6,993	13,417	-	5,503	6,993	18,919
North Dakota	-	7,013	-	23,398	-	30,411
Ohio	4,370	123	10,756	7,444	15,126	7,567
Oklahoma	-	-	464	1,530	464	1,530
Pennsylvania Total	21,982	555	31,785	11,353	53,767	11,908
Anthracite	-	230	239	902	239	1,132
Bituminous	21,982	325	31,547	10,450	53,529	10,776
Tennessee	-	-	1,186	1,608	1,186	1,608
Texas	-	29,368	-	16,180	-	45,548
Utah	5,337	-	20,672	-	26,009	-
Virginia	1,877	519	16,770	10,509	18,647	11,028
Washington	-	2,580	-	-	-	2,580
West Virginia Total	37,558	9,068	47,024	58,621	84,582	67,689
Northern	28,188	-	7,879	6,286	36,066	6,286
Southern	9,370	9,068	39,146	52,335	48,516	61,404
Wyoming	519	9,980	-	436,242	519	446,222
Appalachian Total	**76,972**	**11,340**	**159,105**	**142,873**	**236,076**	**154,213**
Northern	54,540	678	53,246	27,283	107,786	27,961
Central	11,884	10,608	105,675	107,574	117,559	118,182
Southern	10,548	53	183	8,016	10,732	8,069
Interior Total	**15,643**	**29,368**	**46,566**	**59,777**	**62,209**	**89,145**
Illinois Basin	15,643	-	46,084	33,335	61,727	33,335
Western Total	**14,562**	**72,134**	**45,939**	**486,804**	**60,502**	**558,938**
Powder River Basin	-	26,583	-	445,619	-	472,202
Uinta Region	7,050	2,138	45,130	7,119	52,180	9,257
East of Miss. River	**92,615**	**11,340**	**205,189**	**180,006**	**297,804**	**191,346**
West of Miss. River	**14,562**	**101,502**	**46,421**	**509,448**	**60,983**	**610,950**
Unknown[2]	**-**	**-**	**-**	**-**	**235**	**680**
U.S. Total	**107,177**	**112,842**	**251,610**	**689,454**	**359,022**	**802,976**

[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.

- = No data are reported.

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, 2006

(Thousand Short Tons)

Coal-Producing State	Open Market Sales[1]	Captive Sales/Transactions[2]	Total
Alabama	18,678	-	18,678
Alaska	W	-	W
Arizona	W	-	W
Arkansas	W	-	W
Colorado	34,130	2,008	36,138
Illinois	29,259	2,584	31,844
Indiana	27,606	7,077	34,683
Kansas	W	-	W
Kentucky Total	115,124	3,082	118,205
Eastern	88,269	2,810	91,079
Western	26,855	272	27,127
Louisiana	W	W	W
Maryland	4,557	-	4,557
Mississippi	W	-	W
Missouri	W	-	W
Montana	W	W	42,072
New Mexico	W	W	26,452
North Dakota	W	W	30,371
Ohio	21,026	1,187	22,213
Oklahoma	W	W	2,036
Pennsylvania Total	63,690	2,823	66,512
Anthracite	W	W	1,364
Bituminous	W	W	65,148
Tennessee	2,800	-	2,800
Texas	W	W	44,707
Utah	12,735	12,016	24,751
Virginia	20,823	8,307	29,130
Washington	-	W	W
West Virginia Total	136,560	16,737	153,297
Northern	37,801	4,147	41,948
Southern	98,759	12,590	111,349
Wyoming	372,112	72,983	445,095
U.S. Total[3]	**978,665**	**175,406**	**1,154,071**

[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.
- = No data are reported.
W = Data withheld to avoid disclosure.
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, 2006

Rank	Mine Names/Company	Mine Type	State	Production (short tons)
1	Black Thunder/Thunder Basin Coal Company LLC	Surface	Wyoming	92,653,250
2	North Antelope Rochelle Mine/Powder River Coal, LLC	Surface	Wyoming	88,527,969
3	Jacobs Ranch Mine/Jacobs Ranch Coal Company	Surface	Wyoming	40,000,376
4	Cordero Mine/Cordero Mining Company	Surface	Wyoming	39,747,620
5	Antelope Coal Mine/Antelope Coal Company	Surface	Wyoming	33,879,292
6	Caballo Mine/Caballo Coal Company	Surface	Wyoming	32,775,697
7	Eagle Butte Mine/Foundation Coal West Incorporated	Surface	Wyoming	25,355,158
8	Belle Ayr Mine/Foundation Coal West Incorporated	Surface	Wyoming	24,593,035
9	Buckskin Mine/Triton Coal Company	Surface	Wyoming	22,768,303
10	Rawhide Mine/Caballo Coal Company	Surface	Wyoming	17,032,317
11	Freedom Mine/Coteau Properties Company	Surface	North Dakota	15,243,391
12	Spring Creek Coal Company/Spring Creek Coal Company	Surface	Montana	14,541,054
13	Rosebud Mine & Crusher/Conveyor/Western Energy Company	Surface	Montana	12,731,701
14	Enlow Fork Mine/Consol Pennsylvania Coal Company	Underground	Pennsylvania	10,703,230
15	McElroy Mine/McElroy Coal Company	Underground	West Virginia	10,477,398
16	Bailey Mine/Consol Pennsylvania Coal Company	Underground	Pennsylvania	10,174,574
17	Foidel Creek Mine/Twentymile Coal Company	Underground	Colorado	8,635,561
18	Navajo Mine/BHP Navajo Coal Company	Surface	New Mexico	8,438,711
19	Kayenta Mine/Peabody Western Coal Company	Surface	Arizona	8,216,255
20	Falkirk Mine/Falkirk Mining Company	Surface	North Dakota	8,155,004
21	Sufco/Canyon Fuel Company LLC	Underground	Utah	7,907,935
22	Cumberland Mine/Cumberland Coal Resources, LP	Underground	Pennsylvania	7,515,984
23	Galatia Mine/The American Coal Company	Underground	Illinois	7,214,080
24	Decker Mine/Decker Coal Company	Surface	Montana	7,044,226
25	San Juan South/San Juan Coal Company	Underground	New Mexico	6,993,143
26	Absaloka Mine/Washington Group International	Surface	Montana	6,806,854
27	Jewett Mine/Texas Westmoreland Coal Co.	Surface	Texas	6,781,523
28	Three Oaks/Alcoa Incorporated	Surface	Texas	6,724,731
29	Century Mine/American Energy Corporation	Underground	Ohio	6,450,932
30	Loveridge No 22/Consolidation Coal Company	Underground	West Virginia	6,383,219
31	Colowyo Mine/Colowyo Coal Company L P	Surface	Colorado	6,222,002
32	Beckville Strip/TXU Mining Company LP	Surface	Texas	6,103,037
33	West Elk Mine/Mountain Coal Company, L.L.C.	Underground	Colorado	6,011,620
34	Emerald Mine No. 1/Emerald Coal Resources, LP	Underground	Pennsylvania	5,922,161
35	Dry Fork Mine/Dry Fork Coal Company	Surface	Wyoming	5,860,998
36	Robinson Run No 95/Consolidation Coal Company	Underground	West Virginia	5,740,172
37	Lee Ranch Coal Company/Lee Ranch Coal Co. Div. Peabody	Surface	New Mexico	5,502,565
38	Jim Bridger Mine/Bridger Coal Company	Surface	Wyoming	5,414,423
39	Elk Creek Mine/Oxbow Mining, LLC	Underground	Colorado	5,128,389
40	Blacksville No 2/Consolidation Coal Company	Underground	Pennsylvania	5,039,423
41	Buchanan Mine #1/Consolidation Coal Company	Underground	Virginia	5,008,813
42	McKinley/The Pittsburg & Midway Coal Mining	Surface	New Mexico	4,978,104
43	Oak Hill Strip/TXU Mining Company LP	Surface	Texas	4,843,839
44	Dotiki Mine/Webster County Coal LLC	Underground	Kentucky	4,733,296
45	Wyodak/Wyodak Resources Development Co	Surface	Wyoming	4,698,473
46	Federal No 2/Eastern Associated Coal Corp	Underground	West Virginia	4,621,992
47	Kemmerer Mine/The Pittsburg & Midway Coal Mining	Surface	Wyoming	4,565,158
48	Twilight MTR Surface Mine/Progress Coal	Surface	West Virginia	4,493,422
49	Cardinal/Warrior Coal LLC	Underground	Kentucky	4,487,614
50	Big Brown Strip/TXU Mining Company LP	Surface	Texas	4,462,066
51	Bowie No 2 Mine/Bowie Resources LLC	Underground	Colorado	4,420,073
52	Dugout Canyon Mine/Canyon Fuel Company LLC	Underground	Utah	4,387,000
53	Powhatan No. 6 Mine/The Ohio Valley Coal Company	Underground	Ohio	4,370,226
54	Center Mine/BNI Coal Ltd	Surface	North Dakota	4,302,567
	Subtotal			**715,789,956**
	All Other Mines			**446,959,703**
	U.S. Total			**1,162,749,659**

Note: • Major mines are mines that produced more than 4 million short tons in 2006. 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, 2006

Rank	Company Name	Production (thousand short tons)	Percent of Total Production
1	Peabody Coal Co.	207,978	17.9
2	Rio Tinto Energy America, Inc.	134,390	11.6
3	Arch Coal, Inc.	129,458	11.1
4	Foundation Coal Corp.	69,280	6.0
5	CONSOL Energy, Inc.	63,243	5.4
6	A.T. Massey Coal Co., Inc.	38,318	3.3
7	North American Coal Corp.	31,168	2.7
8	Westmoreland Coal Co.	29,408	2.5
9	Alliance Coal, LLC	23,233	2.0
10	Peter Kiewit Sons, Inc.	22,732	2.0
11	TXU Corp.	22,656	1.9
12	Robert Murray	20,426	1.8
13	International Coal Group, Inc.	19,486	1.7
14	BHP Minerals Group	18,508	1.6
15	Alpha Natural Resources, LLC	18,356	1.6
16	Magnum Coal Co.	11,260	1.0
17	James River Coal Co.	11,237	1.0
18	Energy Coal Resources, Inc.	10,002	0.9
19	Pittsburg & Midway Coal Mining Co.	9,543	0.8
20	PacifiCorp	9,162	0.8
21	Peter Kiewit/Kennecott	7,044	0.6
22	Alcoa, Inc.	6,725	0.6
23	Andalex Resources, Inc.	6,482	0.6
24	Western Fuels Association, Inc.	5,861	0.5
25	TECO Energy, Inc.	5,736	0.5
26	Wexford Capital LLC	5,358	0.5
27	Oxbow Carbon & Minerals, Inc.	5,128	0.4
	Subtotal	**942,178**	**81.0**
	All Other Coal Producers	**220,572**	**19.0**
	U.S. Total	**1,162,750**	**100.0**

Note: • Major coal producers are companies that produced more than 5 million short tons in 2006. 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, 2006, 2005

(Thousand Short Tons)

Coal-Producing State	2006			2005			Percent Change		
	Underground	Surface	Total	Underground	Surface	Total	Underground	Surface	Total
Alabama	16,540	9,888	26,428	15,139	10,165	25,304	9.3	-2.7	4.4
Alaska	-	W	W	-	W	W	-	W	W
Arizona	-	W	W	-	W	W	-	W	W
Arkansas	W	-	W	-	-	-	W	-	W
Colorado	32,836	11,099	43,935	32,622	10,503	43,125	0.7	5.7	1.9
Illinois	35,560	7,914	43,473	32,666	7,495	40,162	8.9	5.6	8.2
Indiana	12,122	27,821	39,944	11,837	27,253	39,089	2.4	2.1	2.2
Kansas	-	W	W	-	W	W	-	W	W
Kentucky Total	91,205	59,327	150,533	92,065	57,460	149,525	-0.9	3.2	0.7
Eastern	63,278	54,664	117,942	66,372	51,807	118,179	-4.7	5.5	-0.2
Western	27,928	4,663	32,591	25,693	5,653	31,346	8.7	-17.5	4.0
Louisiana	-	W	W	-	W	W	-	W	W
Maryland	W	W	5,891	W	W	5,702	W	W	3.3
Mississippi	-	W	W	-	W	W	-	W	W
Missouri	-	W	W	-	W	W	-	W	W
Montana	W	W	45,546	W	W	47,003	W	W	-3.1
New Mexico	W	W	29,400	W	W	29,503	W	W	-0.4
North Dakota	-	32,900	32,900	-	33,500	33,500	-	-1.8	-1.8
Ohio	17,810	16,667	34,477	16,760	17,454	34,214	6.3	-4.5	0.8
Oklahoma	W	W	3,386	W	W	2,294	W	W	47.6
Pennsylvania Total	59,830	16,143	75,973	62,418	17,428	79,846	-4.1	-7.4	-4.9
Anthracite	279	2,017	2,295	258	2,636	2,894	7.9	-23.5	-20.7
Bituminous	59,551	14,126	73,678	62,160	14,792	76,952	-4.2	-4.5	-4.3
Tennessee	1,738	2,109	3,846	1,747	2,610	4,357	-0.5	-19.2	-11.7
Texas	-	46,253	46,253	-	49,493	49,493	-	-6.5	-6.5
Utah	29,530	-	29,530	27,383	-	27,383	7.8	-	7.8
Virginia	20,716	11,784	32,500	23,661	15,970	39,631	-12.4	-26.2	-18.0
Washington	-	W	W	-	W	W	-	W	W
West Virginia Total	117,465	86,432	203,897	121,396	82,404	203,800	-3.2	4.9	*
Northern	39,587	6,394	45,982	41,205	6,804	48,010	-3.9	-6.0	-4.2
Southern	77,878	80,037	157,915	80,190	75,600	155,790	-2.9	5.9	1.4
Wyoming	W	W	519,749	W	W	488,378	W	W	6.4
U.S. Total	**448,895**	**941,432**	**1,390,327**	**450,310**	**922,947**	**1,373,258**	**-0.3**	**2.0**	**1.2**

* Absolute percentage less than 0.05.

- = No data are reported.

W = Data withheld to avoid disclosure.

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, 2006, 2005

(Percent)

Coal-Producing State	2006			2005		
	Underground	Surface	Total	Underground	Surface	Total
Alabama	64.88	81.61	71.14	87.78	78.97	84.24
Alaska	-	W	W	-	W	W
Arizona	-	W	W	-	W	W
Arkansas	W	-	W	-	-	-
Colorado	81.19	87.06	82.67	87.18	95.88	89.30
Illinois	76.27	70.87	75.28	80.64	75.66	79.71
Indiana	88.57	87.61	87.90	94.53	85.38	88.15
Kansas	-	W	W	-	W	W
Kentucky Total	80.13	80.06	80.10	79.97	79.92	79.95
Eastern	77.77	80.75	79.15	78.31	79.46	78.82
Western	85.47	71.88	83.53	84.26	84.14	84.24
Louisiana	-	W	W	-	W	W
Maryland	W	W	85.34	W	W	90.72
Mississippi	-	W	W	-	W	W
Missouri	-	W	W	-	W	W
Montana	W	W	91.83	W	W	85.85
New Mexico	W	W	88.14	W	W	96.66
North Dakota	-	92.43	92.43	-	89.42	89.42
Ohio	84.93	45.40	65.82	94.41	50.72	72.12
Oklahoma	W	W	58.90	W	W	80.59
Pennsylvania Total	89.87	73.76	86.45	87.37	72.56	84.14
Anthracite	85.62	56.14	59.72	94.47	49.17	53.21
Bituminous	89.89	76.28	87.28	87.34	76.72	85.30
Tennessee	68.26	76.24	72.64	68.93	75.95	73.13
Texas	-	98.47	98.47	-	92.82	92.82
Utah	88.08	-	88.08	89.55	-	89.55
Virginia	90.02	93.58	91.31	69.03	70.95	69.81
Washington	-	W	W	-	W	W
West Virginia Total	72.01	78.32	74.68	74.94	75.98	75.36
Northern	91.11	98.30	92.11	91.23	73.89	88.77
Southern	62.30	76.72	69.61	66.57	76.17	71.23
Wyoming	W	W	85.95	W	W	82.79
U.S. Total	**79.93**	**85.22**	**83.51**	**81.81**	**82.52**	**82.29**

- = No data are reported.

W = Data withheld to avoid disclosure.

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, 2006

(Thousand Short Tons)

Coal-Producing State	Continuous[1]		Conventional and Other[2]		Longwall[3]		Total	
	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	16,540	64.88
Arkansas	W	W	-	-	-	-	W	W
Colorado	W	W	-	-	W	W	32,836	81.19
Illinois	W	W	-	-	W	W	35,560	76.27
Indiana	12,122	88.57	-	-	-	-	12,122	88.57
Kentucky Total	87,421	W	W	82.25	W	W	91,205	80.13
Eastern	W	W	W	W	W	W	63,278	77.77
Western	W	W	W	W	-	-	27,928	85.47
Maryland	W	W	-	-	W	W	W	W
Montana	W	W	-	-	-	-	W	W
New Mexico	-	-	-	-	W	W	W	W
Ohio	3,060	86.90	W	W	W	W	17,810	84.93
Oklahoma	W	W	-	-	-	-	W	W
Pennsylvania Total	14,558	74.48	W	W	W	W	59,830	89.87
Anthracite	W	W	W	W	-	-	279	85.62
Bituminous	W	W	-	-	W	W	59,551	89.89
Tennessee	1,738	68.26	-	-	-	-	1,738	68.26
Utah	2,005	69.67	-	-	27,525	89.42	29,530	88.08
Virginia	W	W	-	-	W	W	20,716	90.02
West Virginia Total	66,866	65.98	653	99.98	49,946	79.71	117,465	72.01
Northern	10,312	70.96	-	-	29,275	98.20	39,587	91.11
Southern	56,554	65.07	653	99.98	20,671	53.53	77,878	62.30
Wyoming	W	W	-	-	-	-	W	W
U.S. Total	**231,780**	**75.52**	**4,134**	**79.59**	**212,981**	**84.73**	**448,895**	**79.93**

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

[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.

- = No data are reported.

W = Data withheld to avoid disclosure.

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, 2006, 2005
(Million Short Tons)

Coal-Producing State	2006		2005		Percent Change Recoverable Coal Reserves
	Recoverable Coal Reserves	Average Recovery Percentage	Recoverable Coal Reserves	Average Recovery Percentage	
Alabama	336	59.60	355	59.47	-5.5
Alaska	W	W	W	W	W
Arizona	W	W	W	W	W
Arkansas	W	W	-	-	-
Colorado	335	70.36	382	66.88	-12.3
Illinois	1,294	61.38	747	59.32	73.2
Indiana	384	69.10	382	67.55	0.6
Kansas	W	W	W	W	W
Kentucky Total	1,134	54.76	1,169	55.26	-3.1
Eastern	703	54.65	784	55.92	-10.4
Western	431	54.94	385	53.94	11.8
Louisiana	W	W	W	W	W
Maryland	28	60.48	35	60.08	-21.2
Mississippi	W	W	W	W	W
Missouri	W	W	W	W	W
Montana	1,211	87.33	1,234	90.94	-1.9
New Mexico	504	90.56	526	89.12	-4.3
North Dakota	1,145	90.16	1,214	89.20	-5.7
Ohio	291	73.10	371	73.55	-21.6
Oklahoma	23	62.25	15	67.77	51.5
Pennsylvania Total	548	71.78	616	69.06	-11.1
Anthracite	16	66.86	21	55.65	-21.1
Bituminous	531	71.93	596	69.52	-10.8
Tennessee	21	61.92	19	65.57	8.0
Texas	730	90.79	772	93.28	-5.5
Utah	243	57.80	281	60.37	-13.7
Virginia	273	55.85	294	57.01	-7.1
Washington	W	W	W	W	W
West Virginia Total	1,793	59.43	1,741	60.33	3.0
Northern	284	62.92	325	59.68	-12.8
Southern	1,510	58.77	1,416	60.48	6.6
Wyoming	7,890	91.57	7,975	92.99	-1.1
U.S. Total	**18,880**	**80.28**	**18,944**	**81.72**	**-0.3**

- = No data are reported.
W = Data withheld to avoid disclosure.

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, 2006

(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	280	497	986	56	2,271	3,188	336	2,767	4,174
Alaska	-	2,335	5,423	W	497	685	W	2,832	6,108
Arizona	-	-	-	W	-	-	W	-	-
Arkansas	W	127	272	-	101	144	W	228	417
Colorado	W	5,981	11,397	W	3,746	4,761	335	9,727	16,158
Georgia	-	1	2	-	1	2	-	2	4
Idaho	-	2	4	-	-	-	-	2	4
Illinois	1,255	27,910	87,865	40	10,068	16,543	1,294	37,978	104,408
Indiana	249	3,611	8,720	135	416	711	384	4,027	9,431
Iowa	-	807	1,732	-	320	457	-	1,127	2,189
Kansas	-	-	-	W	680	972	W	680	972
Kentucky Total	962	7,336	16,909	171	7,449	12,906	1,134	14,785	29,814
Eastern	554	603	1,080	149	5,183	9,282	703	5,786	10,362
Western	408	6,733	15,829	23	2,266	3,624	431	8,999	19,452
Louisiana	-	-	-	W	309	416	W	309	416
Maryland	W	314	572	W	42	62	28	356	634
Michigan	-	55	123	-	3	5	-	59	128
Mississippi	-	-	-	W	-	-	W	-	-
Missouri	-	689	1,479	W	3,157	4,510	W	3,846	5,989
Montana	W	35,922	70,957	W	38,979	48,220	1,211	74,901	119,177
New Mexico	W	2,794	6,142	W	4,171	5,951	504	6,965	12,093
North Carolina	-	5	11	-	-	-	-	5	11
North Dakota	-	-	-	1,145	6,877	9,015	1,145	6,877	9,015
Ohio	192	7,706	17,515	99	3,760	5,745	291	11,466	23,260
Oklahoma	W	573	1,230	W	225	321	23	798	1,551
Oregon	-	6	15	-	2	3	-	9	17
Pennsylvania Total	468	10,652	23,113	79	1,035	4,236	548	11,687	27,349
Anthracite	2	340	3,843	14	420	3,353	16	760	7,196
Bituminous	466	10,312	19,270	65	615	883	531	10,927	20,153
South Dakota	-	-	-	-	277	366	-	277	366
Tennessee	12	278	508	8	178	262	21	456	770
Texas	-	-	-	730	9,490	12,328	730	9,490	12,328
Utah	243	2,488	5,076	-	212	268	243	2,700	5,344
Virginia	223	614	1,093	51	171	548	273	785	1,642
Washington	-	674	1,332	W	6	8	W	681	1,340
West Virginia Total	1,206	15,485	29,015	588	2,329	3,691	1,793	17,814	32,706
Northern	252	NA	NA	32	NA	NA	284	NA	NA
Southern	954	NA	NA	556	NA	NA	1,510	NA	NA
Wyoming	W	22,949	42,499	W	17,195	20,762	7,890	40,144	63,261
U.S. Total	**5,897**	**149,814**	**333,991**	**12,983**	**113,967**	**157,085**	**18,880**	**263,781**	**491,076**

- = No data are reported.

W = Data withheld to avoid disclosure.

NA = Not Available.

Notes: • 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, 2007." 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, 2006. • 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. • All reserve expressions exclude silt, culm, refuse bank, slurry dam, and dredge operations. • Reserves at Producing Mines exclude mines producing less than 10,000 short tons, which are not required to provide reserves 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," and EIA estimates.

Table 16. Recoverable Coal Reserves and Average Recovery Percentage at Producing Underground Coal Mines by State and Mining Method, 2006

(Million Short Tons)

Coal-Producing State	Continuous[1]		Conventional and Other[2]		Longwall[3]		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
Alabama	W	W	-	-	W	W	280	53.46
Arkansas	W	W	-	-	-	-	W	W
Colorado	W	W	-	-	W	W	300	68.12
Illinois	W	W	-	-	W	W	1,255	60.87
Indiana	249	62.53	-	-	-	-	249	62.53
Kentucky Total	937	W	W	56.69	W	W	962	49.52
Eastern	W	W	W	W	W	W	554	47.03
Western	W	W	W	W	-	-	408	52.90
Maryland	W	W	-	-	W	W	W	W
Montana	W	W	-	-	-	-	W	W
New Mexico	-	-	-	-	W	W	W	W
Ohio	24	53.73	W	W	W	W	192	66.96
Oklahoma	W	W	-	-	-	-	W	W
Pennsylvania Total	125	64.79	W	W	W	W	468	69.98
Anthracite	W	W	W	W	-	-	2	76.23
Bituminous	W	W	-	-	W	W	466	69.95
Tennessee	12	45.44	-	-	-	-	12	45.44
Utah	29	65.74	-	-	214	56.74	243	57.80
Virginia	W	W	-	-	W	W	223	48.41
West Virginia Total	700	52.43	10	60.00	496	49.18	1,206	51.16
Northern	111	57.23	-	-	141	65.47	252	61.84
Southern	589	51.52	10	60.00	355	42.71	954	48.33
Wyoming	W	W	-	-	-	-	W	W
U.S. Total	**3,044**	**56.07**	**40**	**59.68**	**2,812**	**61.30**	**5,897**	**58.59**

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

[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.

- = No data are reported.

W = Data withheld to avoid disclosure.

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, 2006

(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	3,755	59.67	12,255	90.61	16,010	83.35
500 to 1,000	686	50.33	268	81.32	954	59.03
200 to 500	860	60.77	232	82.19	1,092	65.32
100 to 200	179	58.48	87	82.60	265	66.35
50 to 100	257	61.45	86	87.30	344	67.95
10 to 50	159	52.43	56	75.30	215	58.38
U.S. Total	**5,897**	**58.59**	**12,983**	**90.13**	**18,880**	**80.28**

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, 2006, 2005

Coal-Producing State and Region[1]	2006			2005			Percent Change		
	Underground	Surface	Total	Underground	Surface	Total	Underground	Surface	Total
Alabama	2,621	1,574	4,195	2,887	1,251	4,138	-9.2	25.8	1.4
Alaska	-	96	96	-	97	97	-	-1.0	-1.0
Arizona	-	418	418	-	567	567	-	-26.3	-26.3
Arkansas	41	2	43	-	2	2	-	-	NM
Colorado	1,682	547	2,229	1,640	586	2,226	2.6	-6.7	0.1
Illinois	3,507	470	3,977	3,393	424	3,817	3.4	10.8	4.2
Indiana	1,231	1,627	2,858	1,143	1,540	2,683	7.7	5.6	6.5
Kansas	-	61	61	-	25	25	-	144.0	144.0
Kentucky Total	11,902	6,057	17,959	11,137	5,853	16,990	6.9	3.5	5.7
Eastern	9,303	5,707	15,010	8,883	5,407	14,290	4.7	5.5	5.0
Western	2,599	350	2,949	2,254	446	2,700	15.3	-21.5	9.2
Louisiana	-	243	243	-	242	242	-	0.4	0.4
Maryland	205	285	490	272	230	502	-24.6	23.9	-2.4
Mississippi	-	178	178	-	193	193	-	-7.8	-7.8
Missouri	-	20	20	-	24	24	-	-16.7	-16.7
Montana	58	884	942	53	782	835	9.4	13.0	12.8
New Mexico	368	1,004	1,372	362	1,046	1,408	1.7	-4.0	-2.6
North Dakota	-	947	947	-	927	927	-	2.2	2.2
Ohio	1,384	1,029	2,413	1,384	1,150	2,534	-	-10.5	-4.8
Oklahoma	73	151	224	48	148	196	52.1	2.0	14.3
Pennsylvania Total	5,099	2,427	7,526	5,043	2,566	7,609	1.1	-5.4	-1.1
Anthracite	226	643	869	228	663	891	-0.9	-3.0	-2.5
Bituminous	4,873	1,784	6,657	4,815	1,903	6,718	1.2	-6.3	-0.9
Tennessee	333	327	660	318	373	691	4.7	-12.3	-4.5
Texas	-	2,138	2,138	-	2,196	2,196	-	-2.6	-2.6
Utah	2,030	6	2,036	1,812	5	1,817	12.0	20.0	12.1
Virginia	3,623	1,639	5,262	3,577	1,557	5,134	1.3	5.3	2.5
Washington	-	673	673	-	672	672	-	0.1	0.1
West Virginia Total	13,190	6,886	20,076	12,483	6,128	18,611	5.7	12.4	7.9
Northern	3,982	639	4,621	4,085	544	4,629	-2.5	17.5	-0.2
Southern	9,208	6,247	15,455	8,398	5,584	13,982	9.6	11.9	10.5
Wyoming	128	5,709	5,837	62	4,988	5,050	106.5	14.5	15.6
Appalachian Total	**35,758**	**19,874**	**55,632**	**34,847**	**18,662**	**53,509**	**2.6**	**6.5**	**4.0**
Northern	10,670	4,380	15,050	10,784	4,490	15,274	-1.1	-2.4	-1.5
Central	22,467	13,920	36,387	21,163	12,921	34,084	6.2	7.7	6.8
Southern	2,621	1,574	4,195	2,900	1,251	4,151	-9.6	25.8	1.1
Interior Total	**7,451**	**5,240**	**12,691**	**6,838**	**5,240**	**12,078**	**9.0**	-	**5.1**
Illinois Basin	7,337	2,447	9,784	6,790	2,410	9,200	8.1	1.5	6.3
Western Total	**4,266**	**10,284**	**14,550**	**3,929**	**9,670**	**13,599**	**8.6**	**6.3**	**7.0**
Powder River Basin	-	5,852	5,852	-	5,053	5,053	-	15.8	15.8
Uinta Region	3,657	525	4,182	3,394	562	3,956	7.7	-6.6	5.7
East of Miss. River	**43,095**	**22,499**	**65,594**	**41,637**	**21,265**	**62,902**	**3.5**	**5.8**	**4.3**
West of Miss. River	**4,380**	**12,899**	**17,279**	**3,977**	**12,307**	**16,284**	**10.1**	**4.8**	**6.1**
U.S. Subtotal	**47,475**	**35,398**	**82,873**	**45,614**	**33,572**	**79,186**	**4.1**	**5.4**	**4.7**
Refuse Recovery	**-**	**-**	**86**	**-**	**-**	**97**	**-**	**-**	**-11.3**
U.S. Total	**47,475**	**35,398**	**82,959**	**45,614**	**33,572**	**79,283**	**4.1**	**5.4**	**4.6**

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

- = No data are reported.

NM = Not meaningful due to changes of 500 percent or more.

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, 2006

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	**1,745**	**1,145**	**429**	**225**	**252**	**230**	**39**	**130**	**4,195**
Underground	1,745	750	-	25	42	9	3	47	2,621
Surface	-	395	429	200	210	221	36	83	1,574
Alaska	**96**	**-**	-	-	-	-	-	-	**96**
Surface	96	-	-	-	-	-	-	-	96
Arizona	**411**	**-**	-	-	-	-	-	**7**	**418**
Surface	411	-	-	-	-	-	-	7	418
Arkansas	**-**	**-**	-	-	-	**41**	**2**	-	**43**
Underground	-	-	-	-	-	41	-	-	41
Surface	-	-	-	-	-	-	2	-	2
Colorado	**2,054**	**20**	**108**	**-**	**41**	**-**	**-**	**6**	**2,229**
Underground	1,596	-	80	-	-	-	-	6	1,682
Surface	458	20	28	-	41	-	-	-	547
Illinois	**3,378**	**67**	**312**	**-**	**55**	**2**	**-**	**163**	**3,977**
Underground	3,110	-	227	-	55	-	-	115	3,507
Surface	268	67	85	-	-	2	-	48	470
Indiana	**2,193**	**191**	**206**	**-**	**75**	**16**	**3**	**174**	**2,858**
Underground	948	-	156	-	39	-	-	88	1,231
Surface	1,245	191	50	-	36	16	3	86	1,627
Kansas	**-**	**-**	**32**	**13**	**-**	**-**	**-**	**16**	**61**
Surface	-	-	32	13	-	-	-	16	61
Kentucky Total	**4,359**	**3,350**	**3,395**	**1,935**	**1,423**	**927**	**518**	**2,052**	**17,959**
Underground	3,415	2,387	1,788	1,263	1,019	458	316	1,256	11,902
Surface	944	963	1,607	672	404	469	202	796	6,057
Eastern	**1,987**	**3,276**	**3,272**	**1,848**	**1,306**	**899**	**509**	**1,913**	**15,010**
Underground	1,120	2,387	1,739	1,196	943	458	316	1,144	9,303
Surface	867	889	1,533	652	363	441	193	769	5,707
Western	**2,372**	**74**	**123**	**87**	**117**	**28**	**9**	**139**	**2,949**
Underground	2,295	-	49	67	76	-	-	112	2,599
Surface	77	74	74	20	41	28	9	27	350
Louisiana	**204**	**39**	-	-	-	-	-	-	**243**
Surface	204	39	-	-	-	-	-	-	243
Maryland	**94**	**110**	**95**	**60**	**39**	**38**	**17**	**37**	**490**
Underground	94	-	54	23	-	-	-	34	205
Surface	-	110	41	37	39	38	17	3	285
Mississippi	**178**	**-**	-	-	-	-	-	-	**178**
Surface	178	-	-	-	-	-	-	-	178
Missouri	**-**	**-**	**8**	**12**	**-**	**-**	**-**	**-**	**20**
Surface	-	-	8	12	-	-	-	-	20
Montana	**872**	**-**	**70**	-	-	-	-	-	**942**
Underground	-	-	58	-	-	-	-	-	58
Surface	872	-	12	-	-	-	-	-	884
New Mexico	**1,202**	**-**	-	-	-	-	-	**170**	**1,372**
Underground	302	-	-	-	-	-	-	66	368
Surface	900	-	-	-	-	-	-	104	1,004
North Dakota	**942**	**-**	-	-	-	-	-	**5**	**947**
Surface	942	-	-	-	-	-	-	5	947
Ohio	**879**	**558**	**400**	**257**	**51**	**60**	**50**	**158**	**2,413**
Underground	879	243	129	64	-	-	-	69	1,384
Surface	-	315	271	193	51	60	50	89	1,029
Oklahoma	**-**	**-**	**167**	**24**	**-**	**31**	**2**	**-**	**224**
Underground	-	-	48	-	-	25	-	-	73
Surface	-	-	119	24	-	6	2	-	151
Pennsylvania Total	**3,498**	**664**	**963**	**544**	**338**	**483**	**292**	**744**	**7,526**
Underground	3,498	443	451	245	32	61	52	317	5,099
Surface	-	221	512	299	306	422	240	427	2,427
Anthracite	**-**	**-**	**24**	**46**	**106**	**154**	**165**	**374**	**869**
Underground	-	-	-	46	-	33	52	95	226
Surface	-	-	24	-	106	121	113	279	643
Bituminous	**3,498**	**664**	**939**	**498**	**232**	**329**	**127**	**370**	**6,657**
Underground	3,498	443	451	199	32	28	-	222	4,873
Surface	-	221	488	299	200	301	127	148	1,784
Tennessee	**-**	**-**	**357**	**44**	**50**	**129**	**17**	**63**	**660**
Underground	-	-	156	-	50	84	8	35	333
Surface	-	-	201	44	-	45	9	28	327
Texas	**2,080**	**58**	-	-	-	-	-	-	**2,138**
Surface	2,080	58	-	-	-	-	-	-	2,138
Utah	**1,554**	**270**	**54**	**-**	**-**	**14**	**5**	**139**	**2,036**
Underground	1,554	270	54	-	-	14	5	133	2,030

See footnotes at end of table.

Table 19. Average Number of Employees at Underground and Surface Mines by State and Mine Production Range, 2006 (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	-	-	-	-	-	-	-	6	6
Virginia	**984**	**683**	**1,521**	**530**	**405**	**338**	**126**	**675**	**5,262**
Underground	748	421	960	427	249	219	94	505	3,623
Surface	236	262	561	103	156	119	32	170	1,639
Washington	**673**	-	-	-	-	-	-	-	**673**
Surface	673	-	-	-	-	-	-	-	673
West Virginia Total	**8,286**	**3,323**	**3,590**	**1,046**	**756**	**597**	**178**	**2,300**	**20,076**
Underground	4,757	2,341	2,726	724	624	356	140	1,522	13,190
Surface	3,529	982	864	322	132	241	38	778	6,886
Northern	**2,817**	**624**	**513**	**76**	**102**	**123**	**47**	**319**	**4,621**
Underground	2,531	589	425	57	95	42	23	220	3,982
Surface	286	35	88	19	7	81	24	99	639
Southern	**5,469**	**2,699**	**3,077**	**970**	**654**	**474**	**131**	**1,981**	**15,455**
Underground	2,226	1,752	2,301	667	529	314	117	1,302	9,208
Surface	3,243	947	776	303	125	160	14	679	6,247
Wyoming	**5,640**	**128**	**-**	**-**	**60**	**6**	**3**	**-**	**5,837**
Underground	-	128	-	-	-	-	-	-	128
Surface	5,640	-	-	-	60	6	3	-	5,709
Appalachian Total	**17,473**	**9,759**	**10,627**	**4,554**	**3,197**	**2,774**	**1,228**	**6,020**	**55,632**
Underground	12,841	6,585	6,215	2,704	1,940	1,187	613	3,673	35,758
Surface	4,632	3,174	4,412	1,850	1,257	1,587	615	2,347	19,874
Northern	**7,288**	**1,956**	**1,971**	**937**	**530**	**704**	**406**	**1,258**	**15,050**
Underground	7,002	1,275	1,059	389	127	103	75	640	10,670
Surface	286	681	912	548	403	601	331	618	4,380
Central	**8,440**	**6,658**	**8,227**	**3,392**	**2,415**	**1,840**	**783**	**4,632**	**36,387**
Underground	4,094	4,560	5,156	2,290	1,771	1,075	535	2,986	22,467
Surface	4,346	2,098	3,071	1,102	644	765	248	1,646	13,920
Southern	**1,745**	**1,145**	**429**	**225**	**252**	**230**	**39**	**130**	**4,195**
Underground	1,745	750	-	25	42	9	3	47	2,621
Surface	-	395	429	200	210	221	36	83	1,574
Interior Total	**10,405**	**429**	**848**	**136**	**247**	**118**	**16**	**492**	**12,691**
Underground	6,353	-	480	67	170	66	-	315	7,451
Surface	4,052	429	368	69	77	52	16	177	5,240
Illinois Basin	**7,943**	**332**	**641**	**87**	**247**	**46**	**12**	**476**	**9,784**
Underground	6,353	-	432	67	170	-	-	315	7,337
Surface	1,590	332	209	20	77	46	12	161	2,447
Western Total	**13,444**	**418**	**232**	**-**	**101**	**20**	**8**	**327**	**14,550**
Underground	3,452	398	192	-	-	14	5	205	4,266
Surface	9,992	20	40	-	101	6	3	122	10,284
Powder River Basin	**5,792**	**-**	**-**	**-**	**60**	**-**	**-**	**-**	**5,852**
Surface	5,792	-	-	-	60	-	-	-	5,852
Uinta Region	**3,608**	**290**	**79**	**-**	**41**	**14**	**5**	**145**	**4,182**
Underground	3,150	270	79	-	-	14	5	139	3,657
Surface	458	20	-	-	41	-	-	6	525
East of Miss. River	**25,594**	**10,091**	**11,268**	**4,641**	**3,444**	**2,820**	**1,240**	**6,496**	**65,594**
Underground	19,194	6,585	6,647	2,771	2,110	1,187	613	3,988	43,095
Surface	6,400	3,506	4,621	1,870	1,334	1,633	627	2,508	22,499
West of Miss. River	**15,728**	**515**	**439**	**49**	**101**	**92**	**12**	**343**	**17,279**
Underground	3,452	398	240	-	-	80	5	205	4,380
Surface	12,276	117	199	49	101	12	7	138	12,899
Subtotal	**41,322**	**10,606**	**11,707**	**4,690**	**3,545**	**2,912**	**1,252**	**6,839**	**82,873**
Underground	22,646	6,983	6,887	2,771	2,110	1,267	618	4,193	47,475
Surface	18,676	3,623	4,820	1,919	1,435	1,645	634	2,646	35,398
Refuse Recovery	**-**	**-**	**-**	**31**	**-**	**37**	**16**	**2**	**86**
U.S. Total	**41,322**	**10,606**	**11,707**	**4,721**	**3,545**	**2,949**	**1,268**	**6,841**	**82,959**

[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.

- = No data are reported.

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, 2006

Coal-Producing State and Region[1]	Union[2]		Nonunion[2]	
	Underground	Surface	Underground	Surface
Alabama	2,533	41	85	1,519
Alaska	-	96	-	-
Arizona	-	418	-	-
Arkansas	-	-	41	-
Colorado	143	226	1,539	321
Illinois	1,610	50	1,897	420
Indiana	-	-	1,231	1,624
Kansas	-	-	-	61
Kentucky Total	770	89	10,816	5,783
Eastern	173	89	8,814	5,431
Western	597	-	2,002	352
Louisiana	-	-	-	243
Maryland	-	-	205	268
Mississippi	-	-	-	178
Missouri	-	-	-	20
Montana	-	709	58	175
New Mexico	368	765	-	239
North Dakota	-	281	-	666
Ohio	493	39	891	940
Oklahoma	-	-	73	149
Pennsylvania Total	2,335	280	2,712	1,922
Anthracite	3	206	171	324
Bituminous	2,332	74	2,541	1,598
Tennessee	-	-	325	318
Texas	-	1,288	-	850
Utah	557	-	1,468	8
Virginia	527	85	3,002	1,536
Washington	-	673	-	-
West Virginia Total	4,710	945	8,340	5,903
Northern	2,538	-	1,421	615
Southern	2,172	945	6,919	5,288
Wyoming	128	521	-	5,185
Appalachian Total	**10,771**	**1,479**	**24,374**	**17,837**
Northern	5,366	319	5,229	3,745
Central	2,872	1,119	19,060	12,573
Southern	2,533	41	85	1,519
Interior Total	**2,207**	**1,338**	**5,244**	**3,897**
Illinois Basin	2,207	50	5,130	2,396
Western Total	**1,196**	**3,689**	**3,065**	**6,594**
Powder River Basin	-	697	-	5,155
Uinta Region	700	198	2,952	329
East of Miss. River	**12,978**	**1,529**	**29,504**	**20,411**
West of Miss. River	**1,196**	**4,977**	**3,179**	**7,917**
U.S. Total	**14,174**	**6,506**	**32,683**	**28,328**

[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.
- = No data are reported.

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, 2006, 2005

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]		
	2006	2005	Percent Change	2006	2005	Percent Change	2006	2005	Percent Change
Alabama	**68**	**62**	**9.7**	**4,195**	**4,138**	**1.4**	**2.01**	**2.18**	**-8.0**
Underground	14	14	-	2,621	2,887	-9.2	1.74	1.99	-12.4
Surface	54	48	12.5	1,574	1,251	25.8	2.51	2.60	-3.4
Alaska	**1**	**1**	**-**	**96**	**97**	**-1.0**	**6.48**	**6.71**	**-3.5**
Surface	1	1	-	96	97	-1.0	6.48	6.71	-3.5
Arizona	**2**	**3**	**-33.3**	**418**	**567**	**-26.3**	**7.69**	**8.22**	**-6.4**
Surface	2	3	-33.3	418	567	-26.3	7.69	8.22	-6.4
Arkansas	**2**	**1**	**100.0**	**43**	**2**	**NM**	**0.24**	**0.80**	**-70.3**
Underground	1	-	-	41	-	-	0.19	-	-
Surface	1	1	-	2	2	-	2.48	0.80	209.1
Colorado	**13**	**14**	**-7.1**	**2,229**	**2,226**	**0.1**	**7.90**	**8.52**	**-7.2**
Underground	8	9	-11.1	1,682	1,640	2.6	7.72	8.65	-10.8
Surface	5	5	-	547	586	-6.7	8.46	8.17	3.6
Illinois	**33**	**31**	**6.5**	**3,977**	**3,817**	**4.2**	**3.70**	**3.70**	*****
Underground	21	18	16.7	3,507	3,393	3.4	3.52	3.46	1.9
Surface	12	13	-7.7	470	424	10.8	4.89	5.50	-11.2
Indiana	**45**	**48**	**-6.3**	**2,858**	**2,683**	**6.5**	**4.81**	**5.06**	**-5.0**
Underground	15	19	-21.1	1,231	1,143	7.7	3.46	3.89	-11.2
Surface	30	29	3.4	1,627	1,540	5.6	5.82	5.92	-1.8
Kansas	**3**	**1**	**200.0**	**61**	**25**	**144.0**	**3.64**	**2.94**	**23.8**
Surface	3	1	200.0	61	25	144.0	3.64	2.94	23.8
Kentucky Total	**592**	**560**	**5.7**	**17,959**	**16,990**	**5.7**	**2.96**	**3.13**	**-5.6**
Underground	300	291	3.1	11,902	11,137	6.9	2.68	2.93	-8.4
Surface	292	269	8.6	6,057	5,853	3.5	3.51	3.52	-0.5
Eastern	**556**	**524**	**6.1**	**15,010**	**14,290**	**5.0**	**2.78**	**2.93**	**-5.2**
Underground	280	273	2.6	9,303	8,883	4.7	2.37	2.64	-10.4
Surface	276	251	10.0	5,707	5,407	5.5	3.45	3.40	1.4
Western	**36**	**36**	**-**	**2,949**	**2,700**	**9.2**	**3.78**	**4.11**	**-8.2**
Underground	20	18	11.1	2,599	2,254	15.3	3.69	3.94	-6.4
Surface	16	18	-11.1	350	446	-21.5	4.54	5.12	-11.1
Louisiana	**2**	**2**	**-**	**243**	**242**	**0.4**	**7.84**	**7.98**	**-1.7**
Surface	2	2	-	243	242	0.4	7.84	7.98	-1.7
Maryland	**22**	**19**	**15.8**	**490**	**502**	**-2.4**	**4.82**	**4.75**	**1.5**
Underground	5	4	25.0	205	272	-24.6	6.10	5.33	14.4
Surface	17	15	13.3	285	230	23.9	3.81	4.05	-6.0
Mississippi	**1**	**1**	**-**	**178**	**193**	**-7.8**	**10.38**	**8.87**	**17.1**
Surface	1	1	-	178	193	-7.8	10.38	8.87	17.1
Missouri	**2**	**2**	**-**	**20**	**24**	**-16.7**	**10.20**	**11.25**	**-9.3**
Surface	2	2	-	20	24	-16.7	10.20	11.25	-9.3
Montana	**6**	**6**	**-**	**942**	**835**	**12.8**	**21.98**	**23.26**	**-5.5**
Underground	1	1	-	58	53	9.4	2.65	1.50	76.6
Surface	5	5	-	884	782	13.0	23.30	24.70	-5.7
New Mexico	**5**	**5**	**-**	**1,372**	**1,408**	**-2.6**	**8.62**	**9.68**	**-10.9**
Underground	2	2	-	368	362	1.7	8.07	9.87	-18.3
Surface	3	3	-	1,004	1,046	-4.0	8.85	9.61	-7.9
North Dakota	**5**	**4**	**25.0**	**947**	**927**	**2.2**	**16.91**	**16.84**	**0.4**
Surface	5	4	25.0	947	927	2.2	16.91	16.84	0.4
Ohio	**71**	**74**	**-4.1**	**2,413**	**2,534**	**-4.8**	**4.04**	**4.02**	**0.4**
Underground	20	20	-	1,384	1,384	-	4.81	4.90	-1.9
Surface	51	54	-5.6	1,029	1,150	-10.5	3.06	3.05	0.3
Oklahoma	**10**	**9**	**11.1**	**224**	**196**	**14.3**	**3.35**	**3.55**	**-5.7**
Underground	2	1	100.0	73	48	52.1	2.44	3.55	-31.3
Surface	8	8	-	151	148	2.0	3.78	3.55	6.3
Pennsylvania Total	**358**	**357**	**0.3**	**7,526**	**7,609**	**-1.1**	**3.90**	**3.96**	**-1.6**
Underground	87	88	-1.1	5,099	5,043	1.1	4.52	4.71	-4.0
Surface	271	269	0.7	2,427	2,566	-5.4	2.44	2.38	2.3
Anthracite	**124**	**115**	**7.8**	**869**	**891**	**-2.5**	**0.95**	**0.95**	**0.6**
Underground	35	31	12.9	226	228	-0.9	0.68	0.63	6.6
Surface	89	84	6.0	643	663	-3.0	1.04	1.04	-0.1
Bituminous	**234**	**242**	**-3.3**	**6,657**	**6,718**	**-0.9**	**4.21**	**4.31**	**-2.3**
Underground	52	57	-8.8	4,873	4,815	1.2	4.65	4.86	-4.2
Surface	182	185	-1.6	1,784	1,903	-6.3	2.87	2.81	2.2
Tennessee	**36**	**38**	**-5.3**	**660**	**691**	**-4.5**	**2.06**	**2.04**	**0.8**
Underground	16	18	-11.1	333	318	4.7	1.97	2.21	-10.9
Surface	20	20	-	327	373	-12.3	2.14	1.95	9.2
Texas	**12**	**13**	**-7.7**	**2,138**	**2,196**	**-2.6**	**9.90**	**9.70**	**2.1**
Surface	12	13	-7.7	2,138	2,196	-2.6	9.90	9.70	2.1
Utah	**20**	**19**	**5.3**	**2,036**	**1,817**	**12.1**	**6.15**	**6.37**	**-3.3**
Underground	19	18	5.6	2,030	1,812	12.0	6.18	6.39	-3.3

See footnotes at end of table.

Table 21. Coal Mining Productivity by State and Mine Type, 2006, 2005 (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]		
	2006	2005	Percent Change	2006	2005	Percent Change	2006	2005	Percent Change
Utah (continued)									
Surface	1	1	-	6	5	20.0	-	-	-
Virginia	**170**	**179**	**-5.0**	**5,262**	**5,134**	**2.5**	**2.67**	**2.54**	**5.0**
Underground	98	109	-10.1	3,623	3,577	1.3	2.48	2.25	10.3
Surface	72	70	2.9	1,639	1,557	5.3	3.07	3.13	-2.1
Washington	**1**	**1**	**-**	**673**	**672**	**0.1**	**2.03**	**3.71**	**-45.2**
Surface	1	1	-	673	672	0.1	2.03	3.71	-45.2
West Virginia Total	**419**	**398**	**5.3**	**20,076**	**18,611**	**7.9**	**3.32**	**3.60**	**-7.8**
Underground	247	233	6.0	13,190	12,483	5.7	2.87	3.26	-12.0
Surface	172	165	4.2	6,886	6,128	12.4	4.14	4.26	-2.8
Northern	**70**	**71**	**-1.4**	**4,621**	**4,629**	**-0.2**	**4.12**	**4.13**	**-0.2**
Underground	41	39	5.1	3,982	4,085	-2.5	4.02	4.16	-3.3
Surface	29	32	-9.4	639	544	17.5	4.78	3.91	22.1
Southern	**349**	**327**	**6.7**	**15,455**	**13,982**	**10.5**	**3.09**	**3.43**	**-10.0**
Underground	206	194	6.2	9,208	8,398	9.6	2.36	2.83	-16.4
Surface	143	133	7.5	6,247	5,584	11.9	4.08	4.29	-4.9
Wyoming	**21**	**19**	**10.5**	**5,837**	**5,050**	**15.6**	**35.46**	**38.01**	**-6.7**
Underground	1	1	-	128	62	106.5	1.84	3.50	-47.6
Surface	20	18	11.1	5,709	4,988	14.5	36.24	38.39	-5.6
Appalachian Total	**1,700**	**1,651**	**3.0**	**55,632**	**53,509**	**4.0**	**3.13**	**3.28**	**-4.6**
Underground	767	759	1.1	35,758	34,847	2.6	2.95	3.19	-7.6
Surface	933	892	4.6	19,874	18,662	6.5	3.45	3.43	0.4
Northern	**521**	**521**	**-**	**15,050**	**15,274**	**-1.5**	**4.02**	**4.05**	**-0.8**
Underground	153	151	1.3	10,670	10,784	-1.1	4.40	4.54	-3.1
Surface	368	370	-0.5	4,380	4,490	-2.4	3.02	2.85	5.8
Central	**1,111**	**1,067**	**4.1**	**36,387**	**34,084**	**6.8**	**2.89**	**3.07**	**-6.0**
Underground	600	593	1.2	22,467	21,163	6.2	2.38	2.65	-10.3
Surface	511	474	7.8	13,920	12,921	7.7	3.67	3.71	-1.2
Southern	**68**	**63**	**7.9**	**4,195**	**4,151**	**1.1**	**2.01**	**2.18**	**-7.9**
Underground	14	15	-6.7	2,621	2,900	-9.6	1.74	1.99	-12.2
Surface	54	48	12.5	1,574	1,251	25.8	2.51	2.60	-3.4
Interior Total	**146**	**144**	**1.4**	**12,691**	**12,078**	**5.1**	**5.10**	**5.29**	**-3.7**
Underground	59	56	5.4	7,451	6,838	9.0	3.54	3.70	-4.3
Surface	87	88	-1.1	5,240	5,240	-	7.35	7.43	-1.0
Illinois Basin	**114**	**115**	**-0.9**	**9,784**	**9,200**	**6.3**	**4.07**	**4.25**	**-4.1**
Underground	56	55	1.8	7,337	6,790	8.1	3.57	3.70	-3.5
Surface	58	60	-3.3	2,447	2,410	1.5	5.49	5.72	-4.1
Western Total	**74**	**72**	**2.8**	**14,550**	**13,599**	**7.0**	**20.19**	**20.47**	**-1.4**
Underground	31	31	-	4,266	3,929	8.6	6.77	7.54	-10.1
Surface	43	41	4.9	10,284	9,670	6.3	25.70	25.63	0.3
Powder River Basin	**18**	**17**	**5.9**	**5,852**	**5,053**	**15.8**	**37.57**	**40.11**	**-6.3**
Underground	-	-	-	-	-	-	-	-	-
Surface	18	17	5.9	5,852	5,053	15.8	37.57	40.11	-6.3
Uinta Region	**31**	**31**	**-**	**4,182**	**3,956**	**5.7**	**7.11**	**7.60**	**-6.5**
Underground	26	26	-	3,657	3,394	7.7	6.92	7.51	-7.8
Surface	5	5	-	525	562	-6.6	8.41	8.16	3.0
East of Miss. River	**1,815**	**1,767**	**2.7**	**65,594**	**62,902**	**4.3**	**3.29**	**3.44**	**-4.3**
Underground	823	814	1.1	43,095	41,637	3.5	3.06	3.28	-6.7
Surface	992	953	4.1	22,499	21,265	5.8	3.74	3.75	-0.2
West of Miss. River	**105**	**100**	**5.0**	**17,279**	**16,284**	**6.1**	**18.33**	**18.50**	**-0.9**
Underground	34	32	6.3	4,380	3,977	10.1	6.62	7.48	-11.5
Surface	71	68	4.4	12,899	12,307	4.8	22.27	21.99	1.3
Subtotal	**1,920**	**1,867**	**2.8**	**82,873**	**79,186**	**4.7**	**6.27**	**6.36**	**-1.5**
Underground	857	846	1.3	47,475	45,614	4.1	3.37	3.62	-7.0
Surface	1,063	1,021	4.1	35,398	33,572	5.4	10.19	10.04	1.5
Refuse Recovery	**15**	**18**	**-16.7**	**86**	**97**	**-11.3**	**4.33**	**3.99**	**8.5**
U.S. Total	**1,935**	**1,885**	**2.7**	**82,959**	**79,283**	**4.6**	**6.26**	**6.36**	**-1.5**

[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.

* Absolute percentage less than 0.05.

- = No data are reported.

NM = Not meaningful due to changes of 500 percent or more.

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, 2006

(Short Tons Produced per Employee per Hour)

Coal-Producing State and Region[1]	Continuous[2]	Conventional and Other[3]	Longwall[4]	Total
Alabama	1.02	-	1.77	1.75
Arkansas	0.19	-	-	0.19
Colorado	4.31	-	7.90	7.72
Illinois	3.26	-	4.09	3.52
Indiana	3.49	-	-	3.49
Kentucky Total	2.72	1.63	2.94	2.70
Eastern	2.38	1.84	2.94	2.38
Western	3.79	0.69	-	3.74
Maryland	2.49	-	8.96	6.10
Montana	2.65	-	-	2.65
New Mexico	-	-	8.07	8.07
Ohio	4.02	3.50	5.45	4.85
Oklahoma	2.44	-	-	2.44
Pennsylvania Total	3.33	0.57	5.06	4.54
Anthracite	0.76	0.57	-	0.70
Bituminous	3.52	-	5.06	4.65
Tennessee	1.98	-	-	1.98
Utah	2.72	-	6.68	6.20
Virginia	2.18	-	4.14	2.52
West Virginia Total	2.52	1.77	3.44	2.87
Northern	2.66	-	4.62	4.02
Southern	2.49	1.77	2.07	2.37
Wyoming	1.84	-	-	1.84
Appalachian Total	**2.48**	**2.27**	**3.77**	**2.96**
Northern	3.10	2.93	5.00	4.42
Central	2.38	1.81	2.50	2.39
Southern	1.02	-	1.77	1.75
Interior Total	**2.73**	**0.37**	**4.09**	**2.87**
Illinois Basin	3.54	0.69	4.09	3.60
Western Total	**2.74**	**-**	**7.35**	**6.78**
Powder River Basin	-	-	-	-
Uinta Region	2.94	-	7.25	6.93
East of Miss. River	**2.73**	**2.16**	**3.79**	**3.07**
West of Miss. River	**2.52**	**-**	**7.35**	**6.63**
U.S. Total	**2.72**	**2.16**	**4.48**	**3.38**

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

[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.

- = No data are reported.

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, 2006

(Short Tons Coal Produced per Employee per Hour)

Coal-Producing State, Region[1], and Mine Type	Mine Production Range (Thousand Short Tons)							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	**2.22**	**1.60**	**2.84**	**2.16**	**1.82**	**1.85**	**0.10**	**2.01**
Underground	2.22	0.88	-	1.59	0.85	-	0.05	1.74
Surface	-	2.93	2.84	2.23	2.08	2.11	0.14	2.51
Alaska	**6.48**	**-**	**-**	**-**	**-**	**-**	**-**	**6.48**
Surface	6.48	-	-	-	-	-	-	6.48
Arizona	**7.79**	**-**	**-**	**-**	**-**	**-**	**-**	**7.69**
Surface	7.79	-	-	-	-	-	-	7.69
Arkansas	**-**	**-**	**-**	**-**	**-**	**0.19**	**2.48**	**0.24**
Underground	-	-	-	-	-	0.19	-	0.19
Surface	-	-	-	-	-	-	2.48	2.48
Colorado	**8.08**	**21.25**	**4.95**	**-**	**0.73**	**-**	**-**	**7.90**
Underground	7.92	-	4.33	-	-	-	-	7.72
Surface	8.64	21.25	6.73	-	0.73	-	-	8.46
Illinois	**3.93**	**8.56**	**2.37**	**-**	**1.48**	**11.36**	**-**	**3.70**
Underground	3.81	-	1.90	-	1.48	-	-	3.52
Surface	5.18	8.56	3.52	-	-	11.36	-	4.89
Indiana	**5.09**	**6.98**	**3.35**	**-**	**1.77**	**1.18**	**0.03**	**4.81**
Underground	3.86	-	2.50	-	1.08	-	-	3.46
Surface	6.03	6.98	5.71	-	2.66	1.18	0.05	5.82
Kansas	**-**	**-**	**3.20**	**7.73**	**-**	**-**	**-**	**3.64**
Surface	-	-	3.20	7.73	-	-	-	3.64
Kentucky Total	**4.05**	**3.34**	**3.39**	**2.68**	**2.03**	**2.19**	**0.05**	**2.96**
Underground	3.68	2.91	2.88	2.46	1.81	1.90	0.03	2.68
Surface	5.37	4.34	3.97	3.03	2.62	2.46	0.09	3.51
Eastern	**4.01**	**3.32**	**3.36**	**2.72**	**2.05**	**2.25**	**0.05**	**2.78**
Underground	3.02	2.91	2.87	2.54	1.93	1.90	0.04	2.37
Surface	5.27	4.35	3.93	3.00	2.38	2.58	0.08	3.45
Western	**4.09**	**4.11**	**4.26**	**1.76**	**1.84**	**0.67**	**0.06**	**3.78**
Underground	4.01	-	3.28	1.03	0.47	-	-	3.69
Surface	6.51	4.11	4.94	3.88	4.62	0.67	0.37	4.54
Louisiana	**7.64**	**8.81**	**-**	**-**	**-**	**-**	**-**	**7.84**
Surface	7.64	8.81	-	-	-	-	-	7.84
Maryland	**10.67**	**5.17**	**3.22**	**3.65**	**2.55**	**1.46**	**0.29**	**4.82**
Underground	10.67	-	2.85	3.26	-	-	-	6.10
Surface	-	5.17	3.80	3.89	2.55	1.46	1.41	3.81
Mississippi	**10.38**	**-**	**-**	**-**	**-**	**-**	**-**	**10.38**
Surface	10.38	-	-	-	-	-	-	10.38
Missouri	**-**	**-**	**11.44**	**9.16**	**-**	**-**	**-**	**10.20**
Surface	-	-	11.44	9.16	-	-	-	10.20
Montana	**23.38**	**-**	**4.87**	**-**	**-**	**-**	**-**	**21.98**
Underground	-	-	2.65	-	-	-	-	2.65
Surface	23.38	-	16.80	-	-	-	-	23.30
New Mexico	**9.70**	**-**	**-**	**-**	**-**	**-**	**-**	**8.62**
Underground	9.49	-	-	-	-	-	-	8.07
Surface	9.78	-	-	-	-	-	-	8.85
North Dakota	**17.00**	**-**	**-**	**-**	**-**	**-**	**-**	**16.91**
Surface	17.00	-	-	-	-	-	-	16.91
Ohio	**5.45**	**3.93**	**4.19**	**3.07**	**2.02**	**1.75**	**0.07**	**4.04**
Underground	5.45	4.27	5.01	2.72	-	-	-	4.81
Surface	-	3.69	3.80	3.16	2.02	1.75	0.11	3.06
Oklahoma	**-**	**-**	**3.57**	**5.00**	**-**	**0.48**	**0.67**	**3.35**
Underground	-	-	3.22	-	-	0.30	-	2.44
Surface	-	-	3.72	5.00	-	1.50	0.67	3.78
Pennsylvania Total	**5.20**	**3.47**	**4.00**	**2.84**	**2.54**	**2.48**	**0.19**	**3.90**
Underground	5.20	3.98	4.05	2.72	2.57	1.42	0.05	4.52
Surface	-	2.54	3.95	2.93	2.54	2.65	0.27	2.44
Anthracite	**-**	**-**	**4.08**	**1.67**	**2.02**	**1.91**	**0.16**	**0.95**
Underground	-	-	-	1.67	-	1.25	0.14	0.68
Surface	-	-	4.08	-	2.02	2.07	0.17	1.04
Bituminous	**5.20**	**3.47**	**3.99**	**2.95**	**2.78**	**2.75**	**0.21**	**4.21**
Underground	5.20	3.98	4.05	2.97	2.57	1.58	-	4.65
Surface	-	2.54	3.94	2.93	2.81	2.88	0.44	2.87
Tennessee	**-**	**-**	**2.44**	**2.41**	**2.38**	**1.57**	**0.07**	**2.06**
Underground	-	-	2.62	-	2.38	1.14	0.06	1.97
Surface	-	-	2.33	2.41	-	2.14	0.08	2.14
Texas	**10.11**	**4.43**	**-**	**-**	**-**	**-**	**-**	**9.90**
Surface	10.11	4.43	-	-	-	-	-	9.90
Utah	**7.19**	**3.78**	**2.30**	**-**	**-**	**1.21**	**0.03**	**6.15**
Underground	7.19	3.78	2.30	-	-	1.21	0.03	6.18

See footnotes at end of table.

Table 23. Coal Mining Productivity by State, Mine Type, and Mine Production Range, 2006 (Continued)
(Short Tons Coal Produced per Employee per Hour)

Coal-Producing State, Region [1], and Mine Type	Mine Production Range (Thousand Short Tons)							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	-	-	-	-	-	-	-	-
Virginia	**4.01**	**3.27**	**3.05**	**2.05**	**2.30**	**2.27**	**0.04**	**2.67**
Underground	4.15	3.06	2.62	2.06	2.10	2.00	0.03	2.48
Surface	3.62	3.57	3.71	1.99	2.85	2.86	0.08	3.07
Washington	**2.03**	**-**	**-**	**-**	**-**	**-**	**-**	**2.03**
Surface	2.03	-	-	-	-	-	-	2.03
West Virginia Total	**4.46**	**3.52**	**2.99**	**2.37**	**1.92**	**2.10**	**0.02**	**3.32**
Underground	4.03	2.97	2.69	2.08	1.81	1.63	0.01	2.87
Surface	5.01	4.68	3.89	3.13	2.49	2.84	0.03	4.14
Northern	**4.94**	**3.22**	**3.72**	**2.01**	**1.69**	**2.31**	**0.07**	**4.12**
Underground	4.80	3.01	3.29	1.66	1.31	1.74	0.02	4.02
Surface	6.09	6.23	6.11	3.35	6.93	2.71	0.16	4.78
Southern	**4.23**	**3.58**	**2.88**	**2.39**	**1.96**	**2.05**	**0.01**	**3.09**
Underground	3.19	2.96	2.59	2.11	1.91	1.62	0.01	2.36
Surface	4.91	4.62	3.69	3.12	2.18	2.89	0.01	4.08
Wyoming	**36.66**	**1.84**	**-**	**-**	**0.66**	**3.45**	**0.37**	**35.46**
Underground	-	1.84	-	-	-	-	-	1.84
Surface	36.66	-	-	-	0.66	3.45	0.37	36.24
Appalachian Total	**4.39**	**3.24**	**3.23**	**2.59**	**2.10**	**2.18**	**0.06**	**3.13**
Underground	4.17	2.82	2.88	2.36	1.91	1.72	0.03	2.95
Surface	4.98	4.05	3.70	2.88	2.41	2.51	0.11	3.45
Northern	**5.20**	**3.62**	**3.94**	**2.90**	**2.34**	**2.32**	**0.15**	**4.02**
Underground	5.16	3.60	3.81	2.60	1.64	1.52	0.03	4.40
Surface	6.09	3.65	4.07	3.09	2.53	2.45	0.24	3.02
Central	**4.15**	**3.42**	**3.08**	**2.53**	**2.07**	**2.14**	**0.03**	**2.89**
Underground	3.30	2.94	2.70	2.33	1.96	1.78	0.02	2.38
Surface	4.91	4.37	3.72	2.90	2.43	2.65	0.05	3.67
Southern	**2.22**	**1.60**	**2.84**	**2.16**	**1.82**	**1.85**	**0.10**	**2.01**
Underground	2.22	0.88	-	1.59	0.85	-	0.05	1.74
Surface	-	2.93	2.84	2.23	2.08	2.11	0.14	2.51
Interior Total	**5.52**	**6.50**	**3.24**	**3.44**	**1.74**	**0.58**	**0.04**	**5.10**
Underground	3.89	-	2.39	1.03	0.94	0.23	-	3.54
Surface	8.15	6.50	4.27	5.72	3.70	1.31	0.10	7.35
Illinois Basin	**4.33**	**6.66**	**3.04**	**1.76**	**1.74**	**1.28**	**0.03**	**4.07**
Underground	3.89	-	2.27	1.03	0.94	-	-	3.57
Surface	5.92	6.66	4.55	3.88	3.70	1.28	0.08	5.49
Western Total	**21.55**	**4.01**	**4.32**	**-**	**0.68**	**1.81**	**0.01**	**20.19**
Underground	7.75	3.07	3.27	-	-	1.21	0.02	6.77
Surface	26.33	21.25	9.47	-	0.68	3.45	0.00	25.70
Powder River Basin	**37.97**	**-**	**-**	**-**	**0.66**	**-**	**-**	**37.57**
Surface	37.97	-	-	-	0.66	-	-	37.57
Uinta Region	**7.69**	**5.15**	**3.17**	**-**	**0.73**	**1.21**	**0.03**	**7.11**
Underground	7.55	3.78	3.17	-	-	1.21	0.03	6.92
Surface	8.64	21.25	-	-	0.73	-	-	8.41
East of Miss. River	**4.41**	**3.36**	**3.22**	**2.57**	**2.08**	**2.17**	**0.06**	**3.29**
Underground	4.08	2.82	2.84	2.33	1.82	1.72	0.02	3.06
Surface	5.34	4.29	3.74	2.89	2.49	2.47	0.11	3.74
West of Miss. River	**19.85**	**4.47**	**4.02**	**6.60**	**0.68**	**0.55**	**0.03**	**18.33**
Underground	7.75	3.07	3.26	-	-	0.36	0.02	6.62
Surface	23.25	8.09	4.81	6.60	0.68	2.42	0.04	22.27
Subtotal	**9.80**	**3.40**	**3.25**	**2.61**	**2.03**	**2.09**	**0.06**	**6.27**
Underground	4.58	2.84	2.85	2.33	1.82	1.57	0.02	3.37
Surface	16.34	4.41	3.79	2.97	2.34	2.47	0.11	10.19
Refuse Recovery	**-**	**-**	**-**	**8.64**	**-**	**1.48**	**1.34**	**4.33**
U.S. Total	**9.80**	**3.40**	**3.25**	**2.65**	**2.03**	**2.08**	**0.06**	**6.26**

[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.
- = No data are reported.

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, 2006

(Short Tons Produced per Employee per Hour)

Coal-Producing State and Region[1]	Union		Nonunion	
	Underground	Surface	Underground	Surface
Alabama	1.77	0.79	0.89	2.55
Alaska	-	6.48	-	-
Arizona	-	7.69	-	-
Arkansas	-	-	0.19	-
Colorado	6.15	5.35	7.86	10.68
Illinois	3.07	-	3.90	5.39
Indiana	-	-	3.46	5.82
Kansas	-	-	-	3.64
Kentucky Total	3.02	3.97	2.67	3.52
Eastern	1.65	3.97	2.39	3.46
Western	3.39	-	3.77	4.54
Louisiana	-	-	-	7.84
Maryland	-	-	6.10	3.87
Mississippi	-	-	-	10.38
Missouri	-	-	-	10.20
Montana	-	19.02	2.65	39.96
New Mexico	8.07	8.16	-	11.17
North Dakota	-	14.02	-	18.02
Ohio	3.95	1.48	5.27	3.17
Oklahoma	-	-	2.44	3.82
Pennsylvania Total	4.00	1.02	5.00	2.69
Anthracite	-	0.59	0.71	1.32
Bituminous	4.01	2.11	5.24	2.95
Tennessee	-	-	1.98	2.13
Texas	-	10.26	-	9.30
Utah	4.62	-	6.80	-
Virginia	1.70	2.99	2.62	3.07
Washington	-	2.03	-	-
West Virginia Total	3.43	3.99	2.54	4.17
Northern	4.74	-	2.60	4.87
Southern	1.88	3.99	2.53	4.10
Wyoming	1.84	9.33	-	38.81
Appalachian Total	**3.08**	**3.34**	**2.90**	**3.49**
Northern	4.35	1.08	4.48	3.24
Central	1.83	3.93	2.47	3.66
Southern	1.77	0.79	0.89	2.55
Interior Total	**3.16**	**9.89**	**3.69**	**6.53**
Illinois Basin	3.16	-	3.74	5.58
Western Total	**5.64**	**9.41**	**7.25**	**34.57**
Powder River Basin	-	19.06	-	39.88
Uinta Region	4.92	5.15	7.40	10.39
East of Miss. River	**3.10**	**3.24**	**3.05**	**3.80**
West of Miss. River	**5.64**	**9.64**	**7.01**	**30.14**
U.S. Total	**3.30**	**8.04**	**3.41**	**10.74**

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

- = No data are reported.

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, 2006

Company Name	Plant Location
Top Ten Manufacturers	
Alcoa Inc (Aluminum Company of America)	(IN)(TX)
Archer Daniels Midland	(IA)(IL)(MN)(ND)
Carmeuse North American Group	(AL)(IL)(IN)(KY)(MI)(OH)(PA)
Dakota Gasification Company	(ND)
Eastman Chemical Company	(AR)(TN)
Georgia-Pacific Corp	(AL)(GA)(OK)(VA)(WI)
Holcim (US) Inc	(AL)(CO)(IA)(MI)(MS)(SC)(UT)
International Paper Co	(AL)(FL)(GA)(IN)(LA)(MI)(MN)(NC)(SC)(VA)(WI)
Lafarge North America	(AL)(IA)(IL)(KS)(MI)(MO)(NY)(OK)(PA)(SC)(WA)
NewPage Corporation	(MD)(MI)(OH)(SC)(VA)
Other Major Manufacturers	
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)
Buzzi Unicem USA	(IL)(IN)(KS)(MO)(OK)(TX)
California Portland Cement Co	(AZ)(CA)
Cargill Incorporated	(AL)(GA)(IA)(MI)(NC)(NY)(OH)(TN)
Celanese Ltd	(TX)
Central Power & Lime Inc	(FL)
E I DuPont DE Nemours & Co	(MS)(TN)(WV)
ESSROC Materials Inc	(IN)(MD)(PA)
Eastman Kodak Company	(NY)
FMC Corporation	(WY)
General Chemical Corporation	(WY)
IMC Chemical Co	(CA)
International Steel Group Inc	(IN)(MD)
Kennecott Utah Copper	(UT)
Lehigh Cement Co	(AL)(IA)(IN)(MD)(PA)
MeadWestvaco	(MD)(MI)(OH)(SC)(VA)
Mittal Steel USA	(IN)
PPG Industries Inc	(WV)
Silver Bay Power Company	(MN)
Smurfit Stone Container Corp	(FL)(MI)(SC)(VA)
Stora Enso North America	(WI)
TXI Operations, LP	(TX)
Tate and Lyle Ingredients Americas Inc	(IL)(IN)(TN)
Weyerhaeuser Inc	(AL)(NC)(PA)(WA)
Zinc Corp of America	(PA)
Top Ten Coke Producers	
AK Steel Corp	(KY)(OH)
Citizens Gas & Coke Utility	(IN)
DTE Energy Services	(MI)
Drummond Company Inc	(AL)
Jewell Coke Company LP	(IN)(VA)
Mittal Steel USA Burn Harbor	(IN)
Mountain State Carbon	(WV)
Sloss Industries	(AL)
Sun Coke Company	(IN)(OH)(VA)
United States Steel Coporation	(IL)(IN)(PA)

- = No data are reported.

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 and Quality Report, Manufacturing Plants;" and, Coke Plants: Form EIA-5, "Quarterly Coal Consumption and Quality Report, Coke Plants."

Table 26. U.S. Coal Consumption by End Use Sector, by Census Division and State, 2006, 2005

(Thousand Short Tons)

Census Division and State	2006				2005				Total		
	Electric Power[1]	Other Industrial	Coke	Residential and Commercial	Electric Power[1]	Other Industrial	Coke	Residential and Commercial	2006	2005	Percent Change
New England	**8,775**	**W**	**-**	**W**	**8,963**	**195**	**-**	**60**	**8,991**	**9,219**	**-2.5**
Connecticut	2,245	-	-	W	2,070	W	-	W	W	2,076	W
Maine	147	W	-	W	146	W	-	W	259	276	-6.2
Massachusetts	4,750	W	-	W	5,025	W	-	W	4,843	5,136	-5.7
New Hampshire	1,634	-	-	W	1,723	-	-	W	W	W	-5.2
Rhode Island	-	-	-	W	-	-	-	W	W	W	-37.4
Vermont	-	-	-	W	-	-	-	W	W	W	-6.7
Middle Atlantic	**69,988**	**W**	**W**	**W**	**68,529**	**W**	**W**	**W**	**81,776**	**80,788**	**1.2**
New Jersey	4,635	W	-	W	4,995	W	-	W	4,642	5,004	-7.2
New York	9,417	1,109	W	140	9,069	1,180	W	160	W	W	2.4
Pennsylvania	55,936	2,792	W	624	54,464	2,937	W	623	W	W	1.7
East North Central	**231,753**	**14,657**	**11,100**	**338**	**234,327**	**14,253**	**11,064**	**1,306**	**257,848**	**260,951**	**-1.2**
Illinois	53,939	3,608	W	134	53,822	3,502	W	146	W	W	0.3
Indiana	60,582	5,567	W	57	60,011	5,289	W	257	W	W	0.6
Michigan	34,926	1,793	W	9	36,273	1,828	W	153	W	W	-3.7
Ohio	58,604	1,931	W	110	59,607	1,940	W	333	W	W	-1.7
Wisconsin	23,702	1,758	-	29	24,615	1,695	-	417	25,488	26,727	-4.6
West North Central	**146,530**	**13,006**	**-**	**721**	**148,975**	**12,623**	**-**	**826**	**160,257**	**162,425**	**-1.3**
Iowa	21,236	3,067	-	304	21,072	2,930	-	274	24,607	24,276	1.4
Kansas	20,874	237	-	s	22,046	205	-	-	21,110	22,251	-5.1
Minnesota	19,573	1,271	-	91	20,008	1,300	-	72	20,935	21,381	-2.1
Missouri	45,603	1,065	-	217	45,765	1,052	-	215	46,884	47,033	-0.3
Nebraska	12,881	420	-	5	12,886	393	-	4	13,307	13,283	0.2
North Dakota	24,298	W	-	W	25,317	W	-	W	31,073	32,044	-3.0
South Dakota	2,064	W	-	W	1,880	W	-	W	2,340	2,158	8.4
South Atlantic	**178,746**	**W**	**W**	**W**	**179,548**	**W**	**W**	**W**	**191,052**	**192,809**	**-0.9**
Delaware	2,189	W	-	W	2,208	W	-	W	2,291	2,325	-1.4
District of Columbia	-	-	-	-	-	-	-	W	-	W	W
Florida	27,755	1,128	-	s	26,603	1,068	-	s	28,883	27,672	4.4
Georgia	38,890	1,587	-	-	39,137	1,700	-	49	40,477	40,887	-1.0
Maryland	11,638	1,259	-	42	11,710	1,349	-	32	12,939	13,090	-1.2
North Carolina	30,456	1,225	-	117	31,303	1,408	-	149	31,797	32,860	-3.2
South Carolina	15,761	1,439	-	88	15,793	1,504	-	-	17,288	17,296	*
Virginia	14,194	2,031	W	27	14,920	2,196	W	121	W	W	-5.4
West Virginia	37,863	1,096	W	25	37,875	1,151	W	80	W	W	-0.7
East South Central	**116,699**	**W**	**W**	**W**	**113,228**	**W**	**W**	**W**	**125,789**	**122,632**	**2.6**
Alabama	37,168	1,800	W	26	36,997	1,874	W	2	W	W	0.4
Kentucky	41,938	1,322	W	131	40,352	1,212	W	289	W	W	3.2
Mississippi	10,378	W	-	-	9,760	W	-	-	W	W	6.5
Tennessee	27,216	3,018	-	41	26,119	3,149	-	32	30,275	29,301	3.3
West South Central	**151,800**	**W**	**-**	**W**	**153,006**	**W**	**-**	**W**	**157,075**	**158,262**	**-0.7**
Arkansas	14,614	365	-	s	14,031	368	-	-	14,979	14,399	4.0
Louisiana	16,337	W	-	-	15,790	W	-	-	W	W	3.5
Oklahoma	21,188	732	-	3	21,952	727	-	1	21,923	22,680	-3.3
Texas	99,661	4,102	-	s	101,233	4,082	-	12	103,763	105,327	-1.5
Mountain	**114,744**	**4,155**	**-**	**312**	**119,793**	**4,953**	**-**	**410**	**119,211**	**125,156**	**-4.8**
Arizona	20,506	740	-	1	20,333	719	-	1	21,247	21,053	0.9
Colorado	19,707	W	-	W	19,013	W	-	W	20,059	19,445	3.2
Idaho	-	391	-	12	-	536	-	13	403	548	-26.5
Montana	11,302	W	-	W	11,588	W	-	W	11,531	11,822	-2.5
Nevada	3,488	W	-	W	8,622	W	-	W	3,696	8,826	-58.1
New Mexico	16,961	W	-	W	17,034	W	-	W	17,044	17,116	-0.4
Utah	16,609	680	-	35	17,118	1,431	-	45	17,324	18,594	-6.8
Wyoming	26,170	1,685	-	51	26,086	1,597	-	69	27,906	27,752	0.6
Pacific	**7,600**	**2,134**	**-**	**559**	**11,115**	**2,096**	**-**	**525**	**10,294**	**13,737**	**-25.1**
Alaska	408	W	-	W	398	W	-	W[R]	968	905[R]	6.9
California	899	1,870	-	1	873	1,956	-	20	2,771	2,849	-2.7
Hawaii	720	W	-	-	746	W	-	-	W	W	-3.2
Oregon	1,449	W	-	-	2,103	W	-	W	W	2,112	W
Washington	4,125	W	-	W	6,996	W	-	W	4,219	7,067	-40.3
U.S. Total	**1,026,636**	**59,472**	**22,957**	**3,227**	**1,037,485**	**60,340**	**23,434**	**4,719[R]**	**1,112,292**	**1,125,978[R]**	**-1.2**

[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

R = Revised data.

s Value is less than 0.05 of the table metric, but value is included in any associated total.

* Absolute percentage less than 0.05.

- = No data are reported.

W = Data withheld to avoid disclosure.

Note: • 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 and Quality Report, Manufacturing Plants," Form EIA-5, "Quarterly Coal Consumption and Quality Report, Coke Plants," Form EIA-6A, "Coal Distribution Report," Form EIA-7A, "Coal Production Report," and, Form EIA-920, "Combined Heat and Power Plant Report."

Table 27. Year-End Coal Stocks by Sector, by Census Division, 2006, 2005

(Thousand Short Tons)

Census Division	2006				2005				Total		
	Electric Power[1]	Other Industrial	Coke	Producer and Distributor	Electric Power [1]	Other Industrial	Coke	Producer and Distributor	2006	2005	Percent Change
New England	1,471	W	-	-	864	45	-	-	W	909	W
Middle Atlantic	6,702	W	W	3,277	6,312	412	W	4,019	W	W	-2.5
East North Central	39,551	1,941	1,785	3,169	28,572	1,465	1,494	1,848	46,446	33,379	39.1
West North Central	20,455	1,539	-	712	14,808	1,209	-	2,647	22,706	18,664	21.7
South Atlantic	27,742	883	W	8,119	17,358	1,068	W	9,945	W	W	29.2
East South Central	12,357	466	W	6,139	10,789	494	W	4,368	W	W	21.1
West South Central	17,628	406	-	3,033	10,789	354	-	1,862	21,068	13,006	62.0
Mountain	12,752	443	-	11,944	10,618	323	-	10,152	25,139	21,093	19.2
Pacific	2,305	358	-	154	1,027	210	-	128	2,817	1,364	106.5
U.S. Total	140,964	6,506	2,928	36,548	101,137	5,582	2,615	34,971	186,946	144,304	29.6

[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.

- = No data are reported.

W = Data withheld to avoid disclosure.

Note: • Stocks data for residential and commercial sector are not collected by EIA. 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 and Quality Report, Manufacturing Plants," Form EIA-5, "Quarterly Coal Consumption and Quality Report, Coke Plants," and Form EIA-6, "Coal Distribution Report."

Average Mine Sales Price

Table 28. Average Open Market Sales Price of Coal by State and Mine Type, 2006, 2005

(Dollars per Short Ton)

Coal-Producing State	2006			2005			Percent Change		
	Underground	Surface	Total	Underground	Surface	Total	Underground	Surface	Total
Alabama	43.13	55.32	48.39	54.75	51.74	53.63	-21.2	6.9	-9.8
Alaska	-	W	W	-	W	W	-	W	W
Arizona	-	W	W	-	W	W	-	W	W
Arkansas	W	-	W	-	-	-	W	-	W
Colorado	24.10	24.70	24.27	21.69	21.45	21.63	11.1	15.1	12.2
Illinois	30.86	32.78	31.17	29.18	31.63	29.67	5.8	3.7	5.1
Indiana	33.70	24.66	27.27	33.17	22.01	25.31	1.6	12.0	7.7
Kansas	-	W	W	-	W	W	-	W	W
Kentucky Total	41.42	44.82	42.73	38.70	41.24	39.68	7.0	8.7	7.7
Eastern	46.88	46.46	46.68	43.55	43.05	43.33	7.6	7.9	7.7
Western	30.52	24.29	29.76	27.48	25.87	27.19	11.1	-6.1	9.5
Louisiana	-	W	W	-	W	W	-	W	W
Maryland	W	W	30.63	W	W	28.55	W	W	7.3
Mississippi	-	W	W	-	W	W	-	W	W
Missouri	-	W	W	-	W	W	-	W	W
Montana	W	W	10.42	W	W	9.74	W	W	7.0
New Mexico	W	W	29.15	W	W	25.82	W	W	12.9
North Dakota	-	10.70	10.70	-	10.45	10.45	-	2.4	2.4
Ohio	26.72	28.93	27.40	25.25	30.06	26.88	5.8	-3.7	1.9
Oklahoma	W	W	30.75	W	W	28.24	W	W	8.9
Pennsylvania Total	37.12	38.81	37.42	36.23	37.05	36.39	2.5	4.8	2.8
Anthracite	72.79	37.89	43.61	46.74	39.71	41.00	55.7	-4.6	6.4
Bituminous	36.99	38.90	37.30	36.18	36.76	36.28	2.2	5.8	2.8
Tennessee	49.07	35.65	41.37	49.89	37.91	42.50	-1.7	-5.9	-2.6
Texas	-	18.61	18.61	-	17.39	17.39	-	7.0	7.0
Utah	24.98	-	24.98	21.45	-	21.45	16.4	-	16.4
Virginia	53.57	52.16	52.99	48.01	47.93	47.97	11.6	8.8	10.5
West Virginia Total	45.53	46.44	45.94	41.99	42.33	42.14	8.4	9.7	9.0
Northern	35.26	36.95	35.48	32.52	38.10	33.16	8.4	-3.0	7.0
Southern	53.44	47.30	49.94	49.06	42.66	45.50	8.9	10.9	9.8
Wyoming	-	9.03	9.03	-	7.71	7.71	-	17.2	17.2
U.S. Total	**38.28**	**18.88**	**25.16**	**36.42**	**17.37**	**23.59**	**5.1**	**8.7**	**6.7**

- = No data are reported.

W = Data withheld to avoid disclosure.

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, 2006

(Dollars per Short Ton)

Coal-Producing State	Continuous[1]	Conventional and Other[2]	Longwall[3]	Total
Alabama	W	-	W	43.13
Arkansas	W	-	-	W
Colorado	W	-	W	24.10
Illinois	W	-	W	30.86
Indiana	33.70	-	-	33.70
Kentucky Total	W	43.60	W	41.42
Eastern	W	W	W	46.88
Western	W	W	-	30.52
Maryland	W	-	W	W
Montana	W	-	-	W
New Mexico	-	-	W	W
Ohio	27.83	W	W	26.72
Oklahoma	W	-	-	W
Pennsylvania Total	39.05	W	W	37.12
Anthracite	W	W	-	72.79
Bituminous	W	-	W	36.99
Tennessee	49.07	-	-	49.07
Utah	26.16	-	24.87	24.98
Virginia	W	-	W	53.57
West Virginia Total	49.65	73.88	40.94	45.53
Northern	34.18	-	35.40	35.26
Southern	51.45	73.88	59.68	53.44
Wyoming	-	-	-	-
U.S. Total	**41.32**	**46.45**	**35.29**	**38.28**

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

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

- = No data are reported.

W = Data withheld to avoid disclosure.

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, 2006

(Thousand Short Tons, Dollars per Short Ton)

Coal-Producing State and County	Number of Mines	Open Market Sales	Average Open Market Sales Price
Alabama	**52**	**18,678**	**48.39**
Bibb	1	W	W
Cullman	1	W	W
Franklin	1	W	W
Jackson	3	W	W
Jefferson	11	3,540	60.47
Marion	2	W	W
Shelby	3	W	W
Tuscaloosa	10	9,898	40.14
Walker	18	3,610	51.96
Winston	2	W	W
Alaska	**1**	**W**	**W**
Yukon-Koyukuk Division	1	W	W
Arizona	**1**	**W**	**W**
Navajo	1	W	W
Arkansas	**1**	**W**	**W**
Sebastian	1	W	W
Colorado	**12**	**34,130**	**24.27**
Delta	1	W	W
Garfield	1	W	W
Gunnison	2	W	W
La Plata	1	W	W
Moffat	3	W	W
Montrose	1	W	W
Rio Blanco	1	-	-
Routt	2	W	W
Illinois	**22**	**29,259**	**31.17**
Gallatin	1	W	W
Jackson	2	W	W
Macoupin	3	W	W
Perry	4	W	W
Randolph	1	W	W
Saline	4	W	W
Sangamon	1	W	W
Vermilion	2	W	W
Wabash	2	W	W
White	1	W	W
Williamson	1	W	W
Indiana	**27**	**27,606**	**27.27**
Clay	2	W	W
Daviess	2	W	W
Dubois	1	W	W
Gibson	7	11,952	27.85
Knox	6	3,274	30.04
Pike	5	W	W
Sullivan	1	W	W
Vigo	2	W	W
Warrick	1	W	W
Kansas	**2**	**W**	**W**
Bourbon	1	W	W
Linn	1	W	W
Kentucky	**379**	**115,124**	**42.73**
Bell	16	2,371	42.14
Breathitt	9	2,457	48.31
Clay	2	W	W
Floyd	30	3,014	41.23
Harlan	48	11,490	42.62
Henderson	3	W	W
Hopkins	6	W	W
Jackson	3	W	W
Johnson	3	W	W
Knott	32	5,965	46.91
Knox	11	911	47.71
Laurel	1	W	W
Lawrence	11	1,969	43.02
Lee	1	W	W
Leslie	11	5,136	44.31
Letcher	31	6,733	45.48
Magoffin	4	W	W

See footnotes at end of table.

Table 30. Average Open Market Sales Price of Coal by State, County, and Number of Mines, 2006 (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	12	5,515	43.58
Morgan	2	W	W
Muhlenberg	7	W	W
Ohio	1	W	W
Owsley	2	W	W
Perry	29	15,048	48.77
Pike	94	24,435	49.75
Rockcastle	1	W	W
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	**15**	**4,557**	**30.63**
Allegany	9	1,463	26.99
Garrett	6	W	W
Mississippi	**1**	**W**	**W**
Choctaw	1	W	W
Missouri	**2**	**W**	**W**
Bates	2	W	W
Montana	**6**	**40,467**	**10.42**
Big Horn	3	W	W
Musselshell	1	W	W
Richland	1	-	-
Rosebud	1	W	W
New Mexico	**4**	**22,132**	**29.15**
Mckinley	2	W	W
San Juan	2	W	W
North Dakota	**4**	**26,256**	**10.70**
Mclean	1	W	W
Mercer	2	W	W
Oliver	1	W	W
Ohio	**44**	**21,026**	**27.40**
Athens	1	W	W
Belmont	5	W	W
Carroll	3	W	W
Columbiana	3	W	W
Coshocton	2	W	W
Harrison	9	2,670	30.81
Jackson	1	W	W
Jefferson	7	W	W
Monroe	1	W	W
Muskingum	1	W	W
Noble	2	W	W
Perry	2	W	W
Stark	3	W	W
Tuscarawas	3	W	W
Vinton	1	W	W
Oklahoma	**9**	**1,862**	**30.75**
Craig	1	W	W
Haskell	1	W	W
Le Flore	6	927	29.25
Nowata	1	W	W
Pennsylvania	**180**	**63,690**	**37.42**
Allegheny	3	W	W
Armstrong	22	4,653	36.31
Beaver	1	W	W
Bedford	1	W	W
Butler	4	W	W
Cambria	7	904	50.85
Cameron	1	W	W
Centre	1	W	W
Clarion	3	W	W
Clearfield	29	3,391	44.46
Columbia	3	W	W
Elk	5	W	W
Fayette	9	W	W
Greene	8	40,340	37.02
Indiana	16	1,547	32.48

See footnotes at end of table.

Table 30. Average Open Market Sales Price of Coal by State, County, and Number of Mines, 2006 (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)			
Jefferson	10	431	36.13
Lackawanna	1	W	W
Lawrence	1	W	W
Luzerne	3	W	W
Lycoming	1	W	W
Mercer	1	W	W
Northumberland	5	W	W
Schuylkill	18	494	33.27
Somerset	21	4,236	36.33
Washington	3	W	W
Westmoreland	3	W	W
Tennessee	**20**	**2,800**	**41.37**
Anderson	3	W	W
Campbell	4	W	W
Claiborne	12	1,906	36.67
Cumberland	1	W	W
Texas	**12**	**12,563**	**18.61**
Atascosa	1	-	-
Bastrop	1	-	-
Freestone	1	-	-
Harrison	1	W	W
Hopkins	1	-	-
Leon	1	W	W
Panola	2	-	-
Robertson	1	W	W
Rusk	1	-	-
Titus	2	-	-
Utah	**12**	**12,735**	**24.98**
Carbon	5	10,213	24.18
Emery	6	W	W
Sevier	1	-	-
Virginia	**114**	**20,823**	**52.99**
Buchanan	36	W	W
Dickenson	15	768	49.54
Lee	3	W	W
Russell	6	W	W
Tazewell	5	W	W
Wise	49	10,639	47.63
Washington	**1**	-	-
Lewis	1	-	-
West Virginia	**267**	**136,560**	**45.94**
Barbour	8	1,352	25.06
Boone	45	29,575	49.48
Brooke	1	W	W
Clay	2	W	W
Fayette	15	4,802	48.83
Grant	4	W	W
Greenbrier	5	419	68.34
Harrison	4	W	W
Kanawha	18	13,195	48.41
Lincoln	3	W	W
Logan	21	11,304	45.38
Marion	2	W	W
Marshall	2	W	W
Mason	1	W	W
Mcdowell	42	3,874	62.01
Mercer	1	W	W
Mineral	1	W	W
Mingo	28	9,091	49.62
Monongalia	6	W	W
Nicholas	11	W	W
Preston	1	-	-
Raleigh	16	7,347	57.65
Randolph	2	W	W
Tucker	1	W	W
Upshur	3	W	W
Wayne	5	W	W
Webster	5	W	W
Wyoming	14	5,492	56.65
Wyoming	**20**	**372,112**	**9.03**

See footnotes at end of table.

Table 30. Average Open Market Sales Price of Coal by State, County, and Number of Mines, 2006 (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)			
Campbell	13	330,742	8.75
Carbon	1	W	W
Converse	1	W	W
Lincoln	1	W	W
Sweetwater	4	W	W
U.S. Total	**1,210**	**978,665**	**25.16**

- = No data are reported.
W = Data withheld to avoid disclosure.

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, 2006

(Dollars per Short Ton)

Coal-Producing State	Bituminous	Subbituminous	Lignite	Anthracite	Total
Alabama	48.39	-	-	-	48.39
Alaska	-	W	-	-	W
Arizona	W	-	-	-	W
Arkansas	W	-	-	-	W
Colorado	W	W	-	-	24.27
Illinois	31.17	-	-	-	31.17
Indiana	27.27	-	-	-	27.27
Kansas	W	-	-	-	W
Kentucky Total	42.73	-	-	-	42.73
Eastern	46.68	-	-	-	46.68
Western	29.76	-	-	-	29.76
Louisiana	-	-	W	-	W
Maryland	30.63	-	-	-	30.63
Mississippi	-	-	W	-	W
Missouri	W	-	-	-	W
Montana	-	10.42	-	-	10.42
New Mexico	W	W	-	-	29.15
North Dakota	-	-	10.70	-	10.70
Ohio	27.40	-	-	-	27.40
Oklahoma	30.75	-	-	-	30.75
Pennsylvania Total	37.30	-	-	43.61	37.42
Anthracite	-	-	-	43.61	43.61
Bituminous	37.30	-	-	-	37.30
Tennessee	41.37	-	-	-	41.37
Texas	-	-	18.61	-	18.61
Utah	24.98	-	-	-	24.98
Virginia	52.99	-	-	-	52.99
West Virginia Total	45.94	-	-	-	45.94
Northern	35.48	-	-	-	35.48
Southern	49.94	-	-	-	49.94
Wyoming	-	9.03	-	-	9.03
U.S. Total	**39.32**	**9.95**	**14.00**	**43.61**	**25.16**

- = No data are reported.

W = Data withheld to avoid disclosure.

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, 2006

(Dollars per Short Ton)

Mine Production Range (thousand short tons)	Underground	Surface	Total
Over 1,000	35.01	14.47	20.24
500 to 1,000	44.51	42.23	43.42
200 to 500	45.71	43.67	44.67
100 to 200	46.34	42.61	44.36
50 to 100	48.26	44.80	46.51
10 to 50	48.44	42.09	43.82
U.S. Total	**38.28**	**18.88**	**25.16**

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, 2006

(Dollars per Short Ton)

Coal-Producing State	Open Market[1]	Captive[2]
Alabama	48.39	-
Alaska	W	-
Arizona	W	-
Arkansas	W	-
Colorado	24.27	38.12
Illinois	31.17	37.00
Indiana	27.27	36.35
Kansas	W	-
Kentucky Total	42.73	44.34
Eastern	46.68	47.03
Western	29.76	16.61
Louisiana	W	W
Maryland	30.63	-
Mississippi	W	-
Missouri	W	-
Montana	10.42	W
New Mexico	29.15	W
North Dakota	10.70	W
Ohio	27.40	25.66
Oklahoma	30.75	W
Pennsylvania Total	37.42	53.37
Anthracite	43.61	W
Bituminous	37.30	W
Tennessee	41.37	-
Texas	W	13.70
Utah	24.98	21.91
Virginia	52.99	57.84
Washington	-	W
West Virginia Total	45.94	52.79
Northern	35.48	50.84
Southern	49.94	53.44
Wyoming	9.03	10.13
U.S. Total	**25.16**	**21.62**

[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.

- = No data are reported.

W = Data withheld to avoid disclosure.

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, 2006, 2005
(Dollars per Short Ton)

Census Division and State	2006			2005			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	**67.59**	**W**	**-**	**65.39**	**85.57**	**-**	**3.4**	**W**	**-**
Connecticut	-	-	-	-	-	-	-	-	-
Maine	-	W	-	-	W	-	-	12.1	-
Massachusetts	68.02	W	-	71.71	W	-	-5.1	-13.0	-
New Hampshire	67.49	-	-	63.78	-	-	5.8	-	-
Rhode Island	-	-	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-	-	-
Middle Atlantic	**55.69**	**W**	**W**	**51.97**	**W**	**W**	**7.2**	**13.4**	**11.3**
New Jersey	74.36	W	-	67.55	W	-	10.1	11.7	-
New York	58.48	74.79	W	54.94	54.85	W	6.4	36.4	5.0
Pennsylvania	39.35	52.46	W	38.77	51.09	W	1.5	2.7	11.5
East North Central	**33.03**	**56.98**	**99.48**	**30.45**	**53.89**	**89.97**	**8.5**	**5.7**	**10.6**
Illinois	25.16	36.95	W	21.43	33.10	W	17.4	11.6	7.3
Indiana	31.94	59.83	W	30.15	58.11	W	5.9	3.0	11.5
Michigan	32.67	71.34	W	30.95	70.05	W	5.6	1.8	1.8
Ohio	39.92	64.81	W	37.00	58.87	W	7.9	10.1	17.8
Wisconsin	26.14	64.32	-	22.70	59.25	-	15.2	8.6	-
West North Central	**17.95**	**28.18**	**-**	**16.47**	**24.00**	**-**	**9.0**	**17.4**	**-**
Iowa	17.68	45.86	-	16.51	36.62	-	7.1	25.2	-
Kansas	20.54	48.04	-	19.22	41.22	-	6.9	16.5	-
Minnesota	21.55	43.14	-	19.73	39.50	-	9.2	9.2	-
Missouri	19.46	45.72	-	17.86	41.06	-	9.0	11.3	-
Nebraska	13.66	36.71	-	12.16	25.44	-	12.3	44.3	-
North Dakota	11.71	W	-	10.99	W	-	6.6	6.1	-
South Dakota	25.81	W	-	24.82	W	-	4.0	11.1	-
South Atlantic	**56.23**	**W**	**W**	**51.21**	**W**	**W**	**9.8**	**8.7**	**-3.5**
Delaware	-	W	-	-	W	-	-	8.5	-
District of Columbia	-	-	-	-	-	-	-	-	-
Florida	61.22	84.16	-	55.76	76.57	-	9.8	9.9	-
Georgia	52.59	83.85	-	47.84	76.23	-	9.9	10.0	-
Maryland	-	58.84	-	-	56.10	-	-	4.9	-
North Carolina	65.92	75.17	-	58.91	65.25	-	11.9	15.2	-
South Carolina	58.42	81.80	-	54.45	75.72	-	7.3	8.0	-
Virginia	59.88	67.13	W	56.99	61.96	W	5.1	8.4	4.4
West Virginia	41.85	67.95	W	37.90	65.95	W	10.4	3.0	-10.8
East South Central	**41.53**	**W**	**W**	**36.91**	**W**	**W**	**12.5**	**7.7**	**20.0**
Alabama	45.86	68.27	W	39.19	62.17	W	17.0	9.8	17.7
Kentucky	40.29	70.68	W	36.01	65.42	W	11.9	8.0	22.5
Mississippi	54.62	W	-	50.03	W	-	9.2	10.0	-
Tennessee	36.22	66.90	-	33.14	63.09	-	9.3	6.0	-
West South Central	**23.46**	**W**	**-**	**21.55**	**W**	**-**	**8.9**	**17.1**	**-**
Arkansas	25.79	67.28	-	25.56	61.67	-	0.9	9.1	-
Louisiana	28.00	W	-	24.66	W	-	13.5	14.1	-
Oklahoma	18.96	38.59	-	17.55	34.00	-	8.0	13.5	-
Texas	24.00	32.65	-	21.53	26.48	-	11.5	23.3	-
Mountain	**24.80**	**38.28**	**-**	**23.30**	**35.93**	**-**	**6.4**	**6.5**	**-**
Arizona	28.48	48.22	-	28.16	48.24	-	1.1	-0.1	-
Colorado	25.18	W	-	20.89	W	-	20.5	26.2	-
Idaho	-	40.57	-	-	37.07	-	-	9.5	-
Montana	14.54	W	-	11.63	W	-	25.0	8.6	-
Nevada	39.75	W	-	34.44	W	-	15.4	13.4	-
New Mexico	29.01	W	-	27.68	W	-	4.8	4.9	-
Utah	27.49	44.46	-	24.71	42.22	-	11.3	5.3	-
Wyoming	17.61	27.08	-	16.71	25.89	-	5.4	4.6	-
Pacific	**21.62**	**58.12**	**-**	**21.33**	**50.62**	**-**	**1.4**	**14.8**	**-**
Alaska	-	-	-	-	-	-	-	-	-
California	-	57.63	-	-	50.22	-	-	14.8	-
Hawaii	-	W	-	-	W	-	-	3.8	-
Oregon	21.62	W	-	21.33	-	-	1.4	W	-
Washington	-	W	-	-	W	-	-	8.1	-
U.S. Total	**34.26**	**51.67**	**92.87**	**31.22**	**47.63**	**83.79**	**9.7**	**8.5**	**10.8**

- = No data are reported.

W = Data withheld to avoid disclosure.

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 and Qualtiy Report, Manufacturing Plants," and Form EIA-5, "Quarterly Coal Consumption and Quality Report, Coke Plants."

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, Wetzel, Wirt, and Wood.

West Virginia, Southern. All mines in the following counties (formerly defined as Coal-Producing Districts 7 & 8): Boone, Cabell, Clay, Fayette, Greenbrier, Kanawha, Lincoln, Logan, Mason, McDowell, Mercer,

Mingo, 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 Loading 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.

Federal Coal Lease: A lease granted to a mining company to produce coal from land owned and administered by the Federal Government in exchange for royalties and other revenues.

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.