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Annual Coal Report

2009

U.S. Energy Information Administration
Office of Oil, Gas, and Coal Supply Statistics
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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 U.S. 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 and Preparation Plant Report."

This report is the 34th annual report on coal production published by EIA and continues the series formerly included in the *Minerals Yearbook* published by the Bureau of Mines. All data for 2009 and prior years are final.

The Office of Oil, Gas, and Coal Supply Statistics 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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Between 2008 and 2009:

- U.S. coal production decreased 8.3 percent to 1,074.9 million short tons, 96.9 million short tons below 2008's record level.
- Coal consumption decreased 11.0 percent, mostly due to slumping economic conditions as well as the milder winter and cooler summer weather experienced in many parts of the U.S. in 2009.
- Coal stocks were at record levels, reaching 233.0 million short tons at the end of 2009.
- Coal mine employment was 87,755 in 2009, a decrease of 1.0 percent from the 2008 level.
- Coal mine productivity decreased by 5.9 percent to 5.61 tons per miner per hour, slightly below the 1996 level of 5.69 tons per miner per hour.

U.S. coal production in 2009 decreased 8.3 percent to 1,074.9 million short tons, 96.9 million short tons below the 2008 record level of 1,171.8 million short tons (Table ES1), according to data from the U.S. Energy Information Administration (EIA). In 2009 U.S. coal consumption decreased in all sectors while total coal stocks increased for the year. Coal consumption in the electric power sector in 2009 was down 10.3 percent, while coking coal consumption decreased 30.6 percent and the other industrial sector declined 16.7 percent. The commercial and institutional sector (which prior to 2008 had been called 'residential and commercial'), the smallest of all the coal-consuming sectors, declined 8.4 percent in 2009. (Note: All percentage change calculations are done at the short-tons level.)

The decline in coal consumption during the year was the result of domestic economic conditions combined with the weather in 2009, which resulted in lower demand for electricity. Total generation in the electric power sector (electric utilities and independent power producers, including useful thermal output) in the U.S. decreased in 2009. Coal-based generation also decreased, resulting in a 107.0 million short ton drop in coal consumed in the electric power sector. Coal use in the non-electricity sector decreased by 20.2 percent to a level of 63.9 million short tons.

The international coal markets for most of 2009 were reflective of a worldwide economic slowdown. U.S. coal exports and imports both declined for the year. U.S. coal exports totaled 59.1 million short tons, a decrease of 22.4 million short tons from the 2008 level, while coal imports ended the year at 22.6 million short tons, 11.6 million short tons below the 2008 level.

Most U.S. coal prices continued to increase in 2009, even as the spot market prices declined from the highs of the previous year. In the domestic markets in 2009, the electric utility price-per-short-ton increase was 7.6 percent, but just 2.5 percent for independent power producers. Coking coal prices had the greatest increase domestically, climbing by 21.1 percent, while the price for the other industrial sector increased by 2.3 percent and the commercial and industrial sector rose by 12.5 percent in 2009. Overall coal prices in the international markets increased in spite of the slowing world economy.

Production

U.S. coal production decreased considerably in 2009, dropping by 8.3 percent to a level of 1,074.9 million short tons (Figure ES1 and Table ES1), 96.9 million short tons less than the 2008 production total. The decline in coal production in 2009 was the largest percent decline since 1958 (when production declined by 16.7 percent) and the largest tonnage decline since 1949 (when production dropped by 176.1 million short tons). All three coal-producing regions had decreases in coal production, with two showing significant declines. Excluding refuse production, production levels in the Appalachian and Western Regions decreased 12.5 percent and 7.7 percent, respectively, in 2009, while the Interior Region remained essentially unchanged with a decrease of 0.5 percent (Table ES2). The Appalachian Region's production decreased by 48.8 million short tons, while the Western Region's 2009 production dropped by 48.6 million short tons. Coal production in the Interior Region decreased by 775 thousand short tons.

Appalachian Region

The Appalachian Region's coal production in 2009 was 341.4 million short tons, a decrease of 12.5 percent, or 48.8 million short tons, its lowest level in almost 50 years. This decline was primarily driven by the domestic and international economic situation, which reduced consumption and exports, combined with the lower natural gas prices that prevailed during most of the year. The drop in demand for coal by all domestic coal-consuming sectors combined with the increasing coal stock levels at electric power plants reduced coal production. Ohio was the only State in the Appalachian Region that had an increase in coal production in 2009, and one of only six States in the nation to have a higher level of coal production for the year.

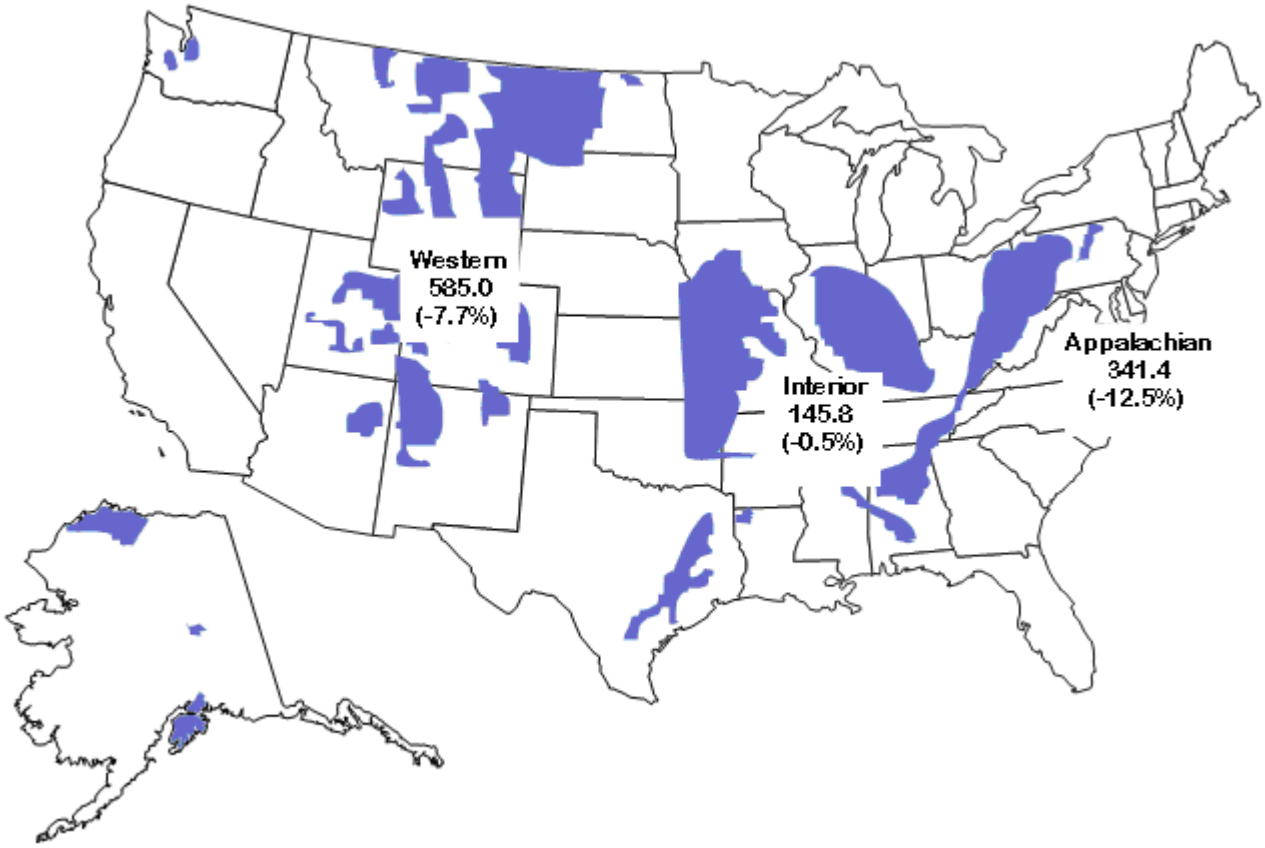
Coal production in Ohio in 2009 increased by 1.2 million short tons, or 4.8 percent, to end the year at 27.5 million short tons, the highest level in a decade. Even though many of the 46 mines in the State had lower production in 2009 (including one mine that had a drop of 0.8 million short tons), increases at other mines more than offset these decreases. The 2009 increase in production was largely the result of higher production levels at four mines and the opening of one new mine in the State.

Ohio Valley Coal's Powhatan No. 6 mine increased 0.9 million short tons in 2009, while Harrison Resources' Sexton No. 2 mine and Oxford Mining's Rice No. 1 mine each increased their production levels by 0.5 million short tons. Ohio American Energy's Salt Run mine increased 0.4 million short tons in 2009 and Gatling Ohio's Yellowbush mine produced a total of 0.3 million short tons in its first year of production.

West Virginia, the largest coal-producing State in the Appalachian Region and the second largest in the U.S., had the largest tonnage decline in the region in 2009, decreasing by 20.7 million short tons to 137.1 million short tons, 13.1 percent below the 2008 level, and its lowest level since 1993 when a prolonged miners strike affected coal production. In 2009 there were 17 mines in West Virginia that had a production decrease of at least 0.5 million short tons per mine. Two of the 17 mines were abandoned, Patriot Coal's Europa mine and Arch Coal's Coal Mac No. 68 mine, while the others were idled for some portion of the year as coal operators tried to balance their supply to consumers decreasing demand. Fourteen of the 17 mines were located in the southern portion of West Virginia which is classified as part of the Central Appalachian region, as identified by the coal industry. On a positive note for 2009 coal production in West Virginia, there were six mines that had an increase of at least 0.7 million short tons over their 2008 level and one new mine, Patriot Coal's Hill Fork mine. Two of the mines with increased production levels, Patriot Coal's Hill Fork mine and Federal No.2 mine, are in northern West Virginia which is considered part of Northern Appalachia.

The other four mines with increased production levels,

Figure ES1. Coal Production by Coal-Producing Region, 2009
(Million Short Tons and Percent Change from 2008)
Regional totals do not include refuse recovery
U.S. Total: 1,074.9 Million Short Tons (-8.3%)



Source: Energy Information Administration, *Annual Coal Report*, *2009*, DOE/EIA-0584(2009) (Washington, DC, December 2010).

Massey Energy's Slabcamp, Consol Energy's Republic mine, Upper Big Branch, and Arch Coal's Coal Mac Holden No. 22 mine, are located in southern West Virginia.

Eastern Kentucky, which is identified as part of Central Appalachia, produced 74.7 million short tons of coal in 2009, a decrease of 17.2 percent or 15.5 million short tons below the 2008 level and at its lowest production level since the early 1970's. In 2009 there were seven mines in However, in 2009 there were also two mines in Eastern Kentucky that had increases in their coal production levels of 0.5 million short tons or more. They were: Alpha Natural Resources' Mine No. 9A and Big Branch West mine. There was also one new mine that produced 0.5 million short tons in 2009, Massey Energy's MTR Wolf Creek mine.

Table ES1. U.S. Coal Supply, Disposition, and Prices, 2008-2009
(Million Short Tons and Dollars per Short Ton)

Item	2008	2009
Production by Region		
Appalachian	390.2	341.4
Interior	146.6	145.8
Western	633.6	585.0
Refuse Recovery	1.4	2.7
Total	**1,171.8**	**1,074.9**
Consumption by Sector		
Electric Power	1,040.6	933.6
Coke Plants	22.1	15.3
Other Industrial Plants	54.4	45.3
Commercial/Institutional *	3.5	3.2
Total	**1,120.5**	**997.5**
Year-End Coal Stocks		
Electric Power	161.6	189.5
Coke Plants	2.3	2.0
Other Industrial Plants	6.0	5.1
Commercial/Institutional	0.5	0.5
Producers/Distributors	34.7	35.9
Total	**205.1**	**233.0**
Average Delivered Price		
Electric Utilities	$41.32	$44.47
Coke Plants	$118.09	$143.01
Other Industrial Plants	$63.44	$64.87
Commercial/Institutional	$86.50	$97.28
Average U.S. Open Market Mine Price	$31.25	$33.24

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.
*Commercial/Institutional was formerly (2008) Residential/Commercial.
Sources: Energy Information Administration, *Annual Coal Report 2009*, Tables 1; 26; 27; 28; and 34; DOE/EIA-0584 (2009) (Washington, DC, December 2010).

Table ES2. U.S. Coal Production by Coal-Producing Region and State, 2008-2009
(Million Short Tons)

Coal-Producing Region and State	2008	2009
Appalachian Total	**390.2**	**341.4**
Alabama	20.6	18.8
Kentucky, Eastern	90.3	74.7
Maryland	2.9	2.3
Ohio	26.3	27.5
Pennsylvania Total	65.4	58.0
Anthracite	1.7	1.7
Bituminous	63.7	56.2
Tennessee	2.3	2.0
Virginia	24.7	21.0
West Virginia	157.8	137.1
Northern	41.1	38.4
Southern	116.7	98.7
Interior Total	**146.6**	**145.8**
Arkansas	0.1	0.0
Illinois	32.9	33.7
Indiana	35.9	35.7
Kansas	0.2	0.2
Kentucky, Western	30.1	32.6
Louisiana	3.8	3.7
Mississippi	2.8	3.4
Missouri	0.2	0.5
Oklahoma	1.5	1.0
Texas	39.0	35.1
Western Total	**633.6**	**585.0**
Alaska	1.5	1.9
Arizona	8.0	7.5
Colorado	32.0	28.3
Montana	44.8	39.5
New Mexico	25.6	25.1
North Dakota	29.6	29.9
Utah	24.4	21.7
Wyoming	467.6	431.1
Refuse Recovery	**1.4**	**2.7**
U.S. Total	**1,171.8**	**1,075.0**

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."

Pennsylvania produced 58.0 million short tons, a decrease of 11.4 percent from 2008 or 7.4 million short tons, its lowest level in over 100 years. While the two largest mines in the State, Consol Energy's Enlow Fork mine and Bailey mine (also the two largest underground mines in the U.S.) both produced at about the same level in 2009 as in 2008, declines by many other mines resulted in Pennsylvania's coal production dropping for the year. In 2009 there were declines in coal production of at least 0.5 million short tons by four mines in the State. The largest decline at a mine in Pennsylvania was 1.8 million short tons at Consol Energy's Blacksville No.2 mine which was idled for a period of time during the year. (This mine is classified by the Mine Safety and Health Administration

as being in West Virginia where coal was first produced). EIA classifies it as a Pennsylvania mine because the mine has progressed north from its opening portal and the coal that is currently being mined is in the State of Pennsylvania.) There was also a decrease in production of 1.3 million short tons at Consol Energy's Mine 84 as it was placed into nonproducing status during the latter part of 2009. Decreases in coal production of 0.8 million short tons and 0.5 million short tons for the year at Alpha Natural Resources' Emerald No. 1 and Cumberland mines, respectively, also contributed to the 2009 decline in coal production.

Coal production in Virginia decreased in 2009 by 3.5 million short tons to 21.0 million short tons, a decline of 14.9 percent and its lowest level since the mid-1950's. Four mines accounted for over 40 percent of the decrease in coal production for the year in the State. Consol Energy's Buchannan mine had the largest decrease of any mine in the State, a drop of 0.7 million short tons as a result of a short-term idling to help balance supply with the lower demand due to the economic downturn. The other three mines were A & G Coal Corporation's Sigmon Strip No. 23, Sawmill Hollow No. 1 mine and Guest Mountain Mining's Mine No. 3, which decreased production by 0.5 million short tons, 0.3 million short tons, and 0.4 million short tons, respectively. However, coal production at two mines that began operating during 2008 increased by 0.3 million and 0.4 million short tons in 2009. One new 2009 mine produced 0.4 million short tons.

In 2009 coal production in Alabama totaled 18.8 million short tons, 8.8 percent lower than the 2008 level. Although there was an increase of 0.5 million short tons at Jim Walter Resources' No 7 mine, decreases at most of the other mines in the State brought overall production down for the year. Declines of 0.5 million short tons at both Drummond Company's Shoal Creek mine and Jim Walter Resources' No. 4 mine were the largest for the State. Declines in total coal production in 2009 were experienced by Maryland and Tennessee, which ended the year at 2.3 million short tons and 2.0 million short tons, respectively.

Interior Region

Coal production in the Interior Region in 2009 was 145.8 million short tons, comparable to the 2008 production level. This region had the smallest decrease in production in the U.S. for the year. While the *total* coal production for the region was basically unchanged, that was not necessarily the case for each *individual* State's production levels in 2009. Two of the four largest coal-producing areas (Illinois and Western Kentucky) in the region had increased levels of production levels in 2009 when compared to 2008. The production level in Texas, the other large coal-producing State in the Interior Region, decreased by 10.1 percent. Thus, Texas fell from the number one coal-producing State in the Interior Region to number two.

Western Kentucky had the largest increase in coal production in the Interior Region in 2009, increasing by 2.6 million short tons to reach a total of 32.6 million short tons. This is the fifth year in a row that Western Kentucky experienced growth in coal production and the 2009 increase of 8.5 percent was primarily a result of the opening of four new mines during the year. The opening of Armstrong Coal's Parkway and Eastfork mines, as well as River View Coal's River View mine and Oxford Mining's K O mine together added 2.3 million short tons of coal to the annual total.

Coal production in 2009 in Illinois increased by 2.5 percent to end the year at a total of 33.7 million short tons. Peabody Energy's Vermillion Grove mine, which was idled during the first part of the year, experienced a nearly 1 million short ton drop in coal production, while Knight Hawk Coal's Creek Paum mine saw a decrease of 0.5 million short tons. However, the increase in production of 1.0 million short tons by American Coal Company's Galatia mine, along with an increase of 0.6 million short tons by Knight Hawk Coal's Prairie Eagle mine, offset those losses. An increase in coal production in 2009 of 0.4 million short tons by Mach Mining's Mach No. 1 mine combined with the opening of Knight Hawk Coal's Prairie Eagle South mine and the restart of MaRyan Mining's Shay No 1 mine (formerly Monterey Coal Company No. 1 mine) accounted for most of Illinois increased production level.

Indiana produced a total of 35.7 million short tons in 2009, a decrease of 0.7 percent or 0.2 million short tons, but that was enough to retain its position as the largest coal-producing State in the Interior Region. Although there were large decreases in production at several mines including a drop of 1.8 million short tons by United Minerals' Discovery mine and a drop of 0.6 million short tons at both Vigo Coal's Cypress Creek mine and Solar Sources' Craney mine, increases in production at four mines in Indiana as well as production at two new mines resulted in the increase in coal production for 2009. The four mines that had the higher production totals in 2009 were: United Minerals' West 61 mine, which rose 1.3 million short tons; Sunrise Coal's Carlisle mine, which increased 0.7 million short tons; and both Peabody Energy's Francisco mine and Little Sandy Coal Company's Antioch mine, which increased 0.5 million short tons each.

Texas coal is lignite, the lowest rank of coal with the lowest amount of energy (or Btus), and the vast majority of the coal is used in the electric power sector, primarily at mine-mouth facilities. Total coal production in Texas for 2009 was 35.1 million short tons, a decrease of 10.1

percent. Eight of the twelve mines in Texas had declines in coal production in 2009, with three of those mines accounting for the majority of the decrease. The three mines are Luminant Mining's Winfield South Strip and Tatum Strip, and Westmoreland Coal Company's Jewett mine, down by 2.1, 1.4, and 0.9 million short tons, respectively.

The other States in the Interior Region (Arkansas, Kansas, Louisiana, Mississippi, Missouri, and Oklahoma), which together produced 8.7 million short tons of coal, accounted for a total of 6.0 percent of the entire region's production in 2009. Of these States, only Mississippi and Missouri had increases in their coal production from their prior year levels.

Western Region

Although the Western Region is volumetrically the largest coal-producing region in the U.S., in 2009 coal production there declined by 7.7 percent to a total of 585.0 million short tons, ending a five-year increasing production trend. The decrease of 48.6 million short tons resulted in a production level comparable to what was produced in 2005. Only two of the eight States in the Western Region (Alaska and North Dakota) had an increase in coal production for the year.

Of all the coal-producing States in the Western Region, Alaska, with one mine, has the smallest level of production. However, in 2009, it had the largest increase in production, 383 thousand short tons, or 26.0 percent, and ended the year with a total of 1.9 million short tons. North Dakota produced 29.9 million short tons of coal in 2009, an increase of 318 thousand short tons or 1.1 percent. There are four mines in North Dakota and in 2009 two of the mines, Falkirk Mining's Falkirk mine and Coteau Property's Freedom mine, had increased production levels that were more than enough to offset the declines experienced at the other two mines, Westmoreland Coal's Beulah mine and BNI Coal's Center mine.

Once again, Wyoming was the largest coal-producing State in the nation, a position it has held for two decades. In 2009, however, coal production in Wyoming fell for the first time in 17 years. Total coal production in Wyoming in 2009 was 431.1 million short tons, an annual decrease of 36.5 million short tons, or 7.8 percent. Even with this decline, Wyoming still dominates U.S. coal production. In 2009, Wyoming production accounted for 73.7 percent of the Western Region production total; was 89.7 million short tons were more than the entire Appalachian Region's production and almost three times the Interior Region's; and it accounted for more than 40 percent of the total U.S. coal production for the year. Although overall Wyoming coal production decreased in 2009, there were five mines that had a production increase. Alpha Natural Resources' Eagle Butte mine experienced the largest increase in coal production at any mine in Wyoming, producing 21.5 million short tons, an increase of 1.0 million short tons or 5.1 percent over the 2008 level. Peabody Energy's North Antelope Rochelle mine was again the largest coal mine not only in Wyoming, but in the entire U.S. in 2009, producing a total of 98.3 million short tons, an increase of 0.7 million short tons or 0.7 percent. This one mine produced more coal than any State in the nation but two, West Virginia and Kentucky. The other three mines in Wyoming that had higher production in 2009 increased by less than 190 thousand short tons. During the second half of 2009, Arch Coal closed on its purchase of the Jacobs Ranch mine from Rio Tinto and subsumed it into the adjacent Black Thunder mine. Had this been counted as one mine for the entire year, it would have had the largest decline in coal production of any Wyoming mine, a drop of 20.6 million short tons. It also would have been the largest mine in the U.S. with a total of 110.1 million short tons, down from the 2008 level of 130.7 million short tons. Other Wyoming mines that had decreases in 2009 coal production of at least 1 million short tons were: Peabody Energy's Caballo mine, down 8.0 million short tons; Peabody Energy's Rawhide mine, down 2.6 million short tons; Cloud Peak Energy's Antelope mine, down 1.8 million short tons; and Arch Coal's Coal Creek mine, down 1.7 million short tons.

In 2009, Montana, the second largest coal-producing State in the Western Region, produced a total of 39.5 million short tons, a decrease of 11.8 percent or 5.3 million short tons. Although there was an increase in production at Signal Peak Energy's Bull Mountain mine of 0.6 million short tons, the decreases in coal production at Western Energy's Rosebud mine of 2.7 million short tons and Decker Coal's Decker mine of 2.4 million short tons in 2009 accounted for the majority of the decline. Colorado, the third largest coal-producing State in the Western Region, had a decrease in coal production for 2009 of 3.8 million short tons, or 11.7 percent, to end the year at 28.3 million short tons. Although three of the eleven mines in the State had increases in coal production in 2009, the decrease in Colorado's total production was accounted for primarily by three mines: Bowie Resources' Bowie No. 2 mine, which decreased 1.6 million short tons; Arch Coal's West Elk mine, which dropped 1.4 million short tons; and Colowyo Coal's Colowyo mine, which decreased 1.3 million short tons.

Utah was the only other State in the Western Region that showed a major decrease in coal production in 2009, declining by 10.9 percent to end the year at a total of 21.7 million short tons. Only one of the eight mines in the State increased its production in 2009, Consol Energy's Emery mine, which increased 0.2 million short tons. The majority of the decrease in coal production in 2009 in Utah was the result of the declines at two mines: Canyon

Fuel's Dugout Canyon mine and West Ridge Resources' West Ridge mine, which decreased 0.9 and 0.7 million short tons, respectively. Total coal production in both Arizona and New Mexico declined by 0.5 million short tons in 2009.

Employment

The number of employees in U.S. coal mines increased in 2009 by 1.0 percent to 87,755 and included increases at both underground and surface mines. Although the net change in employees in Kentucky was negative, Western Kentucky had the largest increase in total employees, with 458 more employees on the payroll in 2009, followed by Indiana, where number of employees increased by 352. Although there was an increase in employment at the national level, there were ten States (Alabama, Arkansas, Kansas, Kentucky, Maryland, New Mexico, Pennsylvania, Utah, Virginia, and West Virginia) whose number of employees decreased in 2009.

Productivity

In 2009, productivity at coal mines in 2009 declined on a national level by 5.9 percent to a level of 5.61 tons per miner per hour, just slightly lower than the 1996 productivity level of 5.69 tons per miner per hour. Only three States (Alaska, Kansas, and New Mexico) increased productivity in 2009. Both underground and surface mining suffered productivity declines at the national level. Underground productivity dropped in 2009 by 5.0 percent to a level of 2.99 short tons per miner per hour. Surface productivity decreased in 2009 by 6.1 percent to a level of 9.22 short tons per miner per hour. All three coal-producing regions had declines in productivity in 2009, with the largest decline in the Western Region and the smallest in the Interior Region. Total productivity in the Appalachian Region decreased by 7.4 percent in 2009 to 2.70 short tons per miner per hour. This drop was a reflection of the decrease in both underground productivity in the region, which declined by 5.5 percent, and surface productivity, which decreased 10.1 percent in 2009. Total productivity in the Interior Region declined by 7.2 percent to a level of 4.47 short tons per miner per hour in 2009. Underground productivity in the Interior Region decreased by 3.2 percent to a level of 3.56 short tons per miner per hour, while the surface productivity declined by 10.3 percent to a level of 5.72 short tons per miner per hour. Total productivity in the Western Region in 2009 decreased by 8.4 percent to 18.25 short tons per miner per hour. Productivity in underground mines in the Western Region dropped by 10.8 percent to 5.56 short tons per miner per hour, while surface productivity decreased by 7.4 percent to a level of 23.86 short tons per miner per hour.

Consumption

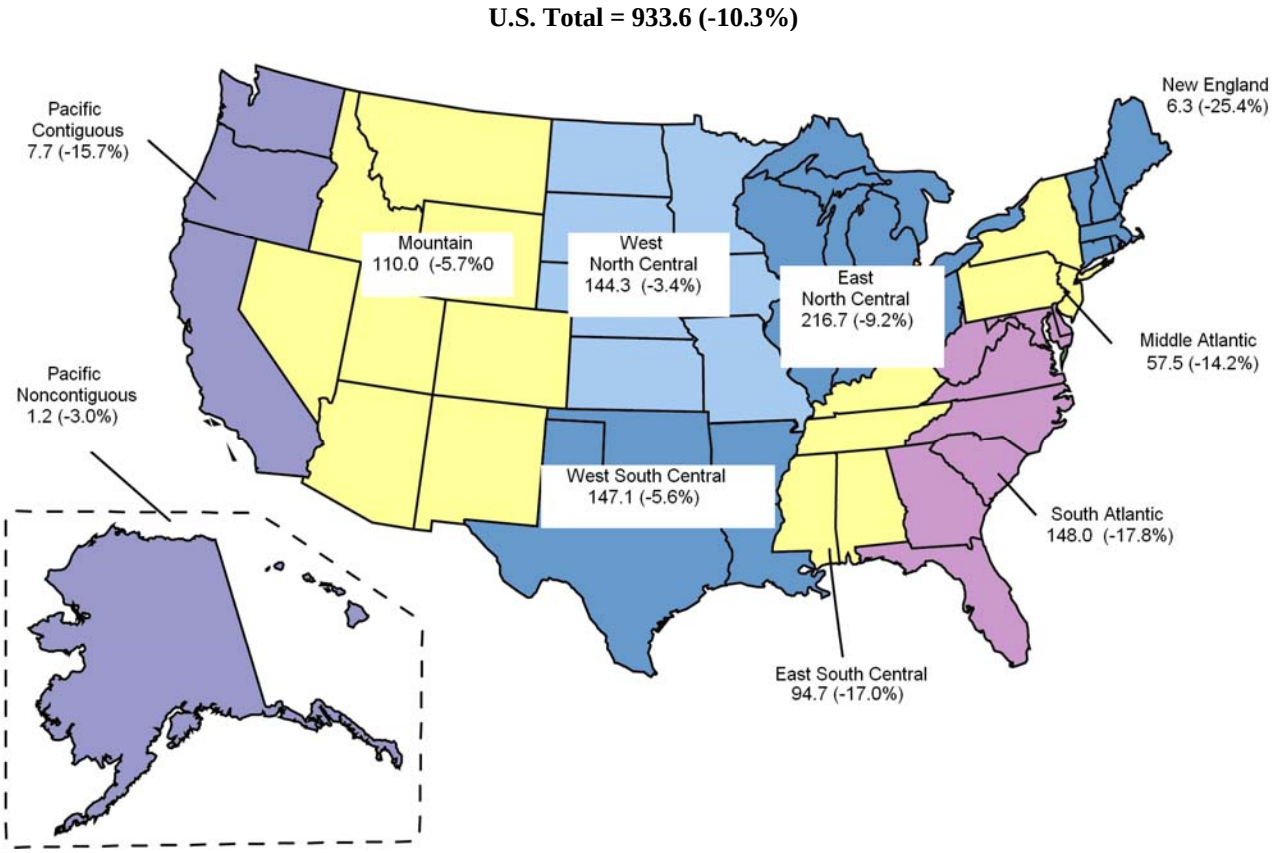
Total U.S. coal consumption was 997.5 million short tons, a decrease of 123.1 million short tons, or 11.0 percent, with all of the coal-consuming sectors having lower consumption for the year. Although all sectors had declines, the electric power sector (electric utilities and independent power producers), which consumes about 94 percent of all coal in the U.S., is the overriding force for determining total domestic coal consumption. In 2009, the recession's downward pressure on electricity production resulted in a large decrease in coal consumption for the sector. Coal consumption in the electric power sector decreased 10.3 percent or 107.0 million short tons to end 2009 at 933.6 million short tons. Coal-based electricity generation in kilowatthours decreased at a slightly higher rate of 11.6 percent, reflecting increasing volumes of lower Btu western coals (subbituminous and lignite) to generate electricity. In 2009, total generation in the electric power sector declined by 4.1 percent nationally. The decline in total generation for the year was a direct result of the large loss in generation by coal and a slight loss in generation by the nuclear sector. Nuclear power generation decreased in 2009 by 0.9 percent. The three other specified categories (natural gas; hydro; and petroleum and other sources[1]) had increases in their respective generation levels in 2009, with natural gas generation providing the largest increase in the number of kilowatthours. The 4.3 percent increase in electricity generation by natural gas was result of the large decline in natural gas prices. The average wellhead price of natural gas in 2009 was $3.71 per thousand cubic feet, a decrease of 53.4 percent from the 2008 average price of $7.96 per thousand cubic feet.

Generation

The economy and the weather (as measured by heating and cooling degree-days) are the two major factors that drive total electricity demand in the U.S. In 2009, the economy contracted as the Gross Domestic Product

[1] This category includes electric generation from petroleum liquids, petroleum coke, other gases, wood and wood wastes, municipal solid wastes, and agriculture products, other biomass, geothermal, solar thermal, solar photovoltaic, wind and miscellaneous technologies.

Figure ES2. Electric Power Sector Consumption of Coal by Census Division, 2009
(Million Short Tons and Percent Change from 2008)



Source: Energy Information Administration, Form EIA-923, "Power Plant Operations Report."

(GDP) of the U.S. declined by 2.4 percent from 2008. The weather was also a factor in the decline of total electricity generation in 2009. The winter weather across a large portion of the country was somewhat warmer than it was in 2008 as well as warmer than the normal 30-year average. According to data from the National Oceanic and Atmospheric Administration (NOAA), heating degree-days in 2009 were 0.7 percent lower than normal and essentially unchanged from 2008 for the country as a whole. The summer weather in 2009 as measured in cooling degree-days was 1.0 percent lower than normal and 3.8 percent lower than the level experienced in 2008, which resulted in less need for electricity to run air-conditioners and therefore lower demand for electricity generation.

Of the nine Census Divisions, coal is a minor component (less than 20 percent) in the fuel mix for electricity generation in two divisions, New England and Pacific, and a major component (more than 50 percent) in four divisions, East North Central, West North Central, East South Central, and Mountain. In the other three 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 and South Atlantic coal competes with natural gas.

In 2009, all nine Census Divisions had a decline in total electricity generation as well as a decline in coal-based generation, with a resulting large decrease in coal consumption for the electric power sector. Total coal consumption in the electric power sector fell by 107.0 million short tons in 2009, with two of the Census Divisions, the South Atlantic and the East North Central, accounting for more than half of the drop.

The South Atlantic Census Division typically accounts for about 20 percent of total U.S. electricity generation, while the East North Central Census Division typically accounts for about 16 percent of the total. Coal is the primary fuel for electricity generation in both of these Census Divisions. In 2009 total generation in the South Atlantic

Census Division decreased by 5.8 percent (Table ES3) while coal-based generation decreased by 18.4 percent. The decline in coal-based electricity generation in 2009 in the South Atlantic resulted in a decrease in coal

consumption of 31.9 million short tons, down 17.8 percent, to end the year at 148.0 million short tons. As a consequence of the drop in coal consumption in the South Atlantic Census Division, coal stocks at power plants increased in 2009 by 49.6 percent to end the year at 40.2 million short tons. This increase of 13.3 million short tons accounted for almost half of the total increase in coal stocks in the electric power sector at the national level. Both natural gas and hydroelectric generation increased in the South Atlantic Census Division in 2009. Natural gas generation increased by 20.4 percent in 2009, as some power producers took advantage of the low natural gas prices to run generators, supplanting some of the need for coal-based generation. The share of natural gas generation in the South Atlantic increased to 22.1 percent in 2009, up from the 2008 level of 17.3 percent, while the share of coal-based generation in the division dropped to 46.2 percent in 2009 from the 2008 level of 53.4 percent.

In 2009, total generation in the East North Central Census Division declined by 7.9 percent, while coal-based generation declined by 9.6 percent. While there were gains in natural gas, petroleum, and renewable generation in this division, these three sources are a small portion of its total generation, together accounting for less than 7 percent of the annual generation. Coal generally accounts for about 70 percent of generation in the East North Central Census Division, making it the single largest coal-consuming Census Division for the electric power sector. It usually accounts for just under one-quarter of total U.S. coal consumption in the electric power sector. The decrease in coal-based generation in the East North Central Census Division in 2009 resulted in a decrease in coal consumption of 21.9 million short tons, a decline of 9.2 percent.

In the East South Central Census Division, coal is the dominant fuel for generation. In 2009 total generation in this division decreased by 5.4 percent, while coal-based generation declined at a much higher rate of 19.2 percent. The decline in coal generation resulted in a decrease in coal consumption of 19.4 million short tons to a level of 94.7 million short tons, a drop of 17.0 percent from the 2008 level. Coal stocks held by power plants in the East South Central Census Division increased in 2009 by 6.1 million short tons to end the year at 21.0 million short tons. Generation by natural gas in the East South Central Census Division increased its share in 2009 to 15.1 percent from 2008's 11.2 percent.

Total generation in the Middle Atlantic Census Division in 2009 decreased by 2.9 percent; coal-based generation was the only category to show a decline in kilowatthours for the year. The decrease in coal generation in this division was 15.4 percent, causing a drop of 29.8 percent in coal's share of the division's generation, down from the 34.2 percent it represented in 2008. Coal consumption in the electric power sector in the Middle Atlantic Census Division in 2009 declined by 9.5 million short tons, or 14.2 percent. Natural gas generation, the category that experienced the largest percent increase in 2009 in the division, increased by 10.1 percent.

In the West South Central Census Division coal competes with natural gas as the primary source for electric power generation. Coal accounted for about 39.6 percent and

Table ES3. Electric Power Sector Net Generation, 2008-2009 (Million Kilowatthours)

Census Division	2008	2009	Percent Change
New England			
Coal	18,574	14,378	-22.6
Total	120,414	115,559	-4.0
Middle Atlantic			
Coal	144,107	121,873	-15.4
Total	420,613	408,625	-2.9
East North Central			
Coal	456,001	412,245	-9.6
Total	648,598	597,221	-7.9
West North Central			
Coal	231,980	224,237	-3.3
Total	317,700	312,197	-0.6
South Atlantic			
Coal	417,623	340,900	-18.4
Total	782,576	737,117	-5.8
East South Central			
Coal	238,479	192,613	-19.2
Total	373,425	353,240	-5.4
West South Central			
Coal	233,072	220,819	-5.3
Total	564,345	557,209	-1.3
Mountain			
Coal	212,268	199,822	-5.9
Total	375,705	365,799	-2.6
Pacific			
Coal	16,733	14,235	-14.9
Total	374,453	362,769	-3.1
U.S. Total			
Coal	1,968,838	1,741,123	-11.6
Total	3,974,349	3,809,737	-4.1

Source: Energy Information Administration, Form EIA-923, "Power Plant Operations Report."

natural gas accounted for about 36.2 percent of the Division's generation. Total generation in 2009 in the electric power sector in the West South Central Census Division decreased by 1.3 percent, while coal-based generation declined at a higher rate of 5.3 percent. Natural gas generation declined at a lower rate of 0.7 percent. Total coal consumption in 2009 for the electric power sector in the West South Central Census Division decreased by 8.7 million short tons, or 5.6 percent, ending the year at a total of 147.1 million short tons.

Over half of the electricity generated in the Mountain Census Division is derived from coal. In 2009, total generation in the Mountain Census Division declined by 2.6 percent, with coal-based generation declining by 5.9 percent. Total coal consumption in the electric power sector in the Mountain Census Division decreased in 2009, ending the year at 110.0 million short tons, a decline of 6.7 million short tons.

In the West North Central Census Division, coal is the dominant source for electric power generation accounting for more than 72 percent of the division's generation. Total generation in 2009 in the electric power sector declined by 0.6 percent, the smallest decline of any of the nine Census Divisions. Coal-based generation in the division decreased by 3.3 percent in 2009. Total coal consumption in 2009 for the electric power sector in the West North Central Census Division decreased by 5.1 million short tons, or 3.4 percent, ending the year at a total of 144.3 million short tons.

Total electric power sector generation in the New England Census Division declined in 2009 by 4.0 percent, while coal-based generation declined by 22.6 percent. However, coal accounts for 12.4 percent of total generation in the New England Census Division and in 2009 total coal consumption for electricity generation decreased by 2.1 million short tons, ending the year at a total of 6.3 million short tons.

Total generation in the Pacific Census Division in 2009 decreased by 3.1 percent, while coal-based generation decreased by 14.9 percent. Coal accounts for less than four percent of total generation in the Pacific Census Division and in 2009 total coal consumption for electricity generation declined by 14.1 percent to end the year at 8.9 million short tons.

Coal consumption in the non-electric power sector (comprised of the other industrial, coking coal, and the commercial and institutional sectors) declined for the fifth year in a row in 2009. Coal consumption at coke plants decreased by 6.7 million short tons to end the year at 15.3 million short tons, a decline of 30.6 percent. The decline in U.S. coke production in 2009 was a result of the year's economic downturn, when several steel plants idled production for extended periods of time in response to the world-wide drop in demand for their products.

In 2009 the manufacturing sector in the U.S. also declined as a consequence of the recession. As a result, coal consumption in the other industrial sector decreased by 9.1 million short tons to end the year at 45.3 million short tons, a drop of 16.7 percent. Within the manufacturing economic sector of the North American Industry Classification System (NAICS), all of the manufacturing subsectors showed lower coal consumption for 2009. All of the five major coal-consuming manufacturing subsectors had large decreases in coal consumption for 2009. The declines ranged from 0.7 million short tons in the food manufacturing segment to 3.7 million short tons in the nonmetallic mineral products segment. Also contributing to the overall decline in consumption for the other industrial sector were the following: The primary metal manufacturing segment, which decreased 1.2 million short tons; the chemical manufacturing segment, which dropped 1.4 million short tons; and the paper manufacturing segment, which decreased 1.5 million short tons. Coal consumption in the commercial and institutional sector decreased 8.4 percent in 2009, ending the year at 3.2 million short tons.

Coal Stocks

Total coal stocks at the end of 2009 were 233.0 million short tons, a record level and an increase of 27.8 million short tons from the prior year, surpassing the previous record level set in 1980. Estimated coal stocks held by producers and distributors were higher by 3.5 percent, as coal producers added to their stockpiles as consumers postponed some of their receipts and deferred deliveries to the future. Industrial users, including coke plants, held a total of 7.1 million short tons at the end of 2009, 1.3 million short tons below the level at the start of the year. Commercial and institutional users had comparable level of coal stocks at the end of 2009 as they had in the beginning of the year with 0.5 million short tons. Coal stocks in the electric power sector increased for a fourth consecutive year in 2009. The electric power sector ended the year with a record level of coal stocks of 189.5 million short tons, an increase of 27.9 million short tons, or 17.3 percent over the 2008 level and 6.5 million short tons higher than the previous end-of-year record level set in 1980.

Coal Production

Table 1. Coal Production and Number of Mines by State and Mine Type, 2009, 2008

(Thousand Short Tons)

Coal-Producing State and Region[1]	2009		2008		Percent Change	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Alabama	**57**	**18,796**	**59**	**20,611**	**-3.4**	**-8.8**
Underground	7	11,505	8	12,281	-12.5	-6.3
Surface	50	7,291	51	8,330	-2.0	-12.5
Alaska	**1**	**1,860**	**1**	**1,477**	**-**	**26.0**
Surface	1	1,860	1	1,477	-	26.0
Arizona	**1**	**7,474**	**1**	**8,025**	**-**	**-6.9**
Surface	1	7,474	1	8,025	-	-6.9
Arkansas	**2**	**5**	**2**	**69**	**-**	**-93.3**
Underground	1	4	1	67	-	-94.1
Surface	1	1	1	2	-	-63.2
Colorado	**11**	**28,267**	**12**	**32,028**	**-8.3**	**-11.7**
Underground	8	22,199	8	24,370	-	-8.9
Surface	3	6,068	4	7,659	-25.0	-20.8
Illinois	**22**	**33,748**	**19**	**32,918**	**15.8**	**2.5**
Underground	13	28,407	11	27,055	18.2	5.0
Surface	9	5,342	8	5,863	12.5	-8.9
Indiana	**33**	**35,655**	**30**	**35,893**	**10.0**	**-0.7**
Underground	7	12,797	6	12,223	16.7	4.7
Surface	26	22,858	24	23,670	8.3	-3.4
Kansas	**1**	**185**	**2**	**229**	**-50.0**	**-19.4**
Surface	1	185	2	229	-50.0	-19.4
Kentucky Total	**449**	**107,338**	**469**	**120,323**	**-4.3**	**-10.8**
Underground	198	63,152	216	69,474	-8.3	-9.1
Surface	251	44,186	253	50,849	-0.8	-13.1
Eastern	**425**	**74,719**	**446**	**90,258**	**-4.7**	**-17.2**
Underground	186	37,170	205	44,143	-9.3	-15.8
Surface	239	37,549	241	46,116	-0.8	-18.6
Western	**24**	**32,619**	**23**	**30,064**	**4.3**	**8.5**
Underground	12	25,982	11	25,331	9.1	2.6
Surface	12	6,637	12	4,733	-	40.2
Louisiana	**2**	**3,657**	**2**	**3,843**	**-**	**-4.8**
Surface	2	3,657	2	3,843	-	-4.8
Maryland	**22**	**2,305**	**21**	**2,860**	**4.8**	**-19.4**
Underground	2	495	2	753	-	-34.3
Surface	20	1,811	19	2,107	5.3	-14.1
Mississippi	**1**	**3,440**	**1**	**2,842**	**-**	**21.1**
Surface	1	3,440	1	2,842	-	21.1
Missouri	**2**	**452**	**2**	**247**	**-**	**83.1**
Surface	2	452	2	247	-	83.1
Montana	**6**	**39,486**	**6**	**44,786**	**-**	**-11.8**
Underground	1	776	1	168	-	360.9
Surface	5	38,710	5	44,617	-	-13.2
New Mexico	**5**	**25,124**	**5**	**25,645**	**-**	**-2.0**
Underground	1	6,499	1	7,046	-	-7.8
Surface	4	18,625	4	18,599	-	0.1
North Dakota	**4**	**29,945**	**4**	**29,627**	**-**	**1.1**
Surface	4	29,945	4	29,627	-	1.1
Ohio	**46**	**27,501**	**48**	**26,251**	**-4.2**	**4.8**
Underground	11	17,307	11	17,053	-	1.5
Surface	35	10,194	37	9,198	-5.4	10.8
Oklahoma	**10**	**956**	**7**	**1,463**	**42.9**	**-34.7**
Underground	1	384	1	441	-	-12.7
Surface	9	572	6	1,023	50.0	-44.1
Pennsylvania Total	**244**	**57,979**	**266**	**65,414**	**-8.3**	**-11.4**
Underground	48	48,679	51	53,318	-5.9	-8.7
Surface	196	9,300	215	12,095	-8.8	-23.1
Anthracite	**64**	**1,731**	**66**	**1,701**	**-3.0**	**1.8**
Underground	9	176	13	241	-30.8	-27.0
Surface	55	1,555	53	1,459	3.8	6.6
Bituminous	**180**	**56,248**	**200**	**63,713**	**-10.0**	**-11.7**
Underground	39	48,503	38	53,077	2.6	-8.6
Surface	141	7,745	162	10,636	-13.0	-27.2
Tennessee	**25**	**1,996**	**23**	**2,333**	**8.7**	**-14.4**
Underground	8	842	5	789	60.0	6.8
Surface	17	1,154	18	1,544	-5.6	-25.3
Texas	**12**	**35,093**	**11**	**39,017**	**9.1**	**-10.1**
Surface	12	35,093	11	39,017	9.1	-10.1
Utah	**8**	**21,718**	**9**	**24,365**	**-11.1**	**-10.9**
Underground	8	21,718	9	24,365	-11.1	-10.9

See footnotes at end of table.

Table 1. Coal Production and Number of Mines by State and Mine Type, 2009, 2008 (Continued)
(Thousand Short Tons)

Coal-Producing State and Region [1]	2009		2008		Percent Change	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Virginia	**108**	**21,019**	**114**	**24,712**	**-5.3**	**-14.9**
Underground	55	12,938	65	15,806	-15.4	-18.1
Surface	53	8,081	49	8,907	8.2	-9.3
West Virginia Total	**283**	**137,127**	**301**	**157,778**	**-6.0**	**-13.1**
Underground	170	80,887	186	88,369	-8.6	-8.5
Surface	113	56,240	115	69,409	-1.7	-19.0
Northern	**39**	**38,395**	**43**	**41,123**	**-9.3**	**-6.6**
Underground	20	33,148	22	34,109	-9.1	-2.8
Surface	19	5,247	21	7,013	-9.5	-25.2
Southern	**244**	**98,732**	**258**	**116,655**	**-5.4**	**-15.4**
Underground	150	47,739	164	54,260	-8.5	-12.0
Surface	94	50,993	94	62,395	-	-18.3
Wyoming	**20**	**431,107**	**20**	**467,644**	**-**	**-7.8**
Underground	1	3,472	1	3,501	-	-0.8
Surface	19	427,635	19	464,143	-	-7.9
Appalachian Total	**1,210**	**341,443**	**1,278**	**390,218**	**-5.3**	**-12.5**
Underground	487	209,824	533	232,512	-8.6	-9.8
Surface	723	131,619	745	157,705	-3.0	-16.5
Northern	**351**	**126,180**	**378**	**135,647**	**-7.1**	**-7.0**
Underground	81	99,629	86	105,234	-5.8	-5.3
Surface	270	26,551	292	30,413	-7.5	-12.7
Central	**802**	**196,467**	**841**	**233,959**	**-4.6**	**-16.0**
Underground	399	98,690	439	114,997	-9.1	-14.2
Surface	403	97,777	402	118,962	0.2	-17.8
Southern	**57**	**18,796**	**59**	**20,611**	**-3.4**	**-8.8**
Underground	7	11,505	8	12,281	-12.5	-6.3
Surface	50	7,291	51	8,330	-2.0	-12.5
Interior Total	**109**	**145,811**	**99**	**146,586**	**10.1**	**-0.5**
Underground	34	67,574	30	65,117	13.3	3.8
Surface	75	78,237	69	81,469	8.7	-4.0
Illinois Basin Total	**79**	**102,023**	**72**	**98,875**	**9.7**	**3.2**
Underground	32	67,186	28	64,609	14.3	4.0
Surface	47	34,837	44	34,267	6.8	1.7
Western Total	**56**	**584,981**	**58**	**633,597**	**-3.4**	**-7.7**
Underground	19	54,664	20	59,450	-5.0	-8.1
Surface	37	530,317	38	574,147	-2.6	-7.6
Powder River Basin	**17**	**455,503**	**17**	**495,964**	**-**	**-8.2**
Underground	-	-	-	-	-	-
Surface	17	455,503	17	495,964	-	-8.2
Uinta Region	**16**	**49,104**	**17**	**55,578**	**-5.9**	**-11.6**
Underground	14	43,410	15	48,343	-6.7	-10.2
Surface	2	5,694	2	7,235	-	-21.3
East of Miss. River	**1,290**	**446,906**	**1,351**	**491,935**	**-4.5**	**-9.2**
West of Miss. River	**85**	**625,330**	**84**	**678,467**	**1.2**	**-7.8**
U.S. Subtotal	**1,375**	**1,072,236**	**1,435**	**1,170,401**	**-4.2**	**-8.4**
Refuse Recovery	**32**	**2,688**	**23**	**1,408**	**39.1**	**90.9**
U.S. Total	**1,407**	**1,074,923**	**1,458**	**1,171,809**	**-3.5**	**-8.3**

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

- = 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 2. Coal Production and Number of Mines by State, County, and Mine Type, 2009

(Thousand Short Tons)

Coal-Producing State and County	Underground		Surface		Total	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Alabama	**7**	**11,505**	**50**	**7,291**	**57**	**18,796**
Cullman	-	-	2	122	2	122
Fayette	1	2,706	-	-	1	2,706
Franklin	-	-	2	158	2	158
Jackson	-	-	3	185	3	185
Jefferson	2	2,486	8	1,172	10	3,658
Marion	-	-	2	198	2	198
Shelby	1	126	5	388	6	514
Tuscaloosa	2	6,085	7	1,491	9	7,576
Walker	1	101	19	3,148	20	3,250
Winston	-	-	2	429	2	429
Alaska	**-**	**-**	**1**	**1,860**	**1**	**1,860**
Yukon-Koyukuk Division	-	-	1	1,860	1	1,860
Arizona	**-**	**-**	**1**	**7,474**	**1**	**7,474**
Navajo	-	-	1	7,474	1	7,474
Arkansas	**1**	**4**	**1**	**1**	**2**	**5**
Sebastian	1	4	1	1	2	5
Colorado	**8**	**22,199**	**3**	**6,068**	**11**	**28,267**
Delta	1	1,213	-	-	1	1,213
Garfield	1	259	-	-	1	259
Gunnison	2	10,178	-	-	2	10,178
La Plata	2	507	-	-	2	507
Moffat	-	-	2	5,694	2	5,694
Montrose	-	-	1	374	1	374
Rio Blanco	1	2,214	-	-	1	2,214
Routt	1	7,827	-	-	1	7,827
Illinois	**13**	**28,407**	**9**	**5,342**	**22**	**33,748**
Gallatin	-	-	2	2,390	2	2,390
Jackson	1	367	2	845	3	1,211
Macoupin	2	1,528	-	-	2	1,528
Mcdonough	-	-	1	137	1	137
Perry	2	1,887	3	992	5	2,879
Randolph	1	3,348	-	-	1	3,348
Saline	3	10,417	-	-	3	10,417
Sangamon	1	2,252	-	-	1	2,252
Vermilion	1	215	-	-	1	215
Wabash	-	-	1	978	1	978
White	1	2,473	-	-	1	2,473
Williamson	1	5,921	-	-	1	5,921
Indiana	**7**	**12,797**	**26**	**22,858**	**33**	**35,655**
Clay	-	-	1	72	1	72
Daviess	-	-	3	3,502	3	3,502
Dubois	-	-	1	1,127	1	1,127
Gibson	2	5,362	4	7,152	6	12,514
Knox	3	2,228	4	2,915	7	5,142
Pike	1	2,505	5	1,675	6	4,180
Sullivan	1	2,703	1	59	2	2,762
Vigo	-	-	2	4,068	2	4,068
Warrick	-	-	5	2,289	5	2,289
Kansas	**-**	**-**	**1**	**185**	**1**	**185**
Bourbon	-	-	1	185	1	185
Kentucky	**198**	**63,152**	**251**	**44,186**	**449**	**107,338**
Bell	7	677	22	1,337	29	2,014
Breathitt	2	768	5	137	7	905
Clay	-	-	7	370	7	370
Daviess	-	-	1	407	1	407
Elliott	-	-	2	5	2	5
Floyd	20	983	14	2,176	34	3,159
Harlan	34	7,139	29	3,387	63	10,526
Henderson	1	1,265	1	1,164	2	2,429
Hopkins	4	14,833	-	-	4	14,833
Jackson	-	-	1	30	1	30
Johnson	1	65	8	708	9	773
Knott	22	3,194	13	2,343	35	5,536
Knox	2	23	8	501	10	524
Laurel	-	-	1	3	1	3
Lawrence	1	200	11	543	12	742
Lee	-	-	1	1	1	1
Leslie	6	1,913	7	1,900	13	3,813

See footnotes at end of table.

Table 2. Coal Production and Number of Mines by State, County, and Mine Type, 2009 (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	25	4,604	13	685	38	5,289
Magoffin	1	56	9	2,848	10	2,905
Martin	8	3,803	7	2,756	15	6,559
Morgan	-	-	1	83	1	83
Muhlenberg	2	2,107	8	1,875	10	3,982
Ohio	1	727	2	3,192	3	3,919
Owsley	-	-	3	34	3	34
Perry	7	4,289	27	11,382	34	15,671
Pike	48	9,351	43	6,089	91	15,440
Pulaski	-	-	1	1	1	1
Union	3	5,137	-	-	3	5,137
Webster	1	1,912	-	-	1	1,912
Whitley	2	106	6	230	8	336
Louisiana	**-**	**-**	**2**	**3,657**	**2**	**3,657**
De Soto	-	-	1	2,976	1	2,976
Red River	-	-	1	682	1	682
Maryland	**2**	**495**	**20**	**1,811**	**22**	**2,305**
Allegany	1	245	14	1,437	15	1,683
Garrett	1	249	6	373	7	623
Mississippi	**-**	**-**	**1**	**3,440**	**1**	**3,440**
Choctaw	-	-	1	3,440	1	3,440
Missouri	**-**	**-**	**2**	**452**	**2**	**452**
Bates	-	-	2	452	2	452
Montana	**1**	**776**	**5**	**38,710**	**6**	**39,486**
Big Horn	-	-	3	28,036	3	28,036
Musselshell	1	776	-	-	1	776
Richland	-	-	1	343	1	343
Rosebud	-	-	1	10,332	1	10,332
New Mexico	**1**	**6,499**	**4**	**18,625**	**5**	**25,124**
Mckinley	-	-	3	10,207	3	10,207
San Juan	1	6,499	1	8,418	2	14,917
North Dakota	**-**	**-**	**4**	**29,945**	**4**	**29,945**
Mclean	-	-	1	8,071	1	8,071
Mercer	-	-	2	17,634	2	17,634
Oliver	-	-	1	4,240	1	4,240
Ohio	**11**	**17,307**	**35**	**10,194**	**46**	**27,501**
Belmont	1	6,733	5	1,395	6	8,128
Carroll	1	6	1	80	2	85
Columbiana	-	-	2	120	2	120
Coshocton	-	-	1	401	1	401
Guernsey	-	-	1	21	1	21
Harrison	1	1,494	7	1,981	8	3,475
Jackson	-	-	1	375	1	375
Jefferson	3	796	3	1,938	6	2,734
Lawrence	-	-	1	13	1	13
Mahoning	-	-	1	7	1	7
Meigs	1	293	-	-	1	293
Monroe	1	6,033	-	-	1	6,033
Muskingum	-	-	1	146	1	146
Noble	-	-	2	772	2	772
Perry	2	1,384	1	619	3	2,003
Stark	-	-	2	366	2	366
Tuscarawas	1	569	4	1,187	5	1,755
Vinton	-	-	2	772	2	772
Oklahoma	**1**	**384**	**9**	**572**	**10**	**956**
Craig	-	-	2	226	2	226
Haskell	-	-	1	124	1	124
Le Flore	1	384	3	150	4	535
Nowata	-	-	1	23	1	23
Okmulgee	-	-	1	1	1	1
Rogers	-	-	1	48	1	48
Pennsylvania	**48**	**48,679**	**196**	**9,300**	**244**	**57,979**
Allegheny	-	-	4	204	4	204
Armstrong	6	2,430	9	462	15	2,892
Beaver	1	26	-	-	1	26
Bedford	-	-	2	27	2	27
Butler	-	-	6	471	6	471
Cambria	2	680	8	489	10	1,169
Cameron	-	-	1	13	1	13
Centre	-	-	1	3	1	3

See footnotes at end of table.

Table 2. Coal Production and Number of Mines by State, County, and Mine Type, 2009 (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)						
Clarion	-	-	8	374	8	374
Clearfield	3	1,449	38	1,781	41	3,230
Columbia	-	-	4	162	4	162
Dauphin	1	4	-	-	1	4
Elk	1	103	5	168	6	270
Fayette	-	-	8	240	8	240
Greene	7	38,326	-	-	7	38,326
Indiana	9	2,917	15	360	24	3,278
Jefferson	1	139	9	532	10	670
Lackawanna	-	-	2	25	2	25
Luzerne	-	-	7	201	7	201
Lycoming	-	-	1	245	1	245
Northumberland	3	121	6	55	9	176
Schuylkill	5	52	36	1,111	41	1,163
Somerset	8	1,920	16	1,875	24	3,795
Tioga	-	-	1	1	1	1
Washington	1	514	3	449	4	963
Westmoreland	-	-	6	52	6	52
Tennessee	**8**	**842**	**17**	**1,154**	**25**	**1,996**
Anderson	2	138	2	86	4	224
Campbell	3	409	5	461	8	870
Claiborne	3	296	9	586	12	881
Fentress	-	-	1	21	1	21
Texas	**-**	**-**	**12**	**35,093**	**12**	**35,093**
Atascosa	-	-	1	3,159	1	3,159
Freestone	-	-	1	3,254	1	3,254
Harrison	-	-	1	3,845	1	3,845
Hopkins	-	-	1	1,968	1	1,968
Lee	-	-	1	4,888	1	4,888
Leon	-	-	1	5,093	1	5,093
Limestone	-	-	1	875	1	875
Panola	-	-	2	5,420	2	5,420
Robertson	-	-	1	1,725	1	1,725
Rusk	-	-	1	4,226	1	4,226
Titus	-	-	1	641	1	641
Utah	**8**	**21,718**	**-**	**-**	**8**	**21,718**
Carbon	4	9,265	-	-	4	9,265
Emery	3	5,704	-	-	3	5,704
Sevier	1	6,748	-	-	1	6,748
Virginia	**55**	**12,938**	**53**	**8,081**	**108**	**21,019**
Buchanan	19	4,710	17	2,090	36	6,800
Dickenson	10	1,167	5	218	15	1,385
Lee	1	281	4	353	5	634
Russell	5	786	4	245	9	1,031
Tazewell	1	347	1	489	2	836
Wise	19	5,647	22	4,686	41	10,334
West Virginia	**170**	**80,887**	**113**	**56,240**	**283**	**137,127**
Barbour	3	1,448	3	490	6	1,938
Boone	26	11,073	15	14,817	41	25,890
Brooke	-	-	2	102	2	102
Clay	1	518	1	2,511	2	3,029
Fayette	9	1,575	9	4,605	18	6,180
Greenbrier	6	610	1	200	7	810
Harrison	2	405	2	44	4	449
Kanawha	15	7,056	12	3,776	27	10,833
Lincoln	2	1,238	1	636	3	1,874
Logan	12	6,416	14	10,259	26	16,674
Marion	2	11,549	2	42	4	11,591
Marshall	2	10,160	-	-	2	10,160
Mason	1	408	-	-	1	408
Mcdowell	26	2,212	11	1,994	37	4,206
Mercer	1	63	1	45	2	108
Mineral	-	-	2	80	2	80
Mingo	18	3,309	14	4,851	32	8,160
Monongalia	3	4,833	4	899	7	5,732
Nicholas	5	1,324	7	2,500	12	3,824
Preston	2	104	-	-	2	104
Raleigh	14	5,929	3	2,256	17	8,185
Randolph	1	460	1	1	2	461
Tucker	1	2,215	-	-	1	2,215

See footnotes at end of table.

Table 2. Coal Production and Number of Mines by State, County, and Mine Type, 2009 (Continued)
(Thousand Short Tons)

Coal-Producing State and County	Underground		Surface		Total	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Upshur	1	685	1	19	2	704
Wayne	3	3,993	2	1,551	5	5,544
Webster	3	1,288	2	3,570	5	4,858
Wyoming	11	2,015	3	991	14	3,006
Wyoming	**1**	**3,472**	**19**	**427,635**	**20**	**431,107**
Campbell	-	-	12	383,159	12	383,159
Carbon	-	-	2	788	2	788
Converse	-	-	1	33,976	1	33,976
Hot Springs	-	-	1	13	1	13
Lincoln	-	-	1	4,461	1	4,461
Sweetwater	1	3,472	2	5,238	3	8,710
U.S. Subtotal	**540**	**332,062**	**835**	**740,174**	**1,375**	**1,072,236**
Refuse Recovery	**-**	**-**	-	**-**	**32**	**2,688**
U.S. Total	**540**	**332,062**	**835**	**740,174**	**1,407**	**1,074,923**

- = 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, 2009

(Thousand Short Tons)

Coal-Producing State and Region[1]	Continuous[2]	Conventional and Other[3]	Longwall[4]	Total
Alabama	227	-	11,277	11,505
Arkansas	-	4	-	4
Colorado	765	2	21,433	22,199
Illinois	13,752	2,467	12,188	28,407
Indiana	12,797	-	-	12,797
Kentucky Total	60,819	2,271	63	63,152
Eastern	34,837	2,271	63	37,170
Western	25,982	-	-	25,982
Maryland	495	-	-	495
Montana	-	-	776	776
New Mexico	-	-	6,499	6,499
Ohio	4,535	6	12,766	17,307
Oklahoma	384	-	-	384
Pennsylvania Total	10,612	82	37,985	48,679
Anthracite	113	63	-	176
Bituminous	10,499	19	37,985	48,503
Tennessee	832	10	-	842
Utah	827	-	20,891	21,718
Virginia	10,089	4	2,846	12,938
West Virginia Total	44,627	40	36,221	80,887
Northern	5,415	-	27,734	33,148
Southern	39,212	40	8,487	47,739
Wyoming	-	-	3,472	3,472
Appalachian Total	**106,254**	**2,412**	**101,158**	**209,824**
Northern	21,056	88	78,485	99,629
Central	84,970	2,324	11,396	98,690
Southern	227	-	11,277	11,505
Interior Total	**52,915**	**2,471**	**12,188**	**67,574**
Illinois Basin	52,531	2,467	12,188	67,186
Western Total	**1,592**	**2**	**53,070**	**54,664**
Powder River Basin	-	-	-	-
Uinta Region	1,086	-	42,323	43,410
East of Miss. River	**158,784**	**4,879**	**113,346**	**277,010**
West of Miss. River	**1,976**	**6**	**53,070**	**55,052**
U.S. Total	**160,760**	**4,885**	**166,416**	**332,062**

[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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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, 2009
(Thousand Short Tons)

Coalbed Thickness (inches)	Underground	Surface	Total
< 7	-	74	74
7-12	-	3,371	3,371
13-18	371	7,951	8,323
19-24	761	14,484	15,245
25-30	2,657	21,467	24,124
31-36	21,455	25,375	46,829
37-42	22,014	21,383	43,397
43-48	26,888	20,704	47,592
49-54	27,075	26,259	53,334
55-60	38,349	20,648	58,997
61-66	42,143	12,550	54,693
67-72	53,921	6,735	60,656
73-78	12,011	7,088	19,099
79-84	9,456	5,494	14,951
85-90	12,954	5,716	18,670
91-96	6,487	8,121	14,608
97-102	14,043	10,253	24,295
103-108	3,024	9,171	12,195
109-114	3,291	2,699	5,990
115-120	4,167	6,031	10,198
> 120	30,844	503,915	534,759
Unknown[1]	**150**	**685**	**3,523**
U.S. Total	**332,062**	**740,174**	**1,074,923**

[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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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, 2009

Coalbed ID Number[1] Coalbed Name	Production (thousand short tons)			Thickness (inches)		
	Underground	Surface	Total	Average[2]	Low	High
1699 Wyodak	-	369,523	369,523	761	120	900
0036 Pittsburgh	77,376	5,112	82,488	71	16	109
0489 No. 9	37,302	6,284	43,586	61	24	75
0484 Herrin (Illinois No. 6)	27,407	5,064	32,472	68	34	85
1697 Canyon	-	30,542	30,542	627	336	804
1569 Beulah-Zap	-	28,415	28,415	174	114	210
0111 Coalburg	6,200	20,620	26,820	69	8	135
1696 Anderson-Dietz 1-Dietz 2	-	20,544	20,544	917	660	960
1787 Roland	-	17,071	17,071	469	371	600
0151 Upper Elkhorn No. 3	12,782	2,962	15,744	44	11	120
0084 Lower Kittanning	6,133	9,337	15,470	48	12	94
1808 Rosebud	-	13,760	13,760	253	68	276
0103 Stockton-Lewiston	3,301	8,339	11,640	66	7	132
0176 Eagle	9,804	1,121	10,925	48	11	63
0121 Winifrede	4,972	5,719	10,691	59	12	116
0135 Hazard No. 4	4,143	6,475	10,617	58	12	116
1488 Fruitland No. 8	6,499	3,704	10,203	154	46	182
0168 Lower Elkhorn	6,928	2,612	9,540	49	6	84
0157 Alma	6,510	2,385	8,895	45	10	60
0280 Blue Creek	8,200	575	8,775	54	10	120
0071 Upper Freeport	6,260	2,392	8,652	56	12	94
1003 Menefee Formation	505	7,533	8,038	56	46	84
0480 Danville No. 7	1,549	6,380	7,929	40	11	79
1750 Wadge	7,827	-	7,827	100	100	100
0080 Middle Kittanning	3,125	4,454	7,579	48	11	92
Major Coalbeds Total	**236,825**	**580,921**	**817,746**	**437**	**6**	**960**
Other Coalbeds	**95,087**	**158,568**	**253,655**	**81**	**5**	**360**
Unknown[3]	**150**	**685**	**3,523**	**NA**	**NA**	**NA**
U.S. Total	**332,062**	**740,174**	**1,074,923**	**352**	**-**	**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 8.0 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 8.0 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); Illinois (0484); Indiana (0483); Eastern Kentucky (0100, 0135, 0142, 0151, and 0168); Western Kentucky (0489); Montana (1696 and 1808); New Mexico (1488); North Dakota (1569); Pennsylvania (0036 and 0071); West Virginia (0084, 0103, 0111, 0121, 0157, 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 (Ohio); 0111, Peach Orchard (Eastern Kentucky); 0121, Quakertown (Pennsylvania); 0135, Windrock (Tennessee); Phillips (Virginia); Chilton (West Virginia); 0142, Lower Splint (Virginia); 0151, Jellico (Tennessee); Taggert (Virginia); Cedar Grove (West Virginia); 0157, Elkhorn No. 1 (East Kentucky); Rich Mountain (Tennessee); 0168, Imboden (Virginia); No. 2 Gas (West Virginia); 0176, Middle Eagle (West Virginia); 0484, No. 11 (Western Kentucky); 0489, No. 5 (Illinois and Indiana).

Source: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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, 2009

(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	18,796	-	-	-	-	-	-	57	18,796
Alaska	-	-	1	1,860	-	-	-	-	1	1,860
Arizona	1	7,474	-	-	-	-	-	-	1	7,474
Arkansas	2	5	-	-	-	-	-	-	2	5
Colorado	9	22,573	2	5,694	-	-	-	-	11	28,267
Illinois	22	33,748	-	-	-	-	-	-	22	33,748
Indiana	33	35,655	-	-	-	-	-	-	33	35,655
Kansas	1	185	-	-	-	-	-	-	1	185
Kentucky Total	449	107,338	-	-	-	-	-	-	449	107,338
Eastern	425	74,719	-	-	-	-	-	-	425	74,719
Western	24	32,619	-	-	-	-	-	-	24	32,619
Louisiana	-	-	-	-	2	3,657	-	-	2	3,657
Maryland	22	2,305	-	-	-	-	-	-	22	2,305
Mississippi	-	-	-	-	1	3,440	-	-	1	3,440
Missouri	2	452	-	-	-	-	-	-	2	452
Montana	-	-	5	39,143	1	343	-	-	6	39,486
New Mexico[2]	1	6,499	4	18,625	-	-	-	-	5	25,124
North Dakota	-	-	-	-	4	29,945	-	-	4	29,945
Ohio	46	27,501	-	-	-	-	-	-	46	27,501
Oklahoma	10	956	-	-	-	-	-	-	10	956
Pennsylvania Total	180	56,248	-	-	-	-	64	1,731	244	57,979
Anthracite	-	-	-	-	-	-	64	1,731	64	1,731
Bituminous	180	56,248	-	-	-	-	-	-	180	56,248
Tennessee	25	1,996	-	-	-	-	-	-	25	1,996
Texas	-	-	-	-	12	35,093	-	-	12	35,093
Utah	8	21,718	-	-	-	-	-	-	8	21,718
Virginia	108	21,019	-	-	-	-	-	-	108	21,019
West Virginia Total	283	137,127	-	-	-	-	-	-	283	137,127
Northern	39	38,395	-	-	-	-	-	-	39	38,395
Southern	244	98,732	-	-	-	-	-	-	244	98,732
Wyoming	1	7	19	431,099	-	-	-	-	20	431,107
Appalachian Total	**1,146**	**339,712**	**-**	**-**	**-**	**-**	**64**	**1,731**	**1,210**	**341,443**
Northern	287	124,449	-	-	-	-	64	1,731	351	126,180
Central	802	196,467	-	-	-	-	-	-	802	196,467
Southern	57	18,796	-	-	-	-	-	-	57	18,796
Interior Total	**94**	**103,621**	**-**	**-**	**15**	**42,191**	**-**	**-**	**109**	**145,811**
Illinois Basin	79	102,023	-	-	-	-	-	-	79	102,023
Western Total	**20**	**58,271**	**31**	**496,422**	**5**	**30,288**	**-**	**-**	**56**	**584,981**
Powder River Basin	-	-	17	455,503	-	-	-	-	17	455,503
Uinta Region	14	43,410	2	5,694	-	-	-	-	16	49,104
East of Miss. River	**1,225**	**441,735**	**-**	**-**	**1**	**3,440**	**64**	**1,731**	**1,290**	**446,906**
West of Miss. River	**35**	**59,869**	**31**	**496,422**	**19**	**69,039**	**-**	**-**	**85**	**625,330**
U.S. Subtotal	**1,260**	**501,604**	**31**	**496,422**	**20**	**72,479**	**64**	**1,731**	**1,375**	**1,072,236**
Refuse Recovery	**27**	**2,497**	**-**	**-**	**-**	**-**	**5**	**190**	**32**	**2,688**
U.S. Total	**1,287**	**504,102**	**31**	**496,422**	**20**	**72,479**	**69**	**1,921**	**1,407**	**1,074,923**

[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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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, 2009

(Thousand Short Tons)

Coal-Producing State and Region[1]	Union		Nonunion		Total	
	Underground	Surface	Underground	Surface	Underground	Surface
Alabama	11,277	317	227	6,971	11,505	7,288
Alaska	-	1,860	-	-	-	1,860
Arizona	-	7,474	-	-	-	7,474
Colorado	2,214	2,483	19,983	3,584	22,197	6,068
Illinois	4,808	-	23,599	5,342	28,407	5,342
Indiana	-	-	12,797	22,858	12,797	22,858
Kansas	-	-	-	185	-	185
Kentucky Total	4,255	857	58,852	43,097	63,106	43,953
Eastern	578	857	36,547	36,462	37,124	37,318
Western	3,677	-	22,305	6,635	25,982	6,635
Louisiana	-	-	-	3,657	-	3,657
Maryland	-	-	495	1,774	495	1,774
Mississippi	-	-	-	3,440	-	3,440
Missouri	-	-	-	452	-	452
Montana	-	21,101	776	17,609	776	38,710
New Mexico	6,499	11,092	-	7,533	6,499	18,625
North Dakota	-	6,827	-	23,118	-	29,945
Ohio	6,733	-	10,568	10,163	17,301	10,163
Oklahoma	-	-	384	571	384	571
Pennsylvania Total	16,660	624	31,981	8,390	48,641	9,013
Anthracite	-	423	157	1,054	157	1,477
Bituminous	16,660	201	31,824	7,336	48,484	7,537
Tennessee	-	-	832	1,151	832	1,151
Texas	-	21,272	-	13,821	-	35,093
Utah	5,704	-	16,014	-	21,718	-
Virginia	749	14	12,185	8,045	12,934	8,059
West Virginia Total	29,923	7,634	50,925	48,544	80,848	56,178
Northern	25,519	-	7,630	5,236	33,148	5,236
Southern	4,404	7,634	43,295	43,308	47,699	50,942
Wyoming	3,472	5,823	-	421,805	3,472	427,627
Appalachian Total	**65,920**	**9,446**	**143,760**	**121,499**	**209,680**	**130,945**
Northern	48,911	624	50,674	25,563	99,585	26,187
Central	5,731	8,505	92,859	88,965	98,590	97,470
Southern	11,277	317	227	6,971	11,505	7,288
Interior Total	**8,484**	**21,272**	**59,086**	**56,962**	**67,570**	**78,234**
Illinois Basin	8,484	-	58,701	34,835	67,186	34,835
Western Total	**17,889**	**56,661**	**36,772**	**473,649**	**54,662**	**530,310**
Powder River Basin	-	20,759	-	434,744	-	455,503
Uinta Region	7,918	2,110	35,491	3,584	43,410	5,694
East of Miss. River	**74,405**	**9,446**	**202,461**	**159,774**	**276,866**	**169,220**
West of Miss. River	**17,889**	**77,933**	**37,157**	**492,336**	**55,046**	**570,269**
Unknown[2]	**-**	**-**	**-**	**-**	**150**	**685**
U.S. Total	**92,294**	**87,379**	**239,618**	**652,110**	**332,062**	**740,174**

[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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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, 2009

(Thousand Short Tons)

Coal-Producing State	Open Market Sales[1]	Captive Sales/Transactions[2]	Total
Alabama	18,685	83	18,768
Alaska	W	-	W
Arizona	W	-	W
Colorado	24,278	3,293	27,570
Illinois	26,059	6,502	32,561
Indiana	25,183	11,013	36,196
Kansas	W	-	W
Kentucky Total	99,330	5,356	104,687
Eastern	W	W	73,584
Western	W	W	31,103
Louisiana	W	W	W
Maryland	2,413	-	2,413
Mississippi	W	-	W
Missouri	W	-	W
Montana	W	W	39,397
New Mexico	W	W	25,608
North Dakota	W	W	29,933
Ohio	24,860	1,328	26,189
Oklahoma	971	-	971
Pennsylvania Total	53,311	4,874	58,185
Anthracite	W	W	1,571
Bituminous	W	W	56,613
Tennessee	W	W	2,067
Texas	W	W	34,362
Utah	W	W	21,515
Virginia	14,453	6,507	20,960
West Virginia Total	119,494	14,585	134,080
Northern	34,419	3,085	37,504
Southern	85,075	11,500	96,575
Wyoming	321,441	108,552	429,994
U.S. Total[3]	**854,803**	**207,170**	**1,061,973**

[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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation Report."

Table 9. Major U.S. Coal Mines, 2009

Rank	Mine Names/Company	Mine Type	State	Production (short tons)
1	North Antelope Rochelle Mine/Powder River Coal Llc	Surface	Wyoming	98,279,377
2	Black Thunder/Thunder Basin Coal Company Llc	Surface	Wyoming	81,079,043
3	Cordero Mine/Cordero Mining Llc	Surface	Wyoming	39,380,964
4	Antelope Coal Mine/Antelope Coal Llc	Surface	Wyoming	33,975,524
5	Jacobs Ranch Mine/Jacobs Ranch Coal Llc	Surface	Wyoming	29,021,485
6	Belle Ayr Mine/Alpha Coal West, Inc.	Surface	Wyoming	28,395,952
7	Buckskin Mine/Kiewit Mining Group	Surface	Wyoming	25,411,798
8	Caballo Mine/Caballo Coal Company	Surface	Wyoming	23,252,475
9	Eagle Butte Mine/Alpha Coal West. Inc.	Surface	Wyoming	21,479,183
10	Spring Creek Coal Company/Spring Creek Coal Llc	Surface	Montana	17,608,969
11	Rawhide Mine/Caballo Coal Company	Surface	Wyoming	15,842,274
12	Freedom Mine/The Coteau Properties Company	Surface	North Dakota	15,046,737
13	Enlow Fork Mine/Consol Pennsylvania	Underground	Pennsylvania	11,092,684
14	Rosebud Mine&Crusher/Conveyor/Western Energy Company	Surface	Montana	10,331,684
15	Bailey Mine/Consol Pennsylvania Coal Company	Underground	Pennsylvania	10,232,360
16	Mcelroy Mine/Mcelroy Coal Company	Underground	West Virginia	9,863,588
17	Coal Creek Mine/Thunder Basin Coal Company Llc	Surface	Wyoming	9,766,852
18	Navajo Mine/Bhp Navajo Coal Company	Surface	New Mexico	8,418,245
19	Falkirk Mine/Falkirk Mining Company	Surface	North Dakota	8,071,246
20	Foidel Creek Mine/Twentymile Coal Company	Underground	Colorado	7,827,079
21	Kayenta Mine/Peabody Western Coal Company	Surface	Arizona	7,474,029
22	Cumberland Mine/Cumberland Coal Resources Lp	Underground	Pennsylvania	6,818,681
23	Sufco/Canyon Fuel Company Llc	Underground	Utah	6,748,311
24	Powhatan No. 6 Mine/The Ohio Valley Coal Company	Underground	Ohio	6,732,699
25	San Juan Mine 1/San Juan Coal Company	Underground	New Mexico	6,499,195
26	Cardinal/Warrior Coal Llc	Underground	Kentucky	6,316,496
27	Galatia Mine/ American Coal Company	Underground	Illinois	6,267,253
28	Century Mine/American Energy Corporation	Underground	Ohio	6,033,455
29	Wyodak Mine/Wyodak Resources Development C	Surface	Wyoming	6,016,063
30	Loveridge No 22/Consolidation Coal Company	Underground	West Virginia	6,004,124
31	Mach #1 Mine/Mach Mining Llc	Underground	Illinois	5,921,151
32	Absaloka Mine/Westmoreland Resources Inc.	Surface	Montana	5,911,673
33	Elk Creek Mine/Oxbow Mining, Llc	Underground	Colorado	5,702,875
34	Emerald Mine No 1/Emerald Coal Resources Lp	Underground	Pennsylvania	5,558,640
35	Robinson Run No 95/Consolidation Coal Company	Underground	West Virginia	5,544,554
36	El Segundo/Lee Ranch Coal Co Div/Peabody	Surface	New Mexico	5,445,200
37	Dry Fork Mine/Western Fuels-Wyoming Inc	Surface	Wyoming	5,233,980
38	Jewett Mine/Texas Westmoreland Coal Co.	Surface	Texas	5,092,532
39	Twilight Mtr Surface Mine/Progress Coal	Surface	West Virginia	4,953,903
40	Three Oaks/Luminant Mining Company Llc	Surface	Texas	4,887,765
41	Beckville Strip/Luminant Mining Company Llc	Surface	Texas	4,515,620
42	Decker Mine/Decker Coal Company	Surface	Montana	4,515,393
43	West Elk Mine/Mountain Coal Company, L.L.C.	Underground	Colorado	4,475,344
44	Kemmerer Mine/Chevron Mining Inc	Surface	Wyoming	4,460,896
45	Center Mine/Bni Coal Ltd	Surface	North Dakota	4,239,963
46	Oak Hill Strip/Luminant Mining Company Llc	Surface	Texas	4,225,852
47	Dotiki Mine/Webster County Coal Llc	Underground	Kentucky	4,200,121
	Subtotal			**654,173,287**
	All Other Mines			**420,750,105**
	U.S. Total			**1,074,923,392**

- = No data are reported.

Note: • Major mines are mines that produced more than 4 million short tons in 2009. The company is the firm operating the mine.

Source: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation Report," and 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, 2009

Rank	Controlling Company Name	Production (thousand short tons)	Percent of Total Production
1	Peabody Energy Corporation	189,232	17.6
2	Arch Coal Inc.	148,061	13.8
3	Cloud Peak Energy	90,965	8.5
4	Alpha Natural Resources LLC	83,523	7.8
5	CONSOL Energy Inc.	58,145	5.4
6	Massey Energy Co.	37,161	3.5
7	NACCO Industries Inc.	31,085	2.9
8	Patriot Coal Corp.	29,268	2.7
9	Peter Kiewit Sons Inc.	27,136	2.5
10	Alliance Resource Operating Partners LP	25,874	2.4
11	Murray Energy Corp.	25,837	2.4
12	Westmoreland Coal Co.	24,266	2.3
13	Energy Future Holdings Corp.	21,272	2.0
14	Drummond Co. Inc.	19,964	1.9
15	Intl Coal Group Inc. (ICG)	17,414	1.6
16	BHP Billiton Ltd.	14,917	1.4
17	James River Coal Co.	9,855	0.9
18	Chevron Corp.	9,841	0.9
19	PacifiCorp	9,447	0.9
20	Level 3 Communications	8,392	0.8
21	Walter Industries Inc.	7,571	0.7
22	Trinity Coal Corp.	6,805	0.6
23	Booth Energy Group	6,506	0.6
24	Cline Group	6,497	0.6
25	TECO Energy Inc.	6,205	0.6
26	Rosebud Mining Co.	6,084	0.6
27	Black Hills Corp.	6,016	0.6
28	Oxbow Carbon & Minerals Holding Inc.	5,703	0.5
29	Western Fuels Association Inc.	5,234	0.5
	Subtotal	**938,276**	**87.3**
	All Other Coal Producers	**136,647**	**12.7**
	U.S. Total	**1,074,923**	**100.0**

Note: • Major coal producers are companies that produced more than 5 million short tons in 2009. 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: • Velocity Suite, Ventyx 2010 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, 2009, 2008

(Thousand Short Tons)

Coal-Producing State	2009			2008			Percent Change		
	Underground	Surface	Total	Underground	Surface	Total	Underground	Surface	Total
Alabama	16,398	10,021	26,419	14,754	11,146	25,901	11.1	-10.1	2.0
Alaska	-	W	W	-	W	W	-	W	W
Arizona	-	W	W	-	W	W	-	W	W
Arkansas	-	-	-	W	-	W	W	-	W
Colorado	W	W	39,336	W	W	40,545	W	W	-3.0
Illinois	38,184	8,153	46,337	35,100	8,028	43,129	8.8	1.6	7.4
Indiana	15,027	31,587	46,614	14,123	30,784	44,907	6.4	2.6	3.8
Kansas	-	W	W	-	W	W	-	W	W
Kentucky Total	81,739	59,407	141,146	88,191	63,431	151,622	-7.3	-6.3	-6.9
Eastern	50,898	50,411	101,309	59,853	58,274	118,127	-15.0	-13.5	-14.2
Western	30,841	8,996	39,837	28,338	5,157	33,495	8.8	74.4	18.9
Louisiana	-	W	W	-	W	W	-	W	W
Maryland	W	W	2,593	W	W	2,998	W	W	-13.5
Mississippi	-	W	W	-	W	W	-	W	W
Missouri	-	W	W	-	W	W	-	W	W
Montana	W	W	56,643	W	W	49,332	W	W	14.8
New Mexico	W	W	29,108	W	W	29,750	W	W	-2.2
North Dakota	-	32,900	32,900	-	32,900	32,900	-	-	-
Ohio	19,811	22,300	42,111	18,029	21,563	39,593	9.9	3.4	6.4
Oklahoma	W	W	1,727	W	W	1,899	W	W	-9.1
Pennsylvania Total	55,566	14,606	70,172	57,851	17,576	75,427	-4.0	-16.9	-7.0
Anthracite	268	2,415	2,683	227	2,455	2,682	18.0	-1.6	*
Bituminous	55,298	12,191	67,489	57,624	15,121	72,745	-4.0	-19.4	-7.2
Tennessee	1,009	1,777	2,786	1,076	3,734	4,811	-6.3	-52.4	-42.1
Texas	-	37,532	37,532	-	40,553	40,553	-	-7.4	-7.4
Utah	24,533	-	24,533	27,042	-	27,042	-9.3	-	-9.3
Virginia	16,794	12,375	29,169	18,629	10,394	29,023	-9.9	19.1	0.5
West Virginia Total	114,744	84,079	198,822	123,496	87,769	211,264	-7.1	-4.2	-5.9
Northern	38,693	8,433	47,126	41,200	8,194	49,394	-6.1	2.9	-4.6
Southern	76,050	75,646	151,696	82,296	79,575	161,871	-7.6	-4.9	-6.3
Wyoming	W	W	547,360	W	W	501,158	W	W	9.2
U.S. Total	**439,601**	**955,896**	**1,395,497**	**446,445**	**926,411**	**1,372,856**	**-1.5**	**3.2**	**1.6**

* 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, "Coal Production and Preparation Report." 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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation Report."

Table 12. Capacity Utilization of Coal Mines by State, 2009, 2008

(Percent)

Coal-Producing State	2009			2008		
	Underground	Surface	Total	Underground	Surface	Total
Alabama	70.16	72.73	71.13	83.24	74.70	79.56
Alaska	-	W	W	-	W	W
Arizona	-	W	W	-	W	W
Arkansas	-	-	-	W	-	W
Colorado	W	W	71.85	W	W	78.99
Illinois	74.39	65.52	72.83	77.08	73.03	76.33
Indiana	85.16	72.37	76.49	86.55	76.88	79.92
Kansas	-	W	W	-	W	W
Kentucky Total	77.20	73.99	75.85	78.68	79.87	79.18
Eastern	72.94	74.03	73.48	73.62	78.83	76.19
Western	84.24	73.76	81.88	89.37	91.66	89.73
Louisiana	-	W	W	-	W	W
Maryland	W	W	87.52	W	W	94.59
Mississippi	-	W	W	-	W	W
Missouri	-	W	W	-	W	W
Montana	W	W	69.71	W	W	90.79
New Mexico	W	W	86.31	W	W	86.20
North Dakota	-	91.02	91.02	-	90.05	90.05
Ohio	87.33	45.57	65.22	94.55	42.49	66.20
Oklahoma	W	W	55.33	W	W	77.00
Pennsylvania Total	87.54	61.71	82.16	92.12	66.96	86.26
Anthracite	58.58	61.14	60.89	95.19	55.32	58.70
Bituminous	87.68	61.82	83.01	92.11	68.84	87.27
Tennessee	82.50	64.77	71.19	73.27	41.21	48.38
Texas	-	93.50	93.50	-	96.21	96.21
Utah	88.52	-	88.52	90.10	-	90.10
Virginia	77.02	65.12	71.97	84.72	85.42	84.97
West Virginia Total	70.46	66.82	68.92	71.51	79.01	74.62
Northern	85.67	62.09	81.45	82.77	85.37	83.20
Southern	62.72	67.34	65.03	65.87	78.35	72.00
Wyoming	W	W	78.76	W	W	93.31
U.S. Total	**75.50**	**77.36**	**76.78**	**79.94**	**87.72**	**85.19**

- = 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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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, 2009

(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	16,398	70.16
Colorado	W	W	-	-	W	W	W	W
Illinois	19,469	70.63	W	W	W	W	38,184	74.39
Indiana	15,027	85.16	-	-	-	-	15,027	85.16
Kentucky Total	79,371	W	W	96.49	W	W	81,739	77.20
Eastern	48,530	W	W	96.49	W	W	50,898	72.94
Western	30,841	W	-	-	-	-	30,841	84.24
Maryland	W	W	-	-	-	-	W	W
Montana	-	-	-	-	W	W	W	W
New Mexico	-	-	-	-	W	W	W	W
Ohio	W	W	-	-	W	W	19,811	87.33
Oklahoma	W	W	-	-	-	-	W	W
Pennsylvania Total	14,993	70.78	W	W	W	W	55,566	87.54
Anthracite	W	W	W	W	-	-	268	58.58
Bituminous	W	W	-	-	W	W	55,298	87.68
Tennessee	1,009	82.50	-	-	-	-	1,009	82.50
Utah	W	W	-	-	W	W	24,533	88.52
Virginia	W	W	-	-	W	W	16,794	77.02
West Virginia Total	70,101	63.66	-	-	44,643	81.14	114,744	70.46
Northern	7,509	72.11	-	-	31,184	88.93	38,693	85.67
Southern	62,592	62.65	-	-	13,458	63.06	76,050	62.72
Wyoming	-	-	-	-	W	W	W	W
U.S. Total	**221,515**	**72.57**	**5,658**	**83.68**	**212,428**	**78.34**	**439,601**	**75.50**

[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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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, 2009, 2008
(Million Short Tons)

Coal-Producing State	2009		2008		Percent Change Recoverable Coal Reserves
	Recoverable Coal Reserves	Average Recovery Percentage	Recoverable Coal Reserves	Average Recovery Percentage	
Alabama	286	57.44	330	57.98	-13.3
Alaska	W	W	W	W	W
Arizona	W	W	W	W	W
Arkansas	-	-	W	W	W
Colorado	314	68.81	325	70.92	-3.5
Illinois	1,244	60.55	1,189	60.43	4.6
Indiana	403	66.04	421	69.52	-4.4
Kansas	W	W	W	W	W
Kentucky Total	1,303	56.95	1,167	58.37	11.6
Eastern	759	55.88	729	56.12	4.2
Western	544	58.45	438	62.11	24.1
Louisiana	W	W	W	W	W
Maryland	20	71.87	22	74.01	-9.9
Mississippi	W	W	W	W	W
Missouri	W	W	W	W	W
Montana	855	86.70	925	89.55	-7.5
New Mexico	380	92.82	605	88.44	-37.2
North Dakota	1,208	90.60	1,225	90.60	-1.4
Ohio	291	65.71	308	69.32	-5.4
Oklahoma	94	57.83	85	54.74	10.8
Pennsylvania Total	553	70.79	526	71.96	5.1
Anthracite	38	78.45	24	76.48	55.1
Bituminous	515	70.22	502	71.74	2.6
Tennessee	13	71.17	10	75.05	24.3
Texas	775	90.72	752	90.82	3.0
Utah	201	57.51	212	56.97	-5.3
Virginia	294	54.76	217	55.80	35.6
Washington	-	-	-	-	-
West Virginia Total	1,738	57.31	1,908	57.24	-8.9
Northern	294	60.80	338	60.50	-13.0
Southern	1,444	56.60	1,570	56.54	-8.0
Wyoming	6,917	91.34	7,010	91.52	-1.3
U.S. Total	**17,474**	**79.03**	**17,875**	**79.64**	**-2.2**

- = 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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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, 2009

(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	241	461	915	45	2,250	3,158	286	2,711	4,074
Alaska	-	2,335	5,423	W	493	680	W	2,828	6,102
Arizona	-	-	-	W	-	-	W	-	-
Arkansas	-	127	272	-	101	144	-	228	416
Colorado	W	5,889	11,222	W	3,745	4,760	314	9,634	15,981
Georgia	-	1	2	-	1	2	-	2	4
Idaho	-	2	4	-	-	-	-	2	4
Illinois	1,217	27,858	87,700	27	10,055	16,522	1,244	37,913	104,222
Indiana	304	3,582	8,649	98	364	623	403	3,946	9,271
Iowa	-	807	1,732	-	320	457	-	1,127	2,189
Kansas	-	-	-	W	680	971	W	680	971
Kentucky Total	1,041	7,131	16,505	261	7,350	12,729	1,303	14,480	29,234
Eastern	537	462	828	222	5,095	9,124	759	5,557	9,952
Western	504	6,668	15,677	39	2,255	3,605	544	8,923	19,282
Louisiana	-	-	-	W	299	403	W	299	403
Maryland	W	312	568	W	37	55	20	349	623
Michigan	-	55	123	-	3	5	-	59	128
Mississippi	-	-	-	W	-	-	W	-	-
Missouri	-	689	1,479	W	3,156	4,508	W	3,845	5,988
Montana	W	35,921	70,955	W	38,849	48,062	855	74,770	119,017
New Mexico	W	2,776	6,101	W	4,123	5,883	380	6,899	11,984
North Carolina	-	5	11	-	-	-	-	5	11
North Dakota	-	-	-	1,208	6,792	8,903	1,208	6,792	8,903
Ohio	210	7,662	17,415	81	3,739	5,712	291	11,401	23,127
Oklahoma	W	572	1,227	W	223	318	94	794	1,545
Oregon	-	6	15	-	2	3	-	9	17
Pennsylvania Total	446	10,486	22,802	107	1,009	4,195	553	11,495	26,998
Anthracite	W	340	3,842	W	419	3,348	38	759	7,190
Bituminous	W	10,146	18,960	W	590	847	515	10,737	19,807
South Dakota	-	-	-	-	277	366	-	277	366
Tennessee	W	276	503	W	174	256	13	449	759
Texas	-	-	-	775	9,378	12,183	775	9,378	12,183
Utah	201	2,419	4,935	-	212	268	201	2,631	5,203
Virginia	253	564	1,004	40	171	515	294	735	1,519
Washington	-	674	1,332	-	6	8	-	681	1,340
West Virginia Total	1,242	15,214	28,507	496	2,175	3,448	1,738	17,390	31,955
Northern	274	NA	NA	20	NA	NA	294	NA	NA
Southern	968	NA	NA	476	NA	NA	1,444	NA	NA
Wyoming	W	22,939	42,479	W	15,804	19,084	6,917	38,743	61,563
U.S. Total	**5,804**	**148,763**	**331,882**	**11,670**	**111,788**	**154,220**	**17,474**	**260,551**	**486,102**

- = 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, 2010." 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, 2009. • 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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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, 2009

(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	241	51.86
Colorado	W	W	-	-	W	W	269	65.41
Illinois	303	55.00	W	W	W	W	1,217	60.04
Indiana	304	62.50	-	-	-	-	304	62.50
Kentucky Total	1,021	51.02	W	W	W	W	1,041	50.93
Eastern	517	46.12	W	W	W	W	537	46.12
Western	504	56.05	-	-	-	-	504	56.05
Maryland	W	W	-	-	-	-	W	W
Montana	-	-	-	-	W	W	W	W
New Mexico	-	-	-	-	W	W	W	W
Ohio	W	W	-	-	W	W	210	59.59
Oklahoma	W	W	-	-	-	-	W	W
Pennsylvania Total	130	58.57	W	W	W	W	446	67.93
Anthracite	W	W	W	W	-	-	W	W
Bituminous	W	W	-	-	W	W	W	W
Tennessee	W	W	-	-	-	-	W	W
Utah	W	W	-	-	W	W	201	57.51
Virginia	W	W	-	-	W	W	253	49.45
West Virginia Total	763	45.98	-	-	479	52.75	1,242	48.59
Northern	92	47.92	-	-	182	66.26	274	60.08
Southern	671	45.71	-	-	297	44.49	968	45.34
Wyoming	-	-	-	-	W	W	W	W
U.S. Total	**2,837**	**51.77**	**79**	**57.30**	**2,888**	**61.61**	**5,804**	**56.74**

[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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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, 2009

(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	3,477	60.11	10,645	90.96	14,122	83.37
500 to 1,000	1,132	53.30	366	87.61	1,498	61.68
200 to 500	702	48.89	312	82.18	1,014	59.13
100 to 200	289	53.18	129	80.11	418	61.50
50 to 100	65	47.21	88	76.18	154	63.87
10 to 50	138	51.92	129	66.29	267	58.87
U.S. Total	**5,804**	**56.74**	**11,670**	**90.12**	**17,474**	**79.03**

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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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, 2009, 2008

Coal-Producing State and Region[1]	2009			2008			Percent Change		
	Underground	Surface	Total	Underground	Surface	Total	Underground	Surface	Total
Alabama	2,655	1,603	4,258	2,748	1,522	4,270	-3.4	5.3	-0.3
Alaska	-	119	119	-	104	104	-	14.4	14.4
Arizona	-	425	425	-	419	419	-	1.4	1.4
Arkansas	16	2	18	91	2	93	-82.4	-	-80.6
Colorado	1,916	529	2,445	1,759	526	2,285	8.9	0.6	7.0
Illinois	3,068	480	3,548	2,907	461	3,368	5.5	4.1	5.3
Indiana	1,695	1,740	3,435	1,387	1,696	3,083	22.2	2.6	11.4
Kansas	-	31	31	-	59	59	-	-47.5	-47.5
Kentucky Total	12,043	6,807	18,850	11,981	6,925	18,906	0.5	-1.7	-0.3
Eastern	8,959	6,188	15,147	9,239	6,424	15,663	-3.0	-3.7	-3.3
Western	3,084	619	3,703	2,742	501	3,243	12.5	23.6	14.2
Louisiana	-	263	263	-	251	251	-	4.8	4.8
Maryland	108	280	388	136	265	401	-20.6	5.7	-3.2
Mississippi	-	200	200	-	166	166	-	20.5	20.5
Missouri	-	23	23	-	12	12	-	91.7	91.7
Montana	155	978	1,133	45	990	1,035	244.4	-1.2	9.5
New Mexico	462	960	1,422	476	969	1,445	-2.9	-0.9	-1.6
North Dakota	-	1,037	1,037	-	985	985	-	5.3	5.3
Ohio	1,731	1,276	3,007	1,507	1,242	2,749	14.9	2.7	9.4
Oklahoma	52	208	260	49	147	196	6.1	41.5	32.7
Pennsylvania Total	5,558	2,523	8,081	5,535	2,685	8,220	0.4	-6.0	-1.7
Anthracite	168	773	941	204	725	929	-17.6	6.6	1.3
Bituminous	5,390	1,750	7,140	5,331	1,960	7,291	1.1	-10.7	-2.1
Tennessee	366	415	781	230	381	611	59.1	8.9	27.8
Texas	-	2,506	2,506	-	2,326	2,326	-	7.7	7.7
Utah	1,985	6	1,991	2,070	7	2,077	-4.1	-14.3	-4.1
Virginia	3,211	1,435	4,646	3,364	1,433	4,797	-4.5	0.1	-3.1
West Virginia Total	14,842	6,829	21,671	15,043	6,991	22,034	-1.3	-2.3	-1.6
Northern	4,276	633	4,909	4,213	688	4,901	1.5	-8.0	0.2
Southern	10,566	6,196	16,762	10,830	6,303	17,133	-2.4	-1.7	-2.2
Wyoming	237	6,817	7,054	247	6,580	6,827	-4.0	3.6	3.3
Appalachian Total	**37,430**	**20,549**	**57,979**	**37,802**	**20,943**	**58,745**	**-1.0**	**-1.9**	**-1.3**
Northern	11,673	4,712	16,385	11,391	4,880	16,271	2.5	-3.4	0.7
Central	23,101	14,233	37,334	23,663	14,541	38,204	-2.4	-2.1	-2.3
Southern	2,656	1,604	4,260	2,748	1,522	4,270	-3.3	5.4	-0.2
Interior Total	**7,915**	**6,072**	**13,987**	**7,176**	**5,621**	**12,797**	**10.3**	**8.0**	**9.3**
Illinois Basin	7,847	2,839	10,686	7,036	2,658	9,694	11.5	6.8	10.2
Western Total	**4,755**	**10,871**	**15,626**	**4,597**	**10,580**	**15,177**	**3.4**	**2.8**	**3.0**
Powder River Basin	2	7,066	7,068	22	6,815	6,837	-90.9	3.7	3.4
Uinta Region	3,813	507	4,320	3,763	497	4,260	1.3	2.0	1.4
East of Miss. River	**45,277**	**23,588**	**68,865**	**44,838**	**23,767**	**68,605**	**1.0**	**-0.8**	**0.4**
West of Miss. River	**4,823**	**13,904**	**18,727**	**4,737**	**13,377**	**18,114**	**1.8**	**3.9**	**3.4**
U.S. Subtotal	**50,100**	**37,492**	**87,592**	**49,575**	**37,144**	**86,719**	**1.1**	**0.9**	**1.0**
Refuse Recovery	**-**	**-**	**163**	**-**	**-**	**140**	**-**	**-**	**16.4**
U.S. Total	**50,100**	**37,492**	**87,755**	**49,575**	**37,144**	**86,859**	**1.1**	**0.9**	**1.0**

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

- = 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 19. Average Number of Employees at Underground and Surface Mines by State and Mine Production Range, 2009

Coal-Producing State, Region[1], and Mine Type	Mine Production Range (thousand short tons)								Total Number of Employees
	1,000 and Greater	500 to 1,000	200 to 500	100 to 200	50 to 100	10 to 50	Less Than 10	Zero[2]	
Alabama	**2,203**	**409**	**601**	**490**	**309**	**120**	**25**	**101**	**4,258**
Underground	2,202	309	1	78	-	-	-	65	2,655
Surface	1	100	600	412	309	120	25	36	1,603
Alaska	**119**	-	-	-	-	-	-	-	**119**
Surface	119	-	-	-	-	-	-	-	119
Arizona	**425**	-	-	-	-	-	-	-	**425**
Surface	425	-	-	-	-	-	-	-	425
Arkansas	-	-	-	-	-	-	**18**	-	**18**
Underground	-	-	-	-	-	-	16	-	16
Surface	-	-	-	-	-	-	2	-	2
Colorado	**2,297**	**57**	**55**	-	-	-	**16**	**20**	**2,445**
Underground	1,796	57	27	-	-	-	16	20	1,916
Surface	501	-	28	-	-	-	-	-	529
Illinois	**2,860**	**237**	**231**	**86**	-	**2**	-	**132**	**3,548**
Underground	2,708	94	116	56	-	-	-	94	3,068
Surface	152	143	115	30	-	2	-	38	480
Indiana	**2,766**	**201**	**204**	**48**	**62**	**54**	-	**100**	**3,435**
Underground	1,513	74	-	-	-	54	-	54	1,695
Surface	1,253	127	204	48	62	-	-	46	1,740
Kansas	-	-	-	**31**	-	-	-	-	**31**
Surface	-	-	-	31	-	-	-	-	31
Kentucky Total	**3,791**	**3,990**	**3,590**	**2,118**	**1,480**	**1,374**	**554**	**1,953**	**18,850**
Underground	3,014	3,032	1,957	951	867	808	180	1,234	12,043
Surface	777	958	1,633	1,167	613	566	374	719	6,807
Eastern	**1,152**	**3,464**	**3,409**	**2,042**	**1,458**	**1,374**	**550**	**1,698**	**15,147**
Underground	641	2,564	1,890	951	866	808	180	1,059	8,959
Surface	511	900	1,519	1,091	592	566	370	639	6,188
Western	**2,639**	**526**	**181**	**76**	**22**	-	**4**	**255**	**3,703**
Underground	2,373	468	67	-	1	-	-	175	3,084
Surface	266	58	114	76	21	-	4	80	619
Louisiana	**213**	**50**	-	-	-	-	-	-	**263**
Surface	213	50	-	-	-	-	-	-	263
Maryland	-	**46**	**162**	**18**	**56**	**40**	**21**	**45**	**388**
Underground	-	-	69	-	-	-	-	39	108
Surface	-	46	93	18	56	40	21	6	280
Mississippi	**200**	-	-	-	-	-	-	-	**200**
Surface	200	-	-	-	-	-	-	-	200
Missouri	-	-	**10**	**13**	-	-	-	-	**23**
Surface	-	-	10	13	-	-	-	-	23
Montana	**967**	**155**	**11**	-	-	-	-	-	**1,133**
Underground	-	155	-	-	-	-	-	-	155
Surface	967	-	11	-	-	-	-	-	978
New Mexico	**1,422**	-	-	-	-	-	-	-	**1,422**
Underground	462	-	-	-	-	-	-	-	462
Surface	960	-	-	-	-	-	-	-	960
North Dakota	**1,033**	-	-	-	-	-	-	**4**	**1,037**
Surface	1,033	-	-	-	-	-	-	4	1,037
Ohio	**1,529**	**559**	**350**	**149**	**118**	**76**	**65**	**161**	**3,007**
Underground	1,190	190	188	60	6	-	24	73	1,731
Surface	339	369	162	89	112	76	41	88	1,276
Oklahoma	-	-	**52**	**79**	**43**	**84**	**2**	-	**260**
Underground	-	-	52	-	-	-	-	-	52
Surface	-	-	-	79	43	84	2	-	208
Pennsylvania Total	**3,561**	**909**	**1,015**	**633**	**471**	**474**	**265**	**753**	**8,081**
Underground	3,561	715	624	204	59	34	70	291	5,558
Surface	-	194	391	429	412	440	195	462	2,523
Anthracite	-	-	**31**	**118**	**182**	**123**	**84**	**403**	**941**
Underground	-	-	-	41	-	27	29	71	168
Surface	-	-	31	77	182	96	55	332	773
Bituminous	**3,561**	**909**	**984**	**515**	**289**	**351**	**181**	**350**	**7,140**
Underground	3,561	715	624	163	59	7	41	220	5,390
Surface	-	194	360	352	230	344	140	130	1,750
Tennessee	-	-	**248**	**97**	**155**	**163**	**33**	**85**	**781**
Underground	-	-	121	87	-	90	23	45	366
Surface	-	-	127	10	155	73	10	40	415
Texas	**2,114**	**392**	-	-	-	-	-	-	**2,506**
Surface	2,114	392	-	-	-	-	-	-	2,506
Utah	**1,690**	**80**	-	**83**	-	-	-	**138**	**1,991**
Underground	1,690	80	-	83	-	-	-	132	1,985

See footnotes at end of table.

Table 19. Average Number of Employees at Underground and Surface Mines by State and Mine Production Range, 2009 (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	**823**	**220**	**1,777**	**446**	**361**	**351**	**91**	**528**	**4,646**
Underground	823	-	1,199	346	189	192	45	375	3,211
Surface	-	220	578	100	172	159	46	153	1,435
West Virginia Total	**7,249**	**4,661**	**4,163**	**1,737**	**760**	**673**	**188**	**2,240**	**21,671**
Underground	4,234	3,266	3,376	1,261	637	494	99	1,475	14,842
Surface	3,015	1,395	787	476	123	179	89	765	6,829
Northern	**3,180**	**367**	**675**	**84**	**77**	**215**	**19**	**292**	**4,909**
Underground	2,879	321	640	72	61	127	-	176	4,276
Surface	301	46	35	12	16	88	19	116	633
Southern	**4,069**	**4,294**	**3,488**	**1,653**	**683**	**458**	**169**	**1,948**	**16,762**
Underground	1,355	2,945	2,736	1,189	576	367	99	1,299	10,566
Surface	2,714	1,349	752	464	107	91	70	649	6,196
Wyoming	**7,001**	**27**	**-**	**-**	**-**	**4**	**17**	**5**	**7,054**
Underground	235	-	-	-	-	-	-	2	237
Surface	6,766	27	-	-	-	4	17	3	6,817
Appalachian Total	**16,517**	**10,268**	**11,725**	**5,612**	**3,688**	**3,271**	**1,238**	**5,611**	**57,979**
Underground	12,651	7,044	7,468	2,987	1,757	1,618	441	3,422	37,430
Surface	3,866	3,224	4,257	2,625	1,931	1,653	797	2,189	20,549
Northern	**8,270**	**1,881**	**2,202**	**884**	**722**	**805**	**370**	**1,251**	**16,385**
Underground	7,630	1,226	1,521	336	126	161	94	579	11,673
Surface	640	655	681	548	596	644	276	672	4,712
Central	**6,044**	**7,978**	**8,922**	**4,238**	**2,657**	**2,346**	**843**	**4,257**	**37,334**
Underground	2,819	5,509	5,946	2,573	1,631	1,457	347	2,777	23,101
Surface	3,225	2,469	2,976	1,665	1,026	889	496	1,480	14,233
Southern	**2,203**	**409**	**601**	**490**	**309**	**120**	**25**	**103**	**4,260**
Underground	2,202	309	1	78	-	-	-	66	2,656
Surface	1	100	600	412	309	120	25	37	1,604
Interior Total	**10,792**	**1,406**	**678**	**333**	**127**	**140**	**24**	**487**	**13,987**
Underground	6,594	636	235	56	1	54	16	323	7,915
Surface	4,198	770	443	277	126	86	8	164	6,072
Illinois Basin	**8,265**	**964**	**616**	**210**	**84**	**56**	**4**	**487**	**10,686**
Underground	6,594	636	183	56	1	54	-	323	7,847
Surface	1,671	328	433	154	83	2	4	164	2,839
Western Total	**14,954**	**319**	**66**	**83**	**-**	**4**	**33**	**167**	**15,626**
Underground	4,183	292	27	83	-	-	16	154	4,755
Surface	10,771	27	39	-	-	4	17	13	10,871
Powder River Basin	**7,063**	**-**	**-**	**-**	**-**	**-**	**-**	**5**	**7,068**
Underground	-	-	-	-	-	-	-	2	2
Surface	7,063	-	-	-	-	-	-	3	7,066
Uinta Region	**3,987**	**80**	**27**	**83**	**-**	**-**	**-**	**143**	**4,320**
Underground	3,486	80	27	83	-	-	-	137	3,813
Surface	501	-	-	-	-	-	-	6	507
East of Miss. River	**24,982**	**11,232**	**12,341**	**5,822**	**3,772**	**3,327**	**1,242**	**6,098**	**68,865**
Underground	19,245	7,680	7,651	3,043	1,758	1,672	441	3,745	45,277
Surface	5,737	3,552	4,690	2,779	2,014	1,655	801	2,353	23,588
West of Miss. River	**17,281**	**761**	**128**	**206**	**43**	**88**	**53**	**167**	**18,727**
Underground	4,183	292	79	83	-	-	32	154	4,823
Surface	13,098	469	49	123	43	88	21	13	13,904
Subtotal	**42,263**	**11,993**	**12,469**	**6,028**	**3,815**	**3,415**	**1,295**	**6,265**	**87,592**
Underground	23,428	7,972	7,730	3,126	1,758	1,672	473	3,899	50,100
Surface	18,835	4,021	4,739	2,902	2,057	1,743	822	2,366	37,492
Refuse Recovery	**-**	**6**	**21**	**49**	**21**	**38**	**28**	**-**	**163**
U.S. Total	**42,263**	**11,999**	**12,490**	**6,077**	**3,836**	**3,453**	**1,323**	**6,265**	**87,755**

[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, 2009

Coal-Producing State and Region[1]	Union[2]		Nonunion[2]	
	Underground	Surface	Underground	Surface
Alabama	2,549	50	106	1,545
Alaska	-	119	-	-
Arizona	-	425	-	-
Colorado	173	205	1,727	324
Illinois	785	38	2,283	460
Indiana	-	-	1,695	1,752
Kansas	-	-	-	31
Kentucky Total	618	130	11,245	6,329
Eastern	152	130	8,627	5,700
Western	466	-	2,618	629
Louisiana	-	-	-	263
Maryland	-	-	108	259
Mississippi	-	-	-	200
Missouri	-	-	-	23
Montana	-	741	155	237
New Mexico	462	656	-	304
North Dakota	-	285	-	752
Ohio	569	9	1,138	1,242
Oklahoma	-	-	52	206
Pennsylvania Total	2,260	351	3,228	2,008
Anthracite	20	286	119	441
Bituminous	2,240	65	3,109	1,567
Tennessee	-	-	343	405
Texas	-	1,595	-	911
Utah	652	-	1,333	6
Virginia	308	43	2,858	1,346
West Virginia Total	4,440	1,028	10,303	5,727
Northern	2,864	-	1,412	614
Southern	1,576	1,028	8,891	5,113
Wyoming	235	492	2	6,308
Appalachian Total	**10,278**	**1,611**	**26,711**	**18,232**
Northern	5,693	360	5,886	4,123
Central	2,036	1,201	20,718	12,563
Southern	2,549	50	107	1,546
Interior Total	**1,251**	**1,633**	**6,648**	**4,475**
Illinois Basin	1,251	38	6,596	2,841
Western Total	**1,522**	**2,923**	**3,217**	**7,931**
Powder River Basin	-	730	2	6,336
Uinta Region	825	177	2,988	330
East of Miss. River	**11,529**	**1,649**	**33,307**	**21,273**
West of Miss. River	**1,522**	**4,518**	**3,269**	**9,365**
U.S. Total	**13,051**	**6,167**	**36,576**	**30,638**

[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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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, 2009, 2008

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]		
	2009	2008	Percent Change	2009	2008	Percent Change	2009	2008	Percent Change
Alabama	**71**	**73**	**-2.7**	**4,258**	**4,270**	**-0.3**	**1.98**	**2.03**	**-2.8**
Underground	12	13	-7.7	2,655	2,748	-3.4	1.87	1.87	*
Surface	59	60	-1.7	1,603	1,522	5.3	2.18	2.34	-6.9
Alaska	**1**	**1**	**-**	**119**	**104**	**14.4**	**6.58**	**6.29**	**4.7**
Surface	1	1	-	119	104	14.4	6.58	6.29	4.7
Arizona	**1**	**1**	**-**	**425**	**419**	**1.4**	**7.47**	**8.03**	**-7.0**
Surface	1	1	-	425	419	1.4	7.47	8.03	-7.0
Arkansas	**2**	**2**	**-**	**18**	**93**	**-80.6**	**0.13**	**0.33**	**-58.8**
Underground	1	1	-	16	91	-82.4	0.12	0.32	-61.1
Surface	1	1	-	2	2	-	0.26	1.37	-80.7
Colorado	**13**	**13**	**-**	**2,445**	**2,285**	**7.0**	**5.57**	**6.58**	**-15.4**
Underground	10	9	11.1	1,916	1,759	8.9	5.56	6.43	-13.5
Surface	3	4	-25.0	529	526	0.6	5.58	7.10	-21.4
Illinois	**32**	**26**	**23.1**	**3,548**	**3,368**	**5.3**	**4.14**	**4.21**	**-1.7**
Underground	20	15	33.3	3,068	2,907	5.5	4.03	4.03	0.1
Surface	12	11	9.1	480	461	4.1	4.82	5.34	-9.6
Indiana	**44**	**42**	**4.8**	**3,435**	**3,083**	**11.4**	**4.18**	**4.51**	**-7.3**
Underground	12	12	-	1,695	1,387	22.2	3.07	3.40	-9.6
Surface	32	30	6.7	1,740	1,696	2.6	5.24	5.42	-3.4
Kansas	**1**	**3**	**-66.7**	**31**	**59**	**-47.5**	**2.39**	**2.11**	**13.3**
Surface	1	3	-66.7	31	59	-47.5	2.39	2.11	13.3
Kentucky Total	**590**	**600**	**-1.7**	**18,850**	**18,906**	**-0.3**	**2.57**	**2.82**	**-8.9**
Underground	268	281	-4.6	12,043	11,981	0.5	2.32	2.52	-7.9
Surface	322	319	0.9	6,807	6,925	-1.7	3.05	3.39	-10.1
Eastern	**550**	**564**	**-2.5**	**15,147**	**15,663**	**-3.3**	**2.27**	**2.61**	**-12.8**
Underground	247	262	-5.7	8,959	9,239	-3.0	1.89	2.15	-11.9
Surface	303	302	0.3	6,188	6,424	-3.7	2.84	3.28	-13.4
Western	**40**	**36**	**11.1**	**3,703**	**3,243**	**14.2**	**3.68**	**3.76**	**-2.1**
Underground	21	19	10.5	3,084	2,742	12.5	3.42	3.59	-4.7
Surface	19	17	11.8	619	501	23.6	5.16	4.95	4.3
Louisiana	**2**	**2**	**-**	**263**	**251**	**4.8**	**6.69**	**7.37**	**-9.2**
Surface	2	2	-	263	251	4.8	6.69	7.37	-9.2
Maryland	**25**	**24**	**4.2**	**388**	**401**	**-3.2**	**2.84**	**3.17**	**-10.5**
Underground	3	3	-	108	136	-20.6	2.08	2.39	-12.9
Surface	22	21	4.8	280	265	5.7	3.15	3.59	-12.2
Mississippi	**1**	**1**	**-**	**200**	**166**	**20.5**	**8.17**	**8.51**	**-4.0**
Surface	1	1	-	200	166	20.5	8.17	8.51	-4.0
Missouri	**2**	**2**	**-**	**23**	**12**	**91.7**	**7.42**	**9.18**	**-19.2**
Surface	2	2	-	23	12	91.7	7.42	9.18	-19.2
Montana	**6**	**6**	**-**	**1,133**	**1,035**	**9.5**	**16.78**	**20.75**	**-19.1**
Underground	1	1	-	155	45	244.4	2.22	1.88	18.3
Surface	5	5	-	978	990	-1.2	19.31	21.56	-10.4
New Mexico	**5**	**5**	**-**	**1,422**	**1,445**	**-1.6**	**9.01**	**8.72**	**3.4**
Underground	1	1	-	462	476	-2.9	7.27	7.14	1.8
Surface	4	4	-	960	969	-0.9	9.83	9.51	3.4
North Dakota	**5**	**4**	**25.0**	**1,037**	**985**	**5.3**	**14.86**	**15.50**	**-4.2**
Surface	5	4	25.0	1,037	985	5.3	14.86	15.50	-4.2
Ohio	**62**	**63**	**-1.6**	**3,007**	**2,749**	**9.4**	**3.96**	**4.32**	**-8.3**
Underground	19	18	5.6	1,731	1,507	14.9	4.39	5.00	-12.3
Surface	43	45	-4.4	1,276	1,242	2.7	3.40	3.45	-1.5
Oklahoma	**10**	**7**	**42.9**	**260**	**196**	**32.7**	**2.15**	**2.88**	**-25.5**
Underground	1	1	-	52	49	6.1	2.79	3.47	-19.7
Surface	9	6	50.0	208	147	41.5	1.86	2.69	-30.8
Pennsylvania Total	**334**	**361**	**-7.5**	**8,081**	**8,220**	**-1.7**	**3.36**	**3.53**	**-4.9**
Underground	84	90	-6.7	5,558	5,535	0.4	3.89	4.09	-4.9
Surface	250	271	-7.7	2,523	2,685	-6.0	1.96	2.20	-11.1
Anthracite	**114**	**120**	**-5.0**	**941**	**929**	**1.3**	**0.95**	**0.91**	**4.5**
Underground	26	32	-18.8	168	204	-17.6	0.54	0.63	-13.6
Surface	88	88	-	773	725	6.6	1.04	0.99	5.8
Bituminous	**220**	**241**	**-8.7**	**7,140**	**7,291**	**-2.1**	**3.64**	**3.82**	**-4.8**
Underground	58	58	-	5,390	5,331	1.1	3.98	4.19	-5.2
Surface	162	183	-11.5	1,750	1,960	-10.7	2.37	2.65	-10.3
Tennessee	**36**	**34**	**5.9**	**781**	**611**	**27.8**	**1.35**	**1.87**	**-27.8**
Underground	13	9	44.4	366	230	59.1	1.26	1.65	-23.6
Surface	23	25	-8.0	415	381	8.9	1.43	2.01	-29.0
Texas	**12**	**11**	**9.1**	**2,506**	**2,326**	**7.7**	**6.38**	**7.84**	**-18.6**
Surface	12	11	9.1	2,506	2,326	7.7	6.38	7.84	-18.6
Utah	**15**	**16**	**-6.3**	**1,991**	**2,077**	**-4.1**	**5.37**	**5.84**	**-8.1**
Underground	14	15	-6.7	1,985	2,070	-4.1	5.39	5.86	-8.0

See footnotes at end of table.

Table 21. Coal Mining Productivity by State and Mine Type, 2009, 2008 (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]		
	2009	2008	Percent Change	2009	2008	Percent Change	2009	2008	Percent Change
Utah (continued)									
Surface	1	1	-	6	7	-14.3	-	-	-
Virginia	**145**	**153**	**-5.2**	**4,646**	**4,797**	**-3.1**	**2.10**	**2.29**	**-7.9**
Underground	75	87	-13.8	3,211	3,364	-4.5	1.90	2.10	-9.6
Surface	70	66	6.1	1,435	1,433	0.1	2.53	2.70	-6.1
West Virginia Total	**416**	**438**	**-5.0**	**21,671**	**22,034**	**-1.6**	**2.87**	**3.06**	**-6.0**
Underground	243	260	-6.5	14,842	15,043	-1.3	2.51	2.58	-2.7
Surface	173	178	-2.8	6,829	6,991	-2.3	3.63	4.00	-9.2
Northern	**57**	**64**	**-10.9**	**4,909**	**4,901**	**0.2**	**3.50**	**3.68**	**-5.1**
Underground	31	33	-6.1	4,276	4,213	1.5	3.41	3.54	-3.7
Surface	26	31	-16.1	633	688	-8.0	4.15	4.57	-9.2
Southern	**359**	**374**	**-4.0**	**16,762**	**17,133**	**-2.2**	**2.69**	**2.88**	**-6.8**
Underground	212	227	-6.6	10,566	10,830	-2.4	2.12	2.20	-3.8
Surface	147	147	-	6,196	6,303	-1.7	3.59	3.94	-9.1
Wyoming	**22**	**22**	**-**	**7,054**	**6,827**	**3.3**	**29.74**	**32.18**	**-7.6**
Underground	2	2	-	237	247	-4.0	6.14	6.87	-10.7
Surface	20	20	-	6,817	6,580	3.6	30.70	33.10	-7.2
Appalachian Total	**1,639**	**1,710**	**-4.2**	**57,979**	**58,745**	**-1.3**	**2.70**	**2.91**	**-7.4**
Underground	696	742	-6.2	37,430	37,802	-1.0	2.55	2.70	-5.5
Surface	943	968	-2.6	20,549	20,943	-1.9	2.97	3.30	-10.1
Northern	**478**	**512**	**-6.6**	**16,385**	**16,271**	**0.7**	**3.50**	**3.70**	**-5.2**
Underground	137	144	-4.9	11,673	11,391	2.5	3.77	3.99	-5.4
Surface	341	368	-7.3	4,712	4,880	-3.4	2.77	2.96	-6.4
Central	**1,088**	**1,125**	**-3.3**	**37,334**	**38,204**	**-2.3**	**2.42**	**2.68**	**-9.8**
Underground	546	585	-6.7	23,101	23,663	-2.4	1.99	2.16	-8.1
Surface	542	540	0.4	14,233	14,541	-2.1	3.11	3.50	-11.2
Southern	**73**	**73**	**-**	**4,260**	**4,270**	**-0.2**	**1.98**	**2.03**	**-2.8**
Underground	13	13	-	2,656	2,748	-3.3	1.87	1.87	-0.1
Surface	60	60	-	1,604	1,522	5.4	2.17	2.34	-6.9
Interior Total	**146**	**132**	**10.6**	**13,987**	**12,797**	**9.3**	**4.47**	**4.81**	**-7.2**
Underground	55	48	14.6	7,915	7,176	10.3	3.56	3.68	-3.2
Surface	91	84	8.3	6,072	5,621	8.0	5.72	6.38	-10.3
Illinois Basin	**116**	**104**	**11.5**	**10,686**	**9,694**	**10.2**	**3.99**	**4.16**	**-4.0**
Underground	53	46	15.2	7,847	7,036	11.5	3.57	3.72	-4.0
Surface	63	58	8.6	2,839	2,658	6.8	5.15	5.34	-3.4
Western Total	**68**	**68**	**-**	**15,626**	**15,177**	**3.0**	**18.25**	**19.91**	**-8.4**
Underground	28	28	-	4,755	4,597	3.4	5.56	6.23	-10.8
Surface	40	40	-	10,871	10,580	2.8	23.86	25.77	-7.4
Powder River Basin	**19**	**19**	**-**	**7,068**	**6,837**	**3.4**	**31.46**	**33.91**	**-7.2**
Underground	1	1	-	2	22	-90.9	-	-	-
Surface	18	18	-	7,066	6,815	3.7	31.47	34.00	-7.5
Uinta Region	**24**	**25**	**-4.0**	**4,320**	**4,260**	**1.4**	**5.49**	**6.30**	**-12.8**
Underground	21	22	-4.5	3,813	3,763	1.3	5.50	6.20	-11.3
Surface	3	3	-	507	497	2.0	5.43	7.01	-22.6
East of Miss. River	**1,756**	**1,815**	**-3.3**	**68,865**	**68,605**	**0.4**	**2.93**	**3.11**	**-5.9**
Underground	749	788	-4.9	45,277	44,838	1.0	2.74	2.87	-4.5
Surface	1,007	1,027	-1.9	23,588	23,767	-0.8	3.30	3.57	-7.7
West of Miss. River	**97**	**95**	**2.1**	**18,727**	**18,114**	**3.4**	**16.15**	**17.77**	**-9.1**
Underground	30	30	-	4,823	4,737	1.8	5.51	6.07	-9.3
Surface	67	65	3.1	13,904	13,377	3.9	19.85	21.85	-9.2
Subtotal	**1,853**	**1,910**	**-3.0**	**87,592**	**86,719**	**1.0**	**5.60**	**5.96**	**-6.0**
Underground	779	818	-4.8	50,100	49,575	1.1	2.99	3.15	-5.0
Surface	1,074	1,092	-1.6	37,492	37,144	0.9	9.22	9.82	-6.1
Refuse Recovery	**32**	**23**	**39.1**	**163**	**140**	**16.4**	**9.60**	**6.78**	**41.7**
U.S. Total	**1,885**	**1,933**	**-2.5**	**87,755**	**86,859**	**1.0**	**5.61**	**5.96**	**-5.9**

[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.

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

Source: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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, 2009

(Short Tons Produced per Employee per Hour)

Coal-Producing State and Region[1]	Continuous[2]	Conventional and Other[3]	Longwall[4]	Total
Alabama	0.92	-	1.91	1.87
Colorado	4.16	-	5.64	5.57
Illinois	3.67	3.34	4.84	4.06
Indiana	3.14	-	-	3.14
Kentucky Total	2.32	2.44	1.93	2.32
Eastern	1.87	2.44	1.93	1.90
Western	3.43	-	-	3.43
Maryland	2.08	-	-	2.08
Montana	-	-	2.22	2.22
New Mexico	-	-	7.27	7.27
Ohio	3.11	-	5.28	4.46
Oklahoma	2.79	-	-	2.79
Pennsylvania Total	2.81	0.46	4.43	3.91
Anthracite	0.60	0.46	-	0.55
Bituminous	2.93	-	4.43	3.99
Tennessee	1.31	-	-	1.31
Utah	3.05	-	5.55	5.38
Virginia	1.82	-	2.56	1.94
West Virginia Total	2.07	-	3.43	2.51
Northern	2.33	-	3.77	3.43
Southern	2.04	-	2.64	2.12
Wyoming	-	-	6.14	6.14
Appalachian Total	**2.04**	**2.25**	**3.54**	**2.57**
Northern	2.70	0.46	4.28	3.80
Central	1.93	2.44	2.61	2.00
Southern	0.92	-	1.91	1.87
Interior Total	**3.40**	**3.34**	**4.84**	**3.59**
Illinois Basin	3.41	3.34	4.84	3.60
Western Total	**3.49**	**-**	**5.66**	**5.56**
Powder River Basin	-	-	-	-
Uinta Region	3.22	-	5.60	5.50
East of Miss. River	**2.35**	**2.71**	**3.64**	**2.76**
West of Miss. River	**3.33**	**-**	**5.66**	**5.53**
U.S. Total	**2.36**	**2.71**	**4.11**	**3.01**

[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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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, 2009

(Short Tons 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	**2.04**	**1.55**	**2.40**	**2.07**	**1.86**	**1.30**	**0.24**	**1.98**
Underground	2.04	1.25	-	1.06	-	-	-	1.87
Surface	-	2.33	2.41	2.32	1.86	1.30	0.24	2.18
Alaska	**6.58**	**-**	**-**	**-**	**-**	**-**	**-**	**6.58**
Surface	6.58	-	-	-	-	-	-	6.58
Arizona	**7.47**	**-**	**-**	**-**	**-**	**-**	**-**	**7.47**
Surface	7.47	-	-	-	-	-	-	7.47
Arkansas	**-**	**-**	**-**	**-**	**-**	**-**	**0.13**	**0.13**
Underground	-	-	-	-	-	-	0.12	0.12
Surface	-	-	-	-	-	-	0.26	0.26
Colorado	**5.63**	**4.32**	**5.35**	**-**	**-**	**-**	**0.22**	**5.57**
Underground	5.67	4.32	3.98	-	-	-	0.22	5.56
Surface	5.51	-	7.02	-	-	-	-	5.58
Illinois	**4.36**	**4.78**	**3.04**	**3.02**	**-**	**6.57**	**-**	**4.14**
Underground	4.28	3.06	2.22	3.26	-	-	-	4.03
Surface	5.87	5.94	3.84	2.56	-	6.57	-	4.82
Indiana	**4.28**	**4.89**	**5.22**	**1.03**	**4.17**	**0.32**	**-**	**4.18**
Underground	3.22	3.58	-	-	-	0.32	-	3.07
Surface	5.54	5.62	5.22	1.03	4.17	-	-	5.24
Kansas	**-**	**-**	**-**	**2.39**	**-**	**-**	**-**	**2.39**
Surface	-	-	-	2.39	-	-	-	2.39
Kentucky Total	**4.00**	**2.82**	**2.73**	**2.36**	**1.90**	**1.67**	**0.51**	**2.57**
Underground	3.59	2.35	2.27	2.00	1.76	1.46	0.27	2.32
Surface	5.51	4.38	3.26	2.69	2.08	1.89	0.62	3.05
Eastern	**3.57**	**2.79**	**2.70**	**2.34**	**1.90**	**1.67**	**0.50**	**2.27**
Underground	2.55	2.31	2.26	2.00	1.76	1.46	0.27	1.89
Surface	4.78	4.20	3.24	2.66	2.09	1.89	0.61	2.84
Western	**4.19**	**3.03**	**3.27**	**3.29**	**1.81**	**-**	**6.52**	**3.68**
Underground	3.87	2.59	2.56	-	-	-	-	3.42
Surface	6.97	9.56	3.67	3.29	1.95	-	6.52	5.16
Louisiana	**6.68**	**6.73**	**-**	**-**	**-**	**-**	**-**	**6.69**
Surface	6.68	6.73	-	-	-	-	-	6.69
Maryland	**-**	**5.27**	**3.43**	**4.31**	**1.96**	**1.78**	**1.26**	**2.84**
Underground	-	-	3.37	-	-	-	-	2.08
Surface	-	5.27	3.48	4.31	1.96	1.78	1.26	3.15
Mississippi	**8.17**	**-**	**-**	**-**	**-**	**-**	**-**	**8.17**
Surface	8.17	-	-	-	-	-	-	8.17
Missouri	**-**	**-**	**9.71**	**5.65**	**-**	**-**	**-**	**7.42**
Surface	-	-	9.71	5.65	-	-	-	7.42
Montana	**19.37**	**2.22**	**14.46**	**-**	**-**	**-**	**-**	**16.78**
Underground	-	2.22	-	-	-	-	-	2.22
Surface	19.37	-	14.46	-	-	-	-	19.31
New Mexico	**9.01**	**-**	**-**	**-**	**-**	**-**	**-**	**9.01**
Underground	7.27	-	-	-	-	-	-	7.27
Surface	9.83	-	-	-	-	-	-	9.83
North Dakota	**14.90**	**-**	**-**	**-**	**-**	**-**	**-**	**14.86**
Surface	14.90	-	-	-	-	-	-	14.86
Ohio	**4.98**	**3.71**	**3.41**	**2.84**	**1.77**	**1.61**	**0.41**	**3.96**
Underground	5.14	3.77	2.98	2.60	-	-	0.10	4.39
Surface	4.49	3.69	3.88	2.99	1.89	1.61	0.89	3.40
Oklahoma	**-**	**-**	**2.79**	**1.77**	**1.63**	**2.36**	**0.47**	**2.15**
Underground	-	-	2.79	-	-	-	-	2.79
Surface	-	-	-	1.77	1.63	2.36	0.47	1.86
Pennsylvania Total	**4.67**	**2.22**	**3.38**	**2.55**	**1.86**	**2.17**	**1.12**	**3.36**
Underground	4.67	2.32	3.46	1.98	2.30	1.30	0.44	3.89
Surface	-	1.79	3.25	2.83	1.82	2.24	1.42	1.96
Anthracite	**-**	**-**	**4.68**	**1.15**	**1.48**	**2.21**	**0.71**	**0.95**
Underground	-	-	-	1.27	-	0.96	0.42	0.54
Surface	-	-	4.68	1.06	1.48	2.55	0.87	1.04
Bituminous	**4.67**	**2.22**	**3.33**	**2.83**	**2.09**	**2.16**	**1.48**	**3.64**
Underground	4.67	2.32	3.46	2.17	2.30	3.20	0.46	3.98
Surface	-	1.79	3.10	3.13	2.06	2.14	1.86	2.37
Tennessee	**-**	**-**	**1.62**	**1.98**	**1.45**	**1.28**	**0.36**	**1.35**
Underground	-	-	1.64	1.64	-	1.12	0.32	1.26
Surface	-	-	1.61	4.05	1.45	1.35	0.59	1.43
Texas	**6.94**	**3.05**	**-**	**-**	**-**	**-**	**-**	**6.38**
Surface	6.94	3.05	-	-	-	-	-	6.38
Utah	**5.89**	**6.31**	**-**	**1.19**	**-**	**-**	**-**	**5.37**
Underground	5.89	6.31	-	1.19	-	-	-	5.39

See footnotes at end of table.

Table 23. Coal Mining Productivity by State, Mine Type, and Mine Production Range, 2009 (Continued)
(Short Tons 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	**2.59**	**3.07**	**2.67**	**1.89**	**1.97**	**1.16**	**0.88**	**2.10**
Underground	2.59	-	2.25	1.75	1.82	1.25	1.14	1.90
Surface	-	3.07	3.46	2.39	2.14	1.08	0.84	2.53
West Virginia Total	**4.19**	**3.04**	**2.28**	**2.28**	**1.67**	**1.28**	**0.62**	**2.87**
Underground	4.06	2.53	1.92	1.97	1.60	1.01	0.66	2.51
Surface	4.36	4.18	3.72	3.40	1.98	1.84	0.59	3.63
Northern	**4.32**	**4.01**	**1.15**	**2.57**	**3.13**	**1.13**	**0.31**	**3.50**
Underground	4.22	3.54	0.89	2.01	3.00	0.57	-	3.41
Surface	5.26	7.12	6.48	6.44	3.47	1.92	0.31	4.15
Southern	**4.09**	**2.96**	**2.50**	**2.26**	**1.58**	**1.35**	**0.70**	**2.69**
Underground	3.72	2.42	2.18	1.97	1.51	1.17	0.66	2.12
Surface	4.27	4.08	3.61	3.30	1.84	1.79	0.73	3.59
Wyoming	**29.93**	**11.63**	**-**	**-**	**-**	**2.59**	**0.21**	**29.74**
Underground	6.18	-	-	-	-	-	-	6.14
Surface	30.89	11.63	-	-	-	2.59	0.21	30.70
Appalachian Total	**3.97**	**2.88**	**2.59**	**2.29**	**1.84**	**1.58**	**0.68**	**2.70**
Underground	3.82	2.40	2.22	1.92	1.72	1.27	0.35	2.55
Surface	4.43	3.90	3.22	2.74	1.93	1.81	0.85	2.97
Northern	**4.59**	**3.16**	**2.68**	**2.64**	**1.93**	**1.85**	**0.92**	**3.50**
Underground	4.57	2.88	2.27	2.10	2.34	0.74	0.31	3.77
Surface	4.82	3.64	3.59	2.97	1.87	2.10	1.21	2.77
Central	**3.81**	**2.89**	**2.59**	**2.25**	**1.81**	**1.48**	**0.55**	**2.42**
Underground	3.14	2.37	2.21	1.94	1.69	1.34	0.37	1.99
Surface	4.35	4.04	3.30	2.78	1.99	1.66	0.64	3.11
Southern	**2.04**	**1.55**	**2.40**	**2.07**	**1.86**	**1.30**	**0.24**	**1.98**
Underground	2.04	1.25	-	1.06	-	-	-	1.87
Surface	-	2.33	2.41	2.32	1.86	1.30	0.24	2.17
Interior Total	**4.87**	**3.75**	**3.95**	**2.43**	**2.60**	**1.01**	**0.20**	**4.47**
Underground	3.88	2.77	2.45	3.26	-	0.32	0.12	3.56
Surface	6.49	4.69	4.67	2.27	2.65	2.51	0.80	5.72
Illinois Basin	**4.28**	**3.86**	**3.95**	**2.44**	**3.21**	**0.42**	**6.52**	**3.99**
Underground	3.88	2.77	2.34	3.26	-	0.32	-	3.57
Surface	5.79	6.19	4.54	2.13	3.31	6.57	6.52	5.15
Western Total	**18.86**	**4.26**	**6.87**	**1.19**	**-**	**2.59**	**0.21**	**18.25**
Underground	5.95	3.38	3.98	1.19	-	-	0.22	5.56
Surface	24.02	11.63	9.31	-	-	2.59	0.21	23.86
Powder River Basin	**31.48**	**-**	**-**	**-**	**-**	**-**	**-**	**31.46**
Underground	-	-	-	-	-	-	-	-
Surface	31.48	-	-	-	-	-	-	31.47
Uinta Region	**5.74**	**6.31**	**3.98**	**1.19**	**-**	**-**	**-**	**5.49**
Underground	5.77	6.31	3.98	1.19	-	-	-	5.50
Surface	5.51	-	-	-	-	-	-	5.43
East of Miss. River	**4.10**	**2.96**	**2.66**	**2.30**	**1.86**	**1.54**	**0.68**	**2.93**
Underground	3.84	2.43	2.22	1.95	1.72	1.20	0.35	2.74
Surface	4.94	4.10	3.34	2.71	1.98	1.82	0.85	3.30
West of Miss. River	**17.15**	**3.80**	**5.28**	**1.96**	**1.63**	**2.38**	**0.18**	**16.15**
Underground	5.95	3.38	3.17	1.19	-	-	0.14	5.51
Surface	20.77	4.04	9.41	2.41	1.63	2.38	0.22	19.85
Subtotal	**9.00**	**3.01**	**2.69**	**2.29**	**1.86**	**1.56**	**0.65**	**5.60**
Underground	4.18	2.46	2.23	1.93	1.72	1.20	0.33	2.99
Surface	15.33	4.09	3.40	2.70	1.97	1.83	0.82	9.22
Refuse Recovery	**-**	**49.19**	**9.47**	**8.91**	**11.88**	**4.30**	**1.01**	**9.60**
U.S. Total	**9.00**	**3.03**	**2.70**	**2.34**	**1.90**	**1.59**	**0.66**	**5.61**

[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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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, 2009

(Short Tons Produced per Employee per Hour)

Coal-Producing State and Region[1]	Union		Nonunion	
	Underground	Surface	Underground	Surface
Alabama	1.92	2.39	0.81	2.17
Alaska	-	6.58	-	-
Arizona	-	7.47	-	-
Colorado	6.44	5.85	5.49	5.41
Illinois	2.76	-	4.44	5.19
Indiana	-	-	3.07	5.24
Kansas	-	-	-	2.39
Kentucky Total	3.01	2.88	2.28	3.09
Eastern	1.58	2.88	1.90	2.88
Western	3.51	-	3.41	5.16
Louisiana	-	-	-	6.69
Maryland	-	-	2.08	3.25
Mississippi	-	-	-	8.17
Missouri	-	-	-	7.42
Montana	-	14.01	2.22	35.37
New Mexico	7.27	8.61	-	12.43
North Dakota	-	13.14	-	15.45
Ohio	5.07	-	4.12	3.45
Oklahoma	-	-	2.79	1.86
Pennsylvania Total	3.30	0.91	4.32	2.16
Anthracite	-	0.77	0.63	1.21
Bituminous	3.32	1.48	4.45	2.43
Tennessee	-	-	1.31	1.43
Texas	-	5.97	-	7.13
Utah	4.79	-	5.64	-
Virginia	1.25	0.16	1.97	2.62
West Virginia Total	2.92	3.18	2.32	3.74
Northern	3.71	-	2.68	4.26
Southern	1.30	3.18	2.27	3.69
Wyoming	6.18	6.11	-	32.60
Appalachian Total	**2.81**	**2.61**	**2.46**	**3.03**
Northern	3.69	0.89	3.89	2.97
Central	1.32	3.05	2.06	3.14
Southern	1.92	2.39	0.80	2.17
Interior Total	**3.04**	**5.84**	**3.66**	**5.68**
Illinois Basin	3.04	-	3.66	5.21
Western Total	**5.98**	**9.48**	**5.38**	**29.20**
Powder River Basin	-	14.00	-	33.46
Uinta Region	5.16	5.69	5.59	5.29
East of Miss. River	**2.83**	**2.55**	**2.72**	**3.38**
West of Miss. River	**5.98**	**8.17**	**5.33**	**25.71**
U.S. Total	**3.15**	**6.60**	**2.94**	**9.83**

[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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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, 2009

Company Name	Plant Location
Top Ten Manufacturers	
Alcoa Inc (Aluminum Company of America)	(IN)
American Crystal Sugar Co	(MN)(ND)
Archer Daniels Midland	(IA)(IL)(MN)(ND)
Cargill Incorporated	(AL)(GA)(IA)(MI)(NC)(NY)(OH)(TN)
Carmeuse Lime Inc	(AL)(IL)(IN)(KY)(MI)(OH)(PA)(TN)(VA)
Dakota Gasification Company	(ND)
Eastman Chemical Company	(TN)
Georgia-Pacific Wood Products LLC	(AL)(GA)(OK)(VA)(WI)
International Paper Co	(AL)(FL)(GA)(LA)(NC)(SC)(VA)
New Page Corporation	(MD)(MI)(WI)
Other Major Manufacturers	
Amalgamated Sugar Co, LLC	(ID)
Ash Grove Cement Co	(AR)(KS)(MT)(NE)(OR)(TX)(UT)
Blue Ridge Paper Prod Inc	(NC)
Buzzi Unicem USA	(IL)(IN)(MO)(OK)(TX)
Catalyst Paper Company	(AZ)
Cemex Inc	(CA)(CO)(FL)(GA)(KY)(PA)(TN)
Central Power & Lime Inc	(FL)
Colorado Golden Energy Corporation	(CO)
Domtar Paper Company	(AR)(NC)(PA)(WI)
Duke Energy Generating Services	(VA)
ESSROC Materials Inc	(IN)(PA)
Eastman Kodak Company	(NY)
FMC Corporation	(WY)
General Chemical Corporation	(WY)
Glatfelter Corp.	(OH)(PA)
Holcim (US) Inc	(AL)(CO)(IA)(MD)(MI)(MS)(NY)(SC)(UT)
Horsehead Corp	(PA)
Kennecott Utah Copper	(UT)
Lafarge North America	(AL)(IA)(IL)(KS)(MI)(MO)(NY)(OK)(PA)(SC)(WA)
Lehigh Cement Co	(AL)(CA)(IA)(IN)(MD)(NY)(PA)
Meadwestvaco Corporation	(VA)
Mississippi Lime Company	(KY)(MO)
Mittal Steel USA	(IN)
Norit Americas Inc	(OK)(TX)
Searles Valley Minerals	(CA)
Silver Bay Power Company	(MN)
Smurfit Stone Container Corp	(FL)(MI)(SC)(VA)
Solvay Chemicals Inc	(WY)
TXI Operations, LP	(CA)(TX)
Tate and Lyle Ingredients Americas Inc	(IL)(IN)(TN)
Top Ten Coke Producers	
AK Steel Corp	(KY)(OH)
DTE Energy Services	(MI)(PA)
Drummond Company Inc	(AL)
Erie Coke Corp	(PA)
Mittal Steel USA	(IN)(OH)
Mountain State Carbon	(WV)
SunCoke Energy, Inc	(IL)(IN)(OH)(VA)
Tonawanda Coke Corp	(NY)
United States Steel Corporation	(IL)(IN)(PA)
Walter Coke, Inc	(AL)

- = 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: • U.S. 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, 2009, 2008

(Thousand Short Tons)

Census Division and State	2009				2008				Total		
	Electric Power[1]	Other Industrial	Coke	Commercial and Institutional	Electric Power [1]	Other Industrial	Coke	Commercial and Institutional	2009	2008	Percent Change
New England	**6,330**	**W**	**-**	**-**	**8,410**	**W**	**-**	**-**	**W**	**W**	**-25.4**
Connecticut	1,196	-	-	-	2,221	-	-	-	1,196	2,221	-46.1
Maine	34	W	-	-	127	W	-	-	W	W	-71.6
Massachusetts	3,892	W	-	-	4,581	W	-	-	W	W	-15.5
New Hampshire	1,208	-	-	-	1,481	-	-	-	1,208	1,481	-18.4
Rhode Island	-	-	-	-	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-	-	-	-	-
Middle Atlantic	**57,501**	**2,967**	**W**	**W**	**67,045**	**3,573**	**W**	**W**	**64,639**	**77,648**	**-16.8**
New Jersey	2,541	-	-	-	4,165	-	-	-	2,541	4,165	-39.0
New York	6,108	737	W	W	8,885	933	W	W	7,032	10,156	-30.8
Pennsylvania	48,853	2,230	W	195	53,995	2,640	W	200	W	W	-13.0
East North Central	**216,744**	**11,464**	**7,849**	**W**	**238,693**	**14,006**	**10,228**	**W**	**W**	**W**	**-10.2**
Illinois	53,670	2,895	W	178	57,368	3,614	W	206	W	W	-7.8
Indiana	54,449	4,697	W	324	61,171	5,220	W	336	W	W	-11.5
Michigan	35,330	891	W	W	36,476	1,660	W	W	37,427	39,866	-6.1
Ohio	51,096	1,460	W	218	58,953	1,830	W	238	W	W	-13.7
Wisconsin	22,199	1,519	-	110	24,725	1,682	-	177	23,829	26,583	-10.4
West North Central	**144,305**	**11,751**	**-**	**575**	**149,436**	**12,403**	**-**	**617**	**156,632**	**162,457**	**-3.6**
Iowa	22,607	2,682	-	W	24,734	2,903	-	253	W	27,890	W
Kansas	20,783	W	-	-	21,616	W	-	-	W	W	-4.0
Minnesota	17,355	1,167	-	W	18,763	1,359	-	W	W	W	-8.0
Missouri	42,678	787	-	W	43,711	993	-	W	W	W	-2.9
Nebraska	14,183	392	-	-	13,360	415	-	-	14,575	13,775	5.8
North Dakota	24,593	W	-	97	24,893	W	-	102	W	W	-0.6
South Dakota	2,107	W	-	W	2,359	W	-	W	2,239	2,562	-12.6
South Atlantic	**147,965**	**W**	**W**	**346**	**179,898**	**W**	**W**	**392**	**157,297**	**191,895**	**-18.0**
Delaware	1,352	W	-	-	2,391	W	-	-	W	W	-44.5
District of Columbia	-	-	-	W	-	-	-	W	W	W	-26.4
Florida	23,467	933	-	-	28,077	1,073	-	-	24,400	29,150	-16.3
Georgia	32,785	1,045	-	W	39,296	1,441	-	W	W	W	-17.0
Maryland	9,805	909	-	W	11,065	1,174	-	W	W	W	-12.5
North Carolina	26,427	869	-	207	31,116	1,066	-	247	27,504	32,428	-15.2
South Carolina	14,071	896	-	W	16,879	1,149	-	W	W	W	-17.0
Virginia	10,803	1,641	W	90	13,368	1,991	W	74	W	W	-17.6
West Virginia	29,255	764	W	-	37,706	933	W	-	W	W	-23.3
East South Central	**94,741**	**W**	**W**	**W**	**114,165**	**W**	**W**	**145**	**101,504**	**122,734**	**-17.3**
Alabama	27,583	1,341	W	-	35,845	1,723	W	-	W	W	-23.5
Kentucky	39,271	1,026	W	48	42,191	1,249	W	54	W	W	-7.6
Mississippi	8,424	W	-	-	9,497	W	-	-	W	W	-11.4
Tennessee	19,462	2,525	-	W	26,632	2,938	-	91	W	29,661	W
West South Central	**147,082**	**1,776**	**-**	**W**	**155,812**	**W**	**-**	**W**	**W**	**158,808**	**W**
Arkansas	14,994	298	-	-	15,678	388	-	-	15,292	16,067	-4.8
Louisiana	15,722	W	-	-	16,337	W	-	-	W	W	-4.1
Oklahoma	20,959	W	-	-	21,957	713	-	-	W	22,670	W
Texas	95,407	833	-	W	101,840	1,805	-	W	W	W	-7.1
Mountain	**110,025**	**3,528**	**-**	**W**	**116,718**	**4,282**	**-**	**W**	**W**	**W**	**-6.1**
Arizona	20,762	431	-	-	22,658	628	-	-	21,193	23,285	-9.0
Colorado	17,351	W	-	W	18,962	W	-	W	17,777	19,479	-8.7
Idaho	-	414	-	W	-	423	-	W	W	W	-2.4
Montana	10,151	W	-	W	12,012	W	-	W	10,221	12,113	-15.6
Nevada	3,822	W	-	-	3,878	W	-	-	W	W	-2.6
New Mexico	16,513	W	-	-	15,398	W	-	-	W	W	7.1
Utah	15,925	718	-	-	16,927	872	-	-	16,643	17,799	-6.5
Wyoming	25,501	1,553	-	W	26,885	1,761	-	W	W	W	-5.6
Pacific	**8,934**	**1,670**	**-**	**W**	**10,403**	**2,003**	**-**	**W**	**W**	**W**	**-14.0**
Alaska	437	4	-	W	427	2	-	W	W	W	-0.6
California	879	1,330	-	-	993	1,688	-	-	2,209	2,680	-17.6
Hawaii	790	W	-	-	838	W	-	-	W	W	-6.2
Oregon	1,854	W	-	-	2,382	W	-	-	W	W	-21.2
Washington	4,974	W	-	-	5,763	W	-	-	W	W	-12.9
U.S. Total	**933,627**	**45,314**	**15,326**	**3,210**	**1,040,580**	**54,393**	**22,070**	**3,506**	**997,478**	**1,120,548**	**-11.0**

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

Source: • U.S. Energy Information Administration Form EIA-906, "Power Plant Report," Form EIA-920, "Combined Heat and Power Plant Report," Form EIA-923, "Power Plant Operations 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," and Form EIA-7A, "Coal Production and Preparation Report."

Table 27. Year-End Coal Stocks by Sector, by Census Division and State, 2009, 2008

(Thousand Short Tons)

Census Division and State	2009					2008					Total		
	Electric Power[1]	Other Industrial	Coke	Commercial and Institutional	Producer and Distributor	Electric Power [1]	Other Industrial	Coke	Commercial and Institutional	Producer and Distributor	2009	2008	Percent Change
New England	**1,238**	**W**	**-**	**-**	**-**	**1,047**	**W**	**-**	**-**	**-**	**W**	**W**	**17.8**
Connecticut	72	-	-	-	-	128	-	-	-	-	72	128	-44.2
Maine	-	W	-	-	-	-	W	-	-	-	W	W	-0.8
Massachusetts	635	W	-	-	-	493	W	-	-	-	W	W	28.7
New Hampshire	532	-	-	-	-	425	-	-	-	-	532	425	25.1
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle Atlantic	**6,898**	**344**	**W**	**W**	**1,490**	**7,155**	**455**	**W**	**W**	**2,770**	**9,378**	**11,128**	**-15.7**
New Jersey	650	-	-	-	-	1,151	-	-	-	-	650	1,151	-43.6
New York	1,117	202	W	W	-	1,112	276	W	W	-	1,333	1,420	-6.1
Pennsylvania	5,132	142	W	39	1,490	4,892	179	W	42	2,770	W	W	-13.6
East North Central	**40,917**	**1,117**	**1,044**	**W**	**4,048**	**38,885**	**1,743**	**1,294**	**W**	**3,353**	**W**	**W**	**4.1**
Illinois	8,754	175	W	35	1,748	9,872	197	W	40	1,105	W	W	-4.1
Indiana	12,014	362	W	75	830	9,222	583	W	57	800	W	W	20.9
Michigan	5,615	254	W	W	-	7,674	524	W	W	662	6,392	9,276	-31.1
Ohio	9,594	87	W	27	1,469	7,397	122	W	29	387	W	W	38.7
Wisconsin	4,940	238	-	10	-	4,721	317	-	8	399	5,187	5,445	-4.7
West North Central	**28,331**	**1,571**	**-**	**93**	**1,675**	**29,305**	**1,414**	**-**	**88**	**1,968**	**31,670**	**32,775**	**-3.4**
Iowa	6,999	691	-	W	-	6,131	608	-	49	149	W	6,937	W
Kansas	3,805	W	-	-	-	4,256	W	-	-	-	W	W	-10.0
Minnesota	2,933	292	-	W	-	3,429	201	-	W	114	W	W	-13.8
Missouri	9,239	99	-	W	-	9,791	146	-	W	4	W	W	-6.1
Nebraska	3,326	317	-	-	-	3,822	266	-	-	-	3,643	4,088	-10.9
North Dakota	1,754	W	-	7	1,675	1,683	W	-	5	1,701	W	W	1.2
South Dakota	276	W	-	W	-	193	W	-	W	-	294	249	17.7
South Atlantic	**40,164**	**W**	**W**	**87**	**9,663**	**26,853**	**W**	**W**	**85**	**7,749**	**50,684**	**35,674**	**42.1**
Delaware	650	-	-	-	-	313	W	-	-	-	650	W	W
District of Columbia	-	-	-	W	-	-	-	-	W	-	W	W	-20.1
Florida	5,499	110	-	-	-	4,768	114	-	-	-	5,609	4,882	14.9
Georgia	8,958	104	-	W	-	6,948	123	-	W	-	W	W	28.1
Maryland	1,388	61	-	W	100	1,226	82	-	W	428	W	W	-10.7
North Carolina	6,835	54	-	39	-	4,769	97	-	31	-	6,927	4,896	41.5
South Carolina	5,860	95	-	W	-	2,652	194	-	W	-	W	W	109.2
Virginia	2,539	159	-	31	600	1,915	129	-	33	1,415	3,329	3,492	-4.7
West Virginia	8,434	45	W	-	8,963	4,262	90	W	-	5,905	W	W	69.1
East South Central	**21,015**	**W**	**W**	**W**	**4,617**	**14,948**	**W**	**W**	**24**	**4,384**	**26,096**	**19,907**	**31.1**
Alabama	6,556	106	W	-	1,211	4,537	144	W	-	1,411	W	W	28.6
Kentucky	9,112	70	W	11	3,083	5,986	75	W	20	2,345	W	W	45.0
Mississippi	1,704	W	-	-	323	1,136	W	-	-	626	W	W	14.2
Tennessee	3,644	96	-	W	-	3,288	116	-	4	2	W	3,411	W
West South Central	**27,857**	**443**	**-**	**W**	**1,093**	**25,843**	**W**	**-**	**W**	**808**	**W**	**27,176**	**W**
Arkansas	1,922	57	-	-	-	2,337	37	-	-	1	1,978	2,375	-16.7
Louisiana	3,605	W	-	-	132	2,266	W	-	-	386	W	W	40.5
Oklahoma	5,434	W	-	-	-	4,694	267	-	-	-	W	4,961	W
Texas	16,897	195	-	W	962	16,546	192	-	W	421	W	W	5.2
Mountain	**20,936**	**407**	**-**	**W**	**13,166**	**15,837**	**384**	**-**	**W**	**13,514**	**W**	**W**	**16.1**
Arizona	4,329	59	-	-	1,025	3,159	72	-	-	1,037	5,412	4,269	26.8
Colorado	4,593	W	-	W	1,133	2,739	W	-	W	874	5,786	3,663	58.0
Idaho	-	163	-	W	-	-	113	-	W	-	W	W	44.4
Montana	731	W	-	W	627	869	W	-	W	556	1,371	1,436	-4.5
Nevada	1,043	W	-	-	-	872	W	-	-	-	W	W	18.6
New Mexico	884	W	-	-	7,280	856	W	-	-	7,658	W	W	-4.1
Utah	5,849	18	-	-	1,773	4,193	34	-	-	1,385	7,640	5,611	36.1
Wyoming	3,507	85	-	W	1,329	3,149	90	-	W	2,003	W	W	-6.1
Pacific	**2,110**	**278**	**-**	**W**	**142**	**1,716**	**252**	**-**	**W**	**143**	**W**	**W**	**19.3**
Alaska	46	-	-	W	142	19	-	-	W	143	W	W	12.0
California	131	234	-	-	-	117	209	-	-	-	364	327	11.5
Hawaii	100	W	-	-	-	105	W	-	-	-	W	W	-0.2
Oregon	705	W	-	-	-	1,000	W	-	-	-	W	W	-29.7
Washington	1,129	W	-	-	-	475	W	-	-	-	W	W	134.7
U.S. Total	**189,467**	**5,109**	**1,957**	**529**	**35,894**	**161,589**	**6,007**	**2,331**	**498**	**34,688**	**232,956**	**205,113**	**13.6**

[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 commercial sector are not collected by EIA. Totals may not equal sum of components because of independent rounding.

Source: • U.S. Energy Information Administration Form EIA-906, "Power Plant Report," Form EIA-923, "Power Plant Operations 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 Sales Price of Coal by State and Mine Type, 2009, 2008

(Dollars per Short Ton)

Coal-Producing State	2009			2008			Percent Change		
	Underground	Surface	Total	Underground	Surface	Total	Underground	Surface	Total
Alabama	76.58	75.35	76.10	73.35	68.40	71.31	4.4	10.1	6.7
Alaska	-	W	W	-	W	W	-	W	W
Arizona	-	W	W	-	W	W	-	W	W
Arkansas	-	-	-	W	-	W	W	-	W
Colorado	W	W	36.71	W	W	32.67	W	W	12.4
Illinois	48.43	45.62	47.97	40.28	40.39	40.30	20.2	12.9	19.0
Indiana	48.74	33.27	38.70	40.25	32.34	34.95	21.1	2.9	10.7
Kansas	-	W	W	-	W	W	-	W	W
Kentucky Total	58.85	58.09	58.54	49.84	53.41	51.32	18.1	8.8	14.1
Eastern	70.95	62.56	66.77	57.81	55.49	56.63	22.7	12.7	17.9
Western	40.81	32.26	39.07	36.07	32.44	35.53	13.1	-0.5	10.0
Louisiana	-	W	W	-	W	W	-	W	W
Maryland	W	W	37.65	W	W	42.19	W	W	-10.7
Mississippi	-	W	W	-	W	W	-	W	W
Missouri	-	-	W	-	W	W	-	W	W
Montana	W	W	13.53	W	W	12.31	W	W	9.9
New Mexico	W	W	30.71	W	W	33.16	W	W	-7.4
North Dakota	-	13.59	13.59	-	12.92	12.92	-	5.2	5.2
Ohio	46.11	41.94	44.55	41.91	40.43	41.40	10.0	3.7	7.6
Oklahoma	W	W	56.45	W	W	47.72	W	W	18.3
Pennsylvania Total	55.61	54.84	55.48	49.44	56.71	50.77	12.5	-3.3	9.3
Anthracite	56.83	57.12	57.10	62.07	60.55	60.76	-8.4	-5.7	-6.0
Bituminous	55.61	54.44	55.44	49.39	56.21	50.52	12.6	-3.1	9.7
Tennessee	79.83	56.84	66.05	58.30	44.83	48.94	36.9	26.8	35.0
Texas	-	19.12	19.12	-	18.16	18.16	-	5.3	5.3
Utah	32.32	-	32.32	26.39	-	26.39	22.5	-	22.5
Virginia	78.75	74.21	77.09	90.50	74.31	84.57	-13.0	-0.1	-8.9
West Virginia Total	65.49	61.37	63.83	64.36	54.92	60.16	1.8	11.7	6.1
Northern	50.19	61.88	51.73	42.70	49.97	43.95	17.5	23.8	17.7
Southern	76.05	61.32	68.52	77.96	55.47	65.80	-2.5	10.6	4.1
Wyoming	W	W	12.41	W	W	11.39	W	W	9.0
U.S. Total	**55.77**	**23.24**	**33.24**	**51.35**	**22.35**	**31.25**	**8.6**	**4.0**	**6.4**

- = No data are reported.

W = Data withheld to avoid disclosure.

Note: • An average sales price is calculated by dividing the total free on board (f.o.b) rail/barge value of the coal sold by the total 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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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 Sales Price of Coal by State and Underground Mining Method, 2009

(Dollars per Short Ton)

Coal-Producing State	Continuous[1]	Conventional and Other[2]	Longwall[3]	Total
Alabama	W	-	W	76.58
Colorado	W	-	W	38.06
Illinois	49.19	W	W	48.43
Indiana	48.74	-	-	48.74
Kentucky Total	W	60.36	W	58.85
Eastern	71.67	60.36	W	70.95
Western	40.81	-	-	40.81
Maryland	W	-	-	W
Montana	-	-	W	W
New Mexico	-	-	W	W
Ohio	W	-	W	46.11
Oklahoma	W	-	-	W
Pennsylvania Total	48.98	W	W	55.61
Anthracite	W	W	-	56.83
Bituminous	W	-	W	55.61
Tennessee	79.83	-	-	79.83
Utah	W	-	W	32.32
Virginia	W	-	W	78.75
West Virginia Total	74.78	-	54.22	65.49
Northern	57.60	-	48.76	50.19
Southern	77.14	-	71.22	76.05
Wyoming	-	-	W	W
U.S. Total	**61.28**	**47.00**	**50.64**	**55.77**

[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: • An average sales price is calculated by dividing the total free on board (f.o.b) rail/barge value of the coal sold by the total 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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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 Sales Price of Coal by State, County, and Number of Mines, 2009

(Thousand Short Tons, Dollars per Short Ton)

Coal-Producing State and County	Number of Mines	Sales	Average Sales Price
Alabama	**56**	**18,768**	**76.10**
Cullman	2	W	W
Fayette	1	W	W
Franklin	2	W	W
Jackson	3	W	W
Jefferson	10	W	W
Marion	2	W	W
Shelby	6	488	90.58
Tuscaloosa	9	7,469	69.82
Walker	19	3,276	76.29
Winston	2	W	W
Alaska	**1**	**W**	**W**
Yukon-Koyukuk Division	1	W	W
Arizona	**1**	**W**	**W**
Navajo	1	W	W
Colorado	**10**	**27,570**	**36.71**
Delta	1	W	W
Garfield	1	W	W
Gunnison	2	W	W
La Plata	1	W	W
Moffat	2	W	W
Montrose	1	W	W
Rio Blanco	1	W	W
Routt	1	W	W
Illinois	**22**	**32,561**	**47.97**
Gallatin	2	W	W
Jackson	3	W	W
Macoupin	2	W	W
Mcdonough	1	W	W
Perry	5	W	W
Randolph	1	W	W
Saline	3	W	W
Sangamon	1	W	W
Vermilion	1	W	W
Wabash	1	W	W
White	1	W	W
Williamson	1	W	W
Indiana	**33**	**36,196**	**38.70**
Clay	1	W	W
Daviess	3	W	W
Dubois	1	W	W
Gibson	6	12,700	37.44
Knox	7	5,142	41.08
Pike	6	W	W
Sullivan	2	W	W
Vigo	2	W	W
Warrick	5	W	W
Kansas	**1**	**W**	**W**
Bourbon	1	W	W
Kentucky	**379**	**104,687**	**58.54**
Bell	23	1,965	71.09
Breathitt	4	W	W
Clay	3	W	W
Daviess	1	W	W
Floyd	31	3,260	50.67
Harlan	60	10,661	63.42
Henderson	2	W	W
Hopkins	4	14,180	38.66
Jackson	1	W	W
Johnson	7	795	47.68
Knott	28	6,056	64.36
Knox	7	W	W
Lawrence	6	734	56.73
Leslie	12	3,789	79.91
Letcher	31	4,971	73.89
Magoffin	9	2,732	57.80
Martin	15	6,450	60.98
Morgan	1	W	W
Muhlenberg	8	3,485	39.72

See footnotes at end of table.

Table 30. Average Sales Price of Coal by State, County, and Number of Mines, 2009 (Continued)
(Thousand Short Tons, Dollars per Short Ton)

Coal-Producing State and County	Number of Mines	Sales	Average Sales Price
Kentucky (continued)			
Ohio	3	W	W
Owsley	1	W	W
Perry	31	15,178	68.61
Pike	82	14,915	69.80
Union	3	W	W
Webster	1	W	W
Whitley	5	W	W
Louisiana	**2**	**W**	**W**
De Soto	1	W	W
Red River	1	W	W
Maryland	**16**	**2,413**	**37.65**
Allegany	11	1,756	33.61
Garrett	5	657	48.46
Mississippi	**1**	**W**	**W**
Choctaw	1	W	W
Missouri	**2**	**W**	-
Bates	2	W	-
Montana	**6**	**39,397**	**13.53**
Big Horn	3	W	W
Musselshell	1	W	W
Richland	1	W	W
Rosebud	1	W	W
New Mexico	**5**	**25,608**	**30.71**
Mckinley	3	W	W
San Juan	2	W	W
North Dakota	**4**	**29,933**	**13.59**
Mclean	1	W	W
Mercer	2	W	W
Oliver	1	W	W
Ohio	**40**	**26,189**	**44.55**
Belmont	6	W	W
Carroll	1	W	W
Columbiana	2	W	W
Coshocton	1	W	W
Guernsey	1	W	W
Harrison	6	3,490	42.61
Jackson	1	W	W
Jefferson	6	W	W
Lawrence	1	W	W
Meigs	1	W	W
Monroe	1	W	W
Muskingum	1	W	W
Noble	2	W	W
Perry	3	W	W
Stark	2	W	W
Tuscarawas	3	W	W
Vinton	2	W	W
Oklahoma	**9**	**971**	**56.45**
Craig	2	W	W
Haskell	1	W	W
Le Flore	4	W	W
Nowata	1	W	W
Rogers	1	W	W
Pennsylvania	**163**	**58,185**	**55.48**
Allegheny	1	W	W
Armstrong	14	3,033	41.84
Beaver	1	W	W
Bedford	1	W	W
Butler	4	W	W
Cambria	7	1,082	60.87
Cameron	1	W	W
Clarion	7	W	W
Clearfield	25	3,291	56.84
Columbia	3	W	W
Elk	5	258	67.02
Fayette	4	W	W
Greene	7	37,825	56.91
Indiana	15	3,312	44.53
Jefferson	9	657	50.81
Lackawanna	1	W	W

See footnotes at end of table.

Table 30. Average Sales Price of Coal by State, County, and Number of Mines, 2009 (Continued)
(Thousand Short Tons, Dollars per Short Ton)

Coal-Producing State and County	Number of Mines	Sales	Average Sales Price
Pennsylvania (continued)			
Luzerne	5	195	51.96
Lycoming	1	W	W
Northumberland	3	W	W
Schuylkill	24	1,045	48.93
Somerset	19	4,616	62.05
Washington	4	W	W
Westmoreland	2	W	W
Tennessee	**21**	**2,067**	**66.05**
Anderson	4	W	W
Campbell	5	859	71.26
Claiborne	11	892	58.93
Fentress	1	W	W
Texas	**12**	**34,362**	**19.12**
Atascosa	1	W	W
Freestone	1	W	W
Harrison	1	W	W
Hopkins	1	W	W
Lee	1	W	W
Leon	1	W	W
Limestone	1	W	W
Panola	2	W	W
Robertson	1	W	W
Rusk	1	W	W
Titus	1	W	W
Utah	**8**	**21,515**	**32.32**
Carbon	4	9,208	36.04
Emery	3	W	W
Sevier	1	W	W
Virginia	**98**	**20,960**	**77.09**
Buchanan	33	6,891	85.25
Dickenson	13	1,430	81.19
Lee	4	W	W
Russell	7	1,026	81.47
Tazewell	2	W	W
Wise	39	10,534	70.35
West Virginia	**259**	**134,080**	**63.83**
Barbour	6	W	W
Boone	40	25,185	63.23
Brooke	2	W	W
Clay	2	W	W
Fayette	13	W	W
Greenbrier	6	W	W
Harrison	3	W	W
Kanawha	24	10,636	62.29
Lincoln	3	W	W
Logan	26	16,818	56.84
Marion	3	W	W
Marshall	2	W	W
Mason	1	W	W
Mcdowell	33	4,526	84.24
Mercer	2	W	W
Mineral	2	W	W
Mingo	30	8,129	67.99
Monongalia	6	W	W
Nicholas	10	W	W
Preston	2	W	W
Raleigh	17	8,157	74.84
Randolph	1	W	W
Tucker	1	W	W
Upshur	2	W	W
Wayne	5	W	W
Webster	5	W	W
Wyoming	12	3,159	90.12
Wyoming	**19**	**429,994**	**12.41**
Campbell	12	381,875	11.82
Carbon	1	W	W
Converse	1	W	W
Hot Springs	1	W	W
Lincoln	1	W	W
Sweetwater	3	W	W

See footnotes at end of table.

Table 30. Average Sales Price of Coal by State, County, and Number of Mines, 2009 (Continued)
(Thousand Short Tons, Dollars per Short Ton)

Coal-Producing State and County	Number of Mines	Sales	Average Sales Price
U.S. Total	**1,168**	**1,061,973**	**33.24**

- = No data are reported.
W = Data withheld to avoid disclosure.
Note: • An average sales price is calculated by dividing the total free on board (f.o.b) rail/barge value of the coal sold by the total 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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation Report," and Form EIA-923, "Power Plant Operations 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 Sales Price of Coal by State and Coal Rank, 2009

(Dollars per Short Ton)

Coal-Producing State	Bituminous	Subbituminous	Lignite	Anthracite	Total
Alabama	76.10	-	-	-	76.10
Alaska	-	W	-	-	W
Arizona	W	-	-	-	W
Colorado	W	W	-	-	36.71
Illinois	47.97	-	-	-	47.97
Indiana	38.70	-	-	-	38.70
Kansas	W	-	-	-	W
Kentucky Total	58.54	-	-	-	58.54
Eastern	66.77	-	-	-	66.77
Western	39.07	-	-	-	39.07
Louisiana	-	-	W	-	W
Maryland	37.65	-	-	-	37.65
Mississippi	-	-	W	-	W
Montana	-	W	W	-	13.53
New Mexico	W	W	-	-	30.71
North Dakota	-	-	13.59	-	13.59
Ohio	44.55	-	-	-	44.55
Oklahoma	56.45	-	-	-	56.45
Pennsylvania Total	55.44	-	-	57.10	55.48
Anthracite	-	-	-	57.10	57.10
Bituminous	55.44	-	-	-	55.44
Tennessee	66.05	-	-	-	66.05
Texas	-	-	19.12	-	19.12
Utah	32.32	-	-	-	32.32
Virginia	77.09	-	-	-	77.09
West Virginia Total	63.83	-	-	-	63.83
Northern	51.73	-	-	-	51.73
Southern	68.52	-	-	-	68.52
Wyoming	-	12.41	-	-	12.41
U.S. Total	**55.44**	**13.35**	**17.26**	**57.10**	**33.24**

- = No data are reported.

W = Data withheld to avoid disclosure.

Note: • An average sales price is calculated by dividing the total free on board (f.o.b) rail/barge value of the coal sold by the total 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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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 Sales Price of Coal by Mine Production Range and Mine Type, 2009

(Dollars per Short Ton)

Mine Production Range (thousand short tons)	Underground	Surface	Total
Over 1,000	49.97	17.65	26.08
500 to 1,000	65.41	52.85	59.53
200 to 500	70.33	58.53	64.56
100 to 200	71.31	58.18	64.13
50 to 100	65.63	62.37	63.67
10 to 50	69.68	57.75	61.78
U.S. Total	**55.77**	**23.24**	**33.24**

Note: • An average sales price is calculated by dividing the total free on board (f.o.b) rail/barge value of the coal sold by the total 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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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, 2009

(Dollars per Short Ton)

Coal-Producing State	Open Market[1]	Captive[2]
Alabama	76.22	48.30
Alaska	W	-
Arizona	W	-
Colorado	36.71	36.73
Illinois	47.20	51.05
Indiana	37.03	42.52
Kansas	W	-
Kentucky Total	58.53	58.72
Eastern	67.40	W
Western	39.06	W
Louisiana	W	W
Maryland	37.65	-
Mississippi	W	-
Missouri	W	-
Montana	13.50	W
New Mexico	33.83	W
North Dakota	13.93	W
Ohio	44.81	39.52
Oklahoma	56.45	-
Pennsylvania Total	54.98	60.98
Anthracite	45.38	W
Bituminous	55.23	W
Tennessee	67.65	W
Texas	W	17.50
Utah	32.36	W
Virginia	72.67	86.90
West Virginia Total	63.07	70.05
Northern	51.38	55.66
Southern	67.79	73.91
Wyoming	11.72	14.47
U.S. Total	**34.74**	**27.06**

[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: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation 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, 2009, 2008

(Dollars per Short Ton)

Census Division and State	2009				2008				Annual Percent Change			
	Electric Power Sector	Other Industrial Plants	Coke Plants	Commercial and Institutional	Electric Power Sector	Other Industrial Plants	Coke Plants	Commercial and Institutional	Electric Power Sector	Other Industrial Plants	Coke Plants	Commercial and Institutional
New England	**82.44**	**w**	**-**	**-**	**71.55**	**w**	**-**	**-**	**15.22**	**49.92**	**-**	**-**
Connecticut	78.98	-	-	-	64.39	-	-	-	22.66	-	-	-
Maine	132.13	w	-	-	97.91	w	-	-	34.95	40.03	-	-
Massachusetts	79.40	w	-	-	67.85	w	-	-	17.02	42.20	-	-
New Hampshire	94.15	-	-	-	90.86	-	-	-	3.62	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-	-	-	-	-	-
Middle Atlantic	**52.71**	**75.52**	**w**	**w**	**49.98**	**69.76**	**w**	**w**	**5.46**	**8.26**	**30.55**	**5.14**
New Jersey	92.22	-	-	-	80.36	-	-	-	14.76	-	-	-
New York	59.33	98.10	w	w	57.20	83.13	w	w	3.72	18.01	16.75	27.49
Pennsylvania	50.06	68.14	w	122.56	46.38	64.31	w	117.06	7.93	5.96	31.31	4.70
East North Central	**41.04**	**69.08**	**150.93**	**w**	**37.97**	**67.39**	**122.18**	**w**	**8.09**	**2.51**	**23.53**	**13.60**
Illinois	28.57	47.47	w	63.54	27.77	39.30	w	48.72	2.88	20.79	11.79	30.42
Indiana	42.14	66.48	w	75.16	40.40	74.02	w	69.59	4.31	-10.19	26.64	8.00
Michigan	39.48	103.17	w	w	38.10	86.61	w	w	3.62	19.12	7.84	20.43
Ohio	56.26	89.59	w	140.21	46.90	79.89	w	128.71	19.96	12.14	23.82	8.93
Wisconsin	34.97	79.21	-	147.82	34.55	73.64	-	125.27	1.22	7.56	-	18.00
West North Central	**23.39**	**32.21**	**-**	**72.56**	**22.42**	**30.98**	**-**	**64.70**	**4.33**	**3.97**	**-**	**12.15**
Iowa	21.05	52.04	-	w	20.16	48.78	-	80.89	4.41	6.68	-	w
Kansas	24.38	w	-	-	24.15	w	-	-	0.95	32.39	-	-
Minnesota	29.14	53.24	-	w	29.49	50.56	-	w	-1.19	5.30	-	14.48
Missouri	26.70	59.55	-	w	26.40	60.17	-	w	1.14	-1.03	-	-4.83
Nebraska	22.67	42.13	-	-	15.35	42.46	-	-	47.69	-0.78	-	-
North Dakota	15.14	w	-	43.40	14.36	w	-	43.11	5.43	18.10	-	0.67
South Dakota	29.45	w	-	w	29.16	w	-	w	0.99	1.73	-	12.40
South Atlantic	**78.08**	**w**	**w**	**141.98**	**68.73**	**w**	**w**	**134.49**	**13.60**	**5.42**	**5.36**	**5.57**
Delaware	84.00	w	-	-	88.69	w	-	-	-5.29	26.30	-	-
District of Columbia	-	-	-	w	-	-	-	w	-	-	-	48.50
Florida	80.82	97.69	-	-	70.43	98.57	-	-	14.75	-0.89	-	-
Georgia	78.76	104.97	-	w	66.28	108.89	-	w	18.83	-3.60	-	16.02
Maryland	76.17	58.43	-	w	92.08	68.96	-	w	-17.28	-15.27	-	-0.44
North Carolina	88.47	106.64	-	143.85	79.81	89.79	-	121.57	10.85	18.77	-	18.33
South Carolina	91.15	95.81	-	w	71.32	96.31	-	w	27.80	-0.52	-	2.34
Virginia	76.77	99.77	w	123.31	67.82	89.01	w	146.52	13.20	12.09	11.63	-15.84
West Virginia	60.46	106.03	w	-	52.44	83.20	w	-	15.29	27.44	6.61	-
East South Central	**52.69**	**w**	**w**	**w**	**51.91**	**w**	**w**	**111.15**	**1.50**	**3.41**	**0.51**	**w**
Alabama	55.85	91.43	w	-	57.45	80.14	w	-	-2.79	14.09	1.17	-
Kentucky	49.89	88.90	w	127.29	49.30	81.35	w	106.49	1.20	9.28	2.12	19.53
Mississippi	51.33	w	-	-	55.73	w	-	-	-7.90	46.16	-	-
Tennessee	54.47	92.24	-	w	47.11	97.45	-	114.13	15.62	-5.35	-	w
West South Central	**27.63**	**78.29**	**-**	**w**	**26.24**	**w**	**-**	**w**	**5.30**	**w**	**-**	**33.35**
Arkansas	29.03	89.39	-	-	29.84	83.71	-	-	-2.71	6.79	-	-
Louisiana	33.41	w	-	-	34.31	w	-	-	-2.62	-33.11	-	-
Oklahoma	28.40	w	-	-	23.11	43.66	-	-	22.89	w	-	-
Texas	26.22	79.84	-	w	25.17	60.18	-	w	4.17	32.67	-	33.35
Mountain	**29.81**	**44.00**	**-**	**w**	**28.33**	**42.90**	**-**	**w**	**5.22**	**2.56**	**-**	**68.30**
Arizona	35.16	52.59	-	-	34.06	57.68	-	-	3.23	-8.82	-	-
Colorado	31.29	w	-	w	28.78	w	-	w	8.72	-2.28	-	82.56
Idaho	-	50.69	-	w	-	49.47	-	w	-	2.47	-	6.21
Montana	18.04	w	-	w	16.96	w	-	w	6.37	-3.54	-	6.48
Nevada	46.69	w	-	-	46.87	w	-	-	-0.38	-2.93	-	-
New Mexico	35.03	w	-	-	36.59	w	-	-	-4.26	3.27	-	-
Utah	33.63	54.58	-	-	30.20	44.47	-	-	11.36	22.73	-	-
Wyoming	20.09	31.21	-	w	19.79	30.88	-	w	1.52	1.07	-	2.68
Pacific	**40.01**	**73.21**	**-**	**w**	**38.79**	**71.49**	**-**	**w**	**3.15**	**2.41**	**-**	**1.68**
Alaska	22.85	-	-	w	30.43	-	-	w	-24.91	-	-	1.68
California	72.56	69.39	-	-	70.02	69.20	-	-	3.63	0.27	-	-
Hawaii	63.26	w	-	-	76.42	w	-	-	-17.22	-7.65	-	-
Oregon	29.57	w	-	-	24.15	w	-	-	22.44	-13.87	-	-
Washington	35.63	w	-	-	35.85	w	-	-	-0.61	49.66	-	-
U.S. Total	**43.33**	**64.87**	**143.01**	**97.28**	**40.69**	**63.42**	**118.09**	**86.50**	**6.49**	**2.29**	**21.10**	**12.46**

s Value is less than 0.05 of the table metric, but value is included in any associated total.
- = No data are reported.
W = Data withheld to avoid disclosure.
Note: • Electric Power Sector in this report includes Electric Utilities, Independent Power Producers, and Electric Utility Combined Heat & Power plants.
Source: • U.S. Energy Information Administration Form EIA-923, "Power Plant Operations Report," Form EIA-3, "Quarterly Coal Consumption and Quality Report, Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Coal Users," 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.