



*Independent Statistics & Analysis*  
U.S. Energy Information  
Administration

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# Annual Coal Report 2021

October 2022



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## Contacts

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EIA prepared this publication. You can request general information about the data in this report through [email](#).

You can contact the Office of Stakeholder Outreach and Communications' customer inquiry line with questions about coal statistics at 202-586-8800 or by [email](#).

## Preface

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The *Annual Coal Report* (ACR) provides information about U.S. coal production, number of mines, productive capacity, recoverable reserves, employment, productivity, consumption, stocks, and prices to a wide audience, including Congress, federal and state agencies, the coal industry, and the general public. We publish this report to fulfill data collection and dissemination responsibilities under the Federal Energy Administration Act of 1974 (Public Law 93-275), as amended.

Coal production, number of mines, 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*. Productive capacity, recoverable reserves, and prices are based on our Form EIA-7A, *Annual Survey of Coal Production and Preparation*. Consumption and stocks are based on our survey forms.

This report is our 46th annual report on the coal industry, and it continues the series formerly included in the *Minerals Yearbook*, which the U.S. Bureau of Mines previously published. All data for 2021 and previous years are final.

The Office of Energy Production, Conversion, & Delivery acknowledges the cooperation of the respondents in supplying the information published in the *Annual Coal Report*, and we appreciate the valuable assistance of state coal mining agencies and the U.S. Department of Labor, Mine Safety and Health Administration.

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## Executive Summary

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### Publication changes

We've made no publication changes in this issue of the *Annual Coal Report*.

### Production

In 2021, U.S. coal production increased 7.8% to 577.4 million short tons (MMst) from the 2020 level, while the number of producing mines decreased to 512 mines from 552 mines in 2020. Coal production in basins east of the Mississippi river increased 10.6%, and production increased 6.0% in basins west of the Mississippi river.

The Appalachian region's coal production in 2021 was 155.1 MMst, an increase of 12.0% from 2020. West Virginia's production increased 16.8% to 78.5 MMst, Pennsylvania's production increased 17.0% to 42.5 MMst, and Eastern Kentucky's production increased 21.6% to 10.1 MMst.

Coal production in the Interior region was 93.2 MMst, an increase of 2.9% from the 2020 level. Production in Illinois increased 16.0% to 36.6 MMst, production in Western Kentucky increased 2.4% to 16.3 MMst, and production in Indiana decreased 2.4% to 19.5 MMst. Production in the rest of the Interior region decreased 10.0% to 20.8 MMst, led by a production decrease in Texas of 12.4% to 17.3 MMst.

Coal production in the Western region in 2021 increased 7.4% to 328.5 MMst. Production in Wyoming, the largest coal-producing state in the region, increased by 9.3% to 238.8 MMst. Other large producing states in the basin include Montana, where production increased by 8.2% to 28.6 MMst; Colorado, where production increased by 18.1% to 11.9 MMst; and Utah, where production decreased by 5.5% to 12.4 MMst.

Disposition of coal during 2021 totaled 582.3 MMst, of which 520.5 MMst was marketed as thermal coal and 61.8 MMst was marketed as metallurgical coal. Of the metallurgical coal dispositions, 45.0 MMst was exported, and 16.9 MMst was sold to domestic customers.

### Productive capacity

Productive capacity is the maximum amount of coal that can be produced annually as reported by mining companies. In 2021, the collective productive capacity of U.S. coal mines decreased 6.6% to 871 MMst. Major producing states that reported a decrease in productive capacity include Kentucky (-18.5% to 32.1 MMst), Illinois (-22.3% to 44.3 MMst), and Indiana (-10.4% to 30.2 MMst). States with an increase in reported productive capacity include Pennsylvania (+21.1% to 51.2 MMst) and West Virginia (+6.0% to 103.9 MMst).

The overall capacity utilization across all mines increased to 66.1% in 2021 from 57.2% in 2020. Capacity utilization is measured as the ratio of annual production to the annual productive capacity of mines.

### Recoverable reserves

Total U.S. recoverable coal reserves that are technologically and economically feasible to extract as reported by producers fell to 12,282 MMst at the end of 2021 from 13,201 MMst at the end of 2020. Although declines were reported for most states, increases were reported for Colorado and Pennsylvania. Recoverable reserves increased 47.3% to 284 MMst in Colorado and 40.5% to 1,370 MMst in Pennsylvania.



## Employment

The average number of employees at U.S. coal mines in 2021 decreased from 2020 by 2,641 to 39,518 employees. The average number of employees at underground mines decreased by 1,375 employees, and average employment at surface mines decreased by 1,313 employees.

Total U.S. productivity as measured by average production per employee hour increased by 9.5% to 6.71 short tons per employee hour. Average productivity increased 11.9% to 4.03 tons per employee hour at underground mines and increased 11.1% to 11.38 tons per employee hour at surface mines during 2021, as compared with 2020.

## Consumption

U.S. coal consumption in 2021 was 545.6 MMst, an increase of 14.5% from 2020. Coal consumption in the electric power sector increased by 65.5 MMst to 501.4 MMst. Coal consumption in the industrial, coke, and commercial and institutional sectors was 44.2 MMst in 2021, an 8.3% increase from the 2020 level.

## Exports

Exports increased by 16.0 MMst in 2021 to 85.1 MMst. Europe was the top destination of U.S. exports, accounting for 22.3 MMst. Steam coal exports accounted for 47.2% (40.1 MMst) of the total, and metallurgical coal accounted for 52.8% (45.0 MMst).

## Stocks

U.S. coal stocks in 2021 ended the year at 131.8 MMst, 27.8% lower than at the same time in 2020. Stocks in the electric power sector decreased by 39.6 MMst to 92.3 MMst at the end of 2021. Coal stocks held by the other industrial, coke, and commercial sectors, as well as producers and distributors, decreased 4.9 MMst to 23.5 MMst at the end of 2021 compared with the end of 2020.

## Sales price

The total average sales price of coal from U.S. mines in 2021 increased by 16.1% from the 2020 level to \$36.45 per short ton. The average sales price of thermal coal in 2021 increased by 3.7% from the 2020 level to \$25.85 per short ton, and the average sales price of metallurgical coal in 2021 increased by 37.4% from the 2020 level to \$151.97 per short ton. The average sales price of coal from surface mines increased by 3.1% to \$21.32 per short ton, and it increased from underground mines by 21.5% to \$60.49 per short ton. The average sales prices of coal by rank are as follows:

- Average sales price of bituminous coal was \$61.68 per short ton in 2021, a 23.2% increase from the 2020 level.
- Average sales price of subbituminous coal was \$14.18 per short ton in 2021, a 1.7% decrease from the 2020 level.
- Average sales price of lignite coal was \$20.10 per short ton in 2021, an 9.3% decrease from the 2020 level.
- Average sales price of anthracite coal was \$107.08 per short ton in 2021, an 18.1% increase from the 2020 level.

**Table ES1. Coal Production, 1949-2021**

(short tons)

Year	Rank				Mining Method		Location		Total <sup>1</sup>
	Bituminous Coal <sup>1</sup>	Subbituminous Coal	Lignite	Anthracite <sup>1</sup>	Underground	Surface <sup>1</sup>	East of Mississippi River <sup>1</sup>	West of Mississippi River <sup>1</sup>	
1949	437,868,000	-	-	42,702,000	358,854,000	121,716,000	444,199,000	36,371,000	480,570,000
1950	516,311,000	-	-	44,077,000	421,000,000	139,388,000	524,374,000	36,014,000	560,388,000
1951	533,665,000	-	-	42,670,000	442,184,000	134,151,000	541,703,000	34,632,000	576,335,000
1952	466,841,000	-	-	40,583,000	381,173,000	126,251,000	474,755,000	32,669,000	507,424,000
1953	457,290,000	-	-	30,949,000	367,444,000	120,795,000	457,652,000	30,587,000	488,239,000
1954	391,706,000	-	-	29,083,000	305,964,000	114,825,000	395,413,000	25,376,000	420,789,000
1955	464,633,000	-	-	26,205,000	357,964,000	132,874,000	464,218,000	26,620,000	490,838,000
1956	500,874,000	-	-	28,900,000	380,829,000	148,945,000	504,001,000	25,773,000	529,774,000
1957	492,704,000	-	-	25,338,000	373,565,000	144,477,000	493,377,000	24,665,000	518,042,000
1958	410,446,000	-	-	21,171,000	297,583,000	134,034,000	411,315,000	20,302,000	431,617,000
1959	412,028,000	-	-	20,649,000	292,849,000	139,828,000	412,351,000	20,326,000	432,677,000
1960	415,512,000	-	-	18,817,000	292,584,000	141,745,000	413,033,000	21,296,000	434,329,000
1961	402,977,000	-	-	17,446,000	279,551,000	140,872,000	398,642,000	21,781,000	420,423,000
1962	422,149,000	-	-	16,894,000	287,939,000	151,104,000	417,629,000	21,414,000	439,043,000
1963	458,928,000	-	-	18,267,000	308,971,000	168,224,000	453,485,000	23,710,000	477,195,000
1964	486,998,000	-	-	17,184,000	327,697,000	176,485,000	478,494,000	25,688,000	504,182,000
1965	512,088,000	-	-	14,866,000	337,958,000	188,996,000	499,529,000	27,425,000	526,954,000
1966	533,881,000	-	-	12,941,000	342,612,000	204,210,000	518,773,000	28,049,000	546,822,000
1967	552,626,000	-	-	12,256,000	352,391,000	212,491,000	535,973,000	28,909,000	564,882,000
1968	545,245,000	-	-	11,461,000	346,592,000	210,114,000	526,991,000	29,715,000	556,706,000
1969	547,172,000	8,321,000	5,012,000	10,473,000	349,238,000	221,740,000	537,677,000	33,301,000	570,978,000
1970	578,469,000	16,423,000	8,040,000	9,729,000	340,530,000	272,131,000	567,758,000	44,903,000	612,661,000
1971	521,344,000	22,151,000	8,697,000	8,727,000	277,175,000	283,744,000	509,925,000	50,994,000	560,919,000
1972	556,842,000	27,547,000	10,997,000	7,106,000	305,046,000	297,446,000	538,157,000	64,335,000	602,492,000
1973	543,532,000	33,933,000	14,273,000	6,830,000	300,080,000	298,488,000	522,131,000	76,437,000	598,568,000
1974	545,689,000	42,240,000	15,477,000	6,617,000	277,966,000	332,057,000	518,118,000	91,905,000	610,023,000
1975	577,522,000	51,099,000	19,817,000	6,203,000	293,467,000	361,174,000	543,707,000	110,934,000	654,641,000
1976	588,364,000	64,841,000	25,480,000	6,228,000	295,464,000	389,449,000	548,831,000	136,082,000	684,913,000
1977	580,991,000	82,115,000	28,238,000	5,861,000	266,591,000	430,614,000	533,267,000	163,938,000	697,205,000
1978	534,020,000	96,757,000	34,350,000	5,037,000	242,772,000	427,392,000	487,178,000	182,986,000	670,164,000
1979	612,279,000	121,475,000	42,545,000	4,835,000	320,891,000	460,243,000	559,704,000	221,430,000	781,134,000
1980	628,769,000	147,715,000	47,160,000	6,056,000	337,508,000	492,192,000	578,688,000	251,012,000	829,700,000
1981	607,986,000	159,693,000	50,673,000	5,423,000	316,496,000	507,279,000	553,862,000	269,914,000	823,775,000
1982	620,166,000	160,946,000	52,411,000	4,589,000	339,152,000	498,960,000	564,259,000	273,853,000	838,112,000
1983	568,609,000	151,044,000	58,349,000	4,089,000	300,379,000	481,713,000	507,395,000	274,696,000	782,091,000
1984	649,489,000	179,200,000	63,070,000	4,161,735	352,050,000	543,870,000	587,620,000	308,301,000	895,920,767
1985	613,851,000	192,657,000	72,422,000	4,708,375	350,800,000	532,838,000	558,730,000	324,908,000	883,638,117
1986	620,059,000	189,610,000	76,354,000	4,291,951	360,438,000	529,877,000	564,427,000	325,887,000	890,314,708
1987	636,609,000	200,165,000	78,427,000	3,560,459	372,874,000	545,888,000	581,929,000	336,833,000	918,762,162
1988	638,105,000	223,504,000	85,101,000	3,554,509	382,156,000	568,109,000	579,565,000	370,700,000	950,265,278
1989	659,771,000	231,171,000	86,439,000	3,347,996	393,835,000	586,893,000	599,015,000	381,714,000	980,728,790
1990	693,206,000	244,274,000	88,090,000	3,506,247	424,546,000	604,529,000	630,218,000	398,858,000	1,029,075,527
1991	650,700,000	255,325,000	86,514,000	3,445,080	407,225,000	588,759,000	591,294,000	404,690,000	995,983,881
1992	651,842,000	252,158,000	90,062,000	3,482,861	407,239,000	590,306,000	588,575,000	408,970,000	997,544,933
1993	576,652,000	274,901,000	89,549,000	4,322,263	351,053,000	594,371,000	516,219,000	429,205,000	945,424,286
1994	640,260,000	300,517,000	88,081,000	4,646,032	399,103,000	634,401,000	566,289,000	467,216,000	1,033,504,293
1995	613,764,679	327,997,855	86,499,740	4,711,498	396,249,022	636,724,750	544,245,706	488,728,066	1,032,973,772
1996	630,741,292	340,290,580	88,055,815	4,767,826	409,848,871	654,006,642	563,667,655	500,187,858	1,063,855,513
1997	653,827,506	345,071,099	86,341,244	4,691,939	420,657,474	669,274,314	579,369,281	510,562,507	1,089,931,788
1998	640,586,262	385,930,397	85,766,784	5,251,724	417,727,882	699,807,285	570,575,604	546,959,563	1,117,535,167
1999	601,731,551	406,714,233	87,217,912	4,767,752	391,789,870	708,641,558	529,594,228	570,837,200	1,100,431,428
2000	574,275,630	409,203,124	85,560,584	4,572,223	373,658,726	699,952,835	507,517,246	566,094,315	1,073,611,561
2001	611,291,051	434,414,339	80,043,399	1,940,017	380,626,833	747,061,973	528,777,761	598,911,045	1,127,688,806
2002	572,103,243	438,353,294	82,459,406	1,367,118	357,384,967	736,898,094	492,915,076	601,367,985	1,094,283,061
2003	541,475,747	442,618,093	86,366,464	1,292,269	352,784,686	718,967,887	469,246,727	602,505,846	1,071,752,573

Year	Rank				Mining Method		Location		Total <sup>1</sup>
	Bituminous Coal <sup>1</sup>	Subbituminous Coal	Lignite	Anthracite <sup>1</sup>	Underground	Surface <sup>1</sup>	East of Mississippi River <sup>1</sup>	West of Mississippi River <sup>1</sup>	
2004	561,484,652	465,368,953	83,539,698	1,705,567	367,557,255	744,541,615	484,795,840	627,303,030	1,112,098,870
2005	571,177,133	474,675,461	83,941,728	1,703,777	368,611,500	762,886,599	493,801,042	637,697,057	1,131,498,099
2006	561,631,018	515,332,638	84,248,267	1,537,736	359,021,815	803,727,844	490,797,869	671,951,790	1,162,749,659
2007	542,757,594	523,724,347	78,584,915	1,568,489	351,789,934	794,845,411	478,161,383	668,473,962	1,146,635,345
2008	555,267,210	539,145,383	75,683,638	1,712,438	357,079,371	814,729,298	493,342,095	678,466,574	1,171,808,669
2009	504,101,778	496,421,871	72,478,549	1,921,194	332,061,582	742,861,810	449,593,554	625,329,838	1,074,923,392
2010	489,532,051	514,829,513	78,230,494	1,776,090	337,154,614	747,213,534	446,196,808	638,171,340	1,084,368,148
2011	525,995,943	486,295,739	81,101,129	2,234,725	345,605,509	750,022,027	456,446,210	639,181,326	1,095,627,536
2012	485,363,301	449,799,910	78,927,292	2,367,915	342,386,637	674,071,781	423,475,610	592,982,808	1,016,458,418
2013	471,182,631	434,287,168	77,228,703	2,143,277	341,684,553	643,157,226	407,340,833	577,500,946	984,841,779
2014	479,990,818	438,623,717	79,487,116	1,947,107	354,703,991	645,344,767	409,520,451	590,528,307	1,000,048,758
2015	404,426,770	419,514,932	70,857,085	2,141,776	306,821,302	590,119,261	348,977,735	547,962,828	896,940,563
2016	325,147,260	330,242,617	71,309,951	1,664,670	252,106,254	476,258,244	281,627,159	446,737,339	728,364,498
2017	353,519,714	351,502,385	67,674,760	1,912,498	273,128,860	501,480,497	304,429,935	470,179,422	774,609,357
2018	357,226,100	340,007,405	57,037,552	1,896,038	275,361,378	480,805,717	310,662,897	445,504,198	756,167,095
2019	338,954,766	311,551,673	53,191,887	2,610,937	267,372,934	438,936,329	296,045,637	410,263,626	706,309,263
2020	237,916,151	245,781,202	49,364,584	2,372,417	195,529,788	339,904,566	209,010,932	326,423,422	535,434,354
2021	259,900,584	268,055,363	47,364,090	2,111,241	220,597,113	356,834,165	231,355,004	346,076,274	577,431,278

<sup>1</sup> Beginning in 2001, includes a small amount of refuse recovery.

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

Web Page: For related information, see <http://www.eia.gov/coal/>.

Sources: 1949-1975 Bureau of Mines, Minerals Yearbook, 'Coal Bituminous and Lignite' and 'Coal Pennsylvania Anthracite' chapters. 1976 U.S. Energy Information Administration (EIA), Energy Data Reports, Coal Bituminous and Lignite in 1976 and Coal Pennsylvania Anthracite 1976. 1977 and 1978 EIA, Energy Data Reports, Bituminous Coal and Lignite Production and Mine Operations 1977. 1978, Coal Pennsylvania Anthracite 1977. 1978, and Coal Production, annual reports. 1979 and 1980 EIA, Energy Data Reports, Weekly Coal Report and Coal Production, annual reports. 1981-1988 EIA, Weekly Coal Production and Coal Production, annual reports. 1989-2000 EIA, Coal Industry Annual, annual reports. 2001-2010 EIA, Annual Coal Report, annual reports. 2011 EIA, Quarterly Coal Report October-December 2011 (April 2012), Table 1. EIA, Form EIA-7A, 'Coal Production Report'. and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, 'Quarterly Mine Employment and Coal Production Report'.

**Table ES2. Coal Mining Productivity, 1949-2021**(Short Tons per Employee Hour)<sup>1</sup>

Year	Mining Method		East of the Mississippi River			West of the Mississippi River			Total <sup>2</sup>
	Underground	Surface <sup>2</sup>	Underground	Surface <sup>2</sup>	Total <sup>2</sup>	Underground	Surface <sup>2</sup>	Total <sup>2</sup>	
1949	0.68	1.92	NA	NA	NA	NA	NA	NA	0.72
1950	0.72	1.96	NA	NA	NA	NA	NA	NA	0.76
1951	0.76	2.00	NA	NA	NA	NA	NA	NA	0.80
1952	0.80	2.10	NA	NA	NA	NA	NA	NA	0.84
1953	0.88	2.22	NA	NA	NA	NA	NA	NA	0.93
1954	1.00	2.48	NA	NA	NA	NA	NA	NA	1.08
1955	1.04	2.65	NA	NA	NA	NA	NA	NA	1.14
1956	1.08	2.67	NA	NA	NA	NA	NA	NA	1.19
1957	1.11	2.73	NA	NA	NA	NA	NA	NA	1.23
1958	1.17	2.73	NA	NA	NA	NA	NA	NA	1.31
1959	1.26	2.87	NA	NA	NA	NA	NA	NA	1.43
1960	1.33	2.91	NA	NA	NA	NA	NA	NA	1.52
1961	1.43	3.16	NA	NA	NA	NA	NA	NA	1.64
1962	1.50	3.40	NA	NA	NA	NA	NA	NA	1.74
1963	1.60	3.66	NA	NA	NA	NA	NA	NA	1.87
1964	1.72	3.76	NA	NA	NA	NA	NA	NA	1.99
1965	1.75	4.10	NA	NA	NA	NA	NA	NA	2.09
1966	1.83	4.28	NA	NA	NA	NA	NA	NA	2.23
1967	1.88	4.48	NA	NA	NA	NA	NA	NA	2.31
1968	1.93	4.33	NA	NA	NA	NA	NA	NA	2.35
1969	1.95	4.50	NA	NA	NA	NA	NA	NA	2.41
1970	1.72	4.53	NA	NA	NA	NA	NA	NA	2.30
1971	1.50	4.49	NA	NA	NA	NA	NA	NA	2.19
1972	1.49	4.54	NA	NA	NA	NA	NA	NA	2.18
1973	1.46	4.58	NA	NA	NA	NA	NA	NA	2.16
1974	1.41	4.74	NA	NA	NA	NA	NA	NA	2.31
1975	1.19	3.26	NA	NA	NA	NA	NA	NA	1.81
1976	1.14	3.25	NA	NA	NA	NA	NA	NA	1.78
1977	1.09	3.16	NA	NA	NA	NA	NA	NA	1.80
1978	1.04	3.03	NA	NA	NA	NA	NA	NA	1.77
1979	1.13	3.08	NA	NA	NA	NA	NA	NA	1.81
1980	1.20	3.21	NA	NA	NA	NA	NA	NA	1.93
1981	1.29	3.42	NA	NA	NA	NA	NA	NA	2.10
1982	1.37	3.36	NA	NA	NA	NA	NA	NA	2.11
1983	1.61	3.81	NA	NA	NA	NA	NA	NA	2.50
1984	1.72	4.03	1.69	2.56	1.98	2.49	8.15	7.07	2.64
1985	1.78	4.24	1.75	2.52	2.00	2.45	8.61	7.40	2.74
1986	2.00	4.60	1.96	2.75	2.21	2.80	9.02	7.90	3.01
1987	2.20	4.98	2.16	2.97	2.42	3.39	9.86	8.73	3.30
1988	2.38	5.32	2.32	2.99	2.54	3.55	10.73	9.38	3.55
1989	2.46	5.61	2.39	3.13	2.63	3.92	11.86	10.21	3.70
1990	2.54	5.94	2.46	3.32	2.73	4.01	12.26	10.41	3.83
1991	2.69	6.38	2.59	3.49	2.86	4.53	12.36	10.79	4.09
1992	2.93	6.59	2.82	3.61	3.07	4.85	12.49	11.03	4.36
1993	2.95	7.23	2.81	3.74	3.11	5.18	13.94	12.14	4.70
1994	3.19	7.67	3.02	3.85	3.28	5.93	15.19	13.22	4.98
1995	3.39	8.48	3.19	4.03	3.45	6.32	16.23	14.18	5.38
1996	3.57	9.05	3.36	4.25	3.63	7.03	17.89	15.66	5.69
1997	3.83	9.46	3.63	4.49	3.89	6.82	18.63	16.04	6.04
1998	3.90	9.58	3.69	4.31	3.89	6.76	18.82	16.27	6.20
1999	3.99	10.39	3.74	4.48	3.97	7.45	19.57	17.18	6.61
2000	4.15	11.01	3.89	4.82	4.18	7.66	20.04	17.62	6.99
2001	4.02	10.58	3.71	4.53	3.98	8.39	20.63	18.32	6.82
2002	3.98	10.36	3.67	4.22	3.86	7.80	20.67	18.06	6.80
2003	4.04	10.75	3.68	4.18	3.85	8.33	21.42	18.67	6.95
2004	3.96	10.55	3.59	3.95	3.72	8.22	22.04	19.00	6.80
2005	3.62	10.03	3.28	3.75	3.44	7.48	21.98	18.50	6.36

Year	Mining Method		East of the Mississippi River			West of the Mississippi River			Total <sup>2</sup>
	Underground	Surface <sup>2</sup>	Underground	Surface <sup>2</sup>	Total <sup>2</sup>	Underground	Surface <sup>2</sup>	Total <sup>2</sup>	
2006	3.37	10.18	3.06	3.74	3.29	6.62	22.26	18.33	6.26
2007	3.34	10.24	3.03	3.74	3.27	6.52	22.35	18.23	6.27
2008	3.15	9.81	2.87	3.58	3.12	6.07	21.85	17.77	5.96
2009	2.99	9.22	2.74	3.33	2.94	5.51	19.85	16.15	5.61
2010	2.89	9.46	2.66	3.24	2.84	5.54	20.25	16.60	5.55
2011	2.72	8.97	2.49	3.04	2.67	5.25	19.59	15.93	5.19
2012	2.84	8.97	2.58	2.99	2.70	5.65	18.15	15.03	5.19
2013	3.07	9.69	2.80	3.16	2.89	6.09	18.35	15.39	5.53
2014	3.35	10.42	3.07	3.27	3.12	6.47	18.86	15.96	5.95
2015	3.45	10.94	3.24	3.24	3.24	5.74	18.20	15.51	6.28
2016	3.83	10.73	3.68	3.22	3.57	5.18	16.54	14.20	6.61
2017	3.77	10.92	3.55	3.16	3.46	6.10	17.91	15.49	6.55
2018	3.68	10.36	3.50	3.07	3.40	5.64	17.38	14.92	6.24
2019	3.60	9.88	3.39	2.91	3.27	5.78	16.89	14.43	5.95
2020	3.60	10.24	3.43	2.78	3.28	5.09	16.37	13.71	6.12
2021	4.03	11.38	3.85	2.81	3.61	5.66	18.94	15.64	6.71

NA=Not available.

1 Data through 1973 for bituminous coal, subbituminous coal, and lignite, and data through 1978 for anthracite, were originally reported in short tons per employee day these data were converted to short tons per employee hour by assuming an eight-hour day. Through 1997, other data were calculated by dividing total production by total labor hours worked by all mine employees except office workers; beginning in 1998, the calculation also includes office workers.

2 Beginning in 2001, includes a small amount of refuse recovery.

3 Through 1978, data for anthracite are not available by mining method, but are included in 'Total'.

Note: Web Page: For related information, see <http://www.eia.gov/coal/>.

Sources: 1949-1975 Bureau of Mines, Minerals Yearbook, 'Coal Bituminous and Lignite' and 'Coal Pennsylvania Anthracite' chapters. 1976 U.S. Energy Information Administration (EIA), Energy Data Reports, Coal Bituminous and Lignite in 1976 and Coal Pennsylvania Anthracite 1976. 1977 and 1978 EIA, Energy Data Reports, Bituminous Coal and Lignite Production and Mine Operations 1977. 1978 and Coal Pennsylvania Anthracite 1977. 1978. 1979 EIA, Energy Data Report, Coal Production 1979. 1980-1988 EIA, Coal Production, annual reports. 1989-2000 EIA, Coal Industry Annual, annual reports. 2001-2010 EIA, Annual Coal Report, annual reports. 2011 EIA, Form EIA-7A, 'Coal Production Report,' and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, 'Quarterly Mine Employment and Coal Production Report'.

**Table ES-3 Coke Overview, 1949-2021**

(Thousand Short Tons)

Year	Production	Trade			Stock Change <sup>2</sup>	Consumption <sup>3</sup>
		Imports	Exports	Net Imports <sup>1</sup>		
1949	63,637	279	548	-269	176	63,192
1950	72,718	438	398	40	-659	73,417
1951	79,331	162	1,027	-865	372	78,094
1952	68,254	313	792	-479	419	67,356
1953	78,837	157	520	-363	778	77,696
1954	59,662	116	388	-272	269	59,121
1955	75,302	126	531	-405	-1,248	76,145
1956	74,483	131	656	-525	634	73,324
1957	75,951	118	822	-704	814	74,433
1958	53,604	122	393	-271	675	52,658
1959	55,864	123	460	-337	859	54,668
1960	57,229	126	353	-227	56	56,946
1961	51,711	127	445	-318	-696	52,089
1962	51,910	142	364	-222	-135	51,823
1963	54,278	153	451	-298	-1,022	55,002
1964	62,145	103	524	-421	-913	62,637
1965	66,854	90	834	-744	731	65,379
1966	67,402	96	1,102	-1,006	376	66,020
1967	64,580	92	710	-618	2,390	61,572
1968	63,653	94	792	-698	517	62,438
1969	64,757	173	1,629	-1,456	-2,865	66,166
1970	66,525	153	2,478	-2,325	993	63,207
1971	57,436	174	1,509	-1,335	-588	56,689
1972	60,507	185	1,232	-1,047	-586	60,046
1973	64,325	1,094	1,395	-301	-1,741	65,765
1974	61,581	3,540	1,278	2,262	-249	64,092
1975	57,207	1,819	1,273	546	4,061	53,692
1976	58,333	1,311	1,315	-4	1,495	56,834
1977	53,509	1,829	1,241	588	-47	54,144
1978	49,009	5,722	693	5,029	-2,910	56,948
1979	52,943	3,974	1,440	2,534	1,651	53,826
1980	46,132	659	2,071	-1,412	3,442	41,278
1981	42,786	527	1,170	-643	-1,903	44,046
1982	28,115	120	993	-873	1,466	25,776
1983	25,808	35	665	-630	-4,672	29,850
1984	30,399	582	1,045	-463	199	29,737
1985	28,438	578	1,122	-544	-1,163	29,057
1986	24,917	329	1,004	-675	-486	24,728
1987	26,304	922	574	348	-1,002	27,654
1988	28,945	2,688	1,093	1,595	519	30,021
1989	28,045	2,311	1,085	1,226	337	28,934
1990	27,617	765	572	193	-1	27,811
1991	24,046	1,183	792	391	189	24,248
1992	23,410	2,098	702	1,396	-224	25,030
1993	23,182	2,155	1,062	1,093	-422	24,697
1994	22,686	3,338	986	2,352	-525	25,563
1995	23,749	3,820	1,358	2,462	366	25,845
1996	23,075	2,542	1,622	920	21	23,974
1997	22,116	3,139	1,266	1,873	-29	24,018
1998	20,041	3,834	1,129	2,705	-362	23,108
1999	20,016	3,224	898	2,326	-80	22,422
2000	20,808	3,781	1,146	2,635	201	23,242
2001	18,949	2,526	1,346	1,180	-73	20,202
2002	16,778	3,242	792	2,450	-375	19,603
2003	17,173	2,759	722	2,037	-227	19,436
2004	16,909	6,873	1,319	5,555	-28	22,492
2005	16,719	3,529	1,747	1,782	263	18,239

Year	Production	Trade			Stock Change <sup>2</sup>	Consumption <sup>3</sup>
		Imports	Exports	Net Imports <sup>1</sup>		
2006	16,404	4,068	1,616	2,451	71	18,784
2007	16,201	2,460	1,444	1,016	-52	17,270
2008	15,646	3,603	1,959	1,644	284	17,006
2009	11,143	347	1,307	-960	-140	10,323
2010	15,022	1,214	1,463	-249	-74	14,847
2011	15,420	1,418	970	448	43	15,825
2012	15,172	1,135	974	161	-139	15,472
2013	15,320	138	840	-703	266	14,351
2014	15,154	77	946	-869	-75	14,359
2015	13,755	140	857	-717	-90	13,128
2016	11,855	229	1,000	-772	-128	11,212
2017	12,948	58	1,212	-1,153	-21	11,815
2018	13,806	117	1,151	-1,034	-204	12,976
2019	12,870	116	967	-852	86	11,932
2020	10,353	162	683	-522	41	9,791
2021	12,545	117	2,083	-1,966	-129	10,708

(s)=Less than 0.05 million short tons.

1 Net imports equal imports minus exports. Minus sign indicates exports are greater than imports.

2 Producer and distributor stocks at end of year. A negative value indicates a decrease in stocks; a positive value indicates an increase.

3 'Consumption' is calculated as the sum of production and imports minus exports and stock change.

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

Web Page: For related information, see <http://www.eia.gov/coal/>.

Sources: 1949-1975 Bureau of Mines, Minerals Yearbook, 'Coke and Coal Chemicals' chapter. 1976-1980 U.S. Energy Information Administration (EIA), Energy Data Report, Coke and Coal Chemicals, annual reports. 1981-2004 EIA, Quarterly Coal Report (QCR) October-December, quarterly reports. 2005 forward EIA, QCR October-December 2011 (April 2012), Table ES-2.

**Table ES-4 Nominal<sup>2</sup>Coal Prices, 1949- 2021**

(dollars per short ton)

Year	Bituminous	Subbituminous	Lignite <sup>1</sup>	Anthracite	Total
1949	4.90	*	2.37	8.90	5.24
1950	4.86	*	2.41	9.34	5.19
1951	4.94	*	2.44	9.94	5.29
1952	4.92	*	2.39	9.58	5.27
1953	4.94	*	2.38	9.87	5.23
1954	4.54	*	2.43	8.76	4.81
1955	4.51	*	2.38	8.00	4.69
1956	4.83	*	2.39	8.33	5.01
1957	5.09	*	2.35	9.11	5.28
1958	4.87	*	2.35	9.14	5.07
1959	4.79	*	2.25	8.55	4.95
1960	4.71	*	2.29	8.01	4.83
1961	4.60	*	2.24	8.26	4.73
1962	4.50	*	2.23	7.99	4.62
1963	4.40	*	2.17	8.64	4.55
1964	4.46	*	2.14	8.93	4.60
1965	4.45	*	2.13	8.51	4.55
1966	4.56	*	1.98	8.08	4.62
1967	4.64	*	1.92	8.15	4.69
1968	4.70	*	1.79	8.78	4.75
1969	5.02	*	1.86	9.91	5.08
1970	6.30	*	1.86	11.03	6.34
1971	7.13	*	1.93	12.08	7.15
1972	7.78	*	2.04	12.40	7.72
1973	8.71	*	2.09	13.65	8.59
1974	16.01	*	2.19	22.19	15.82
1975	19.79	*	3.17	32.26	19.35
1976	20.11	*	3.74	33.92	19.56
1977	20.59	*	4.03	34.86	19.95
1978	22.64	*	5.68	35.25	21.86
1979	27.31	9.55	6.48	41.06	23.75
1980	29.17	11.08	7.60	42.51	24.65
1981	31.51	12.18	8.85	44.28	26.40
1982	32.15	13.37	9.79	49.85	27.25
1983	31.11	13.03	9.91	52.29	25.98
1984	30.63	12.41	10.45	48.22	25.61
1985	30.78	12.57	10.68	45.80	25.20
1986	28.84	12.26	10.64	44.12	23.79
1987	28.19	11.32	10.85	43.65	23.07
1988	27.66	10.45	10.06	44.16	22.07
1989	27.40	10.16	9.91	42.93	21.82
1990	27.43	9.70	10.13	39.40	21.76
1991	27.49	9.68	10.89	36.34	21.49
1992	26.78	9.68	10.81	34.24	21.03
1993	26.15	9.33	11.11	32.94	19.85
1994	25.68	8.37	10.77	36.07	19.41
1995	25.56	8.10	10.83	39.78	18.83
1996	25.17	7.87	10.92	36.78	18.50
1997	24.64	7.42	10.91	35.12	18.14
1998	24.87	6.96	11.08	42.91	17.67
1999	23.92	6.87	11.04	35.13	16.63
2000	24.15	7.12	11.41	40.90	16.78
2001	25.67	7.00	13.29	47.67	17.58
2002	26.54	7.64	12.52	47.78	17.89
2003	26.77	8.11	12.20	49.87	17.92
2004	30.75	8.51	12.59	43.52	20.07
2005	36.70	8.93	13.26	47.70	23.34
2006	39.61	10.12	13.83	51.68	24.63



Year	Bituminous	Subbituminous	Lignite <sup>1</sup>	Anthracite	Total
2007	41.24	11.21	14.99	58.92	25.82
2008	51.39	12.31	16.50	60.76	31.25
2009	55.44	13.35	17.26	57.10	33.24
2010	60.88	14.11	18.76	59.51	35.61
2011	68.50	14.07	18.77	75.70	41.01
2012	66.04	15.34	19.60	80.21	39.95
2013	60.61	14.86	19.96	87.82	37.24
2014	55.99	14.72	19.44	90.98	34.83
2015	51.55	14.63	22.09	97.91	31.81
2016	48.24	14.83	19.98	97.61	30.57
2017	55.60	14.29	19.51	93.17	33.72
2018	59.43	13.64	20.21	99.97	35.99
2019	58.93	14.01	19.86	102.22	36.07
2020	50.05	14.43	22.16	90.68	31.41
2021	61.68	14.18	20.10	107.08	36.45

\* = Through 1978, subbituminous coal is included in 'Bituminous Coal'.

1 Because of withholding to protect company confidentiality, lignite prices exclude Texas for 1955- 1977 and Montana for 1974 1978. As a result, lignite prices for 1974-1977 are for North Dakota only.

2 See 'Nominal Dollars' in Glossary.

Notes: Prices are free-on-board (F.O.B.) rail/barge prices, which are the F.O.B. prices of coal at the point of first sale, excluding freight or shipping and insurance costs. Prices are for open market and captive coal sales; see 'Captive Coal,' 'Free on Board (F.O.B.),' and 'Open Market Coal' in Glossary.

Web Page: For related information, see <http://www.eia.gov/coal/>.

Sources: 1949-1975 Bureau of Mines (BOM), Minerals Yearbook. 1976 U.S. Energy Information Administration (EIA), Energy Data Report, Coal Bituminous and Lignite in 1976, and BOM, Minerals Yearbook. 1977 and 1978 EIA, Energy Data Reports, Bituminous Coal and Lignite Production and Mine Operations, and Coal Pennsylvania Anthracite. 1979 EIA, Coal Production, and Energy Data Report, Coal Pennsylvania Anthracite. 1980-1992 EIA, Coal Production, annual reports. 1993-2000 EIA, Coal Industry Annual, annual reports and unpublished revisions. 2001-2010 EIA, Annual Coal Report, annual reports. 2011 EIA, Form EIA-7A, 'Coal Production Report,' and U.S. Department of Labor, Mine Safety and Health Administration, Form 7000-2, 'Quarterly Mine Employment and Coal Production Report.'

**Table ES5. Average Price of U.S. Coal Exports and Imports, 2001-2021**

(dollars per short ton)

Year	Exports			Imports		
	Metallurgical Coal	Non-Metallurgical	Coke	Metallurgical Coal	Non-Metallurgical	Coke
2001	41.63	31.88	81.07	45.21	32.53	75.48
2002	45.41	34.51	80.56	44.90	33.93	75.35
2003	44.55	26.94	96.34	47.83	30.24	86.52
2004	63.63	42.03	81.42	54.27	36.06	179.24
2005	81.56	47.64	84.15	101.31	43.35	221.13
2006	90.81	46.25	79.08	109.36	46.15	156.44
2007	88.99	47.90	90.76	96.05	45.31	194.49
2008	134.62	57.35	107.42	117.18	56.75	465.15
2009	117.73	73.63	103.46	115.93	61.40	268.37
2010	145.44	65.54	167.25	180.42	62.47	331.70
2011	185.99	80.42	216.92	263.48	81.11	389.50
2012	152.23	76.16	214.58	186.63	84.27	338.16
2013	115.50	69.23	220.88	148.59	75.41	212.10
2014	99.49	67.05	246.53	105.11	76.83	117.18
2015	89.31	56.44	230.04	96.50	67.16	146.42
2016	84.48	50.76	216.88	73.98	64.86	143.27
2017	137.32	57.14	231.46	212.16	66.04	176.36
2018	140.55	63.36	261.07	200.18	67.04	264.46
2019	137.44	63.76	279.95	191.54	66.18	305.93
2020	104.55	62.51	261.83	136.71	67.40	253.56
2021	159.28	64.73	252.35	169.47	77.05	268.19

Notes: Exports: Average price is based on the free alongside ship (f.a.s.) value. Imports: Average price is based on the customs import value. Customs import value is the price paid for merchandise when sold for exportation to the United States, excluding U.S. import duties, freight, insurance, and other charges incurred in bringing the merchandise to the United States. Total may not equal sum of components because of independent rounding.

Sources: Exports: U.S. Department of Commerce, Bureau of the Census, 'Monthly Report EM 545;' and Imports: U.S. Department of Commerce, Bureau of the Census, 'Monthly Report IM 145.'

# Coal Production

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**Table 1. Coal Production and Number of Mines by State and Mine Type, 2021 and 2020**

(thousand short tons)

Coal-Producing State and Region <sup>1</sup>	2021		2020		Percent Change	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
<b>Alabama</b>	<b>20</b>	<b>9,338</b>	<b>26</b>	<b>12,151</b>	<b>-23.1</b>	<b>-23.2</b>
Underground	6	7,959	6	10,451	-	-23.8
Surface	14	1,380	20	1,701	-30.0	-18.9
<b>Alaska</b>	<b>1</b>	<b>1,042</b>	<b>1</b>	<b>1,021</b>	<b>-</b>	<b>2.1</b>
Surface	1	1,042	1	1,021	-	2.1
<b>Colorado</b>	<b>8</b>	<b>11,875</b>	<b>7</b>	<b>10,056</b>	<b>14.3</b>	<b>18.1</b>
Underground	5	7,130	4	6,209	25.0	14.8
Surface	3	4,745	3	3,848	-	23.3
<b>Illinois</b>	<b>12</b>	<b>36,614</b>	<b>14</b>	<b>31,578</b>	<b>-14.3</b>	<b>16.0</b>
Underground	8	36,198	9	29,581	-11.1	22.4
Surface	4	416	5	1,997	-20.0	-79.2
<b>Indiana</b>	<b>13</b>	<b>19,470</b>	<b>18</b>	<b>19,942</b>	<b>-27.8</b>	<b>-2.4</b>
Underground	4	10,411	5	9,145	-20.0	13.8
Surface	9	9,059	13	10,797	-30.8	-16.1
<b>Kentucky Total</b>	<b>101</b>	<b>26,426</b>	<b>97</b>	<b>24,245</b>	<b>4.1</b>	<b>9.0</b>
Underground	37	21,497	37	19,694	-	9.2
Surface	64	4,929	60	4,551	6.7	8.3
<b>Kentucky (East)</b>	<b>96</b>	<b>10,130</b>	<b>90</b>	<b>8,333</b>	<b>6.7</b>	<b>21.6</b>
Underground	34	5,439	32	4,085	6.3	33.1
Surface	62	4,691	58	4,248	6.9	10.4
<b>Kentucky (West)</b>	<b>5</b>	<b>16,296</b>	<b>7</b>	<b>15,912</b>	<b>-28.6</b>	<b>2.4</b>
Underground	3	16,058	5	15,608	-40.0	2.9
Surface	2	238	2	304	-	-21.7
<b>Louisiana</b>	<b>1</b>	<b>300</b>	<b>2</b>	<b>677</b>	<b>-50.0</b>	<b>-55.7</b>
Surface	1	300	2	677	-50.0	-55.7
<b>Maryland</b>	<b>10</b>	<b>1,263</b>	<b>11</b>	<b>1,154</b>	<b>-9.1</b>	<b>9.4</b>
Underground	1	375	1	523	-	-28.3
Surface	9	888	10	631	-10.0	40.7
<b>Mississippi</b>	<b>1</b>	<b>3,201</b>	<b>1</b>	<b>2,587</b>	<b>-</b>	<b>23.7</b>
Surface	1	3,201	1	2,587	-	23.7
<b>Missouri</b>	<b>1</b>	<b>44</b>	<b>1</b>	<b>159</b>	<b>-</b>	<b>-72.2</b>
Surface	1	44	1	159	-	-72.2
<b>Montana</b>	<b>6</b>	<b>28,580</b>	<b>6</b>	<b>26,422</b>	<b>-</b>	<b>8.2</b>
Underground	1	7,247	1	6,023	-	20.3
Surface	5	21,333	5	20,399	-	4.6
<b>New Mexico</b>	<b>3</b>	<b>9,265</b>	<b>3</b>	<b>10,249</b>	<b>-</b>	<b>-9.6</b>
Underground	1	1,572	1	1,246	-	26.2
Surface	2	7,693	2	9,003	-	-14.6
<b>North Dakota</b>	<b>5</b>	<b>26,513</b>	<b>5</b>	<b>26,438</b>	<b>-</b>	<b>0.3</b>
Surface	5	26,513	5	26,438	-	0.3
<b>Ohio</b>	<b>9</b>	<b>2,759</b>	<b>10</b>	<b>3,587</b>	<b>-10.0</b>	<b>-23.1</b>
Underground	4	1,781	5	2,536	-20.0	-29.8
Surface	5	978	5	1,050	-	-6.9
<b>Oklahoma</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>-50.0</b>	<b>-36.5</b>
Surface	1	1	2	1	-50.0	-36.5
<b>Pennsylvania Total</b>	<b>120</b>	<b>42,460</b>	<b>134</b>	<b>36,305</b>	<b>-10.5</b>	<b>17.0</b>
Underground	33	38,052	35	32,137	-5.7	18.4
Surface	87	4,407	99	4,168	-12.1	5.7
<b>Pennsylvania (Anthracite)</b>	<b>41</b>	<b>2,043</b>	<b>46</b>	<b>2,352</b>	<b>-10.9</b>	<b>-13.1</b>
Underground	8	54	9	63	-11.1	-14.5
Surface	33	1,989	37	2,288	-10.8	-13.1
<b>Pennsylvania (Bituminous)</b>	<b>79</b>	<b>40,417</b>	<b>88</b>	<b>33,954</b>	<b>-10.2</b>	<b>19.0</b>
Underground	25	37,998	26	32,074	-3.9	18.5
Surface	54	2,418	62	1,879	-12.9	28.7
<b>Tennessee</b>	<b>-</b>	<b>-</b>	<b>2</b>	<b>92</b>	<b>-</b>	<b>-</b>
Underground	-	-	1	83	-	-

Coal-Producing State and Region <sup>1</sup>	2021		2020		Percent Change	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
Surface	-	-	1	9	-	-
<b>Texas</b>	<b>5</b>	<b>17,250</b>	<b>7</b>	<b>19,682</b>	<b>-28.6</b>	<b>-12.4</b>
Surface	5	17,250	7	19,682	-28.6	-12.4
<b>Utah</b>	<b>6</b>	<b>12,434</b>	<b>7</b>	<b>13,163</b>	<b>-14.3</b>	<b>-5.5</b>
Underground	5	12,000	6	12,594	-16.7	-4.7
Surface	1	434	1	569	-	-23.7
<b>Virginia</b>	<b>32</b>	<b>10,691</b>	<b>41</b>	<b>9,685</b>	<b>-22.0</b>	<b>10.4</b>
Underground	8	8,023	17	7,185	-52.9	11.7
Surface	24	2,668	24	2,501	-	6.7
<b>West Virginia Total</b>	<b>135</b>	<b>78,501</b>	<b>135</b>	<b>67,228</b>	<b>-</b>	<b>16.8</b>
Underground	60	65,157	67	55,699	-10.5	17.0
Surface	75	13,344	68	11,529	10.3	15.7
<b>West Virginia (Northern)</b>	<b>16</b>	<b>44,460</b>	<b>18</b>	<b>37,169</b>	<b>-11.1</b>	<b>19.6</b>
Underground	10	44,057	10	36,802	-	19.7
Surface	6	404	8	366	-25.0	10.3
<b>West Virginia (Southern)</b>	<b>119</b>	<b>34,040</b>	<b>117</b>	<b>30,059</b>	<b>1.7</b>	<b>13.2</b>
Underground	50	21,100	57	18,896	-12.3	11.7
Surface	69	12,940	60	11,163	15.0	15.9
<b>Wyoming</b>	<b>16</b>	<b>238,773</b>	<b>16</b>	<b>218,556</b>	<b>-</b>	<b>9.3</b>
Underground	1	3,195	1	2,424	-	31.8
Surface	15	235,578	15	216,131	-	9.0
<b>Appalachia Total</b>	<b>422</b>	<b>155,141</b>	<b>449</b>	<b>138,535</b>	<b>-6.0</b>	<b>12.0</b>
Underground	146	126,786	164	112,699	-11.0	12.5
Surface	276	28,355	285	25,836	-3.2	9.8
<b>Appalachia Central</b>	<b>247</b>	<b>54,861</b>	<b>250</b>	<b>48,169</b>	<b>-1.2</b>	<b>13.9</b>
Underground	92	34,562	107	30,249	-14.0	14.3
Surface	155	20,299	143	17,920	8.4	13.3
<b>Appalachia Northern</b>	<b>155</b>	<b>90,942</b>	<b>173</b>	<b>78,214</b>	<b>-10.4</b>	<b>16.3</b>
Underground	48	84,265	51	71,999	-5.9	17.0
Surface	107	6,677	122	6,215	-12.3	7.4
<b>Appalachia Southern</b>	<b>20</b>	<b>9,338</b>	<b>26</b>	<b>12,151</b>	<b>-23.1</b>	<b>-23.2</b>
Underground	6	7,959	6	10,451	-	-23.8
Surface	14	1,380	20	1,701	-30.0	-18.9
<b>Interior Region Total</b>	<b>39</b>	<b>93,176</b>	<b>52</b>	<b>90,538</b>	<b>-25.0</b>	<b>2.9</b>
Underground	15	62,667	19	54,335	-21.1	15.3
Surface	24	30,509	33	36,203	-27.3	-15.7
<b>Illinois Basin</b>	<b>30</b>	<b>72,380</b>	<b>39</b>	<b>67,432</b>	<b>-23.1</b>	<b>7.3</b>
Underground	15	62,667	19	54,335	-21.1	15.3
Surface	15	9,713	20	13,097	-25.0	-25.8
<b>Other Interior</b>	<b>9</b>	<b>20,796</b>	<b>13</b>	<b>23,106</b>	<b>-30.8</b>	<b>-10.0</b>
Surface	9	20,796	13	23,106	-30.8	-10.0
<b>Western Region Total</b>	<b>45</b>	<b>328,481</b>	<b>45</b>	<b>305,905</b>	<b>-</b>	<b>7.4</b>
Underground	13	31,143	13	28,496	-	9.3
Surface	32	297,338	32	277,409	-	7.2
<b>Powder River Basin</b>	<b>16</b>	<b>251,324</b>	<b>16</b>	<b>230,110</b>	<b>-</b>	<b>9.2</b>
Surface	16	251,324	16	230,110	-	9.2
<b>Uinta Basin</b>	<b>11</b>	<b>23,298</b>	<b>12</b>	<b>22,058</b>	<b>-8.3</b>	<b>5.6</b>
Underground	8	18,553	9	18,210	-11.1	1.9
Surface	3	4,745	3	3,848	-	23.3
<b>Other Western</b>	<b>18</b>	<b>53,860</b>	<b>17</b>	<b>53,738</b>	<b>5.9</b>	<b>0.2</b>
Underground	5	12,591	4	10,286	25.0	22.4
Surface	13	41,269	13	43,452	-	-5.0
<b>East of Mississippi River</b>	<b>453</b>	<b>230,722</b>	<b>489</b>	<b>208,554</b>	<b>-7.4</b>	<b>10.6</b>
<b>West of Mississippi River</b>	<b>53</b>	<b>346,076</b>	<b>57</b>	<b>326,423</b>	<b>-7.0</b>	<b>6.0</b>
<b>U.S. Subtotal</b>	<b>506</b>	<b>576,799</b>	<b>546</b>	<b>534,978</b>	<b>-7.3</b>	<b>7.8</b>
<b>Refuse Recovery</b>	<b>6</b>	<b>633</b>	<b>6</b>	<b>456</b>	<b>-</b>	<b>38.6</b>
<b>U.S. Total</b>	<b>512</b>	<b>577,431</b>	<b>552</b>	<b>535,434</b>	<b>-7.3</b>	<b>7.8</b>

-- No data reported.

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

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, 2021**

(thousand short tons)

Coal-Producing State and County	Underground		Surface		Total	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
<b>Alabama</b>	<b>6</b>	<b>7,959</b>	<b>14</b>	<b>1,380</b>	<b>20</b>	<b>9,338</b>
De Kalb	-	-	1	6	1	6
Jefferson	3	6,911	6	803	9	7,714
Randolph	-	-	1	12	1	12
Tuscaloosa	1	811	3	310	4	1,121
Walker	2	237	3	248	5	485
<b>Alaska</b>	<b>-</b>	<b>-</b>	<b>1</b>	<b>1,042</b>	<b>1</b>	<b>1,042</b>
Denali	-	-	1	1,042	1	1,042
<b>Colorado</b>	<b>5</b>	<b>7,130</b>	<b>3</b>	<b>4,745</b>	<b>8</b>	<b>11,875</b>
Gunnison	1	3,273	-	-	1	3,273
La Plata	1	466	-	-	1	466
Las Animas	1	110	-	-	1	110
Moffat	-	-	3	4,745	3	4,745
Rio Blanco	1	1,541	-	-	1	1,541
Routt	1	1,739	-	-	1	1,739
<b>Illinois</b>	<b>8</b>	<b>36,198</b>	<b>4</b>	<b>416</b>	<b>12</b>	<b>36,614</b>
Franklin	1	7,860	-	-	1	7,860
Hamilton	1	4,939	-	-	1	4,939
Montgomery	1	3,194	-	-	1	3,194
Perry	1	4,114	2	374	3	4,488
Randolph	1	1,729	1	7	2	1,736
Sangamon	1	1,013	-	-	1	1,013
Wabash	-	-	1	35	1	35
Washington	1	6,636	-	-	1	6,636
Williamson	1	6,713	-	-	1	6,713
<b>Indiana</b>	<b>4</b>	<b>10,411</b>	<b>9</b>	<b>9,059</b>	<b>13</b>	<b>19,470</b>
Clay	-	-	1	135	1	135
Daviess	-	-	2	63	2	63
Dubois	-	-	1	8	1	8
Gibson	2	4,776	1	13	3	4,788
Knox	2	5,636	-	-	2	5,636
Pike	-	-	1	13	1	13
Sullivan	-	-	1	6,040	1	6,040
Warrick	-	-	2	2,789	2	2,789
<b>Kentucky</b>	<b>37</b>	<b>21,497</b>	<b>64</b>	<b>4,929</b>	<b>101</b>	<b>26,426</b>
Adair	-	-	1	12	1	12
Bell	1	100	8	640	9	740
Breathitt	-	-	1	19	1	19
Daviess	-	-	2	238	2	238
Floyd	3	131	1	9	4	141
Harlan	6	1,359	6	420	12	1,779
Hopkins	1	4,141	-	-	1	4,141
Johnson	-	-	3	570	3	570
Knott	1	52	6	319	7	372
Knox	1	71	3	29	4	100
Lawrence	-	-	1	3	1	3
Leslie	1	324	1	16	2	340
Letcher	-	-	7	816	7	816
Martin	-	-	1	42	1	42
Morgan	-	-	2	16	2	16
Muhlenberg	1	2,069	-	-	1	2,069
Owsley	-	-	1	4	1	4
Perry	5	857	5	1,033	10	1,890
Pike	16	2,544	10	473	26	3,018
Union	1	9,848	-	-	1	9,848
Whitley	-	-	5	268	5	268

Coal-Producing State and County	Underground		Surface		Total	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
<b>Louisiana</b>	-	-	<b>1</b>	<b>300</b>	<b>1</b>	<b>300</b>
Natchitoches	-	-	1	300	1	300
<b>Maryland</b>	<b>1</b>	<b>375</b>	<b>9</b>	<b>888</b>	<b>10</b>	<b>1,263</b>
Allegany	-	-	7	863	7	863
Garrett	1	375	2	25	3	400
<b>Mississippi</b>	-	-	<b>1</b>	<b>3,201</b>	<b>1</b>	<b>3,201</b>
Choctaw	-	-	1	3,201	1	3,201
<b>Missouri</b>	-	-	<b>1</b>	<b>44</b>	<b>1</b>	<b>44</b>
Bates	-	-	1	44	1	44
<b>Montana</b>	<b>1</b>	<b>7,247</b>	<b>5</b>	<b>21,333</b>	<b>6</b>	<b>28,580</b>
Big Horn	-	-	3	14,734	3	14,734
Musselshell	1	7,247	-	-	1	7,247
Richland	-	-	1	100	1	100
Rosebud	-	-	1	6,498	1	6,498
<b>New Mexico</b>	<b>1</b>	<b>1,572</b>	<b>2</b>	<b>7,693</b>	<b>3</b>	<b>9,265</b>
Mckinley	-	-	1	3,659	1	3,659
San Juan	1	1,572	1	4,035	2	5,607
<b>North Dakota</b>	-	-	<b>5</b>	<b>26,513</b>	<b>5</b>	<b>26,513</b>
McLean	-	-	1	7,884	1	7,884
Mercer	-	-	3	15,043	3	15,043
Oliver	-	-	1	3,586	1	3,586
<b>Ohio</b>	<b>4</b>	<b>1,781</b>	<b>5</b>	<b>978</b>	<b>9</b>	<b>2,759</b>
Belmont	1	1,272	1	278	2	1,550
Harrison	2	484	2	233	4	717
Noble	-	-	1	452	1	452
Perry	1	25	-	-	1	25
Tuscarawas	-	-	1	14	1	14
<b>Oklahoma</b>	-	-	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
Okmulgee	-	-	1	1	1	1
<b>Pennsylvania</b>	<b>33</b>	<b>38,052</b>	<b>87</b>	<b>4,407</b>	<b>120</b>	<b>42,460</b>
Armstrong	3	750	1	18	4	769
Cambria	2	911	7	166	9	1,077
Carbon	-	-	1	47	1	47
Clarion	-	-	3	81	3	81
Clearfield	2	264	20	750	22	1,014
Columbia	-	-	1	79	1	79
Dauphin	1	9	-	-	1	9
Fayette	-	-	3	19	3	19
Fulton	-	-	1	235	1	235
Greene	4	25,023	-	-	4	25,023
Indiana	7	2,357	2	22	9	2,378
Jefferson	1	184	1	6	2	189
Lackawanna	-	-	1	9	1	9
Luzerne	-	-	3	557	3	557
Lycoming	-	-	1	128	1	128
Northumberland	2	1	7	303	9	304
Schuylkill	5	44	20	994	25	1,038
Somerset	4	1,260	13	900	17	2,160
Washington	1	6,809	-	-	1	6,809
Westmoreland	1	442	2	94	3	536
<b>Texas</b>	-	-	<b>5</b>	<b>17,250</b>	<b>5</b>	<b>17,250</b>
Atascosa	-	-	1	2,464	1	2,464
Harrison	-	-	1	1,866	1	1,866
Limestone	-	-	1	8,755	1	8,755
Robertson	-	-	1	2,064	1	2,064
Rusk	-	-	1	2,102	1	2,102
<b>Utah</b>	<b>5</b>	<b>12,000</b>	<b>1</b>	<b>434</b>	<b>6</b>	<b>12,434</b>
Carbon	2	7,005	-	-	2	7,005
Emery	2	1,684	-	-	2	1,684
Kane	-	-	1	434	1	434
Sevier	1	3,310	-	-	1	3,310

Coal-Producing State and County	Underground		Surface		Total	
	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production
<b>Virginia</b>	<b>8</b>	<b>8,023</b>	<b>24</b>	<b>2,668</b>	<b>32</b>	<b>10,691</b>
Buchanan	3	4,894	8	1,078	11	5,972
Dickenson	3	2,885	4	1,037	7	3,922
Lee	-	-	1	7	1	7
Russell	-	-	2	45	2	45
Tazewell	-	-	4	166	4	166
Wise	2	244	5	335	7	579
<b>West Virginia</b>	<b>60</b>	<b>65,157</b>	<b>75</b>	<b>13,344</b>	<b>135</b>	<b>78,501</b>
Barbour	1	905	-	-	1	905
Boone	4	2,435	7	630	11	3,065
Clay	-	-	1	79	1	79
Fayette	2	954	4	936	6	1,890
Grant	-	-	2	27	2	27
Greenbrier	-	-	2	127	2	127
Kanawha	3	2,544	4	580	7	3,124
Logan	11	6,224	11	1,812	22	8,037
Marion	1	6,183	1	187	2	6,370
Marshall	2	16,997	-	-	2	16,997
Mcdowell	14	1,566	13	1,084	27	2,650
Mercer	1	21	2	355	3	377
Mingo	-	-	8	1,685	8	1,685
Nicholas	2	848	4	152	6	1,000
Ohio	1	7,213	-	-	1	7,213
Raleigh	7	3,541	6	3,553	13	7,094
Randolph	2	700	1	65	3	764
Taylor	1	4,371	-	-	1	4,371
Tucker	1	1,540	-	-	1	1,540
Webster	-	-	2	126	2	126
Wetzel	1	6,149	-	-	1	6,149
Wyoming	6	2,967	7	1,946	13	4,913
<b>Wyoming</b>	<b>1</b>	<b>3,195</b>	<b>15</b>	<b>235,578</b>	<b>16</b>	<b>238,773</b>
Campbell	-	-	11	208,353	11	208,353
Converse	-	-	1	21,738	1	21,738
Lincoln	-	-	1	2,501	1	2,501
Sweetwater	1	3,195	2	2,985	3	6,180
<b>U.S. Subtotal</b>	<b>174</b>	<b>220,597</b>	<b>332</b>	<b>356,202</b>	<b>506</b>	<b>576,799</b>
<b>Refuse Recovery</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>6</b>	<b>633</b>
<b>U.S. Total</b>	<b>174</b>	<b>220,597</b>	<b>332</b>	<b>356,202</b>	<b>512</b>	<b>577,431</b>

- = No data 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, 2021**

(thousand short tons)

Coal-Producing State and Region <sup>1</sup>	Continuous	Conventional and Other <sup>2</sup>	Longwall	Total
Alabama	1,826	-	6,133	7,959
Colorado	1,070	-	6,060	7,130
Illinois	15,684	-	20,514	36,198
Indiana	10,411	-	-	10,411
<b>Kentucky Total</b>	<b>21,159</b>	<b>339</b>	<b>-</b>	<b>21,497</b>
Kentucky (East)	5,100	339	-	5,439
Kentucky (West)	16,058	-	-	16,058
Maryland	375	-	-	375
Montana	362	-	6,884	7,247
New Mexico	-	-	1,572	1,572
Ohio	509	-	1,272	1,781
<b>Pennsylvania Total</b>	<b>8,269</b>	<b>44</b>	<b>29,740</b>	<b>38,052</b>
Pennsylvania (Anthracite)	10	44	-	54
Pennsylvania (Bituminous)	8,259	-	29,740	37,998
Utah	3,602	-	8,398	12,000
Virginia	3,171	-	4,852	8,023
<b>West Virginia Total</b>	<b>26,351</b>	<b>47</b>	<b>38,760</b>	<b>65,157</b>
West Virginia (Northern)	5,297	-	38,760	44,057
West Virginia (Southern)	21,054	47	-	21,100
Wyoming	128	-	3,067	3,195
<b>Appalachia Total</b>	<b>45,600</b>	<b>429</b>	<b>80,757</b>	<b>126,786</b>
Appalachia Central	29,325	385	4,852	34,562
Appalachia Northern	14,450	44	69,771	84,265
Appalachia Southern	1,826	-	6,133	7,959
<b>Interior Region Total</b>	<b>42,154</b>	<b>-</b>	<b>20,514</b>	<b>62,667</b>
Illinois Basin	42,154	-	20,514	62,667
<b>Western Region Total</b>	<b>5,162</b>	<b>-</b>	<b>25,982</b>	<b>31,143</b>
Uinta Basin	4,095	-	14,458	18,553
Other Western	1,067	-	11,524	12,591
<b>East of Mississippi River</b>	<b>87,754</b>	<b>429</b>	<b>101,271</b>	<b>189,454</b>
<b>West of Mississippi River</b>	<b>5,162</b>	<b>-</b>	<b>25,982</b>	<b>31,143</b>
<b>U.S. Total</b>	<b>92,916</b>	<b>429</b>	<b>127,252</b>	<b>220,597</b>

- = No data reported.

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

2 Mines that: 1. produce coal using shortwall, scoop loading, hand loading, or other methods, or 2. produce less than 25,000 short tons, which are not required to provide data.

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

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' and U.S. Department of Labor, Mine Safety and Health Administration Form 7000-2, 'Quarterly Mine Employment and Coal Production Report.'

**Table 3.1 Surface Coal Production by State and Mining Method, 2021**

(thousand short tons)

Coal-Producing State and Region <sup>1</sup>	Contour Strip	Area	Open Pit	Mountaintop Mining	Other <sup>2</sup>	Total
Alabama	970	-	156	-	253	1,380
Alaska	521	-	521	-	-	1,042
Colorado	1,524	-	2,065	-	1,155	4,745
Illinois	-	382	-	-	34	416
Indiana	-	61	8,164	-	834	9,059
<b>Kentucky Total</b>	<b>1,805</b>	<b>1,161</b>	<b>228</b>	<b>-</b>	<b>1,735</b>	<b>4,929</b>
Kentucky (East)	1,805	1,161	-	-	1,726	4,691
Kentucky (West)	-	-	228	-	10	238
Louisiana	-	300	-	-	-	300
Maryland	487	358	-	-	43	888
Mississippi	3,201	-	-	-	-	3,201
Missouri	44	-	-	-	-	44
Montana	14,531	6,599	204	-	-	21,333
New Mexico	3,659	-	4,035	-	-	7,693
North Dakota	22,927	-	3,586	-	-	26,513
Ohio	452	383	-	-	143	978
Oklahoma	-	-	-	-	1	1
<b>Pennsylvania Total</b>	<b>1,342</b>	<b>-</b>	<b>2,552</b>	<b>-</b>	<b>513</b>	<b>4,407</b>
Pennsylvania (Anthracite)	904	-	970	-	115	1,989
Pennsylvania (Bituminous)	439	-	1,582	-	397	2,418
Texas	1,866	10,857	4,528	-	-	17,250
Utah	-	-	404	-	30	434
Virginia	1,318	654	-	-	697	2,668
<b>West Virginia Total</b>	<b>4,559</b>	<b>4,844</b>	<b>-</b>	<b>1,093</b>	<b>2,849</b>	<b>13,344</b>
West Virginia (Northern)	167	-	-	-	237	404
West Virginia (Southern)	4,392	4,844	-	1,093	2,611	12,940
Wyoming	111,542	1,771	122,265	-	-	235,578
<b>Appalachia Total</b>	<b>10,933</b>	<b>7,399</b>	<b>2,709</b>	<b>1,093</b>	<b>6,222</b>	<b>28,355</b>
Appalachia Central	7,514	6,658	-	1,093	5,033	20,299
Appalachia Northern	2,448	741	2,552	-	936	6,677
Appalachia Southern	970	-	156	-	253	1,380
<b>Interior Region Total</b>	<b>5,110</b>	<b>11,599</b>	<b>12,920</b>	<b>-</b>	<b>879</b>	<b>30,509</b>
Illinois Basin	-	443	8,392	-	878	9,713
Other Interior	5,110	11,157	4,528	-	1	20,796
<b>Western Region Total</b>	<b>154,703</b>	<b>8,370</b>	<b>133,079</b>	<b>-</b>	<b>1,185</b>	<b>297,338</b>
Powder River Basin	124,858	6,498	119,967	-	-	251,324
Uinta Basin	1,524	-	2,065	-	1,155	4,745
Other Western	28,321	1,872	11,047	-	30	41,269
<b>East of Mississippi River</b>	<b>14,133</b>	<b>7,841</b>	<b>11,101</b>	<b>1,093</b>	<b>7,100</b>	<b>41,269</b>
<b>West of Mississippi River</b>	<b>156,613</b>	<b>19,527</b>	<b>137,607</b>	<b>-</b>	<b>1,186</b>	<b>314,933</b>
<b>U.S. Total</b>	<b>170,746</b>	<b>27,368</b>	<b>148,708</b>	<b>1,093</b>	<b>8,286</b>	<b>356,202</b>

- = No data reported.

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

2 Mines that: 1. produce coal using auger, highwall mine, or punch, or 2. produce less than 25,000 short tons, which are not required to provide data.

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

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' 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, 2021**

(thousand short tons)

<b>Coal Thickness (inches)</b>	<b>Underground</b>	<b>Surface</b>	<b>Total</b>
Under 7	80	39	119
7 - Under 13	-	446	446
13 - Under 19	29	1,581	1,610
19 - Under 25	485	4,713	5,199
25 - Under 31	1,429	9,818	11,247
31 - Under 37	8,151	6,870	15,021
37 - Under 43	10,355	5,979	16,333
43 - Under 49	8,388	9,922	18,310
49 - Under 55	11,374	3,781	15,155
55 - Under 61	22,408	5,376	27,784
61 - Under 67	14,985	2,450	17,435
67 - Under 73	34,544	1,397	35,941
73 - Under 79	28,879	319	29,198
79 - Under 85	23,236	966	24,203
85 - Under 91	18,542	1,522	20,064
91 - Under 97	6,579	1,776	8,354
97 - Under 103	5,978	2,828	8,806
103 - Under 109	7,174	1,938	9,112
109 - Under 115	1,526	3,466	4,991
115 - 120	4,706	1,447	6,152
Over 120	11,544	288,444	299,987
<b>Unknown *</b>	<b>206</b>	<b>1,125</b>	<b>1,964</b>
<b>U.S. Total</b>	<b>220,597</b>	<b>356,202</b>	<b>577,431</b>

- = No data reported.

\* Includes mines with production of less than 25,000 short tons, which are not required to provide data, and refuse recovery.

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

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' 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, 2021**

Coalbed ID Number <sup>1</sup> Coalbed Name	Production (thousand short tons)			Thickness (inches)			
	Underground	Surface	Total	Average <sup>2</sup>	Low	High	
1699	Wyodak	-	204,940	204,940	782	120	940
0212	Pittsburgh	43,074	464	43,538	79	60	108
0484	Herrin (Illinois No. 6)	36,133	1,456	37,589	72	46	82
0036	Pittsburgh	26,571	373	26,944	81	48	97
0489	No. 9	21,272	3,706	24,978	61	36	74
1701	Smith	-	19,365	19,365	941	922	960
1569	Beulah-Zap	-	15,043	15,043	196	114	210
1696	Anderson-Dietz 1-Dietz 2	-	13,300	13,300	953	500	960
1570	Hagel	-	10,824	10,824	135	111	144
0344	Pocahontas No. 3	9,039	-	9,039	58	35	66
0084	Lower Kittanning	7,463	818	8,281	68	12	115
0280	Blue Creek	7,713	144	7,857	54	22	66
1808	Rosebud	-	7,373	7,373	265	186	276
0176	Eagle	6,070	1,273	7,343	46	20	84
1787	Roland	-	5,786	5,786	414	353	469
0204	Mammoth	5,435	-	5,435	108	108	108
0071	Upper Freeport	4,777	61	4,838	53	4	72
0168	Lower Elkhorn	3,372	1,462	4,834	42	12	70
1495	Deadman	3,195	1,214	4,409	134	108	144
1830	Lower O'connor	3,535	-	3,535	120	120	120
1800	Sunnyside	3,471	-	3,471	164	164	164
1847	Upper Hiawatha	3,277	-	3,277	96	96	96
0151	Upper Elkhorn No. 3	2,001	1,261	3,262	44	10	76
1756	E	3,240	-	3,240	162	162	162
0506	No. 6	3,194	-	3,194	92	92	92
<b>Major Coalbeds Total</b>		<b>192,829</b>	<b>288,865</b>	<b>481,694</b>	<b>448</b>	<b>4</b>	<b>960</b>
<b>Other Coalbeds</b>		<b>27,562</b>	<b>66,211</b>	<b>93,773</b>	<b>82</b>	<b>1</b>	<b>621</b>
<b>Unknown *</b>		<b>206</b>	<b>1,125</b>	<b>1,964</b>	<b>NA</b>	<b>NA</b>	<b>NA</b>
<b>U.S. Total</b>		<b>220,597</b>	<b>356,202</b>	<b>577,431</b>	<b>387</b>	<b>-</b>	<b>960</b>

- = No data reported.

NA = Not Available.

\* Includes mines with production of less than 25,000 short tons, which are not required to provide data, and refuse recovery.

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.

Notes: This table lists the top 25 producing coalbeds. The category 'Other Coalbeds' includes all coalbeds from which less than 4.0 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 4.0 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 Wyoming (coalbed codes 1495, 1699, and 1701); West Virginia (coalbed codes 212, 84, 111, 168, 103, 71); Illinois (coalbed code 484); Indiana (coalbed code 489); Pennsylvania (coalbed code 36); North Dakota (coalbed codes 1569, 1570); Montana (coalbed codes 1696, 1808, 204); Virginia (coalbed code 344); Alabama (coalbed code 280); Utah (coalbed code 1847); New Mexico (coalbed code 1003); Colorado (coalbed code 1756); West Virginia (coalbed codes 157, 176); Kentucky (coalbed code 151). In some other States where these are major producing beds, the following alternative coalbed names are also used: coalbed code 484 (Kentucky, Kentucky No 11), coalbed code 489 (Indiana, Indiana No 5), coalbed code 36 (Pennsylvania/Ohio, Pittsburgh No. 8), coalbed code 111 (Kentucky, Hazard No 6).

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' 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, 2021**

(thousand short tons)

Coal-Producing State and Region <sup>1</sup>	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	20	9,338	-	-	-	-	-	-	20	9,338
Alaska	-	-	1	1,042	-	-	-	-	1	1,042
Colorado	5	7,130	3	4,745	-	-	-	-	8	11,875
Illinois	12	36,614	-	-	-	-	-	-	12	36,614
Indiana	13	19,470	-	-	-	-	-	-	13	19,470
<b>Kentucky Total</b>	<b>101</b>	<b>26,426</b>	-	-	-	-	-	-	<b>101</b>	<b>26,426</b>
Kentucky (East)	96	10,130	-	-	-	-	-	-	96	10,130
Kentucky (West)	5	16,296	-	-	-	-	-	-	5	16,296
Louisiana	-	-	-	-	1	300	-	-	1	300
Maryland	10	1,263	-	-	-	-	-	-	10	1,263
Mississippi	-	-	-	-	1	3,201	-	-	1	3,201
Missouri	1	44	-	-	-	-	-	-	1	44
Montana	1	7,247	4	21,233	1	100	-	-	6	28,580
New Mexico	2	5,231	1	4,035	-	-	-	-	3	9,265
North Dakota	-	-	-	-	5	26,513	-	-	5	26,513
Ohio	9	2,759	-	-	-	-	-	-	9	2,759
Oklahoma	1	1	-	-	-	-	-	-	1	1
<b>Pennsylvania Total</b>	<b>79</b>	<b>40,417</b>	-	-	-	-	<b>41</b>	<b>2,043</b>	<b>120</b>	<b>42,460</b>
Pennsylvania (Anthracite)	-	-	-	-	-	-	41	2,043	41	2,043
Pennsylvania (Bituminous)	79	40,417	-	-	-	-	-	-	79	40,417
Texas	-	-	-	-	5	17,250	-	-	5	17,250
Utah	6	12,434	-	-	-	-	-	-	6	12,434
Virginia	32	10,691	-	-	-	-	-	-	32	10,691
<b>West Virginia Total</b>	<b>135</b>	<b>78,501</b>	-	-	-	-	-	-	<b>135</b>	<b>78,501</b>
West Virginia (Northern)	16	44,460	-	-	-	-	-	-	16	44,460
West Virginia (Southern)	119	34,040	-	-	-	-	-	-	119	34,040
Wyoming	1	1,771	15	237,001	-	-	-	-	16	238,773
<b>Appalachia Total</b>	<b>381</b>	<b>153,099</b>	-	-	-	-	<b>41</b>	<b>2,043</b>	<b>422</b>	<b>155,141</b>
Appalachia Central	247	54,861	-	-	-	-	-	-	247	54,861
Appalachia Northern	114	88,899	-	-	-	-	41	2,043	155	90,942
Appalachia Southern	20	9,338	-	-	-	-	-	-	20	9,338
<b>Interior Region Total</b>	<b>32</b>	<b>72,425</b>	-	-	<b>7</b>	<b>20,751</b>	-	-	<b>39</b>	<b>93,176</b>
Illinois Basin	30	72,380	-	-	-	-	-	-	30	72,380
Other Interior	2	45	-	-	7	20,751	-	-	9	20,796
<b>Western Region Total</b>	<b>15</b>	<b>33,813</b>	<b>24</b>	<b>268,055</b>	<b>6</b>	<b>26,613</b>	-	-	<b>45</b>	<b>328,481</b>
Powder River Basin	-	-	16	251,324	-	-	-	-	16	251,324
Uinta Basin	8	18,553	3	4,745	-	-	-	-	11	23,298
Other Western	7	15,260	5	11,987	6	26,613	-	-	18	53,860
<b>East of Mississippi River</b>	<b>411</b>	<b>225,479</b>	-	-	<b>1</b>	<b>3,201</b>	<b>41</b>	<b>2,043</b>	<b>453</b>	<b>230,722</b>
<b>West of Mississippi River</b>	<b>17</b>	<b>33,857</b>	<b>24</b>	<b>268,055</b>	<b>12</b>	<b>44,164</b>	-	-	<b>53</b>	<b>346,076</b>
<b>U.S. Subtotal</b>	<b>428</b>	<b>259,337</b>	<b>24</b>	<b>268,055</b>	<b>13</b>	<b>47,364</b>	<b>41</b>	<b>2,043</b>	<b>506</b>	<b>576,799</b>
<b>Refuse Recovery</b>	<b>4</b>	<b>564</b>	-	-	-	-	<b>2</b>	<b>69</b>	<b>6</b>	<b>633</b>
<b>U.S. Total</b>	<b>432</b>	<b>259,901</b>	<b>24</b>	<b>268,055</b>	<b>13</b>	<b>47,364</b>	<b>43</b>	<b>2,111</b>	<b>512</b>	<b>577,431</b>

- = No data reported.

<sup>1</sup> For a definition of coal producing regions, see Glossary.

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

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' 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, 2021**

(thousand short tons)

Coal-Producing State and Region <sup>1</sup>	Union		Nonunion		Total	
	Underground	Surface	Underground	Surface	Underground	Surface
Alabama	7,742	-	217	1,342	7,959	1,342
Alaska	-	1,042	-	-	-	1,042
Colorado	1,541	1,524	5,589	3,220	7,130	4,745
Illinois	-	-	36,198	409	36,198	409
Indiana	-	-	10,411	9,017	10,411	9,017
<b>Kentucky Total</b>	-	-	<b>21,454</b>	<b>4,687</b>	<b>21,454</b>	<b>4,687</b>
Kentucky (East)	-	-	5,396	4,454	5,396	4,454
Kentucky (West)	-	-	16,058	233	16,058	233
Louisiana	-	-	-	300	-	300
Maryland	-	-	375	845	375	845
Mississippi	-	-	-	3,201	-	3,201
Missouri	-	-	-	44	-	44
Montana	-	8,237	7,247	13,096	7,247	21,333
New Mexico	1,572	4,035	-	3,659	1,572	7,693
North Dakota	-	4,026	-	22,486	-	26,513
Ohio	-	-	1,756	964	1,756	964
<b>Pennsylvania Total</b>	<b>7,970</b>	<b>778</b>	<b>30,028</b>	<b>3,223</b>	<b>37,998</b>	<b>4,000</b>
Pennsylvania (Anthracite)	-	778	-	1,054	-	1,832
Pennsylvania (Bituminous)	7,970	-	30,028	2,169	37,998	2,169
Texas	-	10,857	-	6,394	-	17,250
Utah	-	-	12,000	434	12,000	434
Virginia	-	-	8,002	2,598	8,002	2,598
<b>West Virginia Total</b>	<b>29,553</b>	<b>960</b>	<b>35,541</b>	<b>12,121</b>	<b>65,093</b>	<b>13,081</b>
West Virginia (Northern)	29,329	-	14,728	400	44,057	400
West Virginia (Southern)	224	960	20,813	11,721	21,037	12,681
Wyoming	3,195	3,715	-	231,862	3,195	235,578
<b>Appalachia Total</b>	<b>45,265</b>	<b>1,738</b>	<b>81,316</b>	<b>25,547</b>	<b>126,580</b>	<b>27,285</b>
Appalachia Central	224	960	34,211	18,774	34,435	19,734
Appalachia Northern	37,299	778	46,888	5,431	84,187	6,209
Appalachia Southern	7,742	-	217	1,342	7,959	1,342
<b>Interior Region Total</b>	-	<b>10,857</b>	<b>62,667</b>	<b>19,597</b>	<b>62,667</b>	<b>30,454</b>
Illinois Basin	-	-	62,667	9,658	62,667	9,658
Other Interior	-	10,857	-	9,939	-	20,795
<b>Western Region Total</b>	<b>6,308</b>	<b>22,580</b>	<b>24,835</b>	<b>274,757</b>	<b>31,143</b>	<b>297,338</b>
Powder River Basin	-	8,137	-	243,187	-	251,324
Uinta Basin	1,541	1,524	17,012	3,220	18,553	4,745
Other Western	4,767	12,919	7,823	28,350	12,591	41,269
<b>East of Mississippi River</b>	<b>45,265</b>	<b>1,738</b>	<b>143,983</b>	<b>38,406</b>	<b>189,248</b>	<b>40,144</b>
<b>West of Mississippi River</b>	<b>6,308</b>	<b>33,437</b>	<b>24,835</b>	<b>281,495</b>	<b>31,143</b>	<b>314,932</b>
<b>U.S. Subtotal</b>	<b>51,573</b>	<b>35,175</b>	<b>168,818</b>	<b>319,902</b>	<b>220,391</b>	<b>355,076</b>
<b>Unknown *</b>	-	-	-	-	<b>206</b>	<b>1,125</b>
<b>U.S. Total</b>	<b>51,573</b>	<b>35,175</b>	<b>168,818</b>	<b>319,902</b>	<b>220,597</b>	<b>356,202</b>

- = No data reported.

\* Includes mines with production of less than 25,000 short tons, which are not required to provide data.

<sup>1</sup> For a definition of coal producing regions, see Glossary.

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

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' 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, 2021**

(thousand short tons)

Coal-Producing State	Open Market Sales <sup>1</sup>		Captive Sales / Transactions <sup>2</sup>		Exports <sup>3</sup>		Total	
	Metallurgical	Non-Metallurgical	Metallurgical	Non-Metallurgical	Metallurgical	Non-Metallurgical	Metallurgical	Non-Metallurgical
Alabama	268	1,267	-	-	6,272	-	6,541	1,267
Alaska	-	1,024	-	-	-	-	-	1,024
Colorado	1	4,627	-	5,271	70	-	71	9,899
Illinois	-	19,879	-	8,549	-	8,361	-	36,789
Indiana	-	8,902	-	9,826	-	-	-	18,728
<b>Kentucky Total</b>	<b>2,121</b>	<b>21,336</b>	<b>798</b>	<b>-</b>	<b>545</b>	<b>52</b>	<b>3,464</b>	<b>21,388</b>
Kentucky (East)	2,121	5,793	798	-	545	52	3,464	5,845
Kentucky (West)	-	15,543	-	-	-	-	-	15,543
Louisiana	-	293	-	-	-	-	-	293
Maryland	340	845	-	-	1	-	341	845
Mississippi	-	3,025	-	-	-	-	-	3,025
Missouri	-	44	-	-	-	-	-	44
Montana	-	16,346	-	7,410	-	-	-	23,757
New Mexico	-	6,751	-	3,500	-	-	-	10,251
North Dakota	-	26,802	-	-	-	-	-	26,802
Ohio	-	2,722	-	-	-	-	-	2,722
<b>Pennsylvania Total</b>	<b>5,548</b>	<b>22,352</b>	<b>130</b>	<b>331</b>	<b>1,942</b>	<b>8,140</b>	<b>7,621</b>	<b>30,823</b>
Pennsylvania (Anthracite)	230	1,318	-	121	-	6	230	1,444
Pennsylvania (Bituminous)	5,318	21,034	130	211	1,942	8,134	7,390	29,379
Texas	-	2,179	-	15,433	-	-	-	17,612
Utah	-	10,441	-	-	-	397	-	10,838
Virginia	2,303	827	496	-	2,442	-	5,241	827
<b>West Virginia Total</b>	<b>10,812</b>	<b>41,757</b>	<b>1,128</b>	<b>-</b>	<b>14,326</b>	<b>1,438</b>	<b>26,266</b>	<b>43,194</b>
West Virginia (Northern)	879	34,886	594	-	3,647	378	5,121	35,264
West Virginia (Southern)	9,933	6,871	533	-	10,679	1,059	21,145	7,930
Wyoming	-	145,550	-	93,065	-	811	-	239,426
<b>U.S. Subtotal</b>	<b>21,394</b>	<b>336,968</b>	<b>2,552</b>	<b>143,386</b>	<b>25,598</b>	<b>19,199</b>	<b>49,544</b>	<b>499,554</b>
Adjustments <sup>4</sup>	-7,094	-	-	-	-	-	-7,094	-
Other Exports *	-	-	-	-	19,372	20,946	19,372	20,946
<b>U.S. Total **</b>	<b>14,300</b>	<b>336,968</b>	<b>2,552</b>	<b>143,386</b>	<b>44,970</b>	<b>40,145</b>	<b>61,822</b>	<b>520,500</b>

- = No data reported.

\* Estimated quantity of coal exported by coal brokers, coal traders and coal terminals reported on the EIA-8A, 'Annual Survey of Coal Stocks and Coal Exports'.

\*\* Excludes mines producing less than 25,000 short tons, which are not required to provide data, and refuse recovery.

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

2 Captive sales transactions include all coal used by the producing company or sold to affiliate or parent companies; excludes exports.

3 State level total and U.S. subtotal include the quantity of coal exported by coal mines only.

4 Adjustments reflect differences in source data. State-level data are sourced from the EIA-7A, 'Annual Survey of Coal Production and Preparation'. Adjustments are estimated using coal consumed for coke production from the EIA-3, 'Quarterly Survey of Industrial, Commercial, &amp; Institutional Users' and metallurgical coal imports from the U.S. Department of Commerce, Bureau of the Census, 'Monthly Report IM 145.' US Total Exports are sourced from U.S. Department of Commerce, Bureau of the Census, 'Monthly Report EM 545.'

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

**Table 9. Major U.S. Coal Mines, 2021**

<b>Rank</b>	<b>Mine Name / Operating Company</b>	<b>Mine Type</b>	<b>State</b>	<b>Production (short tons)</b>
1	North Antelope Rochelle Mine / Peabody Powder River Mining LLC	Surface	Wyoming	62,799,005
2	Black Thunder / Thunder Basin Coal Company LLC	Surface	Wyoming	59,359,967
3	Antelope Coal Mine / Navajo Transitional Energy Com	Surface	Wyoming	21,738,381
4	Belle Ayr Mine / Eagle Specialty Materials LLC	Surface	Wyoming	14,449,608
5	Caballo Mine / Peabody Caballo Mining, LLC	Surface	Wyoming	13,860,353
6	Eagle Butte Mine / Eagle Specialty Materials LLC	Surface	Wyoming	13,549,294
7	Spring Creek Mine / Navajo Transitional Energy Com	Surface	Montana	13,095,744
8	Cordero Rojo Mine / Navajo Transitional Energy Com	Surface	Wyoming	12,867,638
9	Freedom Mine / The Coteau Properties Company	Surface	North Dakota	12,584,181
10	Bailey Mine / Consol Pennsylvania Coal Company	Underground	Pennsylvania	11,753,022
11	Rawhide Mine / Peabody Caballo Mining, LLC	Surface	Wyoming	11,601,736
12	Marshall County Mine / Marshall County Coal Resources	Underground	West Virginia	11,022,355
13	Buckskin Mine / Buckskin Mining Company	Surface	Wyoming	10,639,487
14	River View Mine / River View Coal LLC	Underground	Kentucky	9,847,709
15	Kosse Strip / Luminant Mining Company LLC	Surface	Texas	8,754,658
16	Falkirk Mine / Falkirk Mining Company	Surface	North Dakota	7,884,031
17	Mc#1 Mine / M-Class Mining LLC	Underground	Illinois	7,860,150
18	Bull Mountains Mine No 1 / Signal Peak Energy LLC	Underground	Montana	7,246,554
19	Tunnel Ridge Mine / Tunnel Ridge, LLC	Underground	West Virginia	7,212,501
20	Enlow Fork Mine / Consol Pennsylvania Coal Company	Underground	Pennsylvania	6,808,789
21	Mach #1 Mine / Mach Mining LLC	Underground	Illinois	6,713,341
22	Lively Grove Mine / Prairie State Generating Company	Underground	Illinois	6,636,062
23	Rosebud Mine & Crusher/Conveyo / Westmoreland Rosebud Mining LI	Surface	Montana	6,498,182
24	Marion County Mine / Marion County Coal Resources,	Underground	West Virginia	6,182,761
25	Harrison County Mine / Harrison County Coal Resources	Underground	West Virginia	6,149,291
26	Bear Run Mine / Peabody Bear Run Mining LLC	Surface	Indiana	6,039,988
27	Cumberland Mine / Iron Cumberland LLC	Underground	Pennsylvania	5,978,123
28	Ohio County Mine / Ohio County Coal Resources, In	Underground	West Virginia	5,974,355
29	Harvey Mine / Consol Pennsylvania Coal Company	Underground	Pennsylvania	5,299,867
30	Mine No. 1 / Hamilton County Coal, LLC	Underground	Illinois	4,938,788
31	Buchanan Mine #1 / Buchanan Minerals, LLC	Underground	Virginia	4,852,300
32	No 7 Mine / Warrior Met Coal Mining, LLC	Underground	Alabama	4,793,699
33	Leer Mine / Aci Tygart Valley	Underground	West Virginia	4,370,790
34	Cardinal / Warrior Coal LLC	Underground	Kentucky	4,141,430
35	Prairie Eagle-Underground / Knight Hawk Coal, LLC	Underground	Illinois	4,114,075
36	Navajo Mine / Bisti Fuels Company LLC	Surface	New Mexico	4,034,559
<b>Subtotal</b>				<b>411,652,774</b>
<b>All Other Mines</b>				<b>165,778,504</b>
<b>U.S. Total</b>				<b>577,431,278</b>

Notes: Major mines are mines that produced more than 4 million short tons in 2021. Company listed indicates the firm operating the mine.

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' 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, 2021**

<b>Rank</b>	<b>Controlling Company Name</b>	<b>Production (thousand short tons)</b>	<b>Percent of Total Production</b>
1	Peabody Energy Corp	105,383	18.3
2	Arch Resources Inc	71,854	12.4
3	Navajo Transitional Energy Co	51,736	9.0
4	Acnr Holdings Inc	40,153	7.0
5	Alliance Resource Partners LP	32,218	5.6
6	John Mcnab Petri E Koivula Mike Jamison	27,999	4.8
7	NACCO Industries Inc	27,852	4.8
8	CONSOL Energy Inc	23,963	4.1
9	Foresight Energy Labor LLC	17,767	3.1
10	Alpha Metallurgical Resources Inc	15,835	2.7
11	Vistra Energy	10,857	1.9
12	Kiewit Peter Sons' Inc	10,639	1.8
13	Westmoreland Mining Holdings LLC	10,046	1.7
14	Seven Energy Ag	8,077	1.4
15	Global Mining Group LLC	7,247	1.3
16	Coronado Coal LLC	6,945	1.2
17	Wolverine Fuels LLC	6,845	1.2
18	Prairie State Energy Campus	6,636	1.1
19	Iron Senergy Holding LLC	5,978	1.0
20	MidAmerican Energy Holdings Co	5,933	1.0
21	Hallador Energy Company	5,771	1.0
22	Warrior Met Coal Intermediate Holdco LLC	5,605	1.0
23	J Clifford Forrest	5,424	0.9
	<b>Subtotal</b>	<b>510,763</b>	<b>88.5</b>
	<b>All Other Coal Producers</b>	<b>66,668</b>	<b>11.5</b>
	<b>U.S. Total</b>	<b>577,431</b>	<b>100.0</b>

Notes: The listed companies each produced more than 5 million short tons of coal in 2021. 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: U.S. Department of Labor, Mine Safety and Health Administration Form 7000-2, 'Quarterly Mine Employment and Coal Production Report.'

## Productive Capacity

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**Table 11. Productive Capacity of Coal Mines by State, 2021 and 2020**

(thousand short tons)

Coal-Producing State	2021			2020			Percent Change		
	Underground	Surface	Total	Underground	Surface	Total	Underground	Surface	Total
Alabama	13,055	2,276	15,331	13,855	1,986	15,841	-5.8	14.6	-3.2
Alaska	-	3,000	3,000	-	3,000	3,000	-	-	-
Colorado	15,290	5,865	21,155	14,864	5,800	20,664	2.9	1.1	2.4
Illinois	43,060	1,250	44,310	53,551	3,460	57,011	-19.6	-63.9	-22.3
Indiana	17,700	12,460	30,160	18,640	15,003	33,643	-5.0	-17.0	-10.4
<b>Kentucky Total</b>	<b>24,743</b>	<b>7,312</b>	<b>32,054</b>	<b>32,822</b>	<b>6,485</b>	<b>39,308</b>	<b>-24.6</b>	<b>12.8</b>	<b>-18.5</b>
Kentucky (East)	8,143	7,072	15,214	10,352	6,175	16,527	-21.3	14.5	-7.9
Kentucky (West)	16,600	240	16,840	22,470	310	22,780	-26.1	-22.6	-26.1
Louisiana	-	385	385	-	1,341	1,341	-	-71.3	-71.3
Maryland	600	1,061	1,661	600	1,146	1,746	-	-7.4	-4.9
Mississippi	-	3,600	3,600	-	3,600	3,600	-	-	-
Missouri	-	100	100	-	260	260	-	-61.5	-61.5
Montana	11,000	34,104	45,104	11,000	38,800	49,800	-	-12.1	-9.4
New Mexico	9,000	10,000	19,000	9,000	13,900	22,900	-	-28.1	-17.0
North Dakota	-	35,100	35,100	-	34,261	34,261	-	2.4	2.4
Ohio	2,212	1,768	3,980	7,955	1,814	9,769	-72.2	-2.5	-59.3
<b>Pennsylvania Total</b>	<b>44,160</b>	<b>7,079</b>	<b>51,239</b>	<b>35,969</b>	<b>6,331</b>	<b>42,300</b>	<b>22.8</b>	<b>11.8</b>	<b>21.1</b>
Pennsylvania (Anthracite)	41	3,527	3,568	57	3,324	3,381	-28.1	6.1	5.5
Pennsylvania (Bituminous)	44,119	3,552	47,671	35,913	3,007	38,920	22.9	18.1	22.5
Tennessee	-	-	-	184	-	184	-	-	-
Texas	-	18,491	18,491	-	23,118	23,118	-	-20.0	-20.0
Utah	17,860	2,000	19,860	18,760	2,000	20,760	-4.8	-	-4.3
Virginia	8,433	3,933	12,366	9,316	6,217	15,533	-9.5	-36.7	-20.4
<b>West Virginia Total</b>	<b>83,959</b>	<b>19,914</b>	<b>103,873</b>	<b>79,456</b>	<b>18,566</b>	<b>98,021</b>	<b>5.7</b>	<b>7.3</b>	<b>6.0</b>
West Virginia (Northern)	57,700	801	58,501	54,499	710	55,209	5.9	12.8	6.0
West Virginia (Southern)	26,260	19,113	45,373	24,956	17,856	42,812	5.2	7.0	6.0
Wyoming	3,400	406,518	409,918	2,424	437,139	439,563	40.3	-7.0	-6.7
<b>U.S. Total</b>	<b>294,473</b>	<b>576,216</b>	<b>870,689</b>	<b>308,395</b>	<b>624,228</b>	<b>932,623</b>	<b>-4.5</b>	<b>-7.7</b>	<b>-6.6</b>

- = No data reported.

Notes: Productive capacity is the maximum amount of coal that can be produced annually as reported by mining companies on Form EIA-7A, 'Annual Survey of Coal Production and Preparation.' Excluding refuse recovery and mines producing less than 25,000 short tons, which are not required to provide data. Totals may not equal sum of components because of independent rounding.

Source: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation.'

**Table 12. Capacity Utilization of Coal Mines by State, 2021 and 2020**

(percent)

Coal-Producing State	2021			2020		
	Underground	Surface	Total	Underground	Surface	Total
Alabama	60.96	58.97	60.67	75.43	81.29	76.16
Alaska	-	34.74	34.74	-	34.03	34.03
Colorado	46.63	80.90	56.13	41.77	66.34	48.67
Illinois	84.06	32.72	82.61	55.24	57.72	55.39
Indiana	58.82	72.43	64.44	49.06	71.88	59.24
<b>Kentucky Total</b>	<b>86.71</b>	<b>64.11</b>	<b>81.55</b>	<b>59.84</b>	<b>66.35</b>	<b>60.91</b>
Kentucky (East)	66.26	62.99	64.74	38.96	64.85	48.63
Kentucky (West)	96.74	96.96	96.74	69.46	96.10	69.82
Louisiana	-	77.95	77.95	-	50.47	50.47
Maryland	62.56	79.67	73.49	87.25	50.75	63.30
Mississippi	-	88.91	88.91	-	71.87	71.87
Missouri	-	44.16	44.16	-	61.05	61.05
Montana	65.88	62.55	63.36	54.75	52.57	53.06
New Mexico	17.47	76.93	48.77	13.84	64.77	44.76
North Dakota	-	75.53	75.53	-	77.17	77.17
Ohio	80.50	55.33	69.32	31.88	57.88	36.71
<b>Pennsylvania Total</b>	<b>86.12</b>	<b>58.28</b>	<b>82.28</b>	<b>89.26</b>	<b>60.51</b>	<b>84.95</b>
Pennsylvania (Anthracite)	80.55	55.14	55.43	67.15	67.35	67.35
Pennsylvania (Bituminous)	86.13	61.40	84.29	89.29	52.94	86.48
Tennessee	-	-	-	45.01	-	45.01
Texas	-	93.29	93.29	-	85.14	85.14
Utah	67.19	21.71	62.61	67.07	28.45	63.35
Virginia	94.89	66.07	85.72	76.16	38.23	60.98
<b>West Virginia Total</b>	<b>77.53</b>	<b>65.69</b>	<b>75.26</b>	<b>69.97</b>	<b>60.82</b>	<b>68.24</b>
West Virginia (Northern)	76.36	49.90	75.99	67.53	43.99	67.23
West Virginia (Southern)	80.11	66.35	74.32	75.30	61.49	69.54
Wyoming	93.97	57.95	58.25	100.00	49.44	49.72
<b>U.S. Total</b>	<b>74.86</b>	<b>61.65</b>	<b>66.12</b>	<b>63.31</b>	<b>54.20</b>	<b>57.21</b>

- = No data reported.

Notes: Capacity utilization is the ratio of annual production to annual productive capacity. Excludes refuse recovery and mines producing less than 25,000 short tons, which are not required to provide data. Totals may not equal sum of components because of independent rounding.

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' 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, 2021**

(thousand short tons)

Coal-Producing State	Continuous		Conventional and Other <sup>1</sup>		Longwall		Total	
	Productive Capacity	Capacity Utilization Percent	Productive Capacity	Capacity Utilization Percent	Productive Capacity	Capacity Utilization Percent	Productive Capacity	Capacity Utilization Percent
Alabama	2,979	61.29	s	-	10,076	60.87	13,055	60.96
Colorado	2,290	46.72	s	-	13,000	46.62	15,290	46.63
Illinois	18,357	85.44	s	-	24,703	83.04	43,060	84.06
Indiana	17,700	58.82	s	-	s	-	17,700	58.82
<b>Kentucky Total</b>	<b>24,298</b>	<b>87.08</b>	<b>444</b>	<b>66.48</b>	<b>s</b>	<b>-</b>	<b>24,743</b>	<b>86.71</b>
Kentucky (East)	7,698	66.25	444	66.48	s	-	8,143	66.26
Kentucky (West)	16,600	96.74	s	-	s	-	16,600	96.74
Maryland	600	62.56	s	-	s	-	600	62.56
Montana	550	65.88	s	-	10,450	65.88	11,000	65.88
New Mexico	s	-	s	-	9,000	17.47	9,000	17.47
Ohio	712	71.46	s	-	1,500	84.79	2,212	80.50
<b>Pennsylvania Total</b>	<b>9,284</b>	<b>89.07</b>	<b>26</b>	<b>87.92</b>	<b>34,850</b>	<b>85.34</b>	<b>44,160</b>	<b>86.12</b>
Pennsylvania (Anthracite)	15	67.70	26	87.92	s	-	41	80.55
Pennsylvania (Bituminous)	9,269	89.10	s	-	34,850	85.34	44,119	86.13
Utah	5,543	64.98	s	-	12,317	68.18	17,860	67.19
Virginia	3,333	94.51	s	-	5,100	95.14	8,433	94.89
<b>West Virginia Total</b>	<b>34,436</b>	<b>76.47</b>	<b>s</b>	<b>-</b>	<b>49,523</b>	<b>78.27</b>	<b>83,959</b>	<b>77.53</b>
West Virginia (Northern)	8,177	64.78	s	-	49,523	78.27	57,700	76.36
West Virginia (Southern)	26,260	80.11	s	-	s	-	26,260	80.11
Wyoming	136	93.97	s	-	3,264	93.97	3,400	93.97
<b>U.S. Total</b>	<b>120,219</b>	<b>77.26</b>	<b>470</b>	<b>67.66</b>	<b>173,783</b>	<b>73.22</b>	<b>294,473</b>	<b>74.86</b>

- = No data reported.

s = Absolute percentage less than 0.05 or value is less than 0.5 of the table metric.

<sup>1</sup> Mines that produce coal using shortwall, scoop loading, hand loading, or other methods.

Notes: 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 refuse recovery and mines producing less than 25,000 short tons, which are not required to provide data. Totals may not equal sum of components because of independent rounding.

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' for productive capacity, and U.S. Department of Labor, Mine Safety and Health Administration Form 7000-2, 'Quarterly Mines Employment and Coal Production Report,' for annual production.

**Table 13.1 Productive Capacity and Capacity Utilization of Surface Coal Mines by State and Mining Method, 2021**

(thousand short tons)

Coal-Producing State	Contour Strip		Area		Open Pit		Mountaintop Mining		Other <sup>1</sup>		Total	
	Productive Capacity	Capacity Utilization Percent	Productive Capacity	Capacity Utilization Percent	Productive Capacity	Capacity Utilization Percent	Productive Capacity	Capacity Utilization Percent	Productive Capacity	Capacity Utilization Percent	Productive Capacity	Capacity Utilization Percent
Alabama	1,364	71.14	-	-	400	39.11	-	-	513	42.09	2,276	58.97
Alaska	1,500	34.74	-	-	1,500	34.74	-	-	-	-	3,000	34.74
Colorado	2,300	66.28	-	-	2,065	100.00	-	-	1,500	77.00	5,865	80.90
Illinois	-	-	1,210	31.55	-	-	-	-	40	67.97	1,250	32.72
Indiana	-	-	1,500	4.05	9,550	85.49	-	-	1,410	56.70	12,460	72.43
<b>Kentucky Total</b>	<b>2,827</b>	<b>63.83</b>	<b>1,460</b>	<b>79.50</b>	<b>235</b>	<b>96.96</b>	-	-	<b>2,789</b>	<b>53.55</b>	<b>7,312</b>	<b>64.11</b>
Kentucky (East)	2,827	63.83	1,460	79.50	-	-	-	-	2,784	53.48	7,072	62.99
Kentucky (West)	-	-	-	-	235	96.96	-	-	5	96.96	240	96.96
Louisiana	-	-	385	77.95	-	-	-	-	-	-	385	77.95
Maryland	561	86.88	500	71.59	-	-	-	-	-	-	1,061	79.67
Mississippi	3,600	88.91	-	-	-	-	-	-	-	-	3,600	88.91
Missouri	100	44.16	-	-	-	-	-	-	-	-	100	44.16
Montana	23,500	61.83	10,400	63.45	204	100.00	-	-	-	-	34,104	62.55
New Mexico	5,000	73.17	-	-	5,000	80.69	-	-	-	-	10,000	76.93
North Dakota	30,100	76.17	-	-	5,000	71.71	-	-	-	-	35,100	75.53
Ohio	500	90.50	959	39.92	-	-	-	-	309	46.27	1,768	55.33
<b>Pennsylvania Total</b>	<b>1,930</b>	<b>69.56</b>	-	-	<b>4,810</b>	<b>53.06</b>	-	-	<b>340</b>	<b>68.10</b>	<b>7,079</b>	<b>58.28</b>
Pennsylvania (Anthracite)	1,094	82.57	-	-	2,283	42.48	-	-	150	47.77	3,527	55.14
Pennsylvania (Bituminous)	835	52.51	-	-	2,527	62.63	-	-	190	84.17	3,552	61.40
Texas	2,179	85.61	10,862	99.95	5,450	83.08	-	-	-	-	18,491	93.29
Utah	-	-	-	-	1,860	21.71	-	-	140	21.71	2,000	21.71
Virginia	2,228	59.13	821	79.62	-	-	-	-	884	70.97	3,933	66.07
<b>West Virginia Total</b>	<b>7,809</b>	<b>58.38</b>	<b>5,488</b>	<b>88.26</b>	-	-	<b>2,061</b>	<b>53.02</b>	<b>4,556</b>	<b>56.77</b>	<b>19,914</b>	<b>65.69</b>
West Virginia (Northern)	214	77.89	-	-	-	-	-	-	587	39.70	801	49.90
West Virginia (Southern)	7,595	57.83	5,488	88.26	-	-	2,061	53.02	3,969	59.30	19,113	66.35
Wyoming	252,000	44.26	5,000	35.43	149,518	81.77	-	-	-	-	406,518	57.95
<b>U.S. Total</b>	<b>337,497</b>	<b>50.59</b>	<b>38,585</b>	<b>70.93</b>	<b>185,592</b>	<b>80.13</b>	<b>2,061</b>	<b>53.02</b>	<b>12,481</b>	<b>58.57</b>	<b>576,216</b>	<b>61.65</b>

- = No data reported.

1 Mines that: 1. produce coal using auger, highwall mine, or punch.

Notes: 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 refuse recovery and mines producing less than 25,000 short tons, which are not required to provide data. Totals may not equal sum of components because of independent rounding. Mines reporting multiple mining methods are assigned to the mining method with the greatest percentage of production reported.

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' for productive capacity, and U.S. Department of Labor, Mine Safety and Health Administration Form 7000-2, 'Quarterly Mines Employment and Coal Production Report,' for annual production.

## Recoverable Reserves

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**Table 14. Recoverable Coal Reserves at Producing Mines by State, 2021 and 2020**

(million short tons)

Coal-Producing State	2021	2020	Percent Change Recoverable Coal Reserves
	Recoverable Coal Reserves	Recoverable Coal Reserves	
Alabama	172	190	-9.3
Alaska	46	47	-2.2
Colorado	284	193	47.3
Illinois	1,873	1,883	-0.5
Indiana	302	411	-26.6
<b>Kentucky Total</b>	<b>354</b>	<b>468</b>	<b>-24.5</b>
Kentucky (East)	131	157	-16.9
Kentucky (West)	223	311	-28.3
Louisiana	13	13	-2.3
Maryland	6	7	-6.7
Mississippi	105	108	-3.0
Missouri	s	s	219.7
Montana	559	707	-20.9
New Mexico	44	65	-32.4
North Dakota	621	922	-32.6
Ohio	49	54	-9.1
<b>Pennsylvania Total</b>	<b>1,370</b>	<b>975</b>	<b>40.5</b>
Pennsylvania (Anthracite)	118	117	1.1
Pennsylvania (Bituminous)	1,252	859	45.8
Tennessee	-	9	-
Texas	292	316	-7.6
Utah	169	180	-6.0
Virginia	149	178	-16.3
<b>West Virginia Total</b>	<b>1,470</b>	<b>1,567</b>	<b>-6.2</b>
West Virginia (Northern)	1,013	1,020	-0.7
West Virginia (Southern)	457	547	-16.5
Wyoming	4,403	4,907	-10.3
<b>U.S. Total</b>	<b>12,282</b>	<b>13,201</b>	<b>-7.0</b>

- = No data reported.

s = Absolute percentage less than 0.05 or value is less than 0.5 of the table metric.

Notes: Recoverable reserves represent the quantity of coal that can be recovered (i.e. mined) from existing coal reserves at reporting mines. Excludes refuse recovery and mines producing less than 25,000 short tons, which are not required to provide data. Totals may not equal sum of components because of independent rounding.

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' 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, 2021**

(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	164	328	651	8	2,208	3,099	172	2,536	3,750
Alaska	-	2,335	5,423	46	476	659	46	2,811	6,082
Arkansas	-	126	271	-	101	144	-	227	415
Colorado	177	5,678	10,820	107	3,740	4,754	284	9,419	15,574
Georgia	-	1	2	-	1	2	-	2	4
Idaho	-	2	4	-	-	-	-	2	4
Illinois	1,868	27,543	86,709	5	10,021	16,465	1,873	37,564	103,175
Indiana	132	3,435	8,294	170	210	360	302	3,645	8,654
Iowa	-	807	1,732	-	320	457	-	1,127	2,189
Kansas	-	-	-	-	679	970	-	679	970
<b>Kentucky Total</b>	<b>326</b>	<b>6,652</b>	<b>15,498</b>	<b>28</b>	<b>7,184</b>	<b>12,440</b>	<b>354</b>	<b>13,836</b>	<b>27,938</b>
Kentucky (East)	103	250	448	28	4,967	8,894	131	5,217	9,343
Kentucky (West)	223	6,401	15,050	-	2,218	3,546	223	8,619	18,596
Louisiana	-	-	-	13	271	366	13	271	366
Maryland	2	303	553	5	25	37	6	328	590
Michigan	-	55	123	-	3	5	-	58	128
Mississippi	-	-	-	105	-	-	105	-	-
Missouri	-	689	1,479	s	3,153	4,504	-	3,842	5,983
Montana	190	35,842	70,800	370	38,470	47,599	559	74,312	118,399
New Mexico	1	2,727	5,994	43	3,984	5,698	44	6,711	11,692
North Carolina	-	5	11	-	-	-	-	5	11
North Dakota	-	-	-	621	6,471	8,482	621	6,471	8,482
Ohio	47	7,545	17,149	2	3,692	5,640	49	11,237	22,789
Oklahoma	-	569	1,221	-	218	312	-	787	1,533
Oregon	-	6	15	-	2	3	-	9	17
<b>Pennsylvania Total</b>	<b>1,236</b>	<b>9,924</b>	<b>21,750</b>	<b>135</b>	<b>952</b>	<b>4,090</b>	<b>1,370</b>	<b>10,876</b>	<b>25,840</b>
Pennsylvania (Anthracite)	s	340	3,840	118	415	3,320	118	755	7,160
Pennsylvania (Bituminous)	1,235	9,584	17,910	17	537	770	1,252	10,121	18,680
South Dakota	-	-	-	-	277	366	-	277	366
Tennessee	-	270	494	-	170	251	-	441	744
Texas	-	-	-	292	8,986	11,674	292	8,986	11,674
Utah	169	2,241	4,572	s	206	261	169	2,448	4,832
Virginia	132	421	750	17	287	448	149	708	1,198
Washington	-	674	1,332	-	6	8	-	681	1,340
<b>West Virginia Total</b>	<b>1,312</b>	<b>14,271</b>	<b>26,739</b>	<b>158</b>	<b>1,912</b>	<b>3,031</b>	<b>1,470</b>	<b>16,183</b>	<b>29,770</b>
West Virginia (Northern)	1,007	NA	NA	7	NA	NA	1,013	NA	NA
West Virginia (Southern)	305	NA	NA	151	NA	NA	457	NA	NA
Wyoming	-	22,901	42,409	4,403	11,599	14,010	4,403	34,500	56,419
<b>U.S. Total</b>	<b>5,754</b>	<b>145,351</b>	<b>324,794</b>	<b>6,528</b>	<b>105,627</b>	<b>146,135</b>	<b>12,282</b>	<b>250,978</b>	<b>470,928</b>

-- No data reported.

NA = Not Available.

s = Value is less than 0.5 of the table metric.

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, and after applying assumed mining recovery rates. This estimate does not include any specific economic feasibility criteria. The effective date for the demonstrated reserve base, as customarily worded, is 'Remaining as of January 1, 2022.' These data are contemporaneous with the Recoverable Reserves at Producing Mines, customarily presented as of the end of the reporting year's mining, that is in this case, December 31, 2021. 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 25,000 short tons, which are not required to provide reserves data.

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' and U.S. Department of Labor, Mine Safety and Health Administration Form 7000-2, 'Quarterly Mine Employment and Coal Production Report.'

**Table 16. Recoverable Coal Reserves at Producing Underground Coal Mines by State and Mining Method, 2021**

(million short tons)

Coal-Producing State	Continuous	Conventional and Other <sup>1</sup>	Longwall	Total
	Recoverable Coal Reserves at Producing Mines	Recoverable Coal Reserves at Producing Mines	Recoverable Coal Reserves at Producing Mines	Recoverable Coal Reserves at Producing Mines
Alabama	46	s	118	164
Colorado	108	s	69	177
Illinois	538	s	1,330	1,868
Indiana	132	s	s	132
<b>Kentucky Total</b>	<b>324</b>	<b>2</b>	<b>s</b>	<b>326</b>
Kentucky (East)	101	2	s	103
Kentucky (West)	223	s	s	223
Maryland	2	s	s	2
Montana	9	s	180	190
New Mexico	s	s	1	1
Ohio	47	s	s	47
<b>Pennsylvania Total</b>	<b>151</b>	<b>s</b>	<b>1,084</b>	<b>1,236</b>
Pennsylvania (Anthracite)	s	s	s	s
Pennsylvania (Bituminous)	151	s	1,084	1,235
Utah	51	s	118	169
Virginia	24	s	108	132
<b>West Virginia Total</b>	<b>428</b>	<b>s</b>	<b>883</b>	<b>1,312</b>
West Virginia (Northern)	123	s	883	1,007
West Virginia (Southern)	305	s	s	305
Wyoming	s	s	s	s
<b>U.S. Total</b>	<b>1,860</b>	<b>2</b>	<b>3,892</b>	<b>5,754</b>

- = No data reported.

s = Absolute percentage less than 0.05 or value is less than 0.5 of the table metric.

<sup>1</sup> Mines that produce coal using shortwall, scoop loading, hand loading, or other methods.

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. Excludes mines producing less than 25,000 short tons, which are not required to provide data and refuse recovery.

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' and U.S. Department of Labor, Mine Safety and Health Administration Form 7000-2, 'Quarterly Mines Employment and Coal Production Report.'

**Table 16.1 Recoverable Coal Reserves at Producing Surface Coal Mines by State and Mining Method, 2021**

(million short tons)

Coal-Producing State	Contour Strip	Area	Open Pit	Mountaintop Mining	Other <sup>1</sup>	Total
	Recoverable Coal Reserves at Producing Mines	Recoverable Coal Reserves at Producing Mines	Recoverable Coal Reserves at Producing Mines	Recoverable Coal Reserves at Producing Mines	Recoverable Coal Reserves at Producing Mines	Recoverable Coal Reserves at Producing Mines
Alabama	7	-	s	-	1	8
Alaska	23	-	23	-	-	46
Colorado	13	-	94	-	1	107
Illinois	-	5	-	-	s	5
Indiana	-	12	154	-	3	170
<b>Kentucky Total</b>	<b>16</b>	<b>9</b>	<b>s</b>	<b>-</b>	<b>3</b>	<b>28</b>
Kentucky (East)	16	9	-	-	3	28
Kentucky (West)	-	-	s	-	s	s
Louisiana	-	13	-	-	-	13
Maryland	1	4	-	-	-	5
Mississippi	105	-	-	-	-	105
Missouri	s	-	-	-	-	s
Montana	192	178	s	-	-	370
New Mexico	7	-	36	-	-	43
North Dakota	556	-	66	-	-	621
Ohio	1	1	-	-	s	2
<b>Pennsylvania Total</b>	<b>48</b>	<b>-</b>	<b>86</b>	<b>-</b>	<b>s</b>	<b>135</b>
Pennsylvania (Anthracite)	45	-	72	-	s	118
Pennsylvania (Bituminous)	3	-	14	-	s	17
Texas	106	119	67	-	-	292
Utah	-	-	s	-	s	s
Virginia	11	3	-	-	3	17
<b>West Virginia Total</b>	<b>92</b>	<b>24</b>	<b>-</b>	<b>22</b>	<b>20</b>	<b>158</b>
West Virginia (Northern)	4	-	-	-	3	7
West Virginia (Southern)	88	24	-	22	16	151
Wyoming	1,825	48	2,530	-	-	4,403
<b>U.S. Total</b>	<b>3,002</b>	<b>416</b>	<b>3,056</b>	<b>22</b>	<b>31</b>	<b>6,528</b>

- = No data reported.

s = Value is less than 0.5 of the table metric.

1 Mines that: 1. produce coal using auger, highwall mine, or punch.

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. Excludes mines producing less than 25,000 short tons, which are not required to provide data and refuse recovery. Mines reporting multiple mining methods are assigned to the mining method with the greatest percentage of production reported.

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' and U.S. Department of Labor, Mine Safety and Health Administration Form 7000-2, 'Quarterly Mines Employment and Coal Production Report.'

**Table 17. Recoverable Coal Reserves at Producing U.S. Mines by Mine Production Range and Mine Type, 2021**

(million short tons)

Mine Production Range (thousand short tons)	Underground	Surface	Total
	Recoverable Coal Reserves	Recoverable Coal Reserves	Recoverable Coal Reserves
Over 1,000	5,060	6,144	11,204
Over 200 to 500	123	156	279
Over 100 to 200	208	46	254
Over 50 to 100	36	53	89
Over 10 to 50	35	31	66
10 or Under	-	4	4
<b>U.S. Total</b>	<b>5,754</b>	<b>6,528</b>	<b>12,282</b>

s = Absolute percentage less than 0.05 or value is less than 0.5 of the table metric.

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.

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' and U.S. Department of Labor, Mine Safety and Health Administration Form 7000-2, 'Quarterly Mines Employment and Coal Production Report.'

## Employment

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**Table 18. Average Number of Employees by State and Mine Type, 2021 and 2020**

Coal-Producing State and Region <sup>1</sup>	2021			2020			Percent Change		
	Underground	Surface	Total	Underground	Surface	Total	Underground	Surface	Total
Alabama	1,385	346	1,731	2,146	384	2,530	-35.5	-9.9	-31.6
Alaska	-	103	103	-	102	102	-	1.0	1.0
Colorado	721	347	1,068	725	393	1,118	-0.6	-11.7	-4.5
Illinois	1,965	52	2,017	1,983	192	2,175	-0.9	-72.9	-7.3
Indiana	1,092	714	1,806	1,045	953	1,998	4.5	-25.1	-9.6
<b>Kentucky Total</b>	<b>3,084</b>	<b>1,110</b>	<b>4,194</b>	<b>3,020</b>	<b>986</b>	<b>4,006</b>	<b>2.1</b>	<b>12.6</b>	<b>4.7</b>
Kentucky (East)	1,600	1,078	2,678	1,405	954	2,359	13.9	13.0	13.5
Kentucky (West)	1,484	32	1,516	1,615	32	1,647	-8.1	-	-8.0
Louisiana	-	34	34	-	125	125	-	-72.8	-72.8
Maryland	114	102	216	130	96	226	-12.3	6.3	-4.4
Mississippi	-	205	205	-	194	194	-	5.7	5.7
Missouri	-	8	8	-	12	12	-	-33.3	-33.3
Montana	245	685	930	258	844	1,102	-5.0	-18.8	-15.6
New Mexico	235	585	820	202	630	832	16.3	-7.1	-1.4
North Dakota	-	1,176	1,176	2	1,225	1,227	-100.0	-4.0	-4.2
Ohio	213	141	354	352	165	517	-39.5	-14.5	-31.5
Oklahoma	-	1	1	-	17	17	-	-94.1	-94.1
<b>Pennsylvania Total</b>	<b>3,087</b>	<b>1,247</b>	<b>4,334</b>	<b>3,424</b>	<b>1,394</b>	<b>4,818</b>	<b>-9.8</b>	<b>-10.5</b>	<b>-10.0</b>
Pennsylvania (Anthracite)	57	753	810	65	837	902	-12.3	-10.0	-10.2
Pennsylvania (Bituminous)	3,030	494	3,524	3,359	557	3,916	-9.8	-11.3	-10.0
Tennessee	4	-	4	33	5	38	-87.9	-100.0	-89.5
Texas	-	1,037	1,037	-	1,328	1,328	-	-21.9	-21.9
Utah	1,313	58	1,371	1,316	57	1,373	-0.2	1.8	-0.1
Virginia	1,312	630	1,942	1,452	642	2,094	-9.6	-1.9	-7.3
<b>West Virginia Total</b>	<b>9,099</b>	<b>2,412</b>	<b>11,511</b>	<b>9,129</b>	<b>2,289</b>	<b>11,418</b>	<b>-0.3</b>	<b>5.4</b>	<b>0.8</b>
West Virginia (Northern)	4,008	93	4,101	3,789	115	3,904	5.8	-19.1	5.0
West Virginia (Southern)	5,091	2,319	7,410	5,340	2,174	7,514	-4.7	6.7	-1.4
Wyoming	112	4,455	4,567	139	4,728	4,867	-19.4	-5.8	-6.2
<b>Appalachia Total</b>	<b>16,814</b>	<b>5,956</b>	<b>22,770</b>	<b>18,071</b>	<b>5,929</b>	<b>24,000</b>	<b>-7.0</b>	<b>0.5</b>	<b>-5.1</b>
Appalachia Central	8,007	4,027	12,034	8,230	3,775	12,005	-2.7	6.7	0.2
Appalachia Northern	7,422	1,583	9,005	7,695	1,770	9,465	-3.5	-10.6	-4.9
Appalachia Southern	1,385	346	1,731	2,146	384	2,530	-35.5	-9.9	-31.6
<b>Interior Region Total</b>	<b>4,541</b>	<b>2,083</b>	<b>6,624</b>	<b>4,643</b>	<b>2,853</b>	<b>7,496</b>	<b>-2.2</b>	<b>-27.0</b>	<b>-11.6</b>
Illinois Basin	4,541	798	5,339	4,643	1,177	5,820	-2.2	-32.2	-8.3
Other Interior	-	1,285	1,285	-	1,676	1,676	-	-23.3	-23.3
<b>Western Region Total</b>	<b>2,626</b>	<b>7,409</b>	<b>10,035</b>	<b>2,642</b>	<b>7,979</b>	<b>10,621</b>	<b>-0.6</b>	<b>-7.1</b>	<b>-5.5</b>
Powder River Basin	-	4,541	4,541	-	4,939	4,939	-	-8.1	-8.1
Uinta Basin	1,883	378	2,261	1,956	415	2,371	-3.7	-8.9	-4.6
Other Western	743	2,490	3,233	686	2,625	3,311	8.3	-5.1	-2.4
<b>East of Mississippi River</b>	<b>21,355</b>	<b>6,959</b>	<b>28,314</b>	<b>22,714</b>	<b>7,300</b>	<b>30,014</b>	<b>-6.0</b>	<b>-4.7</b>	<b>-5.7</b>
<b>West of Mississippi River</b>	<b>2,626</b>	<b>8,489</b>	<b>11,115</b>	<b>2,642</b>	<b>9,461</b>	<b>12,103</b>	<b>-0.6</b>	<b>-10.3</b>	<b>-8.2</b>
<b>U.S. Subtotal</b>	<b>23,981</b>	<b>15,448</b>	<b>39,429</b>	<b>25,356</b>	<b>16,761</b>	<b>42,117</b>	<b>-5.4</b>	<b>-7.8</b>	<b>-6.4</b>
<b>Refuse Recovery</b>	<b>-</b>	<b>-</b>	<b>89</b>	<b>-</b>	<b>-</b>	<b>42</b>	<b>-</b>	<b>-</b>	<b>111.9</b>
<b>U.S. Total</b>	<b>23,981</b>	<b>15,448</b>	<b>39,518</b>	<b>25,356</b>	<b>16,761</b>	<b>42,159</b>	<b>-5.4</b>	<b>-7.8</b>	<b>-6.3</b>

- = No data reported.

<sup>1</sup> For a definition of coal producing regions, see the Glossary.

Notes: 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 18.1. Average Number of Employees and Number of Mines by State and Coal Type, 2021**

Coal-Producing State <sup>1</sup>	Number of Mines			Average Number of Employees		
	Metallurgical <sup>2</sup>	Non-Metallurgical <sup>2</sup>	Total <sup>3</sup>	Metallurgical <sup>2</sup>	Non-Metallurgical <sup>2</sup>	Total <sup>3</sup>
Alabama	9	15	20	1,307	324	1,631
Alaska	-	1	1	-	103	103
Colorado	1	7	8	53	988	1,041
Illinois	-	13	13	-	1,903	1,903
Indiana	-	13	13	-	1,715	1,715
<b>Kentucky Total</b>	<b>28</b>	<b>81</b>	<b>101</b>	<b>1,028</b>	<b>2,565</b>	<b>3,593</b>
Kentucky (East)	28	76	96	1,028	1,192	2,220
Kentucky (West)	-	5	5	-	1,373	1,373
Louisiana	-	1	1	-	34	34
Maryland	1	9	10	76	102	178
Mississippi	-	1	1	-	205	205
Missouri	-	1	1	-	8	8
Montana	-	6	6	-	920	920
New Mexico	-	3	3	-	820	820
North Dakota	-	5	5	-	1,176	1,176
Ohio	-	9	9	-	329	329
Oklahoma	-	1	1	-	1	1
<b>Pennsylvania Total</b>	<b>42</b>	<b>100</b>	<b>122</b>	<b>1,142</b>	<b>2,650</b>	<b>3,792</b>
Pennsylvania (Anthracite)	5	39	43	52	380	432
Pennsylvania (Bituminous)	37	61	79	1,089	2,271	3,360
Texas	-	5	5	-	1,037	1,037
Utah	-	6	6	-	1,283	1,283
Virginia	15	28	33	1,458	245	1,703
<b>West Virginia Total</b>	<b>76</b>	<b>106</b>	<b>137</b>	<b>5,866</b>	<b>4,463</b>	<b>10,329</b>
West Virginia (Northern)	4	15	16	1,113	2,827	3,940
West Virginia (Southern)	72	91	121	4,753	1,636	6,389
Wyoming	-	16	16	-	4,567	4,567
<b>Appalachia Total</b>	<b>171</b>	<b>343</b>	<b>427</b>	<b>10,877</b>	<b>9,305</b>	<b>20,182</b>
Appalachia Central	115	195	250	7,239	3,073	10,312
Appalachia Northern	47	133	157	2,330	5,909	8,239
Appalachia Southern	9	15	20	1,307	324	1,631
<b>Interior Region Total</b>	<b>-</b>	<b>40</b>	<b>40</b>	<b>-</b>	<b>6,276</b>	<b>6,276</b>
Illinois Basin	-	31	31	-	4,991	4,991
Other Interior	-	9	9	-	1,285	1,285
<b>Western Region Total</b>	<b>1</b>	<b>44</b>	<b>45</b>	<b>53</b>	<b>9,857</b>	<b>9,910</b>
Powder River Basin	-	16	16	-	4,531	4,531
Uinta Basin	-	11	11	-	2,173	2,173
Other Western	1	17	18	53	3,153	3,206
<b>East of Mississippi River</b>	<b>171</b>	<b>375</b>	<b>459</b>	<b>10,877</b>	<b>14,501</b>	<b>25,378</b>
<b>West of Mississippi River</b>	<b>1</b>	<b>52</b>	<b>53</b>	<b>53</b>	<b>10,937</b>	<b>10,990</b>
<b>U.S. Total</b>	<b>172</b>	<b>427</b>	<b>512</b>	<b>10,930</b>	<b>25,438</b>	<b>36,368</b>

- = No data reported.

<sup>1</sup> For a definition of coal producing regions, see the Glossary.

<sup>2</sup> Some mines produce both metallurgical and non-metallurgical.

<sup>3</sup> Total may not equal the sum, as some mines produced both metallurgical and non-metallurgical.

Note: Excludes mines producing less than 25,000 tons per year, which are not required to provide data.

Sources: U.S. Department of Labor, Mine Safety and Health Administration Form 7000-2, 'Quarterly Mine Employment and Coal Production Report', U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation.'

**Table 19. Average Number of Employees at Underground and Surface Mines by State and Mine Production Range, 2021**

Coal-Producing State, Region <sup>1</sup> and Mine Type	Mine Production Range (thousand short tons)							Zero <sup>2</sup>	Total Number of Employees
	Above 1,000	Above 500 to 1,000	Above 200 to 500	Above 100 to 200	Above 50 to 100	Above 10 to 50	Above 0 to 10		
<b>Alabama</b>	<b>975</b>	<b>148</b>	<b>88</b>	<b>351</b>	<b>50</b>	<b>9</b>	<b>10</b>	<b>100</b>	<b>1,731</b>
Underground	975	148	-	149	27	-	-	86	1,385
Surface	-	-	88	202	23	9	10	14	346
<b>Alaska</b>	<b>103</b>	-	-	-	-	-	-	-	<b>103</b>
Surface	103	-	-	-	-	-	-	-	103
<b>Colorado</b>	<b>917</b>	-	<b>71</b>	<b>53</b>	-	-	-	<b>27</b>	<b>1,068</b>
Underground	570	-	71	53	-	-	-	27	721
Surface	347	-	-	-	-	-	-	-	347
<b>Illinois</b>	<b>1,860</b>	-	<b>22</b>	-	-	<b>7</b>	<b>4</b>	<b>124</b>	<b>2,017</b>
Underground	1,860	-	-	-	-	-	-	105	1,965
Surface	-	-	22	-	-	7	4	19	52
<b>Indiana</b>	<b>1,645</b>	-	<b>13</b>	<b>27</b>	<b>13</b>	<b>8</b>	<b>9</b>	<b>91</b>	<b>1,806</b>
Underground	1,001	-	-	-	-	-	-	91	1,092
Surface	644	-	13	27	13	8	9	-	714
<b>Kentucky Total</b>	<b>1,528</b>	<b>284</b>	<b>539</b>	<b>370</b>	<b>404</b>	<b>304</b>	<b>164</b>	<b>555</b>	<b>4,194</b>
Underground	1,528	178	407	162	251	123	46	345	3,084
Surface	-	106	132	208	153	181	118	210	1,110
<b>Kentucky (East)</b>	<b>182</b>	<b>284</b>	<b>516</b>	<b>370</b>	<b>404</b>	<b>304</b>	<b>160</b>	<b>412</b>	<b>2,678</b>
Underground	182	178	407	162	251	123	46	207	1,600
Surface	-	106	109	208	153	181	114	205	1,078
<b>Kentucky (West)</b>	<b>1,346</b>	-	<b>23</b>	-	-	-	<b>4</b>	<b>143</b>	<b>1,516</b>
Underground	1,346	-	-	-	-	-	-	138	1,484
Surface	-	-	23	-	-	-	4	5	32
<b>Louisiana</b>	-	-	<b>34</b>	-	-	-	-	-	<b>34</b>
Surface	-	-	34	-	-	-	-	-	34
<b>Maryland</b>	-	-	<b>128</b>	<b>28</b>	-	<b>14</b>	<b>8</b>	<b>38</b>	<b>216</b>
Underground	-	-	76	-	-	-	-	38	114
Surface	-	-	52	28	-	14	8	-	102
<b>Mississippi</b>	<b>205</b>	-	-	-	-	-	-	-	<b>205</b>
Surface	205	-	-	-	-	-	-	-	205
<b>Missouri</b>	-	-	-	-	-	<b>8</b>	-	-	<b>8</b>
Surface	-	-	-	-	-	8	-	-	8
<b>Montana</b>	<b>886</b>	-	<b>27</b>	<b>7</b>	-	-	-	<b>10</b>	<b>930</b>
Underground	245	-	-	-	-	-	-	-	245
Surface	641	-	27	7	-	-	-	10	685
<b>New Mexico</b>	<b>820</b>	-	-	-	-	-	-	-	<b>820</b>
Underground	235	-	-	-	-	-	-	-	235
Surface	585	-	-	-	-	-	-	-	585
<b>North Dakota</b>	<b>1,147</b>	-	<b>29</b>	-	-	-	-	-	<b>1,176</b>
Surface	1,147	-	29	-	-	-	-	-	1,176
<b>Ohio</b>	<b>119</b>	-	<b>114</b>	<b>55</b>	<b>16</b>	<b>25</b>	-	<b>25</b>	<b>354</b>
Underground	119	-	35	35	-	12	-	12	213
Surface	-	-	79	20	16	13	-	13	141
<b>Oklahoma</b>	-	-	-	-	-	-	<b>1</b>	-	<b>1</b>
Surface	-	-	-	-	-	-	1	-	1
<b>Pennsylvania Total</b>	<b>2,076</b>	<b>254</b>	<b>516</b>	<b>480</b>	<b>142</b>	<b>198</b>	<b>114</b>	<b>492</b>	<b>4,334</b>
Underground	2,076	254	297	264	-	13	28	135	3,087
Surface	-	-	219	216	142	185	86	357	1,247
<b>Pennsylvania (Anthracite)</b>	-	-	<b>102</b>	<b>61</b>	<b>111</b>	<b>97</b>	<b>49</b>	<b>349</b>	<b>810</b>
Underground	-	-	-	-	-	13	28	16	57
Surface	-	-	102	61	111	84	21	333	753
<b>Pennsylvania (Bituminous)</b>	<b>2,076</b>	<b>254</b>	<b>414</b>	<b>419</b>	<b>31</b>	<b>101</b>	<b>65</b>	<b>143</b>	<b>3,524</b>
Underground	2,076	254	297	264	-	-	-	119	3,030
Surface	-	-	117	155	31	101	65	24	494
<b>Tennessee</b>	-	-	-	-	-	-	-	<b>4</b>	<b>4</b>
Underground	-	-	-	-	-	-	-	4	4
<b>Texas</b>	<b>1,037</b>	-	-	-	-	-	-	-	<b>1,037</b>



Coal-Producing State, Region <sup>1</sup> and Mine Type	Mine Production Range (thousand short tons)							Total Number of Employees	
	Above 1,000	Above 500 to 1,000	Above 200 to 500	Above 100 to 200	Above 50 to 100	Above 10 to 50	Above 0 to 10		Zero <sup>2</sup>
Surface	1,037	-	-	-	-	-	-	-	1,037
<b>Utah</b>	<b>1,169</b>	<b>87</b>	<b>27</b>	-	-	-	-	<b>77</b>	<b>1,371</b>
Underground	1,169	87	-	-	-	-	-	57	1,313
Surface	-	-	27	-	-	-	-	20	58
<b>Virginia</b>	<b>930</b>	<b>310</b>	<b>200</b>	<b>60</b>	<b>42</b>	<b>109</b>	<b>43</b>	<b>248</b>	<b>1,942</b>
Underground	930	111	54	-	22	28	6	161	1,312
Surface	-	199	146	60	20	81	37	87	630
<b>West Virginia Total</b>	<b>4,352</b>	<b>3,176</b>	<b>1,546</b>	<b>379</b>	<b>232</b>	<b>463</b>	<b>123</b>	<b>1,240</b>	<b>11,511</b>
Underground	4,059	2,601	1,151	99	131	145	28	885	9,099
Surface	293	575	395	280	101	318	95	355	2,412
<b>West Virginia (Northern)</b>	<b>3,170</b>	<b>691</b>	-	<b>65</b>	<b>4</b>	<b>6</b>	<b>4</b>	<b>161</b>	<b>4,101</b>
Underground	3,170	691	-	18	-	-	-	129	4,008
Surface	-	-	-	47	4	6	4	32	93
<b>West Virginia (Southern)</b>	<b>1,182</b>	<b>2,485</b>	<b>1,546</b>	<b>314</b>	<b>228</b>	<b>457</b>	<b>119</b>	<b>1,079</b>	<b>7,410</b>
Underground	889	1,910	1,151	81	131	145	28	756	5,091
Surface	293	575	395	233	97	312	91	323	2,319
<b>Wyoming</b>	<b>4,567</b>	-	-	-	-	-	-	-	<b>4,567</b>
Underground	112	-	-	-	-	-	-	-	112
Surface	4,455	-	-	-	-	-	-	-	4,455
<b>Appalachia Total</b>	<b>8,634</b>	<b>4,172</b>	<b>3,108</b>	<b>1,723</b>	<b>886</b>	<b>1,122</b>	<b>458</b>	<b>2,559</b>	<b>22,770</b>
Underground	8,341	3,292	2,020	709	431	321	108	1,528	16,814
Surface	293	880	1,088	1,014	455	801	350	1,031	5,956
<b>Appalachia Central</b>	<b>2,294</b>	<b>3,079</b>	<b>2,262</b>	<b>744</b>	<b>674</b>	<b>870</b>	<b>322</b>	<b>1,743</b>	<b>12,034</b>
Underground	2,001	2,199	1,612	243	404	296	80	1,128	8,007
Surface	293	880	650	501	270	574	242	615	4,027
<b>Appalachia Northern</b>	<b>5,365</b>	<b>945</b>	<b>758</b>	<b>628</b>	<b>162</b>	<b>243</b>	<b>126</b>	<b>716</b>	<b>9,005</b>
Underground	5,365	945	408	317	-	25	28	314	7,422
Surface	-	-	350	311	162	218	98	402	1,583
<b>Appalachia Southern</b>	<b>975</b>	<b>148</b>	<b>88</b>	<b>351</b>	<b>50</b>	<b>9</b>	<b>10</b>	<b>100</b>	<b>1,731</b>
Underground	975	148	-	149	27	-	-	86	1,385
Surface	-	-	88	202	23	9	10	14	346
<b>Interior Region Total</b>	<b>6,093</b>	-	<b>92</b>	<b>27</b>	<b>13</b>	<b>23</b>	<b>18</b>	<b>358</b>	<b>6,624</b>
Underground	4,207	-	-	-	-	-	-	334	4,541
Surface	1,886	-	92	27	13	23	18	24	2,083
<b>Illinois Basin</b>	<b>4,851</b>	-	<b>58</b>	<b>27</b>	<b>13</b>	<b>15</b>	<b>17</b>	<b>358</b>	<b>5,339</b>
Underground	4,207	-	-	-	-	-	-	334	4,541
Surface	644	-	58	27	13	15	17	24	798
<b>Other Interior</b>	<b>1,242</b>	-	<b>34</b>	-	-	<b>8</b>	<b>1</b>	-	<b>1,285</b>
Surface	1,242	-	34	-	-	8	1	-	1,285
<b>Western Region Total</b>	<b>9,609</b>	<b>87</b>	<b>154</b>	<b>60</b>	-	-	-	<b>114</b>	<b>10,035</b>
Underground	2,331	87	71	53	-	-	-	84	2,626
Surface	7,278	-	83	7	-	-	-	30	7,409
<b>Powder River Basin</b>	<b>4,504</b>	-	<b>27</b>	-	-	-	-	<b>10</b>	<b>4,541</b>
Surface	4,504	-	27	-	-	-	-	10	4,541
<b>Uinta Basin</b>	<b>2,086</b>	<b>87</b>	-	-	-	-	-	<b>77</b>	<b>2,261</b>
Underground	1,739	87	-	-	-	-	-	57	1,883
Surface	347	-	-	-	-	-	-	20	378
<b>Other Western</b>	<b>3,019</b>	-	<b>127</b>	<b>60</b>	-	-	-	<b>27</b>	<b>3,233</b>
Underground	592	-	71	53	-	-	-	27	743
Surface	2,427	-	56	7	-	-	-	-	2,490
<b>East of Mississippi River</b>	<b>13,690</b>	<b>4,172</b>	<b>3,166</b>	<b>1,750</b>	<b>899</b>	<b>1,137</b>	<b>475</b>	<b>2,917</b>	<b>28,314</b>
Underground	12,548	3,292	2,020	709	431	321	108	1,862	21,355
Surface	1,142	880	1,146	1,041	468	816	367	1,055	6,959
<b>West of Mississippi River</b>	<b>10,646</b>	<b>87</b>	<b>188</b>	<b>60</b>	-	<b>8</b>	<b>1</b>	<b>114</b>	<b>11,115</b>
Underground	2,331	87	71	53	-	-	-	84	2,626
Surface	8,315	-	117	7	-	8	1	30	8,489
<b>U.S. Subtotal</b>	<b>24,336</b>	<b>4,259</b>	<b>3,354</b>	<b>1,810</b>	<b>899</b>	<b>1,145</b>	<b>476</b>	<b>3,031</b>	<b>39,429</b>
Underground	14,879	3,379	2,091	762	431	321	108	1,946	23,981
Surface	9,457	880	1,263	1,048	468	824	368	1,085	15,448
<b>Refuse Recovery</b>	-	-	<b>10</b>	<b>14</b>	<b>53</b>	<b>12</b>	-	-	<b>89</b>
<b>U.S. Total</b>	<b>24,336</b>	<b>4,259</b>	<b>3,364</b>	<b>1,824</b>	<b>952</b>	<b>1,157</b>	<b>476</b>	<b>3,031</b>	<b>39,518</b>

- = No data reported.

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

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

Notes: 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, 2021**

Coal-Producing State and Region <sup>1</sup>	Union		Nonunion	
	Underground	Surface	Underground	Surface
Alabama	1,299	-	86	327
Alaska	-	103	-	-
Colorado	178	126	543	221
Illinois	-	-	1,965	58
Indiana	-	-	1,092	703
<b>Kentucky Total</b>	-	-	<b>2,977</b>	<b>919</b>
Kentucky (East)	-	-	1,493	891
Kentucky (West)	-	-	1,484	28
Louisiana	-	-	-	34
Maryland	-	-	114	90
Mississippi	-	-	-	205
Missouri	-	-	-	8
Montana	-	402	245	283
New Mexico	235	368	-	217
North Dakota	-	203	-	973
Ohio	-	-	213	141
<b>Pennsylvania Total</b>	<b>755</b>	<b>272</b>	<b>2,284</b>	<b>812</b>
Pennsylvania (Anthracite)	-	272	29	445
Pennsylvania (Bituminous)	755	-	2,255	367
Tennessee	-	-	4	-
Texas	-	489	-	548
Utah	-	-	1,313	47
Virginia	65	3	1,229	589
<b>West Virginia Total</b>	<b>2,287</b>	<b>36</b>	<b>6,734</b>	<b>2,139</b>
West Virginia (Northern)	2,103	-	1,905	89
West Virginia (Southern)	184	36	4,829	2,050
Wyoming	112	458	-	3,997
<b>Appalachia Total</b>	<b>4,406</b>	<b>311</b>	<b>12,157</b>	<b>4,989</b>
Appalachia Central	249	39	7,555	3,530
Appalachia Northern	2,858	272	4,516	1,132
Appalachia Southern	1,299	-	86	327
<b>Interior Region Total</b>	-	<b>489</b>	<b>4,541</b>	<b>1,584</b>
Illinois Basin	-	-	4,541	789
Other Interior	-	489	-	795
<b>Western Region Total</b>	<b>525</b>	<b>1,660</b>	<b>2,101</b>	<b>5,738</b>
Powder River Basin	-	395	-	4,146
Uinta Basin	178	126	1,705	241
Other Western	347	1,139	396	1,351
<b>East of Mississippi River</b>	<b>4,406</b>	<b>311</b>	<b>16,698</b>	<b>5,983</b>
<b>West of Mississippi River</b>	<b>525</b>	<b>2,149</b>	<b>2,101</b>	<b>6,328</b>
<b>U.S. Total</b>	<b>4,931</b>	<b>2,460</b>	<b>18,799</b>	<b>12,311</b>

- = No data reported.

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

Notes: Includes all employees at preparation plants and tipples not co-located with a mine. 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 25,000 short tons and preparation plants with less than 5,000 employee hours per year, which are not required to provide data.

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' and U.S. Department of Labor, Mine Safety and Health Administration Form 7000-2, 'Quarterly Mine Employment and Coal Production Report.'

## Productivity

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**Table 21. Coal Productivity by State and Mine Type, 2021 and 2020**

Coal-Producing State, Region <sup>1</sup> and Mine Type	Number of Mining Operations <sup>2</sup>			Number of Employees <sup>3</sup>			Average Production per Employee Hour (short tons) <sup>4</sup>		
	2021	2020	Percent Change	2021	2020	Percent Change	2021	2020	Percent Change
<b>Alabama</b>	<b>26</b>	<b>31</b>	<b>-16.1</b>	<b>1,731</b>	<b>2,530</b>	<b>-31.6</b>	<b>2.10</b>	<b>1.96</b>	<b>6.8</b>
Underground	10	10	-	1,385	2,146	-35.5	2.20	1.96	12.1
Surface	16	21	-23.8	346	384	-9.9	1.67	1.99	-16.1
<b>Alaska</b>	<b>1</b>	<b>1</b>	<b>-</b>	<b>103</b>	<b>102</b>	<b>1.0</b>	<b>5.33</b>	<b>5.11</b>	<b>4.4</b>
Surface	1	1	-	103	102	1.0	5.33	5.11	4.4
<b>Colorado</b>	<b>9</b>	<b>7</b>	<b>28.6</b>	<b>1,068</b>	<b>1,118</b>	<b>-4.5</b>	<b>5.43</b>	<b>4.65</b>	<b>17.0</b>
Underground	6	4	50.0	721	725	-0.6	4.82	4.45	8.5
Surface	3	3	-	347	393	-11.7	6.71	5.00	34.0
<b>Illinois</b>	<b>19</b>	<b>22</b>	<b>-13.6</b>	<b>2,017</b>	<b>2,175</b>	<b>-7.3</b>	<b>8.36</b>	<b>6.84</b>	<b>22.2</b>
Underground	12	14	-14.3	1,965	1,983	-0.9	8.45	7.12	18.7
Surface	7	8	-12.5	52	192	-72.9	4.30	4.31	-0.3
<b>Indiana</b>	<b>15</b>	<b>20</b>	<b>-25.0</b>	<b>1,806</b>	<b>1,998</b>	<b>-9.6</b>	<b>4.82</b>	<b>4.60</b>	<b>4.9</b>
Underground	6	7	-14.3	1,092	1,045	4.5	4.13	4.08	1.3
Surface	9	13	-30.8	714	953	-25.1	5.98	5.16	15.8
<b>Kentucky Total</b>	<b>149</b>	<b>141</b>	<b>5.7</b>	<b>4,194</b>	<b>4,006</b>	<b>4.7</b>	<b>2.79</b>	<b>2.91</b>	<b>-3.9</b>
Underground	60	58	3.4	3,084	3,020	2.1	3.00	3.11	-3.6
Surface	89	83	7.2	1,110	986	12.6	2.15	2.26	-4.9
<b>Kentucky (East)</b>	<b>140</b>	<b>128</b>	<b>9.4</b>	<b>2,678</b>	<b>2,359</b>	<b>13.5</b>	<b>1.75</b>	<b>1.78</b>	<b>-1.4</b>
Underground	54	48	12.5	1,600	1,405	13.9	1.53	1.48	3.4
Surface	86	80	7.5	1,078	954	13.0	2.12	2.21	-4.3
<b>Kentucky (West)</b>	<b>9</b>	<b>13</b>	<b>-30.8</b>	<b>1,516</b>	<b>1,647</b>	<b>-8.0</b>	<b>4.43</b>	<b>4.35</b>	<b>1.7</b>
Underground	6	10	-40.0	1,484	1,615	-8.1	4.45	4.38	1.7
Surface	3	3	-	32	32	-	3.19	3.37	-5.4
<b>Louisiana</b>	<b>1</b>	<b>2</b>	<b>-50.0</b>	<b>34</b>	<b>125</b>	<b>-72.8</b>	<b>4.57</b>	<b>2.64</b>	<b>73.1</b>
Surface	1	2	-50.0	34	125	-72.8	4.57	2.64	73.1
<b>Maryland</b>	<b>11</b>	<b>12</b>	<b>-8.3</b>	<b>216</b>	<b>226</b>	<b>-4.4</b>	<b>2.61</b>	<b>2.48</b>	<b>5.2</b>
Underground	2	2	-	114	130	-12.3	1.51	1.93	-21.9
Surface	9	10	-10.0	102	96	6.3	3.79	3.27	16.1
<b>Mississippi</b>	<b>1</b>	<b>1</b>	<b>-</b>	<b>205</b>	<b>194</b>	<b>5.7</b>	<b>7.49</b>	<b>6.58</b>	<b>13.7</b>
Surface	1	1	-	205	194	5.7	7.49	6.58	13.7
<b>Missouri</b>	<b>1</b>	<b>1</b>	<b>-</b>	<b>8</b>	<b>12</b>	<b>-33.3</b>	<b>4.29</b>	<b>6.37</b>	<b>-32.6</b>
Surface	1	1	-	8	12	-33.3	4.29	6.37	-32.6
<b>Montana</b>	<b>7</b>	<b>7</b>	<b>-</b>	<b>930</b>	<b>1,102</b>	<b>-15.6</b>	<b>15.88</b>	<b>12.38</b>	<b>28.3</b>
Underground	1	1	-	245	258	-5.0	14.47	10.92	32.5
Surface	6	6	-	685	844	-18.8	16.43	12.89	27.4
<b>New Mexico</b>	<b>3</b>	<b>3</b>	<b>-</b>	<b>820</b>	<b>832</b>	<b>-1.4</b>	<b>5.89</b>	<b>6.09</b>	<b>-3.2</b>
Underground	1	1	-	235	202	16.3	3.38	2.74	23.5
Surface	2	2	-	585	630	-7.1	6.95	7.33	-5.1
<b>North Dakota</b>	<b>5</b>	<b>7</b>	<b>-28.6</b>	<b>1,176</b>	<b>1,227</b>	<b>-4.2</b>	<b>11.96</b>	<b>11.15</b>	<b>7.2</b>
Underground	-	1	-	-	2	-	-	-	-
Surface	5	6	-16.7	1,176	1,225	-4.0	11.96	11.17	7.1
<b>Ohio</b>	<b>13</b>	<b>17</b>	<b>-23.5</b>	<b>354</b>	<b>517</b>	<b>-31.5</b>	<b>3.48</b>	<b>3.25</b>	<b>7.3</b>
Underground	6	8	-25.0	213	352	-39.5	3.69	3.40	8.5
Surface	7	9	-22.2	141	165	-14.5	3.16	2.92	8.1
<b>Oklahoma</b>	<b>1</b>	<b>2</b>	<b>-50.0</b>	<b>1</b>	<b>17</b>	<b>-94.1</b>	<b>0.47</b>	<b>0.3</b>	<b>NM</b>
Surface	1	2	-50.0	1	17	-94.1	0.47	0.3	NM
<b>Pennsylvania Total</b>	<b>163</b>	<b>178</b>	<b>-8.4</b>	<b>4,334</b>	<b>4,818</b>	<b>-10.0</b>	<b>4.59</b>	<b>4.00</b>	<b>14.8</b>
Underground	49	51	-3.9	3,087	3,424	-9.8	5.64	4.89	15.4
Surface	114	127	-10.2	1,247	1,394	-10.5	1.76	1.67	5.8
<b>Pennsylvania (Anthracite)</b>	<b>70</b>	<b>77</b>	<b>-9.1</b>	<b>810</b>	<b>902</b>	<b>-10.2</b>	<b>1.29</b>	<b>1.44</b>	<b>-10.4</b>
Underground	14	16	-12.5	57	65	-12.3	0.62	0.61	0.3
Surface	56	61	-8.2	753	837	-10.0	1.33	1.50	-11.0
<b>Pennsylvania (Bituminous)</b>	<b>93</b>	<b>101</b>	<b>-7.9</b>	<b>3,524</b>	<b>3,916</b>	<b>-10.0</b>	<b>5.28</b>	<b>4.56</b>	<b>15.6</b>
Underground	35	35	-	3,030	3,359	-9.8	5.71	4.96	15.1
Surface	58	66	-12.1	494	557	-11.3	2.41	1.94	24.3
<b>Tennessee</b>	<b>1</b>	<b>6</b>	<b>-83.3</b>	<b>4</b>	<b>38</b>	<b>-89.5</b>	<b>-</b>	<b>1.13</b>	<b>-</b>

Coal-Producing State, Region <sup>1</sup> and Mine Type	Number of Mining Operations <sup>2</sup>			Number of Employees <sup>3</sup>			Average Production per Employee Hour (short tons) <sup>4</sup>		
	2021	2020	Percent Change	2021	2020	Percent Change	2021	2020	Percent Change
Underground	1	3	-66.7	4	33	-87.9	-	1.11	-
Surface	-	3	-	-	5	-	-	1.38	-
<b>Texas</b>	<b>5</b>	<b>7</b>	<b>-28.6</b>	<b>1,037</b>	<b>1,328</b>	<b>-21.9</b>	<b>7.88</b>	<b>7.85</b>	<b>0.4</b>
Surface	5	7	-28.6	1,037	1,328	-21.9	7.88	7.85	0.4
<b>Utah</b>	<b>13</b>	<b>13</b>	<b>-</b>	<b>1,371</b>	<b>1,373</b>	<b>-0.1</b>	<b>4.20</b>	<b>4.32</b>	<b>-2.8</b>
Underground	9	10	-10.0	1,313	1,316	-0.2	4.27	4.37	-2.4
Surface	4	3	33.3	58	57	1.8	2.86	3.36	-14.9
<b>Virginia</b>	<b>51</b>	<b>61</b>	<b>-16.4</b>	<b>1,942</b>	<b>2,094</b>	<b>-7.3</b>	<b>2.41</b>	<b>2.25</b>	<b>6.8</b>
Underground	18	28	-35.7	1,312	1,452	-9.6	2.64	2.40	9.9
Surface	33	33	-	630	642	-1.9	1.90	1.91	-0.7
<b>West Virginia Total</b>	<b>205</b>	<b>208</b>	<b>-1.4</b>	<b>11,511</b>	<b>11,418</b>	<b>0.8</b>	<b>3.00</b>	<b>2.72</b>	<b>10.2</b>
Underground	93	104	-10.6	9,099	9,129	-0.3	3.09	2.79	10.5
Surface	112	104	7.7	2,412	2,289	5.4	2.63	2.42	8.6
<b>West Virginia (Northern)</b>	<b>23</b>	<b>25</b>	<b>-8.0</b>	<b>4,101</b>	<b>3,904</b>	<b>5.0</b>	<b>4.73</b>	<b>4.18</b>	<b>13.2</b>
Underground	14	14	-	4,008	3,789	5.8	4.76	4.22	12.7
Surface	9	11	-18.2	93	115	-19.1	2.74	1.99	37.5
<b>West Virginia (Southern)</b>	<b>182</b>	<b>183</b>	<b>-0.5</b>	<b>7,410</b>	<b>7,514</b>	<b>-1.4</b>	<b>2.03</b>	<b>1.90</b>	<b>6.7</b>
Underground	79	90	-12.2	5,091	5,340	-4.7	1.78	1.68	5.8
Surface	103	93	10.8	2,319	2,174	6.7	2.63	2.44	7.7
<b>Wyoming</b>	<b>16</b>	<b>16</b>	<b>-</b>	<b>4,567</b>	<b>4,867</b>	<b>-6.2</b>	<b>26.73</b>	<b>23.29</b>	<b>14.8</b>
Underground	1	1	-	112	139	-19.4	13.10	7.70	70.2
Surface	15	15	-	4,455	4,728	-5.8	27.12	23.83	13.8
<b>Appalachia Total</b>	<b>610</b>	<b>641</b>	<b>-4.8</b>	<b>22,770</b>	<b>24,000</b>	<b>-5.1</b>	<b>3.02</b>	<b>2.74</b>	<b>10.3</b>
Underground	233	254	-8.3	16,814	18,071	-7.0	3.27	2.91	12.2
Surface	377	387	-2.6	5,956	5,929	0.5	2.26	2.17	4.0
<b>Appalachia Central</b>	<b>374</b>	<b>378</b>	<b>-1.1</b>	<b>12,034</b>	<b>12,005</b>	<b>0.2</b>	<b>2.03</b>	<b>1.94</b>	<b>4.9</b>
Underground	152	169	-10.1	8,007	8,230	-2.7	1.87	1.77	5.6
Surface	222	209	6.2	4,027	3,775	6.7	2.38	2.29	3.6
<b>Appalachia Northern</b>	<b>210</b>	<b>232</b>	<b>-9.5</b>	<b>9,005</b>	<b>9,465</b>	<b>-4.9</b>	<b>4.56</b>	<b>4.00</b>	<b>14.0</b>
Underground	71	75	-5.3	7,422	7,695	-3.5	5.03	4.42	14.0
Surface	139	157	-11.5	1,583	1,770	-10.6	2.09	1.92	9.0
<b>Appalachia Southern</b>	<b>26</b>	<b>31</b>	<b>-16.1</b>	<b>1,731</b>	<b>2,530</b>	<b>-31.6</b>	<b>2.10</b>	<b>1.96</b>	<b>6.8</b>
Underground	10	10	-	1,385	2,146	-35.5	2.20	1.96	12.1
Surface	16	21	-23.8	346	384	-9.9	1.67	1.99	-16.1
<b>Interior Region Total</b>	<b>52</b>	<b>68</b>	<b>-23.5</b>	<b>6,624</b>	<b>7,496</b>	<b>-11.6</b>	<b>6.30</b>	<b>5.72</b>	<b>10.1</b>
Underground	24	31	-22.6	4,541	4,643	-2.2	6.02	5.46	10.4
Surface	28	37	-24.3	2,083	2,853	-27.0	6.97	6.18	12.7
<b>Illinois Basin</b>	<b>43</b>	<b>55</b>	<b>-21.8</b>	<b>5,339</b>	<b>5,820</b>	<b>-8.3</b>	<b>5.98</b>	<b>5.35</b>	<b>11.9</b>
Underground	24	31	-22.6	4,541	4,643	-2.2	6.02	5.46	10.4
Surface	19	24	-20.8	798	1,177	-32.2	5.76	4.95	16.3
<b>Other Interior</b>	<b>9</b>	<b>13</b>	<b>-30.8</b>	<b>1,285</b>	<b>1,676</b>	<b>-23.3</b>	<b>7.72</b>	<b>7.20</b>	<b>7.3</b>
Surface	9	13	-30.8	1,285	1,676	-23.3	7.72	7.20	7.3
<b>Western Region Total</b>	<b>54</b>	<b>54</b>	<b>-</b>	<b>10,035</b>	<b>10,621</b>	<b>-5.5</b>	<b>16.54</b>	<b>14.58</b>	<b>13.4</b>
Underground	18	18	-	2,626	2,642	-0.6	5.66	5.09	11.3
Surface	36	36	-	7,409	7,979	-7.1	20.70	18.03	14.8
<b>Powder River Basin</b>	<b>17</b>	<b>17</b>	<b>-</b>	<b>4,541</b>	<b>4,939</b>	<b>-8.1</b>	<b>28.27</b>	<b>24.24</b>	<b>16.6</b>
Surface	17	17	-	4,541	4,939	-8.1	28.27	24.24	16.6
<b>Uinta Basin</b>	<b>18</b>	<b>18</b>	<b>-</b>	<b>2,261</b>	<b>2,371</b>	<b>-4.6</b>	<b>4.88</b>	<b>4.47</b>	<b>9.1</b>
Underground	12	13	-7.7	1,883	1,956	-3.7	4.63	4.43	4.6
Surface	6	5	20.0	378	415	-8.9	6.15	4.69	31.1
<b>Other Western</b>	<b>19</b>	<b>19</b>	<b>-</b>	<b>3,233</b>	<b>3,311</b>	<b>-2.4</b>	<b>8.69</b>	<b>8.20</b>	<b>6.1</b>
Underground	6	5	20.0	743	686	8.3	8.43	6.92	21.8
Surface	13	14	-7.1	2,490	2,625	-5.1	8.78	8.57	2.4
<b>East of Mississippi River</b>	<b>654</b>	<b>697</b>	<b>-6.2</b>	<b>28,314</b>	<b>30,014</b>	<b>-5.7</b>	<b>3.61</b>	<b>3.28</b>	<b>10.1</b>
Underground	257	285	-9.8	21,355	22,714	-6.0	3.85	3.43	12.1
Surface	397	412	-3.6	6,959	7,300	-4.7	2.81	2.78	1.2
<b>West of Mississippi River</b>	<b>62</b>	<b>66</b>	<b>-6.1</b>	<b>11,115</b>	<b>12,103</b>	<b>-8.2</b>	<b>15.64</b>	<b>13.71</b>	<b>14.0</b>
Underground	18	18	-	2,626	2,642	-0.6	5.66	5.09	11.3
Surface	44	48	-8.3	8,489	9,461	-10.3	18.94	16.37	15.7
<b>U.S. Subtotal</b>	<b>716</b>	<b>763</b>	<b>-6.2</b>	<b>39,429</b>	<b>42,117</b>	<b>-6.4</b>	<b>6.71</b>	<b>6.12</b>	<b>9.5</b>

Coal-Producing State, Region <sup>1</sup> and Mine Type	Number of Mining Operations <sup>2</sup>			Number of Employees <sup>3</sup>			Average Production per Employee Hour (short tons) <sup>4</sup>		
	2021	2020	Percent Change	2021	2020	Percent Change	2021	2020	Percent Change
Underground	275	303	-9.2	23,981	25,356	-5.4	4.03	3.60	11.9
Surface	441	460	-4.1	15,448	16,761	-7.8	11.38	10.24	11.1
<b>Refuse Recovery</b>	<b>14</b>	<b>14</b>	<b>-</b>	<b>89</b>	<b>42</b>	<b>111.9</b>	<b>9.37</b>	<b>8.55</b>	<b>9.6</b>
<b>U.S. Total</b>	<b>730</b>	<b>777</b>	<b>-6.0</b>	<b>39,518</b>	<b>42,159</b>	<b>-6.3</b>	<b>6.71</b>	<b>6.12</b>	<b>9.5</b>

- = No data reported.

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

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

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

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

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' 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, 2021**

(short tons produced per employee hour)

Coal-Producing State, Region <sup>1</sup> and Mine Type	Continuous	Conventional and Other <sup>2</sup>	Longwall	Total
Alabama	2.24	-	2.34	2.20
Colorado	3.17	-	5.54	4.82
Illinois	7.20	-	10.97	8.45
Indiana	4.43	-	-	4.13
<b>Kentucky Total</b>	<b>3.47</b>	<b>0.29</b>	<b>-</b>	<b>3.01</b>
Kentucky (East)	1.82	0.42	-	1.53
Kentucky (West)	4.88	-	-	4.45
Maryland	2.07	-	-	1.51
Montana	14.47	-	14.47	14.47
New Mexico	-	-	3.38	3.38
Ohio	2.76	-	4.65	3.69
<b>Pennsylvania Total</b>	<b>3.76</b>	<b>0.7</b>	<b>7.14</b>	<b>5.67</b>
Pennsylvania (Anthracite)	0.90	0.64	-	0.70
Pennsylvania (Bituminous)	3.78	-	7.14	5.71
Utah	3.77	-	4.85	4.27
Virginia	2.30	-	3.84	2.67
<b>West Virginia Total</b>	<b>2.19</b>	<b>-</b>	<b>5.48</b>	<b>3.10</b>
West Virginia (Northern)	2.73	-	5.48	4.76
West Virginia (Southern)	2.09	-	-	1.79
Wyoming	13.10	-	13.10	13.10
<b>Appalachia Total</b>	<b>2.33</b>	<b>0.9</b>	<b>5.25</b>	<b>3.28</b>
Appalachia Central	2.05	0.11	3.84	1.89
Appalachia Northern	3.21	0.3	6.06	5.05
Appalachia Southern	2.24	-	2.34	2.20
<b>Interior Region Total</b>	<b>5.39</b>	<b>-</b>	<b>10.97</b>	<b>6.02</b>
Illinois Basin	5.39	-	10.97	6.02
<b>Western Region Total</b>	<b>3.89</b>	<b>-</b>	<b>6.50</b>	<b>5.66</b>
Uinta Basin	3.88	-	5.12	4.63
Other Western	3.92	-	9.81	8.43
<b>East of Mississippi River</b>	<b>3.20</b>	<b>0.7</b>	<b>5.87</b>	<b>3.86</b>
<b>West of Mississippi River</b>	<b>3.89</b>	<b>-</b>	<b>6.50</b>	<b>5.66</b>
<b>U.S. Total</b>	<b>3.23</b>	<b>0.7</b>	<b>5.99</b>	<b>4.05</b>

- = No data reported.

<sup>1</sup> For a definition of coal producing regions, see the Glossary.<sup>2</sup> Mines that produce coal using shortwall, scoop loading, hand loading, or other methods.

Notes: For each State, stand alone preparation plant hours are distributed across mining methods by the proportion of underground hours 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 25,000 short tons of coal and preparation plants with less than 5,000 employee hours during the year, which are not required to provide data.

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' and U.S. Department of Labor, Mine Safety and Health Administration Form 7000-2, 'Quarterly Mine Employment and Coal Production Report.'



**Table 22.1. Surface Coal Mining Productivity By State and Mining Method, 2021**

(short tons produced per employee hour)

Coal-Producing State and Region <sup>1</sup>	Contour Strip	Area	Open Pit	Mountaintop Mining	Other <sup>2</sup>	Total
Alabama	1.84	-	1.27	-	1.44	1.67
Alaska	5.33	-	5.33	-	-	5.33
Colorado	6.11	-	5.22	-	18.59	6.71
Illinois	-	8.06	-	-	0.69	4.30
Indiana	-	1.82	5.92	-	8.09	5.98
<b>Kentucky Total</b>	<b>2.09</b>	<b>3.34</b>	<b>4.04</b>	-	<b>1.69</b>	<b>2.15</b>
Kentucky (East)	2.09	3.34	-	-	1.71	2.12
Kentucky (West)	-	-	4.04	-	0.53	3.19
Louisiana	-	4.57	-	-	-	4.57
Maryland	3.39	4.99	-	-	2.26	3.79
Mississippi	7.49	-	-	-	-	7.49
Missouri	4.29	-	-	-	-	4.29
Montana	22.06	11.43	4.39	-	s	16.43
New Mexico	8.77	-	5.85	-	-	6.95
North Dakota	12.06	-	11.40	-	-	11.96
Ohio	3.98	3.35	-	-	1.75	3.16
Oklahoma	-	-	-	-	0.47	0.47
<b>Pennsylvania Total</b>	<b>2.41</b>	-	<b>2.69</b>	-	<b>0.52</b>	<b>1.76</b>
Pennsylvania (Anthracite)	2.37	-	2.95	-	0.15	1.33
Pennsylvania (Bituminous)	2.47	-	2.55	-	1.94	2.41
Tennessee	-	-	-	-	-	-
Texas	5.96	9.87	5.84	-	-	7.88
Utah	-	-	4.92	-	0.44	2.86
Virginia	2.13	2.87	-	-	1.25	1.90
<b>West Virginia Total</b>	<b>3.11</b>	<b>2.89</b>	-	<b>3.52</b>	<b>1.76</b>	<b>2.63</b>
West Virginia (Northern)	5.77	-	-	-	2.00	2.74
West Virginia (Southern)	3.06	2.89	-	3.52	1.74	2.63
Wyoming	25.58	7.24	29.95	-	-	27.12
<b>Appalachia Total</b>	<b>2.55</b>	<b>3.04</b>	<b>2.52</b>	<b>3.52</b>	<b>1.40</b>	<b>2.26</b>
Appalachia Central	2.58	2.96	-	3.52	1.64	2.38
Appalachia Northern	2.90	3.98	2.69	-	0.77	2.09
Appalachia Southern	1.84	-	1.27	-	1.44	1.67
<b>Interior Basin Total</b>	<b>6.81</b>	<b>9.31</b>	<b>5.85</b>	-	<b>5.12</b>	<b>6.97</b>
Illinois Basin	-	5.49	5.85	-	5.15	5.76
Interior	6.81	9.57	5.84	-	0.47	7.72
<b>Western Total</b>	<b>20.13</b>	<b>10.18</b>	<b>23.31</b>	-	<b>8.02</b>	<b>20.70</b>
Powder River Basin	26.93	11.54	32.63	-	s	28.27
Uinta Region	6.11	-	5.22	-	9.18	6.15
Western	10.11	7.23	6.75	-	4.92	8.78
<b>East of Mississippi River</b>	<b>3.00</b>	<b>3.11</b>	<b>4.43</b>	<b>3.52</b>	<b>1.54</b>	<b>2.81</b>
<b>West of Mississippi River</b>	<b>19.55</b>	<b>9.82</b>	<b>21.22</b>	-	<b>7.96</b>	<b>18.94</b>
<b>U.S. Total</b>	<b>13.42</b>	<b>6.07</b>	<b>16.54</b>	<b>3.52</b>	<b>1.74</b>	<b>11.38</b>

- = No data reported.

s = Value is less than 0.5 of the table metric.

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

2 Mines that: 1. produce coal using auger, highwall mine, or punch.

Notes: For each State, stand alone preparation plant hours are distributed across mining methods by the proportion of surface hours 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 25,000 short tons of coal and preparation plants with less than 5,000 employee hours during the year, which are not required to provide data.

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' 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, 2021**

(short tons produced per employee hour)

Coal-Producing State, Region <sup>a</sup> and Mine Type	Mine Production Range (thousand short tons)							Total <sup>2</sup>
	Above 1,000	Above 500 to 1,000	Above 200 to 500	Above 100 to 200	Above 50 to 100	Above 10 to 50	10 or Under	
<b>Alabama</b>	<b>2.62</b>	<b>1.92</b>	<b>2.30</b>	<b>1.15</b>	<b>2.05</b>	<b>1.34</b>	<b>1.96</b>	<b>2.10</b>
Underground	2.62	1.92	-	0.68	1.81	-	-	2.20
Surface	-	-	2.30	1.47	2.29	1.34	1.96	1.67
<b>Alaska</b>	<b>5.33</b>	-	-	-	-	-	-	<b>5.33</b>
Surface	5.33	-	-	-	-	-	-	5.33
<b>Colorado</b>	<b>5.94</b>	-	<b>3.36</b>	<b>1.12</b>	-	-	-	<b>5.43</b>
Underground	5.49	-	3.36	1.12	-	-	-	4.82
Surface	6.71	-	-	-	-	-	-	6.71
<b>Illinois</b>	<b>8.94</b>	-	<b>8.18</b>	-	-	<b>7.58</b>	<b>0.96</b>	<b>8.36</b>
Underground	8.94	-	-	-	-	-	-	8.45
Surface	-	-	8.18	-	-	7.58	0.96	4.30
<b>Indiana</b>	<b>5.04</b>	-	<b>13.03</b>	<b>2.62</b>	<b>2.09</b>	<b>1.72</b>	<b>1.67</b>	<b>4.82</b>
Underground	4.43	-	-	-	-	-	-	4.13
Surface	6.08	-	13.03	2.62	2.09	1.72	1.67	5.98
<b>Kentucky Total</b>	<b>4.68</b>	<b>2.09</b>	<b>2.27</b>	<b>2.46</b>	<b>1.62</b>	<b>1.50</b>	<b>1.02</b>	<b>2.79</b>
Underground	4.68	1.27	1.88	1.74	1.32	1.45	1.14	3.00
Surface	-	3.25	3.41	3.08	2.11	1.53	1.00	2.15
<b>Kentucky (East)</b>	<b>3.07</b>	<b>2.09</b>	<b>2.19</b>	<b>2.46</b>	<b>1.62</b>	<b>1.50</b>	<b>1.02</b>	<b>1.75</b>
Underground	3.07	1.27	1.88	1.74	1.32	1.45	1.14	1.53
Surface	-	3.25	3.28	3.08	2.11	1.53	1.00	2.12
<b>Kentucky (West)</b>	<b>4.88</b>	-	<b>4.04</b>	-	-	-	<b>1.03</b>	<b>4.43</b>
Underground	4.88	-	-	-	-	-	-	4.45
Surface	-	-	4.04	-	-	-	1.03	3.19
<b>Louisiana</b>	-	-	<b>4.57</b>	-	-	-	-	<b>4.57</b>
Surface	-	-	4.57	-	-	-	-	4.57
<b>Maryland</b>	-	-	<b>2.93</b>	<b>3.92</b>	-	<b>2.69</b>	<b>1.74</b>	<b>2.61</b>
Underground	-	-	2.07	-	-	-	-	1.51
Surface	-	-	4.09	3.92	-	2.69	1.74	3.79
<b>Mississippi</b>	<b>7.49</b>	-	-	-	-	-	-	<b>7.49</b>
Surface	7.49	-	-	-	-	-	-	7.49
<b>Missouri</b>	-	-	-	-	-	<b>4.29</b>	-	<b>4.29</b>
Surface	-	-	-	-	-	4.29	-	4.29
<b>Montana</b>	<b>16.41</b>	-	<b>4.39</b>	<b>6.95</b>	-	-	-	<b>15.88</b>
Underground	14.47	-	-	-	-	-	-	14.47
Surface	17.21	-	4.39	6.95	-	-	-	16.43
<b>New Mexico</b>	<b>5.89</b>	-	-	-	-	-	-	<b>5.89</b>
Underground	3.38	-	-	-	-	-	-	3.38
Surface	6.95	-	-	-	-	-	-	6.95
<b>North Dakota</b>	<b>12.08</b>	-	<b>7.70</b>	-	-	-	-	<b>11.96</b>
Surface	12.08	-	7.70	-	-	-	-	11.96
<b>Ohio</b>	<b>4.65</b>	-	<b>4.17</b>	<b>1.87</b>	<b>3.10</b>	<b>0.88</b>	-	<b>3.48</b>
Underground	4.65	-	4.94	1.26	-	1.26	-	3.69
Surface	-	-	3.86	3.13	3.10	0.58	-	3.16
<b>Oklahoma</b>	-	-	-	-	-	-	<b>0.47</b>	<b>0.47</b>
Surface	-	-	-	-	-	-	0.47	0.47
<b>Pennsylvania Total</b>	<b>7.14</b>	<b>4.17</b>	<b>3.17</b>	<b>2.61</b>	<b>1.84</b>	<b>2.38</b>	<b>1.18</b>	<b>4.59</b>
Underground	7.14	4.17	3.11	2.52	-	1.71	0.52	5.64
Surface	-	-	3.26	2.72	1.84	2.42	1.56	1.76
<b>Pennsylvania (Anthracite)</b>	-	-	<b>3.91</b>	<b>3.11</b>	<b>1.49</b>	<b>2.39</b>	<b>1.02</b>	<b>1.29</b>
Underground	-	-	-	-	-	1.71	0.52	0.62
Surface	-	-	3.91	3.11	1.49	2.50	1.93	1.33
<b>Pennsylvania (Bituminous)</b>	<b>7.14</b>	<b>4.17</b>	<b>3.00</b>	<b>2.55</b>	<b>3.03</b>	<b>2.37</b>	<b>1.39</b>	<b>5.28</b>
Underground	7.14	4.17	3.11	2.52	-	-	-	5.71
Surface	-	-	2.73	2.58	3.03	2.37	1.39	2.41
<b>Texas</b>	<b>7.88</b>	-	-	-	-	-	-	<b>7.88</b>
Surface	7.88	-	-	-	-	-	-	7.88

Coal-Producing State, Region <sup>1</sup> and Mine Type	Mine Production Range (thousand short tons)							Total <sup>2</sup>
	Above 1,000	Above 500 to 1,000	Above 200 to 500	Above 100 to 200	Above 50 to 100	Above 10 to 50	10 or Under	
<b>Utah</b>	<b>4.59</b>	<b>2.75</b>	<b>4.92</b>	-	-	-	-	<b>4.20</b>
Underground	4.59	2.75	-	-	-	-	-	4.27
Surface	-	-	4.92	-	-	-	-	2.86
<b>Virginia</b>	<b>3.28</b>	<b>2.30</b>	<b>1.94</b>	<b>2.77</b>	<b>2.90</b>	<b>1.26</b>	<b>0.90</b>	<b>2.41</b>
Underground	3.28	1.99	2.00	-	1.51	0.83	0.3	2.64
Surface	-	2.46	1.92	2.77	4.46	1.47	0.98	1.90
<b>West Virginia Total</b>	<b>5.03</b>	<b>2.14</b>	<b>1.87</b>	<b>3.00</b>	<b>2.22</b>	<b>1.42</b>	<b>0.48</b>	<b>3.00</b>
Underground	5.17	1.74	1.75	1.92	1.85	0.86	1.06	3.09
Surface	3.25	3.89	2.21	3.41	2.77	1.96	0.44	2.63
<b>West Virginia (Northern)</b>	<b>5.85</b>	<b>0.90</b>	-	<b>3.54</b>	<b>7.67</b>	<b>2.13</b>	<b>2.18</b>	<b>4.73</b>
Underground	5.85	0.90	-	2.50	-	-	-	4.76
Surface	-	-	-	4.12	7.67	2.13	2.18	2.74
<b>West Virginia (Southern)</b>	<b>2.91</b>	<b>2.48</b>	<b>1.87</b>	<b>2.91</b>	<b>2.12</b>	<b>1.41</b>	<b>0.46</b>	<b>2.03</b>
Underground	2.79	2.04	1.75	1.80	1.85	0.86	1.06	1.78
Surface	3.25	3.89	2.21	3.32	2.54	1.95	0.42	2.63
<b>Wyoming</b>	<b>26.73</b>	-	-	-	-	-	-	<b>26.73</b>
Underground	13.10	-	-	-	-	-	-	13.10
Surface	27.12	-	-	-	-	-	-	27.12
<b>Appalachia Total</b>	<b>4.95</b>	<b>2.26</b>	<b>2.27</b>	<b>2.36</b>	<b>1.92</b>	<b>1.59</b>	<b>0.91</b>	<b>3.02</b>
Underground	5.01	1.92	2.03	1.80	1.52	1.10	0.72	3.27
Surface	3.25	3.49	2.71	2.76	2.29	1.85	0.95	2.26
<b>Appalachia Central</b>	<b>3.07</b>	<b>2.43</b>	<b>1.95</b>	<b>2.67</b>	<b>1.86</b>	<b>1.42</b>	<b>0.74</b>	<b>2.03</b>
Underground	3.05	1.98	1.79	1.76	1.50	1.07	0.99	1.87
Surface	3.25	3.49	2.34	3.16	2.43	1.67	0.71	2.38
<b>Appalachia Northern</b>	<b>6.30</b>	<b>1.77</b>	<b>3.28</b>	<b>2.68</b>	<b>2.08</b>	<b>2.21</b>	<b>1.25</b>	<b>4.56</b>
Underground	6.30	1.77	3.06	2.37	-	1.48	0.52	5.03
Surface	-	-	3.53	3.01	2.08	2.29	1.60	2.09
<b>Appalachia Southern</b>	<b>2.62</b>	<b>1.92</b>	<b>2.30</b>	<b>1.15</b>	<b>2.05</b>	<b>1.34</b>	<b>1.96</b>	<b>2.10</b>
Underground	2.62	1.92	-	0.68	1.81	-	-	2.20
Surface	-	-	2.30	1.47	2.29	1.34	1.96	1.67
<b>Interior Region Total</b>	<b>6.69</b>	-	<b>6.63</b>	<b>2.62</b>	<b>2.09</b>	<b>4.06</b>	<b>1.26</b>	<b>6.30</b>
Underground	6.47	-	-	-	-	-	-	6.02
Surface	7.22	-	6.63	2.62	2.09	4.06	1.26	6.97
<b>Illinois Basin</b>	<b>6.42</b>	-	<b>7.65</b>	<b>2.62</b>	<b>2.09</b>	<b>3.97</b>	<b>1.30</b>	<b>5.98</b>
Underground	6.47	-	-	-	-	-	-	6.02
Surface	6.08	-	7.65	2.62	2.09	3.97	1.30	5.76
<b>Other Interior</b>	<b>7.82</b>	-	<b>4.57</b>	-	-	<b>4.29</b>	<b>0.47</b>	<b>7.72</b>
Surface	7.82	-	4.57	-	-	4.29	0.47	7.72
<b>Western Region Total</b>	<b>17.19</b>	<b>2.75</b>	<b>4.67</b>	<b>1.86</b>	-	-	-	<b>16.54</b>
Underground	6.13	2.75	3.36	1.12	-	-	-	5.66
Surface	21.04	-	5.62	6.95	-	-	-	20.70
<b>Powder River Basin</b>	<b>28.44</b>	-	<b>4.39</b>	-	-	-	-	<b>28.27</b>
Surface	28.44	-	4.39	-	-	-	-	28.27
<b>Uinta Basin</b>	<b>5.18</b>	<b>2.75</b>	-	-	-	-	-	<b>4.88</b>
Underground	4.88	2.75	-	-	-	-	-	4.63
Surface	6.71	-	-	-	-	-	-	6.15
<b>Other Western</b>	<b>9.10</b>	-	<b>4.72</b>	<b>1.86</b>	-	-	-	<b>8.69</b>
Underground	9.93	-	3.36	1.12	-	-	-	8.43
Surface	8.87	-	6.02	6.95	-	-	-	8.78
<b>East of Mississippi River</b>	<b>5.50</b>	<b>2.26</b>	<b>2.37</b>	<b>2.36</b>	<b>1.92</b>	<b>1.62</b>	<b>0.93</b>	<b>3.61</b>
Underground	5.50	1.92	2.03	1.80	1.52	1.10	0.72	3.85
Surface	5.51	3.49	2.95	2.75	2.29	1.90	0.97	2.81
<b>West of Mississippi River</b>	<b>16.22</b>	<b>2.75</b>	<b>4.65</b>	<b>1.86</b>	-	<b>4.29</b>	<b>0.47</b>	<b>15.64</b>
Underground	6.13	2.75	3.36	1.12	-	-	-	5.66
Surface	19.27	-	5.35	6.95	-	4.29	0.47	18.94
<b>U.S. Subtotal</b>	<b>9.81</b>	<b>2.27</b>	<b>2.48</b>	<b>2.35</b>	<b>1.92</b>	<b>1.64</b>	<b>0.93</b>	<b>6.71</b>
Underground	5.59	1.94	2.07	1.76	1.52	1.10	0.72	4.03
Surface	17.42	3.49	3.15	2.78	2.29	1.92	0.97	11.38
<b>Refuse Recovery</b>	-	-	<b>10.74</b>	<b>9.76</b>	<b>69.85</b>	<b>4.15</b>	-	<b>9.37</b>
<b>U.S. Total</b>	<b>9.81</b>	<b>2.27</b>	<b>2.50</b>	<b>2.40</b>	<b>1.94</b>	<b>1.66</b>	<b>0.93</b>	<b>6.71</b>

- = No data reported.

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

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

Notes: 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.

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' 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, 2021**

(short tons produced per employee hour)

Coal-Producing State and Region <sup>1</sup>	Union		Nonunion	
	Underground	Surface	Underground	Surface
Alabama	2.26	-	1.11	1.67
Alaska	-	5.33	-	-
Colorado	3.94	6.11	5.14	7.03
Illinois	-	-	8.45	4.58
Indiana	-	-	4.13	6.03
<b>Kentucky Total</b>	-	-	<b>3.05</b>	<b>2.24</b>
Kentucky (East)	-	-	1.58	2.20
Kentucky (West)	-	-	4.45	3.34
Louisiana	-	-	-	4.57
Maryland	-	-	1.51	3.93
Mississippi	-	-	-	7.49
Missouri	-	-	-	4.29
Montana	-	11.17	14.47	23.35
New Mexico	3.38	5.85	-	8.77
North Dakota	-	10.83	-	12.19
Ohio	-	-	3.69	3.16
<b>Pennsylvania Total</b>	<b>5.20</b>	<b>1.43</b>	<b>5.87</b>	<b>1.88</b>
Pennsylvania (Anthracite)	-	1.43	0.70	1.28
Pennsylvania (Bituminous)	5.20	-	5.91	2.48
Tennessee	-	-	-	-
Texas	-	9.87	-	5.87
Utah	-	-	4.27	3.30
Virginia	-	-	2.80	1.93
<b>West Virginia Total</b>	<b>5.61</b>	<b>11.95</b>	<b>2.26</b>	<b>2.57</b>
West Virginia (Northern)	6.04	-	3.34	2.75
West Virginia (Southern)	0.54	11.95	1.84	2.57
Wyoming	13.10	4.45	-	29.53
<b>Appalachian Total</b>	<b>4.36</b>	<b>2.75</b>	<b>2.90</b>	<b>2.30</b>
Appalachia Central	0.40	10.91	1.94	2.37
Appalachia Northern	5.84	1.43	4.57	2.27
Appalachia Southern	2.26	-	1.11	1.67
<b>Interior Region Total</b>	-	<b>9.87</b>	<b>6.02</b>	<b>6.03</b>
Illinois Basin	-	-	6.02	5.84
Other Interior	-	9.87	-	6.24
<b>Western Region Total</b>	<b>5.74</b>	<b>7.33</b>	<b>5.64</b>	<b>24.39</b>
Powder River Basin	-	11.25	-	29.77
Uinta Basin	3.94	6.11	4.71	6.42
Other Western	6.73	6.13	9.97	10.93
<b>East of Mississippi River</b>	<b>4.36</b>	<b>2.75</b>	<b>3.74</b>	<b>2.91</b>
<b>West of Mississippi River</b>	<b>5.74</b>	<b>8.00</b>	<b>5.64</b>	<b>22.65</b>
<b>U.S. Total</b>	<b>4.49</b>	<b>7.31</b>	<b>3.94</b>	<b>12.46</b>

- = No data reported.

<sup>1</sup> For a definition of coal producing regions, see the Glossary.

Notes: Productivity is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair shop, or yard work at mining operations, including office workers. Excludes mines producing less than 25,000 short tons of coal and preparation plants with less than 5,000 employee hours during the year, which are not required to provide data.

Sources: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' and U.S. Department of Labor, Mine Safety and Health Administration Form 7000-2, 'Quarterly Mine Employment and Coal Production Report.'

## Domestic Markets

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**Table 25. Intentionally left blank**

**Table 26. U.S. Coal Consumption by End Use Sector, Census Division, and State, 2021 and 2020**

(thousand short tons)

Census Division and State	2021				2020				Total		Percent Change
	Electric Power <sup>1</sup>	Other Industrial	Coke	Commercial and Institutional	Electric Power <sup>1</sup>	Other Industrial	Coke	Commercial and Institutional	2021	2020	
	-	-	-	-	-	-	-	-	-	-	-
<b>New England</b>	<b>350</b>	-	-	-	<b>119</b>	<b>13</b>	-	-	<b>350</b>	<b>133</b>	<b>164.1</b>
Connecticut	158	-	-	-	4	-	-	-	158	4	NM
Maine	69	-	-	-	58	13	-	-	69	71	-3.6
New Hampshire	123	-	-	-	58	-	-	-	123	58	114.5
Rhode Island	s	-	-	-	s	-	-	-	s	s	-
<b>Middle Atlantic</b>	<b>16,766</b>	<b>679</b>	<b>5,292</b>	<b>7</b>	<b>14,158</b>	<b>648</b>	<b>3,667</b>	<b>9</b>	<b>22,744</b>	<b>18,482</b>	<b>23.1</b>
New Jersey	496	-	-	-	473	-	-	-	496	473	5.0
New York	s	211	-	-	64	158	-	-	211	222	-4.7
Pennsylvania	16,270	468	5,292	7	13,622	490	3,667	9	22,036	17,788	23.9
<b>East North Central</b>	<b>108,545</b>	<b>4,588</b>	<b>9,847</b>	<b>131</b>	<b>89,752</b>	<b>5,177</b>	<b>8,441</b>	<b>130</b>	<b>123,111</b>	<b>103,502</b>	<b>19.0</b>
Illinois	25,661	1,983	1,013	83	17,800	2,482	926	81	28,740	21,288	35.0
Indiana	27,728	1,354	4,129	48	24,034	1,422	3,698	35	33,259	29,188	14.0
Michigan	20,719	304	1,449	-	15,919	293	933	-	22,472	17,145	31.1
Ohio	19,030	424	3,256	-	18,761	393	2,884	-	22,710	22,039	3.1
Wisconsin	15,408	524	-	-	13,239	588	-	15	15,931	13,842	15.1
<b>West North Central</b>	<b>101,973</b>	<b>10,887</b>	-	<b>116</b>	<b>91,594</b>	<b>10,713</b>	-	<b>116</b>	<b>112,976</b>	<b>102,423</b>	<b>10.3</b>
Iowa	13,022	2,051	-	82	8,199	2,121	-	76	15,154	10,397	45.8
Kansas	12,595	57	-	-	11,263	56	-	-	12,651	11,319	11.8
Minnesota	9,360	784	-	6	8,467	734	-	4	10,150	9,205	10.3
Missouri	33,810	928	-	12	30,468	809	-	6	34,750	31,283	11.1
Nebraska	11,626	976	-	-	11,587	870	-	-	12,602	12,457	1.2
North Dakota	20,470	5,872	-	16	20,480	5,930	-	30	26,358	26,440	-0.3
South Dakota	1,092	220	-	-	1,130	193	-	-	1,312	1,322	-0.8
<b>South Atlantic</b>	<b>61,523</b>	<b>2,160</b>	<b>1,697</b>	<b>55</b>	<b>53,094</b>	<b>2,048</b>	<b>1,535</b>	<b>58</b>	<b>65,435</b>	<b>56,735</b>	<b>15.3</b>
Delaware	172	-	-	-	76	-	-	-	172	76	127.4
District of Columbia	-	-	-	s	-	-	-	s	s	s	-
Florida	8,304	235	-	-	7,496	219	-	-	8,539	7,716	10.7
Georgia	9,930	288	-	-	7,340	275	-	-	10,217	7,616	34.2
Maryland	2,401	405	-	-	1,646	393	-	-	2,806	2,039	37.6
North Carolina	8,451	374	-	46	8,575	347	-	48	8,870	8,971	-1.1
South Carolina	6,534	130	-	-	5,555	136	-	-	6,664	5,691	17.1
Virginia	1,482	411	887	8	1,814	356	896	10	2,788	3,077	-9.4
West Virginia	24,250	319	811	-	20,590	321	639	-	25,380	21,550	17.8
<b>East South Central</b>	<b>52,083</b>	<b>2,622</b>	<b>752</b>	<b>3</b>	<b>43,561</b>	<b>2,333</b>	<b>770</b>	<b>3</b>	<b>55,460</b>	<b>46,667</b>	<b>18.8</b>
Alabama	14,588	692	752	-	11,896	555	770	-	16,033	13,220	21.3
Kentucky	23,805	681	-	3	20,809	591	-	3	24,489	21,402	14.4
Mississippi	4,774	74	-	-	3,989	76	-	-	4,848	4,064	19.3
Tennessee	8,915	1,175	-	-	6,869	1,112	-	-	10,091	7,981	26.4
<b>West South Central</b>	<b>87,029</b>	<b>848</b>	-	-	<b>71,983</b>	<b>821</b>	-	-	<b>87,878</b>	<b>72,804</b>	<b>20.7</b>
Arkansas	12,277	150	-	-	9,201	149	-	-	12,427	9,350	32.9
Louisiana	5,555	292	-	-	2,743	219	-	-	5,847	2,962	97.4
Oklahoma	7,435	148	-	-	3,970	157	-	-	7,583	4,127	83.7
Texas	61,762	258	-	-	56,069	296	-	-	62,020	56,365	10.0
<b>Mountain</b>	<b>69,581</b>	<b>2,701</b>	-	<b>7</b>	<b>65,656</b>	<b>2,576</b>	-	<b>4</b>	<b>72,289</b>	<b>68,236</b>	<b>5.9</b>
Arizona	8,419	273	-	-	8,274	277	-	-	8,693	8,551	1.7
Colorado	13,400	144	-	s	11,477	159	-	1	13,544	11,637	16.4
Idaho	-	125	-	-	-	108	-	-	125	108	15.5
Montana	6,908	232	-	1	5,624	201	-	1	7,141	5,826	22.6
Nevada	1,490	242	-	-	1,105	249	-	-	1,732	1,354	27.9
New Mexico	7,075	57	-	-	7,443	64	-	-	7,132	7,506	-5.0
Utah	12,274	335	-	-	10,866	306	-	-	12,609	11,173	12.9
Wyoming	20,014	1,293	-	6	20,866	1,211	-	2	21,313	22,080	-3.5
<b>Pacific</b>	<b>3,514</b>	<b>1,360</b>	-	<b>492</b>	<b>5,909</b>	<b>1,330</b>	-	<b>473</b>	<b>5,367</b>	<b>7,711</b>	<b>-30.4</b>
Alaska	761	1	-	492	777	1	-	473	1,254	1,251	0.2



Census Division and State	2021				2020				Total		Percent Change
	Electric Power <sup>1</sup>	Other Industrial	Coke	Commercial and Institutional	Electric Power <sup>1</sup>	Other Industrial	Coke	Commercial and Institutional	2021	2020	
California	s	1,223	-	-	s	1,211	-	-	1,223	1,211	0.9
Hawaii	634	-	-	-	670	-	-	-	634	670	-5.3
Oregon	-	57	-	-	985	35	-	-	57	1,020	-94.4
Washington	2,120	79	-	-	3,476	82	-	-	2,198	3,558	-38.2
<b>U.S. Total</b>	<b>501,366</b>	<b>25,845</b>	<b>17,589</b>	<b>811</b>	<b>435,827</b>	<b>25,660</b>	<b>14,414</b>	<b>793</b>	<b>545,610</b>	<b>476,693</b>	<b>14.5</b>

- = No data reported.

NM = Not Meaningful.

s = Absolute percentage less than 0.05 or value is less than 0.5 of the table metric.

<sup>1</sup> 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).

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

Sources: U.S. Energy Information Administration Form EIA-923, 'Power Plant Operations Report,' Form EIA-3, 'Quarterly Survey of Non-Electric Sector Coal Data,' and Form EIA-7A, 'Annual Survey of Coal Production and Preparation.' Prior to third quarter 2014, coke plant data was collected under Form EIA-5, 'Quarterly Coal Consumption and Quality Report - Coke Plants.'

**Table 27. Year-End Coal Stocks by Sector, Census Division, and State, 2021 and 2020**

(thousand short tons)

Census Division and State	2021					2020					Total			
	Electric Power <sup>1</sup>	Other Industrial	Commercial and Institutional	Producer and Distributor	Commercial and Institutional	Electric Power <sup>1</sup>	Other Industrial	Commercial and Institutional	Producer and Distributor	Commercial and Institutional	Producer and Distributor	2021	2020	Percent Change
	-	-	-	-	783	-	-	-	-	-	332	783	332	135.7
<b>New England</b>	<b>w</b>	-	-	-	-	<b>491</b>	<b>s</b>	-	-	-	-	<b>w</b>	<b>491</b>	<b>w</b>
Connecticut	s	-	-	-	-	w	-	-	-	-	-	s	w	w
Maine	s	-	-	-	-	s	s	-	-	-	-	s	s	-
New Hampshire	w	-	-	-	-	w	-	-	-	-	-	w	w	-27.6
Rhode Island	s	-	-	-	-	s	-	-	-	-	-	s	s	-
<b>Middle Atlantic</b>	<b>3,252</b>	<b>216</b>	<b>442</b>	<b>21</b>	<b>838</b>	<b>4,033</b>	<b>212</b>	<b>364</b>	<b>28</b>	<b>739</b>	<b>4,769</b>	<b>5,376</b>	<b>-11.3</b>	
New Jersey	w	-	-	-	-	w	-	-	-	-	-	w	w	35.1
New York	s	57	-	-	-	s	63	-	-	-	-	57	63	-9.8
Pennsylvania	w	159	442	21	838	w	149	364	28	739	w	w	-12.7	
<b>East North Central</b>	<b>18,182</b>	<b>634</b>	<b>886</b>	<b>25</b>	<b>2,148</b>	<b>30,027</b>	<b>619</b>	<b>929</b>	<b>22</b>	<b>3,756</b>	<b>21,874</b>	<b>35,352</b>	<b>-38.1</b>	
Illinois	4,208	138	112	21	1,214	6,220	122	126	20	2,534	5,692	9,022	-36.9	
Indiana	5,506	243	252	4	482	10,635	211	231	2	776	6,487	11,854	-45.3	
Michigan	2,371	138	251	-	94	4,930	140	278	-	73	2,854	5,422	-47.4	
Ohio	3,450	19	271	-	94	4,693	29	293	-	66	3,834	5,081	-24.5	
Wisconsin	2,647	96	-	-	264	3,549	117	-	-	307	3,007	3,973	-24.3	
<b>West North Central</b>	<b>19,903</b>	<b>559</b>	-	<b>26</b>	<b>1,573</b>	<b>26,370</b>	<b>499</b>	-	<b>39</b>	<b>1,737</b>	<b>22,061</b>	<b>28,645</b>	<b>-23.0</b>	
Iowa	3,680	175	-	14	50	7,523	163	-	22	48	3,919	7,756	-49.5	
Kansas	3,242	5	-	-	-	3,340	8	-	-	-	3,246	3,348	-3.0	
Minnesota	1,925	34	-	5	47	3,148	38	-	9	23	2,012	3,218	-37.5	
Missouri	6,179	53	-	1	-	7,399	45	-	1	-	6,233	7,445	-16.3	
Nebraska	3,067	40	-	-	-	3,114	35	-	-	-	3,107	3,150	-1.4	
North Dakota	w	234	-	6	1,475	w	171	-	7	1,667	w	w	-8.9	
South Dakota	w	17	-	-	-	w	39	-	-	-	w	w	38.2	
<b>South Atlantic</b>	<b>13,663</b>	<b>255</b>	<b>233</b>	<b>43</b>	<b>4,736</b>	<b>20,491</b>	<b>355</b>	<b>167</b>	<b>42</b>	<b>5,489</b>	<b>18,929</b>	<b>26,545</b>	<b>-28.7</b>	
Delaware	w	-	-	-	-	w	-	-	-	-	w	w	-3.2	
District of Columbia	-	-	-	3	-	-	-	-	3	-	3	3	s	
Florida	1,660	50	-	-	-	2,049	56	-	-	-	1,710	2,105	-18.8	
Georgia	2,939	39	-	-	-	4,839	44	-	-	-	2,978	4,883	-39.0	
Maryland	849	15	-	-	336	1,427	6	-	-	293	1,200	1,726	-30.5	
North Carolina	3,402	66	-	31	-	3,527	65	-	28	-	3,499	3,620	-3.4	
South Carolina	967	35	-	-	-	1,438	45	-	-	-	1,002	1,484	-32.5	
Virginia	551	28	46	10	1,331	w	53	46	12	1,069	1,966	w	w	
West Virginia	w	21	187	-	3,070	6,579	85	122	-	4,127	w	10,913	w	
<b>East South Central</b>	<b>7,696</b>	<b>150</b>	<b>98</b>	<b>4</b>	<b>1,962</b>	<b>11,366</b>	<b>237</b>	<b>194</b>	<b>7</b>	<b>1,943</b>	<b>9,910</b>	<b>13,746</b>	<b>-27.9</b>	
Alabama	w	59	98	-	798	2,993	77	194	-	913	w	4,177	w	
Kentucky	3,441	41	-	4	331	5,600	66	-	7	370	3,817	6,042	-36.8	
Mississippi	w	3	-	-	834	w	8	-	-	661	w	w	14.9	
Tennessee	2,207	47	-	-	-	w	85	-	-	-	2,254	w	w	
<b>West South Central</b>	<b>14,740</b>	<b>230</b>	-	-	<b>1,141</b>	<b>20,032</b>	<b>280</b>	-	-	<b>1,786</b>	<b>16,111</b>	<b>22,098</b>	<b>-27.1</b>	
Arkansas	2,946	28	-	-	-	3,911	33	-	-	-	2,975	3,944	-24.6	
Louisiana	2,166	4	-	-	360	3,810	3	-	-	780	2,529	4,593	-44.9	
Oklahoma	2,025	84	-	-	-	2,662	79	-	-	13	2,109	2,754	-23.4	
Texas	7,603	114	-	-	780	9,648	165	-	-	993	8,498	10,806	-21.4	
<b>Mountain</b>	<b>w</b>	<b>453</b>	-	<b>3</b>	<b>6,179</b>	<b>18,052</b>	<b>530</b>	-	<b>4</b>	<b>7,895</b>	<b>w</b>	<b>26,480</b>	<b>w</b>	
Arizona	2,150	32	-	-	-	3,456	24	-	-	-	2,181	3,479	-37.3	
Colorado	2,985	17	-	1	1,239	3,662	15	-	s	1,021	4,241	4,699	-9.7	
Idaho	-	172	-	-	-	-	201	-	-	-	172	201	-14.5	
Montana	w	42	-	3	500	w	73	-	3	716	w	w	-16.1	
Nevada	w	16	-	-	-	w	54	-	-	-	w	w	-52.3	
New Mexico	w	2	-	-	1,798	w	3	-	-	2,816	w	w	-29.4	
Utah	2,884	43	-	-	833	4,475	28	-	-	1,881	3,761	6,384	-41.1	
Wyoming	4,300	130	-	s	1,808	w	133	-	s	1,461	6,238	w	w	
<b>Pacific</b>	<b>703</b>	<b>128</b>	-	<b>54</b>	<b>437</b>	<b>986</b>	<b>116</b>	-	<b>109</b>	<b>294</b>	<b>1,320</b>	<b>1,505</b>	<b>-12.3</b>	
Alaska	w	-	-	54	211	w	-	-	109	194	w	w	-11.8	

Census Division and State	2021					2020					Total		
	Electric Power <sup>1</sup>	Other Industrial	Coke	Commercial and Institutional	Producer and Distributor	Electric Power <sup>1</sup>	Other Industrial	Coke	Commercial and Institutional	Producer and Distributor	2021	2020	Percent Change
California	s	116	-	-	226	s	110	-	-	100	342	209	63.2
Hawaii	w	-	-	-	-	w	-	-	-	-	w	w	-11.7
Oregon	-	6	-	-	-	s	2	-	-	-	6	2	227.0
Washington	w	5	-	-	-	w	4	-	-	-	w	w	-34.1
<b>U.S. Total</b>	<b>92,289</b>	<b>2,624</b>	<b>1,658</b>	<b>176</b>	<b>19,013</b>	<b>131,847</b>	<b>2,848</b>	<b>1,654</b>	<b>250</b>	<b>23,640</b>	<b>115,761</b>	<b>160,238</b>	<b>-27.8</b>

- = No data reported.

w = Data withheld to avoid disclosure.

s = Absolute percentage less than 0.05 or value is less than 0.5 of the table metric.

<sup>1</sup> 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). Coal stocks include waste coal.

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

Sources: U.S. Energy Information Administration Form EIA-923, 'Power Plant Operations Report,' Form EIA-3, 'Quarterly Survey of Non-Electric Sector Coal Data,' Form EIA-7A, 'Annual Survey of Coal Production and Preparation,' and Form EIA-8A, 'Annual Survey of Coal Stocks and Coal Exports.' Prior to third quarter 2014, coke plant data was collected under Form EIA-5, 'Quarterly Coal Consumption and Quality Report - Coke Plants.'

## Average Mine Sales Price

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**Table 28. Average Sales Price of Coal by State and Mine Type, 2021 and 2020**

(dollars per short ton)

Coal-Producing State	2021			2020			Percent Change		
	Underground	Surface	Total	Underground	Surface	Total	Underground	Surface	Total
Alabama	158.70	103.51	150.54	100.76	80.48	98.01	57.5	28.6	53.6
Alaska	-	w	w	-	w	w	-	w	w
Colorado	w	w	46.02	w	w	41.45	w	w	11.0
Illinois	w	w	31.15	22.81	39.15	23.86	w	w	30.6
Indiana	42.57	44.65	43.52	40.04	40.87	40.49	6.3	9.3	7.5
<b>Kentucky Total</b>	<b>53.95</b>	<b>61.04</b>	<b>55.28</b>	<b>47.53</b>	<b>56.25</b>	<b>49.04</b>	<b>13.5</b>	<b>8.5</b>	<b>12.7</b>
Kentucky (East)	w	w	74.97	w	w	64.06	w	w	17.0
Kentucky (West)	w	w	42.93	w	w	41.70	w	w	3.0
Louisiana	-	w	w	-	w	w	-	w	w
Maryland	w	w	59.12	w	w	62.40	w	w	-5.3
Mississippi	-	w	w	-	w	w	-	w	w
Missouri	-	w	w	-	w	w	-	w	w
Montana	w	w	22.66	w	w	20.27	w	w	11.8
New Mexico	w	w	41.98	w	w	40.62	w	w	3.4
North Dakota	-	19.00	19.00	-	19.48	19.48	-	-2.5	-2.5
Ohio	39.97	34.61	38.08	40.11	34.13	38.49	-0.4	1.4	-1.1
<b>Pennsylvania Total</b>	<b>53.57</b>	<b>96.95</b>	<b>57.63</b>	<b>49.06</b>	<b>76.61</b>	<b>52.11</b>	<b>9.2</b>	<b>26.6</b>	<b>10.6</b>
Pennsylvania (Anthracite)	w	w	107.08	w	w	90.68	w	w	18.1
Pennsylvania (Bituminous)	w	w	55.54	w	w	49.35	w	w	12.5
Tennessee	-	-	-	w	-	w	w	-	w
Texas	-	20.40	20.40	-	17.98	17.98	-	13.5	13.5
Utah	w	w	38.41	w	w	37.22	w	w	3.2
Virginia	122.37	114.81	120.50	71.86	75.44	72.76	70.3	52.2	65.6
<b>West Virginia Total</b>	<b>74.97</b>	<b>87.70</b>	<b>77.12</b>	<b>59.64</b>	<b>66.48</b>	<b>60.80</b>	<b>25.7</b>	<b>31.9</b>	<b>26.8</b>
West Virginia (Northern)	59.64	41.85	59.49	w	w	48.19	w	w	23.5
West Virginia (Southern)	107.37	89.06	100.39	w	w	76.43	w	w	31.4
Wyoming	w	w	12.76	w	w	13.04	w	w	-2.2
<b>U.S. Total</b>	<b>60.49</b>	<b>21.32</b>	<b>36.45</b>	<b>49.80</b>	<b>20.67</b>	<b>31.41</b>	<b>21.5</b>	<b>3.1</b>	<b>16.1</b>

- = No data reported.

w = Data withheld to avoid disclosure.

Notes: 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 25,000 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, 'Annual Survey of Coal Production and Preparation.'

**Table 29. Average Sales Price of Coal by State and Underground Mining Method, 2021**

(dollars per short ton)

Coal-Producing State	Continuous	Conventional and Other <sup>1</sup>	Longwall	Total
Alabama	151.09	-	160.93	158.70
Colorado	w	-	w	w
Illinois	27.90	-	33.53	w
Indiana	42.57	-	-	42.57
<b>Kentucky Total</b>	<b>53.72</b>	<b>75.26</b>	-	<b>53.95</b>
Kentucky (East)	w	75.26	-	w
Kentucky (West)	w	-	-	w
Maryland	w	-	-	w
Montana	w	-	w	w
New Mexico	-	-	w	w
Ohio	w	-	w	39.97
<b>Pennsylvania Total</b>	<b>w</b>	<b>w</b>	<b>44.15</b>	<b>53.57</b>
Pennsylvania (Anthracite)	w	w	-	w
Pennsylvania (Bituminous)	w	-	44.15	w
Utah	w	-	w	w
Virginia	w	-	w	122.37
<b>West Virginia Total</b>	<b>104.40</b>	-	<b>55.16</b>	<b>74.97</b>
West Virginia (Northern)	92.62	-	55.16	59.64
West Virginia (Southern)	107.37	-	-	107.37
Wyoming	w	-	w	w
<b>U.S. Total</b>	<b>69.08</b>	<b>73.38</b>	<b>54.26</b>	<b>60.49</b>

- = No data reported.

w = Data withheld to avoid disclosure.

<sup>1</sup> Mines that produce coal using shortwall, scoop loading, hand loading, or other methods.

Notes: 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 25,000 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, 'Annual Survey of Coal Production and Preparation.'

**Table 29.1. Average Sales Price of Coal by State and Surface Mining Method, 2021**

(dollars per short ton)

Coal-Producing State	Contour Strip	Area	Open Pit	Mountaintop Mining	Other <sup>1</sup>	Total
Alabama	w	-	w	-	105.62	103.51
Alaska	w	-	w	-	-	w
Colorado	w	-	w	-	w	w
Illinois	-	w	-	-	w	w
Indiana	-	w	w	-	w	44.65
<b>Kentucky Total</b>	<b>w</b>	<b>w</b>	<b>w</b>	<b>-</b>	<b>70.19</b>	<b>61.04</b>
Kentucky (East)	w	w	-	-	w	w
Kentucky (West)	-	-	w	-	w	w
Louisiana	-	w	-	-	-	w
Maryland	w	w	-	-	-	w
Mississippi	w	-	-	-	-	w
Missouri	w	-	-	-	-	w
Montana	w	w	w	-	-	w
New Mexico	w	-	w	-	-	w
North Dakota	w	-	w	-	-	19.00
Ohio	w	w	-	-	31.64	34.61
Oklahoma	-	-	-	-	-	-
<b>Pennsylvania Total</b>	<b>87.20</b>	<b>-</b>	<b>104.86</b>	<b>-</b>	<b>76.73</b>	<b>96.95</b>
Pennsylvania (Anthracite)	w	-	114.82	-	w	w
Pennsylvania (Bituminous)	w	-	100.60	-	w	w
Texas	w	w	w	-	-	20.40
Utah	-	-	w	-	w	w
Virginia	w	w	-	-	115.37	114.81
<b>West Virginia Total</b>	<b>w</b>	<b>98.02</b>	<b>-</b>	<b>w</b>	<b>83.02</b>	<b>87.70</b>
West Virginia (Northern)	w	-	-	-	w	41.85
West Virginia (Southern)	w	98.02	-	w	w	89.06
Wyoming	w	w	11.45	-	-	w
<b>U.S. Total</b>	<b>w</b>	<b>37.76</b>	<b>17.27</b>	<b>w</b>	<b>70.58</b>	<b>21.32</b>

- = No data reported.

w = Data withheld to avoid disclosure.

1 Mines that: 1. produce coal using auger, highwall mine, or punch.

Notes: 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 25,000 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. Mines reporting multiple mining methods are assigned to the mining method with the greatest percentage of production reported.

Source: U.S. Energy Information Administration Form EIA-7A, 'Annual Survey of Coal Production and Preparation.'

**Table 30. Average Sales Price of Coal by State, County, and Number of Mines, 2021**

Coal-Producing State and County	Number of Mines	Sales (thousand short tons)	Average Sales Price (dollars per short ton)
<b>Alabama</b>	<b>15</b>	<b>10,179</b>	<b>150.54</b>
Jefferson	7	8,010	153.29
Tuscaloosa	4	1,732	147.36
Walker	4	437	112.68
<b>Alaska</b>	<b>1</b>	<b>w</b>	<b>w</b>
Denali	1	w	w
<b>Colorado</b>	<b>8</b>	<b>11,492</b>	<b>46.02</b>
Gunnison	1	w	w
La Plata	1	w	w
Las Animas	1	w	w
Moffat	3	w	w
Rio Blanco	1	w	w
Routt	1	w	w
<b>Illinois</b>	<b>11</b>	<b>37,895</b>	<b>31.15</b>
Franklin	1	w	w
Hamilton	1	w	w
Montgomery	1	w	w
Perry	3	w	w
Randolph	1	w	w
Sangamon	1	w	w
Wabash	1	w	w
Washington	1	w	w
Williamson	1	w	w
<b>Indiana</b>	<b>10</b>	<b>19,770</b>	<b>43.52</b>
Clay	1	w	w
Daviess	1	w	w
Dubois	1	w	w
Gibson	2	w	w
Knox	2	w	w
Sullivan	1	w	w
Warrick	2	w	w
<b>Kentucky</b>	<b>67</b>	<b>26,583</b>	<b>55.28</b>
Bell	9	921	74.77
Daviess	1	w	w
Floyd	2	w	w
Harlan	8	1,702	75.51
Hopkins	1	w	w
Johnson	3	w	w
Knott	3	w	w
Knox	1	w	w
Leslie	1	w	w
Letcher	5	803	72.29
Martin	1	w	w
Muhlenberg	1	w	w
Perry	8	2,021	57.82
Pike	19	2,981	94.30
Union	1	w	w
Whitley	3	w	w
<b>Louisiana</b>	<b>1</b>	<b>w</b>	<b>w</b>
Natchitoches	1	w	w
<b>Maryland</b>	<b>6</b>	<b>1,238</b>	<b>59.12</b>
Allegany	5	845	42.17
Garrett	1	w	w
<b>Mississippi</b>	<b>1</b>	<b>w</b>	<b>w</b>
Choctaw	1	w	w
<b>Missouri</b>	<b>1</b>	<b>w</b>	<b>w</b>
Bates	1	w	w
<b>Montana</b>	<b>6</b>	<b>28,753</b>	<b>22.66</b>



Coal-Producing State and County	Number of Mines	Sales (thousand short tons)	Average Sales Price (dollars per short ton)
Big Horn	3	w	w
Musselshell	1	w	w
Richland	1	w	w
Rosebud	1	w	w
<b>New Mexico</b>	<b>3</b>	<b>w</b>	<b>w</b>
Mckinley	1	w	w
San Juan	2	w	w
<b>North Dakota</b>	<b>5</b>	<b>26,802</b>	<b>19.00</b>
Mclean	1	w	w
Mercer	3	w	w
Oliver	1	w	w
<b>Ohio</b>	<b>9</b>	<b>2,758</b>	<b>38.08</b>
Belmont	2	w	w
Harrison	4	695	46.32
Noble	1	w	w
Perry	1	w	w
Tuscarawas	1	w	w
<b>Pennsylvania</b>	<b>69</b>	<b>41,908</b>	<b>57.63</b>
Armstrong	3	w	w
Cambria	4	1,049	82.93
Carbon	1	w	w
Clarion	1	w	w
Clearfield	7	985	130.61
Columbia	1	w	w
Fulton	1	w	w
Greene	4	25,011	43.75
Indiana	7	2,357	98.07
Jefferson	1	w	w
Luzerne	3	w	w
Lycoming	1	w	w
Northumberland	6	296	59.92
Schuylkill	14	1,019	114.97
Somerset	12	2,128	91.36
Washington	1	w	w
Westmoreland	2	w	w
<b>Texas</b>	<b>5</b>	<b>17,612</b>	<b>20.40</b>
Atascosa	1	w	w
Harrison	1	w	w
Limestone	1	w	w
Robertson	1	w	w
Rusk	1	w	w
<b>Utah</b>	<b>6</b>	<b>12,986</b>	<b>38.41</b>
Carbon	2	w	w
Emery	2	w	w
Kane	1	w	w
Sevier	1	w	w
<b>Virginia</b>	<b>21</b>	<b>10,541</b>	<b>120.50</b>
Buchanan	6	w	w
Dickenson	6	3,943	117.23
Russell	1	w	w
Tazewell	3	w	w
Wise	5	559	81.21
<b>West Virginia</b>	<b>104</b>	<b>79,231</b>	<b>77.12</b>
Barbour	1	w	w
Boone	7	3,124	87.97
Clay	1	w	w
Fayette	3	w	w
Grant	1	w	w
Greenbrier	1	w	w
Kanawha	7	3,186	69.24
Logan	17	8,281	98.47
Marion	2	w	w

Coal-Producing State and County	Number of Mines	Sales (thousand short tons)	Average Sales Price (dollars per short ton)
Marshall	2	w	w
Mcdowell	20	2,564	105.49
Mercer	2	w	w
Mingo	6	1,678	62.09
Nicholas	3	w	w
Ohio	1	w	w
Raleigh	12	7,143	125.35
Randolph	3	w	w
Taylor	1	w	w
Tucker	1	w	w
Webster	1	w	w
Wetzel	1	w	w
Wyoming	11	4,688	106.40
<b>Wyoming</b>	<b>16</b>	<b>239,426</b>	<b>12.76</b>
Campbell	11	209,427	11.34
Converse	1	w	w
Lincoln	1	w	w
Sweetwater	3	w	w
<b>U.S. Total</b>	<b>365</b>	<b>581,810</b>	<b>36.45</b>

- = No data reported.

w = Data withheld to avoid disclosure.

Notes: 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 25,000 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, 'Annual Survey of Coal Production and Preparation.'

**Table 31. Average Sales Price of Coal by State and Coal Rank, 2021**

(dollars per short ton)

Coal-Producing State	Bituminous	Subbituminous	Lignite	Anthracite	Total
Alabama	150.54	-	-	-	150.54
Alaska	-	w	-	-	w
Colorado	w	w	-	-	46.02
Illinois	31.15	-	-	-	31.15
Indiana	43.52	-	-	-	43.52
<b>Kentucky Total</b>	<b>55.28</b>	-	-	-	<b>55.28</b>
Kentucky (East)	74.97	-	-	-	74.97
Kentucky (West)	42.93	-	-	-	42.93
Louisiana	-	-	w	-	w
Maryland	59.12	-	-	-	59.12
Mississippi	-	-	w	-	w
Missouri	w	-	-	-	w
Montana	w	17.84	w	-	22.66
New Mexico	w	w	-	-	41.98
North Dakota	-	-	19.00	-	19.00
Ohio	38.08	-	-	-	38.08
<b>Pennsylvania Total</b>	<b>55.54</b>	-	-	<b>107.08</b>	<b>57.63</b>
Pennsylvania (Anthracite)	-	-	-	107.08	107.08
Pennsylvania (Bituminous)	55.54	-	-	-	55.54
Texas	-	-	20.40	-	20.40
Utah	38.41	-	-	-	38.41
Virginia	120.50	-	-	-	120.50
<b>West Virginia Total</b>	<b>77.12</b>	-	-	-	<b>77.12</b>
West Virginia (Northern)	59.49	-	-	-	59.49
West Virginia (Southern)	100.39	-	-	-	100.39
Wyoming	w	w	-	-	12.76
<b>U.S. Total</b>	<b>61.68</b>	<b>14.18</b>	<b>20.10</b>	<b>107.08</b>	<b>36.45</b>

- = No data reported.

w = Data withheld to avoid disclosure.

Notes: 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 25,000 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, 'Annual Survey of Coal Production and Preparation.'

**Table 32. Average Sales Price of Coal by Mine Production Range and Mine Type, 2021**

(dollars per short ton)

<b>Mine Production Range (thousand short tons)</b>	<b>Underground</b>	<b>Surface</b>	<b>Total</b>
Over 1,000	53.20	16.42	30.02
Over 500 to 1,000	113.08	87.26	104.75
Over 200 to 500	94.99	65.08	80.74
Over 100 to 200	101.45	83.08	88.51
Over 50 to 100	90.41	84.98	87.14
50 or Under	97.11	72.81	79.21
<b>U.S. Total</b>	<b>60.49</b>	<b>21.32</b>	<b>36.45</b>

Notes: 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 25,000 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, 'Annual Survey of Coal Production and Preparation.'

**Table 33. Average Sales Price of U.S. Coal by State and Disposition, 2021**

(dollars per short ton)

Coal-Producing State	Open Market <sup>1</sup>	Captive <sup>2</sup>	Total <sup>3</sup>
Alabama	w	-	w
Alaska	w	-	w
Colorado	36.61	44.63	46.02
Illinois	w	w	31.15
Indiana	w	w	43.52
<b>Kentucky Total</b>	<b>50.96</b>	<b>125.06</b>	<b>55.28</b>
Kentucky (East)	w	w	74.97
Kentucky (West)	43.34	-	42.93
Louisiana	w	-	w
Maryland	56.94	-	59.12
Mississippi	w	-	w
Missouri	w	-	w
Montana	w	w	22.66
New Mexico	w	w	w
North Dakota	19.00	-	19.00
Ohio	38.19	-	38.08
<b>Pennsylvania Total</b>	<b>w</b>	<b>w</b>	<b>57.63</b>
Pennsylvania (Anthracite)	w	w	107.08
Pennsylvania (Bituminous)	w	w	55.54
Texas	w	w	20.40
Utah	39.51	-	38.41
Virginia	w	w	120.50
<b>West Virginia Total</b>	<b>w</b>	<b>w</b>	<b>77.12</b>
West Virginia (Northern)	w	w	59.49
West Virginia (Southern)	w	w	100.39
Wyoming	12.84	12.72	12.76
<b>U.S. Total</b>	<b>31.76</b>	<b>20.64</b>	<b>36.45</b>

- = No data reported.

w = Data withheld to avoid disclosure.

1 Open market includes coal sold on the open market to other coal companies or consumers; excludes exports.

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

3 Total includes price of coal sold on the open market, captive market and exported by coal mines. Excludes price of coal exported by coal brokers, coal traders and coal terminals.

Notes: 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 25,000 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, 'Annual Survey of Coal Production and Preparation.'

**Table 33.1 Average Sales Price of U.S. Coal by Use and Disposition, 2014-2021**

(dollars per short ton)

Year	Open Market Sales <sup>1</sup>		Captive Sales / Transactions <sup>2</sup>		Exports <sup>3</sup>		Total	
	Metallurgical	Non-Metallurgical	Metallurgical	Non-Metallurgical	Metallurgical	Non-Metallurgical	Metallurgical	Non-Metallurgical
2014	77.45	32.26	79.51	21.83	105.41	50.85	92.69	30.17
2015	69.38	30.40	101.21	22.15	93.45	44.76	83.54	28.50
2016	65.03	29.37	71.52	22.14	92.76	35.99	82.11	27.36
2017	88.92	28.21	86.00	19.91	160.34	40.02	133.23	26.53
2018	97.78	27.87	104.63	20.19	171.65	43.51	144.34	27.02
2019	105.58	28.83	118.34	21.17	157.88	43.37	139.78	27.54
2020	91.93	27.68	71.07	18.83	119.21	28.43	110.64	24.93
2021	91.50	27.97	137.40	18.57	180.41	34.44	151.97	25.85

1 Open market includes coal sold on the open market to other coal companies or consumers; excludes exports.

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

3 Excludes price of coal exported by coal brokers, coal traders and coal terminals.

Notes: 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 25,000 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, 'Annual Survey of Coal Production and Preparation.'

## Average Consumer Prices

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**Table 34. Average Price of Coal Delivered to End Use Sector by Census Division and State, 2021 and 2020**

(dollars per short ton)

Census Division and State	2021				2020				Annual Percent Change			
	Electric Power <sup>1</sup>	Other Industrial	Commercial and Institutional	Coke	Electric Power <sup>1</sup>	Other Industrial	Commercial and Institutional	Coke	Electric Power <sup>1</sup>	Other Industrial	Commercial and Institutional	Coke
<b>New England</b>	<b>117.65</b>	-	-	-	<b>w</b>	<b>w</b>	-	-	<b>w</b>	<b>w</b>	-	-
Connecticut	-	-	-	-	-	-	-	-	-	-	-	-
Maine	w	-	-	-	w	w	-	-	0.69	w	-	-
Massachusetts	-	-	-	-	-	-	-	-	-	-	-	-
New Hampshire	w	-	-	-	80.98	-	-	-	w	-	-	-
Rhode Island	-	-	-	-	-	-	-	-	-	-	-	-
<b>Middle Atlantic</b>	<b>38.71</b>	<b>87.46</b>	<b>w</b>	<b>124.33</b>	<b>33.49</b>	<b>86.65</b>	<b>w</b>	<b>129.33</b>	<b>15.59</b>	<b>0.93</b>	<b>-7.55</b>	<b>-3.87</b>
New Jersey	w	-	-	-	w	-	-	-	-13.17	-	-	-
New York	-	w	-	-	-	w	-	-	-	-9.04	-	-
Pennsylvania	w	88.38	w	124.33	w	84.55	w	129.33	20.06	4.53	-7.55	-3.87
<b>East North Central</b>	<b>39.04</b>	<b>71.02</b>	<b>134.54</b>	<b>53.86</b>	<b>38.70</b>	<b>69.99</b>	<b>136.37</b>	<b>65.44</b>	<b>0.88</b>	<b>1.47</b>	<b>-1.34</b>	<b>-17.70</b>
Illinois	w	w	w	50.11	w	w	w	53.47	1.74	-17.24	-5.34	-6.28
Indiana	w	102.11	w	w	w	102.18	w	w	8.80	-0.7	5.53	1.70
Michigan	w	87.60	w	-	w	91.78	w	-	0.56	-4.55	4.94	-
Ohio	w	104.07	119.44	-	w	103.27	135.47	-	-6.18	0.77	-11.83	-
Wisconsin	36.94	85.24	-	-	35.31	80.66	-	159.13	4.62	5.68	-	w
<b>West North Central</b>	<b>26.47</b>	<b>28.27</b>	-	<b>81.58</b>	<b>25.67</b>	<b>27.69</b>	-	<b>82.38</b>	<b>3.12</b>	<b>2.09</b>	-	<b>-0.97</b>
Iowa	27.94	33.69	-	w	26.49	34.98	-	w	5.47	-3.69	-	s
Kansas	24.74	w	-	-	26.52	w	-	-	-6.71	s	-	-
Minnesota	38.40	49.46	-	w	34.49	49.14	-	w	11.34	0.65	-	-6.72
Missouri	29.42	48.22	-	w	27.55	50.13	-	w	6.79	-3.81	-	2.33
Nebraska	20.16	w	-	-	21.18	24.28	-	-	-4.82	w	-	-
North Dakota	21.00	w	-	w	21.06	w	-	w	s	5.30	-	-13.77
South Dakota	31.43	w	-	-	30.90	w	-	-	1.72	5.07	-	-
<b>South Atlantic</b>	<b>57.93</b>	<b>97.46</b>	<b>w</b>	<b>122.13</b>	<b>56.94</b>	<b>94.21</b>	<b>w</b>	<b>w</b>	<b>1.74</b>	<b>3.45</b>	<b>-7.52</b>	<b>w</b>
Delaware	w	-	-	-	-	-	-	-	w	-	-	-
District of Columbia	-	-	-	-	-	-	-	-	-	-	-	-
Florida	62.69	110.43	-	-	58.80	103.02	-	-	6.62	7.19	-	-
Georgia	55.85	95.02	-	-	53.72	91.60	-	-	3.97	3.73	-	-
Maryland	w	w	-	-	w	w	-	-	6.76	11.13	-	-
North Carolina	w	97.85	-	w	w	96.50	-	w	5.49	1.40	-	0.81
South Carolina	w	106.87	-	-	w	101.06	-	-	-7.24	5.75	-	-
Virginia	50.88	89.29	w	w	52.94	91.37	w	131.99	-3.89	-2.28	-7.32	w
West Virginia	w	w	w	-	w	w	w	-	-2.83	5.75	-7.49	-
<b>East South Central</b>	<b>w</b>	<b>97.77</b>	<b>w</b>	<b>w</b>	<b>w</b>	<b>99.20</b>	<b>w</b>	<b>w</b>	<b>0.99</b>	<b>-1.44</b>	<b>9.45</b>	<b>0.8</b>
Alabama	40.21	89.64	w	-	39.06	92.81	w	-	2.94	-3.42	9.45	-
Kentucky	42.05	104.78	-	w	41.78	105.38	-	w	0.65	-0.57	-	0.8
Mississippi	w	w	-	-	w	w	-	-	-1.31	4.63	-	-
Tennessee	43.31	90.92	-	-	42.77	90.63	-	-	1.26	s	-	-
<b>West South Central</b>	<b>32.97</b>	<b>75.43</b>	-	-	<b>29.73</b>	<b>81.72</b>	-	-	<b>10.90</b>	<b>-7.70</b>	-	-
Arkansas	w	w	-	-	w	w	-	-	10.64	-2.14	-	-
Louisiana	w	w	-	-	w	w	-	-	23.46	-18.56	-	-
Oklahoma	30.15	113.51	-	-	27.49	115.78	-	-	9.68	-1.96	-	-
Texas	w	91.75	-	-	w	86.95	-	-	9.55	5.52	-	-
<b>Mountain</b>	<b>35.71</b>	<b>61.08</b>	-	<b>w</b>	<b>35.94</b>	<b>60.50</b>	-	<b>w</b>	<b>-0.64</b>	<b>0.96</b>	-	<b>-11.87</b>
Arizona	41.87	w	-	-	38.82	w	-	-	7.86	-2.01	-	-
Colorado	29.69	w	-	w	31.73	w	-	w	-6.43	-6.85	-	-15.92
Idaho	-	w	-	-	-	w	-	-	-	-7.83	-	-
Montana	w	45.09	-	w	w	43.06	-	w	5.56	4.71	-	2.04
Nevada	w	78.58	-	-	w	75.60	-	-	2.34	3.94	-	-
New Mexico	49.09	w	-	-	47.52	w	-	-	3.30	2.82	-	-
Utah	43.93	50.63	-	-	44.99	53.73	-	-	-2.36	-5.77	-	-
Wyoming	w	51.52	-	w	w	48.18	-	w	0.58	6.93	-	-1.47
<b>Pacific</b>	<b>48.45</b>	<b>83.06</b>	-	<b>w</b>	<b>43.94</b>	<b>82.09</b>	-	<b>w</b>	<b>10.26</b>	<b>1.18</b>	-	<b>-0.50</b>
Alaska	49.19	-	-	w	49.26	-	-	w	s	-	-	-0.50



Census Division and State	2021				2020				Annual Percent Change			
	Electric Power <sup>1</sup>	Other Industrial	Coke	Commercial and Institutional	Electric Power <sup>1</sup>	Other Industrial	Coke	Commercial and Institutional	Electric Power <sup>1</sup>	Other Industrial	Coke	Commercial and Institutional
California	-	83.16	-	-	-	81.96	-	-	-	1.46	-	-
Hawaii	w	-	-	-	w	-	-	-	2.68	-	-	-
Oregon	-	w	-	-	37.61	w	-	-	w	-4.60	-	-
Washington	w	w	-	-	w	w	-	-	-0.8	0.62	-	-
<b>U.S. Total</b>	<b>37.32</b>	<b>57.89</b>	<b>122.37</b>	<b>83.00</b>	<b>36.14</b>	<b>57.18</b>	<b>127.16</b>	<b>84.52</b>	<b>3.27</b>	<b>1.24</b>	<b>-3.77</b>	<b>-1.80</b>

- = No data reported.

w = Data withheld to avoid disclosure.

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

<sup>1</sup> 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).

Sources: U.S. Energy Information Administration Form EIA-923, 'Power Plant Operations Report,' and Form EIA-3, 'Quarterly Survey of Non-Electric Sector Coal Data.' Prior to third quarter 2014, coke plant data was collected under Form EIA-5, 'Quarterly Coal Consumption and Quality Report - Coke Plants.'

## Imports and Exports

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**Table 35. Coal Imports by Country of Origin, 2000-2021**

(Short Tons)

Year	Europe																	Total	South Africa	Other	Total
	Australia	New Zealand	Canada	Mexico	Colombia	Venezuela	China	India	Indonesia	Norway	Poland	Russia	Ukraine	United Kingdom	Other						
2000	167,595	-	1,923,434	6,671	7,636,614	2,038,774	19,646	205	718,149	-	-	1,212	-	238	-	1,450	-	85	12,512,623		
2001	315,870	24,178	2,571,415	8,325	11,176,191	3,335,258	109,877	1,169	882,455	15,933	514,166	219,077	-	75,704	12	824,892	440,408	97,273	19,787,299		
2002	821,280	-	2,110,688	41,832	9,205,161	3,349,883	62,185	2,055	962,474	-	121,660	87,586	-	277	121	209,644	77,314	33,034	16,875,429		
2003	330,337	53,484	2,099,087	-	15,479,019	4,624,916	149,904	2,000	2,104,731	-	-	68,560	-	717	152	69,429	78,264	52,951	25,043,970		
2004	295,526	-	2,877,616	309	16,661,238	4,435,630	147,136	443	2,180,899	-	74,609	263,776	104,861	44,285	147,172	634,703	33,795	159,881	27,280,004		
2005	230,997	42,136	2,017,435	1,343	21,215,089	3,734,056	20,094	-	2,467,977	-	76,937	393,592	34,728	839	51,994	558,090	77,044	148,082	30,460,349		
2006	245,184	-	2,048,224	-	25,340,602	4,197,636	43,491	-	3,146,627	36,806	-	940,685	-	1,069	159,874	1,138,434	61,649	184,003	36,245,976		
2007	65,726	51,070	1,967,271	-	26,863,901	3,425,108	50,257	214	3,663,107	35,557	-	134,591	37,527	1,870	32	209,577	-	50,648	36,346,847		
2008	149,344	-	2,027,148	-	26,261,802	2,311,865	45,113	-	3,373,574	-	-	71	37,354	-	1,086	38,511	45	1,363	34,207,679		
2009	151,738	-	1,287,626	6	17,787,441	1,297,214	9,364	805	2,084,271	-	-	-	19,878	33	11	19,922	-	139	22,638,515		
2010	380,404	450	1,766,896	-	14,583,950	581,700	52,869	2,002	1,904,040	-	-	-	41,370	3,647	4	45,021	-	35,359	19,352,687		
2011	61,745	-	1,680,490	427	9,500,387	778,887	22,128	3,759	856,038	-	331	177	124,775	-	1,969	127,252	33	58,429	13,087,606		
2012	-	220	1,107,727	43	6,951,515	287,147	77,738	14,650	517,532	-	-	14,330	187,837	10	3	202,180	-	508	9,159,257		
2013	22	-	1,116,076	-	6,575,927	42,428	51,944	1,356	886,920	-	-	36,395	181,116	115	1,595	219,221	-	14,126	8,906,425		
2014	532	-	1,026,523	17	8,295,286	288,738	39,776	1,536	1,526,611	-	-	42,439	103,167	164	-	145,770	23	25,114	11,349,926		
2015	60,994	-	1,187,655	83	8,936,034	74,175	16,099	406	890,124	-	-	-	58,802	570	93	59,465	50,773	42,296	11,318,011		
2016	121,967	-	1,078,480	978	7,890,800	-	6,955	-	613,944	-	-	64,774	-	341	657	65,772	28,488	39,631	9,846,358		
2017	700	-	891,734	92	6,112,092	46	6,474	444	699,453	-	-	34,449	-	59	12,703	47,211	37,829	19,280	7,802,652		
2018	-	-	770,364	625	4,060,581	-	28,624	-	915,188	-	-	78,908	27,377	575	2,285	109,145	47,404	24,509	5,954,155		
2019	-	-	817,190	1,092	5,033,032	-	54,715	-	655,398	-	-	68,729	-	210	40,886	109,825	24,251	42,520	6,697,137		
2020	-	-	448,719	52	3,655,196	-	109,814	-	639,982	-	-	278,554	-	913	3,308	282,775	-	4,140	5,137,370		
2021	-	-	1,034,232	33	3,366,886	-	116,743	-	494,168	-	-	338,550	-	27	1,326	339,903	36,376	1,333	5,388,348		

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

Web Page: For related information, see <http://www.eia.gov/coal/>.

Sources: 2000 U.S. Department of Commerce, Bureau of the Census, 'Monthly Report IM 145.' 2001 forward U.S. Energy Information Administration, Quarterly Coal Report October-December, quarterly reports.

**Table 36. Coal Exports by Country of Destination, 1960-2021**

(Thousand Short Tons)

Year	Europe											Total	Japan	Other <sup>3</sup>	Total	
	Canada	Brazil	Belgium <sup>1</sup>	Denmark	France	Germany <sup>2</sup>	Italy	Netherlands	Spain	Turkey	United Kingdom					Other <sup>3</sup>
1960	12,843	1,067	1,116	130	794	4,566	4,899	2,837	331	-	-	2,440	17,113	5,617	1,341	37,981
1961	12,135	994	971	80	708	4,326	4,797	2,552	228	-	-	2,026	15,688	6,614	974	36,405
1962	12,302	1,327	1,289	38	851	5,056	5,978	3,320	766	-	2	1,848	19,148	6,465	973	40,215
1963	14,557	1,161	2,651	41	2,726	5,560	7,872	5,000	1,500	-	-	2,372	27,722	6,057	938	50,435
1964	14,824	1,103	2,325	18	2,216	5,162	8,068	4,187	1,426	-	-	2,552	25,954	6,526	1,137	49,544
1965	16,304	1,213	2,246	6	2,099	4,730	8,970	3,374	1,406	-	7	2,252	25,090	7,491	934	51,032
1966	16,453	1,745	1,841	2	1,582	4,894	7,837	3,165	1,204	-	1	2,525	23,051	7,793	1,026	50,068
1967	15,757	1,736	1,422	-	2,132	4,694	5,860	2,227	1,012	-	-	2,072	19,419	12,224	987	50,123
1968	17,149	1,789	1,053	-	1,460	3,785	4,312	1,491	1,480	-	-	1,883	15,464	15,824	929	51,155
1969	17,261	1,847	943	-	2,254	3,493	3,720	1,645	1,825	-	-	1,330	15,210	21,367	1,176	56,861
1970	19,111	2,021	1,881	-	3,574	5,030	4,266	2,113	3,153	-	3	1,786	21,806	27,636	1,159	71,733
1971	18,031	1,873	765	-	3,207	2,937	2,680	1,627	2,556	-	1,669	1,127	16,568	19,717	1,115	57,304
1972	18,661	1,920	1,144	-	1,730	2,399	3,705	2,289	2,139	-	2,381	1,099	16,886	18,038	1,235	56,740
1973	16,709	1,647	1,205	-	1,971	1,633	3,322	1,820	2,234	-	941	1,310	14,436	19,190	1,605	53,587
1974	14,187	1,294	1,109	-	2,676	1,484	3,922	2,556	2,017	-	1,405	886	16,055	27,346	1,779	60,661
1975	17,279	2,008	627	-	3,622	1,989	4,504	2,110	2,691	-	1,889	1,609	19,041	25,423	2,558	66,309
1976	16,942	2,242	2,202	34	3,532	1,000	4,211	3,507	2,513	-	843	2,072	19,914	18,803	2,120	60,021
1977	17,692	2,283	1,516	99	2,106	889	4,149	1,962	1,570	-	607	2,077	14,975	15,862	3,500	54,312
1978	15,657	1,492	1,054	-	1,660	617	3,227	1,082	758	-	398	2,188	10,984	10,087	2,494	40,714
1979	19,513	2,829	3,204	163	3,866	2,556	4,985	2,011	1,351	-	1,351	4,442	23,929	15,681	4,090	66,042
1980	17,473	3,265	4,633	1,650	7,789	2,530	7,131	4,657	3,409	-	4,140	6,009	41,948	23,069	5,987	91,742
1981	18,238	2,727	4,254	3,879	9,745	4,308	10,473	6,820	6,381	569	2,341	8,243	57,013	25,856	8,707	112,541
1982	18,564	3,130	4,761	2,809	8,985	2,336	11,279	5,934	5,582	1,564	2,017	6,013	51,280	25,768	7,535	106,277
1983	17,151	3,572	2,544	1,740	4,201	1,488	8,057	4,162	3,257	1,628	1,237	4,748	33,062	17,865	6,122	77,772
1984	20,444	4,706	3,902	614	3,791	913	7,624	5,483	2,306	1,472	2,853	3,853	32,811	16,325	7,197	81,483
1985	16,393	5,862	4,427	2,159	4,481	1,078	10,252	6,327	3,456	2,196	2,676	8,054	45,106	15,372	9,947	92,680
1986	14,478	5,720	4,362	2,123	5,389	810	10,359	5,631	2,620	2,418	2,907	5,933	42,552	11,370	11,398	85,518
1987	16,227	5,830	4,578	934	2,886	477	9,537	4,093	2,454	772	2,589	5,839	34,159	11,082	12,309	79,607
1988	19,232	5,252	6,490	2,804	4,302	702	11,070	5,086	2,542	2,023	3,671	6,448	45,138	14,122	11,279	95,023
1989	16,777	5,681	7,094	3,178	6,517	745	11,240	6,076	3,339	1,686	4,513	7,216	51,604	13,846	12,907	100,815
1990	15,511	5,847	8,500	3,188	6,879	1,057	11,947	8,369	3,791	2,117	5,177	7,357	58,382	13,338	12,726	105,804
1991	11,178	7,052	7,464	4,658	9,509	1,742	11,274	9,625	4,694	2,186	6,171	8,197	65,520	12,269	12,950	108,969
1992	15,140	6,370	7,196	3,832	8,060	1,003	9,344	9,148	4,535	1,990	5,595	6,551	57,254	12,304	11,448	102,516
1993	8,889	5,197	5,229	336	3,972	508	6,918	5,562	4,064	1,605	4,111	5,270	37,575	11,878	10,980	74,519
1994	9,193	5,482	4,911	477	2,875	323	7,543	4,874	4,132	1,335	3,363	5,994	35,827	10,158	10,699	71,359
1995	9,427	6,351	4,501	2,100	3,659	1,953	9,063	7,301	4,653	2,011	4,726	8,653	48,620	11,787	12,362	88,547
1996	12,029	6,540	4,569	1,316	3,852	1,055	9,204	7,058	4,093	2,167	6,196	7,682	47,192	10,529	14,183	90,473
1997	14,975	7,455	4,319	350	3,398	870	7,019	4,825	4,134	2,092	7,185	7,139	41,331	7,974	11,810	83,545
1998	20,654	6,475	3,195	274	3,192	1,247	5,317	4,516	3,156	1,592	5,947	5,337	33,773	7,734	9,412	78,048
1999	19,826	4,442	2,073	-	2,522	573	4,014	3,432	2,472	795	3,162	3,466	22,509	4,953	6,746	58,476
2000	18,769	4,536	2,890	77	3,044	976	3,711	2,623	2,686	1,809	3,294	3,859	24,969	4,446	5,769	58,489

**Europe**

Year	Canada	Brazil	Belgium <sup>1</sup>	Denmark	France	Germany <sup>2</sup>	Italy	Netherlands	Spain	Turkey	United Kingdom	Other <sup>3</sup>	Total	Japan	Other <sup>3</sup>	Total
2001	17,633	4,574	2,770	-	2,235	913	5,408	2,123	1,645	887	2,471	2,368	20,821	2,070	3,568	48,666
2002	16,686	3,538	2,371	-	1,305	958	3,077	1,650	1,914	580	1,902	1,816	15,574	1,253	2,550	39,601
2003	20,760	3,514	1,816	288	1,278	535	2,826	1,993	1,771	1,097	1,480	2,064	15,148	6	3,586	43,014
2004	17,760	4,361	1,743	74	1,103	642	2,105	2,471	1,529	1,271	1,986	2,286	15,211	4,426	6,240	47,998
2005	19,466	4,199	2,079	73	1,261	669	2,455	2,623	1,863	1,888	1,777	4,136	18,825	2,081	5,371	49,942
2006	19,889	4,534	2,166	383	1,625	1,650	3,283	2,091	1,632	1,226	2,565	4,183	20,805	332	4,087	49,647
2007	18,389	6,512	2,109	80	2,384	2,321	3,544	4,553	1,483	1,447	3,361	5,837	27,119	5	7,138	59,163
2008	22,979	6,380	3,081	385	3,469	2,531	3,197	7,004	2,383	1,915	5,763	10,577	40,306	1,733	10,122	81,519
2009	10,599	7,416	2,690	321	3,364	2,457	2,343	5,878	1,744	1,428	4,589	5,261	30,073	907	10,102	59,097
2010	11,400	7,925	2,283	80	3,165	2,663	3,308	7,306	1,947	2,532	4,391	10,532	38,208	3,164	21,019	81,716
2011	6,845	8,680	3,072	161	4,042	4,761	5,589	10,785	1,795	2,945	6,927	13,864	53,942	6,923	44,733	107,259
2012	7,211	7,954	2,650	-	4,120	5,260	8,540	13,542	2,182	5,333	12,083	12,688	66,399	5,699	51,171	125,746
2013	7,110	8,610	2,007	-	4,109	5,475	6,594	12,709	1,579	4,984	13,511	9,787	60,755	5,360	45,611	117,659
2014	6,724	8,032	1,013	-	2,373	4,815	5,781	12,479	1,400	4,460	9,808	10,340	52,469	4,898	35,474	97,257
2015	5,958	6,339	1,196	45	1,332	4,018	3,431	12,908	1,272	2,055	4,201	7,436	37,894	4,657	26,547	73,958
2016	5,011	6,939	1,254	61	1,340	3,503	1,910	10,159	1,396	1,487	1,064	5,207	27,381	4,555	21,591	60,271
2017	5,287	7,678	1,252	119	2,176	4,923	3,143	9,313	1,927	2,572	2,730	11,401	39,555	7,683	48,143	96,945
2018	5,724	8,516	1,094	64	1,806	3,568	3,350	12,415	1,835	2,963	4,221	12,591	43,908	10,543	60,144	116,244
2019	5,118	7,591	657	-	1,285	1,792	2,674	10,148	619	1,806	1,396	12,993	33,370	11,024	49,654	93,765
2020	4,587	7,889	547	-	973	683	1,221	5,796	395	2,722	1,135	8,681	22,154	6,072	37,045	69,067
2021	4,587	6,252	286	63	761	2,019	1,060	7,322	686	906	1,515	7,721	22,341	7,564	52,093	85,115

NA=Not Available.

- =No data reported.

<sup>1</sup> Through 1999, includes Luxembourg.

<sup>2</sup> Through 1990, data for Germany are for the former West Germany only. Beginning in 1991, data for Germany are for the unified Germany, i.e., the former East Germany and West Germany.

<sup>3</sup> See source publications for data for countries included in 'Other'.

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

Sources: 1960-1988 U.S. Department of Commerce, Bureau of the Census, U.S. Exports by Schedule B Commodities, EM 522. 1989-2000 U.S. Energy Information Administration (EIA), Coal Industry Annual, annual reports. 2001 forward EIA, Quarterly Coal Report October-December, quarterly reports; and U.S. Department of Commerce, Bureau of the Census, 'Monthly Report EM 545.'