# Annual Coal Report 2010

U.S. Energy Information Administration Office of Oil, Gas, and Coal Supply Statistics U.S. Department of Energy Washington, DC 20585

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### **Preface**

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

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

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

This report is the 35<sup>th</sup> annual report on coal production published by EIA and continues the series formerly included in the *Minerals Yearbook* published by the Bureau of Mines. All data for 2010 and prior years are final.

The Office of Oil, Gas, and Coal Supply Statistics acknowledges the cooperation of the respondents in supplying the information published in the *Annual Coal Report* and appreciates the valuable assistance of State coal mining agencies and the U.S. Department of Labor, Mine Safety and Health Administration.

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# **Coal Production**

Table 1. Coal Production and Number of Mines by State and Mine Type, 2010, 2009 (Thousand Short Tons)

Coal-Producing	20	10	20	09	Percent Change		
State and Region <sup>1</sup>	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production	
Alabama	50	19,915	57	18,796	-12.3	6.0	
Underground		12,513	7	11,505	14.3	8.8	
Surface		7,402	50	7,291	-16.0	1.5	
Alaska		2,151	1	1,860	-	15.6	
Surface		2,151 <b>7,752</b>	1 <b>1</b>	1,860 <b>7,474</b>	-	15.6 <b>3.7</b>	
Arizona Surface		7,752	1	7,474	•	3.7	
Arkansas		32	2	7,474		NM	
Underground		31	1	4	-	NM	
Surface	1	1	1	1	-	75.8	
Colorado		25,163	11	28,267	-9.1	-11.0	
Underground		20,085	8	22,199	-12.5	-9.5	
Surface		5,078	3 <b>22</b>	6,068	-	-16.3	
IllinoisUnderground		<b>33,241</b> 28,286	13	<b>33,748</b> 28,407	7.7	<b>-1.5</b> -0.4	
Surface		4,955	9	5,342	-11.1	-7.2	
Indiana		34,950	33	35,655	-12.1	-2.0	
Underground		14,287	7	12,797	14.3	11.6	
Surface	21	20,663	26	22,858	-19.2	-9.6	
Kansas		133	1	185	-	-28.2	
Surface		133	1	185	12.7	-28.2	
Kentucky Total Underground		<b>104,960</b> 63,993	<b>449</b> 198	<b>107,338</b> 63,152	<b>-12.7</b> -13.6	<b>-2.2</b> 1.3	
Surface		40,967	251	44,186	-12.0	-7.3	
Eastern		68,063	425	74,719	-13.6	-8.9	
Underground		34,388	186	37,170	-14.5	-7.5	
Surface	208	33,675	239	37,549	-13.0	-10.3	
Western		36,897	24	32,619	4.2	13.1	
Underground		29,605	12	25,982	-	13.9	
Surface		7,293	12	6,637	8.3	9.9	
Louisiana Surface		<b>3,945</b> 3,945	<b>2</b> 2	<b>3,657</b> 3,657	•	<b>7.9</b> 7.9	
Maryland		2,585	22	2,305	-	12.1	
Underground		677	2	495	50.0	36.8	
Surface		1,908	20	1,811	-5.0	5.4	
Mississippi		4,004	1	3,440	-	16.4	
Surface		4,004	1	3,440	-	16.4	
Missouri		458	2	452	-	1.3	
Surface		458	2 <b>6</b>	452	-	1.3	
Montana Underground		<b>44,732</b> 4,389	1	<b>39,486</b> 776	•	13.3 465.9	
Surface		40,343	5	38,710	-	4.2	
New Mexico		20,991	5	25,124	-20.0	-16.5	
Underground		4,932	1	6,499	-	-24.1	
Surface	3	16,059	4	18,625	-25.0	-13.8	
North Dakota		28,949	4	29,945	-	-3.3	
Surface		28,949	4	29,945	- 0.7	-3.3	
Underground		<b>26,707</b> 17,463	<b>46</b> 11	<b>27,501</b> 17,307	<b>-8.7</b> -9.1	<b>-2.9</b> 0.9	
Surface		9,244	35	10,194	-8.6	-9.3	
Oklahoma		1,010	10	956	-0.0	5.7	
Underground		394	1	384	100.0	2.5	
Surface		617	9	572	-11.1	7.8	
Pennsylvania Total		58,593	244	57,979	-1.6	1.1	
Underground		47,667	48	48,679	-8.3	-2.1	
Surface	196	10,926	196	9,300	7.0	17.5	
Anthracite		<b>1,705</b> 139	<b>64</b> 9	<b>1,731</b> 176	-7.8	<b>-1.5</b> -21.3	
Surface		1,566	55	1,555	-9.1	0.7	
Bituminous		56,888	180	56,248	0.6	1.1	
Underground		47,529	39	48,503	-10.3	-2.0	
Surface	146	9,359	141	7,745	3.5	20.8	
Tennessee		1,780	25	1,996	-24.0	-10.8	
Underground		555	8	842	-37.5	-34.1	
Surface		1,225	17	1,154	-17.6	6.2	
Texas		40,982	<b>12</b> 12	35,093 35,003	-	16.8	
Surface Utah		40,982 <b>19,351</b>	12 <b>8</b>	35,093 <b>21,718</b>	-	16.8 <b>-10.9</b>	
Underground		19,351	8	21,718	-	-10.9	

Table 1. Coal Production and Number of Mines by State and Mine Type, 2010, 2009 (Continued) (Thousand Short Tons)

Coal-Producing	201	0	200	9	Percent Change		
State and Region 1	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production	
Virginia	106	22,385	108	21,019	-1.9	6.5	
Underground		14,169	55	12.938	10.9	9.5	
Surface		8,217	53	8,081	-15.1	1.7	
West Virginia Total		135,220	283	137,127	-11.0	-1.4	
Underground		84,544	170	80,887	-10.6	4.5	
Surface		50,676	113	56,240	-11.5	-9.9	
Northern		41,306	39	38,395	-12.8	7.6	
Underground		37,302	20	33,148	-5.0	12.5	
Surface		4.004	19	5,247	-21.1	-23.7	
Southern		93,914	244	98,732	-10.7	-4.9	
Underground		47,242	150	47,739	-11.3	-1.0	
Surface		46,671	94	50.993	-9.6	-8.5	
Wyoming		442,522	20	431,107	-5.0	2.6	
Underground		3,819	1	3,472	-	10.0	
Surface		438,703	19	427,635	-5.3	2.6	
Appalachian Total	1,098	335,248	1,210	341,443	-9.3	-1.8	
Underground		211,976	487	209,824	-9.2	1.0	
Surface	656	123,271	723	131,619	-9.3	-6.3	
Northern	338	129,191	351	126,180	-3.7	2.4	
Underground	76	103,109	81	99,629	-6.2	3.5	
Surface	262	26,082	270	26,551	-3.0	-1.8	
Central	710	186,142	802	196,467	-11.5	-5.3	
Underground	358	96,354	399	98,690	-10.3	-2.4	
Surface	352	89,788	403	97,777	-12.7	-8.2	
Southern	50	19,915	57	18,796	-12.3	6.0	
Underground	8	12,513	7	11,505	14.3	8.8	
Surface	42	7,402	50	7,291	-16.0	1.5	
Interior Total	106	155,653	109	145,811	-2.8	6.7	
Underground		72,603	34	67,574	8.8	7.4	
Surface	69	83,050	75	78,237	-8.0	6.2	
Illinois Basin Total	76	105,089	79	102,023	-3.8	3.0	
Underground		72,178	32	67,186	6.3	7.4	
Surface		32,911	47	34,837	-10.6	-5.5	
Western Total		591,611	56	584,981	-5.4	1.1	
Underground		52,576	19	54,664	-5.3	-3.8	
Surface	35	539,035	37	530,317	-5.4	1.6	
Powder River Basin	16	468,428	17	455,503	-5.9	2.8	
Underground	-	-	-	-	-	-	
Surface		468,428	17	455,503	-5.9	2.8	
Uinta Region	16	43,699	16	49,104	-	-11.0	
Underground	14	38,914	14	43,410	-	-10.4	
Surface	2	4,785	2	5,694	-	-16.0	
East of Miss. River		444,340	1,290	446,906	-8.9	-0.6	
West of Miss. River	82	638,171	85	625,330	-3.5	2.1	
U.S. Subtotal	1,257	1,082,511	1,375	1,072,236	-8.6	1.0	
Refuse Recovery	28	1,857	32	2,688	-12.5	-30.9	
U.S. Total	1,285	1,084,368	1,407	1,074,923	-8.7	0.9	

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

<sup>-=</sup> No data are reported.

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

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

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

**Table 2.** Coal Production and Number of Mines by State, County, and Mine Type, 2010 (Thousand Short Tons)

Coal-Producing	Underg	round	Surf	face	Total		
State and County	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production	
Alabama		12,513	42	7,402	50	19,915	
Bibb		-	2	128	2	128	
Blount		-	1	149	1	149	
Cullman		2.025	1	69	1	69	
Fayette		3,037	2	110	1 2	3,037	
Franklin		-	2	110 34	1	110 34	
Jackson Jefferson		2,606	8	1.038	10	3,644	
Marion		2,000	1	79	10	79	
Shelby		84	2	239	4	323	
Tuscaloosa		6,668	5	1.961	7	8,628	
Walker		118	17	2,910	18	3,029	
Winston		-	2	685	2	685	
Alaska	-	-	1	2,151	1	2,151	
Yukon-Koyukuk Division	-	-	1	2,151	1	2,151	
Arizona	-	-	1	7,752	1	7,752	
Navajo			1	7,752	1	7,752	
Arkansas		31	1	1	2	32	
Sebastian		31	1	1	2	32	
Colorado		20,085	3	5,078	10	25,163	
Delta		1,325	-	-	1	1,325	
Garfield		200	-	-	1 2	200	
Gunnison		8,588 522	-	-	1	8,588 522	
La Plata		322	2	4,785	2	4,785	
Montrose		-	1	293	1	293	
Rio Blanco		1.723		2/3	1	1,723	
Routt		7,727	_	_	i	7,727	
Illinois		28,286	8	4,955	22	33,241	
Franklin		324	-	-	1	324	
Gallatin		-	2	2,246	2	2,246	
Jackson		-	1	650	1	650	
Macoupin		2,338	-	-	2	2,338	
Mcdonough		-	1	195	1	195	
Montgomery		21			1	21	
Perry		2,417	3	784	5	3,202	
Randolph		3,198	-	-	1	3,198	
Saline		10,060	-	-	4	10,060	
Sangamon		2,475	- 1	1 000	1	2,475	
Wabash		1,657	1	1,080	1 1	1,080 1.657	
White Williamson		5,795	-	-	1	5,795	
Indiana		14,287	21	20,663	29	34,950	
Clay		14,207	1	25	1	25	
Daviess		_	3	2,859	3	2,859	
Dubois		_	1	1,286	ĺ	1,286	
Gibson		5,842	2	5,359	4	11,201	
Knox		2,713	3	2,280	7	4,994	
Pike	1	2,685	4	1,655	5	4,339	
Sullivan	1	3,047	1	3,004	2	6,051	
Vigo		-	2	2,064	2	2,064	
Warrick		-	4	2,132	4	2,132	
Kansas		-	1	133	1	133	
Bourbon		-	1	133	1	133	
Kentucky	171	63,993	221	40,967	392	104,960	
Bell	5	858	14	1,370	19	2,229	
Boyd		852	1 4	272 108	1 5	272 960	
BreathittClay		4	9	484	10	488	
Daviess		4	1	374	10	374	
Floyd		559	9	1,015	18	1,574	
Harlan		7,091	29	3,590	62	10,681	
Henderson		1,114	1	1,219	2	2,333	
Hopkins		13,120	-	-,	$\frac{1}{4}$	13,120	
Jackson		- ,	1	27	1	27	
Johnson		-	5	154	5	154	
Knott	17	2,600	11	2,091	28	4,691	
Knox	3	50	6	444	9	494	
Lawrence	1	79	7	75	8	154	

Table 2. Coal Production and Number of Mines by State, County, and Mine Type, 2010 (Continued) (Thousand Short Tons)

Coal-Producing	Underg	round	Surfa	ace	Total		
State and County	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production	
Kentucky (continued)	I.		L L		L L		
Leslie	7	1,779	11	1,916	18	3,694	
Letcher		3,719	10	394	32	4,113	
Magoffin	1	63	7	2,646	8	2,709	
Martin		3,763	7	1,885	14	5,648	
Muhlenberg		2,530	8	2,063	10	4,593	
Ohio	1	627	3	3,637	4	4,264	
Owsley		-	2	4	2	4	
Perry		4,356	21	9,698	27	14.054	
Pike		8,527	43	7,233	88	15,760	
Union		10,224	<u>-</u>	-	3	10,224	
Webster		1,989	_	_	1	1,989	
Whitley		88	11	267	12	355	
Louisiana		•	2	3.945	2	3,945	
De Soto		_	ī	3.929	ī	3.929	
Natchitoches		_	1	15	1	15	
Maryland		677	19	1,908	22	2,585	
		399	13	1,415	14	1,813	
Allegany		278	6	493	8	772	
Garrett		2/8		.,.			
Mississippi		-	1	4,004	1	4,004	
Choctaw		-	1	4,004	1	4,004	
Missouri		•	2	458	2	458	
Bates			2	458	2	458	
Montana		4,389	5	40,343	6	44,732	
Big Horn		-	3	27,760	3	27,760	
Musselshell		4,389	-	-	1	4,389	
Richland	-	-	1	352	1	352	
Rosebud	-	-	1	12,231	1	12,231	
New Mexico	1	4,932	3	16,059	4	20,991	
Mckinley	-	-	2	8,249	2	8,249	
San Juan		4,932	1	7,810	2	12,742	
North Dakota		· -	4	28,949	4	28,949	
Mclean		_	1	7,571	1	7,571	
Mercer		_	2	17,490	2	17,490	
Oliver		_	$\overline{1}$	3,888	ī	3,888	
Ohio		17,463	32	9,244	42	26,707	
Belmont		6,378	5	1,181	6	7,559	
Carroll		91	ĭ	45	2	136	
Columbiana		71	2	92	2	92	
		-	1	295	1	295	
Coshocton		-	1	237	1	237	
Guernsey		1,405	6	2,550	7	3,955	
Harrison		1,403	T		,		
Jackson		-	1	370	1	370	
Jefferson		416	3	1,028	5	1,444	
Mahoning			1	3	1	3	
Meigs		735	-	-	1	735	
Monroe		6,214	-	-	1	6,214	
Muskingum	-	-	1	7	1	7	
Noble	-	-	2	775	2	775	
Perry	2	1,620	1	613	3	2,233	
Stark	-	-	2	223	2	223	
Tuscarawas	1	604	3	1,238	4	1,841	
Vinton	-	-	2	587	2	587	
Oklahoma		394	8	617	10	1,010	
Craig			2	47	2	47	
Haskell		_	$\frac{1}{2}$	141	$\frac{1}{2}$	141	
Le Flore		394	1	206	3	600	
Nowata		37-1	1	213	1	213	
Okmulgee			1	213	1	213	
Rogers		_	1	8	1	8	
		47,667	196	10,926	240	58,593	
Pennsylvania		÷7,007	4	220	4	220	
Allegheny		2.074	•		·		
Armstrong		3,074	10	373	16	3,446	
Beaver		179	1	21	2	200	
Bedford		-	1	38	1	38	
Butler		-	6	236	6	236	
Cambria		881	9	527	11	1,408	
Cameron	-	-	1	39	1	39	
			1	98	1	98	
Centre	-	-	1	20	1	70	
Centre Clarion		-	5	336	5	336	

Table 2. Coal Production and Number of Mines by State, County, and Mine Type, 2010 (Continued) (Thousand Short Tons)

Coal-Producing	Underg	round	Surf	ace	Total		
State and County	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production	
ennsylvania (continued)	I		l l		<u>l</u>		
Columbia	-	-	3	180	3	180	
Dauphin	1	2	-	-	1	2	
Elk	1	134	5	199	6	333	
Fayette	-	-	10	184	10	184	
Greene	5	26,754	-	-	.5	26,754	
Indiana	8	2,260	9	150	17	2,410	
Jefferson	Ī	174	11	831	12	1,004	
Lackawanna	-	-	1 5	15 211	1 5	15 211	
Lycoming	-	-	1	252	1	252	
Mercer	_	_	i	90	i	90	
Northumberland	3	109	5	98	8	207	
Schuylkill	5	28	36	1,063	41	1,090	
Somerset	7	2,601	19	2,848	26	5,450	
Venango	-	-	2	16	2	16	
Washington	1	9,942	4	679	5	10,620	
Westmoreland	-	-	7	100	7	100	
ennessee	5	555	14	1,225	19	1,780	
Anderson	1	132	3	162	4	295	
Campbell	2	320	6	612	8	931	
Claiborne	2	103	4	434 17	6 1	537	
Fentressexas	-	-	12	40.982	12	17 <b>40.982</b>	
Atascosa	-	-	12	3,294	12	3,294	
Freestone			1	2,619	1	2.619	
Harrison	-	_	1	4,569	1	4,569	
Hopkins	_	_	i	1,858	ĺ	1,858	
Lee	_	_	1	5,364	Ī	5,364	
Leon	-	-	1	4,171	1	4,171	
Limestone	-	-	1	6,304	1	6,304	
Panola	-	-	2	7,206	2	7,206	
Robertson	-	-	1	1,870	1	1,870	
Rusk	-	-	1	2,978	1	2,978	
Titus	-	-	1	749	1	749	
tah	8	19,351	-	-	8	19,351	
Carbon	5 2	8,999	-	-	5	8,999	
Emery	2	3,954	-	-	2	3,954	
Sevier	61	6,398	45	8,217	1 <b>106</b>	6,398 <b>22,385</b>	
irginia Buchanan		<b>14,169</b> 6,545	12	2.199	34	8,744	
Dickenson	10	820	4	239	14	1.059	
Giles	-	- 020	i	141	1	141	
Lee	2.	192	5	322	7	514	
Russell	$\frac{1}{4}$	691	3	36	7	726	
Tazewell	1	368	1	575	2	943	
Wise	22	5,553	19	4,705	41	10,258	
Vest Virginia	152	84,544	100	50,676	252	135,220	
Barbour	1	1,322	3	301	4	1,622	
Boone	26	10,135	12	12,317	38	22,452	
Clay	1	523	1	1,572	2	2,095	
Fayette	6	2,066	6	4,401	12	6,467	
Grant	1	5	-	-	1	5	
Greenbrier	3 2	746	1	166	4	912	
Harrison	12	553 7.190	3 11	35 2.798	5 23	589 9.988	
Kanawha Lincoln	2	1,042	11	665	3	1,707	
Logan	12	7,280	10	8,605	22	15,885	
Marion	2	11,369	-		2	11,369	
Marshall	2	13,945	-	-	2	13,945	
Mason		158	-	-	1	158	
Mcdowell	28	2,422	12	2,581	40	5,002	
Mercer		, -	1	69	1	69	
Mineral	-	-	2	76	2	76	
Mingo	14	3,800	11	5,088	25	8,888	
Monongalia		5,067	3	834	6	5,901	
Nicholas	4	891	8	2,718	12	3,609	
Ohio	1	162	1	18	2	180	
Preston	1	88 4,638	- 6	2,884	1 18	88 7,523	
Raleigh	12						

Table 2. Coal Production and Number of Mines by State, County, and Mine Type, 2010 (Continued) (Thousand Short Tons)

Coal-Producing	Underg	Underground		face	Total		
State and County	Number of Mines	Production	Number of Mines	Production	Number of Mines	Production	
T. 1		2.440				2.110	
Tucker	1	2,449	-	25	1	2,449	
Upshur	1	543	1	25	2	568	
Wayne	3	3,869	2	1,094	5	4,963	
webster	3	1,308	2	2,715	5	4,023	
Wyoming	9	2,483	3	1,713	12	4,196	
Wyoming	1	3,819	18	438,703	19	442,522	
Campbell	-	-	11	392,528	11	392,528	
Carbon	_	_	1	1	1	1	
Converse	_	_	1	35,908	1	35,908	
Hot Springs	_	_	1	26	1	26	
Lincoln	_	_	î	4,760	i	4,760	
Sweetwater	1	3,819	3	5,480	4	9,299	
U.S. Subtotal	497	337,155	760	745,357	1,257	1,082,511	
Refuse Recovery	-	-	-	-	28	1,857	
U.S. Total	497	337,155	760	745,357	1,285	1,084,368	

<sup>-=</sup> No data are reported.

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

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

Table 3. Underground Coal Production by State and Mining Method, 2010 (Thousand Short Tons)

Coal-Producing State and Region <sup>1</sup>	Continuous <sup>2</sup>	Conventional and Other <sup>3</sup>	Longwall <sup>4</sup>	Total
Alabama	203	-	12,311	12,513
Arkansas	31	-	-	31
Colorado	721	-	19,363	20,085
Illinois	13,624	2,475	12,187	28,286
Indiana	14,287	-	-	14,287
Kentucky Total	61,809	2,184	-	63,993
Eastern	32,204	2,184	-	34,388
Western	29,605	-	-	29,605
Maryland	672	5	-	677
Montana	-	-	4,389	4,389
New Mexico	-	-	4,932	4,932
Ohio	4,871	-	12,592	17,463
Oklahoma	394	-	-	394
Pennsylvania Total	11,905	40	35,723	47,667
Anthracite	99	40	· -	139
Bituminous	11,806	-	35,723	47,529
Tennessee	545	9	· -	555
Utah	344	-	19,007	19,351
Virginia	9,459	27	4,682	14,169
West Virginia Total	44,488	28	40,028	84,544
Northern	5,801	7	31,494	37,302
Southern	38,687	20	8,534	47,242
Wyoming	-	-	3,819	3,819
Appalachian Total	104,347	2,292	105,337	211,976
Northern	23,249	52	79,809	103,109
Central	80,896	2,240	13,217	96,354
Southern	203	-	12,311	12,513
Interior Total	57,941	2,475	12,187	72,603
Illinois Basin	57,516	2,475	12,187	72,178
Western Total	1,066	· •	51,510	52,576
Powder River Basin	-	-	· -	- · · · · · · · · · · · · · · · · · · ·
Uinta Region	544	-	38,370	38,914
East of Miss. River	161,863 1,491	4,767	117,524 51,510	284,154 53,001
U.S. Total	163,354	4,767	169,033	337,155

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

<sup>&</sup>lt;sup>2</sup> Mines that produce greater than 50 percent of their coal by continuous mining methods.

<sup>&</sup>lt;sup>3</sup> Mines that produce greater than 50 percent of their coal by conventional mining methods or mines that produce coal using shortwall, scoop loading, hand loading, or other methods or a 50/50 percent continuous conventional split in mining methods, or mines that produce less than 10,000 short tons, which are not required to provide data.

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

<sup>- =</sup> No data are reported.

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

Table 4. Coal Production by Coalbed Thickness and Mine Type, 2010 (Thousand Short Tons)

Coalbed Thickness (inches)	Underground	Surface	Total
< 7	54	36	90
7-12	-	2,409	2,409
13-18	420	6,820	7,240
19-24	763	14,342	15,105
25-30	3,519	15,376	18,895
31-36	18,704	37,939	56,643
37-42	23,714	20,125	43,839
43-48	28,912	17,200	46,113
49-54	24,820	15,226	40,047
55-60	33,965	15,537	49,502
61-66	42,880	18,227	61,107
67-72	63,435	11,626	75,061
73-78	12,677	2,926	15,603
79-84	9,657	4,595	14,252
85-90	15,498	453	15,951
91-96	6,519	16,943	23,461
97-102	14,691	5,658	20,349
103-108	5,970	10,336	16,306
109-114	72	3,156	3,228
115-120	7,639	2,114	9,752
> 120	23,074	523,623	546,698
Unknown <sup>1</sup>	170	690	2,717
U.S. Total	337,155	745,357	1,084,368

<sup>&</sup>lt;sup>1</sup> Includes mines with production of less than 10,000 short tons, which are not required to provide data, and refuse recovery.

<sup>-=</sup> No data are reported.

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

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

Table 5. Coal Production and Coalbed Thickness by Major Coalbeds and Mine Type, 2010

Coalbed ID Number <sup>1</sup>	(1	Production chousand short tons)		Thickness (inches)				
Coalbed Name	Underground	Surface	Total	Average <sup>2</sup>	Low	High		
1699 Wyodak	-	382,805	382,805	779	160	912		
0036 Pittsburgh	78,969	5,148	84,116	71	16	120		
0489 No. 9	40,746	6,212	46,958	61	36	72		
0484 Herrin (Illinois No. 6)	29,018	2,612	31,630	69	24	85		
1697 Canyon	· -	29,405	29,405	641	364	804		
1569 Beulah-Zap	-	27,493	27,493	174	114	210		
0111 Coalburg	4,841	16,979	21,819	76	8	134		
1696 Anderson-Dietz 1-Dietz 2	-	21,254	21,254	933	660	960		
1787 Roland	-	16,226	16,226	486	384	660		
1808 Rosebud	-	15,403	15,403	257	68	276		
0151 Upper Elkhorn No. 3	11,357	3,162	14,519	44	6	120		
0084 Lower Kittanning	5,993	7,902	13,895	49	12	88		
0103 Stockton-Lewiston	4,397	7,146	11,543	68	7	132		
0168 Lower Elkhorn	6,996	2,854	9,849	46	5	84		
0280 Blue Creek	8,854	608	9,462	54	10	72		
0157 Alma	7,408	2,018	9,427	48	12	80		
0176 Eagle	7,426	1,609	9,035	46	11	63		
0071 Upper Freeport	6,439	2,496	8,935	55	12	94		
1003 Menefee Formation	522	8,249	8,771	89	60	96		
0344	8,434	22	8,456	57	28	68		
0121 Winifrede	4,450	3,666	8,116	50	12	110		
0135 Hazard No. 4	3,913	4,048	7,961	52	15	108		
1750 Wadge	7,727	-	7,727	100	100	100		
1488 Fruitland No. 8	4,932	2,499	7,431	163	162	166		
0142 Williamson (Amburgy)	4,330	2,197	6,527	45	15	74		
Major Coalbeds Total	246,751	572,014	818,765	458	5	960		
Other Coalbeds	90,233	172,653	262,886	79	7	540		
Unknown <sup>3</sup>	170	684	2,711	NA	NA	NA		
U.S. Total	337,155	745,357	1,084,368	365	-	960		

<sup>&</sup>lt;sup>1</sup> 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.

Notes: • Major coalbeds for this table are the top 25 producing coalbeds. The category "Other Coalbeds" includes all coalbeds from which less than 8.0 million short tons were produced during the year. In some regions, coalbeds are characteristically discontinuous or uncorrelatable from one location to another, and production is identified by the geological formations, coal groups, or coal zones of the native rock where the coalbeds occur. These types of coalbeds are found primarily in the Rocky Mountain States and even in the Gulf Coast lignite belt. Coalbeds of these types are also included in "Other Coalbeds," even though production may exceed 8.0 million short tons. Totals may not equal sum of components due to independent rounding. • The coalbed name given is the name most commonly used in the State having the greatest production from that coalbed. The States having greatest production for each coalbed are Alabama (coalbed 0280), Colorado (1750); Illinois (0484); Indiana (0483); Eastern Kentucky (0100, 0135, 0142, 0151, and 0168); Western Kentucky (0489); Montana (1696 and 1808); New Mexico (1488); North Dakota (1569); Pennsylvania (0036 and 0071); West Virginia (0084, 0103, 0111, 0121, 0157, and 0176); and Wyoming (1697, 1699, and 1787). In some other States where these are major producing beds, the following alternative coalbed names are also used: 0084, No. 5 (Ohio); 0111, Peach Orchard (Eastern Kentucky); 0121, Quakertown (Pennsylvania); 0135, Windrock (Tennessee); Phillips (Virginia); Chilton (West Virginia); 0142, Lower Splint (Virginia); 0157, Elkhorn No. 1 (East Kentucky); Rich Mountain (Tennessee); 0168, Imboden (Virginia); No. 2 Gas (West Virginia); 0176, Middle Eagle (West Virginia); 0484, No. 11 (Western Kentucky); 0489, No. 5 (Illinois and Indiana).

<sup>&</sup>lt;sup>2</sup> Average thickness is the bed thickness weighted by bed production.

<sup>&</sup>lt;sup>3</sup> Includes mines with production of less than 10,000 short tons, which are not required to provide data, and refuse recovery.

 <sup>- =</sup> No data are reported.

NA = Not Available.

**Table 6.** Coal Production and Number of Mines by State and Coal Rank, 2010 (Thousand Short Tons)

Coal-Producing	Bitun	ninous	Subbitu	ıminous	Lig	nite	Anth	racite	To	otal
State and Region <sup>1</sup>	Number of Mines	Production								
Alabama	50	19,915	_	_	_	_	_	_	50	19,915
Alaska	_	-	1	2,151	_	_	_	_	1	2,151
Arizona	1	7,752	_	-	_	_	_	_	1	7,752
Arkansas	2	32	_	_	_	_	_	_	2	32
Colorado	8	20,378	2	4,785	_	_	_	_	10	25,163
Illinois	22	33,241	_	-	_	_	_	_	22	33,241
Indiana	29	34,950	_	_	_	_	_	_	29	34,950
Kansas	1	133	_	_	_	_	_	_	1	133
Kentucky Total	392	104,960	_	_	_	_	_	_	392	104,960
Eastern	367	68,063	_	_	_	_	_	_	367	68,063
Western	25	36,897	_	_	_	_	_	_	25	36,897
Louisiana	-	-	_	_	2	3,945	_	_	2	3,945
Maryland	22	2,585	_	_	-		_	_	22	2,585
Mississippi		2,505	_	_	1	4.004	_	_	1	4,004
Missouri	2	458	_	_		1,001	_	_	2	458
Montana			5	44.381	1	352		_	6	44,732
New Mexico <sup>2</sup>		_	4	20,991		332		_	4	20.991
North Dakota		_		20,771	4	28,949		_	4	28,949
Ohio	42	26,707	-	-	4	20,949	-	-	42	26,707
Oklahoma	10	1.010	-	-	-	-	-	-	10	1,010
	181	56,888	-	-	-	-	59	1,705	240	58,593
Pennsylvania Total	101	30,000	-	-	-	-	59 59	1,705	59	1.705
	181	56,888	-	-	-	-	39	1,703	181	
Bituminous	19	1.780	-	-	-	-	-	-	19	56,888 1,780
Tennessee	19	1,780	-	-	12	40.002	-	-		
Texas	- 0	10.251	-	-	12	40,982	-	-	12	40,982
Utah	8	19,351	-	-	-	-	-	-	8	19,351
Virginia	106	22,385	-	-	-	-	-	-	106	22,385
West Virginia Total	252	135,220	-	-	-	-	-	-	252	135,220
Northern	34	41,306	-	-	-	-	-	-	34	41,306
Southern	218	93,914	-		-	-	-	-	218	93,914
Wyoming	-	-	19	442,522	-	-	-	-	19	442,522
Appalachian Total	1,039	333,543	_	-	-	-	59	1,705	1,098	335,248
Northern	279	127,486	_	_	_	_	59	1,705	338	129,191
Central	710	186,142	_	_	_	_	_	_	710	186,142
Southern	50	19,915	_	_	_	_	_	_	50	19,915
Interior Total	91	106,723	_	_	15	48,930	_	-	106	155,653
Illinois Basin	76	105,089	_	_	-	-	_	_	76	105,089
Western Total	18	47,482	30	514,829	5	29,300	_		53	591,611
Powder River Basin	10	-77,102	16	468,428	-	27,500	_	_	16	468,428
Uinta Region	14	38,914	2	4,785	-	-	-	-	16	43,699
East of Miss. River	1,115	438,631	_	_	1	4,004	59	1,705	1,175	444,340
West of Miss. River	33	49,116	30	514,829	19	74,227	-	-	82	638,171
U.S. Subtotal	1,148	487,747	30	514,829	20	78,230	59	1,705	1,257	1,082,511
Refuse Recovery	24	1,786	-	-	-	-	4	71	28	1,857
U.S. Total	1,172	489,533	30	514,829	20	78,230	63	1,776	1,285	1,084,368

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

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

<sup>-=</sup> No data are reported.

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

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

Table 7. Coal Production by State, Mine Type, and Union Status, 2010 (Thousand Short Tons)

Coal-Producing	Uni	on	Nonu	ınion	Tot	al
State and Region <sup>1</sup>	Underground	Surface	Underground	Surface	Underground	Surface
Alabama	12,311	208	203	7,192	12,513	7,400
Alaska		2,151		.,		2.151
Arizona		7,752	_	_	_	7,752
Arkansas		7,752	31	_	31	7,752
Colorado		2.481	18.361	2,597	20.085	5.078
Illinois		2,401	24.055	4.951	28,286	4.951
Indiana		-	14,287	20.663	14,287	20.663
Kansas		-	14,267	133	14,267	133
		883	60.082	39.891	63,931	40.775
Kentucky Total		883	33,943	32,599		33.482
Eastern		883			34,326	
Western		-	26,138	7,293	29,605	7,293
Louisiana		-	-	3,945	-	3,945
Maryland		-	672	1,900	672	1,900
Mississippi		-	-	4,004	-	4,004
Missouri		<del>.</del>		458		458
Montana		21,017	4,389	19,326	4,389	40,343
New Mexico		7,810	-	8,249	4,932	16,059
North Dakota		6,783	-	22,166	-	28,949
Ohio	6,378	-	11,085	9,212	17,463	9,212
Oklahoma		-	394	604	394	604
Pennsylvania Total	15,174	578	32,454	10,043	47,628	10,621
Anthracite		383	99	1,111	99	1,494
Bituminous	15,174	194	32,355	8,932	47,529	9,127
Tennessee		_	545	1,212	545	1,212
Texas		27,078	<u>-</u>	13,904	-	40,982
Utah			15,397		19.351	
Virginia		_	13,402	8,191	14.141	8,191
West Virginia Total		9,541	51,339	41.047	84,516	50,589
Northern		7,511	8.250	3.988	37,295	3,988
Southern	. ,	9,541	43.089	37.059	47.222	46.600
Wyoming		6,755	43,009	431.948	3.819	438,703
w youning	3,019	0,733	-	431,740	3,619	436,703
Appalachian Total	68,163	11,210	143,643	111,397	211,806	122,607
Northern		578	52,461	25,144	103.058	25,721
Central	,	10,425	90,980	79,061	96,235	89,486
Southern		208	203	7.192	12.513	7,400
Interior Total		27,078	64,905	55,954	72,603	83,031
Illinois Basin		27,070	64,480	32,907	72,178	32,907
Western Total		54,750	38,148	484.285	52,576	539.035
Powder River Basin		20,666	30,140	447.762	32,370	468.428
		2.188	33,237		38,914	
Uinta Region	3,077	2,100	33,237	2,597	36,914	4,785
East of Miss. River		11,210 81,828	208,124 38,573	148,307 503,328	283,984 53,001	159,517 585,156
Unknown <sup>2</sup>		-	-	-	170	684
U.S. Total	90,288	93,037	246,696	651,635	337,155	745,357

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

<sup>&</sup>lt;sup>2</sup> Includes mines with production of less than 10,000 short tons, which are not required to provide data.

<sup>- =</sup> No data are reported.

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

Table 8. Coal Disposition by State, 2010

(Thousand Short Tons)

Coal-Producing State	Open Market Sales <sup>1</sup>	Captive Sales/Transactions <sup>2</sup>	Total
Alabama	20,114	110	20,225
Alaska	W	-	W
Arizona	W	-	W
Arkansas	W	-	W
Colorado	22,154	2,756	24,910
Illinois	W	W	33,257
Indiana	19,005	15,428	34,433
Kansas	W	<u>-</u>	W
Kentucky Total	99,333	5,250	104,583
Eastern	W	W	66,895
Western	W	W	37,687
Louisiana	W	W	W
Maryland	W	W	2,842
Mississippi		-	W
Missouri		-	W
Montana		W	44,521
New Mexico	W	W	21,872
North Dakota		W	28,894
Ohio		1,268	27,330
Oklahoma		W	996
Pennsylvania Total		3,916	59,655
Anthracite		W	1.626
Bituminous		W	58.029
Tennessee		W	1.740
Texas	W	W	41,501
Utah		W	19,011
Virginia		7,259	22,215
West Virginia Total		17,428	135,330
Northern		3,422	41.954
Southern		14.006	93,375
Wyoming		127,575	442,061
U.S. Total <sup>3</sup>	845,112	237,602	1,082,714

<sup>&</sup>lt;sup>1</sup> Open market sales include all coal sold on the open market to other coal companies or consumers.

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

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

<sup>&</sup>lt;sup>2</sup> Captive sales transactions include all coal used by the producing company or sold to affiliated or parent companies.

<sup>&</sup>lt;sup>3</sup> Excludes mines producing less than 10,000 short tons, which are not required to provide data, and refuse recovery.

<sup>- =</sup> No data are reported.

W = Data withheld to avoid disclosure.

Table 9. Major U.S. Coal Mines, 2010

Rank	Mine Names/Company	Mine Type	State	Production (short tons)
1	Black Thunder/Thunder Basin Coal Company Llc	Surface	Wyoming	116,225,536
2	North Antelope Rochelle Mine/Peabody Powder River Mining Llc	Surface	Wyoming	105,755,685
3	Cordero Mine/Cordero Mining Llc	Surface	Wyoming	38,499,809
4	Antelope Coal Mine/Antelope Coal Llc	Surface	Wyoming	35,908,216
5	Belle Ayr Mine/Alpha Coal West, Inc.	Surface	Wyoming	25,766,025
6	Buckskin Mine/Kiewit Mining Group	Surface	Wyoming	25,532,509
7	Caballo Mine/Peabody Caballo Mining, Llc	Surface	Wyoming	23,500,122
8	Eagle Butte Mine/Alpha Coal West, Inc.	Surface	Wyoming	23,225,757
9	Spring Creek Coal Company/Spring Creek Coal Llc	Surface	Montana	19,325,848
10	Freedom Mine/The Coteau Properties Company	Surface	North Dakota	14,594,871
11	Rosebud Mine&Crusher/Conveyor/Western Energy Company	Surface	Montana	12,231,389
12	Coal Creek Mine/Thunder Basin Coal Company Llc	Surface	Wyoming	11,414,277
13	Rawhide Mine/Peabody Caballo Mining, Llc	Surface	Wyoming	11,229,907
14	Bailey Mine/Consol Pennsylvania Coal Company	Underground	Pennsylvania	10,607,451
15	Mcelroy Mine/Mcelroy Coal Company	Underground	West Virginia	10,094,681
16	Enlow Fork Mine/Consol Pennsylvania Coal Company	Underground	Pennsylvania	9.941.681
17	Navajo Mine/Bhp Navajo Coal Company	Surface	New Mexico	7,809,929
18	Kayenta Mine/Peabody Western Coal Company	Surface	Arizona	7,752,277
19	Foidel Creek Mine/Peabody Twentymile Mining Llc	Underground	Colorado	7,727,004
20	Falkirk Mine/Falkirk Mining Company	Surface	North Dakota	7,570,950
21	El Segundo/Peabody New Mexico Services Div.	Surface	New Mexico	6,639,386
22	Sufco/Canyon Fuel Company Llc	Underground	Utah	6,398,350
23	Powhatan No. 6 Mine/The Ohio Valley Coal Company	Underground	Ohio	6,378,070
24	Kosse Strip/Luminant Mining Company Llc	Surface	Texas	6,303,847
25	Century Mine/American Energy Corporation	Underground	Ohio	6,214,246
26	Wyodak Mine/Wyodak Resources Development Co.	Surface	Wyoming	5,930,614
27	Loveridge #22/Consolidation Coal Company	Underground	West Virginia	5,869,034
28	Cardinal/Warrior Coal Llc	Underground	Kentucky	5,841,599
29	River View Mine/River View Coal Llc	Underground	Kentucky	5,830,052
30	Mach #1 Mine/Mach Mining Llc	Underground	Illinois	5,795,493
31	The American Coal Company New/The American Coal Company	Underground	Illinois	5,774,752
32	Cumberland Mine/Cumberland Coal Resources Lp	Underground	Pennsylvania	5,764,385
33	Robinson Run No. 95/Consolidation Coal Company	Underground	West Virginia	5,499,559
34	Absaloka Mine/Westmoreland Resources Inc.	Surface	Montana	5,467,670
35	Dry Fork Mine/Western Fuels-Wyoming Inc.	Surface	Wyoming	5,448,073
36	Three Oaks/Luminant Mining Company Llc	Surface	Texas	5,364,236
37	San Juan Mine 1/San Juan Coal Company	Underground	New Mexico	4,931,891
38	Emerald Mine No. 1/Emerald Coal Resources Lp	Underground	Pennsylvania	4,901,640
39	West Elk Mine/Mountain Coal Company, Llc	Underground	Colorado	4,793,507
40	Kemmerer Mine/Chevron Mining Inc.	Surface	Wyoming	4,760,173
41	Buchanan Mine #1/Consolidation Coal Company	Underground	Virginia	4,682,491
42	Mountaineer Mine/Mingo Logan Coal Company	Underground	West Virginia	4,606,245
43	South Hallsville No. 1 Mine/Sabine Mining Company	Surface	Texas	4,568,991
44	Blacksville No. 2/Consolidation Coal Company	Underground	Pennsylvania	4,507,606
45	Bull Mountains Mine No. 1/Signal Peak Energy Llc	Underground	Montana	4,388,852
46	Jewett Mine/Texas Westmoreland Coal Co.	Surface	Texas	4,170,923
47	Beckville Strip/Luminant Mining Company Llc	Surface	Texas	4,170,923
48	Red Hills Mine/Mississippi Lignite Mining Company	Surface	Mississippi	4,003,505
	Subtotal All Other Mines			673,672,015 410,696,133
	U.S. Total			1,084,368,148

<sup>-=</sup> No data are reported.

Note: • Major mines are mines that produced more than 4 million short tons in 2010. The company is the firm operating the mine.

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

Table 10. Major U.S. Coal Producers, 2010

Rank	Controlling Company Name	Production (thousand short tons)	Percent of Total Production
1	Peabody Energy Corporation	191,943	17.7
2	Arch Coal Inc.	173,295	16.0
3	Cloud Peak Energy	93,734	8.6
4	Alpha Natural Resources Llc	80,681	7.4
5	CONSOL Energy Inc.	61,294	5.7
6	Alpha Appalachia Holdings Inc.	37,793	3.5
7	NACCO Industries Inc.	30,763	2.8
8	Peter Kiewit Sons Inc.	30,697	2.8
9	Alliance Resource Operating Partners Lp	28,876	2.7
10	Energy Future Holdings Corp.	27,731	2.6
11	Patriot Coal Corp.	27,058	2.5
12	Westmoreland Coal Co.	25,117	2.3
13	Murray Energy Corp.	24,896	2.3
14	BHP Billiton Ltd.	12,742	1.2
15	James River Coal Co.	10,574	1.0
16	PacifiCorp.	8,768	0.8
17	Rosebud Mining Co.	8,766	0.8
18	Walter Energy Inc.	8,270	0.8
19	Cline Group (The)	6,981	0.6
20	Level 3 Communications	6,096	0.6
21	Black Hills Corp.	5,931	0.5
22	Booth Energy Group	5,888	0.5
23	TECO Energy Inc.	5,871	0.5
24	Trinity Coal Corp.	5,727	0.5
25	Armstrong Energy Inc.	5,645	0.5
26	Western Fuels Association Inc.	5,448	0.5
	Subtotal	930,583	85.8
	All Other Coal Producers	153,785	14.2
	U.S. Total	1,084,368	100.0

Note: • Major coal producers are companies that produced more than 5 million short tons in 2010. A controlling company of a mine is defined as the company "controlling the coal, particularly the sale of the coal." Most often, but not always, this is the owner of the mine.

Source: • Velocity Suite, Ventyx 2011 and U.S. Department of Labor, Mine Safety and Health Administration Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

# **Productive Capacity**

**Table 11. Productive Capacity of Coal Mines by State, 2010, 2009** (Thousand Short Tons)

Coal-Producing		2010			2009		P	Percent Chang	ge
State	Underground	Surface	Total	Underground	Surface	Total	Underground	Surface	Total
Alabama	. 16,373	8,692	25,064	16,398	10,021	26,419	-0.2	-13.3	-5.1
Alaska		W	W	-	W	W	-	W	W
Arizona		W	W	-	W	W	-	W	W
Arkansas	. W	-	W	-	-	-	W	-	W
Colorado	. W	W	39,326	W	W	39,336	W	W	*
Illinois	. 39,876	7,990	47,866	38,184	8,153	46,337	4.4	-2.0	3.3
Indiana		28,690	45,267	15,027	31,587	46,614	10.3	-9.2	-2.9
Kansas		W	W	· -	W	W	_	W	W
Kentucky Total		56,936	141,120	81,739	59,407	141,146	3.0	-4.2	*
Eastern		43,903	88,708	50.898	50,411	101,309	-12.0	-12.9	-12.4
Western		13.033	52,412	30,841	8,996	39,837	27.7	44.9	31.6
Louisiana		W	W	· -	W	W	_	W	W
Maryland	. W	W	2,981	W	W	2,593	W	W	15.0
Mississippi		W	W	_	W	W	_	W	W
Missouri		W	W	_	W	W	_	W	W
Montana		W	57.879	W	W	56,643	W	W	2.2
New Mexico		W	27,300	W	W	29,108	W	W	-6.2
North Dakota		32,900	32,900	_	32,900	32,900	_	_	-
Ohio		21,289	41,605	19.811	22,300	42,111	2.5	-4.5	-1.2
Oklahoma		W	1.657	W	W	1,727	W	W	-4.1
Pennsylvania Total		15.487	69,053	55,566	14,606	70,172	-3.6	6.0	-1.6
Anthracite		W	2,493	268	2,415	2,683	W	W	-7.1
Bituminous		W	66,559	55,298	12,191	67,489	W	W	-1.4
Tennessee		1.622	2,143	1,009	1,777	2,786	-48.4	-8.7	-23.1
Texas		42,631	42,631	_	37,532	37,532	_	13.6	13.6
Utah		-	23,332	24,533	-	24,533	-4.9	-	-4.9
Virginia		12,661	28,522	16,794	12.375	29,169	-5.6	2.3	-2.2
West Virginia Total		64,376	178,142	114,744	84,079	198.822	-0.9	-23.4	-10.4
Northern		5,090	48,106	38,693	8,433	47,126	11.2	-39.6	2.1
Southern		59,286	130.036	76,050	75,646	151,696	-7.0	-21.6	-14.3
Wyoming		W	501,125	W	W	547,360	W	W	-8.4
U.S. Total	. 440,850	887,232	1,328,083	439,601	955,896	1,395,497	0.3	-7.2	-4.8

 $<sup>\</sup>ensuremath{^{*}}$  Absolute percentage less than 0.05.

<sup>- =</sup> No data are reported.

W = Data withheld to avoid disclosure.

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

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

**Table 12.** Capacity Utilization of Coal Mines by State, 2010, 2009 (Percent)

Coal-Producing		2010			2009	
State	Underground	Surface	Total	Underground	Surface	Total
Alabama	76.43	85.14	79.45	70.16	72.73	71.13
Alaska	-	W	W	-	W	W
Arizona	-	W	W	-	W	W
Arkansas	W	-	W	-	-	-
Colorado	W	W	63.98	W	W	71.85
Illinois	70.93	61.96	69.44	74.39	65.52	72.83
Indiana	86.19	72.02	77.21	85.16	72.37	76.49
Kansas	-	W	W	-	W	W
Kentucky Total	75.94	71.61	74.20	77.20	73.99	75.85
Eastern	76.61	76.26	76.44	72.94	74.03	73.48
Western	75.18	55.96	70.40	84.24	73.76	81.88
Louisiana	-	W	W	-	W	W
Maryland	W	W	86.27	W	W	87.52
Mississippi	-	W	W	-	W	W
Missouri	-	W	W	-	W	W
Montana	W	W	77.29	W	W	69.71
New Mexico	W	W	76.89	W	W	86.31
North Dakota	-	87.99	87.99	-	91.02	91.02
Ohio	85.96	43.27	64.12	87.33	45.57	65.22
Oklahoma	W	W	60.22	W	W	55.33
Pennsylvania Total	88.91	68.58	84.35	87.54	61.71	82.16
Anthracite	W	W	63.90	58.58	61.14	60.89
Bituminous	W	W	85.12	87.68	61.82	83.01
Tennessee	104.75	74.75	82.04	82.50	64.77	71.19
Texas	-	96.13	96.13	-	93.50	93.50
Utah	82.94	-	82.94	88.52	_	88.52
Virginia	89.16	64.70	78.30	77.02	65.12	71.97
West Virginia Total	74.29	78.58	75.84	70.46	66.82	68.92
Northern	86.70	78.35	85.82	85.67	62.09	81.45
Southern	66.75	78.60	72.15	62.72	67.34	65.03
Wyoming	W	W	88.31	W	W	78.76
U.S. Total	76.44	83.93	81.45	75.50	77.36	76.78

<sup>- =</sup> No data are reported.

 $W = Data \ withheld \ to \ avoid \ disclosure.$ 

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

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

Table 13. Productive Capacity and Capacity Utilization of Underground Coal Mines by State and Mining Method, 2010

(Thousand Short Tons)

Coal-Producing	Conti	nuous¹		ional and ner <sup>2</sup>	Long	gwall <sup>3</sup>	To	otal
State	Productive Capacity	Capacity Utilization Percent	Productive Capacity	Capacity Utilization Percent	Productive Capacity	Capacity Utilization Percent	Productive Capacity	Capacity Utilization Percent
Alabama	W	W	_	_	W	W	16,373	76.43
Arkansas	W	W	_	_	_	_	W	W
Colorado	W	W	_	_	W	W	W	W
Illinois	18,376	74.14	W	W	W	W	39,876	70.93
Indiana	16,577	86.19	_	_	_	-	16,577	86.19
Kentucky Total	W	W	W	W	_	-	84.183	75.94
Eastern	W	W	W	W	_	-	44,805	76.61
Western	W	W	_	_	_	-	39,379	75.18
Maryland	W	W	-	_	_	-	W	W
Montana	-	-	_	_	W	W	W	W
New Mexico	-	_	_	_	W	W	W	W
Ohio	W	W	_	_	W	W	20,316	85.96
Oklahoma	W	W	_	_	_	_	W	W
Pennsylvania Total	W	W	_	_	W	W	53,566	88.91
Anthracite	W	W	_	_	_	_	W	W
Bituminous	W	W	_	_	W	W	W	W
Tennessee	521	104.75	_	_	_	_	521	104.75
Utah	W	W	_	_	W	W	23,332	82.94
Virginia	W	W	_	_	W	W	15,861	89.16
West Virginia Total	66,595	66.80	_	_	47,171	84.86	113,765	74.29
Northern	9,037	64.18	_	_	33,978	92.69	43,016	86.70
Southern	57,557	67.22	_	_	13,192	64.69	70,750	66.75
Wyoming	-	-	-	-	w	W	W	W
U.S. Total	222,129	73.54	5,352	85.89	213,368	79.22	440,850	76.44

<sup>&</sup>lt;sup>1</sup> Mines that produce greater than 50 percent of their coal by continuous mining methods.

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

<sup>&</sup>lt;sup>2</sup> Mines that produce greater than 50 percent of their coal by conventional mining methods or mines that produce coal using shortwall, scoop loading, hand loading, or other methods or a 50/50 percent continuous conventional split in mining method.

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

<sup>- =</sup> No data are reported.

 $W = Data \ withheld \ to \ avoid \ disclosure.$ 

# **Recoverable Reserves**

**Table 14.** Recoverable Coal Reserves and Average Recovery Percentage at Producing Mines by State, 2010, 2009 (Million Short Tons)

Coal-Producing	20	10	20	09	Percent Change Recoverable Coal
State	Recoverable Coal Reserves	Average Recovery Percentage	Recoverable Coal Reserves	Average Recovery Percentage	Reserves
Alabama	305	55.64	286	57.44	6.5
Alaska	W	W	W	W	W
Arizona	W	W	W	W	W
Arkansas	-	-	-	-	-
Colorado	253	68.51	314	68.81	-19.3
Illinois	1,559	60.38	1,244	60.55	25.3
Indiana	672	67.45	403	66.04	66.8
Kansas	W	W	W	W	W
Kentucky Total	1,370	56.46	1,303	56.95	5.1
Eastern	786	52.73	759	55.88	3.5
Western	584	61.47	544	58.45	7.4
Louisiana	W	W	W	W	W
Maryland	16	71.82	20	71.87	-16.6
Mississippi	W	W	W	W	W
Missouri	W	W	W	W	W
Montana	894	88.24	855	86.70	4.6
New Mexico	340	92.12	380	92.82	-10.6
North Dakota	1,229	90.34	1,208	90.60	1.7
Ohio	268	64.66	291	65.71	-7.8
Oklahoma	24	65.49	94	57.83	-74.4
Pennsylvania Total	571	70.51	553	70.79	3.4
Anthracite	39	72.41	38	78.45	3.3
Bituminous	532	70.38	515	70.22	3.4
Tennessee	6	65.47	13	71.17	-55.2
Texas	738	92.93	775	90.72	-4.7
Utah	210	55.39	201	57.51	4.6
Virginia	337	54.56	294	54.76	14.7
Washington	_	_	-	_	_
West Virginia Total	1,972	54.45	1,738	57.31	13.4
Northern	355	59.68	294	60.80	20.9
Southern	1,617	53.30	1,444	56.60	11.9
Wyoming	6,610	91.68	6,917	91.34	-4.4
U.S. Total	17,937	77.80	17,474	79.03	2.7

<sup>- =</sup> No data are reported.

W = Data withheld to avoid disclosure.

Note: • Recoverable reserves represent the quantity of coal that can be recovered (i.e., mined) from existing coal reserves at reporting mines. Average recovery percentage represents the percentage of coal that can be recovered from coal reserves at reporting mines, weighted for all mines in the reported geographic area. Excludes mines producing less than 10,000 short tons, which are not required to provide data and refuse recovery. Totals may not equal sum of components because of independent rounding.

Table 15. Recoverable Coal Reserves at Producing Mines, Estimated Recoverable Reserves, and Demonstrated Reserve Base by Mining Method, 2010

(Million Short Tons)

	Under	ground - Mina	ıble Coal	Sur	face - Minable	e Coal		Total	
Coal-Resource State	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	269	449	890	36	2,243	3.149	305	2,692	4.039
Alaska	-	2,335	5,423	W	491	677	W	2,825	6,100
Arizona	_	_,	-,	W	-	-	W	-,	-
Arkansas	_	127	272	_	101	144	_	228	416
Colorado	W	5,865	11.175	W	3,745	4,759	253	9,609	15,935
Georgia		1	2		1	2	200	2,002	4
Idaho	_	2	4	_	-	_	_	$\bar{2}$	A
Illinois	1,535	27.840	87.644	24	10.052	16,516	1,559	37,892	104,160
Indiana	309	3,570	8.620	363	349	597	672	3,919	9,217
Iowa	309	807	1,732	303	320	457	072	1.127	2.189
Kansas	-	807	1,732	w	680	971	w	680	971
Kentucky Total	1.109	7.067	16,377	261	7.321	12.678	1.370	14.388	29.055
	601	424	759	185	5.072	9.082	786	5.496	9.841
Eastern Western	508	6,643	15.618	76	2,249	3,596	584	3,490 8.892	19.214
	308	0,043	13,016	W	2,249	3,396	364 W	295	398
Louisiana	w	211	567	W W					
Maryland		311		w	36	53	16	346	620
Michigan	-	55	123	-	3	5	-	59	128
Mississippi	-	-	- 450	W	2156	4.500	W	2.045	
Missouri		689	1,479	W	3,156	4,508	W	3,845	5,987
Montana	W	35,917	70,946	W	38,808	48,012	894	74,724	118,958
New Mexico	W	2,771	6,091	W	4,110	5,863	340	6,881	11,954
North Carolina		5	11	-	-	-	-	5	11
North Dakota		-	-	1,229	6,764	8,867	1,229	6,764	8,867
Ohio		7,646	17,380	74	3,731	5,700	268	11,378	23,080
Oklahoma	W	571	1,227	W	222	317	24	793	1,544
Oregon	-	6	15	-	2	3	-	9	17
Pennsylvania Total		10,435	22,707	117	1,001	4,182	571	11,436	26,889
Anthracite		340	3,842	W	419	3,347	39	759	7,188
Bituminous	W	10,096	18,865	W	582	835	532	10,678	19,701
South Dakota	-	-	-	-	277	366	-	277	366
Tennessee	W	275	502	W	173	255	6	448	757
Texas	_	-	_	738	9,339	12,132	738	9,339	12,132
Utah	210	2,401	4,897	-	212	268	210	2,612	5,164
Virginia	281	548	976	56	171	505	337	719	1,481
Washington	-	674	1,332	_	6	8	_	681	1,340
West Virginia Total	1,469	15,124	28,338	503	2,135	3,385	1,972	17,259	31,723
Northern	341	NA	NA	14	NA	NA	355	NA	NA
Southern	1.128	NA	NA	489	NA	NA	1.617	NA	NA
Wyoming	, -	22,935	42,472	W	15,349	18,535	6,610	38,284	61,007
U.S. Total	6,452	148,427	331,202	11,485	111,091	153,309	17,937	259,518	484,511

<sup>- =</sup> No data are reported.

Notes: • Recoverable coal reserves at producing mines represent the quantity of coal that can be recovered (i.e., mined) from existing coal reserves at reporting mines. • EIA's estimated recoverable reserves include the coal in the demonstrated reserve base considered recoverable after excluding coal estimated to be unavailable due to land use restrictions or currently economically unattractive for mining, and after applying assumed mining recovery rates; see Glossary for criteria. • The effective date for the demonstrated reserve base, as customarily worded, is "Remaining as of January 1, 2010." These data are contemporaneous with the Recoverable Reserves at Producing Mines, customarily presented as of the end of the past year's mining, that is in this case, December 31, 2009. • The demonstrated reserve base includes publicly available data on coal mapped to measured and indicated degrees of accuracy and found at depths and in coalbed thicknesses considered technologically minable at the time of determinations; see Glossary for criteria. • All reserve expressions exclude silt, culm, refuse bank, slurry dam, and dredge operations. • Reserves at Producing Mines exclude mines producing less than 10,000 short tons, which are not required to provide reserves data.

W = Data withheld to avoid disclosure.

NA = Not Available.

Table 16. Recoverable Coal Reserves and Average Recovery Percentage at Producing Underground Coal Mines by State and Mining Method, 2010

(Million Short Tons)

	Contir	nuous¹	Conventi Oth		Longwall <sup>3</sup>		To	Total	
Coal-Producing State	Recoverable Coal Reserves at Producing Mines	Average Recovery Percentage							
Alabama	. W	W	_	_	W	W	269	51.22	
Colorado		W	_	_	W	W	213	64.50	
Illinois		54.26	W	W	W	W	1,535	60.04	
Indiana		53.71	-	-	-	-	309	53.71	
Kentucky Total		W	W	W	_	_	1.109	50.20	
Eastern		W	W	W	_	_	601	43.85	
Western		W	_	_	_	_	508	57.71	
Maryland		W	_	_	_	_	W	W	
Montana		_	_	_	W	W	W	W	
New Mexico		_	_	_	W	W	W	W	
Ohio		W	_	_	W	W	194	58.36	
Oklahoma	. W	W	_	_	_	_	W	W	
Pennsylvania Total		W	_	_	W	W	441	67.80	
Anthracite		W	-	-	-	-	W	W	
Bituminous	. W	W	-	-	W	W	W	W	
Tennessee	. W	W	-	-	-	-	W	W	
Utah	. W	W	-	-	W	W	210	55.39	
Virginia	. W	W	-	-	W	W	281	49.29	
West Virginia Total	. 1,079	48.03	-	-	390	52.45	1,469	49.21	
Northern	. 185	53.55	-	-	155	65.81	341	59.14	
Southern	. 893	46.89	-	-	235	43.60	1,128	46.21	
Wyoming		-	-	-	W	W	W	W	
U.S. Total	3,231	50.49	62	58.87	3,146	61.91	6,439	56.15	

<sup>&</sup>lt;sup>1</sup> Mines that produce greater than 50 percent of their coal by continuous mining methods.

Note: • Recoverable coal reserves at producing mines represent the quantity of coal that can be recovered (i.e., mined) from existing coal reserves at reporting mines. Average recovery percentage represents the percentage of coal that can be recovered from coal reserves at reporting mines, weighted for all mines in the reported geographic area. Excludes mines producing less than 10,000 short tons, which are not required to provide data and refuse recovery.

<sup>&</sup>lt;sup>2</sup> Mines that produce greater than 50 percent of their coal by conventional mining methods or mines that produce coal using shortwall, scoop loading, hand loading, or other methods or a 50/50 percent continuous conventional split in mining method.

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

<sup>- =</sup> No data are reported.

Table 17. Recoverable Coal Reserves and Average Recovery Percentage at Producing U.S. Mines by Mine Production Range and Mine Type, 2010

(Million Short Tons)

Mine Production Range	Under	ground	Sur	face	To	Total		
(thousand short tons)	Recoverable Coal Reserves	Average Recovery Percentage	Recoverable Coal Reserves	Average Recovery Percentage	Recoverable Coal Reserves	Average Recovery Percentage		
Over 1,000	3,995	59.92	10,735	90.61	14,729	82.29		
500 to 1,000		51.71	224	81.14	1,458	56.23		
200 to 500		47.79	288	83.17	970	58.30		
100 to 200	338	49.95	78	79.12	416	55.41		
50 to 100		49.54	82	79.83	150	66.13		
10 to 50		45.44	79	73.68	201	56.52		
U.S. Total	6,452	56.14	11,485	89.97	17,937	77.80		

Note: • Recoverable coal reserves at producing mines represent the quantity of coal that can be recovered (i.e., mined) from existing coal reserves at reporting mines. Average recovery percentage represents the percentage of coal that can be recovered from coal reserves at reporting mines, weighted for all mines in the reported geographic area. Excludes mines producing less than 10,000 short tons, which are not required to provide data and refuse recovery.

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

# **Employment**

Table 18. Average Number of Employees by State and Mine Type, 2010, 2009

Coal-Producing		2010			2009		P	ercent Chang	ge
State and Region <sup>1</sup>	Underground	Surface	Total	Underground	Surface	Total	Underground	Surface	Total
Alabama	2,970	1,371	4,341	2,655	1,603	4,258	11.9	-14.5	1.9
Alaska		127	127	-	119	119	_	6.7	6.7
Arizona		422	422	_	425	425	_	-0.7	-0.7
Arkansas		2	29	16	2	18	68.8	_	61.1
Colorado		489	2,247	1,916	529	2,445	-8.2	-7.6	-8.1
Illinois		466	3,649	3,068	480	3,548	3.7	-2.9	2.8
Indiana		1,629	3,342	1,695	1,740	3,435	1.1	-6.4	-2.7
Kansas		36	36	-,	31	31		16.1	16.1
Kentucky Total		6.232	17.966	12.043	6,807	18,850	-2.6	-8.4	-4.7
Eastern	,	5,480	13,874	8,959	6,188	15,147	-6.3	-11.4	-8.4
Western		752	4,092	3,084	619	3,703	8.3	21.5	10.5
Louisiana		261	261	-	263	263	-	-0.8	-0.8
Maryland		273	422	108	280	388	38.0	-2.5	8.8
Mississippi		232	232	-	200	200	-	16.0	16.0
Missouri		23	23	_	23	23	_	-	-
Montana		964	1,206	155	978	1,133	56.1	-1.4	6.4
New Mexico		806	1,269	462	960	1,422	0.2	-16.0	-10.8
North Dakota		1.114	1,114		1.037	1.037		7.4	7.4
Ohio		1,088	2,826	1,731	1,276	3,007	0.4	-14.7	-6.0
Oklahoma		145	217	52	208	260	38.5	-30.3	-16.5
Pennsylvania Total		2,694	8,268	5,558	2,523	8,081	0.3	6.8	2.3
Anthracite		795	928	168	773	941	-20.8	2.8	-1.4
Bituminous		1.899	7,340	5.390	1.750	7.140	0.9	8.5	2.8
Tennessee		344	546	366	415	781	-44.8	-17.1	-30.1
Texas		2,787	2,787	500	2,506	2,506		11.2	11.2
Utah		8	1,822	1,985	6	1,991	-8.6	33.3	-8.5
Virginia		1,430	4,957	3,211	1,435	4,646	9.8	-0.3	6.7
Washington		-,.50	.,,,,,,	3,211		.,0.0	7.0	-	-
West Virginia Total		5,955	21,091	14,842	6,829	21,671	2.0	-12.8	-2.7
Northern		490	5,060	4,276	633	4,909	6.9	-22.6	3.1
Southern		5,465	16,031	10,566	6,196	16,762	0.7	-11.8	-4.4
Wyoming	- ,	6,644	6,857	237	6,817	7,054	-10.1	-2.5	-2.8
Appalachian Total	37,690	18,635	56,325	37,430	20,549	57,979	0.7	-9.3	-2.9
Northern		4,545	16,576	11,673	4,712	16,385	3.1	-3.5	1.2
Central		12,719	35,408	23,101	14,233	37,334	-1.8	-10.6	-5.2
Southern		1,371	4,341	2,656	1,604	4,260	11.8	-14.5	1.9
Interior Total		6,333	14,668	7,915	6,072	13,987	5.3	4.3	4.9
Illinois Basin		2,847	11,083	7,847	2,839	10,686	5.0	0.3	3.7
Western Total		10,574	15,064	4,755	10,871	15,626	-5.6	-2.7	-3.6
Powder River Basin		6,896	6,896	7,755	7,066	7.068	-100.0	-2.4	-2.4
Uinta Region		471	3,976	3,813	507	4,320	-8.1	-7.1	-8.0
East of Miss. River	45,926	21,714	67,640	45,277	23,588	68,865	1.4	-7.9	-1.8
West of Miss. River		13,828	18,417	4,823	13,904	18,727	-4.9	-0.5	-1.7
U.S. Subtotal	50,515	35,542	86,057	50,100	37,492	87,592	0.8	-5.2	-1.8
Refuse Recovery		-	138	-	-	163	-	-	-15.3
U.S. Total	50,515	35,542	86,195	50,100	37,492	87,755	0.8	-5.2	-1.8

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

<sup>-=</sup> No data are reported.

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

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

Table 19. Average Number of Employees at Underground and Surface Mines by State and Mine Production Range, 2010

Coal-Producing				Mine Produ (thousand					Total Number
State, Region <sup>1</sup> , and Mine Type	1,000 and Greater	500 to 1,000	200 to 500	100 to 200	50 to 100	10 to 50	Less Than 10	Zero <sup>2</sup>	of Employees
Alabama	2,442	658	625	179	250	77	6	104	4,341
Underground		389	-	26	30	24	-	60	2,970
Surface	1 <b>127</b>	269	625	153	220	53	6	44	1,371 <b>127</b>
Alaska	127	-	-	-		-	-		127
Arizona		-	-	-	-	-	-	-	422
Surface	422	-	-	-	-	-	-	-	422
Arkansas	-	-	-	-	-	27	2	-	29
Underground	-	-	-	-	-	27	2	-	27
Surface	2,121	56	26	27	-	-	- -	17	2,247
Underground	1,658	56		27	-	_	-	17	1,758
Surface	463	-	26	-	-	-	-	-	489
Illinois		524	101	58	-	24	2	171	3,649
Underground	2,539 230	432 92	78 23	4 54	-	24	2	106	3,183
Surface		225	190	34	103	25	2	65 <b>117</b>	466 <b>3,342</b>
Underground	1,529	68	13	_	-	19	_	84	1,713
Surface	1,153	157	177	-	103	6	-	33	1,629
Kansas	-	-	-	36	-	-	-	-	36
Surface	4.055	2 (50	2.445	36	- 1.462		-	-	36
Kentucky Total		3,650	3,145	1,733	1,463	1,124	460	2,034	17,966
Underground	3,470 887	2,807 843	1,475 1,670	1,127 606	867 596	536 588	167 293	1,285 749	11,734 6,232
Eastern		3,346	2,936	1,708	1,405	1,102	460	1,722	13,874
Underground	683	2,503	1,475	1,127	844	532	167	1,063	8,394
Surface		843	1,461	581	561	570	293	659	5,480
Western		304	209	25	58	22	-	312	4,092
Underground	2,787	304	200	25	23	4	-	222	3,340
Surface Louisiana	375 <b>251</b>	_	209	25	35	18 <b>10</b>	-	90	752 <b>261</b>
Surface			-	-		10	-	-	261
Maryland		-	252	16	48	46	14	46	422
Underground	-	-	103	-	-	-	4	42	149
Surface	-	-	149	16	48	46	10	4	273
Mississippi	232 232	-	-	-	-	-	-	-	<b>232</b> 232
Surface		-	10	13	-	-	-	-	232
Surface	-	_	10	13	_	_	-	-	23
Montana	1,194	-	12	-	-	-	-	-	1,206
Underground	242	-		-	-	-	-	-	242
Surface	952	-	12	-	-	-	-	-	964
New Mexico	<b>1,269</b> 463	-	-	-	-	-	-	-	<b>1,269</b> 463
Surface	806							_	806
North Dakota		-	-	-	-	-	-	5	1,114
Surface	1,109	-	-	-	-	-	-	5	1,114
Ohio		598	228	81	77	60	54	160	2,826
Underground	1,299	240	36	46	37	-	- - 1	80	1,738
SurfaceOklahoma	269	358	192 <b>108</b>	35 <b>65</b>	40	60 <b>31</b>	54 <b>13</b>	80	1,088 <b>217</b>
Underground		-	29	43		-	-	-	72
Surface	-	-	79	22	-	31	13	-	145
Pennsylvania Total		746	1,223	413	548	456	263	838	8,268
Underground		746	747	72	36	52	51	345	5,574
Surface	256	-	476 <b>36</b>	341	512 <b>224</b>	404 <b>185</b>	212 <b>88</b>	493 <b>395</b>	2,694 <b>928</b>
Anthracite	-	_	30	-	36	105	51	393 45	133
Surface	_	_	36	_	188	184	37	350	795
Bituminous	3,781	746	1,187	413	324	271	175	443	7,340
Underground	3,525	746	747	72	-	51		300	5,441
Surface		-	440	341	324	220	175	143	1,899
Tennessee	-	-	63	251 135	93	29	41	69	<b>546</b>
Underground	-	-	63	135 116	28 65	29	13 28	26 43	202 344
Texas	2,614	173	-	-	-		-	3	2,787
Surface	2,614	173	-	-	_	-	-	-	2,787
Utah		169	101	-	20	-	-	91	1,822
Underground	1,441	169	101	-	20	-	-	83	1,814

Table 19. Average Number of Employees at Underground and Surface Mines by State and Mine Production Range, **2010 (Continued)** 

Coal-Producing				Mine Produ (thousand					Total Number
State, Region <sup>1</sup> , and Mine Type	1,000 and Greater	500 to 1,000	200 to 500	100 to 200	50 to 100	10 to 50	Less Than 10	Zero <sup>2</sup>	of Employees
Utah (continued)		1		•					
Surface		-	-	_	-	_	_	8	8
Virginia		320	1,579	747	211	438	96	626	4,957
Underground		-	1,116	584	133	276	43	435	3,527
Surface		320	463	163	78	162	53	191	1,430
West Virginia Total		3,626	4,346	1,510	284	637	145	2,184	21,091
Underground		2,339	3,827	1,281	218	366	79	1,422	15,136
Surface		1,287	519	229	66	271	66	762	5,955
Northern		<b>211</b> 167	<b>216</b> 216	145 98	<b>49</b> 22	<b>60</b> 29	<b>36</b> 23	251 153	<b>5,060</b> 4,570
Underground Surface		44	210	98 47	27	31	13	98	4,370
Southern		3.415	4.130	1,365	235	<b>577</b>	109	1.933	16.031
Underground		2.172	3,611	1,183	196	337	56	1,269	10,566
Surface	,.	1,243	519	182	39	240	53	664	5,465
Wyoming		- 1,2.5	18	-	-	4	14	-	6,857
Underground		_		_	-	-		-	213
Surface		-	18	-	-	4	14	-	6,644
Appalachian Total	18,285	9,294	11,252	4,905	2,916	2,845	1,079	5,749	56,325
Underground		6,217	7,304	3,271	1,326	1,250	357	3,473	37,690
Surface		3,077	3,948	1,634	1,590	1,595	722	2,276	18,635
Northern		1,555	1,919	655	722	622	367	1,295	16,576
Underground		1,153	1,102	216	95	81	78	620	12,031
Surface		402	817	439	627	541	289	675	4,545
Central		7,081	8,708	4,071	1,944	2,146	<b>706</b> 279	4,350	35,408
Underground		4,675 2,406	6,202 2,506	3,029 1.042	1,201 743	1,145 1,001	427	2,793 1,557	22,689 12,719
Surface		658	2,306 <b>625</b>	1,042 <b>179</b>	250	77	6	1,337	4.341
Underground		389	023	26	30	24	0	60	2.970
Surface		269	625	153	220	53	6	44	1,371
Interior Total		1,226	618	197	161	139	17	600	14,668
Underground		804	120	47	23	74		412	8,335
Surface	4,855	422	498	150	138	65	17	188	6,333
Illinois Basin	8,613	1,053	500	83	161	71	2	600	11,083
Underground		804	91	4	23	47	-	412	8,236
Surface		249	409	79	138	24	2	188	2,847
Western Total		225	157	27	20	4	14	113	15,064
Underground		225	101	27	20	-	- 14	100	4,490
Surface		-	56	-	-	4	14	13	10,574 <b>6.896</b>
Powder River Basin Surface		-	-	-	-	-	-	-	6,896
Uinta Region		169	101	27	20	_	-	97	3,976
Underground		169	101	27	20			89	3,505
Surface		-	-	-	-	-	-	8	471
East of Miss. River	27,130	10,347	11,752	4,988	3,077	2,916	1,081	6,349	67,640
Underground		7,021	7,395	3,275	1,349	1,297	357	3,885	45,926
Surface		3,326	4,357	1,713	1,728	1,619	724	2,464	21,714
West of Miss. River		398	275	141	20	72	29	113	18,417
Underground	4,017	225	130	70	20	27	-	100	4,589
Surface	13,352	173	145	71	-	45	29	13	13,828
Subtotal		10,745	12,027	5,129	3,097	2,988	1,110	6,462	86,057
Underground		7,246	7,525	3,345	1,369	1,324	357	3,985	50,515
Surface	19,135	3,499	4,502	1,784	1,728	1,664	753	2,477	35,542
Refuse Recovery		-	36	15	19	37	31	-	138
U.S. Total	44,499	10,745	12,063	5,144	3,116	3,025	1,141	6,462	86,195

 $<sup>^1</sup>$  For a definition of coal producing regions, see Glossary.  $^2$  Includes all employees at preparation plants and tipples not co-located with a mine.

<sup>- =</sup> No data are reported.

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

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

Table 20. Average Number of Employees at Underground and Surface Mines by State and Union Status, 2010

Coal-Producing	Uni	on <sup>2</sup>	Nonu	Nonunion <sup>2</sup>				
State and Region <sup>1</sup>	Underground	Surface	Underground	Surface				
Alabama	2,866	31	104	1,351				
Alaska	_,	127		-,				
Arizona	_	422	_	_				
Arkansas	_	.22	27	_				
Colorado	170	211	1.588	278				
Illinois	829	41	2,354	437				
Indiana	527		1.713	1.650				
Kansas	_	_	1,713	36				
Kentucky Total	615	145	10.952	5,820				
Eastern	140	145	8.087	5,062				
Western	475	143	2.865	758				
Louisiana	473	-	2,803	261				
Maryland	-	-	145	263				
Mississippi	-	-	143	203				
Missouri	-	-	-	232				
Montana	-	728	242	236				
New Mexico.	463	728 447	242	359				
	403		-					
North Dakota	561	279	1 177	835				
Ohio	561	8	1,177	1,050				
Oklahoma	2.000	260	72	132				
Pennsylvania Total	2,098	269	3,425	2,231				
Anthracite	2.000	208	82	552				
Bituminous	2,098	61	3,343	1,679				
Tennessee	-	1.700	189	316				
Texas	502	1,798	1 212	989				
Utah	502	-	1,312	8				
Virginia	335	36	3,149	1,341				
West Virginia Total	4,771	1,181	10,286	4,715				
Northern	3,134		1,413	477				
Southern	1,637	1,181	8,873	4,238				
Wyoming	213	484	-	6,146				
Appalachian Total	10,771	1,670	26,562	16,329				
Northern	5,793	277	6,160	4,021				
Central	2.112	1.362	20.298	10.957				
Southern	2,866	31	104	1.351				
Interior Total	1,304	1,839	7,031	4,518				
Illinois Basin	1.304	41	6.932	2.845				
Western Total	1,348	2,698	3,142	7,862				
Powder River Basin	-	716	-	6,180				
Uinta Region	672	185	2,833	286				
East of Miss. River	12,075	1.711	33,494	19.406				
West of Miss. River	1,348	4,496	3,241	9,303				
U.S. Total	13,423	6,207	36,735	28,709				

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

<sup>&</sup>lt;sup>2</sup> Includes all employees at preparation plants and tipples not co-located with a mine.

<sup>- =</sup> No data are reported.

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

# **Productivity**

Table 21. Coal Mining Productivity by State and Mine Type, 2010, 2009

Coal-Producing State, Region <sup>1</sup> , and	Number	of Mining Op	perations <sup>2</sup>	Num	iber of Emplo	oyees <sup>3</sup>	Average Production per Employee per Hour (short tons) <sup>4</sup>			
Mine Type	2010	2009	Percent Change	2010	2009	Percent Change	2010	2009	Percent Change	
Alabama	62	71	-12.7	4,341	4,258	1.9	1.93	1.98	-2.6	
Underground	12	12	-	2,970	2,655	11.9	1.78	1.87	-4.6	
Surface	50	59	-15.3	1,371	1,603	-14.5	2.23	2.18	2.3	
Alaska	1	1	-	127	119	6.7	6.96	6.58	5.7	
Surface	1	1	-	127	119	6.7	6.96	6.58	5.7	
Arizona	1	1	-	422	425	-0.7	7.84	7.47	5.0	
Surface	1	1	-	422	425	-0.7	7.84	7.47	5.0	
Arkansas	2	2	-	29	18	61.1	0.49	0.13	262.3	
Underground	1	1	-	27	16	68.8	0.48	0.12	289.1	
Surface	1	1		2	2	-	0.59	0.26	123.9	
Colorado	12	13	-7.7	2,247	2,445	-8.1	5.60	5.57	0.6	
Underground	9	10	-10.0	1,758	1,916	-8.2	5.76	5.56	3.5	
Surface	3	3	-	489	529	-7.6	5.05	5.58	-9.6	
Illinois	34	32	6.3	3,649	3,548	2.8	4.22	4.14	2.0	
Underground	21	20	5.0	3,183	3,068	3.7	4.16	4.03	3.2	
Surface	13 <b>41</b>	12 <b>44</b>	8.3	466	480	-2.9	4.59	4.82	-4.8	
Indiana		12	<b>-6.8</b>	3,342	3,435	-2.7	4.21	4.18	0.8	
Underground	13	32	8.3	1,713	1,695	1.1	3.40	3.07	10.8	
Surface	28		-12.5	1,629	1,740	-6.4	5.04	5.24 <b>2.39</b>	-3.7	
Kansas	<b>1</b> 1	1 1	•	<b>36</b> 36	<b>31</b> 31	16.1	<b>1.39</b> 1.39	2.39	<b>-41.7</b> -41.7	
	526	590	-10.8	17,966	18.850	16.1 <b>-4.7</b>	2.55	2.59 2.57	-41.7 - <b>0.9</b>	
Kentucky Total Underground	235	268	-10.8 -12.3	11,734	12,043	-4.7 -2.6	2.32	2.32	0.3	
Surface	291	322	-12.3 -9.6	6,232	6,807	-8.4	3.00	3.05	-1.6	
Eastern	<b>487</b>	550	-11.5	13,874	15,147	-8.4	2.18	2.27	-1.0 -4.2	
Underground	214	247	-13.4	8,394	8,959	-6.3	1.80	1.89	-5.0	
Surface	273	303	-9.9	5,480	6,188	-11.4	2.78	2.84	-2.2	
Western	39	40	-2.5	4,092	3,703	10.5	3.71	3.68	1.0	
Underground	21	21	-2.5	3,340	3,084	8.3	3.53	3.42	3.1	
Surface	18	19	-5.3	752	619	21.5	4.70	5.16	-9.0	
Louisiana	2	2	5.5	261	263	-0.8	7.23	6.69	8.1	
Surface	2	2	_	261	263	-0.8	7.23	6.69	8.1	
Maryland	25	25	_	422	388	8.8	2.73	2.84	-3.7	
Underground	4	3	33.3	149	108	38.0	2.00	2.08	-4.0	
Surface	21	22	-4.5	273	280	-2.5	3.14	3.15	-0.3	
Mississippi	1	1		232	200	16.0	8.27	8.17	1.2	
Surface	1	1	_	232	200	16.0	8.27	8.17	1.2	
Missouri	2	2	_	23	23		7.12	7.42	-4.1	
Surface	2	2	_	23	23	_	7.12	7.42	-4.1	
Montana	6	6	-	1,206	1,133	6.4	17.12	16.78	2.0	
Underground	1	1	-	242	155	56.1	6.88	2.22	209.4	
Surface	5	5	-	964	978	-1.4	20.42	19.31	5.7	
New Mexico	4	5	-20.0	1,269	1,422	-10.8	8.55	9.01	-5.1	
Underground	1	1	-	463	462	0.2	5.66	7.27	-22.2	
Surface	3	4	-25.0	806	960	-16.0	10.15	9.83	3.2	
North Dakota	5	5	-	1,114	1,037	7.4	13.39	14.86	-9.9	
Surface	5	5	-	1,114	1,037	7.4	13.39	14.86	-9.9	
Ohio	60	62	-3.2	2,826	3,007	-6.0	3.96	3.96	*	
Underground	19	19	-	1,738	1,731	0.4	4.32	4.39	-1.5	
Surface	41	43	-4.7	1,088	1,276	-14.7	3.42	3.40	0.6	
Oklahoma	10	10	-	217	260	-16.5	2.27	2.15	5.8	
Underground	2	1	100.0	72	52	38.5	2.75	2.79	-1.3	
Surface	8	9	-11.1	145	208	-30.3	2.04	1.86	9.8	
Pennsylvania Total	325	334	-2.7	8,268	8,081	2.3	3.19	3.36	-5.1	
Underground	74	84	-11.9	5,574	5,558	0.3	3.65	3.89	-6.2	
Surface	251	250	0.4	2,694	2,523	6.8	2.05	1.96	4.9	
Anthracite	103	114	-9.6	928	941	-1.4	0.98	0.95	2.9	
Underground	20	26	-23.1	133	168	-20.8	0.60	0.54	11.1	
Surface	83	88	-5.7	795	773	2.8	1.04	1.04	-0.4	
Bituminous	222	220	0.9	7,340	7,140	2.8	3.42	3.64	-6.1	
Underground	54	58	-6.9	5,441	5,390	0.9	3.70	3.98	-6.9	
Surface	168	162	3.7	1,899	1,750	8.5	2.45	2.37	3.3	
Tennessee	27	36	-25.0	546	781	-30.1	1.47	1.35	8.5	
Underground	8	13	-38.5	202	366	-44.8	1.25	1.26	-0.6	
_Surface	19	23	-17.4	344	415	-17.1	1.59	1.43	11.3	
Texas	12	12	-	2,787	2,506	11.2	6.81	6.38	6.8	
Surface	12	12	-	2,787	2,506	11.2	6.81	6.38	6.8	
Utah	15	<b>15</b> 14	-	1,822	1,991	-8.5	5.04	5.37	-6.1	
Underground	14			1,814	1,985	-8.6	5.07	5.39	-6.0	

Table 21. Coal Mining Productivity by State and Mine Type, 2010, 2009 (Continued)

Coal-Producing State, Region <sup>1</sup> ,	Number	of Mining Op	erations <sup>2</sup>		ber of Employ		Ave	erage Product per Employee per Hour (short tons) <sup>4</sup>	
and Mine Type	2010	2009	Percent Change	2010	2009	Percent Change	2010	2009	Percent Change
Utah (continued)									
Surface	1	1	_	8	6	33.3	-	-	-
Virginia	149	145	2.8	4,957	4,646	6.7	2.01	2.10	-4.5
Underground	85	75	13.3	3,527	3,211	9.8	1.77	1.90	-6.8
Surface	64	70	-8.6	1,430	1,435	-0.3	2.61	2.53	3.2
West Virginia Total	380	416	-8.7	21,091	21,671	-2.7	2.70	2.87	-6.1
Underground	221	243	-9.1	15,136	14,842	2.0	2.38	2.51	-5.0
Surface	159	173	-8.1	5,955	6,829	-12.8	3.46	3.63	-4.7
Northern	46	57	-19.3	5,060	4,909	3.1	3.52	3.50	0.6
Underground	25 21	31 26	-19.4 -19.2	4,570 490	4,276	6.9 -22.6	3.50 3.69	3.41 4.15	2.6
Surface	334	3 <b>59</b>	-19.2 - <b>7.0</b>	16,031	633		2.45	2.69	-11.2 <b>-8.9</b>
Southern	196	212	-7. <b>0</b> -7.5	10,566	<b>16,762</b> 10,566	-4.4	1.90	2.12	-10.1
Underground Surface	138	147	-7.3 -6.1	5,465	6,196	-11.8	3.44	3.59	-10.1 -4.0
Wyoming	136 19	22	-0.1 - <b>13.6</b>	<b>6,857</b>	7,054	-11.8 -2.8	30.81	<b>29.74</b>	3.6
Underground	1	2	-50.0	213	237	-10.1	7.14	6.14	16.4
Surface	18	20	-10.0	6,644	6,817	-2.5	31.72	30.70	3.3
Appalachian Total	1,515	1,639	-7.6	56,325	57,979	-2.9	2.58	2.70	-4.5
Underground	637	696	-8.5	37,690	37,430	0.7	2.42	2.55	-5.0
Surface	878	943	-6.9	18,635	20,549	-9.3	2.89	2.97	-2.5
Northern	456	478	-4.6	16,576	16,385	1.2	3.42	3.50	-2.5
Underground	122	137	-10.9	12,031	11,673	3.1	3.67	3.77	-2.7
Surface	334 <b>997</b>	341 <b>1,088</b>	-2.1 <b>-8.4</b>	4,545 <b>35,408</b>	4,712 <b>37,334</b>	-3.5 <b>-5.2</b>	2.68 <b>2.27</b>	2.77 <b>2.42</b>	-3.1 <b>-6.3</b>
Central Underground	503	1,000 546	- <b>7.9</b>	22,689	23,101	-3.2 -1.8	1.84	2.42 1.99	-0.3 -7.4
Surface	494	542	-8.9	12,719	14,233	-10.6	3.03	3.11	-7.4
Southern	62	73	-15.1	4,341	4,260	1.9	1.93	1.98	-2.5
Underground	12	13	-7.7	2,970	2,656	11.8	1.78	1.87	-4.5
Surface	50	60	-16.7	1,371	1,604	-14.5	2.23	2.17	2.4
Interior Total	144	146	-1.4	14,668	13,987	4.9	4.60	4.47	3.0
Underground	58	55	5.5	8,335	7,915	5.3	3.70	3.56	4.0
Surface	86	91	-5.5	6,333	6,072	4.3	5.83	5.72	2.0
Illinois Basin	114	116	-1.7	11,083	10,686	3.7	4.02	3.99	0.8
Underground	55	53	3.8	8,236	7,847	5.0	3.72	3.57	4.2
Surface	59	63	-6.3	2,847	2,839	0.3	4.89	5.15	-5.1
Western Total	63	68	-7.4	15,064	15,626	-3.6	18.95	18.25	3.8
Underground	26	28	-7.1	4,490	4,755	-5.6	5.62	5.56	1.1
Surface	37	40	-7.5	10,574	10,871	-2.7	24.65	23.86	3.3
Powder River Basin	16	<b>19</b> 1	<b>-15.8</b> -100.0	6,896	7,068	<b>-2.4</b> -100.0	32.59	31.46	3.6
Underground Surface	16	18	-100.0 -11.1	6,896	7,066	-100.0 -2.4	32.59	31.47	3.6
Uinta Region	24	24	-11.1	3,976	4,320	-2.4 - <b>8.0</b>	52.39 <b>5.36</b>	51.47 <b>5.49</b>	-2.4
Underground	21	21	_	3,505	3,813	-8.1	5.43	5.50	-1.3
Surface	3	3	-	471	507	-7.1	4.89	5.43	-10.0
East of Miss. River	1,630	1,756	-7.2	67,640	68,865	-1.8	2.83	2.93	-3.2
Underground	692	749	-7.6	45,926	45,277	1.4	2.66	2.74	-3.0
Surface	938	1,007	-6.9	21,714	23,588	-7.9	3.21	3.30	-2.5
West of Miss. River	92	97	-5.2	18,417	18,727	-1.7	16.60	16.15	2.8
Underground	29	30	-3.3	4,589	4,823	-4.9	5.54	5.51	0.7
Surface	63	67	-6.0	13,828	13,904	-0.5	20.25	19.85	2.0
Subtotal	1,722	1,853	-7.1	86,057	87,592	-1.8	5.55	5.60	-1.0
Underground	721	779	-7.4	50,515	50,100	0.8	2.89	2.99	-3.2
Surface	1,001	1,074	-6.8	35,542	37,492	-5.2	9.47	9.22	2.7
Refuse Recovery	28	32	-12.5	138	163	-15.3	8.15	9.60	-15.1
U.S. Total	1,750	1,885	-7.2	86,195	87,755	-1.8	5.55	5.61	-1.1

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

<sup>&</sup>lt;sup>2</sup> Mining operations that consist of a mine and preparation plant or preparation plant only processing both underground and surface coal are reported as two operations.

<sup>&</sup>lt;sup>3</sup> Includes all employees engaged in production, preparation, processing, development, maintenance, repair shop, or yard work at mining operations, including office workers.

<sup>&</sup>lt;sup>4</sup> 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.

<sup>\*</sup> Absolute percentage less than 0.05.

<sup>- =</sup> No data are reported.

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

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

Table 22. Underground Coal Mining Productivity by State and Mining Method, 2010

Coal-Producing State and Region <sup>1</sup>	Continuous <sup>2</sup>	Conventional and Other <sup>3</sup>	Longwall <sup>4</sup>	Total
Alabama	0.92	-	1.81	1.78
Arkansas	0.48	-	-	0.48
Colorado	3.62	-	5.89	5.76
Illinois	3.48	3.80	5.59	4.19
Indiana	3.43	-	-	3.43
Kentucky Total	2.33	2.33	-	2.33
Eastern	1.78	2.33	_	1.80
Western	3.53	<u>-</u>	_	3.53
Maryland	2.01	_	-	2.01
Montana		<u>-</u>	6.88	6.88
New Mexico	-	<u>-</u>	5.66	5.66
Ohio	2.98	_	5.23	4.32
Oklahoma	2.75	_	-	2.75
Pennsylvania Total	2.66	_	4.19	3.66
Anthracite	0.58	_	-1.17	0.58
Bituminous	2.74	_	4.19	3.70
Tennessee	1.27	_	,	1.27
Utah	1.36	_	5.32	5.06
Virginia	1.49	_	2.91	1.78
West Virginia Total	1.88	_	3.42	2.39
Northern	2.28	_	3.89	3.51
Southern	1.83	_	2.37	1.91
Wyoming	1.05		7.14	7.14
w yoming	_	_	7.14	7.14
Appalachian Total	1.89	2.33	3.39	2.43
Northern	2.59	-	4.19	3.68
Central	1.76	2.33	2.54	1.84
Southern	0.92		1.81	1.78
Interior Total	3.47	3.80	5.59	3.72
Illinois Basin	3.49	3.80	5.59	3.74
Western Total	2.35	-	5.78	5.62
Powder River Basin		_	-	-
Uinta Region	1.72	-	5.60	5.43
East of Miss. River	2.26	2.95	3,54	2.67
West of Miss. River	2.26	-	5.78	5.54
U.S. Total	2.26	2.95	4.01	2.90

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

<sup>&</sup>lt;sup>2</sup> Mines that produce greater than 50 percent of their coal by continuous mining methods.

<sup>&</sup>lt;sup>3</sup> Mines that produce greater than 50 percent of their coal by conventional mining methods or mines that produce coal using shortwall, scoop loading, hand loading, or other methods or a 50/50 percent continuous conventional split in mining method.

<sup>&</sup>lt;sup>4</sup> Mines that have any production from longwall mining method. A typical longwall mining operation uses 80 percent longwall mining and 20 percent continuous mining.

<sup>-=</sup> No data are reported.

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

Table 23. Coal Mining Productivity by State, Mine Type, and Mine Production Range, 2010

Coal-Producing State, Region <sup>1</sup> ,				ne Production Ran nousand Short To			_	Total <sup>2</sup>
and Mine Type	1,000 and Greater	500 to 1,000	200 to 500	100 to 200	50 to 100	10 to 50	Less Than 10	Total
Alabama	1.98	1.66	2.43	1.97	1.86	1.12	1.65	1.93
Underground	1.98	1.02		1.79	1.02	0.23	-	1.78
Surface	-	2.42	2.43	2.00	1.99	1.81	1.65	2.23
Alaska	6.96	-	-	-	-	-	-	6.96
Surface	6.96 <b>7.84</b>	-	-	-	-	-	-	6.96 <b>7.84</b>
Surface	7.84	-	-	-	-	-	-	7.84
Arkansas	7.04	_	_	_	-	0.48	0.59	0.49
Underground	_	_	_	_	_	0.48	-	0.48
Surface	_	-	-	-	_	-	0.59	0.59
Colorado	5.70	3.95	6.38	3.18	-	-	-	5.60
Underground	5.92	3.95	-	3.18	-	-	-	5.76
Surface	4.98	-	6.38	-	-	-	-	5.05
Illinois	4.52	4.53	2.70	2.45	-	0.42	17.77	4.22
Underground	4.42	4.07	1.88	-	-	0.42		4.16
Surface	5.51	5.74	5.59	2.62	2.15	1.45	17.77	4.59
Indiana	4.40	4.53	4.23	-	2.17	1.45	-	4.21
Underground	3.60 5.44	3.82 4.74	4.51	-	2.17	0.95 2.14	-	3.40 5.04
Surface	3.44	4.74	4.31	1.39	2.17	2.14	-	1.39
Surface	-	-	-	1.39	-	-	-	1.39
Kentucky Total	3.94	2.59	2.77	2.06	1.98	1.73	0.90	2.55
Underground	3.66	2.21	2.16	1.81	1.79	1.29	0.52	2.32
Surface	5.03	3.80	3.32	2.50	2.24	2.12	1.16	3.00
Eastern	3.23	2.63	2.70	2.05	1.99	1.71	0.90	2.18
Underground	2.39	2.23	2.16	1.81	1.81	1.31	0.52	1.80
Surface	4.30	3.80	3.23	2.50	2.24	2.08	1.16	2.78
Western	4.23	2.05	4.23	2.36	1.52	2.29	-	3.71
Underground	3.98	2.05	-	-	1.20	-	-	3.53
Surface	6.15	-	4.23	2.36	2.14	3.01	-	4.70
Louisiana	7.30	-	-	-	-	2.26	-	7.23
Surface	7.30	-				2.26		7.23
Maryland	-	-	3.38	3.51	2.18	2.31	0.79	2.73
Underground	-	-	2.82		-		1.33	2.00
Surface	9.27	-	3.75	3.51	2.18	2.31	0.65	3.14
Mississippi	<b>8.27</b> 8.27	-	-	-	-	-	-	8.27
Surface	6.27	-	9.68	5.09	-	-	-	8.27 <b>7.12</b>
Surface	-	-	9.68	5.09	-	-	-	7.12
Montana	17.15		13.45	5.09	_			17.12
Underground	6.88		13.43					6.88
Surface	20.51	_	13.45	_	_	_	_	20.42
New Mexico	8.55	_	-	_	-	_	_	8.55
Underground	5.66	-	-	-	_	-	-	5.66
Surface	10.15	-	-	-	_	-	-	10.15
North Dakota	13.43	-	-		-	-	-	13.39
Surface	13.43	-	-	-	-	-	-	13.39
Ohio	4.90	3.76	2.78	2.56	1.97	2.05	0.39	3.96
Underground	4.94	3.56	2.77	1.67	1.07	-	-	4.32
Surface	4.72	3.87	2.79	3.63	3.44	2.05	0.39	3.42
Oklahoma	-	-	2.35	2.32	-	1.67	1.36	2.27
Underground	-	-	2.98	2.47	-	-	-	2.75
Surface		-	2.10	2.17	-	1.67	1.36	2.04
Pennsylvania Total	4.24	2.94	3.17	2.47	2.01	2.14	1.18	3.19
Underground	4.34	2.94	2.92	2.80	1.20	0.77	0.70	3.65
Surface	2.36	-	3.57	2.39	2.08	2.25	1.30	2.05
Underground	-	-	4.07	-	<b>1.57</b> 1.20	1.85	<b>0.97</b> 0.70	<b>0.98</b> 0.60
Surface	-	-	4.07	-	1.65	1.86	1.22	1.04
Bituminous	4.24	2.94	3.14	2.47	2.29	2.32	1.33	3.42
Underground	4.34	2.94	2.92	2.80	4,47	0.80	1.33	3.70
Surface	2.36	2.94	3.52	2.39	2.29	2.54	1.33	2.45
Fennessee	2.50	-	1.32	1.91	1.66	2.08	<b>0.49</b>	1.47
Underground	_	_	-	1.50	1.58		0.72	1.25
Surface	_	_	1.32	2.38	1.68	2.08	0.40	1.59
Texas	7.10	2.18	-		-		•	6.81
Surface	7.10	2.18	-	-	-	-	-	6.81
U <b>tah</b>	5.87	2.89	1.34	-	1.51	-	-	5.04
Underground	5.87	2.89	1.34	_	1.51	_	_	5.07

Table 23. Coal Mining Productivity by State, Mine Type, and Mine Production Range, 2010 (Continued)

Coal-Producing State, Region <sup>1</sup> ,		Mine Production Range (Thousand Short Tons)									
and Mine Type	1,000 and Greater	500 to 1,000	200 to 500	100 to 200	50 to 100	10 to 50	Less Than 10	Total <sup>2</sup>			
Utah (continued)			•	•			•				
Surface	-	-	-	-	-	-	-	-			
Virginia		3.78	2.23	1.81	1.72	1.15	1.31	2.01			
Underground	2.81	-	1.80	1.51	1.79	1.13	1.22	1.77			
Surface		3.78	3.34	2.74	1.61	1.21	1.43	2.61			
West Virginia Total		3.02	2.24	1.55	2.17	1.25	0.70	2.70			
Underground		2.43	2.04	1.35	1.77	0.94	0.40	2.38			
Surface		4.00	3.60	2.65	3.49	1.95	0.91	3.46			
Northern		3.63	2.21	1.63	2.80	2.13	0.54	3.52			
Underground		2.72	2.21	0.85	2.10	1.23	0.35	3.50			
Surface		7.45		3.23	3.48	2.58	0.73	3.69			
Southern		2.98	2.24	1.54	2.05	1.17	0.75	2.45			
Underground		2.40	2.03	1.39	1.74	0.93	0.42	1.90			
Surface		3.90	3.60	2.53	3.50	1.81	0.97	3.44			
Wyoming		-	10.38	-	-	3.25	0.02	30.81			
Underground		-	10.29	-	-	2.25	0.02	7.14			
Surface	31.86	-	10.38	-	-	3.25	0.02	31.72			
Appalachian Total	3.63	2.84	2.50	1.90	1.97	1.59	0.90	2.58			
Underground	3.48	2.36	2.13	1.58	1.73	1.09	0.60	2.42			
Surface		3.76	3.17	2.51	2.15	2.02	1.02	2.89			
Northern	4.19	3.36	3.05	2.34	2.07	2.14	0.94	3.42			
Underground	4.19	3.03	2.77	1.75	1.33	0.91	0.64	3.67			
Surface		4.19	3.41	2.62	2.19	2.25	1.00	2.68			
Central		2.85	2.39	1.82	1.95	1.42	0.86	2.27			
Underground		2.31	2.02	1.57	1.79	1.13	0.59	1.84			
Surface		3.85	3.28	2.53	2.17	1.87	1.04	3.03			
Southern		1.66	2.43	1.97	1.86	1.12	1.65	1.93			
Underground		1.02		1.79	1.02	0.23	-	1.78			
Surface		2.42	2.43	2.00	1.99	1.81	1.65	2.23			
Interior Total		3.44	3.71	2.39	1.89	1.15	1.58	4.60			
Underground		2.99 4.07	1.98 4.16	2.18 2.43	1.20	0.48 2.27	1.58	3.70			
Surface		3.64	3.91		2.16 <b>1.89</b>	1.30	1.38 17.77	5.83 <b>4.02</b>			
Illinois Basin		<b>3.04</b> 2.99	3.91 1.59	2.42	1.89	0.48	1/.//	3.72			
Surface		5.04	4.46	2.55	2.16	2.75	17.77	4.89			
Western Total		3.19	4.12	3.18	1.51	3.25	0.02	18.95			
Underground		3.19	1.34	3.18	1.51	3.43	0.02	5.62			
Surface		5.17	9.41	5.10	1.51	3.25	0.02	24.65			
Powder River Basin		_	). <del>1</del> 1	_	_	5.25	0.02	32.59			
Surface		-		-	-	-	-	32.59			
Uinta Region		2.89	1.34	3.18	1.51	-	_	5.36			
Underground		2.89	1.34	3.18	1.51	_	_	5.43			
Surface			-	-	-	-	-	4.89			
East of Miss Divon	2.00	2.91	2.50	1.91	1.97	1.50	0,90	2 02			
East of Miss. River		2.91 2.41	<b>2.56</b> 2.12	1.58	1.97 1.72	1.58 1.07	0 <b>.90</b> 0.60	<b>2.83</b> 2.66			
Underground		3.86	3.28	2.51	2.15	2.04	1.03	3.21			
West of Miss. River		2.76	3.28 3.57	2.53 2.53	2.13 <b>1.51</b>	1.13	0.38	16.60			
		3.19	3.57 1.80	2. <b>33</b> 2.82	1.51	0.48	0.38	5.54			
Underground Surface		2.18	5.06	2.33	1.51	2.02	0.38	20.25			
		2.00	A =C	4.04	4.07		0.00				
Subtotal		2.90	2.58	1.92	1.96	1.57	0.88	5.55			
Underground	4.00 15.29	2.43 3.80	2.12 3.33	1.60 2.50	1.71 2.15	1.05 2.04	0.60 0.99	2.89 9.47			
Surace	13.29	3.80									
Refuse Recovery		-	9.40	15.95	9.59	5.54	0.86	8.15			
U.S. Total	8.70	2.90	2.60	1.96	2.00	1.62	0.88	5.55			

 $<sup>^1</sup>$  For a definition of coal producing regions, see Glossary.  $^2$  Includes all employees at preparation plants and tipples not co-located with a mine.

<sup>- =</sup> No data are reported.

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

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

Table 24. Coal Mining Productivity by State, Mine Type, and Union Status, 2010

Coal-Producing	Union		Nonunion				
State and Region <sup>1</sup>	Underground	Surface	Underground	Surface			
Alabama	1.82	2.39	0.81	2.22			
Alaska	-	6.96	-	-			
Arizona	-	7.84	-	-			
Arkansas	-	-	0.48	-			
Colorado	5.06	5.73	5.83	4.53			
Illinois	2.40	_	4.77	4.95			
Indiana	_	_	3.40	5.04			
Kansas	_	-	<u>-</u>	1.39			
Kentucky Total	2.70	2.49	2.31	3.03			
Eastern	1.09	2.49	1.82	2.81			
Western	3.23		3.57	4.70			
Louisiana	3.23	_	5.57	7.23			
Maryland	_	_	2.01	3.20			
Mississippi	-	-	2.01	8.27			
Missouri	-	_	-	7.12			
	-	14.06	- 6 00	40.17			
Montana	- 5 66		6.88	11.60			
New Mexico	5.66	8.96	-				
North Dakota	4.02	13.62	1.01	13.32			
Ohio	4.92	-	4.04	3.49			
Oklahoma		-	2.75	2.06			
Pennsylvania Total	3.14	1.08	3.97	2.21			
Anthracite	<del> .</del>	0.94	0.57	1.07			
Bituminous	3.14	1.51	4.04	2.54			
Tennessee	-	-	1.27	1.64			
Texas	-	6.88	-	6.68			
Utah	3.97	-	5.45	-			
Virginia	1.15	-	1.83	2.68			
West Virginia Total	2.94	3.46	2.13	3.48			
Northern	3.83	-	2.70	3.75			
Southern	1.12	3.46	2.04	3.45			
Wyoming	7.14	6.99	-	33.65			
Appalachian Total	2.71	2.94	2.31	2.91			
Northern	3.69	1.05	3.67	2.84			
Central	1.12	3.28	1.92	3.02			
Southern	1.82	2.39	0.81	2.22			
Interior Total	2.71	6.75	3.87	5.48			
Illinois Basin	2.71	-	3.89	4.95			
Western Total	5.26	9.85	5.77	29.74			
Powder River Basin	-	14.07	-	34.70			
Uinta Region	4.25	5.65	5.70	4.39			
East of Miss. River	2.71	2.88	2.65	3.27			
West of Miss. River	5.26	8.62	5.66	26.00			
U.S. Total	2.94	6.95	2.89	10.07			

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

 <sup>- =</sup> No data are reported.

Note: • Productivity is calculated by dividing total coal production by the total direct labor hours worked by all employees engaged in production, preparation, processing, development, maintenance, repair shop, or yard work at mining operations, including office workers. Excludes mines producing less than 10,000 short tons of coal and preparation plants with less than 5,000 employee hours during the year, which are not required to provide data.

plants with less than 5,000 employee hours during the year, which are not required to provide data.

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

### **Domestic Markets**

Table 25. Coal Consumers in the Manufacturing and Coke Sectors, 2010

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

<sup>- =</sup> No data are reported.

Note: • Major manufactures are the top 40 coal consumers in the manufacturing sector. Major coke producers are the top 10 coal consumers in the coke plant sector.

Manufacturers and coke producers are listed in alphabetical order.

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

Table 26. U.S. Coal Consumption by End Use Sector, by Census Division and State, 2010, 2009 (Thousand Short Tons)

		20	10			20	009			Total	
Census Division and State	Electric Power <sup>1</sup>	Other Industrial	Coke	Commercial and Institutional	Electric Power 1	Other Industrial	Coke	Commercial and Institutional	2010	2009	Percent Change
New England	6,164	W		_	6,330	W	-	_	$\mathbf{w}$	W	-2.3
Connecticut		-	-	-	1,196	-	-	-	1,366	1,196	14.2
Maine		W	-	-	34	W	-	-	W	W	36.3
Massachusetts		W	-	-	3,892	W	-	-	W	W	-9.6
New Hampshire		-	-	-	1,208	-	-	-	1,247	1,208	3.3
Rhode Island Vermont		-	-	-	-	-	-	-	-	-	-
Middle Atlantic		3,102	w	W	57,501	2,967	W	W	69,032	64,639	6.8
New Jersey		-	-	-	2,541	-		-	3,082	2,541	21.3
New York	6,384	792	W	W	6,108	737	W	W	7,367	7,032	4.8
Pennsylvania	50,888	2,310	W	185	48,853	2,230	W	195	W	W	6.4
East North Central		12,807	10,952	$\mathbf{W}$	216,744	11,464	7,849	$\mathbf{W}$	W	$\mathbf{W}$	5.0
Illinois		3,392	W	171	53,670	2,895	W	178	W	W	6.1
Indiana		5,060	W W	341	54,449	4,697	W	324	W	W	4.7
Michigan		1,139 1.644	W W	W 226	35,330 51,096	891 1,460	W W	W 218	37,779 W	37,427 W	0.9 6.2
Ohio Wisconsin		1,572	-	112	22,199	1,519	٠,	110	25,517	23.829	7.1
West North Central	146.462	13,050	_	563	144,305	11,751	_	575	160,076	156,632	2.2
Iowa		3,348	_	259	22,607	2,682	_	W	28,386	W	W
Kansas		W	-	-	20,783	W	-	_	W	W	0.9
Minnesota	16,582	1,298	-	W	17,355	1,167	-	W	$\mathbf{W}$	W	-3.5
Missouri	44,692	768	-	W	42,678	787	-	W	W	W	4.6
Nebraska		698	-		14,183	392	-		14,865	14,575	2.0
North Dakota	23,113	W	-	W	24,593	W	-	97	29,855	W	W
South Dakota		W	***	W 205	2,107	W	w	W	2,333	2,239	4.2
South Atlantic  Delaware		W	W	305	<b>147,965</b> 1,352	W W	w	346	<b>169,991</b> 1,230	157,297 W	8.1 W
District of Columbia			_	W	1,332	- **	_	W	1,230 W	w	-83.7
Florida		846	_	- "-	23,467	933	_	-	26,543	24,400	8.8
Georgia		1,246	_	W	32,785	1,045	-	W	W	W	5.0
Maryland		945	-	W	9,805	909	-	W	W	W	0.7
North Carolina		883	-	192	26,427	869	-	207	30,530	27,504	11.0
South Carolina		924	-	W	14,071	896	-	W	W	W	9.1
Virginia	10,958	1,605	W	84	10,803	1,641	W W	90	W W	W W	0.8
West Virginia  East South Central		930 <b>W</b>	W W	w	29,255 <b>94,741</b>	764 <b>W</b>	W W	w	109,624	101.504	14.4 <b>8.0</b>
Alabama		1,376	W	vv -	27,583	1,341	W	vv -	109,024 W	101,504 W	13.1
Kentucky		1.181	w	44	39,271	1.026	w	48	w	w	6.7
Mississippi		W	-		8,424	W	-	-	W	w	2.1
Tennessee	20,622	2,658	-	W	19,462	2,525	-	W	W	W	5.8
West South Central	152,399	4,706	-	$\mathbf{W}$	147,082	1,776	-	$\mathbf{w}$	$\mathbf{W}$	$\mathbf{W}$	5.5
Arkansas		W	-	-	14,994	298	-	-	W	15,292	W
Louisiana		W	-	-	15,722	W	-	-	W	W	3.2
Oklahoma		W 3.745	-	w	20,959 95,407	W 833	-	w	W W	W W	-7.3 8.1
Texas Mountain		3,743 3.899	-	w	110.025	3.528	-	W	w	w	3.4
Arizona		536	-	**	20,762	431	-	-	23,620	21,193	11.5
Colorado		W	_	W	17,351	W	_	W	19,585	17,777	10.2
Idaho		416	_	W		414	-	W	W	W	0.5
Montana		W	-	W	10,151	W	-	W	12,087	10,221	18.3
Nevada		W	-	-	3,822	W	-	-	W	W	-4.9
New Mexico		W	-	-	16,513	W	-	-	W	W	-12.0
Utah		717	-	-	15,925	718	-	-	15,950	16,643	-4.2
Wyoming		1,580 <b>1,701</b>	-	W <b>W</b>	25,501 <b>8,934</b>	1,553 <b>1,670</b>	-	$\mathbf{w}$	W W	W W	2.3 <b>11.6</b>
Pacific Alaska		1,701 4	-	W	<b>8,934</b> 437	1,670 4	-	W	W	W	-1.6
California		1,419	-	-	879	1,330	-	-	2.311	2,209	4.6
Hawaii		W	-	-	790	W	-	-	W	W	-8.5
Oregon		W	-	-	1,854	W	-	-	W	w	29.3
Washington	5,727	W	-	-	4,974	W	-	-	W	W	14.0
U.S. Total	975.052	52,082	21,092	3,081	933,627	45,314	15,326	3,210	1,051,307	997,478	5.4

<sup>&</sup>lt;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

<sup>- =</sup> No data are reported.

W = Data withheld to avoid disclosure.

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

Source: • U.S. Energy Information Administration Form EIA-906, "Power Plant Report," Form EIA-920, "Combined Heat and Power Plant Report," Form EIA-923, "Power Plant Operations Report," Form EIA-3, "Quarterly Coal Consumption and Quality Report, Manufacturing Plants," Form EIA-5, "Quarterly Coal Consumption and Quality Report, Coke Plants," Form EIA-6A, "Coal Distribution Report," and Form EIA-7A, "Coal Production and Preparation Report."

Table 27. Year-End Coal Stocks by Sector, by Census Division and State, 2010, 2009 (Thousand Short Tons)

			2010					2009				Total	_
Census Division and State	Electric Power <sup>1</sup>	Other Industrial	Coke	Commercial and Institutional	and	Electric Power 1	Other Industrial	Coke	Commercial and Institutional	and	2010	2009	Percent Change
New England	873	$\mathbf{w}$	-	-	-	1,238	$\mathbf{w}$	-	-	-	W	W	-28.2
Connecticut	86	-	-	-	-	72	-	-	-	-	86	72	19.8
Maine	125	W	-	-	-	-	W	-	-	-	W	W	-0.6
Massachusetts New Hampshire	425 363	W	-	-	-	635 532	W	-	-	-	W 363	W 532	-31.9 -31.8
Rhode Island	303	_				332			_	_	303	332	-31.6
Vermont	_	_	_	_	_	_	_	_	_	_	_	_	_
Middle Atlantic	6,833	263	W	W	2,237	6,898	344	W	W	4,052	9,833	11,940	-17.6
New Jersey	460	-	-	-	· -	650	-	-	-	· -	460	650	-29.1
New York	473	108	W	W	-	1,117	202	W	W	-	589	1,333	-55.8
Pennsylvania	5,900	155	W	44	2,237	5,132	142	W	39	4,052	W	W	-11.8
East North Central	41,068	1,152	1,115	W	5,829	40,917	1,117	1,044	W	6,070	W	W	0.1
Illinois	7,865	175	W	41	2,318	8,754	175	W	35	2,064	W	W	-5.5
Indiana Michigan	10,535 6,852	454 252	W W	77 <b>W</b>	1,519 414	12,014 5,615	362 254	W W	75 W	1,122 325	W 7,969	W 6,716	-7.3 18.6
	9,127	252 68	W	31	684	9,594	254 87	W	w 27	2,011	7,969 W	0,716 W	-13.9
Ohio Wisconsin	6,690	204	-	9	894	4,940	238	-	10	549	7,796	5,736	35.9
West North Central	28.034	1.069		95	1.971	28,331	1,571		93	1,953	31,169	31.949	-2.4
Iowa	6,150	479	_	68	140	6,999	691	_	W	174	6,837	W	W
Kansas	3,639	W	-	-	_	3,805	W	-	-	_	W	W	-5.1
Minnesota	2,659	235	-	W	116	2,933	292	-	W	104	W	W	-9.8
Missouri	9,342	80	-	W	1	9,239	99	-	W	-	W	W	0.9
Nebraska	4,114	77	-	-	-	3,326	317	-	-	-	4,191	3,643	15.0
North Dakota	1,816	W	-	W	1,714	1,754	W	-	7	1,675	3,681	W	W
South Dakota	315	W	-	W	16.560	276	W	-	W	-	344	294	17.2
South Atlantic	32,123	$\mathbf{W}$	W	71	16,562	40,164	W	W	87	15,060	49,589	56,082	-11.6
Delaware	284	-	-	w	-	650	-	-	w	-	284 W	650 W	-56.3 31.8
District of Columbia Florida	6,126	138	-	w	2	5,499	110	-	W	-	6,266	5,609	31.8 11.7
Georgia	5,959	135		W	_	8,958	104		w		0,200 W	3,009 W	-32.7
Maryland	1.640	30	_	w	1.479	1,388	61	_	w	571	w	w	55.6
North Carolina	3,882	35	_	25	10	6,835	54	_	39	13	3,952	6,940	-43.1
South Carolina	6,401	139	-	W	6	5,860	95	-	W	3	W	W	9.9
Virginia	1,564	125	-	25	1,733	2,539	159	-	31	1,450	3,448	4,179	-17.5
West Virginia	6,266	65	W	-	13,332	8,434	45	W	-	13,024	W	W	-8.4
East South Central	19,233	W	W	$\mathbf{W}$	6,059	21,015	W	W	W	5,641	25,780	27,119	-4.9
Alabama	5,574	113	W	-	1,952	6,556	106	W	-	1,465	W	W	-5.6
Kentucky	8,546	50 W	W	15	3,377	9,112	70 W	W	11	3,853	W	W	-8.1
Mississippi	1,376 3,737	108	-	w	730	1,704 3,644	w 96	-	w	323	W W	W W	3.8 2.9
Tennessee West South Central	28.070	2.197		w	2,347	27,857	443		W	1,198	W	W	10.6
Arkansas	3,445	2,197 W		**-	2,547	1,922	57		**	1,170	w	1,978	W
Louisiana	1,909	W	_	_	1,478	3,605	W	_	_	237	W	W	-11.8
Oklahoma	5,707	W	_	-	-,	5,434	W	_	-		W	W	4.8
Texas	17,009	1,955	-	W	869	16,897	195	-	W	962	W	W	9.8
Mountain	17,620	497	-	W	14,584	20,936	407	-	$\mathbf{w}$	13,601	$\mathbf{w}$	$\mathbf{w}$	-6.4
Arizona	3,047	69	-	-	1,097	4,329	59	-	-	1,025	4,213	5,412	-22.2
Colorado	3,419	W	-	W	1,785	4,593	W	-	W	1,386	5,221	6,039	-13.5
Idaho	715	248	-	W	- 0.40	72:	163	-	W	-	W	W	52.5
Montana	717	W W	-	W	840	731	W W	-	W	627	1,568 W	1,371	14.4
Nevada New Mexico	1,137 947	W W	-	-	6,338	1,043 884	W W	-	-	7,280	W W	W W	9.6 -10.8
Utah	4.866	vv 24		-	2,586	5.849	18	-	-	1,933	7.477	7,800	-10.8 -4.1
Wyoming	3,487	111		W	1.937	3,507	85	_	w	1,351	V,477	7,800 W	12.0
Pacific	1,063	180	-	w	232	2,110	278	-	w	142	w	w	-40.3
Alaska	189	-	-	W	232	46	-	-	W	142	W	W	91.2
California	75	128	-	-	-	131	234	-	-	-	204	364	-44.1
Hawaii	66	W	-	-	-	100	W	-	-	-	W	W	-8.2
Oregon	361	W	-	-	-	705	W	-	-	-	W	W	-48.8
Washington	372	W	-		40.020	1,129	W	-	-	-	W	W	-67.2
U.S. Total	174,917	6,350	1,925	552	49,820	189,467	5,109	1,957	529	47,718	233,565	244,779	-4.6

<sup>&</sup>lt;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.

<sup>- =</sup> No data are reported.

W = Data withheld to avoid disclosure.

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

Source: • U.S. Energy Information Administration Form EIA-906, "Power Plant Report," Form EIA-923, "Power Plant Operations Report," Form EIA-3, "Quarterly Coal Consumption and Quality Report, Manufacturing and Transformation/Processing Coal Plants and Commercial and Institutional Coal Users," Form EIA-5, "Quarterly Coal Consumption and Quality Report, Coke Plants," Form EIA-7A, "Coal Production and Preparation Report," and Form EIA-8A, "Coal Stocks Report."

# **Average Mine Sales Price**

**Table 28.** Average Sales Price of Coal by State and Mine Type, 2010, 2009 (Dollars per Short Ton)

Coal-Producing		2010			2009		P	ercent Chang	ge
State	Underground	Surface	Total	Underground	Surface	Total	Underground	Surface	Total
Alabama	88.55	82.09	86.15	76.58	75.35	76.10	15.6	9.0	13.2
Alaska		W	W	-	W	W	-	W	W
Arizona		W	W	-	W	W	-	W	W
Colorado	. W	W	40.00	W	W	36.71	W	W	9.0
Illinois	50.19	45.24	49.46	48.43	45.62	47.97	3.6	-0.8	3.1
Indiana	49.00	38.91	43.03	48.74	33.27	38.70	0.5	17.0	11.2
Kansas		W	W	-	W	W	-	W	W
Kentucky Total		61.07	60.84	58.85	58.09	58.54	3.1	5.1	3.9
Eastern	74.25	66.91	70.67	70.95	62.56	66.77	4.6	7.0	5.8
Western	45.34	35.36	43.38	40.81	32.26	39.07	11.1	9.6	11.1
Louisiana		W	W	_	W	W	_	W	W
Maryland		W	47.54	W	W	37.65	W	W	26.2
Mississippi		W	W	_	W	W	_	W	W
Missouri		W	W	_	_	W	_	W	W
Montana		W	15.12	W	W	13.53	W	W	11.7
New Mexico		W	30.67	W	W	30.71	W	W	-0.1
North Dakota		14.57	14.57	_	13.59	13.59	_	7.2	7.2
Ohio	44.35	41.02	43.24	46.11	41.94	44.55	-3.8	-2.2	-2.9
Oklahoma		W	56.95	W	W	56.45	W	W	0.9
Pennsylvania Total		62.17	62.51	55.61	54.84	55.48	12.5	13.4	12.7
Anthracite		W	59.51	56.83	57.12	57.10	W	W	4.2
Bituminous		W	62.59	55.61	54.44	55.44	W	W	12.9
Tennessee		66.83	66.45	79.83	56.84	66.05	-17.9	17.6	0.6
Texas		20.32	20.32	-	19.12	19.12		6.3	6.3
Utah			29.15	32.32		32.32	-9.8	-	-9.8
Virginia		81.80	98.46	78.75	74.21	77.09	37.3	10.2	27.7
West Virginia Total		66.24	70.07	65.49	61.37	63.83	10.5	7.9	9.8
Northern		63.43	54.59	50.19	61.88	51.73	6.8	2.5	5.5
Southern		66.49	77.03	76.05	61.32	68.52	15.1	8.4	12.4
Wyoming		W	12.75	W	W	12.41	W	W	2.7
U.S. Total	60.73	24.13	35.61	55.77	23.24	33.24	8.9	3.8	7.1

 $<sup>\</sup>hbox{-}=\ No\ data\ are\ reported.$ 

 $<sup>\</sup>mathbf{W} = \mathbf{Data}$  withheld to avoid disclosure.

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

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

**Table 29.** Average Sales Price of Coal by State and Underground Mining Method, 2010 (Dollars per Short Ton)

Coal-Producing State	Continuous <sup>1</sup>	Conventional and Other <sup>2</sup>	Longwall <sup>3</sup>	Total
Alabama	W	-	W	88.55
Arkansas	-	-	-	-
Colorado	W	-	W	42.61
Illinois	49.01	W	W	50.19
Indiana	49.00	-	-	49.00
Kentucky Total	W	W	-	60.69
Eastern	W	W	_	74.25
Western	W		-	45.34
Maryland	W	_	-	W
Montana	- · · · · · · · · · · · · · · · · · · ·	_	W	W
New Mexico	_	_	W	W
Ohio	W	_	W	44.35
Oklahoma	w	_	·· <u>·</u>	W
Pennsylvania Total	w	_	W	62.58
Anthracite	w	_	''	W
Bituminous	w	_	W	w
Tennessee	65.57	_	**	65.57
Utah	03.57 W	-	W	29.15
Virginia	w	-	W	108.09
West Virginia Total	84.35	-	59.17	72.38
Northern	69.25	-	50.76	53.60
Southern		-		
	86.62	-	91.83	87.54
Wyoming	-	-	W	W
U.S. Total	67.15	47.49	54.99	60.73

<sup>&</sup>lt;sup>1</sup> Mines that produce greater than 50 percent of their coal by continuous mining methods.

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

<sup>&</sup>lt;sup>2</sup> Mines that produce greater than 50 percent of their coal by conventional mining methods or mines that produce coal using shortwall, scoop loading, hand loading, or other methods or a 50/50 percent continuous conventional split in mining method.

<sup>&</sup>lt;sup>3</sup> Mines that have any production from longwall mining method. A typical longwall mining operation uses 80 percent longwall mining and 20 percent continuous mining.

<sup>- =</sup> No data are reported.

W = Data withheld to avoid disclosure.

Table 30. Average Sales Price of Coal by State, County, and Number of Mines, 2010

(Thousand Short Tons, Dollars per Short Ton)

Coal-Producing State and County	Number of Mines	Sales	Average Sales Price
Alabama	48	20,225	86.15
Bibb	1	W	W
Blount	1	W	W
Cullman	1	W	W
Fayette	1	W	W
Franklin	2	W	W
Jackson	1	W	W
Jefferson	9	W	W
Marion	1	W	W
Shelby	4	W	W
Tuscaloosa	7	8,963	79.53
Walker	18	3,073	75.21
Winston	2	W	W
Alaska	I .	W	W
Yukon-Koyukuk Division	1	W	W
Arizona	1	W	W
Navajo	1	W	W
Arkansas	1	W	-
Sebastian	1	W	-
Colorado	10	24,910	40.00
Delta	1	W	W
Garfield	1	W	W
Gunnison	2	W	W
La Plata	1	W	W
Moffat	2	W	W
Montrose	1	W	W
Rio Blanco	1	W	W
Routt	1	W	W
Illinois	21	33,257	49.46
Franklin	1	W	W
Gallatin	2	W	W
Jackson	1	W	W
Macoupin	2	W	W
Mcdonough	1	W	W
Montgomery	1	W	W
Perry	4	W	W
Randolph	1	W	W
Saline	4	W	W
Sangamon	1	W	W
Wabash	1	W	W
White	1	W	W
Williamson	1	W	W
Indiana	29	34,433	43.03
Clay	1	W	W
Daviess	3	W	W
Dubois	1	W	W
Gibson	4	11,235	42.08
Knox	7	4,761	47.39
Pike	5	W	W
Sullivan	2	W	W
Vigo	2	W	W
Warrick	4	W	W
Kansas	1	$\mathbf{W}$	W
Bourbon	1	W	W
Kentucky	334	104,583	60.84
Bell	16	2,121	71.88
Boyd	1	W	W
Breathitt	3	W	W
Clay	4	W	W
Daviess	.1	W	W
Floyd	15	1,443	52.85
Harlan	59	10,704	68.24
Henderson	2	W	W
Hopkins	4	13,643	45.30
Jackson	1	W	W
Johnson	5	165	50.10
Knott	20	4,609	69.77
Knox	6	W	W W

Table 30. Average Sales Price of Coal by State, County, and Number of Mines, 2010 (Continued)

(Thousand Short Tons, Dollars per Short Ton)

Coal-Producing State and County	Number of Mines	Sales	Average Sales Price
Kentucky (continued)			_
Leslie	15	3,658	84.09
Letcher		4.072	72.46
Magoffin		W	W
Martin		5,683	62.22
Muhlenberg		4,656	41.77
Ohio		4,243	35.84
Perry	24	13,867	73.22
Pike		15,298	72.08
Union		W	$\mathbf{W}$
Webster		W	W
Whitley		287	72.22
Louisiana		W	W
De Soto		W	W
Natchitoches		W 2.842	W 47.54
Maryland		<b>2,842</b> 1,991	<b>47.54</b> 44.77
Allegany		1,991 851	54.00
Garrett		W	34.00 W
Choctaw		W	W
Missouri		w	w
Bates		W	w
Montana		44.521	15.12
Big Horn		W	W
Musselshell		W	W
Richland		W	W
Rosebud		W	W
New Mexico		21,872	30.67
Mckinley	2	W	W
San Juan	2	W	$\mathbf{W}$
North Dakota	. 4	28,894	14.57
Mclean	1	W	W
Mercer		W	W
Oliver		W	W
Ohio		27,330	43.24
Belmont		W	W
Carroll		W	W
Columbiana		W W	W W
Coshocton		W	W
Guernsey		3,973	42.42
HarrisonJackson		3,973 W	42.42 W
Jefferson		W	W
Meigs		w	W
Monroe		W	w
Muskingum		W	W
Noble		W	W
Perry		W	W
Stark		W	W
Tuscarawas	4	W	W
Vinton	2	W	W
Oklahoma		996	56.95
Craig		W	W
Haskell	2	W	$\mathbf{W}$
Le Flore	3	W	W
Nowata		W	W
Pennsylvania	164	59,655	62.51
Allegheny	1	W	W
Armstrong	11	3,426	54.48
Beaver		W	W
Bedford		W	W
Butler		W	W
Cambria		1,333	81.45
Cameron		W	W
Centre		W	W
Clarifold		W 2.576	W 70.24
Clearfield		3,576 W	79.24 W
Columbia Elk		W 355	W 82.30
Fayette		353 W	82.30 W
Greene	5	27,840	w 58.62
GICCIIC	3	27,840	38.02

Table 30. Average Sales Price of Coal by State, County, and Number of Mines, 2010 (Continued)

(Thousand Short Tons, Dollars per Short Ton)

Coal-Producing State and County	Number of Mines	Sales	Average Sales Price
Pennsylvania (continued)			
•	15	2 421	79.77
Indiana	15	2,421	78.77
Jefferson	11	1,010	64.38
Lackawanna	1	W 227	W
Luzerne	5	227	79.50
Lycoming	1	W	W
Mercer	1	W	W
Northumberland	4	W	W
Schuylkill	21	1,009	48.64
Somerset	21	5,479	74.95
Venango	1	W	W
Washington	5	W	W
Westmoreland	2	W	W
Tennessee	16	1,740	66.45
Anderson	3	W	W
Campbell	7	928	70.32
Claiborne	5	528	69.82
Fentress	1	W	W
Texas	12	41,501	20.32
	1	41,501 W	20.32 W
Atascosa	1	W	
Freestone	1		W
Harrison	1	W	W
Hopkins	1	W	W
Lee	1	W	W
Leon	1	W	W
Limestone	1	W	W
Panola	2	W	W
Robertson	1	W	W
Rusk	1	W	W
Titus	1	W	W
Utah	8	19,011	29.15
Carbon	5	9,014	27.91
Emery	2	W	W
Sevier	1	w	w
	96	22,215	98.46
Virginia			
Buchanan	30	W	W
Dickenson	13	1,029	90.49
Giles	Į.	W	W
Lee	6	W	W
Russell	4	W	W
Tazewell	2	W	W
Wise	40	10,243	82.86
West Virginia	230	135,330	70.07
Barbour	4	W	W
Boone	35	22,745	69.21
Clay	2	W	W
Fayette	10	W	W
Greenbrier	4	987	149.87
Harrison	3	W	W
Kanawha	22	9,716	67.90
Lincoln	3	y,,710 W	W
	22		70.93
Logan	22	15,616	
Marion		W	W
Marshall	2	W	W
Mason	1	W	W
Mcdowell	35	4,769	99.43
Mercer	1	W	W
Mineral	2	W	W
Mingo	23	8,475	73.00
Monongalia	5	W	W
Nicholas	9	W	W
Ohio	ź	w	w
Preston	1	w	w
Raleigh	18	7,551	98.06
	18	7,331 W	98.00 W
Randolph			
Tucker	1	W	W
Upshur	2	W	W
Wayne	5	W	W
	4	4,250	69.70
Webster	•		
Webster	11 18	3,868 <b>442,061</b>	110.65 <b>12.75</b>

Table 30. Average Sales Price of Coal by State, County, and Number of Mines, 2010 (Continued)

(Thousand Short Tons, Dollars per Short Ton) Coal-Producing **Number of Mines** Sales **Average Sales Price** State and County Wyoming (continued) Campbell..... 11 392,571 12.05 Converse ..... W w W Hot Springs Lincoln 8,807 32.09 U.S. Total. 1,069 1,082,714 35.61

<sup>- =</sup> No data are reported.

W = Data withheld to avoid disclosure.

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

Source: • U.S. Energy Information Administration Form EIA-7A, "Coal Production and Preparation Report," and Form EIA-923, "Power Plant Operations Report;" and U.S. Department of Labor, Mine Safety and Health Administration Form 7000-2, "Quarterly Mine Employment and Coal Production Report."

**Table 31.** Average Sales Price of Coal by State and Coal Rank, 2010 (Dollars per Short Ton)

Coal-Producing State	Bituminous	Subbituminous	Lignite	Anthracite	Total
Alabama	86.15	-	-	-	86.15
Alaska	-	W	_	_	W
Arizona	W	_	_	_	W
Colorado	W	W	-	-	40.00
Illinois	49.46	-	-	-	49.46
Indiana	43.03	-	-	-	43.03
Kansas	W	_	_	_	W
Kentucky Total	60.84	-	-	-	60.84
Eastern	70.67	-	-	-	70.67
Western	43.38	-	-	-	43.38
Louisiana	-	-	W	-	W
Maryland	47.54	_	_	_	47.54
Mississippi	-	_	W	_	W
Missouri	W	_	_	_	W
Montana	-	W	W	_	15.12
New Mexico	-	30.67	-	-	30.67
North Dakota	-	_	14.57	_	14.57
Ohio	43.24	_	_	_	43.24
Oklahoma	56.95	_	_	_	56.95
Pennsylvania Total	62.59	_	_	59.51	62.51
Anthracite	-	_	_	59.51	59.51
Bituminous	62.59	-	_	-	62.59
Tennessee	66.45	-	_	-	66.45
Texas	-	-	20.32	-	20.32
Utah	29.15	-	-	-	29.15
Virginia	98.46	-	-	-	98.46
West Virginia Total	70.07	-	-	-	70.07
Northern	54.59	-	_	-	54.59
Southern	77.03	-	-	-	77.03
Wyoming	-	12.75	-	-	12.75
U.S. Total	60.88	14.11	18.76	59.51	35.61

<sup>- =</sup> No data are reported.

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

W = Data withheld to avoid disclosure.

**Table 32.** Average Sales Price of Coal by Mine Production Range and Mine Type, 2010 (Dollars per Short Ton)

Mine Production Range (thousand short tons)	Underground	Surface	Total
Over 1,000	53.68	18.46	28.02
500 to 1,000		62.82	69.19
200 to 500	81.95	65.43	73.88
100 to 200		66.17	75.51
50 to 100	69.65	68.00	68.60
10 to 50	81.31	60.52	67.06
U.S. Total	60.73	24.13	35.61

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

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

Table 33. Average Sales Price of U.S. Coal by State and Disposition, 2010

(Dollars per Short Ton)

Coal-Producing State	Open Market <sup>1</sup>	Captive <sup>2</sup>	
Alabama	86.11	93.42	
Alaska	W	-	
Arizona	W	-	
Arkansas	W	-	
Colorado	39.45	44.44	
Illinois	48.22	W	
Indiana	41.59	44.81	
Kansas	W	-	
Kentucky Total	60.72	63.01	
Eastern	71.32	W	
Western	43.38	W	
Louisiana	W	W	
Maryland	48.73		
Mississippi	W	_	
Missouri	W	_	
Montana	14.55	W	
New Mexico	W	W	
North Dakota	14.80	W	
Ohio	43.32	41.63	
Oklahoma	68.43	W	
Pennsylvania Total.	61.42	77.96	
Anthracite	51.53	W	
Bituminous	61.69	W	
Tennessee	66.40	W	
Texas	W	19.00	
Utah	27.53	W	
Virginia	96.15	103.23	
West Virginia Total	69.38	74.73	
Northern	54.51	55.44	
Southern	76.61	79.45	
Wyoming	12.03	14.53	
U.S. Total	37.61	28.49	

<sup>&</sup>lt;sup>1</sup> Open market includes coal sold on the open market to other coal companies or consumers.

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

<sup>&</sup>lt;sup>2</sup> Captive includes all coal used by the producing company or sold to affiliated or parent companies.

<sup>- =</sup> No data are reported.

W = Data withheld to avoid disclosure.

#### Glossary

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

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

**Appalachian Region:** See Coal-Producing Regions.

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

**Auger Mine**: A surface mine where coal is recovered through the use of a large-diameter drill driven into a coalbed in a hillside. It usually follows contour surface mining, particularly when the overburden is too costly to excavate.

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

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

**Average Production per Miner per Hour**: The ratio of the total production at a mining operation to the total direct labor hours worked at the operation.

**Average Recovery Percentage**: Average recovery percentage represents the percentage of coal that can be recovered from coal reserves at reporting mines, averaged for all mines in the reported geographic area.

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

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

**Capacity Utilization**: Capacity utilization is computed by dividing production by productive capacity and multiplying by 100.

**Captive Coal**: Coal produced and consumed by the mine operator, a subsidiary, or parent company (for example, steel companies and electric utilities).

Census Divisions: The nine geographic divisions of the United States established by the Bureau of the Census, U.S. Department of Commerce for statistical analysis. The boundaries of Census divisions coincide with State boundaries. In some cases, the Pacific Division is subdivided into the Pacific Contiguous and Pacific Noncontiguous areas.

**Central Appalachian Region:** See Coal-Producing Regions.

CIF: See Cost, Insurance, Freight.

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

**Coal Carbonized**: The amount of coal decomposed into solid coke and gaseous products by heating in a coke oven in a limited air supply or in the absence of air.

Coal (coke): See Coke (coal).

**Coal Mining Productivity**: Coal mining productivity is calculated by dividing total coal production by the total direct labor hours worked by all mine employees.

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

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

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

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

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

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

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

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

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

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

*Uinta Basin:* Consists of the Colorado counties of Delta, Garfield, Gunnison, Mesa, Moffat, Pitkin, Rio Blanco,

Routt and the Utah counties of Carbon, Duchesne, Emery, Grand, Sanpete, Sevier, Uintah, Utah, and Wasatch.

Coal-Producing States: The States where mined and/or purchased coal originates are defined as follows: Alabama, Alaska, Arizona, Arkansas, Colorado, Illinois, Indiana, Kansas, Kentucky Eastern, Kentucky Western, Louisiana, Maryland, Mississippi, Missouri, Montana, New Mexico, North Dakota, Ohio, Oklahoma, Pennsylvania anthracite, Pennsylvania bituminous, Tennessee, Texas, Utah, Virginia, Washington, West Virginia Northern, West Virginia Southern, and Wyoming. The following Coal-Producing States are split in origin of coal, as defined by:

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

Kentucky, Western. All mines in the following counties in Western Kentucky: Breckinridge, Butler, Caldwell, Christian, Crittenden, Daviess, Edmonson, Grayson, Hancock, Hart, Henderson, Hopkins, Logan, McLean, Muhlenberg, Ohio, Todd, Union, Warren, and Webster.

Pennsylvania Anthracite. All mines in the following counties: Carbon, Columbia, Dauphin, Lackawanna, Lebanon, Luzerne, Northumberland, Schuylkill, Sullivan, and Susquehanna. All anthracite mines in Bradford County.

Pennsylvania Bituminous. All mines located in the following counties: Allegheny, Armstrong, Beaver, Bedford, Butler, Cambria, Clarion, Clearfield, Elk, Fayette, Greene, Indiana, Jefferson, Lawrence, Lycoming, Somerset, Venango, Washington, and Westmoreland, and all bituminous mines in Bradford County.

West Virginia, Northern. All mines in the following counties (formerly defined as Coal-Producing Districts 1, 3, & 6): Barbour, Brooke, Braxton, Calhoun, Doddridge, Gilmer, Grant, Hancock, Harrison, Jackson, Lewis, Marion, Marshall, Mineral, Monongalia, Ohio, Pleasants, Preston, Randolph, Ritchie, Roane, Taylor, Tucker, Tyler, Upshur, Webster, Wetzel, Wirt, and Wood.

West Virginia, Southern. All mines in the following counties (formerly defined as Coal-Producing Districts 7 & 8): Boone, Cabell, Clay, Fayette, Greenbrier, Kanawha, Lincoln, Logan, Mason, McDowell, Mercer, Mingo, Nicholas, Pocahontas, Putnam, Raleigh, Summers, Wayne, and Wyoming.

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

**Coal Stocks**: Coal quantities that are held in storage for future use and disposition. Note: When coal data are collected for a particular reporting period (month, quarter, or year), coal stocks are commonly measured as of the last day of this period.

Coalbed: A bed or stratum of coal. Also called a coal seam.

Cogenerator: A generating facility that produces electricity and another form of useful thermal energy (such as heat or steam) used for industrial, commercial, heating, and cooling purposes. To receive status as a qualifying facility (QF) under the Public Utility Regulatory Policies Act (PURPA), the facility must produce electric energy and "another form of useful thermal energy through the sequential use of energy," and meet certain ownership, operating, and efficiency criteria established by the Federal Energy Regulatory Commission (FERC). (See the Code of Federal Regulation, Title 18, Part 292.)

Coke (coal): A solid carbonaceous residue derived from low-ash, low-sulfur bituminous coal from which the volatile constituents are driven off by baking in an oven at temperatures as high as 2,000 degrees Fahrenheit so that the fixed carbon and residual ash are fused together. Coke is used as a fuel and as a reducing agent in smelting iron ore in a blast furnace. Coke from coal is grey, hard, and porous and has a heating value of 24.8 million Btu per short ton.

**Coke Plants**: Plants where coal is carbonized in slot or beehive ovens for the manufacture of coke.

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

**Continuous Mining**: A form of room-and-pillar mining in which a continuous mining machine extracts and removes coal from the working face in one operation; no blasting is required.

**Conventional Mining**: The oldest form of room-and-pillar mining which consists of a series of operations that involve cutting the coalbed so it breaks easily when blasted with explosives or high-pressure air, and then loading the broken coal.

Cost, Insurance, Freight (CIF): A type of sale in which the buyer of the product agrees to pay a unit price that includes the F.O.B. value of the product at the point of origin plus all costs of insurance and transportation. This type of transaction differs from a "delivered" purchase in that the buyer accepts the quantity as determined at the loading port (as certified by the Bill of Loading and Quality Report) rather than pay on the basis of the quantity and quality ascertained at the unloading port. It is similar to the terms of an F.O.B. sale, except that the seller, as a service for which he is compensated, arranges for transportation and insurance.

**Culm**: Waste from Pennsylvania anthracite preparation plants, consisting of coarse rock fragments containing as much as 30 percent small-sized coal; sometimes defined as including very fine coal particles called silt. Its heat value ranges from 8 to 17 million Btu per short ton.

Demonstrated Reserve Base: A collective term for the sum of coal in both measured and indicated resource categories of reliability which represents 100 percent of the coal in these categories in place as of a certain date. Includes beds of bituminous coal and anthracite 28 inches or more thick and beds of subbituminous coal 60 inches or more thick that occur at depths to 1 thousand feet. Includes beds of lignite 60 inches or more thick that can be surface mined. Includes also thinner and/or deeper beds that presently are being mined or for which there is evidence that they could be mined commercially at this time. Represents that portion of identified coal resources from which reserves are calculated.

**Direct Labor Hours**: Direct labor hours worked by all mining employees at a mining operation during the year. Includes hours worked by those employees engaged in production, preparation, development, maintenance, repair, shop or yard work, management, office workers, and technical or engineering work.

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

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

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

**Estimated Recoverable Reserves**: See recoverable reserves.

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

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

**Hand Loading**: An underground loading method by which coal is removed from the working face by manual labor through the use of a shovel for conveyance to the surface.

Illinois Basin: See Coal-Producing Regions.

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

**Industrial Sector**: The industrial sector is comprised of manufacturing industries which make up the largest part of the sector, along with mining, construction, agriculture, fisheries, and forestry. Establishments in the sector range from steel mills, to small farms, to companies assembling electronic components.

**Interior Region:** See Coal-Producing Regions.

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

Longwall Mining: An automated form of underground coal mining characterized by high recovery and extraction rates, feasible only in relatively flat-lying, thick, and uniform coalbeds. A high-powered cutting machine is passed across the exposed face of coal, shearing away broken coal, which is continuously hauled away by a floor-level conveyor system. Longwall mining extracts all machine-minable coal between the floor and ceiling within a contiguous block of coal, known as a panel, leaving no support pillars within the panel area.

Panel dimensions vary over time and with mining conditions but currently average about 900 feet wide (coal face width) and more than 8,000 feet long (the minable extent of the panel, measured in direction of mining). Longwall mining is done under movable roof supports that are advanced as the bed is cut. The roof in the mined-out area is allowed to fall as the mining advances.

Manufacturing (except coke plants): Those industrial users/plants, not including coke plants, that are engaged in the mechanical or chemical transformation of materials or substances into new (i.e., finished or semifinished) products. Includes coal used for gasification/liquifaction and coal used for coal synfuels.

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

**Mine Type**: See Surface Mine and Underground Mine.

Northern Appalachian: See Coal-Producing Regions.

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

**Number of Mining Operations**: The number of mining operations includes preparation plants. Mining operations that consist of a mine and preparation plant, or a preparation plant only, will be counted as two operations if the preparation plant processes both underground and surface coal.

**Open Market Coal:** Coal sold in the open market, i.e., coal sold to companies other than the reporting company's parent company or an operating subsidiary of the parent company.

**Operating Subsidiary**: A company which is controlled through the ownership of voting stock, or a corporate joint venture in which a corporation is owned by a small group of businesses as a separate and specific business or project for the mutual benefit of the members of the group.

Other Industrial Plant: Industrial users, not including coke plants, engaged in the mechanical or chemical transformation of materials or substances into new products (manufacturing); and companies engaged in the agriculture, mining, or construction industries.

**Parent Company**: A company which solely or jointly owns the reporting company and which is not itself a subsidiary of, or owned by, another company.

**Percent Utilization**: The ratio of total production to productive capacity, times 100.

Powder River Basin: See Coal-Producing Regions.

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

**Productive Capacity**: The maximum amount of coal that a mining operation can produce or process during a period with the existing mining equipment and/or preparation plant in place, assuming that the labor and materials sufficient to utilize the plant and equipment are available, and that the market exists for the maximum production.

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

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

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

Recoverable Reserves, Estimated Recoverable Reserves: Reserve estimates (broad meaning) based on a demonstrated reserve base adjusted for assumed accessibility factors and recovery factors. The term is used by EIA to distinguish estimated recoverable reserves, which are derived without specific economic feasibility criteria by factoring (downward) from a demonstrated reserve base for one or more study areas or regions, from recoverable reserves at active mines, which are aggregated (upward) from reserve estimates reported by currently active, economically viable mines on Form EIA-7A.

**Recoverable Reserves of Coal**: An estimate of the amount of coal that can be recovered (mined) from the accessible reserves of the demonstrated reserve base.

**Recovery Factor:** The percentage of total tons of coal estimated to be recoverable from a given area in relation to the total tonnage estimated to be in the demonstrated reserve base. For the purpose of calculating depletion factors only, the estimated recovery factors for the demonstrated reserve base generally are 50 percent for underground mining methods and 80 percent for surface mining methods. More precise recovery factors can be

computed by determining the total coal in place and the total coal recoverable in any specific locale.

**Recovery Percentage**: The percentage of coal that can be recovered from the coal deposits at existing mines.

**Refuse Bank**: A repository for waste material generated by the coal cleaning process.

**Refuse Recovery**: A surface mine where coal is recovered from previously mined coal. It may also be known as a silt bank, culm bank, refuse bank, slurry dam, or dredge operation.

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

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

**Residential and Commercial Sector**: Housing units; wholesale and retail businesses (except coal wholesale dealers); health institutions (hospitals); social and educational institutions (schools and universities); and Federal, State, and local governments (military installations, prisons, office buildings).

**Royalties**: Payments, in money or kind, of a stated share of production from mineral deposits, by the lessee to the lessor. Royalties may be an established minimum, a sliding-scale, or a step-scale. A step-scale royalty rate increases by steps as the average production on the lease increases. A sliding-scale royalty rate is based on average production and applies to all production from the lease.

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

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

**Sales Volume**: The reported output from Federal and/or Indian lands, the basis of royalties. It is approximately equivalent to production, which includes coal sold, and coal added to stockpiles.

**Scoop Loading**: An underground loading method by which coal is removed from the working face by a tractor unit equipped with a hydraulically operated bucket attached to the front; also called a front-end loader.

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

**Shaft Mine**: An underground mine that reaches the coalbed by means of a vertical shaft. In addition to the passages providing entry to the coalbed, a network of other passages are also dug, some to provide access to various parts of the mine and some for ventilation.

**Short Ton**: A unit of weight equal to 2,000 pounds.

**Shortwall Mining:** A form of underground mining that involves the use of a continuous mining machine and movable roof supports to shear coal panels 150 to 200 feet wide and more than half a mile long. Although similar to longwall mining, shortwall mining is generally more flexible because of the smaller working area. Productivity is lower than with longwall mining because the coal is hauled to the mine face by shuttle cars as opposed to conveyors.

**Silt**: Waste from Pennsylvania anthracite preparation plants, consisting of coarse rock fragments containing as much as 30 percent small-sized coal; sometimes defined as including very fine coal particles called silt. Its heat value ranges from 8 to 17 million Btu per short ton. Synonymous with culm.

**Silt, Culm Refuse Bank, or Slurry Dam Mining**: A mining operation producing coal from these sources of coal. (See refuse recovery.)

**Slope Mine**: An underground mine in which the entry is driven at an angle to reach the coal deposit.

**Slurry Dam**: A repository for the silt or culm from a preparation plant.

Southern Appalachian: See Coal-Producing Regions.

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

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

**Surface Mine**: A coal mine that is usually within a few hundred feet of the surface. Earth and rock above or around the coal (overburden) is removed to expose the coalbed, which is then mined with surface excavation equipment such as draglines, power shovels, bulldozers, loaders, and augers. Surface mines include: area, contour, open-pit, strip, or auger mine.

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

**Uinta Region:** See Coal-Producing Regions.

**Underground Mine**: A mine where coal is produced by tunneling into the earth to the coalbed, which is then mined with underground mining equipment such as cutting machines and continuous, longwall, and shortwall mining machines. Underground mines are classified according to the type of opening used to reach the coal, i.e., drift (level tunnel), slope (inclined tunnel), or shaft (vertical tunnel).

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

Western Region: See Coal-Producing Regions.