

Table 21. Coal Mining Productivity by State and Mine Type, 2009, 2008

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

See footnotes at end of table.

Table 21. Coal Mining Productivity by State and Mine Type, 2009, 2008 (Continued)

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

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

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

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

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

* Absolute percentage less than 0.05.

- = No data are reported.

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

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