

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

Coal-Producing State, Region <sup>1</sup> , and Mine Type	Number of Mining Operations <sup>2</sup>			Number of Employees <sup>3</sup>			Average Production per Employee per Hour (short tons) <sup>4</sup>		
	2010	2009	Percent Change	2010	2009	Percent Change	2010	2009	Percent Change
<b>Alabama</b> .....	<b>62</b>	<b>71</b>	<b>-12.7</b>	<b>4,341</b>	<b>4,258</b>	<b>1.9</b>	<b>1.93</b>	<b>1.98</b>	<b>-2.6</b>
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
<b>Alaska</b> .....	<b>1</b>	<b>1</b>	<b>-</b>	<b>127</b>	<b>119</b>	<b>6.7</b>	<b>6.96</b>	<b>6.58</b>	<b>5.7</b>
Surface.....	1	1	-	127	119	6.7	6.96	6.58	5.7
<b>Arizona</b> .....	<b>1</b>	<b>1</b>	<b>-</b>	<b>422</b>	<b>425</b>	<b>-0.7</b>	<b>7.84</b>	<b>7.47</b>	<b>5.0</b>
Surface.....	1	1	-	422	425	-0.7	7.84	7.47	5.0
<b>Arkansas</b> .....	<b>2</b>	<b>2</b>	<b>-</b>	<b>29</b>	<b>18</b>	<b>61.1</b>	<b>0.49</b>	<b>0.13</b>	<b>262.3</b>
Underground.....	1	1	-	27	16	68.8	0.48	0.12	289.1
Surface.....	1	1	-	2	2	-	0.59	0.26	123.9
<b>Colorado</b> .....	<b>12</b>	<b>13</b>	<b>-7.7</b>	<b>2,247</b>	<b>2,445</b>	<b>-8.1</b>	<b>5.60</b>	<b>5.57</b>	<b>0.6</b>
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
<b>Illinois</b> .....	<b>34</b>	<b>32</b>	<b>6.3</b>	<b>3,649</b>	<b>3,548</b>	<b>2.8</b>	<b>4.22</b>	<b>4.14</b>	<b>2.0</b>
Underground.....	21	20	5.0	3,183	3,068	3.7	4.16	4.03	3.2
Surface.....	13	12	8.3	466	480	-2.9	4.59	4.82	-4.8
<b>Indiana</b> .....	<b>41</b>	<b>44</b>	<b>-6.8</b>	<b>3,342</b>	<b>3,435</b>	<b>-2.7</b>	<b>4.21</b>	<b>4.18</b>	<b>0.8</b>
Underground.....	13	12	8.3	1,713	1,695	1.1	3.40	3.07	10.8
Surface.....	28	32	-12.5	1,629	1,740	-6.4	5.04	5.24	-3.7
<b>Kansas</b> .....	<b>1</b>	<b>1</b>	<b>-</b>	<b>36</b>	<b>31</b>	<b>16.1</b>	<b>1.39</b>	<b>2.39</b>	<b>-41.7</b>
Surface.....	1	1	-	36	31	16.1	1.39	2.39	-41.7
<b>Kentucky Total</b> .....	<b>526</b>	<b>590</b>	<b>-10.8</b>	<b>17,966</b>	<b>18,850</b>	<b>-4.7</b>	<b>2.55</b>	<b>2.57</b>	<b>-0.9</b>
Underground.....	235	268	-12.3	11,734	12,043	-2.6	2.32	2.32	0.3
Surface.....	291	322	-9.6	6,232	6,807	-8.4	3.00	3.05	-1.6
<b>Eastern</b> .....	<b>487</b>	<b>550</b>	<b>-11.5</b>	<b>13,874</b>	<b>15,147</b>	<b>-8.4</b>	<b>2.18</b>	<b>2.27</b>	<b>-4.2</b>
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
<b>Western</b> .....	<b>39</b>	<b>40</b>	<b>-2.5</b>	<b>4,092</b>	<b>3,703</b>	<b>10.5</b>	<b>3.71</b>	<b>3.68</b>	<b>1.0</b>
Underground.....	21	21	-	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
<b>Louisiana</b> .....	<b>2</b>	<b>2</b>	<b>-</b>	<b>261</b>	<b>263</b>	<b>-0.8</b>	<b>7.23</b>	<b>6.69</b>	<b>8.1</b>
Surface.....	2	2	-	261	263	-0.8	7.23	6.69	8.1
<b>Maryland</b> .....	<b>25</b>	<b>25</b>	<b>-</b>	<b>422</b>	<b>388</b>	<b>8.8</b>	<b>2.73</b>	<b>2.84</b>	<b>-3.7</b>
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
<b>Mississippi</b> .....	<b>1</b>	<b>1</b>	<b>-</b>	<b>232</b>	<b>200</b>	<b>16.0</b>	<b>8.27</b>	<b>8.17</b>	<b>1.2</b>
Surface.....	1	1	-	232	200	16.0	8.27	8.17	1.2
<b>Missouri</b> .....	<b>2</b>	<b>2</b>	<b>-</b>	<b>23</b>	<b>23</b>	<b>-</b>	<b>7.12</b>	<b>7.42</b>	<b>-4.1</b>
Surface.....	2	2	-	23	23	-	7.12	7.42	-4.1
<b>Montana</b> .....	<b>6</b>	<b>6</b>	<b>-</b>	<b>1,206</b>	<b>1,133</b>	<b>6.4</b>	<b>17.12</b>	<b>16.78</b>	<b>2.0</b>
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
<b>New Mexico</b> .....	<b>4</b>	<b>5</b>	<b>-20.0</b>	<b>1,269</b>	<b>1,422</b>	<b>-10.8</b>	<b>8.55</b>	<b>9.01</b>	<b>-5.1</b>
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
<b>North Dakota</b> .....	<b>5</b>	<b>5</b>	<b>-</b>	<b>1,114</b>	<b>1,037</b>	<b>7.4</b>	<b>13.39</b>	<b>14.86</b>	<b>-9.9</b>
Surface.....	5	5	-	1,114	1,037	7.4	13.39	14.86	-9.9
<b>Ohio</b> .....	<b>60</b>	<b>62</b>	<b>-3.2</b>	<b>2,826</b>	<b>3,007</b>	<b>-6.0</b>	<b>3.96</b>	<b>3.96</b>	<b>*</b>
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
<b>Oklahoma</b> .....	<b>10</b>	<b>10</b>	<b>-</b>	<b>217</b>	<b>260</b>	<b>-16.5</b>	<b>2.27</b>	<b>2.15</b>	<b>5.8</b>
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
<b>Pennsylvania Total</b> .....	<b>325</b>	<b>334</b>	<b>-2.7</b>	<b>8,268</b>	<b>8,081</b>	<b>2.3</b>	<b>3.19</b>	<b>3.36</b>	<b>-5.1</b>
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
<b>Anthracite</b> .....	<b>103</b>	<b>114</b>	<b>-9.6</b>	<b>928</b>	<b>941</b>	<b>-1.4</b>	<b>0.98</b>	<b>0.95</b>	<b>2.9</b>
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
<b>Bituminous</b> .....	<b>222</b>	<b>220</b>	<b>0.9</b>	<b>7,340</b>	<b>7,140</b>	<b>2.8</b>	<b>3.42</b>	<b>3.64</b>	<b>-6.1</b>
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
<b>Tennessee</b> .....	<b>27</b>	<b>36</b>	<b>-25.0</b>	<b>546</b>	<b>781</b>	<b>-30.1</b>	<b>1.47</b>	<b>1.35</b>	<b>8.5</b>
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
<b>Texas</b> .....	<b>12</b>	<b>12</b>	<b>-</b>	<b>2,787</b>	<b>2,506</b>	<b>11.2</b>	<b>6.81</b>	<b>6.38</b>	<b>6.8</b>
Surface.....	12	12	-	2,787	2,506	11.2	6.81	6.38	6.8
<b>Utah</b> .....	<b>15</b>	<b>15</b>	<b>-</b>	<b>1,822</b>	<b>1,991</b>	<b>-8.5</b>	<b>5.04</b>	<b>5.37</b>	<b>-6.1</b>
Underground.....	14	14	-	1,814	1,985	-8.6	5.07	5.39	-6.0

See footnotes at end of table.

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

Coal-Producing State, Region <sup>1</sup> , and Mine Type	Number of Mining Operations <sup>2</sup>			Number of Employees <sup>3</sup>			Average Production per Employee per Hour (short tons) <sup>4</sup>		
	2010	2009	Percent Change	2010	2009	Percent Change	2010	2009	Percent Change
<b>Utah (continued)</b>									
Surface.....	1	1	-	8	6	33.3	-	-	-
<b>Virginia.....</b>	<b>149</b>	<b>145</b>	<b>2.8</b>	<b>4,957</b>	<b>4,646</b>	<b>6.7</b>	<b>2.01</b>	<b>2.10</b>	<b>-4.5</b>
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
<b>West Virginia Total.....</b>	<b>380</b>	<b>416</b>	<b>-8.7</b>	<b>21,091</b>	<b>21,671</b>	<b>-2.7</b>	<b>2.70</b>	<b>2.87</b>	<b>-6.1</b>
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
<b>Northern.....</b>	<b>46</b>	<b>57</b>	<b>-19.3</b>	<b>5,060</b>	<b>4,909</b>	<b>3.1</b>	<b>3.52</b>	<b>3.50</b>	<b>0.6</b>
Underground.....	25	31	-19.4	4,570	4,276	6.9	3.50	3.41	2.6
Surface.....	21	26	-19.2	490	633	-22.6	3.69	4.15	-11.2
<b>Southern.....</b>	<b>334</b>	<b>359</b>	<b>-7.0</b>	<b>16,031</b>	<b>16,762</b>	<b>-4.4</b>	<b>2.45</b>	<b>2.69</b>	<b>-8.9</b>
Underground.....	196	212	-7.5	10,566	10,566	-	1.90	2.12	-10.1
Surface.....	138	147	-6.1	5,465	6,196	-11.8	3.44	3.59	-4.0
<b>Wyoming.....</b>	<b>19</b>	<b>22</b>	<b>-13.6</b>	<b>6,857</b>	<b>7,054</b>	<b>-2.8</b>	<b>30.81</b>	<b>29.74</b>	<b>3.6</b>
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
<b>Appalachian Total.....</b>	<b>1,515</b>	<b>1,639</b>	<b>-7.6</b>	<b>56,325</b>	<b>57,979</b>	<b>-2.9</b>	<b>2.58</b>	<b>2.70</b>	<b>-4.5</b>
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
<b>Northern.....</b>	<b>456</b>	<b>478</b>	<b>-4.6</b>	<b>16,576</b>	<b>16,385</b>	<b>1.2</b>	<b>3.42</b>	<b>3.50</b>	<b>-2.5</b>
Underground.....	122	137	-10.9	12,031	11,673	3.1	3.67	3.77	-2.7
Surface.....	334	341	-2.1	4,545	4,712	-3.5	2.68	2.77	-3.1
<b>Central.....</b>	<b>997</b>	<b>1,088</b>	<b>-8.4</b>	<b>35,408</b>	<b>37,334</b>	<b>-5.2</b>	<b>2.27</b>	<b>2.42</b>	<b>-6.3</b>
Underground.....	503	546	-7.9	22,689	23,101	-1.8	1.84	1.99	-7.4
Surface.....	494	542	-8.9	12,719	14,233	-10.6	3.03	3.11	-2.4
<b>Southern.....</b>	<b>62</b>	<b>73</b>	<b>-15.1</b>	<b>4,341</b>	<b>4,260</b>	<b>1.9</b>	<b>1.93</b>	<b>1.98</b>	<b>-2.5</b>
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
<b>Interior Total.....</b>	<b>144</b>	<b>146</b>	<b>-1.4</b>	<b>14,668</b>	<b>13,987</b>	<b>4.9</b>	<b>4.60</b>	<b>4.47</b>	<b>3.0</b>
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
<b>Illinois Basin.....</b>	<b>114</b>	<b>116</b>	<b>-1.7</b>	<b>11,083</b>	<b>10,686</b>	<b>3.7</b>	<b>4.02</b>	<b>3.99</b>	<b>0.8</b>
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
<b>Western Total.....</b>	<b>63</b>	<b>68</b>	<b>-7.4</b>	<b>15,064</b>	<b>15,626</b>	<b>-3.6</b>	<b>18.95</b>	<b>18.25</b>	<b>3.8</b>
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
<b>Powder River Basin.....</b>	<b>16</b>	<b>19</b>	<b>-15.8</b>	<b>6,896</b>	<b>7,068</b>	<b>-2.4</b>	<b>32.59</b>	<b>31.46</b>	<b>3.6</b>
Underground.....	-	1	-100.0	-	2	-100.0	-	-	-
Surface.....	16	18	-11.1	6,896	7,066	-2.4	32.59	31.47	3.6
<b>Uinta Region.....</b>	<b>24</b>	<b>24</b>	<b>-</b>	<b>3,976</b>	<b>4,320</b>	<b>-8.0</b>	<b>5.36</b>	<b>5.49</b>	<b>-2.4</b>
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
<b>East of Miss. River.....</b>	<b>1,630</b>	<b>1,756</b>	<b>-7.2</b>	<b>67,640</b>	<b>68,865</b>	<b>-1.8</b>	<b>2.83</b>	<b>2.93</b>	<b>-3.2</b>
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
<b>West of Miss. River.....</b>	<b>92</b>	<b>97</b>	<b>-5.2</b>	<b>18,417</b>	<b>18,727</b>	<b>-1.7</b>	<b>16.60</b>	<b>16.15</b>	<b>2.8</b>
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
<b>Subtotal.....</b>	<b>1,722</b>	<b>1,853</b>	<b>-7.1</b>	<b>86,057</b>	<b>87,592</b>	<b>-1.8</b>	<b>5.55</b>	<b>5.60</b>	<b>-1.0</b>
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
<b>Refuse Recovery.....</b>	<b>28</b>	<b>32</b>	<b>-12.5</b>	<b>138</b>	<b>163</b>	<b>-15.3</b>	<b>8.15</b>	<b>9.60</b>	<b>-15.1</b>
<b>U.S. Total.....</b>	<b>1,750</b>	<b>1,885</b>	<b>-7.2</b>	<b>86,195</b>	<b>87,755</b>	<b>-1.8</b>	<b>5.55</b>	<b>5.61</b>	<b>-1.1</b>

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

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

<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.

\* 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."