

# Coal Operator Mining Facts - 2003

1. In 2003, a total of 1,972 **coal mining operations** reported employment to the Mine Safety and Health Administration (MSHA). Coal mines comprised 13.7% of all mining operations.
  - Bituminous mines comprised 92.5% ( $n = 1,825$ ) and anthracite mines 7.5% ( $n = 147$ ) of coal mining operations.
  - More than 70% of all coal mines were located in three states: Kentucky (29.0%), West Virginia (20.9%), and Pennsylvania (20.2%).
  - Bituminous coal mines reported the production of over 1 billion coal tons.
2. A total of 70,241 **employees**, corresponding to 75,425 full-time equivalent (FTE) employees, were reported by coal mine operators to MSHA.<sup>1</sup> This represents a 4.0% decrease in FTE employees from 2002.
  - Coal operators comprised 29% of all employee hours reported to MSHA.
  - Coal operator employees worked in both underground (46%) and surface (43%) production operations.<sup>2</sup>
3. Twenty-two work-related **fatalities** occurred among coal operator employees in 2003, compared to 20 in 2002.
  - Fatalities among coal operator employees accounted for 39% of all mining fatalities in 2003.
  - The coal operator fatality rate was 29.2 fatalities per 100,000 FTE employees. The underground fatality rate was 32.0 fatalities per 100,000 FTEs ( $n = 11$ ) compared to 26.8 per 100,000 FTEs ( $n = 11$ ) for surface work locations.
4. There were 3,322 **nonfatal lost-time injuries** among coal operator employees occurring at a rate of 4.4 injuries per 100 FTE employees. These injuries resulted in 233,388 days lost from work (median = 31), comprising nearly 50% of days lost among all mining sectors.<sup>3,4</sup>
  - The highest injury rate was found in underground work locations (6.8 injuries per 100 FTE operator employees), compared to an injury rate of 2.4 per 100 FTE operator employees for surface locations.
  - The most frequent type of accident for coal operator employees involved handling of materials (31.8%), followed by slip or fall of miner (22.6%). Among the most frequent types of accidents, the most severe (as measured by the median number of days lost) were associated with powered haulage ( $n = 378$ ; median = 39) and slips or falls ( $n = 751$ ; median = 37).
  - Sprains and strains were the most frequently reported nature of injury ( $n = 1,608$ ; 48.4%). The back was the most frequently reported part of the body injured ( $n = 732$ ; 22.0%) and accounted for 60,438 days lost from work.<sup>5</sup>
  - Among coal operator employees, those with the MSHA job title of "laborer/utility man/bull gang" accounted for the greatest number of nonfatal lost-time injuries ( $n = 588$ ; 17.7%), followed by those classified as "roof bolters" ( $n = 444$ ; 13.4%).
5. In 2003, 323 cases of **occupational illness** were reported to MSHA for coal operator employees.<sup>6</sup>
  - The most frequently reported illness was joint, muscle, or tendon irritation or inflammation ( $n = 143$ ; 44.3%).
  - One hundred seven (33.1%) cases of black lung (coal workers' pneumoconiosis) were reported in 2003.

Note: All analyses exclude office employees, except for the total number of coal mining operations.

<sup>1</sup> Computed using reported employee hours (2,000 hours = 1 FTE).

<sup>2</sup> Surface production operations include strip mines, surface operations at underground mines, preparation plants, mills, auger mining, culm banks, dredge, and surface shops and yards.

<sup>3</sup> Mining sectors: coal operators, metal operators, nonmetal operators, stone operators, sand and gravel operators, coal contractors, and noncoal contractors.

<sup>4</sup> Includes actual days away from work and/or days of restricted work activity. For permanently disabling injuries only, statutory days charged by MSHA were used if they exceeded the total lost workdays.

<sup>5</sup> MSHA only reports the most severely injured part of body for accidents involving injury to multiple body parts.

<sup>6</sup> Because of the complexity of attributing disease causation to the workplace, occupational illnesses may be underreported.



***Delivering on the Nation's promise:  
Safety and health at work for all people  
through research and prevention***

For information about occupational safety and health topics contact NIOSH at:

1-800-35-NIOSH (1-800-356-4674)  
Fax: 513-533-8573  
e-mail: [pubstaft@cdc.gov](mailto:pubstaft@cdc.gov)  
[www.cdc.gov/niosh](http://www.cdc.gov/niosh)

**SAFER • HEALTHIER • PEOPLE<sup>TM</sup>**