

# UNDERGROUND AND SURFACE MINING FACTS – 2007

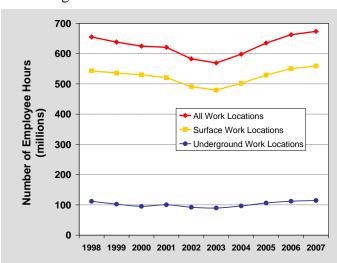
### **Mining Operations**

Data obtained from the Mine Safety and Health Administration (MSHA) indicated a total of 889 underground (6.0%) and 13,982 surface (94.0%) mining operations.<sup>1</sup>

#### **Employees**

A total of 55,617 employees,<sup>2</sup> or 57,222 full-time equivalent (FTE)<sup>3</sup> employees, were reported to MSHA as working at underground mining locations in 2007. This is in contrast to 322,506 employees (or 279,541 FTE employees) that were reported as working at surface locations.<sup>4</sup>

• Surface work location employee hours accounted for 83.0% of all hours reported to MSHA, while 17.0% of employee hours were reported for underground work locations.

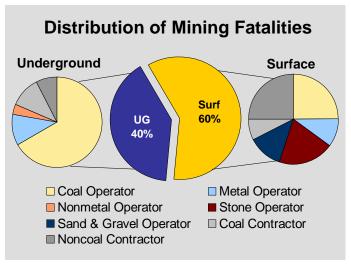


- The majority of surface employee hours were for mine operator employees (80.0%) as opposed to independent contractor employees (20.0%).
- Coal operators were the mining sector<sup>5</sup> reporting the most underground worker employee hours to MSHA (n=84,475,287; 73.8%).

#### **Fatalities**

Of the 67 occupational mining fatalities reported to MSHA in 2007, 27 occurred at underground work locations, while 40 occurred at surface locations.

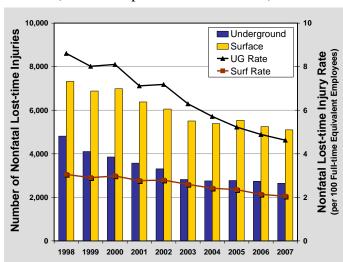
• The fatality rate of 47.2 per 100,000 FTE employees was higher at underground work locations, compared to the rate of 16.1 for surface work locations.



#### **Nonfatal Lost-time Injuries**

Within underground work locations, 2,645 nonfatal lost-time injuries were reported, resulting in 170,584 lost workdays.<sup>6</sup> This compares to 5,097 nonfatal lost-time injuries attributed to surface workers (total days lost = 255,635).

• The overall underground nonfatal lost-time injury rate was greater than the surface injury rate (4.6 vs. 2.0 per 100 FTE workers).



- The most frequent classification of nonfatal lost-time injuries involved handling materials for both underground (n=719; 27.2%) and surface (n=1,773; 34.8%) work locations.
- The back was the most frequently reported body part injured at both underground (n=414; 15.7%) and surface (n=957; 18.8%) work locations.





#### Mine and Employment Characteristics, 2007 Number of Mining Operations<sup>1</sup> Number of Employees<sup>2</sup> Number of FTE Employees<sup>3</sup> Commodity and Underground Type of Employer Underground Surface **Total** Underground Surface **Total** Surface Coal Operator 1,399 2,030 37,829 46,242 84,071 51,027 631 42,238 93,265 Metal Operator 97 181 278 5,333 30,667 36,000 5,437 32,309 37,746 725 23,265 Nonmetal Operator 48 677 2,411 20,453 22,864 2,478 20,788 Stone Operator 4,639 1,845 80,873 82,718 2,063 81,191 83,254 113 4,526 Sand and Gravel Operator NA 7,199 7,199 NA 45,761 45,761 NA 38,340 38,340 **Operator Total** 889 13,982 14,871 47,418 223,996 271,414 52,216 223,655 275,871 **Number of Companies** Coal Contractor NA NA 2,999 5,160 33,705 38,865 3,071 19,670 22,741 5,400 64,805 67,844 **Noncoal Contractor** NA NA 3,039 1,935 36,216 38,151 **Contractor Total** NA NA 8,399 98,510 106,709 5,006 55,886 60,892 8,199

## Mining Occupational Fatalities and Injuries, 2007

55,617

322,506

378,123

57,222

279,541

336,763

	Occupational Fatalities (per 100,000 FTE employees)						Nonfatal Lost-time Injuries (per 100 FTE employees)					
Commodity and	Underground		Surface		Total		Underground		Surface		Total	
Type of Employer	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Coal Operator	18	42.6	10	21.1	28	31.2	2,120	5.0	822	1.7	2,942	3.3
Metal Operator	3	55.2	4	14.4	7	21.1	178	3.3	620	2.2	798	2.4
Nonmetal Operator	1	40.4	0	0.0	1	5.0	91	3.7	417	2.4	508	2.5
Stone Operator	0	0.0	8	11.4	8	11.1	36	1.7	1,844	2.6	1,880	2.6
Sand and Gravel Operator	NA	NA	5	15.0	5	15.0	NA	NA	657	2.0	657	2.0
Operator Total	22	42.1	27	13.8	49	19.7	2,425	4.6	4,360	2.2	6,785	2.7
Coal Contractor	3	97.7	3	16.3	6	28.0	177	5.8	283	1.5	460	2.1
Noncoal Contractor	2	103.4	10	29.3	12	33.3	43	2.2	454	1.3	497	1.4
Contractor Total	5	99.9	13	24.8	18	31.3	220	4.4	737	1.4	957	1.7
TOTAL	27	47.2	40	16.1	67	21.9	2,645	4.6	5,097	2.0	7,742	2.5

NA Not applicable.

**TOTAL** 

Data source: Publicly released data files of employment and accident/injury/illness collected by MSHA under 30 CFR 50.

**Notes:** All analyses of accident data exclude office employees. Occupational fatalities exclude all cases under 17 years of age. Further statistical methodology is available on the NIOSH Internet [<a href="http://www.cdc.gov/niosh/mining/statistics/method.htm">http://www.cdc.gov/niosh/mining/statistics/method.htm</a>]. Data in the above tables may not add to totals shown because of independent rounding. Caution should be used when interpreting rates based on a small number of events.

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<sup>&</sup>lt;sup>1</sup>Mines at which only independent contractors were working did not show any employment and were not counted.

<sup>&</sup>lt;sup>2</sup>Average number of employees working at individual mines during calendar quarters of active operations (includes office workers).

<sup>&</sup>lt;sup>3</sup>Full-time equivalent employees computed using reported employee hours (2,000 hours = 1 FTE).

<sup>&</sup>lt;sup>4</sup>Surface work locations include surface operations at underground mines, surface operations (strip or open pit), auger, culm banks, dredge, other surface operations, independent shops and yards, and mills or preparation plants.

<sup>&</sup>lt;sup>5</sup>Mining sectors include coal operators, metal operators, nonmetal operators, stone operators, sand and gravel operators, coal contractors, and noncoal contractors.

<sup>&</sup>lt;sup>6</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.