

UNDERGROUND AND SURFACE MINING FACTS—2008

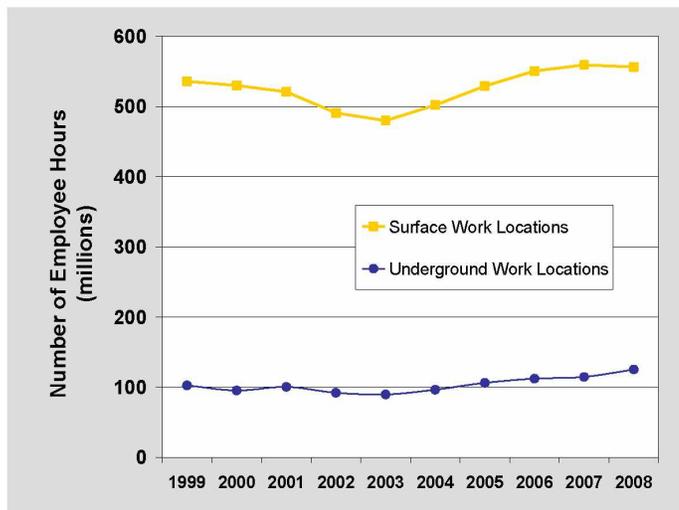
Mining Operations

Data obtained from the Mine Safety and Health Administration (MSHA) indicated a total of 925 underground (6.2%) and 13,982 surface (93.8%) mining operations.¹

Employees

A total of 59,922 employees,² or 62,565 full-time equivalent (FTE)³ employees, were reported to MSHA as working at underground mining locations in 2008. This is in contrast to 332,797 employees (or 278,054 FTE employees) who were reported as working at surface locations.⁴

- Surface work location employee hours accounted for 81.6% of all hours reported to MSHA, while 18.4% of employee hours were reported for underground work locations.
- The majority of surface employee hours were for mine operator employees (78.3%) as opposed to independent contractor employees (21.7%).
- Coal operators were the mining sector⁵ reporting the most underground worker employee hours to MSHA (n=91,732,062; 73.3%).

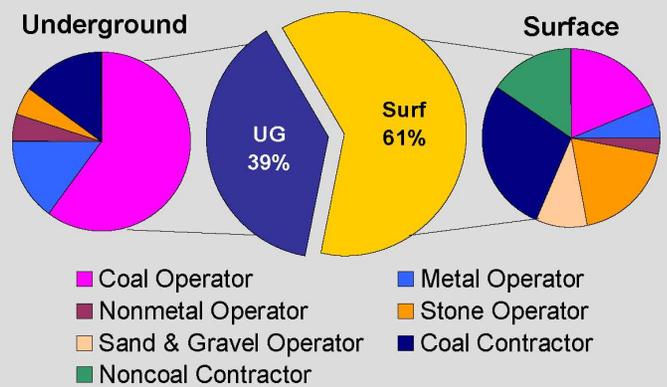


Fatalities

Of the 52 occupational mining fatalities reported to MSHA in 2008, 20 occurred at underground work locations, while 32 occurred at surface locations.

- The fatality rate of 32.0 [95% confidence interval (CI): 19.5, 49.4] per 100,000 FTE employees was higher at underground work locations, compared to the rate of 12.9 [CI: 8.8, 18.3] for surface work locations.

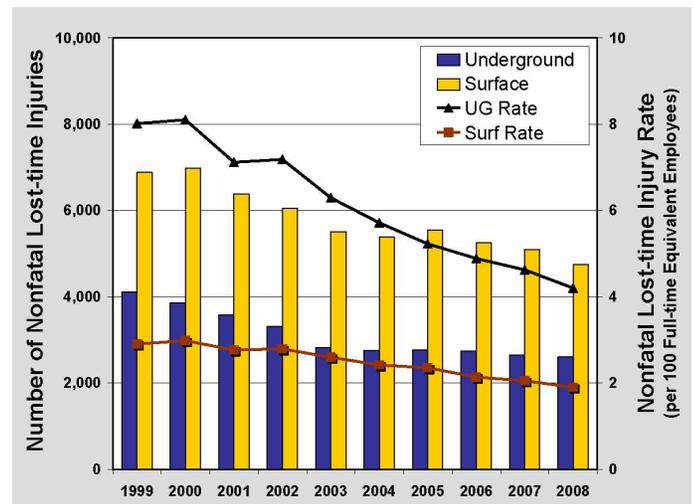
Distribution of Occupational Mining Fatalities



Nonfatal Lost-time Injuries

Within underground work locations, 2,600 nonfatal lost-time injuries were reported, resulting in 152,273 days lost from work.⁶ This compares to 4,748 nonfatal lost-time injuries attributed to surface workers resulting in 229,937 days lost from work.

- The overall underground nonfatal lost-time injury rate was greater than the surface injury rate (4.2 [CI: 4.0, 4.3] vs. 1.9 [CI: 1.9, 2.0] per 100 FTE workers).
- The most frequent classification of nonfatal lost-time injuries involved handling materials for both underground (n=734; 28.2%) and surface (n=1,566; 33.0%) work locations.
- The back was the most frequently reported body part injured at both underground (n=384; 14.8%) and surface (n=856; 18.0%) work locations.



Mine and Employment Characteristics, 2008

Commodity and Type of Employer	Number of Mining Operations ¹			Number of Employees ²			Number of FTE Employees ³		
	Underground	Surface	Total	Underground	Surface	Total	Underground	Surface	Total
Coal Operator	665	1,464	2,129	40,370	49,685	90,055	45,866	54,312	100,178
Metal Operator	105	188	293	5,844	33,282	39,126	5,842	34,840	40,682
Nonmetal Operator	44	676	720	2,579	20,454	23,033	2,725	20,534	23,260
Stone Operator	111	4,522	4,633	1,875	77,100	78,975	2,029	74,720	76,749
Sand and Gravel Operator	NA	7,132	7,132	NA	42,307	42,307	NA	33,343	33,343
Operator Total	925	13,982	14,907	50,668	222,828	273,496	56,462	217,750	274,212
	Number of Companies								
Coal Contractor	NA	NA	3,467	6,262	37,510	43,772	4,105	22,216	26,321
Noncoal Contractor	NA	NA	6,128	2,992	72,459	75,451	1,998	38,088	40,086
Contractor Total	NA	NA	9,595	9,254	109,969	119,223	6,103	60,304	66,407
				59,922	332,797	392,719	62,565	278,054	340,620

Mining Occupational Fatalities and Injuries, 2008

Commodity and Type of Employer	Occupational Fatalities (per 100,000 FTE employees)						Nonfatal Lost-time Injuries (per 100 FTE employees)					
	Underground		Surface		Total		Underground		Surface		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Coal Operator	12	26.2	6	11.9	18	18.7	2,103	4.6	768	1.5	2,871	3.0
Metal Operator	3	NC	2	NC	5	13.8	163	2.8	649	2.1	812	2.2
Nonmetal Operator	1	NC	1	NC	2	NC	95	3.5	412	2.4	507	2.5
Stone Operator	1	NC	6	9.4	7	10.6	33	1.6	1,593	2.5	1,626	2.5
Sand and Gravel Operator	NA	NA	3	NC	3	NC	NA	NA	550	1.9	550	1.9
Operator Total	17	30.1	18	9.4	35	14.2	2,394	4.2	3,972	2.1	6,366	2.6
Coal Contractor	3	NC	9	43.4	12	48.3	168	4.1	313	1.5	481	1.9
Noncoal Contractor	0	NC	5	13.9	5	13.2	38	1.9	463	1.3	501	1.3
Contractor Total	3	NC	14	24.7	17	27.1	206	3.4	776	1.4	982	1.6
TOTAL	20	32.0	32	12.9	52	16.8	2,600	4.2	4,748	1.9	7,348	2.4

NA Not applicable. NC Not calculated when N is less than 5. 95% CI for rates reported on reverse side. Totals may not sum due to independent rounding.

Data source: Publicly released employment and accident/injury/illness data 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 [<http://www.cdc.gov/niosh/mining/statistics/method.htm>]. Caution should be used when interpreting rates based on a small number of events.

¹Mines at which only independent contractors were working and did not show any employment were not counted.

²Average number of employees working at individual mines during calendar quarters of active operations (includes office workers).

³Full-time equivalent employees computed using reported employee hours (2,000 hours = 1 FTE).

⁴Surface 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.

⁵Mining sectors include coal operators, metal operators, nonmetal operators, stone operators, sand and gravel operators, coal contractors, and noncoal contractors.

⁶Includes 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.

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DHHS (NIOSH) Publication No. 2011-162

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