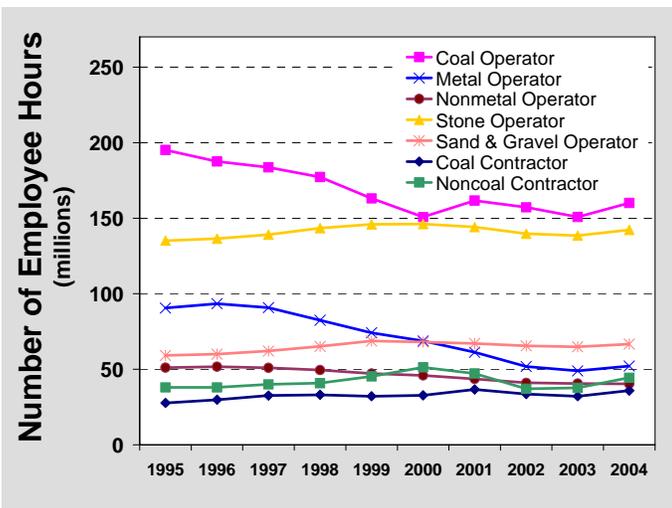


In 2004, 14,478 **mining operations** reported employment statistics to the Mine Safety and Health Administration (MSHA).<sup>1</sup> Almost half (48.9%) were sand and gravel mines, followed by stone mines (30.4%), coal mines (13.9%), nonmetal mines (5.1%), and metal mines (1.7%).

There were 223,078 **mine operator employees**,<sup>2</sup> or 230,860 full-time equivalent (FTE)<sup>3</sup> workers reported. Employee hours for mine operators working at underground locations accounted for 19.5%, while 80.5% of the employee hours were for surface work locations.<sup>4</sup>

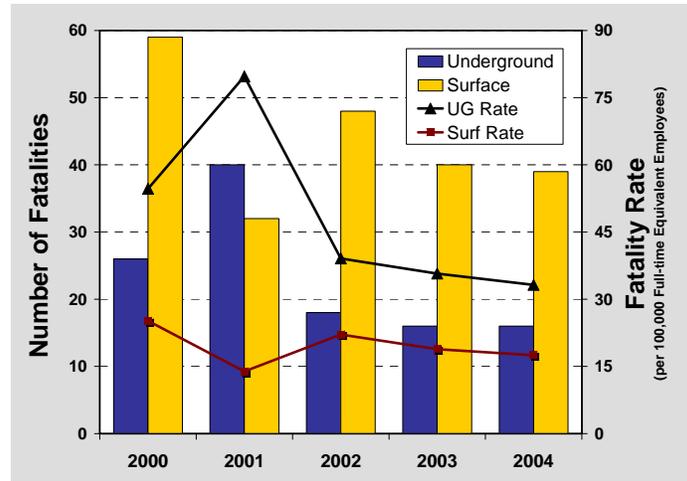
Of the 72,739 **independent contractor employees** (or 40,162 FTE workers) reported to MSHA in 2004, 41.6% were coal contractor employees and 58.4% were noncoal contractor employees.



In 2004, there were 55 occupational mining **fatalities**, compared to 56 in 2003. The overall mining fatality rate was 20.3 per 100,000 FTE workers.

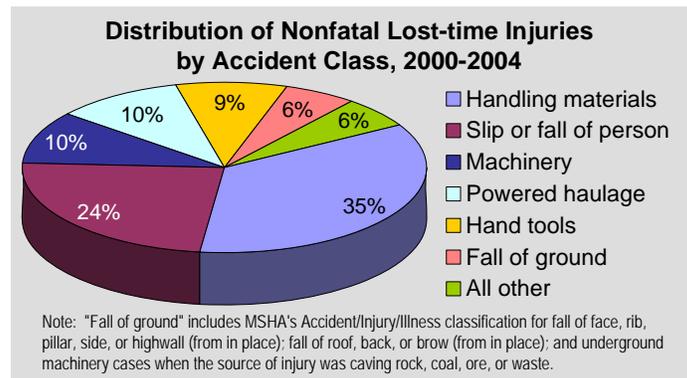
- The fatality rate for mine operator employees was 18.2 per 100,000 FTE workers (n=42; 76.4%), while the rate for contractor employees was higher at 32.4 (n=13; 23.6%).
- Noncoal contractors had the highest fatality rate (36.0 per 100,000 FTE workers; n=8), followed by coal operators (rate=28.7; n=23) and coal contractors (rate=27.8; n=5).

- The fatality rate at underground work locations was 33.2 per 100,000 FTE workers (n=16; 29.1%) compared to the lower rate at surface locations of 17.5 (n=39; 70.9%).



There were 8,139 **nonfatal lost-time injuries** reported to MSHA in 2004 (2,753 at underground and 5,386 at surface work locations). These injuries occurred at a rate of 3.0 per 100 FTE workers and resulted in a total of 463,339 days lost from work.<sup>5</sup>

- The underground nonfatal lost-time injury rate was greater than the surface injury rate (5.7 vs. 2.4 per 100 FTE workers).
- The back continued to be the most frequently reported part of the body injured, accounting for 1,699 nonfatal lost-time injuries, 110,462 days lost from work, and 23.8% of all days lost.
- Sprains and strains were the most frequently reported nature of injury (n=3,590; 44.1%).



In 2004, 426 cases of **occupational illnesses** were reported to MSHA.<sup>6</sup>

- Joint, tendon, or muscle inflammation or irritation accounted for 46.0% (n=196) of reported occupational illnesses.

- Mining operations reported 41 cases of black lung (coal workers' pneumoconiosis) and 7 cases of silicosis.
- There were 77 cases of hearing loss or impairment reported to MSHA (or 18.1% of all occupational illnesses reported).

## Mining Characteristics, 2004

Commodity and Type of Employer	No. of Mines	No. of Companies	No. of Employees	No. of FTE Employees	Fatality Rate	Nonfatal Lost-time Injury Rate
Coal Operator	2,011	--	73,024	80,069	28.7	3.9
Metal Operator	251	--	25,205	26,091	7.7	2.1
Nonmetal Operator	741	--	19,432	20,183	5.0	2.7
Stone Operator	4,401	--	68,417	71,153	11.2	3.2
Sand and Gravel Operator	7,074	--	37,000	33,364	24.0	2.3
<b>Operator Total</b>	<b>14,478</b>	<b>--</b>	<b>223,078</b>	<b>230,860</b>	<b>18.2</b>	<b>3.2</b>
Coal Contractor	--	2,550	30,228	17,964	27.8	2.6
Noncoal Contractor	--	4,143	42,511	22,198	36.0	1.7
<b>Contractor Total</b>	<b>--</b>	<b>6,693</b>	<b>72,739</b>	<b>40,162</b>	<b>32.4</b>	<b>2.1</b>
<b>TOTAL</b>			<b>295,817</b>	<b>271,022</b>	<b>20.3</b>	<b>3.0</b>

Data may not add to totals due to independent rounding. Number of employees was rounded at the subunit level of each mine to be consistent with MSHA reporting. Fatality rates were computed per 100,000 FTE employees. Nonfatal lost-time injury rates were computed per 100 FTE employees.

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

**Notes:** All analyses exclude office employees, except for the total number of mining operations. Further statistical methodology is available on the NIOSH Internet [<http://www.cdc.gov/niosh/mining/statistics/method.htm>].

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

<sup>2</sup>Number of employees is the average number of persons working at individual establishments during calendar quarters of active operations. Employment numbers were rounded at the subunit level of each mine to be consistent with MSHA reporting.

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

<sup>4</sup>Surface work locations include surface operations at underground mines (surface shops and yards, tippie physically located at the mine site), surface operations (strip or open pit mines including associated shops and yards), auger mining operations, culm banks (reworking of mine dumps or refuse pile), dredge (mining operations conducted from a platform floating on water), other surface operations (brine pumping, etc.), independent shops and yards not associated with a specific mine, and mill or preparation plant.

<sup>5</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>6</sup>Because of the complexity of attributing disease causation to the workplace, occupational illnesses may be underreported.

To receive NIOSH documents or for more information about occupational safety and health topics, contact NIOSH at **1-800-CDC-INFO** (1-800-232-4636) 1-888-232-6348 (TTY) e-mail: [cdcinfo@cdc.gov](mailto:cdcinfo@cdc.gov) or visit the NIOSH Web site at <http://www.cdc.gov/niosh>

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