



# Sand & Gravel Operator Mining Facts - 2002

1. In 2002, a total of 7,125 **sand and gravel mining operations** reported employment to the Mine Safety and Health Administration (MSHA).
  - The largest percentage of all mining sectors<sup>1</sup> was sand and gravel mines (49.1%).
  - Sand and gravel mines are found throughout all 50 states.
2. A total of 36,535 **employees**, corresponding to 32,753 full-time equivalent (FTE)<sup>2</sup> employees, were reported by sand and gravel operators. This is a 2.4% decrease in FTE employees from 2001.
  - About 12% of all employee hours reported to MSHA were from sand and gravel operator employees.
3. Ten work-related **fatalities** occurred among sand and gravel miners in 2002, compared to eight in 2001.
  - The fatality rate among sand and gravel operator employees was 30.5 per 100,000 FTE employees.
  - The fatality rate per 100,000 FTEs for dredge employees was 42.9 (n = 2), compared to 28.5 for all other surface work locations.
4. There were 826 **nonfatal lost-time injuries** among sand and gravel employees occurring at a rate of 2.5 per 100 FTE employees. A total of 39,556 days lost from work resulted from these injuries.<sup>3</sup>
  - The median number of days lost from work among sand and gravel employees with nonfatal lost-time injuries was 12.0 days.
  - The most frequent type of accident for sand and gravel mine employees involved handling of materials (37.5%) followed by slips or falls (25.9%). Among the most frequently reported types of incidents (greater than 10% of total), the most severe injuries (as measured by the median number of days lost from work) were associated with powered haulage (n = 84; median = 21.0), slips or falls (n = 214; median = 15.0), hand tools (n = 107; median = 10.0), and handling materials (n = 310; median = 10.0).
  - Sprains and strains were the most frequent injury (39.3%). Among those injury categories with greater than 10% of total injuries, the most severe was fractures and chips (n = 107; median = 60). The back was the most frequently reported part of the body injured (n = 171; 20.7%). Back injuries represented 10,419 days lost from work.
  - Among sand and gravel operator employees, those with a job title of "laborer/utility man/bull gang" had the greatest number of nonfatal lost-time injuries (n = 147; 17.8%), followed by those classified as "mechanic/repairman/helper" (n = 124; 15.0%).
5. Twenty cases of **occupational illness** were reported to MSHA for sand and gravel employees.<sup>4</sup>
  - The most frequently reported illness involved joint, muscle, or tendon irritation or inflammation (n = 11; 55.0%).
  - Three cases of hearing loss or impairment were reported to MSHA in 2002.

<sup>1</sup> Mining sectors: coal operators, metal operators, nonmetal operators, stone operators, sand and gravel operators, coal contractors, and noncoal contractors.

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

<sup>3</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>4</sup> Because of the complexity of attributing disease causation to the workplace, occupational illnesses may be underreported.



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