



# Stone Operator Mining Facts - 2002

1. In 2002, a total of 4,311 **stone mining operations** reported employment to the Mine Safety and Health Administration (MSHA). The major industrial classifications in stone mining are dimension stone (used for construction purposes), crushed and broken stone (aggregates), cement, and lime.
  - Stone mines comprised 29.7% of all mining operations.
  - Mines producing crushed and broken stone (n = 3,372) comprised 78.2% of all stone mining operations.
2. A total of 68,302 **employees**, corresponding to 69,865 full-time equivalent (FTE) employees,<sup>1</sup> were reported by stone operators to MSHA. This is a 3.1% decrease in the number of FTE employees from 2001.
  - Stone operator employees comprised 27% of all employee hours reported to MSHA in 2002.
  - The primary commodity mined by the majority of stone operator employees was limestone (crushed and broken), accounting for 45.5% of all stone mine operator employment.
3. Nineteen work-related **fatalities** occurred in stone mines in 2002, compared to three in 2001.
  - The stone mine fatality rate was 27.2 per 100,000 FTE employees.
  - Ten fatalities occurred at surface work locations<sup>2</sup> and nine in processing mills.
4. There were 2,462 **nonfatal lost-time injuries** among stone mine employees occurring at a rate of 3.5 injuries per 100 FTE employees. These injuries resulted in 100,490 days lost from work.<sup>3</sup>
  - The median number of days lost from work among stone employees with nonfatal lost-time injuries was 12.0 days.
  - The highest injury rate was in mill processing operations (3.9 per 100 FTE operator employees), followed by underground (3.7) and surface (3.0) production locations.
  - The most frequent type of accident for stone mine employees involved handling of materials (39.4%) followed by slips or falls (25.1%). Among those accident types with more than 10% of the total number of nonfatal lost-time injuries, the most severe injuries (as measured by the median number of days lost) were associated with slips or falls (n = 618; median = 18), handling of materials (n = 971; median = 11), machinery (n = 247; median = 11), and hand tools (n = 280; median = 8).
  - Sprains and strains were the most frequently reported nature of injury (n = 1,178). They accounted for 43.3% of the days lost from work. The back was the most frequently reported part of the body injured (23.0%), accounting for 18,578 days lost from work in 2002.
  - Among stone mine employees, those with a job title of "mechanic/repairman/helper" had the greatest number of nonfatal lost time injuries (n = 576; 23.4%), followed by those classified as "sizing/washing/cleaning plant operator/worker" (n = 432; 17.5%).
5. There were 119 cases of **occupational illness** reported to MSHA for stone employees.<sup>4</sup>
  - The most frequently reported illness involved joint, muscle, or tendon irritation or inflammation (n = 43; 36.1%).
  - Thirty cases (25.2%) of hearing loss or impairment were reported.
  - Stone mine operators reported nine cases of silicosis in 2002.

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

<sup>2</sup> Surface production operations include strip or open pit mines, dredge operations, other surface mining, and independent shops and yards.

<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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