

CHAPTER 1. FATAL INJURIES IN THE MINING INDUSTRY: CENSUS OF FATAL OCCUPATIONAL INJURIES

An examination of the Census of Fatal Occupational Injuries (CFOI) data for the period 1992-1995 shows that 659 fatalities occurred in the mining industry as defined by the SIC. Oil and gas accounted for slightly more than one-half of all fatalities (figure 1-1). The coal industry had the highest fatality rate for the 4-year period, with 35.6 deaths per 100,000 full-time workers, followed by metal (23.1 per 100,000), oil and gas (23.1 per 100,000), and nonmetal (20.1 per 100,000). The fatality rate for all U.S. industries during this same period was 5.1 per 100,000 full-time workers. Figure 1-2 compares the fatal injury rates by year for the four major industry sectors of mining to the fatality rate for all industries combined.

Figure 1-3 compares age-specific fatality rates in the mining industry to those seen for U.S. industry as a whole. Fatality rates for all industries combined were lowest for young workers and steadily increased in relation to workers' ages. In the mining industry, fatality rates by age group show a U-shaped curve. Young workers under 20 years of age had the highest injury rate (54.6 per 100,000), followed by workers aged 20-24 (50.8 per 100,000) and workers over age 65 (37.7 per 100,000).

Table 1-1 shows the distribution of injuries by type of injury event. The mining industry, in comparison with all industries, had a considerably larger proportion of fatalities classified as *caught in or crushed by collapsing materials* (9.1% and 1.9%, respectively) and *fires and explosions* (10.0% and 3.1%, respectively). *Transportation events* comprised the largest proportion of fatal injuries in both the mining industry and all industries. Within the mining industry only, *transportation* accounted for the largest proportion of fatalities in all mining sectors except coal. A more detailed examination of the transportation events within the mining industry showed that highway incidents (50.5%) were the most common, followed by nonhighway incidents (22.2%), pedestrian incidents (10.6%), and those incurred during rail, water, and air transport (15.7%). Incidents involving *caught in or crushed by collapsing materials* comprised a higher percentage of injuries in the coal and metal sectors, while fall-from-height incidents were more frequent in the oil and gas sector. The classification system used in CFOI for type of injury event is not compatible with any variables contained in the MSHA data; therefore, direct comparisons are not attempted.

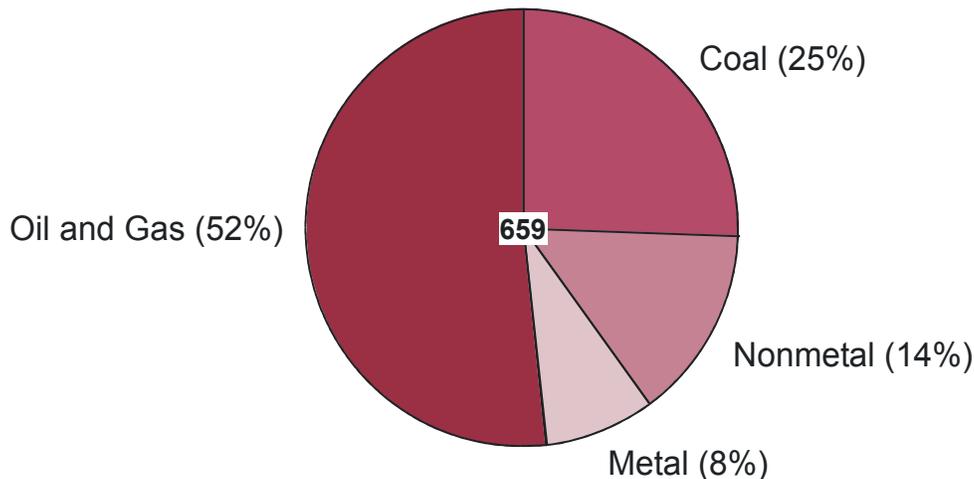


Figure 1-1.—Percentage of fatal injuries in the mining industry by industry sector, 1992-1995. (Note: “Nonmetal” Includes nonmetallic minerals, stone, and sand and gravel.) (Source: CFOI data-BLS)

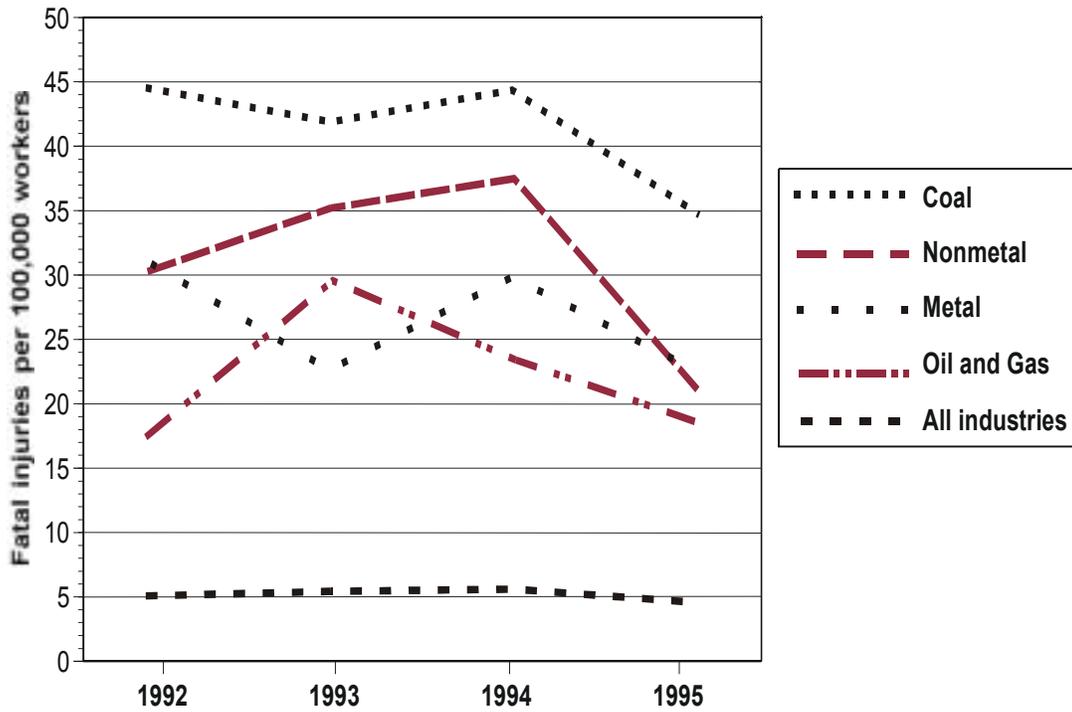


Figure 1-2.—Rate of fatal injuries (per 100,000 workers) in the mining industry by industry sector, and in all industries, 1992-1995. (Note: “Nonmetal” includes nonmetallic minerals, stone, and sand and gravel.) (Source: CFOI data-BLS)

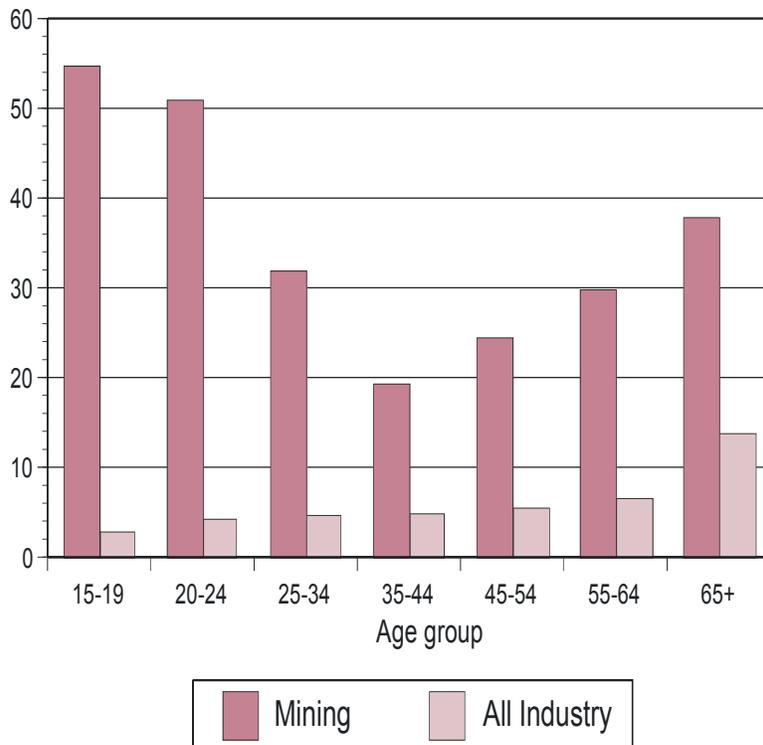


Figure 1-3.—Rates of fatal injuries (per 100,000 workers) by age group in the mining industry and in all industry, 1992-1995. (Source: CFOI data-BLS)

Table 1-1.—Number and percent of fatal injuries by type of event for all U.S. industries and for the mining industry by sector, 1992-1995.

Injury event	Coal	Nonmetal	Metal	Oil and gas	All mining	All industries
Struck by falling object	18 (10.7%)	2 (2.1%)	7 (12.7%)	43 (12.6%)	70 (10.6%)	1,400 (5.6%)
Caught in or compressed by equipment or Objects	31 (18.5%)	9 (7.4%)	2 (3.6%)	15 (4.4%)	57 (8.6%)	1,157 (4.6%)
Caught in or crushed by collapsing materials	35 (20.8%)	11 (11.6%)	10 (18.2%)	4 (1.2%)	60 (9.1%)	478 (1.9%)
Fall from height	3 (1.8%)	6 (6.3%)	2 (3.6%)	28 (8.2%)	39 (5.9%)	2,113 (8.4%)
Electric current	13 (7.7%)	6 (6.3%)	1 (1.8%)	26 (7.6%)	46 (7.0%)	1,348 (5.4%)
Transportation	34 (20.2%)	37 (38.9%)	21 (38.2%)	106 (31.1%)	198 (30.0%)	10,251 (40.8%)
Fires and explosions	19 (11.3%)	7 (7.4%)	4 (7.3%)	36 (10.6%)	66 (10.0%)	772 (3.1%)
All other	15 (8.9%)	17 (17.9%)	8 (14.5%)	83 (24.3%)	123 (18.7%)	8,991 (35.8%)
Total	168 (100%)	95 (100%)	55 (100%)	341 (100%)	659 (100%)	25,110 (100%)

Source: Census of Fatal Occupational Injuries.