

Overview of Alaska’s Work-related Fatalities

The demographics of Alaska’s workforce in the 1990s often reflected national trends. Fifty-five per cent of Alaska’s workers were male, compared to 54 per cent of workers nationally.^{5,6} In Alaska, about 96% of worker deaths were among males, compared to 94% nationally. (See Figure 3.)

This disparity is partially explained by the most hazardous Alaska occupations employing primarily males: there were 217 commercial fishermen, 107 civilian commercial pilots and 6 military pilots, 41 other military personnel, and 26 loggers killed on the job during this 10-year period. In all, during 1990-1999, there were 648 acute traumatic occupational injury fatalities in Alaska.

Many of these occupational fatalities were to young workers, resulting in 17,493 Years of Potential Life Lost (YPLL<65). The dollar cost to society in lost future productivity due to these premature work related deaths is estimated to be at least \$602,000,000 using the “cost of injury method.”⁷ “Willingness to pay” methods would result in much higher estimates.

The major circumstances of death for all workers during this 10-year period were drowning (219), aircraft crash (192), being crushed (53), homicide/suicide (47), motor vehicle crash (29), and fall (26). (See Figure 4.)

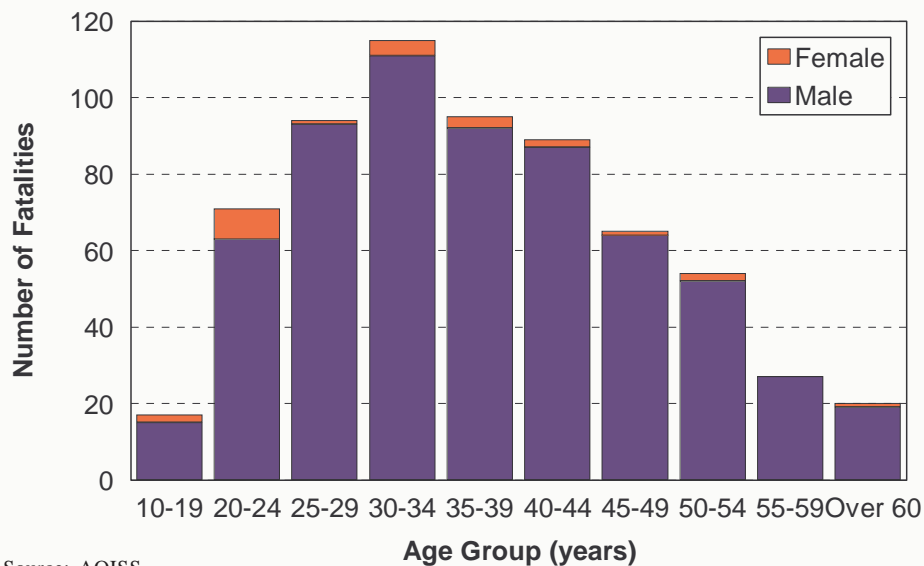
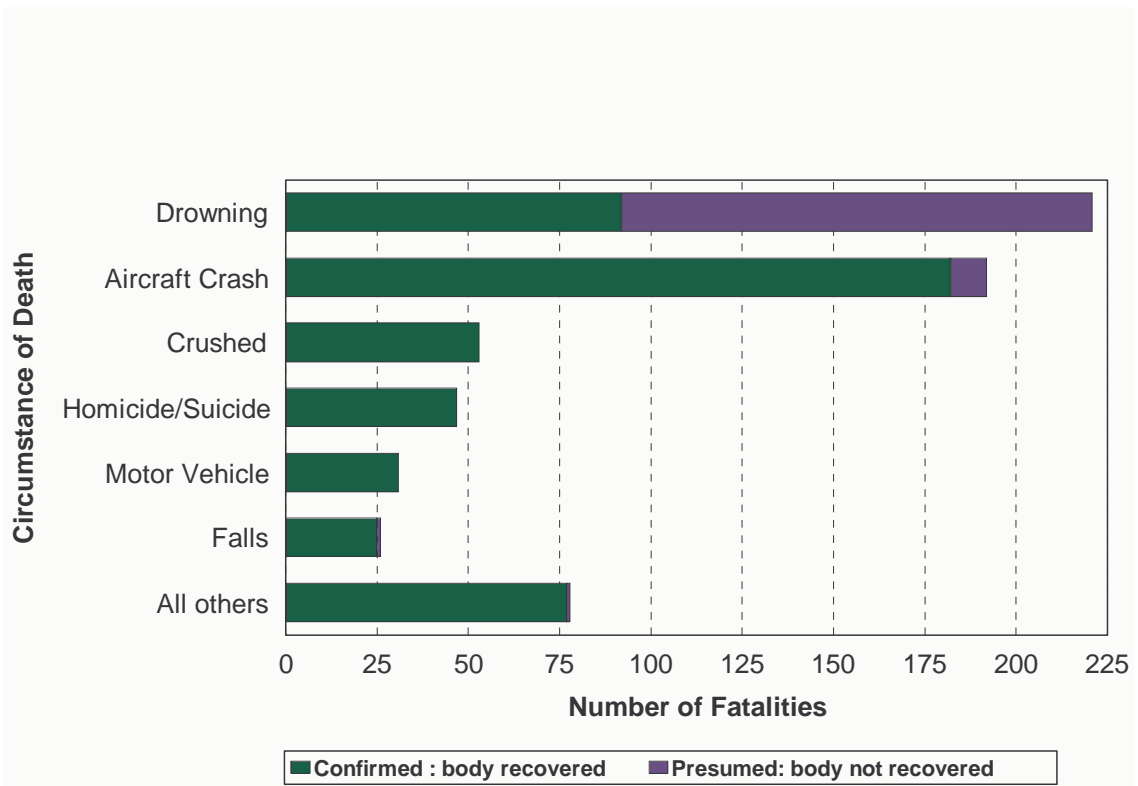


Figure 3: Occupational Fatalities by Age Group and Gender, Alaska, 1990-1999, n= 648



Source: AOISS

Figure 4: Occupational Fatalities by Circumstance of Death, Alaska, 1990-1999, n= 648



Photo 4: Start of a fishing season in Southeast Alaska

Using available workforce denominator data, occupation-specific mortality rates were calculated for Alaska pilots (410/100,000/yr. average for period 1990-1999),⁸ loggers (150/100,000/yr. average for period 1990-1999),⁹ and fishermen (124/100,000/yr. average for period 1990-1999),¹⁰ compared to an all Alaska rate for 1990-1999 of 22/100,000/workers/year,¹¹ and an all U.S. rate for 1991-1995 of 4.4/100,000/workers/year.⁵ (See Figure 5.)

Overall, occupational injury fatalities decreased significantly ($p < 0.001$) during the 1990s (from 82 in 1990 to 42 in 1999, a decrease of 49 percent), with the bulk of improvement occurring among fishermen and loggers. Fishermen, Pilots, Loggers, and Other Maritime workers comprised the majority of work-related deaths in Alaska during the 1990s. However, a significant number of workers identified as working in “other” categories were also killed ($n = 207$ for 1990-1999). These workers in “other” occupations included Construction Laborers (12 killed during 1990-1999), Truck Drivers (11 deaths), Mining Machine Operators (9 deaths), Laborers in Non-construction Industries (8 deaths), Taxi Drivers/Chauffeurs (7 deaths), and Biological/Life Scientists (7 deaths). (See Figure 6.) In all, 98 different occupations are listed in the “other” category.

However, no significant decrease has been noted among pilots, who now account for an increased proportion of occupational mortality in the state. While drowning was the most common cause of death during 1990-1994, major progress was made in reducing the frequency of drowning deaths during the 1990s, so that by 1995-1999, aircraft crashes had become the most common cause of death for Alaskan workers. (See Figure 7.) As causes of occupational death have shifted in the past decade, NIOSH has shifted the focus of its prevention efforts.

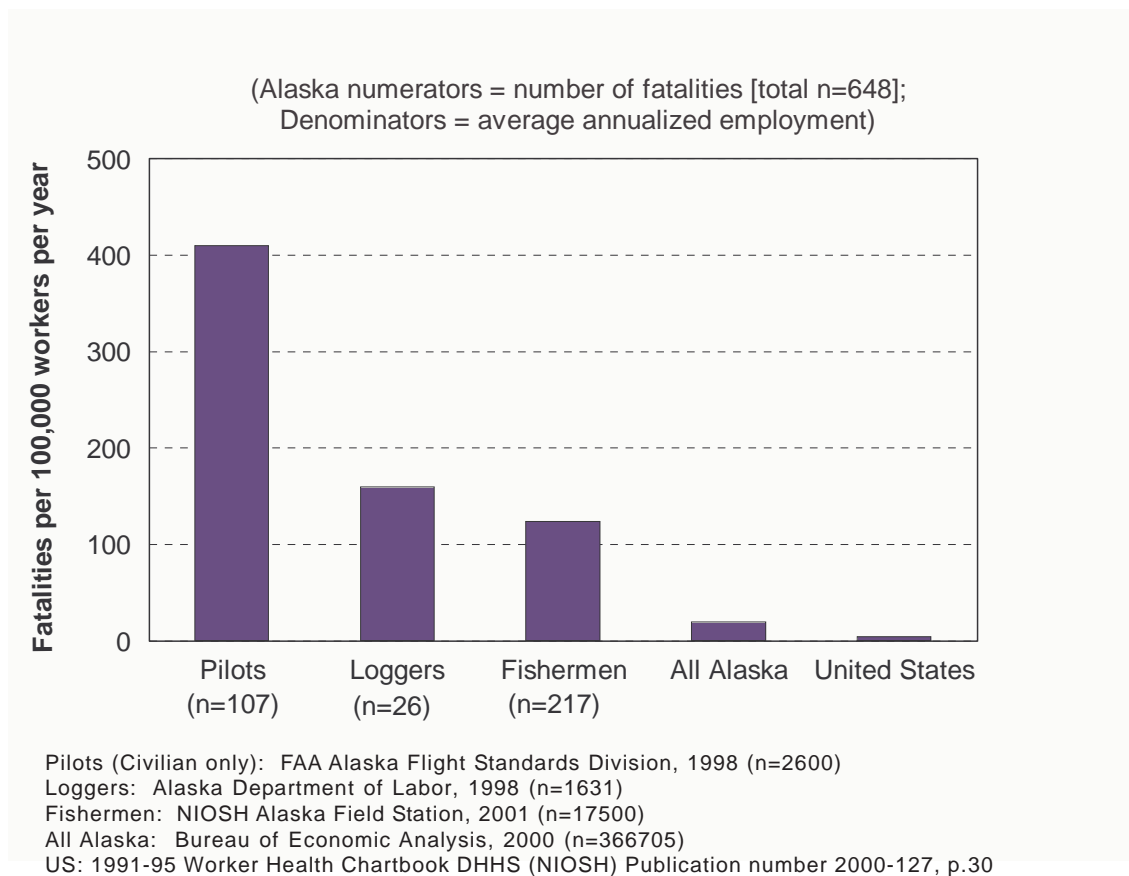
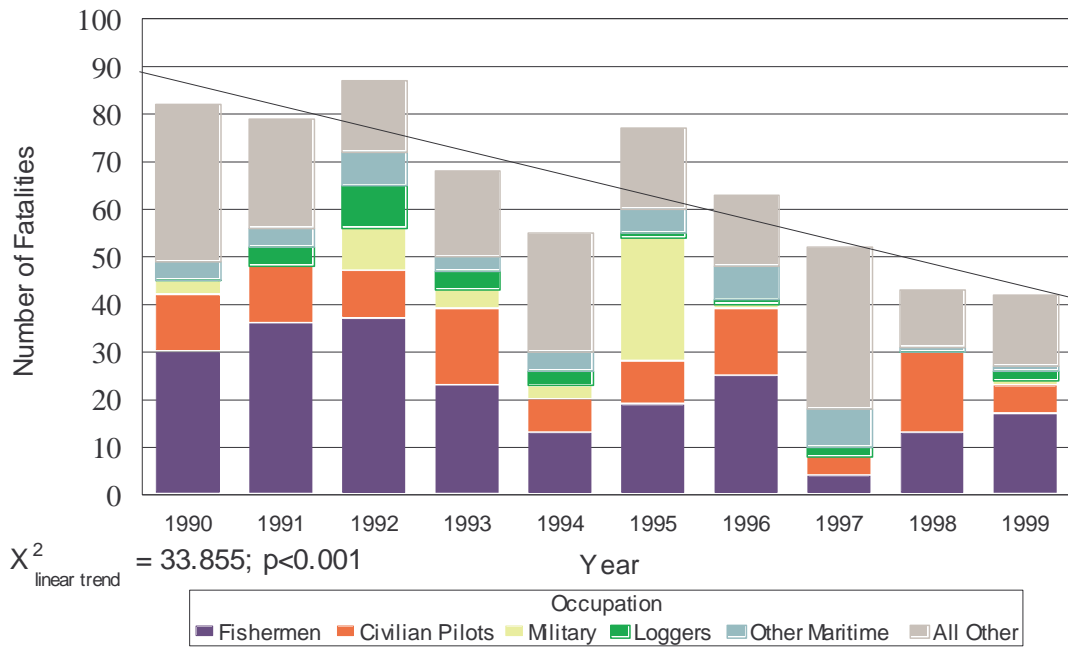
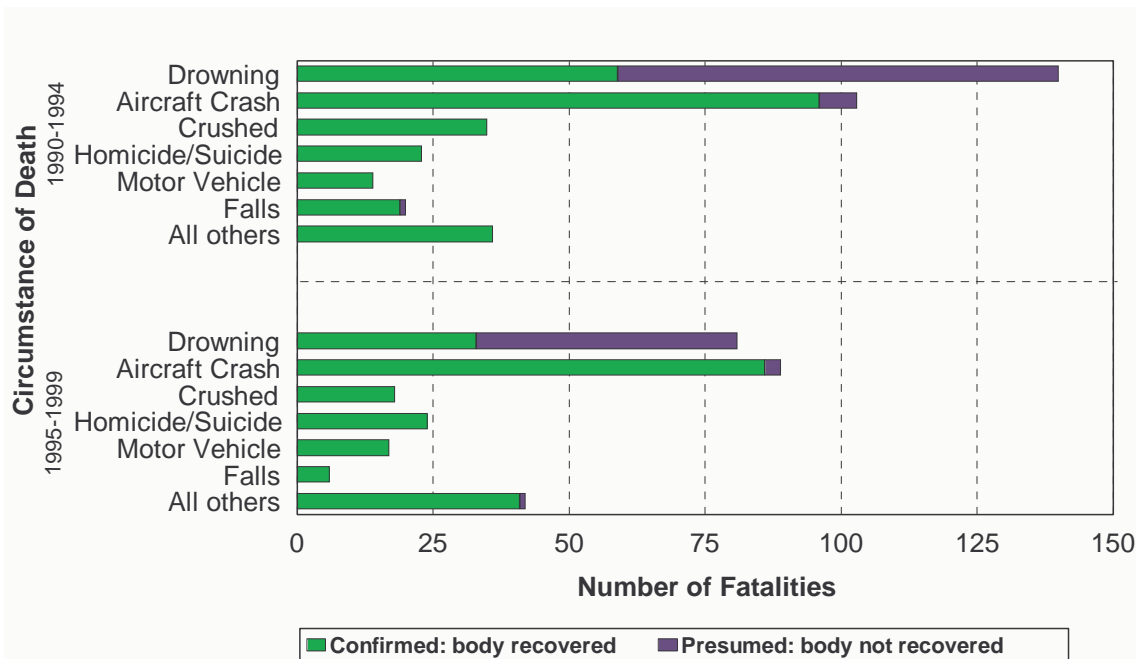


Figure 5: Fatality Rates by Occupation, Alaska, 1990-1999



Source: AOISS

Figure 6: Occupational Fatalities, Alaska, 1990-1999, n=648



Source: AOISS

Figure 7: Occupational Fatalities by Circumstance of Death, Alaska, 1990-1994, n=371; and 1995-1999, n=277