



Department of Health and Social Services  
William J. Streur, Commissioner

3601 C Street, Suite 540  
Anchorage, Alaska 99503

<http://www.epi.Alaska.gov>

Division of Public Health  
Ward Hurlburt, MD, MPH, CMO/Director

Local (907) 269-8000  
24 Hour Emergency (800) 478-0084

Editor:  
Joe McLaughlin, MD, MPH

Bulletin No. 8 April 27, 2011

## Update on Work-related Fatalities — Alaska, 1990–2009

### Background

Workers' Memorial Day is observed each year on April 28 to recognize those workers who died or were injured on the job. Employers and insurers spent nearly \$79 billion on workers' compensation in 2008 in the United States.<sup>1</sup> Those expenditures represent only a portion of the costs borne by employers, workers, and society overall as a result of work-related injuries and fatalities.

Although Alaska has consistently had one of the highest work-related fatality rates in the nation, from 1990–1999, there was a 49% decline in work related deaths.<sup>2</sup> Several state and federal government agencies, industry, and nonprofit organizations worked together to achieve this success. Using work-related fatality data, these partners identified hazards, and developed and implemented interventions to address them. Examples of such interventions include policy changes, engineering controls, education/training, and the use of personal protective equipment. The purpose of this *Bulletin* is to identify areas for focusing future prevention efforts in order to further improve worker safety in Alaska.

### Methods

Fatality reports from the Alaska Occupational Injury Surveillance System (AOISS) were used to identify all work-related fatalities caused by traumatic injuries in Alaska from 1990–2009. Fatality characteristics available in the database include age, sex, occupation, industry, weather, and circumstances of death. AOISS is maintained by the Alaska Pacific Regional Office, National Institute for Occupational Safety and Health (NIOSH), in partnership with the Alaska Division of Public Health. In addition to data from AOISS, data from the NIOSH Commercial Fishing Incident Database (CFID) were utilized. Investigation reports from the National Transportation Safety Board were also used to supplement AOISS data for aviation crashes.

### Results

During 2000–2009, 379 work-related fatalities were identified in Alaska; this represents a 42.5% decrease in work-related fatalities from the previous decade (Table).

Table. Fatalities by Leading Occupations and Events/Exposures	1990–1999	2000–2009
<b>Occupations</b>	n=648	n=379
Commercial fishermen	202 (33%)	111 (29%)
Pilots	104 (17%)	47 (12%)
Captains/Sailors (not fishermen)	35 (5%)	26 (7%)
Other Occupations	307	195
<b>Events or Exposures</b>		
Water vessel incidents	218 (34%)	128 (34%)
Aviation incidents	196 (30%)	87 (23%)
Contact with objects/equipment	58 (9%)	46 (12%)
Vehicle crashes	52 (8%)	35 (9%)
Assaults/violent acts	48 (7%)	29 (8%)
Other Events or Exposures	76	54

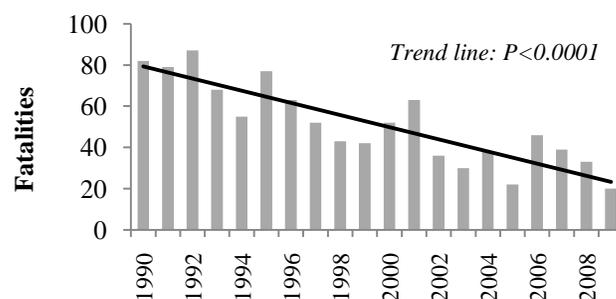
During 2000–2009, 133 deaths occurred among commercial fishermen and fish processors on vessels in Alaska. Half (n=67) of these fatalities were caused by drowning following vessel losses (e.g., sinking or capsizing); 32% (n=42) were caused by falls overboard; and 18% (n=24) were caused by traumatic injuries onboard, ashore, or while diving. The highest number of fatalities (n=39) occurred in the salmon fishery, while the highest fishery-specific fatality rate (340 fatalities per 100,000 workers per year) occurred in the Bering Sea Aleutian Island Freezer trawl fleet.

From 2000–2009, there were 48 fatal aircraft crashes resulting in 78 occupational fatalities. Of the 48 crashes, 17 (35%) were associated with intended takeoffs/landings at landing sites not registered with the FAA. Fourteen (29%) crashes were associated with bad weather; 10 (21%) with pilots' loss of aircraft control; 8 (17%) with pilots' failure to maintain clearance from terrain, water, or objects; and 7 (15%) with engine, structure, or component failure.

### Discussion

In Alaska, the occupations with the most fatalities and the events/exposures leading to traumatic deaths have not changed over the past 20 years; however, a steady decline in the number of work-related fatalities has occurred (Figure). In addition to the data shown here, NIOSH has reported that fatality rates among crab fishermen have declined by 60% since 1999,<sup>3</sup> and the number of work-related fatalities from civilian aviation crashes has declined by 50% from the 1990s to the early 2000s (publication in press). However, the data in this report support continuing to focus efforts on preventing water and air transportation incidents.

Figure. Number of Work-related Fatalities by Year — Alaska, 1990–2009



The leading events or exposures for work-related fatalities in both Alaska and the U.S. were transportation incidents (i.e., land, air, and water). However, Alaska has unique hazards that require specific interventions. For example, in Alaska, water and air transportation are the major contributors within this category, while in the U.S. overall, these types of transportation events accounted for only 5% and 9% of transportation fatalities, respectively.<sup>4</sup>

Interventions developed in Alaska since 2000 include stability checks for the Bering Sea crab fleet, and the Capstone program to improve pilots' situational awareness. Progress has been made, but fatality rates continue to be high, so further safety interventions are needed to combat the unique high-risk occupational hazards found in Alaska.

### Recommendations

1. Governmental agencies, industry, and non-governmental organizations should continue to collaborate to prevent work-related fatalities in Alaska.
2. Research should focus on discovering new preventive measures, evaluating their effectiveness, and determining how to foster their consistent adoption and use.

### References

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2. CDC, *Surveillance and Prevention of Occupational Injuries in Alaska: A Decade of Progress, 1990-1999*. Cincinnati, OH:NIOSH; 2002. DHHS Publication No. 2002-115.
3. CDC. Commercial Fishing Deaths—United States, 2000-2009. MMWR 2010;59:842-5.
4. U.S. Bureau of Labor Statistics homepage. Available at: <http://stats.bls.gov/iif/oshcfoi1.htm#other>