

Workplace Deaths on Steady Decline

Even the most dangerous jobs become safer

Alaska's workplace fatality rate has always been high compared to the rest of the United States — not a surprise when you consider the extreme conditions many Alaska workers face and the challenges of getting around the state.

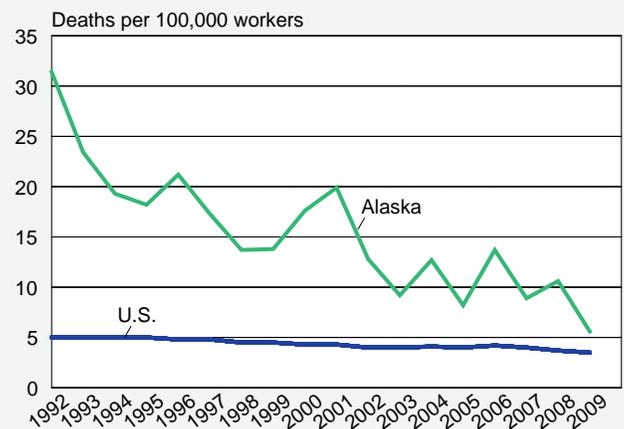
Alaska's isolated, remote communities require different modes of transportation, so aircraft travel is more common here — and because of the weather and terrain, it's also more dangerous. Commercial fishing, a notoriously hazardous occupation, is also a much larger part of the economy in Alaska than it is in the Lower 48.

Though Alaska's fatality rate remains higher than that of the nation as a whole, the state's rate has dropped considerably since 1992, when the U.S. Bureau of Labor Statistics implemented the Census of Fatality Occupational Injuries program to begin measuring and studying these deaths. (See Exhibit 1 and the box below.)

Total injuries and the fatality rate

Workplace fatalities are measured by the number of deaths per 100,000 workers. In Alaska, that

1 Alaska Fatalities Decline U.S. and Alaska, 1992 to 2009



Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section; and U.S. Bureau of Labor Statistics

rate was 5.6 in 2009, the most recent year for which the rate has been calculated. (See Exhibit 2.) In contrast, the fatality rate was 31.4 in 1992.

Alaska's workplace fatalities have continued to decline even as overall employment increased 31 percent, from 247,000 jobs in 1992 to 324,000 in 2010. One possible explanation for the decline in workplace fatality rates is the growth and

Census of Fatal Occupational Injuries keeps precise, detailed statistics

The Bureau of Labor Statistics began conducting annual surveys in 1972 to estimate injuries, illnesses, and fatalities at work. Subsequent analyses showed traumatic occupational fatalities were underreported, and widely varying estimates raised concern about using a sampled survey to estimate deaths. In response, BLS and state agencies developed the Census of Fatal Occupational Injuries, implementing it in all 50 states and the District of Columbia in 1992.

CFOI maintains a complete count of worker fatalities and analyzes them in detail. The program relies primarily on death certificates, newspaper articles, reports from federal and state agencies, and workers' compensation records. It includes em-

ployer characteristics, fatality details, and demographic information about the deceased while keeping any identifying information confidential. Because these data are so specific, they're especially useful to policy makers, researchers, concerned employers and workers, unions, trade organizations, and safety equipment manufacturers.

CFOI records any job-related death in Alaska, even if the worker was not a resident or didn't work for an Alaska company. These deaths include homicides, suicides, transportation accidents, contact with objects, falls, and exposure to harmful substances. Natural deaths that happen at work, such as heart attacks, are not part of the record.

2 Rates by State

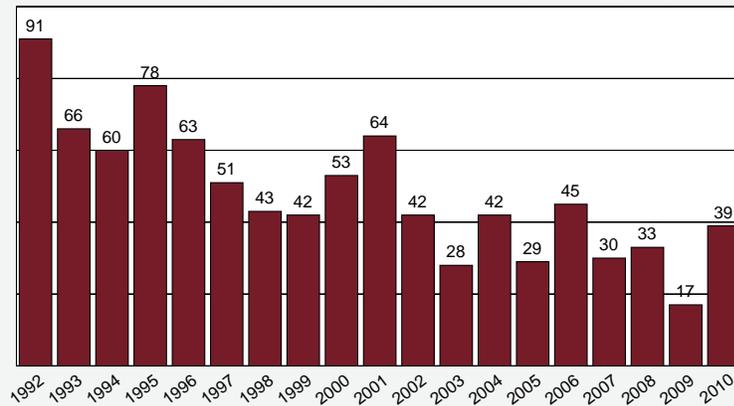
Deaths on the job

State	Deaths per 100,000 workers	
	2009 ¹	2004-08
New Hampshire	0.9	1.9
Rhode Island	1.5	1.3
Delaware	1.9	2.6
Connecticut	2.0	2.3
Hawaii	2.1	3.3
Massachusetts	2.2	2.2
Nevada	2.2	4.5
New York	2.2	2.6
Michigan	2.3	2.7
Minnesota	2.4	2.8
Maryland	2.5	3.0
Washington	2.5	2.7
California	2.6	2.7
New Jersey	2.6	2.5
Georgia	2.8	4.5
Maine	2.8	2.9
Ohio	2.8	3.2
Arizona	2.9	3.4
Illinois	2.9	3.2
Vermont	2.9	2.8
Pennsylvania	3.1	3.9
Florida	3.2	4.3
North Carolina	3.3	4.0
Virginia	3.3	4.3
Colorado	3.4	4.9
Wisconsin	3.4	3.4
U.S. Average	3.5	4.0
Oregon	3.9	3.7
Utah	3.9	4.9
District of Columbia	4.0	3.7
South Carolina	4.0	5.5
Alabama	4.3	5.5
Idaho	4.3	5.0
Tennessee	4.5	5.2
Texas	4.6	4.5
Indiana	4.7	4.8
New Mexico	5.2	5.4
Oklahoma	5.3	5.9
Alaska	5.6	10.8
Iowa	5.6	5.3
Missouri	5.6	5.7
West Virginia	5.7	7.8
Kansas	5.8	5.8
South Dakota	5.9	6.8
Kentucky	6.0	6.6
Nebraska	6.2	5.4
Mississippi	6.3	7.5
Arkansas	6.4	6.3
Wyoming	7.5	15.0
North Dakota	7.9	7.7
Louisiana	8.0	6.5
Montana	12.1	9.2

¹Most recent rates available
Source: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with state and federal agencies, Census of Fatal Occupational Injuries

Number of Deaths on the Job

Alaska, 1992 to 2010



Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section; and the U.S. Bureau of Labor Statistics

maturation of the Alaska economy. The state has gained more than 70,000 jobs since 1992, and most of the growth has been in the service sectors, where workplace fatalities are much less common.

Deaths on the job in the nation as a whole have remained largely stable since 1992, declining slightly in the last few years. Overall, the U.S. fatality rate has ranged from four to five deaths per 100,000 workers since 1992, reaching its lowest rate of 3.5 in 2009.

Characteristics of the workers

The overwhelming majority of those who lose their lives on the job are male — 94.9 percent of 39 total fatalities in 2010. (See Exhibits 3 through 5.) This is because men tend to dominate the more dangerous industries such as logging, commercial fishing, and construction.

Among racial and ethnic groups, 74.4 percent of fatalities were among white, non-Hispanic workers, and 12.8 percent were Alaska Native or American Indian.

Deaths were also most common among those in their prime working years — ages 35 to 54 — at 46.2 percent, followed by those aged 25 to 34, at 20.5 percent.

Although self-employed workers were about 6 percent of the state's workforce, they made up 20.5 percent of workplace fatalities. The higher fatality rate among the self-employed is primarily due to deaths in seafood harvesting.

Highest fatalities by industry

Historically, the highest workplace death rates in Alaska have been in air transportation and seafood harvesting. Fatalities are

4 Total Fatalities 1992 to 2010

Year	Alaska	United States
1992	91	6,217
1993	66	6,331
1994	60	6,632
1995	78	6,275
1996	63	6,202
1997	51	6,238
1998	43	6,055
1999	42	6,054
2000	53	5,920
2001	64	5,915
2002	42	5,524
2003	28	5,575
2004	42	5,764
2005	29	5,734
2006	45	5,840
2007	30	5,657
2008	33	5,214
2009	17	4,551
2010	39	4,547

Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section; and U.S. Bureau of Labor Statistics

also typically high in the construction industry, in which they rose to a high of 10 in 2010, or 25.6 percent of all work-related fatalities. (See Exhibit 6.)

Nationally, construction fatalities declined by 10 percent between 2009 and 2010, but the construction industry still has the highest rate of workplace deaths in the nation.

Air travel

Alaska's air transportation industry, which includes commercial air taxi and helicopter services, accounted for 13 percent of all worker fatalities in Alaska in 2010, and 50 percent of

transportation-related deaths. This was a major departure from the rest of the nation, where only 1 percent of workplace deaths were in air transportation the same year.

Alaska pilots are known for the danger and scope of their work. Because 82 percent of Alaska communities aren't accessible by road, the state has grown a large aviation network whose 10,000 pilots operate in 700 registered airports and 1,200 air strips in more than 3 million square miles.

Flying into these remote and isolated locations can be fraught with hazards, including unpredictable and harsh weather. Despite these challenges, aviation fatalities in the state fell to their lowest level in 2005 and have remained low. (See Exhibit 7.)

The decrease in deaths may be partly due to safety improvements by the Federal Aviation Administration, the pilots themselves, and other public and private

aviation agencies. One example is the Alaska Capstone Program, which uses new technology to improve instrumentation on aircrafts and on the ground. Other aviation safety programs include the Medallion Foundation Five Star Shield Program and the Circle of Safety Program, which focuses on educating passengers.

Seafood harvesting

Some of Alaska's highest numbers of workplace deaths have been in seafood harvesting — 275 deaths since 1992, or 30 percent of the total.

Seafood harvesting has always been one of Alaska's most dangerous industries. Fishermen are exposed to some of the harshest working conditions in the world — rough seas, extreme cold, ice, darkness, and high winds. Popular reality television shows such as *The Deadliest Catch* have boosted the industry's notoriety. However, despite its reputation, Alaska's fishing industry has im-

5 Deceased Worker Characteristics All Alaska industries, 2010

	Total deaths	Percent
Total:	39	100.0%
Employee status:		
Wage and salary workers	31	79.5%
Self-employed	8	20.5%
Gender:		
Men	37	94.9%
Women	2	5.1%
Age:		
20 to 24 years	5	12.8%
25 to 34 years	8	20.5%
35 to 44 years	9	23.1%
45 to 54 years	9	23.1%
55 to 64 years	5	12.8%
65 years and over	3	7.7%
Race or ethnic origin:		
White, non-Hispanic	29	74.4%
Black, non-Hispanic	—	—
American Indian, Aleut, Eskimo	5	12.8%
Asian	—	—

Notes: May include volunteers and other workers receiving compensation. Includes paid and unpaid family workers, and may include owners of incorporated businesses or members of partnerships. Totals for major categories may include subcategories not shown separately. Percentages may not sum to their totals because of rounding. A dash means data are unavailable or too small to publish due to confidentiality requirements.

Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section; and U.S. Bureau of Labor Statistics

proved its safety record, with its number of fatalities falling from 12 in 1992 to five in 2010.

A variety of programs have likely contributed to the reduction in deaths, particularly individual fishing quotas for halibut and black cod (1995), some pollock, and the Bering Sea-Aleutian Islands crab rationalization program (2005). Before IFQs, fishing was literally a race to get as many fish as possible during short, derby-style openings, often in the middle of winter and regardless of conditions.

Congress enacted the Commercial Fishing Vessel Safety Act of 1988, which required fishing vessels to carry specific safety, survival, and firefighting equipment starting in 1990. The act also required emergency drills and first-aid training for crew members.

Industry groups such as the Alaska Marine Safety Education Association also educate commercial fishermen about safety and the causes of fishing-related injuries and deaths. AMSEA emphasizes survival skills and practices with fishermen using equipment that would be used in an emergency.

A Coast Guard program called the Alternate Compliance Safety Agreement focuses on the Bering Sea-Aleutian Island trawl fleet that fishes for cod and sole. ACSA requires vessel inspections to improve hull and material condition, updated vessel stability guidance, additional lifesaving and firefighting capabilities, and demonstration of emergency drills by crew.

The most hazardous jobs

In general, fatal injuries in Alaska are common among occupations that require manual labor — workers in construction, mining, and oil and gas accounted for 26 percent of workplace deaths in 2010. These workers are

8 Workplace Fatalities by Type Alaska, 1992 to 2010

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total	91	66	60	78	63	51	43	42	53	64	42	28	42	29	45	30	33	17	39
Transportation	69	47	30	67	51	33	30	31	39	48	30	13	31	21	25	17	23	9	24
Assaults/violence	4	12	6	3	6	6	7	3	3	5	—	7	—	—	4	—	—	—	4
Contact with objects or equipment	10	4	9	4	4	6	—	5	8	5	6	3	—	—	8	4	4	4	5
Exposure to harmful substances or environments	3	—	7	—	—	3	—	—	—	4	—	3	3	—	5	5	3	—	4

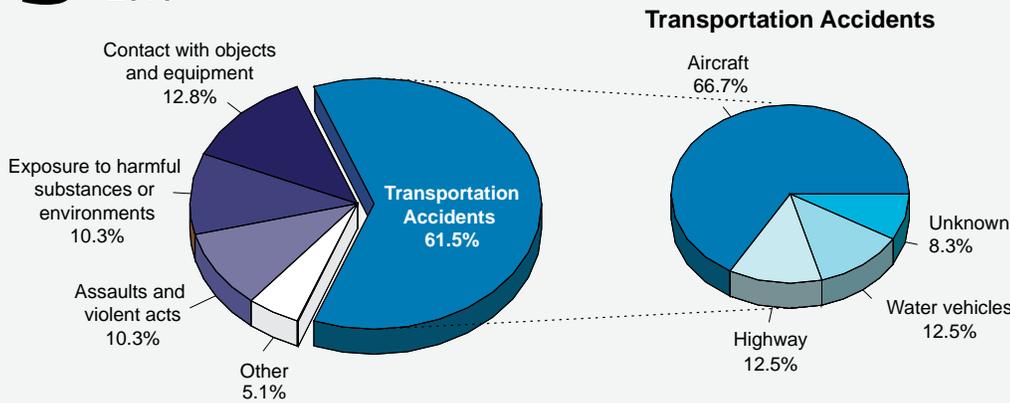
Note: Event groups are coded using the Bureau of Labor Statistics Occupational Injury and Illness Classification Structure. Columns may not sum to their total because they exclude fatality categories with data too small to publish. A dash means data are not available or are suppressed due to confidentiality requirements. Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section; and U.S. Bureau of Labor Statistics



much more likely to be in danger of falling, being caught in operating equipment or machinery, contacting electricity, and drowning.

Another 18 percent who died were aircraft pilots, and 10 percent were fishermen. The other occupations with

9 Causes of Workplace Fatalities in Alaska 2010



Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section; and the U.S. Bureau of Labor Statistics

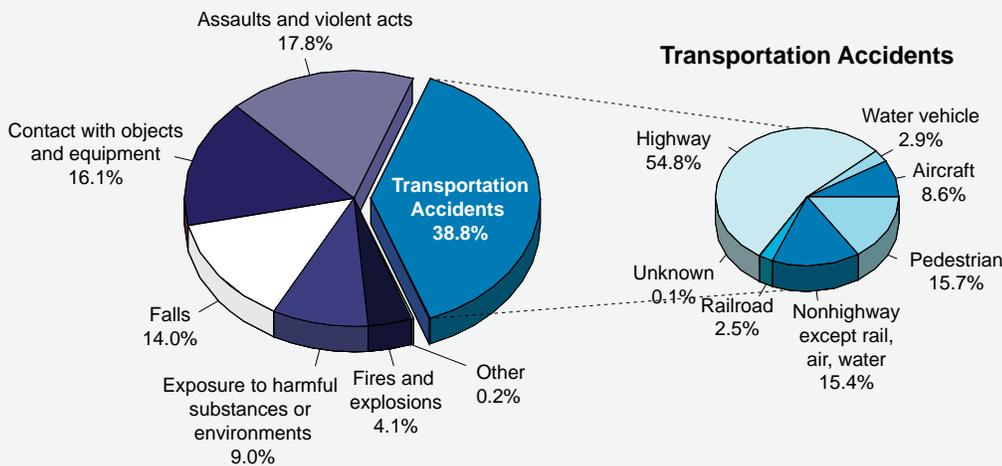
Vehicles the main cause of death

Transportation accidents were the leading cause of workplace death in Alaska and nationwide in 2010, accounting for 61.5 percent in the state and 38.8 percent in the nation. (See Exhibits 8 through 10.) The key difference is that most were aircraft-related in Alaska, but were highway-related nationwide.

Alaska's size and lack of roads means more workers travel by boat and airplane than they do in the Lower 48. In Alaska, 66.7 percent of transportation accidents were aircraft-related in 2010, in contrast to just 8.6 percent nationwide. Water vehicle accidents (mainly boats) followed at 12.5 percent in Alaska and 2.9 percent nationwide.

Just 12.5 percent of transportation fatalities were highway-related in Alaska, but highway accidents were the main cause of death in the U.S. at 54.8 percent. Pedestrians hit by vehicles represented 15.7 percent of the U.S. total.

10 Causes of Workplace Fatalities in the U.S. 2010



Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section; and the U.S. Bureau of Labor Statistics

recorded deaths in 2010 included vehicle operators, protective service workers, and mining workers.

The overall occupational mix varies greatly between Alaska and the rest of the country. Fishermen and aircraft pilots represented 40 percent of all occupational fatalities in Alaska from 2003 to 2010, but less than 3 percent nationwide.

In the U.S. as a whole, occupations in transportation and the moving of materials had high rates along with those in construction and extraction.

After vehicle accidents, “contact with objects or equipment” was the second-leading cause of death on the job in Alaska at 12.8 percent, and third nationally at 16.1 percent. This category includes those struck by falling objects and caught in equipment or collapsing structures.

Violence and assaults — which include suicide and animal attacks — and exposure to harmful substances or environments each made up 10 percent of workplace fatalities in Alaska in 2010. Exposure to harmful substances or environments

represented 9 percent of workplace fatalities nationally.

U.S. workplace assaults have decreased over the years but were still a significant cause of death in 2010, at 18 percent.

Notes

The Alaska Department of Labor and Workforce Development's Research and Analysis Section publishes fatal and nonfatal workplace injury and illness information and tables for download on its Web site: labor.alaska.gov/research/index.htm. Click on "Occupational Information" on the blue menu bar at the top, then "Workplace Fatalities" or "Workplace Injuries and Illnesses." National data as well as information for all 50 states and the District of Columbia are available from the U.S. Bureau of Labor Statistics at www.bls.gov/iif/home.htm.

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