

Work-related deaths decline

Alaska had 30 workplace fatalities – injuries that resulted in deaths – in 2007, the third-lowest number since 1992, continuing a downward trend.

In the 16 years between 1992 and 2007,¹ 825 workers died in Alaska's workplaces, an average of about one every seven days. Nationally, nearly 5,500 workers died in workplaces in 2007 alone. (See Exhibits 1 and 2.)

The data presented in this report are derived from the annual Census of Fatal Occupational Injuries program, a federal/state cooperative that started in 1992. The U.S. Department of Labor's

¹ Workplace fatalities that occurred in 2008 aren't included in this report because the Census of Fatal Occupational Injuries for 2008 won't be released until August 2009.

Bureau of Labor Statistics works with all 50 states and the District of Columbia – in Alaska's case, the Alaska Department of Labor and Workforce Development's Research and Analysis Section – to identify, verify and profile fatal work injuries using diverse state and federal data sources.²

The best way to spot trends

Because workforce fatality numbers can vary considerably from one year to the next – especially in states like Alaska where yearly fatality numbers are small in comparison to most other states – a year-to-year comparison isn't the best way to measure trends.

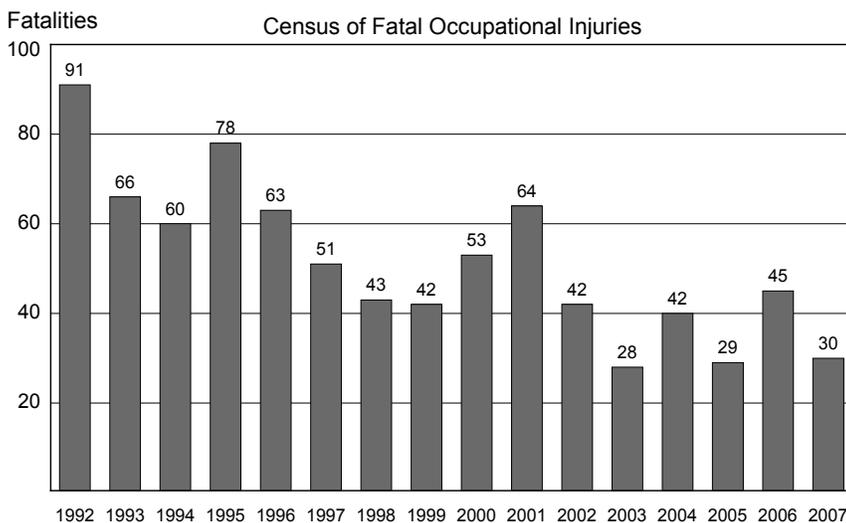
A single accident, for example, might claim numerous lives at once, spiking the fatality number for that year. The next year, there might not be a major catastrophic event, so the number of workplace deaths for that year might be a lot lower.

A better approach to explore safety trends in the workplace is to look at the average number of fatalities, how the fatalities occurred and their characteristics over different time frames spanning multiple years.

Looking at the same 16-year period, workplace fatalities decreased 32 percent from the first half of the period (an average of 62 deaths a year) to the second half (an average of 42 a year).

² The national CFOI program provides a methodological framework for all states to collect reliable and consistent information on private- and public-sector wage and salary workers and the self-employed. (See the program methodology at the end of this report.)

1 Alaska Workplace Fatalities 1992 to 2007



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

In the first five years of the 16-year period, from 1992 to 1997, Alaska had an average of 72 deaths a year. In the last five years of the period, 2003 to 2007, the state averaged 35 deaths a year, a 51 percent decrease.

Yet, while Alaska's working environments are becoming safer, people are still dying. Safety experts maintain that every workplace death is preventable.

Making a safer workplace

Alaska's downward trend in workplace fatalities since 1992 can be partly credited to the decline in commercial fishing fatalities since the implementation of individual fishing quota systems. Before the halibut, black cod and pollock fisheries converted to quota systems during the late 1990s – and the Bering Sea crab fisheries in 2005 – fishermen literally raced to get as many fish and crab as possible during short openings

Fatal Work Injuries Alaska and the U.S., 1992 to 2007 **2**

	Workplace Fatalities	
	Alaska	U.S.
2007	30	5,488
2006	45	5,840
2005	29	5,734
2004	42	5,764
2003	28	5,575
2002	42	5,524
2001	64	5,915
2000	53	5,920
1999	42	6,054
1998	43	6,055
1997	51	6,238
1996	63	6,202
1995	78	6,275
1994	60	6,632
1993	66	6,331
1992	91	6,217

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

Work-Related Fatalities in Alaska By event, 2003 to 2007 **3**

	Alaska					2003 to 2007			
	2003	2004	2005	2006	2007	Alaska		U.S.	
						Total	Percentage	Total	Percentage
Total workplace fatalities	28	42	29	45	30	174		28,401	
Transportation incidents	13	31	21	25	17	107	62%	12,040	42%
Highway vehicles	1	8	1	2	2	14	8%	6,855	24%
Water vehicles	6	8	19	13	6	52	30%	413	1%
Falls from ships, boats, other	2	3	5	2	5	17	10%	158	1%
Sinkings, capsized water vehicles	4	2	14	10	1	31	18%	149	1%
Other	-	3	-	1	-	4	2%	106	0%
Airplanes and helicopters	6	13	1	6	9	35	20%	975	3%
During take off/landing	1	4	-	-	2	7	4%	331	1%
Other aircraft incidents	5	9	-	6	7	27	16%	644	2%
Exposure to harmful substances or environments	3	3	0	5	5	16	9%	2,486	9%
Contact with objects and equipment	3	0	0	8	4	15	9%	4,836	17%
Assaults and violent acts, including suicides and animal attacks	7	0	0	4	0	11	6%	4,130	15%
Falls	0	0	3	0	0	3	2%	3,950	14%
Other or unknown	2	8	5	3	4	22	13%	959	3%

Notes:

A dash indicates that no data were reported or the data fail to meet Bureau of Labor Statistics' publication criteria.

This is a select list of events for analysis; the parts don't add to the total.

The percentages for the subsets of each category are percentages of the total fatalities in Alaska or the U.S.

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

4 Worker Characteristics

Workplace fatalities, 2003 to 2007

	2003 to 2007			
	Alaska		U.S.	
	Number	Percentage	Number	Percentage
Total	174	100%	28,401	100%
Employee status				
Wage and salary workers ¹	118	68%	22,869	81%
Self-employed ²	56	32%	5,532	19%
Gender				
Male	159	91%	26,273	93%
Female	15	9%	2,128	7%
Age				
Under 19	4	2%	624	2%
20 to 24	20	11%	2,086	7%
25 to 34	33	19%	5,039	18%
35 to 44	46	26%	6,334	22%
45 to 54	44	25%	6,873	24%
55 to 64	19	11%	4,506	16%
65 and over	8	5%	2,827	10%
Race/Ethnicity				
White	123	71%	19,808	70%
Hispanic or Latino ³	13	7%	4,517	16%
Alaska Native or American Indian	19	11%	194	1%
Asian	12	7%	771	3%
Other or not reported	7	4%	203	1%

Note: The definitions of the categories are from the Census of Fatal Occupational Injuries.

¹ May include volunteers and workers receiving other types of compensation

² Includes self-employed workers (fishermen are categorized here), owners of unincorporated businesses and farms, paid and unpaid family workers, and may include some owners of incorporated businesses or members of partnerships

³ People identified as Hispanic or Latino may be of any race. The race categories shown exclude Hispanic and Latino workers.

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

lasting a few days. The tight openings and heavy competition, coupled with Alaska's unpredictable weather that can turn vicious without a moment's notice, meant people died.

The IFQ system, in contrast, allows fishermen flexibility to wait for better weather, with months instead of days to catch their quotas.

Aviation technology improvements have also contributed to a higher level of safety. The Capstone Program, funded by the Federal Aviation Administration, was developed to address the high number of aviation accidents in Alaska, particularly in the state's rural areas. The program's goal is to increase aviation safety by integrating

technology more efficiently using automated weather information systems, the Global Positioning System and terrain avoidance hardware and software.

The Capstone Program was developed by the FAA, Alaska's aviation community, the National Transportation Safety Board, National Weather Service and National Institute of Occupational Safety and Health.

Causes of work-related deaths – a look at five years of data, 2003 to 2007³

The manner in which a workplace death occurs is called an event. The categories of events include assaults and violent acts, contact with objects and equipment, exposure to harmful substances or environments, falls and transportation incidents. If more than one type of event occurs when a worker dies, it's categorized using the first event that occurred.

For example, when a driver of a vehicle is stabbed and then crashes into a road divider, the event would be coded as an assault, not a transportation incident.

Proper event categorization can be problematic. A death due to drowning, for instance, is recorded as a transportation event if a vehicle, such as a boat or ship, was involved. But if a vehicle wasn't involved – such as if a worker fell off a dock and drowned – the event is recorded as exposure to harmful substances or environments (water).

Fatalities due to transportation incidents have been the leading cause of workplace fatalities nationally and in Alaska since the start of the census in 1992.

At the same time, Alaska's workplace transportation needs are far different and riskier

³ The rest of this report refers to the five-year period from 2003 to 2007.

than what's common in the Lower 48. Aside from the usual cars and trucks, Alaska workers rely more on different types of transportation – boats, Bush planes, helicopters, all-terrain vehicles, snow machines and even sled dogs.

Sixty-two percent of Alaska's workplace fatalities during the five-year period from 2003 to 2007 were transportation incidents, which is much higher than the U.S.'s 42 percent. (See Exhibit 3.) Nearly half the state's transportation deaths were water-vehicle related.

Alaska's dependence on air transportation – which is critical to transporting people, cargo and mail to more than 250 villages off the road system – accounted for a third of transportation fatalities during the five-year period. In comparison, the state's highway vehicle accidents that killed workers accounted for 13 percent of transportation fatalities.

Nationally, 42 percent of all workplace fatalities were transportation incidents or events during the five-year period, representing 12,040 deaths.

Exposure to harmful substances or environments was the second-leading cause of worker deaths in Alaska, representing 9 percent of the state's workplace fatalities (16 deaths). That category includes drug overdoses, diving accidents, drowning, electrocutions and chemical inhalations.

Nationally, exposure to harmful substances or environments was the fifth-leading cause of worker deaths. The category represented 9 percent of the nation's workplace fatalities, the same percentage for Alaska.

The third-leading cause of deaths in Alaska during the five-year period was contact with objects and equipment, accounting for just under 9 percent of the state's workplace fatalities. The category doesn't include the deaths of pedestrians, roadway workers and non-passengers struck by vehicles and powered industrial equipment; those would be classified as transportation fatalities. Nationally, contact with objects and equip-

ment was the second-leading cause of death, accounting for 17 percent of the nation's workplace fatalities.

Deaths due to assaults and violent acts accounted for 6 percent of Alaska's workplace fatalities (versus 15 percent for the nation), while falls only represented 2 percent of the state's fatalities (versus 14 percent for the nation). An even larger percentage of Alaska's fatalities, 13 percent, were classified under "other or unknown causes," (versus 8 percent for the nation).

Work-related fatalities by worker characteristics

A persistent Alaska myth is that there are far more males than females, although 2007 population estimates show that males 16 and older made up 51 percent of the state's population.

Even so, as far as workplace fatalities, the number of fatalities involving men far outweigh those involving women.

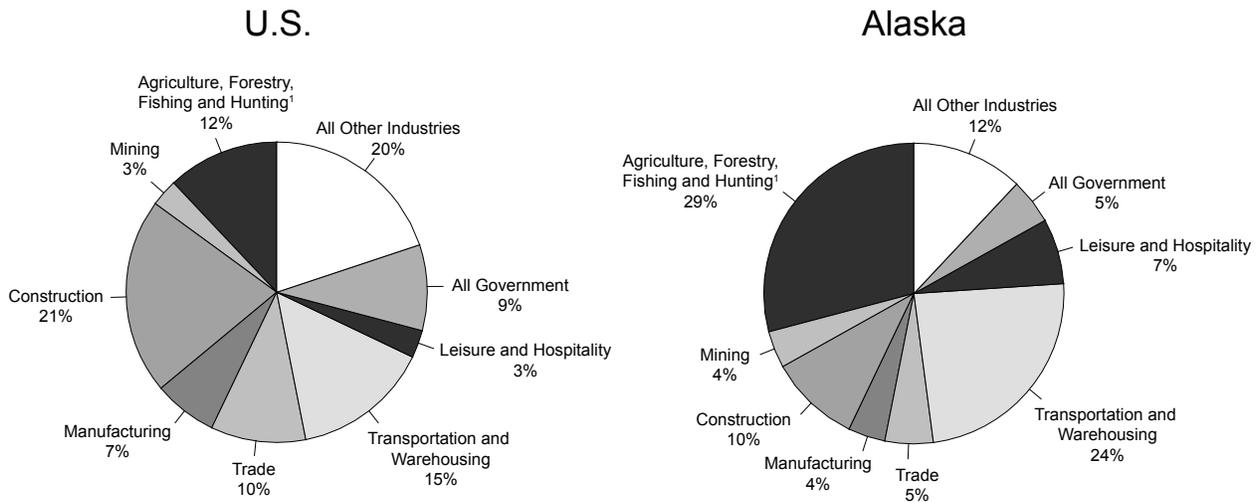
Alaska had 174 work-related deaths during the five-year period from 2003 to 2007. Of those, 91 percent were men (159 workers) and 9 percent were women (15 workers). That's largely because more men work in the state's most dangerous industries – fishing, aviation and construction. Nationally, the male/female rates were similar. (See Exhibit 4).

Looking at the difference in fatalities between the self-employed, and wage and salary workers, the self-employed have higher fatality rates in proportion to the work force than wage and salary workers. Much of that is because many people working in commercial fishing – again, a particularly hazardous industry – are self-employed.

The 2000 U.S. Census shows that self-employed and unpaid family workers make up 8 percent of Alaska's work force, yet they represented 32 percent of the state's fatalities (56 deaths) in the five-year period, as shown by the fatality census. Conversely, wage and salary workers, including government workers, make up 92 percent of

5 An Industry Breakdown of Fatalities

Workplace fatalities, 2003 to 2007

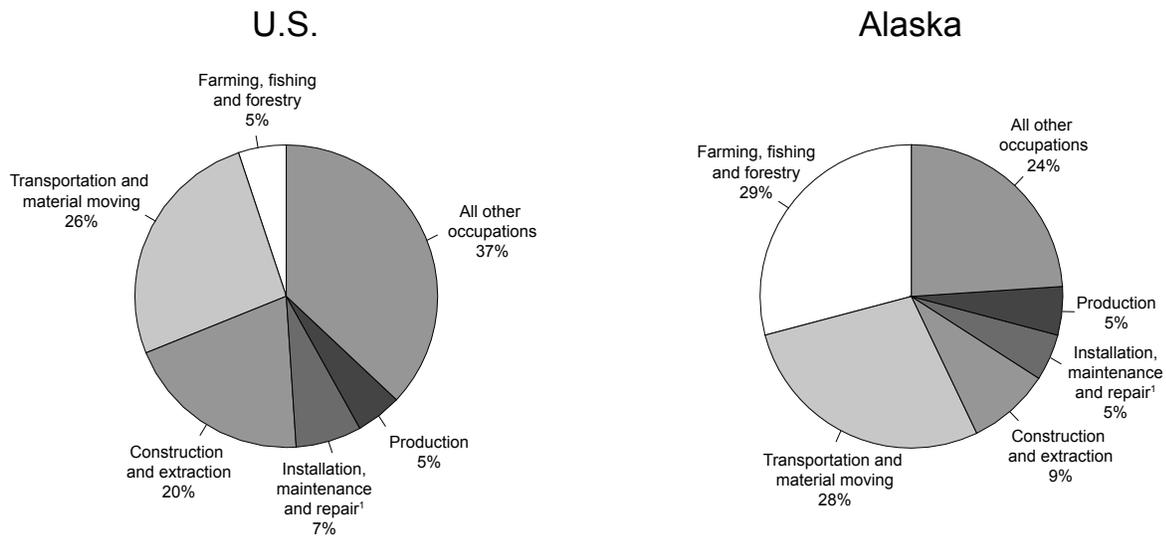


¹ This category includes fishermen.

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

6 Where the Most Workplace Fatalities Are

Occupational categories, 2003 to 2007



¹ Occupations in the installation, maintenance and repair occupational category range from a large equipment mechanic to an electrical line-man and telecommunication equipment installer and repairer.

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

Alaska's work force, yet they accounted for 68 percent of the fatalities (118 deaths).

Seventy percent of the people who died in the state's workplaces in the five-year period were in their prime working years, ages 25 to 54. The highest fatalities were in the 35- to 44-year-

old group (46 deaths), followed by the 45- to 54-year-old group (44 deaths) and the 25- to 34-year-old group (33 deaths).

Looking at race or ethnicity during the five-year period, 71 percent of the people who died on the job were white (123 workers), 11

percent were Alaska Native or American Indian (19 workers), and 7 percent were either Hispanic or Latino (13 workers) or Asian (12 workers).

Work-related fatalities by industry

Ninety-five percent of fatal injuries in Alaska in the five-year period involved workers in private industry, which includes the self-employed. Workers in the agriculture, forestry, fishing and hunting industry had the most workplace deaths with 29 percent of the fatalities (50 deaths), followed by the transportation and warehousing industry with 24 percent (41 deaths) and the construction industry with 10 percent (18 deaths). (See Exhibit 5.)

Compared to the U.S. over the same five-year period, the percentage of Alaska's workplace fatalities in the agriculture, forestry, fishing and hunting industry was more than twice as high as the national percentage (29 percent versus 12 percent). The percentage in Alaska's transportation and warehousing industry was 38 percent higher than the U.S. (24 percent versus 15 percent).

Work-related fatalities by occupation

Fatalities by occupational group add to the story.

The category with the most deaths was farming, fishing and forestry occupations, which accounted for 29 percent of Alaska's job fatalities in the five-year period. All 51 people in that category who died were in fishing-related occupations. (See Exhibit 6.)

Nationally, the farming, fishing and forestry group had only 5 percent of the deaths.

The category with the next highest number of deaths was transportation and material moving occupations, which had 28 percent of Alaska's fatalities (48 deaths). Fifteen of those were air transportation workers, 13 were motor vehicle operators and nine were water transportation workers. The remaining 10 deaths didn't meet publication criteria.

Methodology

The Census of Fatal Occupational Injuries program each year collects, analyzes and publishes information on all fatal injuries that occurred while an employee was at work receiving pay or other compensation, was conducting a work activity or was present at the site of the incident as a condition of employment.

Cases are substantiated with two or more independent source documents, such as death certificates, workers' compensation forms, coroner's reports and newspaper articles.

Deaths occurring in the private and public sectors, as well as the military, are counted. The program also counts the self-employed¹ and volunteer workers who are exposed to the same work hazards and are performing the same duties as paid employees. This methodology ensures that the counts are as complete and accurate as possible.

Information on the cause of death, and type of industry and occupation are useful in monitoring trends of work-related hazards and in identifying high-risk industries and occupations.

The CFOI program's goal is to provide people with pertinent data so they can identify potential risks to workers and work toward preventing future fatalities.

¹ Self-employed workers – of whom commercial fishermen are a big group – are covered by CFOI. However, they aren't covered under state unemployment insurance, so their employment isn't represented in Research and Analysis' standard employment data series.

In the U.S., transportation and material moving occupations represented a similar amount – 26 percent of fatalities.

Construction and extraction occupations accounted for about one out of every 10 workplace fatalities in the five-year period, or 9 percent – 16 fatalities. Nationally, it was more than twice that – 20 percent of the nation's fatalities. Alaska's abbreviated construction

season probably accounts for some of that difference.

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Research and Analysis publishes both fatal and non-fatal workplace injury and illness information and data tables for readers to download on its Web site at laborstats.alaska.gov. Click on

“Occupational Information” on the blue menu bar on the left, then “Injury, Illness & Fatalities.” 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/. (The “iif” represents “Injuries, Illnesses and Fatalities.”)

Workplace Safety: Teach Them Early

Every year, thousands of Alaska youth ages 14 to 17 work part-time or in summer jobs, where they can learn life skills and get some valuable work experience. But all that isn't worth it if teenagers get injured on the job, or killed.

That's why the Alaska Department of Labor and Workforce Development's Occupational Safety and Health Section obtained funding for a new position and hired Nathan Menah last July to travel throughout the state to get youth workers – and their employers – interested in workplace safety and health.

Eighty-five youth in Alaska in 2007 had to go to emergency rooms because of workplace injuries, Menah said. Alaska's last youth workplace fatality was in 2002, when a gillnet-setting skiff capsized out of Homer, killing a 14-year-old boy.

“The whole idea is to create an educational program that changes the attitudes of kids toward workplace safety and health,” said Grey Mitchell, director of the Labor Standards and Safety Division, which houses Occupational Safety and Health, or AKOSH.

“Workplace safety and health has a negative image with some Alaskans,” Mitchell said. “A worker may have heard a boss or co-worker talk bad about OSH, that [taking precautions] is a waste of time, that it'll slow down production. The concept is if we can get to young workers before they're jaded or predisposed,” that's the time to get the message across, he said.

Since October, Menah has taught workplace safety and health to some 2,600 students in 25 schools. He'll eventually develop a curriculum for youth of different ages – from high schoolers down to elementary school students – and he'll work with teachers, counselors and administrators to get them to use the curriculum.

Menah's presentations and the curriculum include a film that University of Alaska Anchorage broadcast students and their professor produced, working with Menah. It's been in the works for a year.

The film shows an interview with the brother of the 14-year-old who died, and another with a 20-year-old who was 17 when he lost half his hand in a sawmill accident in Fairbanks in 2006. The film crew also interviewed a mother of a Kenai teen who was 15 in 2007 when she suffered a brain injury. Her supervisor had mistakenly turned on a trash compactor when she was loading it; the compactor door flew open and hit her in the head.

Menah said he thinks the film and his presentations are getting across to the kids. “They're really amazed at what they're learning. A lot of them didn't know they had rights and responsibilities for safety in the workplace.”

During the summers – the highest employment period for youth – Menah visits employers throughout the state who hire youth, to teach them about workplace safety and health laws, particularly as they apply to youth. He also tells them about the Department of Labor's free safety consultations for employers.

For more information, call Nathan Menah at (907) 269-4946 or email him at Nathan.Menah@alaska.gov.