

Fatal Occupational Injuries to Athletes, 1992-2002

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Although athletes made up less than 1 percent of all workplace fatalities during the 1992-2002 period, their occupational fatality rate was nearly 5 times greater than the rate for workers overall. The kinds of athletes most likely to have been fatally injured on the job were automobile and motorcycle racers, divers and swimmers, horse and bull riders and trainers, and pugilists (boxers and others). Also, while the overall occupational fatality rate declined over the period, the rate for athletes increased.

From 1992 to 2002,¹ a total of 219 fatal work injuries involving professional athletes were recorded by the BLS [Census of Fatal Occupational Injuries \(CFOI\)](#). That figure represents less than 1 percent of all workplace fatalities that occurred during the period. (See table.) Over the same period, the fatality rate² for athletes was 22.0 fatal work injuries per 100,000 workers, while the fatality rate for all workers was 4.7 per 100,000 workers. In addition, occupational fatalities to athletes increased during the latter part of the study period, even as fatal work injuries in general declined. From 1992 to 1996, athletes averaged 16 deaths per year, while workers in general averaged 6,331 deaths per year. From 1998 to 2002, athletes averaged 22 deaths per year, while workers in general averaged 5,893 deaths per year.

The CFOI definition of athletes includes professional athletes, such as baseball players, race car drivers, jockeys, and boxers, as well as occupations related to athletics such as coaches, scouts, and athletic trainers, among others.³ Coaches at the primary and secondary school level are classified as teachers rather than as athletes.

Demographic Analysis Of Decedents

The vast majority (95.9 percent) of athletes who were fatally injured while at work were male; 84 percent of the decedents were white. Most (70.3 percent) of the fatally injured athletes were between the ages of 20 and 44, while only 11 percent were aged 55 and over. Geographically, the largest number of fatal workplace injuries to athletes occurred in Florida (11.0 percent). Other states with at least 5 percent of the athlete occupation fatalities included California (9.6 percent), Indiana (7.8 percent), and Louisiana (6.4 percent).

Focus On Athletic Endeavors

All professional athletes, regardless of the type, are classified in one category according to the 1990 Census Bureau occupation codes.⁴ An examination of the narratives of each workplace fatality provides more insight into the type of activities that athletes who incurred fatal occupational injuries were performing at the time of their death. For example, during the 1992-2002 period, 37.4 percent of the decedents were performing a task associated with automobile or motorcycle racing (such as driving or flagging) when they were killed. Decedents who were participating in water activities (diving, swimming, and boating) accounted for 23.3 percent of the fatalities.⁵ In addition, 16.0 percent of the athletes were killed while working with horses or bulls. Finally, 6.4 percent of the athletes were killed after participating in some form of pugilism or grappling (such as boxing, kickboxing, or wrestling).

Event Or Exposure⁶

Athletes, like workers overall, were most commonly fatally injured at work in transportation incidents. Unlike workers overall, however, athletes were most likely to be killed in nonhighway incidents,⁷ which accounted for 30.6 percent of the fatal work injuries incurred by athletes over the 1992-2002 period. Nonhighway incidents constituted only 6.2 percent of the workplace fatalities for all workers during the period. Most prominent among these nonhighway incidents for athletes was "vehicle or mobile equipment struck stationary object" (such as a race car hitting a wall at a racetrack). This type of event accounted for

15.1 percent of all workplace fatalities among athletes, and for only 0.5 percent of the workplace fatalities among workers in general.

Athletes also were more prone to assaults by animals during the 1992-2002 period. Many of these animal assaults were incurred by athletes in horse racing. This type of event accounted for 6.8 percent of the workplace fatalities to athletes, and for only 0.5 percent of the workplace fatalities to workers in general over the period. Drowning and submersion had a similar breakdown; it accounted for 18.3 percent of the athlete occupational fatalities and just 1.2 percent of the overall occupational fatalities.

Conclusion

Although athletes made up a relatively small portion (less than 1 percent) of overall workplace fatalities during the 1992-2002 period, their occupational fatality rate was nearly 5 times greater than the overall rate. Athletes fatally injured on the job were performing diverse tasks, as evidenced by the wide range of fatal events associated with this occupational group. Fatal injuries to athletes were most often incurred by automobile and motorcycle racers, divers and swimmers, horse and bull riders and trainers, and pugilists (including, among others, boxers and kickboxers). Finally, overall workplace fatalities declined over the period, while those among athletes increased.

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Notes

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¹ The 2002 data used in this analysis are preliminary.

² The fatality rate is the number of fatal work injuries in a group per 100,000 workers in that group. The formula is $\text{Rate} = (N/W) \times 100,000$, where N is the number of fatal work injuries and W is the employment. Employment data were taken from the [Current Population Survey \(CPS\)](#). The CPS includes only workers aged 16 years and over, so fatality rates in this article were calculated after excluding athletes under the age of 16 who were fatally injured at work. Resident military employment, obtained from the Department of Defense, also was used in the calculation of fatality rates where needed.

³ The CFI data in this analysis are classified using the 1990 Census Bureau occupation codes; athletes are coded as 199 in the 1990 Census Bureau system. Some of the other occupations related to athletics that fall under this code include umpire, athletic director (excluding elementary and secondary school), clerk-of-sales, paddock judge, pit steward, and handicapper. For more information on the 1990 Census Bureau occupation codes, see "The Relationship Between the 1990 Census and Census 2000 Industry and Occupation Classification Systems, Technical Paper #65," (U.S. Census Bureau, October 30, 2003); available on the Internet at <http://www.census.gov/hhes/www/iindex/pdfio/techpaper2000.pdf>.

⁴ Ibid.

⁵ The majority of athletes killed while performing water activities were divers. According to the 1990 Census Bureau occupation codes, divers, including both commercial and competitive divers, were classified as athletes. Of the 51 athletes who died performing water activities, 17.6 percent were performing commercial diving, 11.8 percent were repairing, 9.8 percent were cleaning, 9.8 percent were inspecting, 7.8 percent were rescuing, and 5.9 percent were welding. Beginning with reference year 2003 data, CFI will classify occupations using the 2000 [Standard Occupational Classification \(SOC\)](#) system. Under the SOC system, commercial divers and competitive divers are classified in different occupations. For more information, see *Standard Occupation Classification Manual: 2000* (Office of Management and Budget, October 2000); available on the Internet at <http://www.bls.gov/soc/home.htm>.

⁶ Event or exposure is defined per the BLS [Occupational Injury and Illness Classification System \(OIICS\)](#). For more information, see the [Occupational Injury and Illness Classification Manual](#) (Bureau of Labor Statistics, December 1992); available on the Internet at <http://www.bls.gov/iif/oshwc/oiicm.pdf>.

⁷ Nonhighway incidents are transportation incidents that do not occur on a road, street, or highway. Two examples would be a tractor overturning in a farm field and a vehicle striking another vehicle in a parking lot. Athletes killed on the job in nonhighway transportation incidents tend to incur their fatal injuries while performing such tasks as driving race cars--usually at racetracks and thus not on public roadways.

Table. Fatal occupational injuries to athletes, 1992-2002

Characteristics	Fatalities
Total	219
Employee Status	
Wage and salary workers(1)	146
Self-employed(2)	73
Sex	
Men	210
Women	9
Age	
20 to 24 years	22
25 to 34 years	74
35 to 44 years	58
45 to 54 years	37
55 to 64 years	15
65 and over	9
Race or ethnic origin(3)	
White	184
Black or African American	11
Hispanic or Latino	19
Event or Exposure	
Transportation incidents	102
Highway	16
Nonhighway	67
Collision between vehicles or mobile equipment	13
Vehicle or mobile equipment struck stationary object	33
Noncollision accident	11
Aircraft	6
Worker struck by vehicle or mobile equipment	7
Water vehicle	5
Assaults and violent acts	23
Homicides	5
Assaults by animals	15
Contact with objects or equipment	25
Struck by object	20

Footnotes:

- (1) This category may include volunteers and other workers receiving compensation.
- (2) Includes paid and unpaid family workers, and may include owners of incorporated businesses, or members of partnerships.
- (3) In this study, the racial categories "White" and "Black or African American" do not include persons from the ethnic category "Hispanic or Latino." Hispanic or Latino persons may identify themselves racially as white, black, or another race category.
- (4) Includes fatalities to workers employed in governmental organizations regardless of industry.

NOTE: Totals for 2001 exclude fatalities resulting from the September 11 terrorist attacks. Totals for major categories may include subcategories not shown separately.

SOURCE: Bureau of Labor Statistics, Census of Fatal Occupational Injuries (CFOI).

Characteristics	Fatalities
Falls	18
Fall to lower level	14
Exposure to harmful substances or environments	47
Oxygen deficiency	40
Drowning, submersion	40
Industry	
Private industry	208
Services	196
Business services	30
Miscellaneous business services	30
Amusement and recreation services	160
Commercial sports	135
Sports clubs, managers, and promoters	18
Racing, including track operations	116
Miscellaneous amusement, recreation services	25
Government(4)	11
Footnotes: (1) This category may include volunteers and other workers receiving compensation. (2) Includes paid and unpaid family workers, and may include owners of incorporated businesses, or members of partnerships. (3) In this study, the racial categories "White" and "Black or African American" do not include persons from the ethnic category "Hispanic or Latino." Hispanic or Latino persons may identify themselves racially as white, black, or another race category. (4) Includes fatalities to workers employed in governmental organizations regardless of industry.	
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