

Fatal Work-related Injuries in Texas, 2011-2015

DATA SNAPSHOT

February 2017

**Texas Occupational Health Surveillance Program
Environmental Epidemiology and Disease Registries
Section**

Division for Disease Control and Prevention Services



TEXAS
Health and Human
Services

**Texas Department of State
Health Services**

**Fatal work-related injuries in Texas, 2011-2015
Data Snapshot, February 2017**

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Report prepared by:

Ketki Patel, MD, PhD, MPH; Emily Hall, MPH; Leticia Nogueira, PhD, MPH;
Heidi Bojes, PhD

**Texas Occupational Health Surveillance Program
Environmental Epidemiology and Disease Registries Section**

Division for Disease Control and Prevention Services

Texas Health and Human Services

1100 W. 49th Street, MC 1964, Austin, TX 78756

For more information about this report, or for questions or comments,
please contact the Texas Occupational Health Surveillance Program at 512-
776-3723 or visit <http://www.dshs.texas.gov/epitox/OH/>.

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Abbreviations

List of terms and abbreviations used in this report:

BLS	U.S. Bureau of Labor Statistics
CFOI	Census of Fatal Occupational Injuries
CPS	Current Population Survey
HHS	Texas Health and Human Services
ELF	Employed Labor Force (query system)
FTE	Full-time Equivalent Worker
NIOSH	National Institute for Occupational Safety and Health

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Major Findings

This report summarizes aggregate published Census of Fatal Occupational Injuries (CFOI) data for fatal work-related injuries that occurred between 2011 and 2015 in Texas.

- Total 2,535 fatal work-related injuries recorded during 2011-2015, with an average of 507 deaths due to work-related injuries annually.
- The rate of fatal work-related injuries in Texas was higher than the national average. In 2015, the Texas work-related fatality rate was 4.5 per 100,000 full-time workers compared to the U.S. rate of 3.4 per 100,000 full-time workers.
- About 95% (2,400) worker fatalities were among men, and nearly half (1,246, 49%) of the fatalities occurred in non-Hispanic whites.
- About 76% (1,922) of fatalities were among private sector employees.
- Two industry sectors – 1) construction and 2) transportation, warehousing and utilities accounted for 41% (1,034) of all work-related injury deaths.
- Transportation incidents (1,139, 45%) were the most common event/exposure resulting in worker deaths.
- More than half (626, 55%) of the transportation incident fatalities were among individuals working in transportation and material moving occupations.

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Background

The U.S. Bureau of Labor Statistics (BLS) Census of Fatal Occupational Injuries (CFOI) is a federal-state cooperative program implemented in all 50 U.S. states and the District of Columbia since 1992 (BLS, 2012). CFOI counts only fatal work-related injuries, and not fatalities associated with occupational diseases or chronic exposuresⁱ. CFOI collects details on multiple parameters, including industry and occupation, and circumstances of each event. CFOI compiles fatality counts as complete as possible using multiple sources: death certificates, workers' compensation claim reports, and other federal and state agency administrative records.

Each year, the CFOI program releases national and state-specific annual fatality counts and overall injury rates for the preceding calendar year. CFOI also releases periodic reports on worker fatality trends or fatalities in specific industry/worker groups using national-level data.

In Texas, the Texas Department of Insurance (TDI) releases counts on fatal work-related injuries annually. However, to identify any emerging issues and risk factors or to develop interventions and guide policies for preventing worker fatalities, it is important to detect changes in worker fatalities and characteristics of injuries over time. Therefore, the Texas Department of State Health Services (DSHS) Occupational Health Surveillance (OHS) program compiled and analyzed the most recent five year period (2011-2015) of aggregate-level CFOI data.

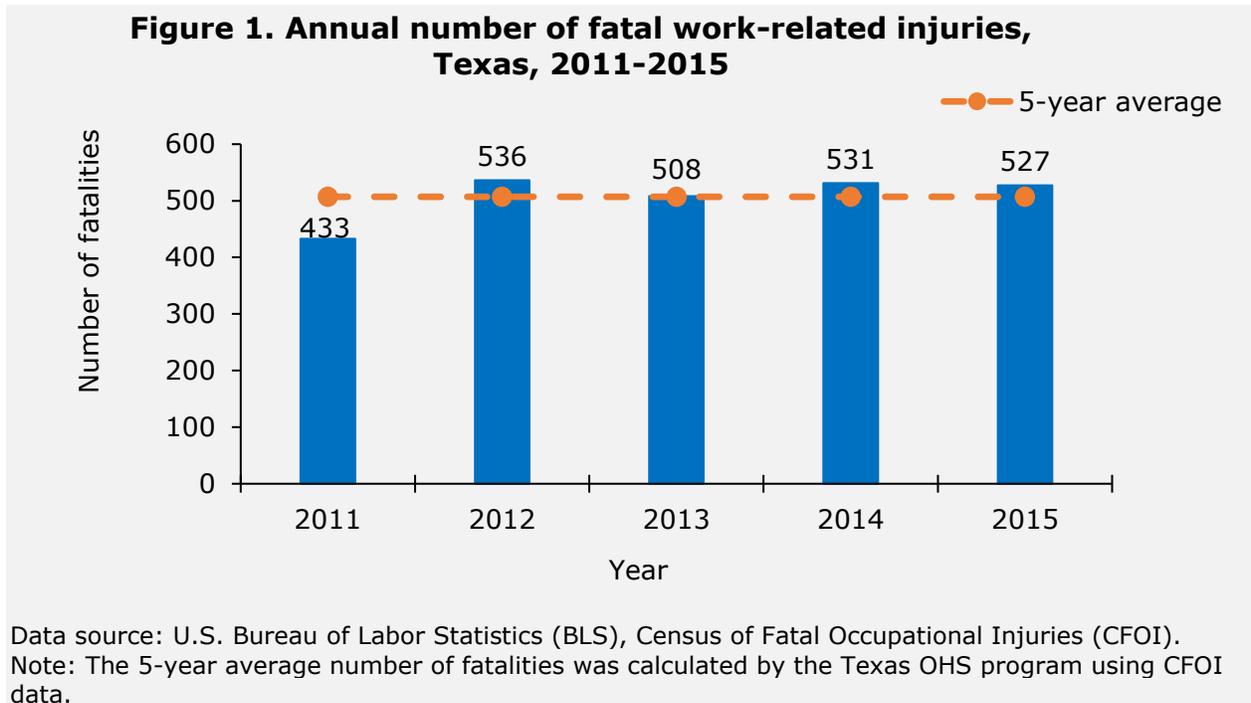
This report summarizes characteristics of fatal work-related injuries in Texas between 2011 and 2015.

Fatal work-related injuries in Texas over time

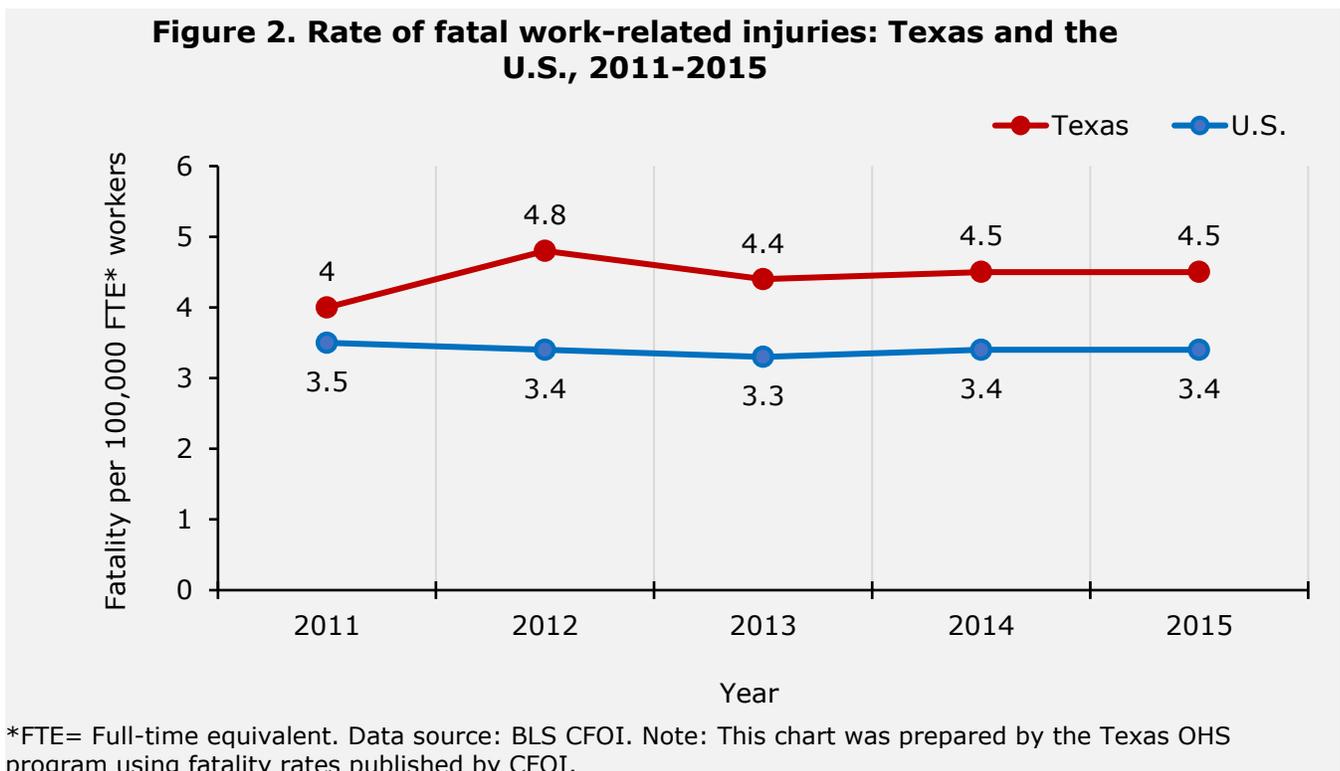
In the last five years (2011-2015), a total 2,535 workers died due to fatal work-related injuries in Texas with an average of 507 fatalities per year (Figure 1).

ⁱChronic exposure is a continuous or repeated contact with a substance or material over a longer period of time (i.e. months or years).

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In 2015, Texas had the 12th highest fatality rate in the nation with 4.5 deaths per 100,000 full-time equivalent (FTE) workers. During 2011-2015, the rate of fatal work-related injuries in Texas was above the national average (Figure 2).

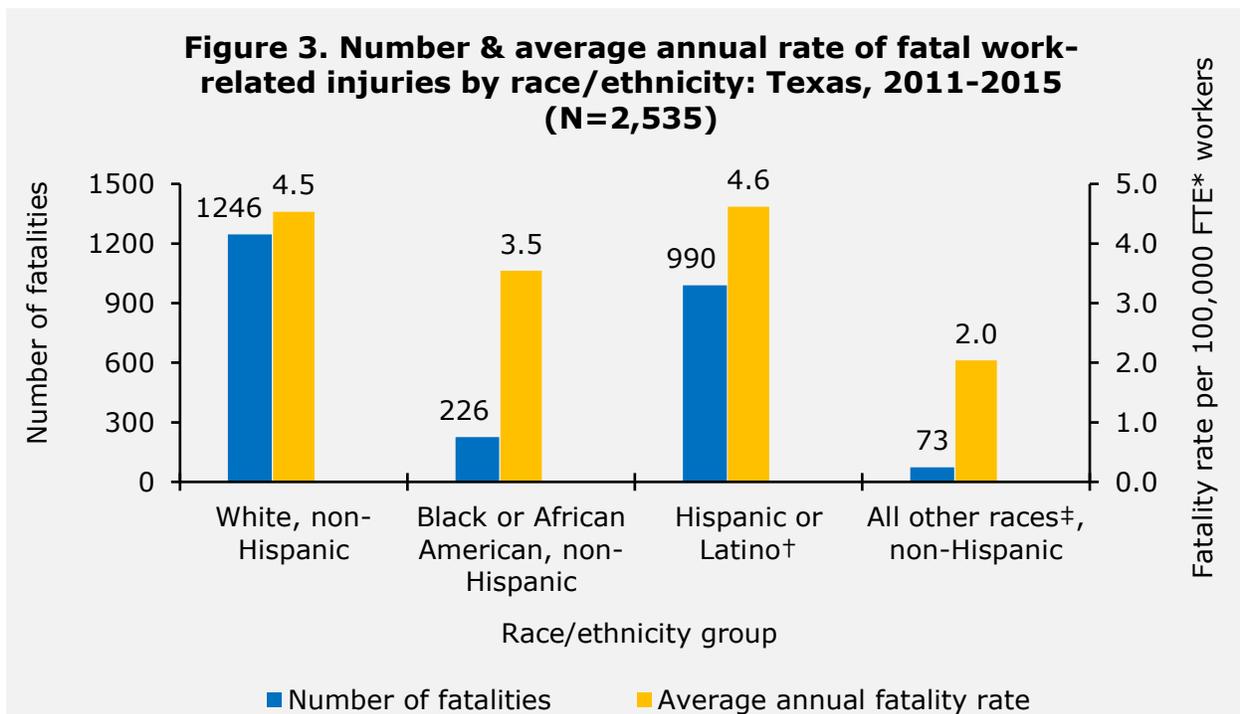


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Work-related fatalities by worker characteristics

Of the total fatal work-related injuries (2,535 deaths) between 2011 and 2015, about 95% (2,400) work-related injury deaths occurred among men and 5% (135) in women. An average 480 men and 27 women died because of work-related injuries per year between 2011 and 2015.

About half (1,246, 49%) of all work-related fatalities in 2011-2015 occurred among White, non-Hispanic workers, followed by worker fatalities in Hispanic or Latino workers (990, 39%) of any race. The rate of fatal work-related injuries among the two race/ethnicity groups- White, non-Hispanics, and Hispanic or Latinos of any race was slightly higher than the average rate of fatalities (4.3 per 100,000 FTE workers) for all race/ethnicity groups combined (Figure 3).

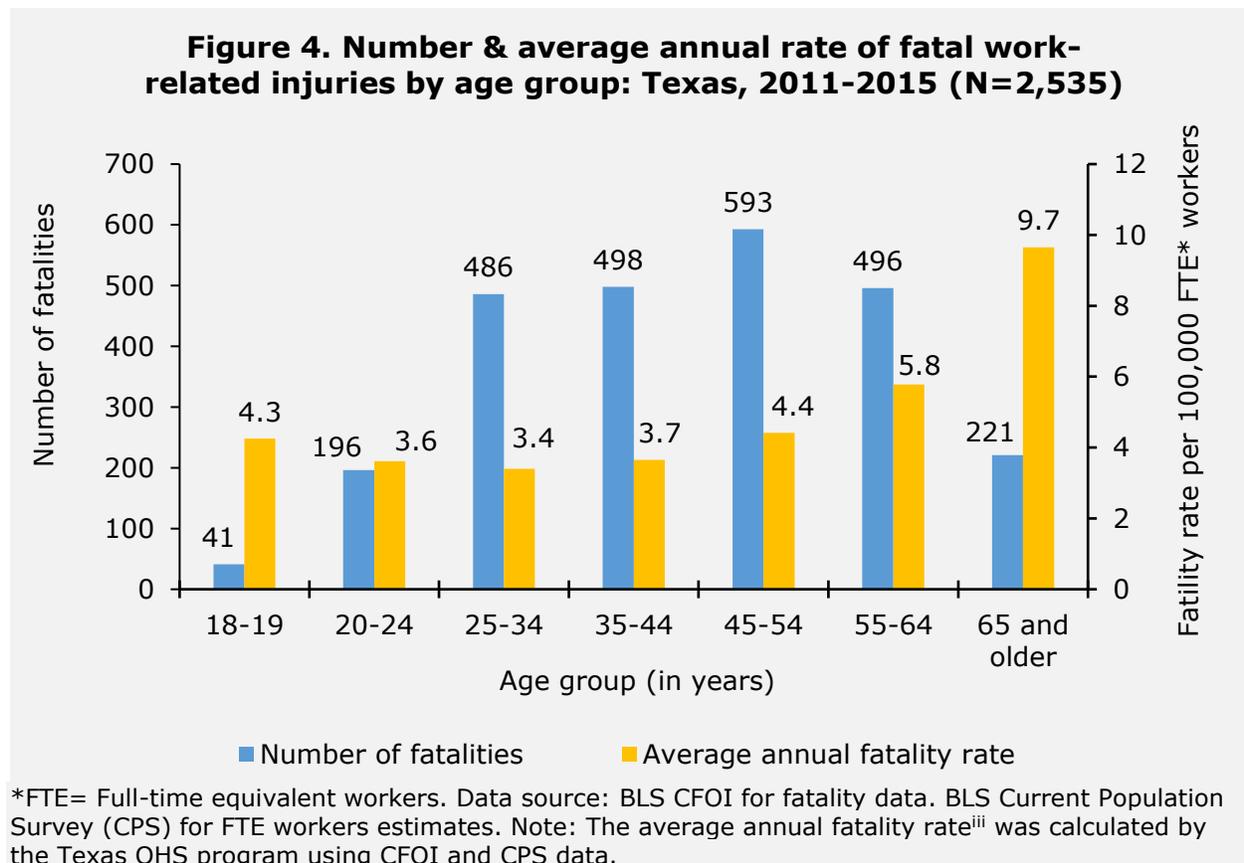


†Persons identified as Hispanic or Latino may be of any race. The individual race categories shown exclude data Hispanic or Latinos. ‡All other races include American Indian, Hawaiian/Pacific Islander, Asian, Multiple races, and other race categories. *FTE= Full-time workers. Data source: BLS CFOI for fatality data. BLS Current Population Survey (CPS) for FTE workers estimates using National Institute for Occupational Safety and Health (NIOSH) Employed Labor Force (ELF) query system. Note: The average annual fatality rateⁱⁱ was calculated by the Texas OHS program using CFOI and CPS data.

ⁱⁱ Example: Average annual fatality rate for Hispanic or Latino workers = $\left(\frac{\text{Number of fatalities among Hispanic or Latino workers during 2011-2015}}{\text{Number of full-time equivalent Hispanic or Latino workers during 2011-2015}} \right) \times 100,000$

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Although the number of fatal work-related injuries was highest in the 45-54 years old age group (593, 23.4%), the rate of fatal work-related injuries was highest among older workers. During 2011-2015, an average 9.7 out of 100,000 FTE workers in the 65 years and older age group died due to fatal work-related injuries annually compared to an average 4.3 fatalities per 100,000 FTE workers for all age groups combined (Figure 4).



Work-related fatalities by worker type and industry

In the last five years (2011-2015), 76% of fatal work-related injuries occurred among private sector wage and salary employees (n=1,922) (Figure 5). However, the rate of fatal work-related injuries was highest among self-employed workers, with an average 7.0 fatalities per 100,000 FTE workers compared to an average 4.2 fatalities per 100,000 FTE workers in private sector wage and salary annually. In 2015, the fatality rate due to

ⁱⁱⁱ Age group-specific average annual fatality rate =
$$\left[\left(\frac{\text{Number of fatalities among workers in a given age group during 2011 – 2015}}{\text{Number of full – time equivalent workers in that given age group during 2011 – 2015}} \right) \times 100,000 \right]$$

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work injuries among the self-employed was twice as high as the rate of fatalities among private sector wage and salary workers (Figure 6).

Figure 5. Number of fatal work-related injuries by type of worker: Texas, 2011-2015 (N=2,535)

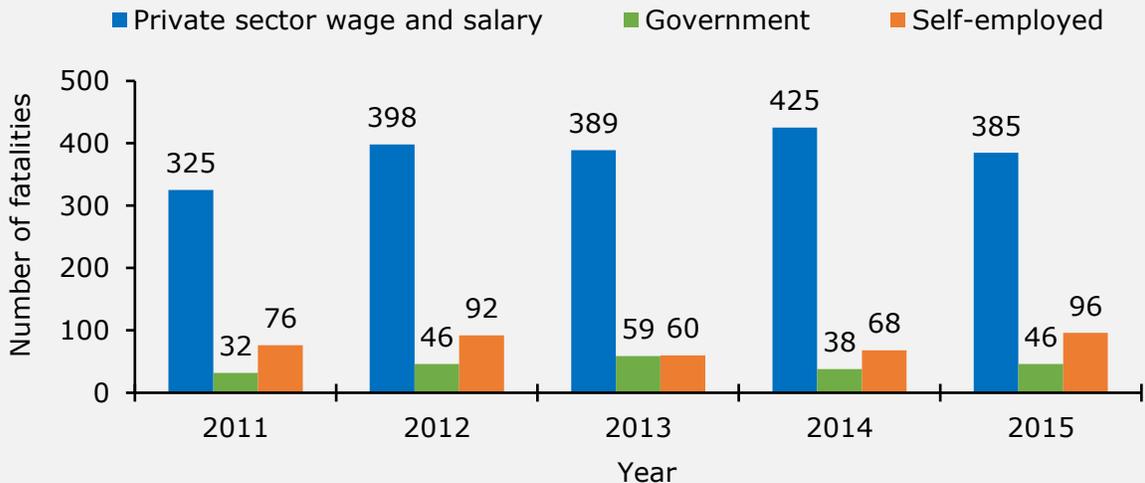
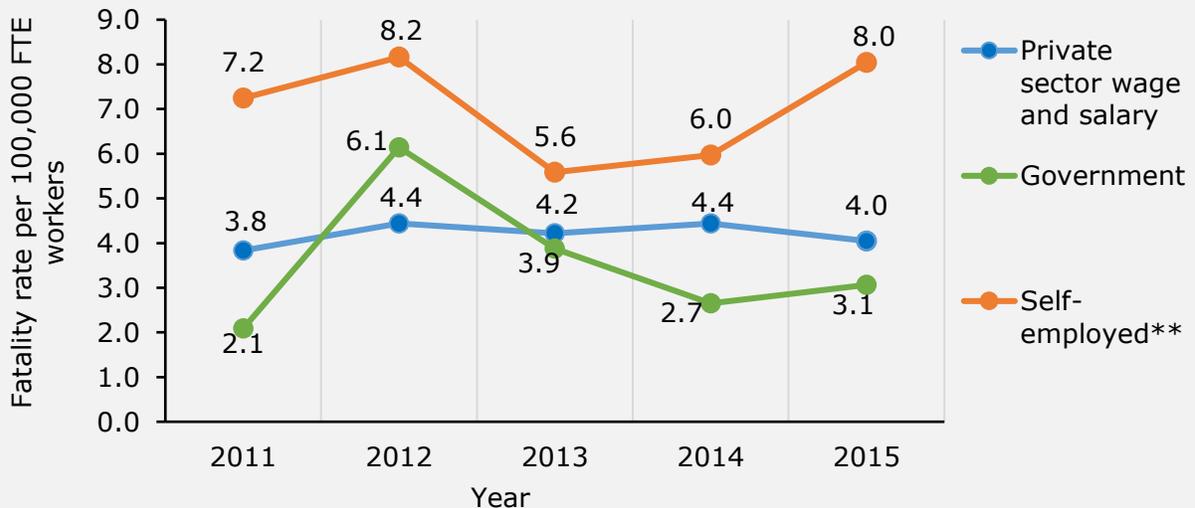


Figure 6. Rate of fatal work-related injuries by type of worker: Texas, 2011-2015 (N=2,535)



* FTE= Full-time equivalent workers. **Includes self-employed workers, owners of unincorporated businesses and farms, paid and unpaid family workers, and may include some owners of incorporated businesses or members of partnerships. Data source: BLS CFOI for fatality data. BLS CPS for FTE worker estimates. Note: The fatality rates by worker type^{iv} were calculated by Texas OHS program.

^{iv} Example: Annual fatality rate for self-employed workers=

$$\left(\frac{\text{Number of fatalities among self-employed workers during 2011-2015}}{\text{Number of full-time equivalent self-employed workers during 2011-2015}} \right) \times 100,000$$

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In Texas the construction industry had the most fatalities, (551, 22%) followed by the transportation, warehousing and utilities industry, with 483 deaths (19%) between 2011 and 2015 (Figure 7).

Figure 7. Number of fatal work-related injuries by industry sector*: Texas, 2011-2015 (N=2,535)



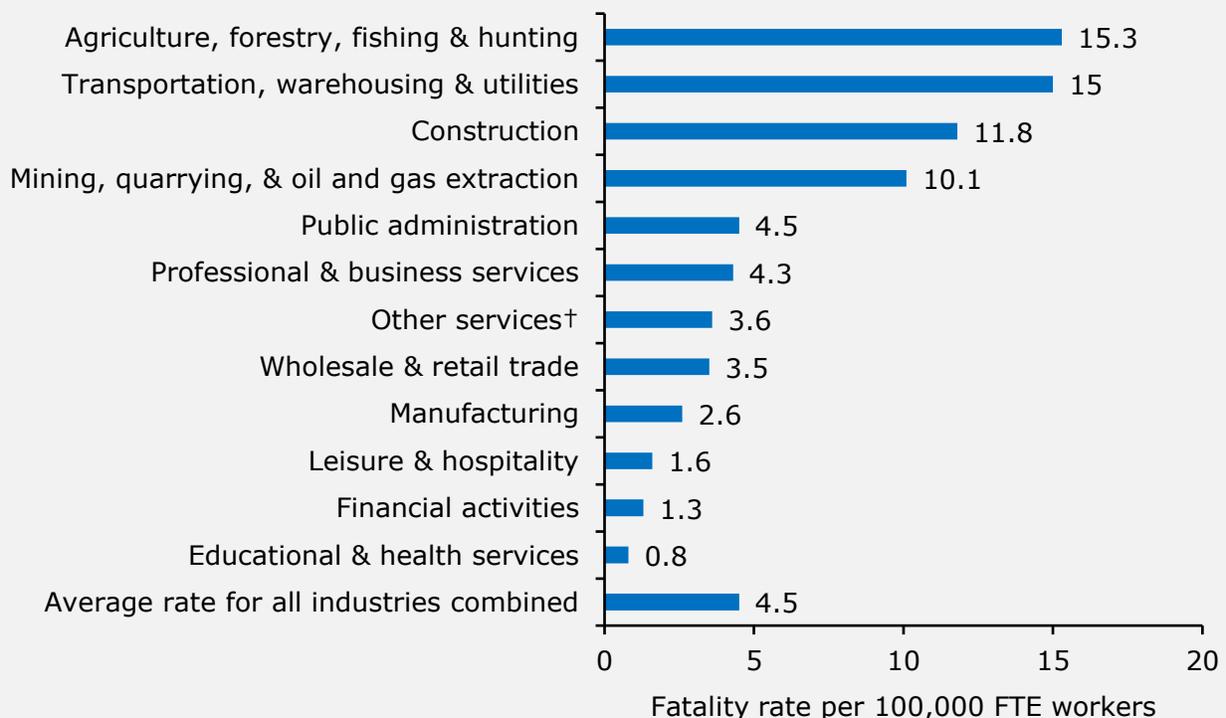
*Includes all industry sectors regardless of ownership i.e. private, government or self-owned business.

†Other services, except public administration. Data source: BLS CFOI

The 2015 rate of fatal work-related injuries in agriculture, forestry, fishing and hunting was 15.3 per 100,000 FTE workers, which was more than three times higher than the Texas rate for all industry sectors. Three other industry sectors- 1) transportation, warehousing and utilities, 2) construction and 3) mining, quarrying, oil and gas industry also had fatality rates higher than the Texas rate of fatal work-related injuries for all industries combined in 2015 (Figure 8).

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Figure 8. Rate of fatal work-related injuries by industry sector*, Texas, 2015



*Includes all industry sectors regardless of ownership i.e. private, government or self-owned business.
†Other services, except public administration. Data source: BLS CFOI. Note: This chart was prepared by the Texas OHS program using the industry-specific rates published by CFOI.

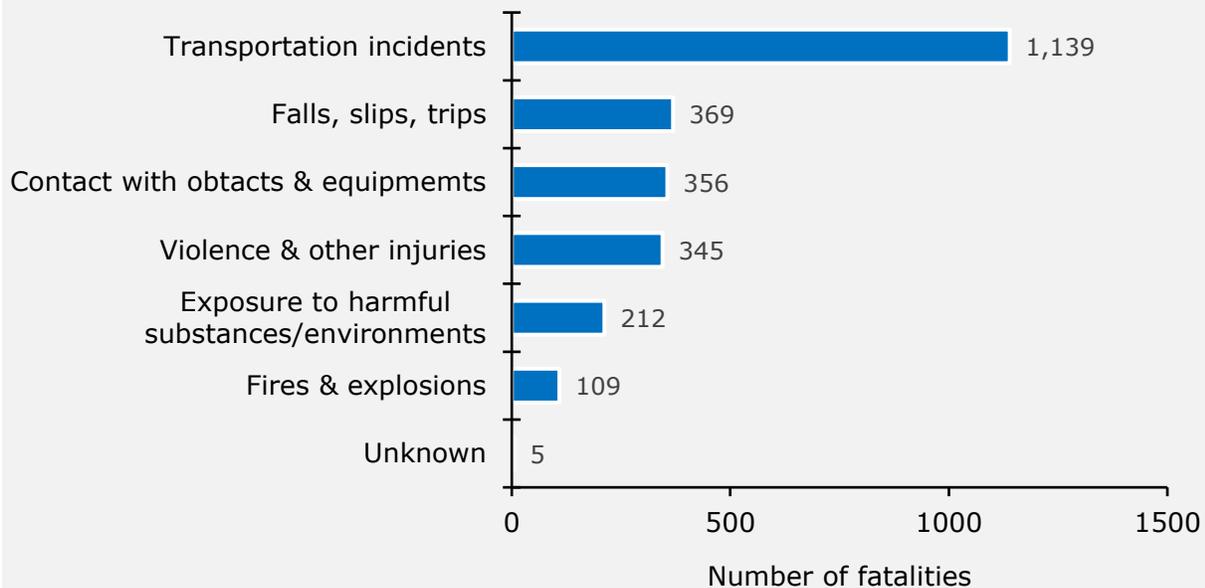
Work-related fatalities by event/exposure

Forty-five percent (n=1,139) of work-related fatalities among Texas workers were caused by transportation incidents during 2011-2015. The second most common cause of work-related fatalities was falls, slips and trips, resulting in 369 deaths (15%) (Figure 9).

More than half (837, 73%) of the transportation incident fatalities were roadway incidents involving motorized land vehicle. Other transportation incident fatalities were: pedestrian vehicular incidents (n=143); non-roadway incidents involving motorized land vehicles (n=66); and others which include aircraft, water vehicle, and rail vehicle incidents (n=93).

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Figure 9. Number of fatal work-related injuries by event/exposure: Texas, 2011-2015 (N=2,535)



Data source: BLS CFOI. Note: This chart was prepared by the Texas OHS program using CFOI data.

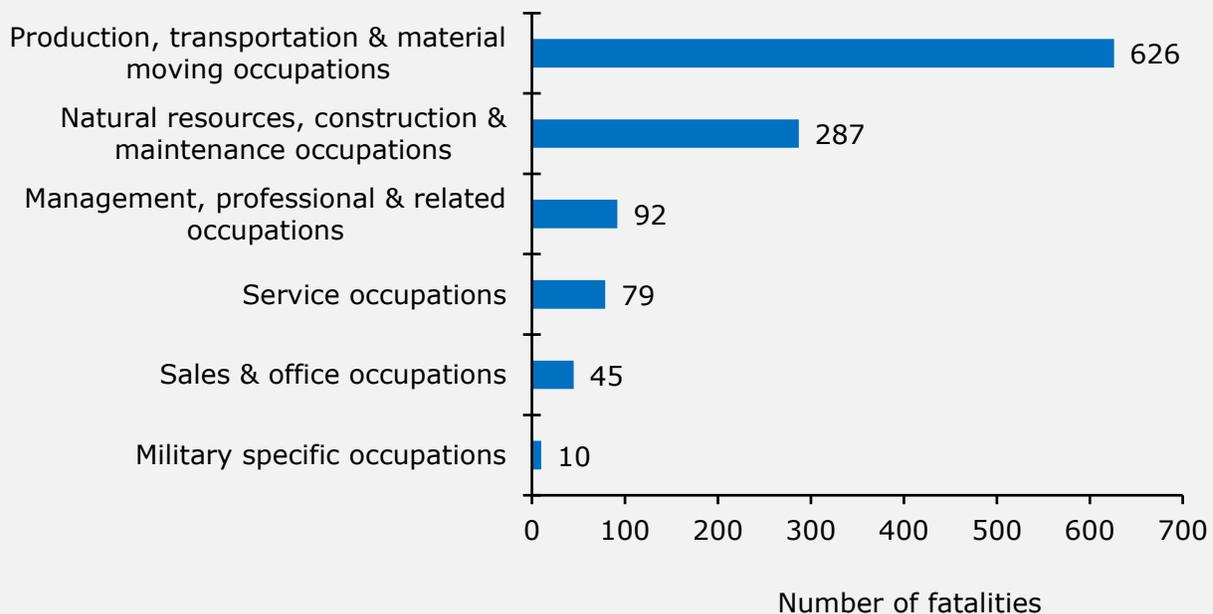
Out of all transportation incident fatalities, 604 deaths (53%) occurred in individuals in transportation and material moving occupations, and 186 (16%) occurred in individuals in construction and extraction occupations (Figure 10).

Technical notes and data limitations

In Texas, the CFOI is administered by the Division of Workers' Compensation in Texas Department of Insurance (TDI). In CFOI, work-related fatalities are reported according to the state in which the fatality occurred and not the state of the worker's residence. The rates calculated by the Texas OHS program may slightly differ than the rates published by BLS because BLS uses a different methodology to calculate fatal work-related injury rates. More information on BLS methodology for calculating rates can be found in BLS Handbook of Methods available at <https://www.bls.gov/opub/hom/pdf/homch9.pdf>

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Figure 10. Number of transportation incident fatalities by occupation groups: Texas, 2011-2015 (N=1,139)



Data source: BLS CFOI. Note: This chart was prepared by the Texas OHS program using CFOI data.

Conclusion

Fatal work-related injuries are a public health concern. Between 2011 and 2015 the rate of worker fatalities in Texas was higher than the national average.

Work-related fatalities varied by worker's age group, gender, race/ethnicity, industry and occupation indicating that some worker groups may be at a higher risk of sustaining fatal injuries than others.

Fatal work-related injuries are preventable and occupational health surveillance data can help identify high risk populations and monitor trends and emerging issues in workplace safety and health. Partnerships and joint effort by occupational safety and health stakeholders including employers, workers and health care providers can help address this public health issue in Texas.

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References

BLS. (2012, August 17). *Injuries, Illnesses, and Fatal*. Retrieved from Bureau of Labor Statistics (BLS), U.S. Department of Labor: <https://www.bls.gov/iif/oshfat1.htm>