



## TEXAS DEPARTMENT OF INSURANCE

### Division of Workers' Compensation

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### 2016 Fatal Occupational Injuries in Texas

There were 545 fatal occupational injuries in Texas in 2016, a 3 percent increase from 527 in 2015, according to data from the U.S. Department of Labor, Bureau of Labor Statistics (BLS), Census of Fatal Occupational Injuries (CFOI). The rate of fatal occupational injuries in Texas was 4.4 per 100,000 full-time employees in 2016. Nationally, there were 5,190 fatal occupational injuries.

Incidence rates for non-fatal injuries and illnesses by industry and their case characteristics for 2016 were released in November 2017. The Texas incidence rate of nonfatal injuries and illnesses in private industry was 2.2 cases per 100 equivalent full-time workers in 2016. The national rate was 2.9.

The Division of Workers' Compensation (DWC) compiles detailed information on all occupational fatalities occurring in Texas for the CFOI, a program jointly administered with the BLS. DWC annually releases total fatal injury counts and descriptive data to provide information to help employers, safety professionals, and policymakers identify occupational safety and health issues.

DWC provides various safety and health services to help reduce injuries and illnesses in the workplace, including:

- guidance and resources for developing occupational driving safety programs on its [Driving Safety website](#)
- free safety and health consultations on Occupational Safety and Health Administration (OSHA) regulations;
- regional and onsite safety training;
- free safety and health publications;
- free safety training DVD loans; and
- the Safety Violations Hotline.

For more information on these services, visit [www.txsafetyatwork.com](http://www.txsafetyatwork.com) or call (800) 252-7031 option 2. Employers who carry workers' compensation insurance in Texas can get accident prevention services from their insurance companies at no additional charge.

### Key Findings

- Transportation incidents continued as the leading cause of fatal occupational injuries, accounting for 45 percent (244 incidents). Roadway incidents involving a motorized land vehicle decreased from 179 to 169. However, pedestrian vehicular incidents increased 50 percent from 28 to 42, and pedestrians struck by a vehicle in a work zone increased from 3 to 11.
- Nearly 60 percent of employees who died in transportation incidents involving a motorized land vehicle were not motor vehicle operators by occupation.
- Roadway transportation incidents in government increased from 13 to 29.
- The second-leading cause of fatal injuries was falls (90 incidents), followed by contact with objects and equipment (75 incidents). Of these, 71 percent involved being struck by object or equipment.
- The industry subsectors in Texas experiencing the highest number of fatal occupational injuries were specialty trade contractors (89 incidents), truck transportation (64 incidents), administrative

and support services (44 incidents), support activities for mining (31 incidents), and heavy and civil engineering construction (27 incidents).

- Fatal injuries in government increased from 46 incidents in 2015 to 62 in 2016. Federal government incidents increased from 10 to 21.
- In Texas, the major occupation group with the highest number of fatalities in 2016 was transportation and material moving occupations, with 155 incidents. This was down from 166 incidents in 2015. Of these, 91 incidents involved heavy and tractor-trailer truck drivers, a decrease from 98 incidents in 2015.
- The construction and extraction occupation group had the second-highest number of fatalities, with 132 incidents. Of these, 99 involved construction trades workers, an increase from 84 incidents in 2015.

## **Causes of Fatalities**

### *Transportation Incidents*

Transportation incidents continued to be the leading cause of fatal occupational injuries in Texas. Of the transportation incidents, 169 were roadway incidents involving a motorized land vehicle, 42 were pedestrian vehicular incidents, 11 were aircraft incidents, 10 were non-roadway incidents involving a motorized land vehicle, eight were rail vehicle incidents, and four were water vehicle incidents (Table 1). The months with the highest number of roadway incidents were June (29 incidents), August, and September (18 incidents each). The days were Thursday (34 incidents) and Monday (29 incidents). Seventy-eight percent of the roadway incidents involved employees born in the U.S. and 15 percent were born in Central America and Mexico.

Of the roadway incidents involving a motorized land vehicle, 86 occurred on a state or U.S. highway and 49 on an interstate, freeway, or expressway. Roadway collisions with other vehicles accounted for 99 incidents, 40 of which were moving in the opposite direction, oncoming. Roadway collisions with object other than a vehicle accounted for 32 incidents, while roadway noncollisions accounted for 38 incidents. Seventy-two of the employees involved in roadway incidents were heavy and tractor-trailer truck drivers, and 20 were in the installation, maintenance, and repair major occupation group. A semi, tractor-trailer, tanker truck was involved in 67 of the roadway incidents and 34 involved a pickup.

The service providing industries in the private sector recorded 98 roadway incidents. Of these, 46 occurred in the truck transportation industry. Of the 42 roadway incidents in the private sector goods producing industries, 14 were in support activities for mining, and 13 were in the specialty trade construction contractors industry.

Pedestrian vehicular incidents accounted for 42 incidents, an increase of 50 percent from 2015 (28 incidents). Of these, 26 occurred on a street or highway, 11 of which occurred in a road construction zone. One-third of the pedestrians were struck by a passenger vehicle and 26 percent were struck by a multi-purpose vehicle, such as a pickup truck or sport utility vehicle. Sixty percent of the pedestrians were struck by forward-moving vehicles. Sixteen of the employees involved in pedestrian vehicular incidents were in the construction and extraction occupations, an increase from five incidents in 2015. Transportation and material moving occupations accounted for 11 incidents.

### *Falls*

The second-leading cause of fatal occupational injuries was falls, slips, or trips, with 90 incidents, an increase from 86 incidents in 2015. Falls to a lower level decreased from 79 to 71 incidents, while falls on the same level increased from 7 to 16. Forty-six percent of the falls to a lower level (33 incidents) were from structures and surfaces, such as roofs and scaffolds, and 23 were from tools, instruments, and

equipment, such as ladders. Thirty-five of the falls to a lower level occurred at an industrial place, such as a construction site, while 20 occurred at a private residence, such as a residential construction site.

Worker activity consisting of constructing, repairing, and cleaning was involved in 43 of the fatal falls, followed by physical activity such as climbing, descending, or walking (18 incidents) and using or operating tools or machinery (13 cases). The construction industry accounted for 49 percent of the falls. Forty-two of the employees were in construction trades occupations, up from 30 in 2015. Hispanic or Latino employees were involved in 54 percent of the incidents, and White (non-Hispanic) employees were involved in 33 percent.

*Contact with objects and equipment*

The third-leading cause of fatal occupational injuries was contact with objects and equipment, with 75 incidents. Of these, 53 were struck by object or equipment, 17 were caught in or compressed by equipment or object, and five were struck, caught, or crushed in collapsing structure, equipment, or objects.

Of the 53 struck by object or equipment incidents, the source was a vehicle in 16 cases, parts and materials in 16, and construction, logging, and mining machinery in 11. Sixty-two percent of the struck by object or equipment incidents occurred at an industrial site.

Private sector goods producing industries accounted for 33 of the struck by object or equipment incidents, 12 of which were in the manufacturing industry, an increase from six incidents in 2015. Fourteen of the employees were in the construction and extraction occupations, 13 were in transportation and material moving, and 12 were in installation, maintenance, and repair.

**Table 1. Annual Number of Fatal Occupational Injuries in Texas by Event or Exposure, 2015-2016**

Event or Exposure	2015	2016
<b>Total</b>	<b>527</b>	<b>545</b>
<b>Violence and other injuries by persons or animals</b>	<b>76</b>	<b>74</b>
Intentional injury by person	67	66
Homicides	46	45
Suicides	21	21
Injury by person—unintentional or intent unknown	4	--
Animal and insect related incidents	5	7
<b>Transportation incidents</b>	<b>238</b>	<b>244</b>
Aircraft incidents	10	11
Rail vehicle incidents	5	8
Pedestrian vehicular incident	28	42
Pedestrian struck by vehicle in work zone	3	11
Pedestrian struck by vehicle in roadway	6	8
Pedestrian struck by vehicle on side of road	7	7
Pedestrian struck by vehicle in nonroadway area	11	14
Water vehicle incident	--	4
Roadway incident involving motorized land vehicle	179	169
Roadway collision with other vehicle	112	99
Roadway collision with object other than vehicle	34	32
Roadway noncollision incident	33	38
Nonroadway incident involving motorized land vehicle	14	10

Nonroadway noncollision incident	10	9
<b>Fire or explosion</b>	<b>13</b>	<b>10</b>
Fire	6	--
Ignition of vapor, gases, or liquids	5	--
Explosion	7	8
Explosion of nonpressurized vapors, gases, or liquids	--	5
<b>Fall, slip, trip</b>	<b>86</b>	<b>90</b>
Fall on same level	7	16
Fall on same level due to tripping	--	3
Fall to lower level	79	71
Other fall to lower level (from ladders, roofs, scaffolds, structural steel, trees, nonmoving vehicles, stairs)	65	58
Other fall to lower level less than 6 feet	6	8
Other fall to lower level 6 to 10 feet	14	11
Other fall to lower level 11 to 15 feet	9	11
Other fall to lower level 16 to 20 feet	5	9
Other fall to lower level 21 to 25 feet	--	4
Other fall to lower level 26 to 30 feet	4	6
Other fall to lower level more than 30 feet	15	6
<b>Exposure to harmful substances or environments</b>	<b>41</b>	<b>50</b>
Exposure to electricity	20	27
Exposure to temperature extremes	7	5
Exposure to other harmful substances	12	15
Nonmedical use of drugs or alcohol unintentional overdose	6	8
Inhalation of harmful substance	6	7
<b>Contact with objects and equipment</b>	<b>72</b>	<b>75</b>
Struck by object or equipment	54	53
Struck by powered vehicle nontransport	28	22
Struck by falling object or equipment	23	23
Struck by discharged or flying object	1	3
Caught in or compressed by equipment or objects	6	17
Caught in running equipment or machinery	6	15
Struck, caught, or crushed in collapsing structure, equipment, or material	12	5

*Notes for Table 1*

- *Based on the BLS Occupational Injury and Illness Classification System (OIICS) 2.01 implemented for 2011 data forward.*
- *Totals for major categories may include subcategories not shown separately.*
- *Data for all years are revised and final.*
- *Dashes indicate no data reported or data that do not meet publication criteria.*
- *N.e.c. means "not elsewhere classified."*
- *CFOI fatal injury counts exclude illness-related deaths unless precipitated by an injury event.*

## **Fatalities by Industry**

Overall, 483 incidents in Texas involved employees in the private sector in 2016 (Table 2). Service providing industries in the private sector recorded 260 incidents, while 223 incidents occurred in goods producing industries. The other 62 incidents occurred among several government industries.

### *Goods Producing Industries*

Among the goods producing industries in the private sector, the construction industry had the highest number of fatal injuries, with 133. This represented an increase of 7 percent from 2015. Forty-four of these fatalities were attributed to falls, slips, or trips and 38 were due to transportation incidents. Eighty-nine of the construction industry fatalities occurred in the specialty trade contractors subsector. Construction trades workers had the highest number of fatalities in this industry, with 90 incidents, an increase from 72 in 2015.

The manufacturing industry experienced the second-highest number of fatalities (36). Sixteen of those fatalities were due to contact with objects and equipment, an increase from six in 2015. Nine were attributed to transportation incidents and eight were due to falls, slips, or trips. Transportation and material moving occupations had the highest number of fatalities in this industry (14), followed by production occupations with 13.

### *Service Providing Industries*

Among the service providing industries in the private sector, the transportation and warehousing industry experienced the highest number of fatal injuries (84). This represented a decrease of 16 percent from 100 in 2015. Sixty-six of those fatalities were due to transportation incidents. Of those, 52 were roadway incidents involving a motorized land vehicle, six involved pedestrians struck by a vehicle, and another six involved rail vehicles. Fifty-two of the industry incidents involved a semi, tractor-trailer, tanker truck. The occupation with the most fatalities was heavy and tractor-trailer truck drivers (61).

The administrative and waste services industry had the second-highest number of fatal injuries, with 57. Twenty-two were due to transportation incidents and 14 were due to falls, slips, or trips. Violence and other injuries by persons or animals and exposure to harmful substances or environments accounted for seven incidents each and six involved contact with objects and equipment. The occupation with the highest number of fatalities in this industry was grounds maintenance workers (18).

### *Government Industries*

Sixty-two fatal incidents in Texas involved employees in the public sector, an increase from 46 in 2015. Of those, 33 were employees in local government. Thirty-six of all government employees who died were involved in a transportation incident, 17 were involved in violence and other injuries by a person or animal, and five were exposed to harmful substance or environments. Thirty-five percent of the employees involved were in protective service occupations, such as law enforcement (17).

**Table 2. Annual Number of Fatal Occupational Injuries in Texas by Industry, Private Sector, 2015-2016**

Industry	2015	2016
<b>Total</b>	<b>527</b>	<b>545</b>
<b>Private industry</b>	<b>481</b>	<b>483</b>
<b>Goods producing</b>	<b>207</b>	<b>223</b>
<b>Agriculture, forestry, fishing, and hunting</b>	<b>17</b>	<b>19</b>
<b>Mining, quarrying, and oil and gas extraction</b>	<b>36</b>	<b>35</b>
Oil and gas extraction	3	3
Support activities for mining	33	31
<b>Construction</b>	<b>124</b>	<b>133</b>
Construction of buildings	13	17
Heavy and civil engineering construction	26	27
Specialty trade contractors	85	89
<b>Manufacturing</b>	<b>30</b>	<b>36</b>
<b>Service Providing</b>	<b>274</b>	<b>260</b>
<b>Wholesale trade</b>	<b>22</b>	<b>22</b>
<b>Retail trade</b>	<b>34</b>	<b>21</b>
<b>Transportation and warehousing</b>	<b>100</b>	<b>84</b>
Truck transportation	75	64
Support activities for transportation	12	5
Couriers and messengers	5	--
<b>Utilities</b>	<b>5</b>	<b>5</b>
<b>Information</b>	--	<b>6</b>
<b>Finance and insurance</b>	--	--
<b>Real estate and rental leasing</b>	<b>9</b>	<b>7</b>
<b>Professional, scientific, and technical services</b>	<b>4</b>	<b>12</b>
<b>Administrative and support and waste management and remediation services</b>	<b>51</b>	<b>57</b>
Administrative and support services	42	44
Waste management and remediation services	9	13
<b>Education services</b>	<b>3</b>	<b>5</b>
<b>Health care and social assistance</b>	<b>9</b>	<b>6</b>
<b>Arts, entertainment, and recreation</b>	<b>8</b>	<b>8</b>
<b>Accommodation and food services</b>	<b>5</b>	<b>12</b>
<b>Other services, except public administration</b>	<b>20</b>	<b>13</b>
<b>Government</b>	<b>46</b>	<b>62</b>
Federal government	10	21
State government	9	8
Local government	27	33
Police protection	9	16
Fire protection	--	--

Notes for Table 2

- Industry data are based on the North American Industry Classification System, 2012.
- Includes fatal injuries at all establishments categorized as Mining (Sector 21) in the North American Industry Classification System, including establishments not governed by the Mine

*Safety and Health Administration (MSHA) rules and reporting, such as those in Oil and Gas Extraction.*

- *Includes fatal injuries to workers employed by governmental organizations regardless of industry.*
- *Data for all years are revised and final.*
- *Totals for major categories may include subcategories not shown separately.*
- *Dashes indicate no data reported or data that do not meet publication criteria.*

### **Employee Demographics**

Eighty-four percent of the fatal occupational injuries involved wage and salary employees (459 incidents) and the remainder were self-employed.

Women accounted for 7 percent of the total fatalities (36 incidents), an increase from 2015 (22). They were involved in 15 fatal roadway incidents involving a motorized land vehicle and were the victims of homicides in six cases. The leading cause of fatalities among men was roadway incidents involving a motorized land vehicle, with 154, followed by falls to a lower level in 71. Forty-eight percent of the employees were White (non-Hispanic) (259); 39 percent were Hispanic or Latino (211), 10 percent were Black or African-American (non-Hispanic) (56); and 3 percent were Asian (non-Hispanic) (18).

The CFOI data tables can be found on the TDI website at [www.tdi.texas.gov/wc/safety/sis/fathomepage.html](http://www.tdi.texas.gov/wc/safety/sis/fathomepage.html). For more information about fatal occupational injuries, contact DWC at (512) 804-5020 or [cfoi@tdi.texas.gov](mailto:cfoi@tdi.texas.gov).