Fatalities in the construction industry

Minnesota Department of Labor and Industry
Occupational Safety and Health Administration
January 2020
Bureau of Labor Statistics
Census of Fatal Occupational Injuries, 2018

• 5,250 fatal work injuries in the U.S. in 2018

• An increase of 2% from 2017

• 2018 fatality rate of 3.5 – no change from 2017
Construction fatalities:

- rose from 971 in 2017 to 1,008 in 2018 (up 4%);
- it is the highest number reported since 2008 (except for 2016, with 1,034 fatalities); and
- the fatality rate of 9.5 for construction in 2018 stayed the same as in 2017.
Other industries had higher increases in the number of fatalities:

- mining increased 15%;
- manufacturing increased 13%; and
- administrative and support, and waste management and remediation services increased 8%.
BLS – CFOI
2018

• Fatal falls, slips and trips decreased 11%, from 887 in 2017 to 791 in 2018.

• There was a decrease of 14% in falls to a lower level, from 713 in 2017 to 615 in 2018.

• There were 504 fatal falls where the height of the fall was known:
  – 58% involved falls of 20 feet or fewer; and
  – 51% of falls from collapsing structure or equipment were of more than 30 feet.
BLS – CFOI
2018

• Heavy and civil engineering construction had an 18% increase in fatalities, from 152 in 2017 to 180 in 2018.

• This is NAICS 237XXX, which includes utility system, highway, street and bridge construction.

• Nonresidential construction also had an increase of 29%, from 55 in 2017 to 71 in 2018.

• Residential construction decreased 7%, from 135 fatalities in 2017 to 126 in 2018.
Minnesota data

- There were 75 fatalities in Minnesota in 2018.
- This is a decrease from 101 in 2017.
- And is below the average of 80 cases a year from 2013 through 2017.
Agriculture, forestry, fishing and hunting recorded the highest number of fatalities, with 22, a decrease of one from 2017.

Construction had the second-highest, with 14, up from 11 in 2017.

Third-highest was trade, transportation and utilities with 13; however, that was decreased from 29 in 2017.
BLS – CFOI
2018

• Causes of fatalities in Minnesota:
  – transportation incidents, 26;
  – contact with objects and equipment, 13;
  – falls, 12;
  – violence 12; and
  – exposure to harmful substances or environments, 9.

• Sixty-seven were men; eight were women.
BLS – CFOI

Minnesota construction fatalities

• There were 14 fatalities.

• Inspected included:
  – four falls; and
  – three contact.
A fatality under Minnesota OSHA Compliance jurisdiction is defined as:

- an employee death resulting from an employment incident or illness caused by or related to a workplace hazard.
MNOSHA Compliance does not investigate:

- motor-vehicle or airplane accidents;

- mining sites;

- small family farms;

- self-employed workers with no employees; and

- federal or railroad employees.
MNOSHA construction fatalities

Five years: federal-fiscal-years 2015-2019
Oct. 1, 2015, through Sept. 30, 2019
Construction fatalities FFY 2015-2019

Number of fatalities per year:
- 2015: 20
- 2016: 16
- 2017: 17
- 2018: 25
- 2019: 21

- **Construction**: 4, 6, 7, 4, 7
- **Total**: 20, 16, 17, 25, 21

Years: 2015, 2016, 2017, 2018, 2019
MNOSHA fatalities

• Federal-fiscal-years 2011 through 2015:
  – 92 total; and
  – an average of 18 each year – 30 construction (33%) and 62 general industry (67%).

• Federal-fiscal-years 2015 through 2019:
  – 99 total; and
  – an average of 20 each year – 28 construction (28%) and 71 general industry (72%).
Construction fatalities by company size, FFY 2015-2019

Number

Construction

Total

1 to 10  11 to 49  50 to 249  250 to 999  1000 +

9  11  4  2  2  25  26  22  11  15
Cause of all fatalities, FFY 2015-2019

- Falls: 30
- Contact with object/equipment: 44
- Burn: 3
- Drown: 11
- Electrocution: 4
- Explosion: 3
- Other: 4

- Fall
- Burn
- Contact with object/equipment
- Drown
- Electrocution
- Explosion
- Other
Causes of MNOSHA construction fatalities 2015 through 2019

Cause of Fatalities - with trench subset

- Contact with object or equipment: 16
- Trench collapses: 8
- Falls: 3
- Electrocution: 2
Construction fatality citations
2015-2019

There were 28 construction fatalities, including:

• four cases with no citations (14%); and

• 24 cases with citations (86%).
Construction fatality citations

There were 24 cases with citations.

Sixty-nine citations were issued:
- 55 serious (80%);
- seven willful (10%); and
- seven nonserious (10%).
Cause/contribute penalties

If the violation causes or contributes to the death of an employee, the minimum nonnegotiable fine is:

• $25,000 for a serious violation; and

• $50,000 for willful or repeat violation.

(See Minnesota Statutes, section 182.666, subd. 2a.)
Twenty of the 24 cases with citations had cause/contribute penalties.

The average amount of total penalties for cases with citations was $44,489.
## Minnesota OSHA’s most-frequently cited standards in construction, FFY 2019

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1926.501</td>
<td>Fall protection</td>
<td>184</td>
</tr>
<tr>
<td>Minnesota Statutes 182.653, subd. 8</td>
<td>A Workplace Accident and Injury Reduction (AWAIR) program</td>
<td>77</td>
</tr>
<tr>
<td>1926.451</td>
<td>General requirements for scaffolds</td>
<td>69</td>
</tr>
<tr>
<td>1910.1200</td>
<td>Hazard communication</td>
<td>47</td>
</tr>
<tr>
<td>1926.651</td>
<td>Specific requirements for excavations</td>
<td>39</td>
</tr>
<tr>
<td>1926.503</td>
<td>Fall protection training requirements</td>
<td>32</td>
</tr>
<tr>
<td>1926.1053</td>
<td>Ladders</td>
<td>31</td>
</tr>
<tr>
<td>1926.652</td>
<td>Protective systems for excavations</td>
<td>30</td>
</tr>
<tr>
<td>1926.405</td>
<td>Electrical wiring, components and equipment</td>
<td>27</td>
</tr>
<tr>
<td>Minnesota Rules 5207.1100</td>
<td>Elevating work platform equipment</td>
<td>26</td>
</tr>
</tbody>
</table>
Age of workers in the U.S.

- Twenty-five to 34 years old: Fatalities increased 8% from 2017, to 946. This is the highest increase of all age brackets.

- The age range with the highest number of fatalities was 45 to 54 (1,114 or 21%).

- Fatalities by age groups were: 25 to 54 increased 7% (3,026 or 58% of fatalities), while 18 to 24 and 55 and older decreased 4% from 2017 to 2018.
Age of workers in Minnesota

- Workers 65 years and older accounted for 22 fatalities or 29% of the total.
- Twenty-five to 34 years accounted for 15 fatalities or 20% of the total.
- Forty-five years and older accounted for 60% of the fatalities.
MNOSHA construction fatalities
FFY 2015-2019

Twenty-five- to 34-year-olds had the highest rate, with nine or 29%, followed by 35- to 44-year-olds, with eight or 26%.

• For 45- to 54-year-olds:
  – 2011-2015 10 33%
  – 2015-2019 5 16%

• Average age of victim:
  – 2011-2015 42
  – 2015-2019 42
MNOSHA construction fatalities trends

• Falls are still a majority cause of fatalities.

• The ages 25 to 44 accounted for 55% of the fatalities.

• There are increasing occurrences of struck-by and contact-with vehicles and aerial lifts.
Resources

Bureau of Labor Statistics:
• www.bls.gov
• www.bls.gov/iif/

Minnesota Department of Labor and Industry:
• www.dli.mn.gov
This material can be provided to you in a different format (audio, Braille or large print) if you call the MNOSHA Training/Outreach office at 651-284-5050 or 877-470-6742.

Material contained in this publication is in the public domain and may be reproduced, fully or partially, without permission of the Minnesota Department of Labor and Industry or Minnesota OSHA. Source credit is requested but not required.

For more information, contact:
Minnesota Department of Labor and Industry
Occupational Safety and Health Division
443 Lafayette Road N.
St. Paul, MN  55155
Phone:  651-284-5050 or 877-470-6742
Email:  osha.compliance@state.mn.us
Web:  www.dli.mn.gov/business/safet-and-health-work
Revised Jan. 16, 2020