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Surveillance of fatal occupational injuries: making the best of what we have

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Disclaimer

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Census of Fatal Occupational Injuries (CFOI)

- CFOI counts only fatal work-related injuries.
- Conducted by Bureau of Labor Statistics (BLS).
- BLS compiles fatality counts using multiple sources.



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CFOI in Texas

- Texas Department of Insurance, Division of Workers' Compensation (DWC) works with BLS to compile fatality data.
- DWC releases annual fatality counts and a summary report for the preceding calendar year.



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Texas Occupational Health Surveillance program

Routine use of CFOI data

Annually calculate occupational health indicator# 3: Fatal work-related injuries



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Texas Occupational Health Surveillance program

What we wanted to know

- Fatality rate over time (2006-2015).
- Fatality rates for subgroups of worker population.
- Identify priority issues for intervention.



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Methods: Data extraction

Fatality data: CFOI



UNITED STATES DEPARTMENT OF LABOR

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Occupational Injuries/Illnesses and Fatal Injuries Profiles

IIF  FONT SIZE:

SHARE ON:   

Occupational Injuries and Illnesses and Fatal Injuries Profiles [\(. For more information or help\)](#)

Please select a table type:

- Case and Demographic Numbers
- Case and Demographic Incidence Rates
- Annual Survey Summary Numbers & Rates
- Fatal Injuries Numbers

Methods: Data extraction

Full Time Equivalent (FTE) worker estimates: Current Population Survey (CPS)

CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

SEARCH

CDC A-Z INDEX

Employed Labor Force (ELF) query system

Employed Labor Force (ELF) query system

WISARDS Home

ELF Home

ELF Estimates

Help +

Data Links

NIOSH > WISARDS > Employed Labor Force (ELF) query system > ELF Estimates

Promoting productive workplaces through safety and health research **NIOSH**

Estimates Selection

Show details

1 Step 1: Select type of labor estimates [Clear Selections](#)

Number of Workers FTE FTE FTE

(Primary Job) (Secondary Job) (All Jobs)

2 Step 2: Select query parameters

Time Period [Expand Options](#)

Year(s), Month(s)

Year(s): All, 2016, 2015, 2014

Location [Hide Options](#)

Region(s): Northeast, Midwest (formerly North Central), South, West

State(s): South Dakota, Tennessee, **Texas**, Utah



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Methods: Data analysis

- Annual fatality rate per 100,000 FTE workers
- FTE-based subgroup specific fatality rates:
 - Gender
 - Age group
 - Race/ethnicity
 - Event/exposure*
 - Industry*
 - Occupation*



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*For these parameters we had a break in series due to changes in event, industry and occupation classification systems. Therefore, data were analyzed 2006-2010, and 2011-2015.



Results



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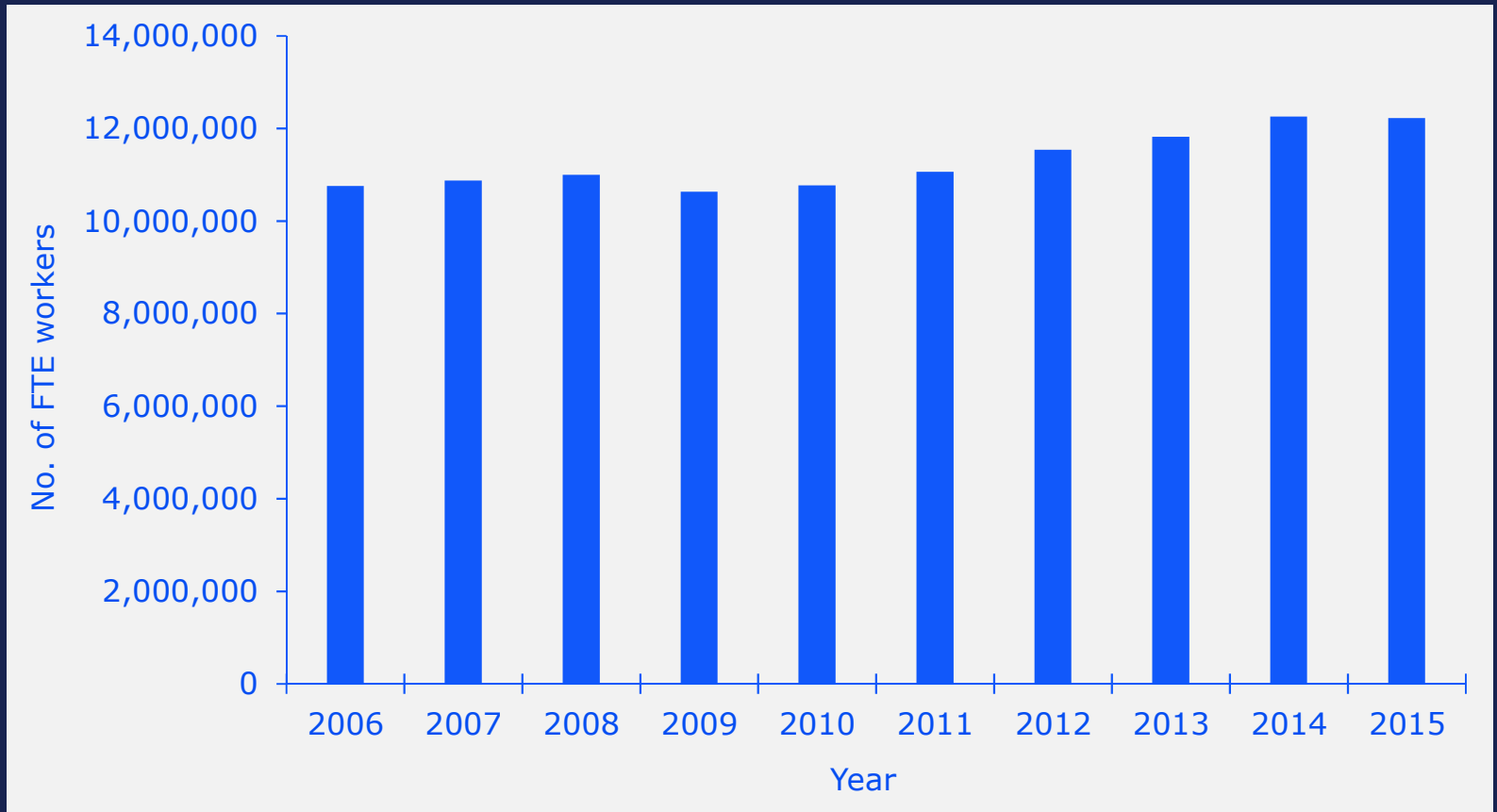
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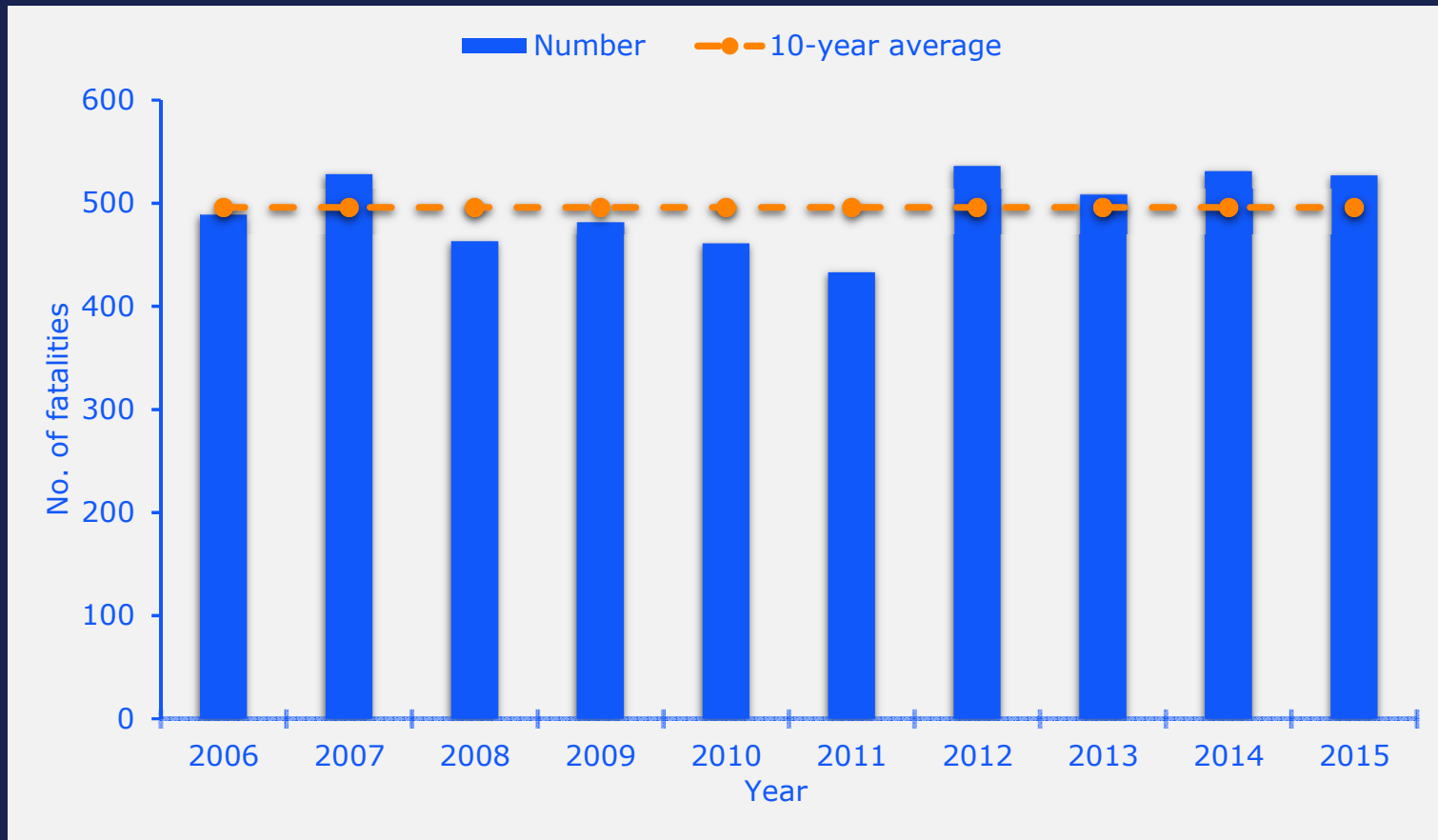
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Number of FTE workers 16 years and older in Texas, 2006-2015





Number of occupational fatalities in Texas, 2006-2015 (n=4,958)



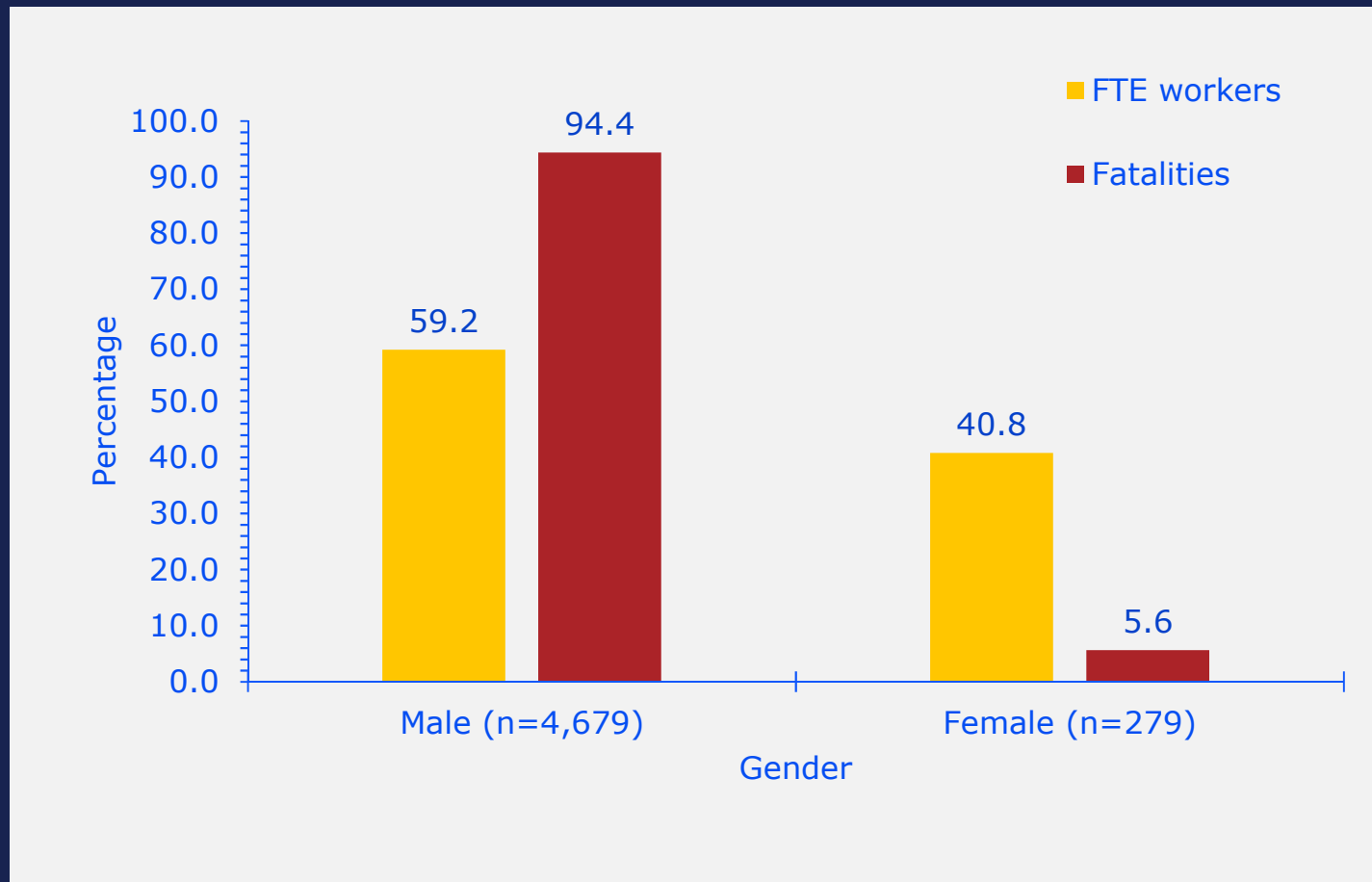


Rate of fatal work-related injuries, in Texas and the U.S., 2006-15



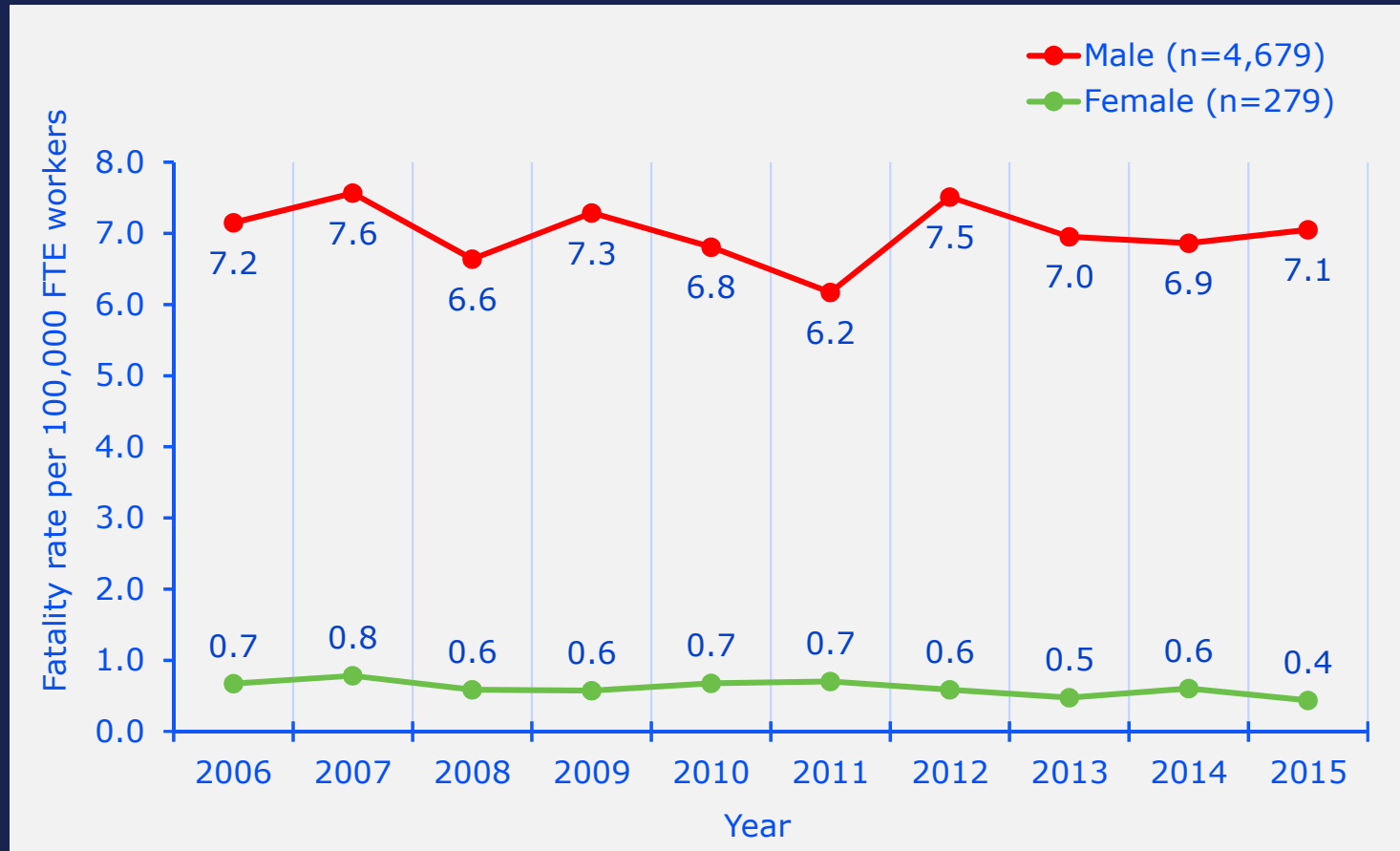


Percentage of fatalities and FTE workers in Texas by gender, 2006-15



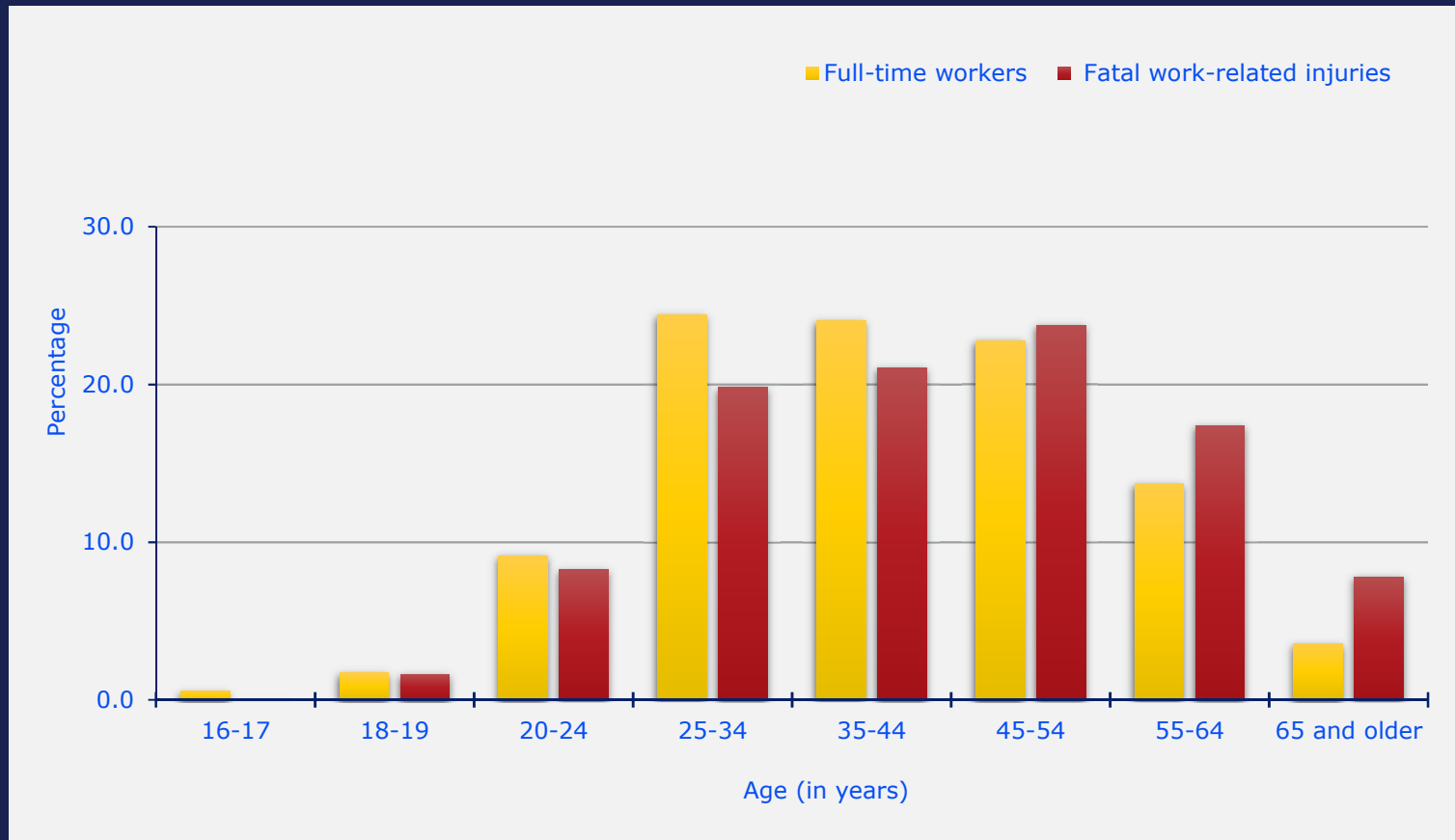


Rate of fatalities in Texas by gender, 2006-15 (n=4,958)



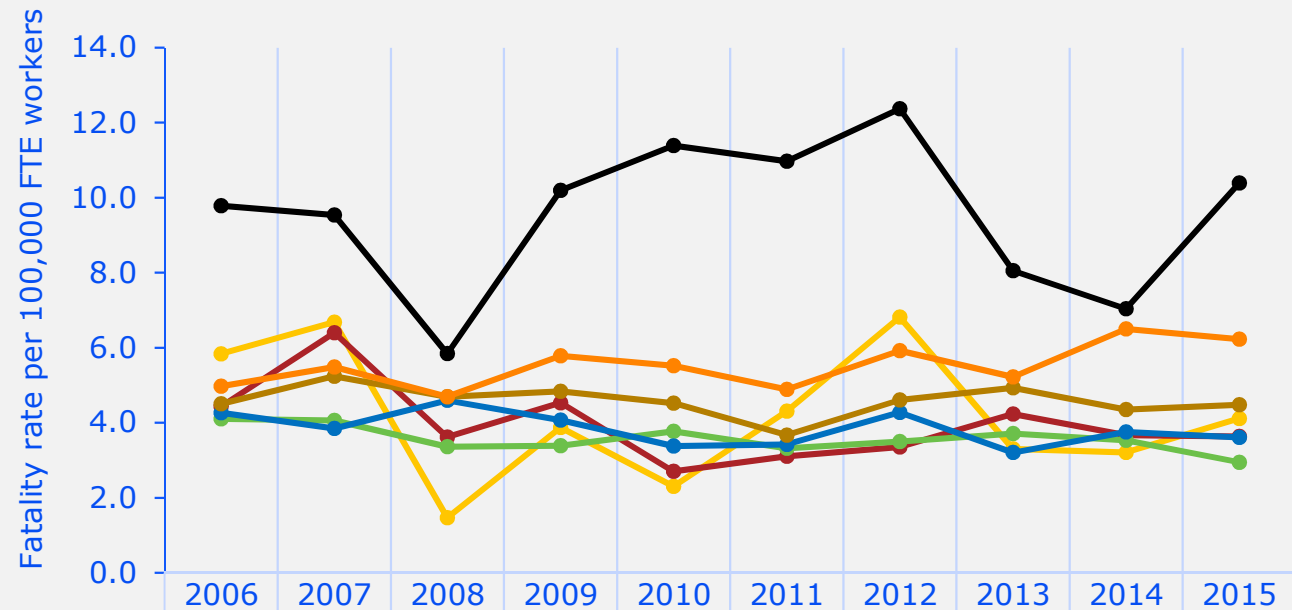


Percentage of fatalities and FTE workers in Texas by age group, 2006-15





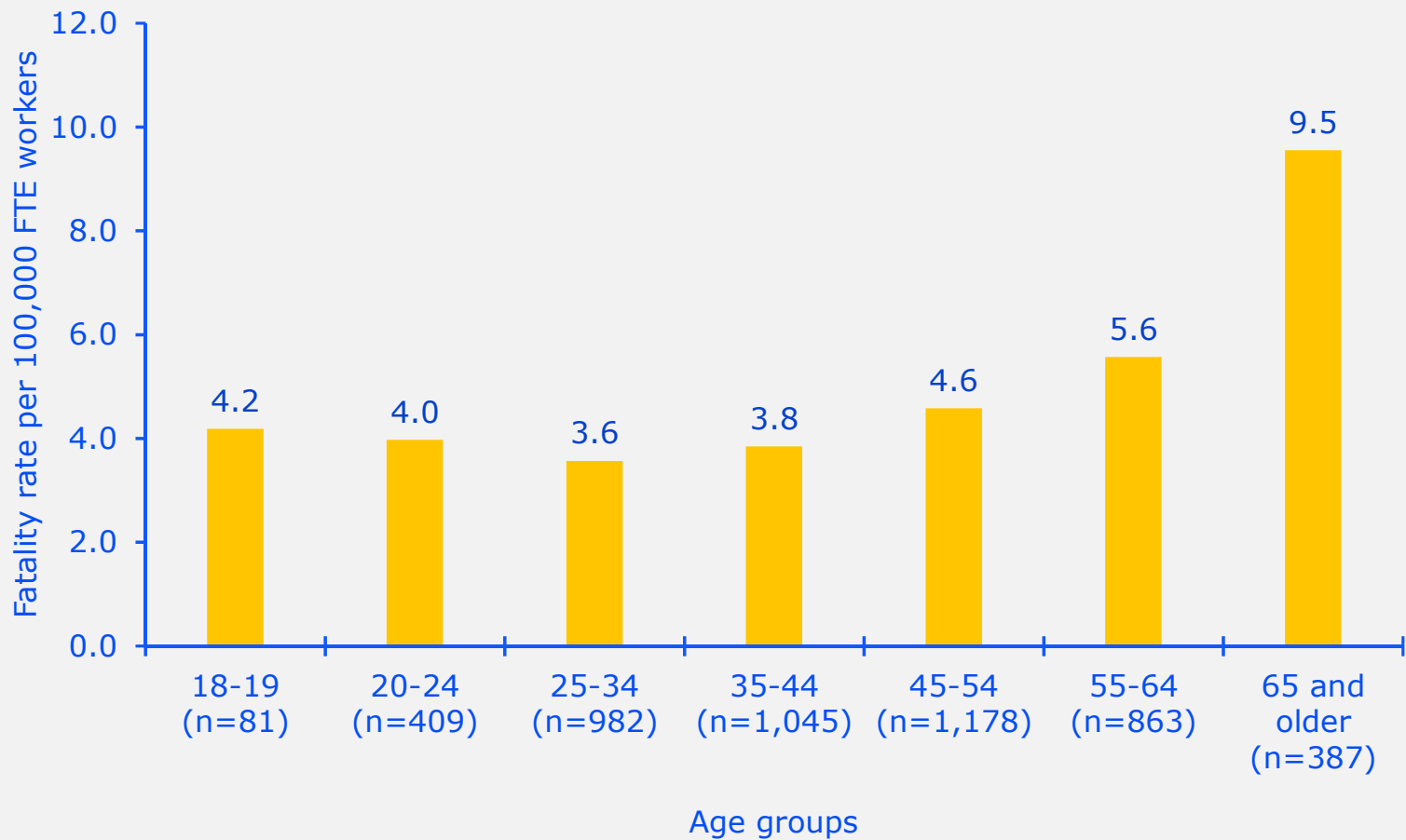
Rate of fatalities in Texas by age group, 2006-15 (n=4,958)



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
18-19 (n=81)	5.8	6.7	1.5	3.9	2.3	4.3	6.8	3.3	3.2	4.1
20-24 (n=409)	4.4	6.4	3.6	4.5	2.7	3.1	3.4	4.2	3.7	3.6
25-34 (n=982)	4.1	4.1	3.4	3.4	3.8	3.3	3.5	3.7	3.5	2.9
35-44 (n=1,045)	4.3	3.8	4.6	4.1	3.4	3.4	4.3	3.2	3.8	3.6
45-54 (n=1,178)	4.5	5.2	4.7	4.8	4.5	3.7	4.6	4.9	4.3	4.5
55-64 (n=863)	5.0	5.5	4.7	5.8	5.5	4.9	5.9	5.2	6.5	6.2
65 and older (n=387)	9.8	9.5	5.8	10.2	11.4	11.0	12.4	8.1	7.0	10.4



Average annual rate of fatalities in Texas by age group, 2006-15 (n=4,958)





Rate of fatalities in Texas by industry sector, 2011-2015 (n=2,535)

Industry sector	2011	2012	2013	2014	2015	Average
Mining, quarrying, and oil and gas extraction	14.3	16.6	11.2	16.3	10.1	13.7
Agriculture, forestry, fishing and hunting	12.5	14.8	11.6	13.1	15.3	13.5
Construction	9.7	12.8	13.3	10.6	11.8	11.6
Transportation and utilities	-	2.5	12.6	13.7	15	11.0
Wholesale and retail trade	12.6	15.2	3.7	2.7	3.5	7.5
Public administration	3.5	4	5.4	3.2	4.5	4.1
Professional and business services	3.6	4.3	3.3	3.9	4.3	3.9
Other services, except public administration	3.2	3.3	3.2	2.7	3.6	3.2
Information	2.8	3.4	2.5	-	-	2.9
Manufacturing	2.6	2.1	2.3	4.5	2.6	2.8
Leisure and hospitality	2.9	3	2	1.8	1.6	2.3
Financial activities	1.1	1.2	1.7	1.3	1.3	1.3
Educational and health services	0.8	0.9	0.5	0.5	0.8	0.7
All industries, combined	4	4.8	4.4	4.5	4.5	4.4





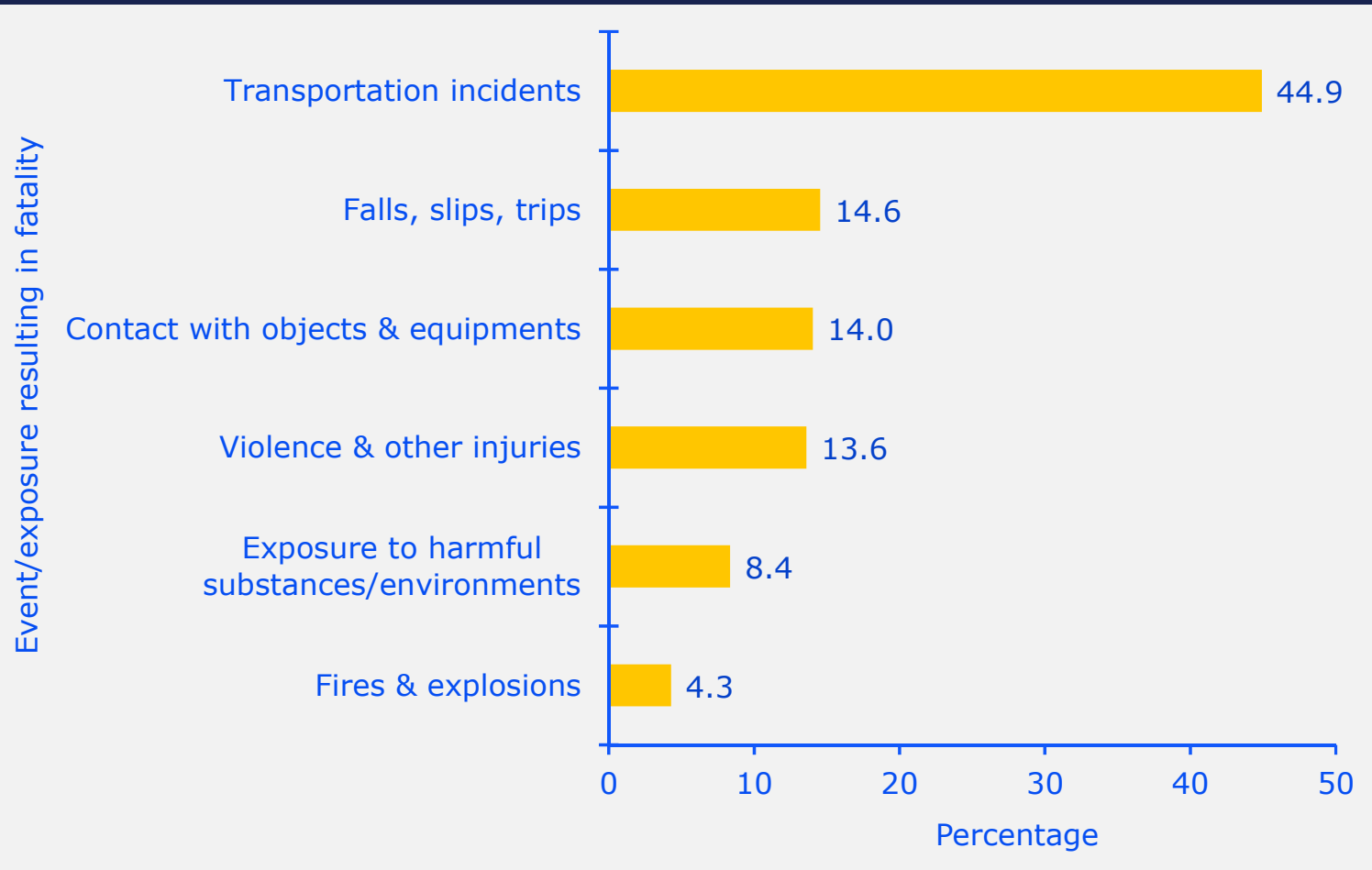
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All industries, combined	4	4.8	4.4	4.5	4.5	4.4



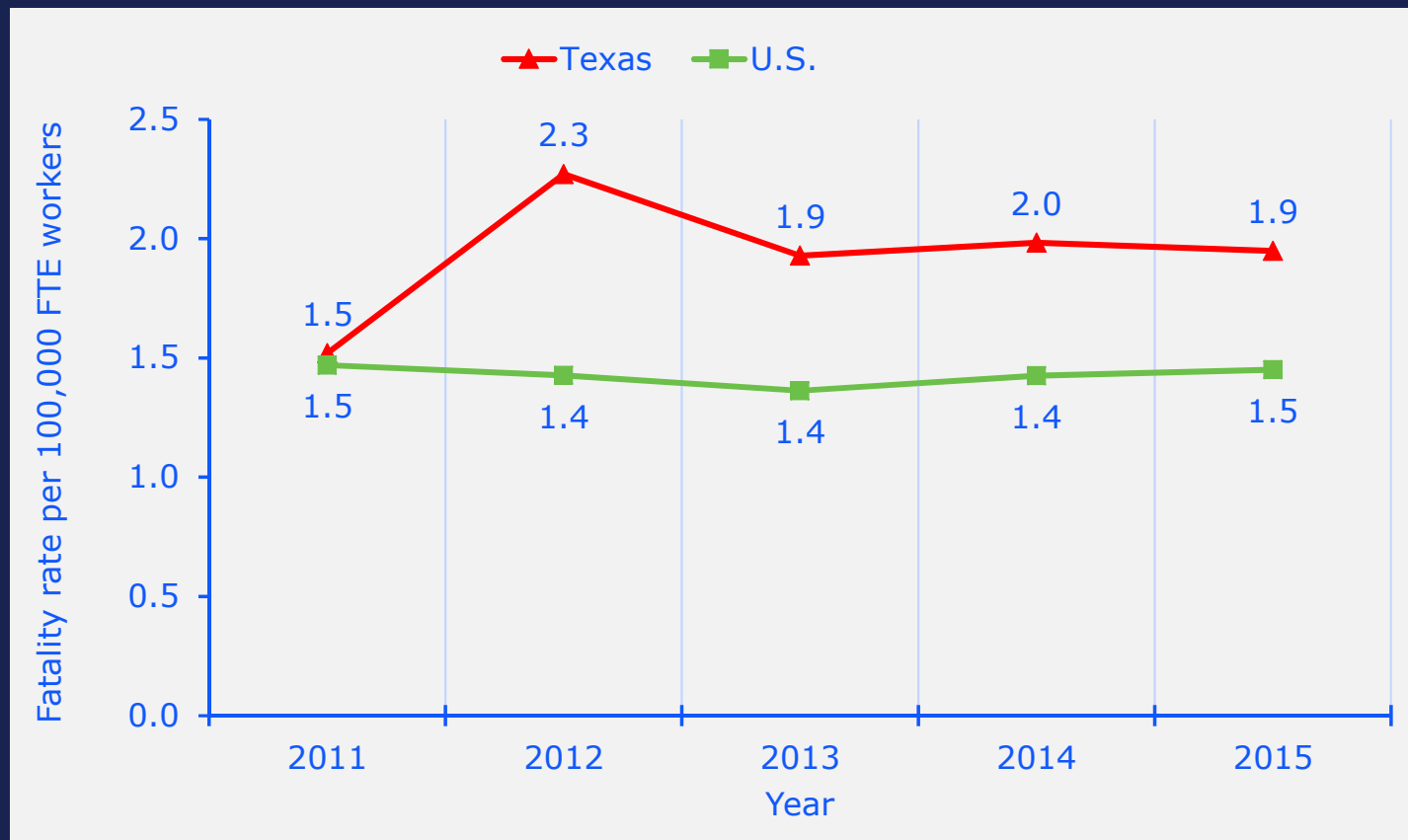


Percentage of fatalities in Texas by event/exposure, 2011-2015 (n=2,535)



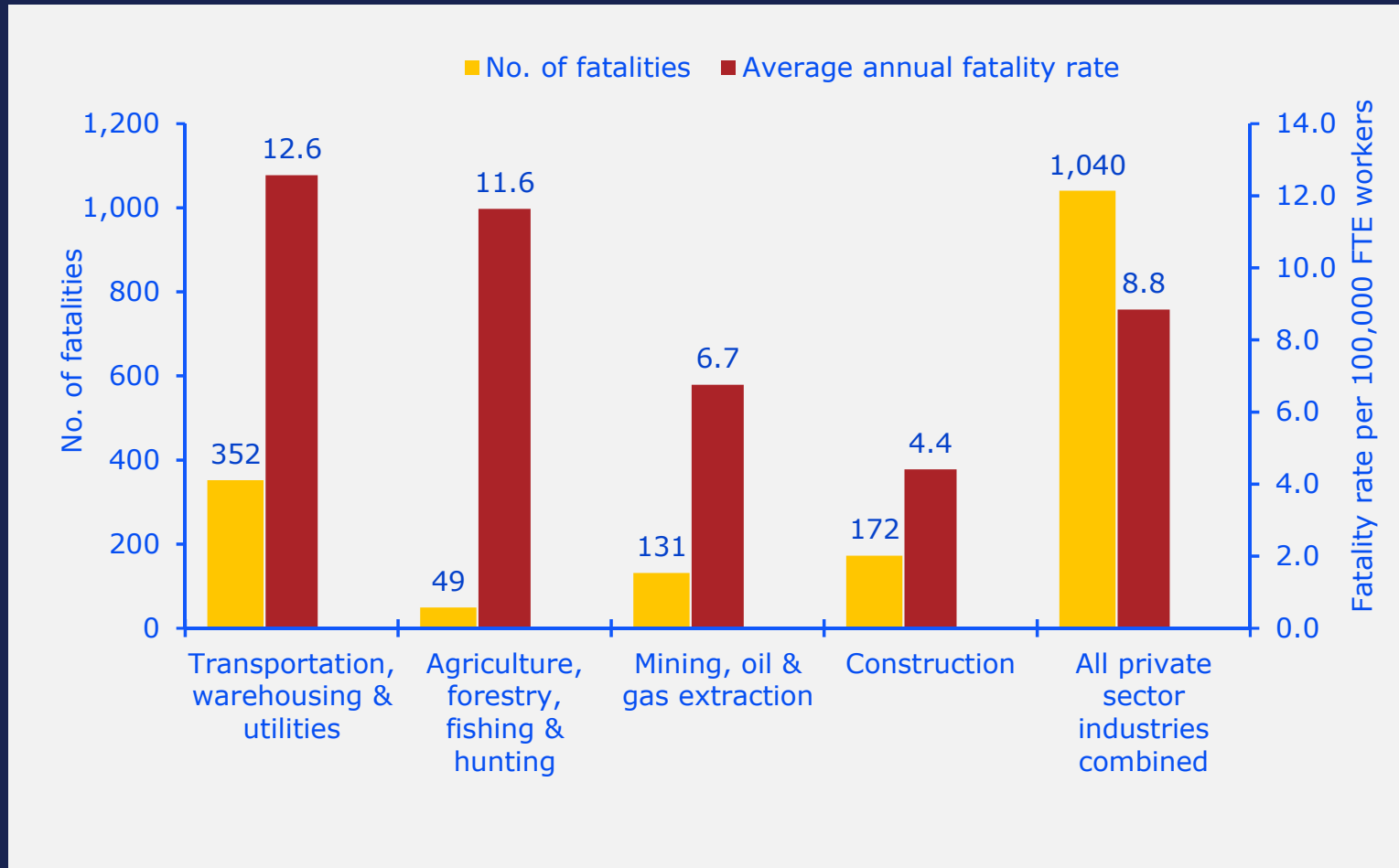


Rate of transportation fatalities in Texas and the U.S., 2011-2015 (n=1,139)





Average annual transportation fatality rate among private sector industries in Texas, 2011-2015 (n=1,040)



Other results for transportation fatalities (n=1,139)

85% (965) incidents involved motorized highway vehicles

52% (500) freight & hauling trucks

33% (319) multi-purpose highway vehicles

67% (762) incidents resulted in multiple traumatic injuries

16% (125) intracranial injuries

15% (113) internal organs & blood vessels of trunk



Conclusion

- Texas fatality rate was higher than the national average.
- Fatality rates were highest in:
 - Men.
 - 65 and older age group.
 - Mining, quarrying, & oil & gas, and Agriculture, fishing, forestry & hunting industry.
- Leading cause of death: Transportation incidents
 - Transportation fatality rate highest in private sector transportation industry.

Next Steps

- Analysis of other aggregate data sets:
 - Survey of Occupational Injuries and Illnesses.
 - Workers' Compensation- lost workday claims.
- Disseminate results of analysis.
- Strategically plan education and outreach in high-risk populations to prevent occupational fatalities.



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Thank you

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