

# BLS Data Collection and Sharing Issues

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NORA  
CONSTRUCTION  
SECTOR COUNCIL  
MEETING

JUNE 8<sup>TH</sup>, 2022

# Presentation Outline

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- I. Brief CFOI Background
- II. What's changed?
- III. How does this impact the data?
- IV. Discussion
- V. Q&A with audience

# CFOI Background

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## Census of Fatal Occupational Injuries (CFOI)

- Statistics on fatal work injuries
- **Federal-State cooperative program**
- Based on cross-referencing multiple sources
  - Death records, Worker's compensation data, Hospitals, State Agencies, Federal Agencies

# Background

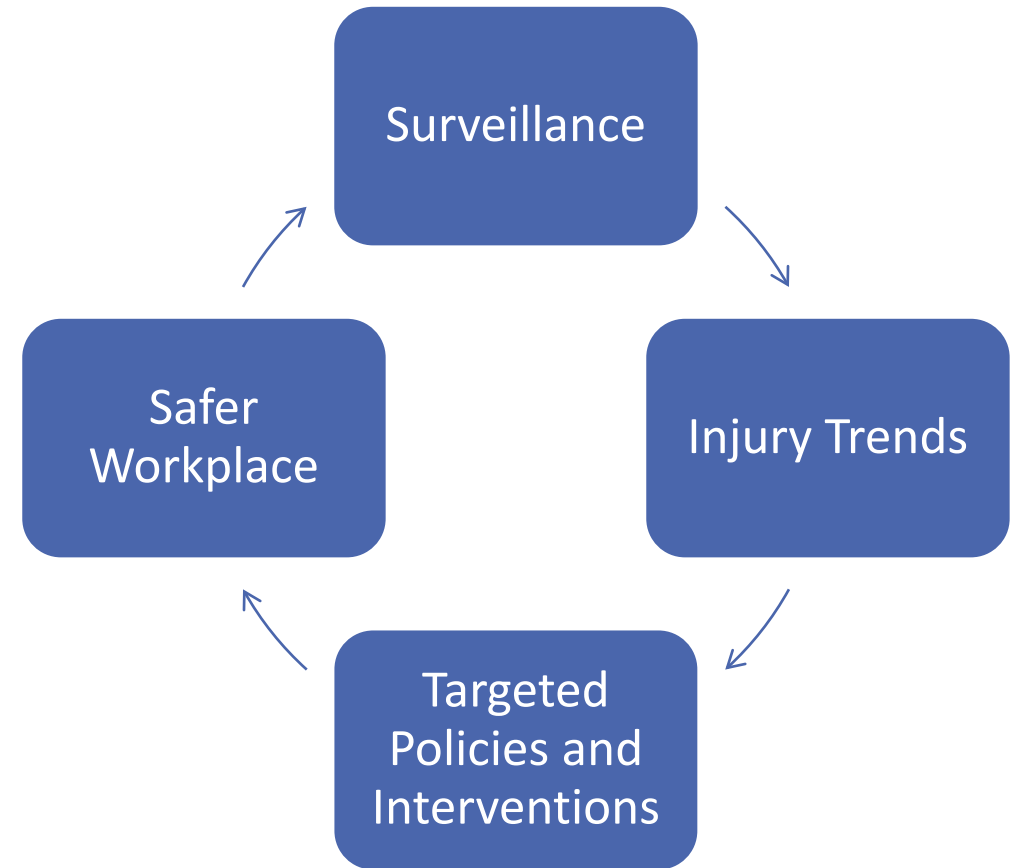
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## Work Injury Data Goals

- Surveillance
- Identify high-risk groups
- Identify injuries of concern
- Identify related factors

## Why?

- Targeted interventions
- Defining research goals
- Research and Communications



# CPWR & NIOSH Historical Use of Data

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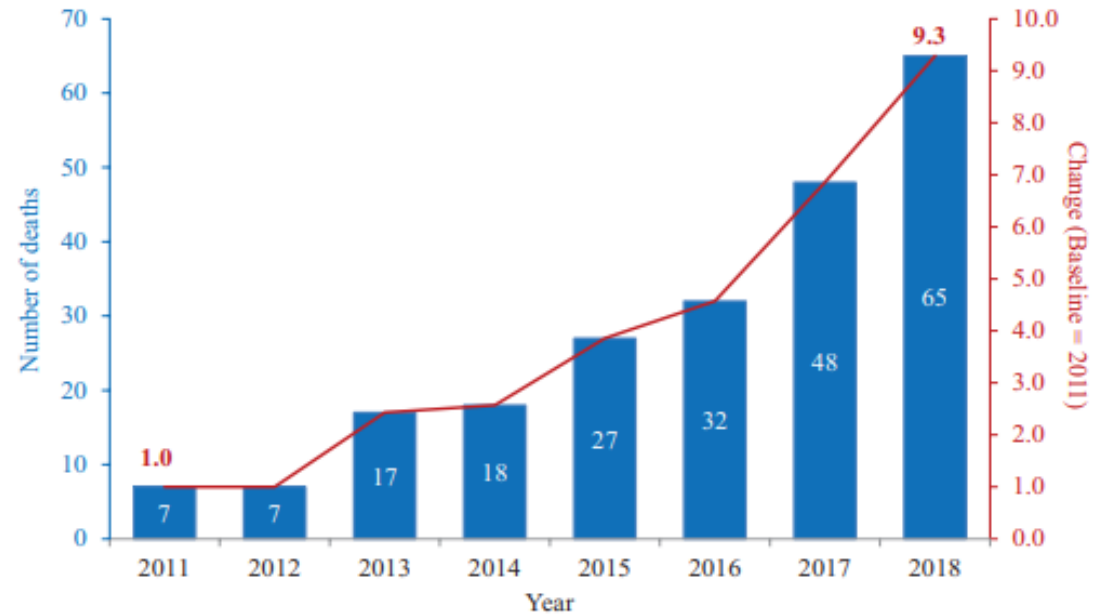
Chart Book

Data Reports

Peer-Reviewed Manuscripts

Infographics

**2. Number of unintentional overdose fatalities, construction industry, 2011-2018**



# CPWR & NIOSH Historical Use of Data

June 2020

## SNAPSHOT OF FATAL FALLS IN CONSTRUCTION

In 2018, **FATAL FALLS** accounted for **320 DEATHS** in construction

**FALLS FROM ROOFS** were the main cause of death for workers **UNDER 44**

**FALLS FROM LADDERS** were the main source of falls for workers **OVER 55**

Workers **OVER 65 & IMMIGRANT WORKERS** had the highest risk of fatal falls

**PLAN. PROVIDE. TRAIN.**  
Three simple steps to preventing falls.

Join the Campaign to Stop Construction Falls!  
[www.stopconstructionfalls.com](http://www.stopconstructionfalls.com)

CPWR THE CENTER FOR CONSTRUCTION RESEARCH AND TRAINING

NIOSH NORA

#StandDown4Safety

October 2021

## SNAPSHOT OF FATAL FALLS IN CONSTRUCTION, 2019

**1,102 CONSTRUCTION DEATHS**  
Most deaths in a year since 2011

**1 IN 3 DEATHS WERE FROM FATAL FALLS**  
#1 on OSHA's Fatal Four  
93 fatal falls related to ladders  
52 fatal falls related to scaffolding

**401 FATAL FALLS TO A LOWER LEVEL**  
↑ 25% increase from 2018  
Hispanics have a higher rate of falls

**146 FATAL FALL DEATHS FROM ROOFS**  
↑ 28% increase from 2018  
63% increase from 2011

**374 HISPANIC CONSTRUCTION DEATHS**  
↑ 27% increase from 2018  
90% increase since 2011

**1 IN 3 CONSTRUCTION WORKERS ARE HISPANIC**  
Provide training in the language workers use and images that reflect their culture.

**2X RATE OF DEATH FOR CONSTRUCTION**  
↑ workers age 65+ compared to workers age 55 or less

**PLAN** ahead to get the job done safely.  
**PROVIDE** the right equipment.  
**TRAIN** everyone to use the equipment safely.

Join the Campaign to Stop Construction Falls!  
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#StandDown4Safety

June 2020

## SMALL BUSINESSES AND SAFETY

**91%** of construction companies have **fewer than 20 employees**

Construction companies with **fewer than 20 employees** account for **75%** of fatal falls

**New companies** are more likely to succeed if they **keep workers safe**

Companies that **FAIL IN THE FIRST 2 YEARS** have injury rates **2.5X HIGHER** than those who succeed

**PLAN. PROVIDE. TRAIN.**  
Three simple steps to preventing falls.

Contractors who follow safety laws are the **most successful**

Join the Campaign to Stop Construction Falls!  
[www.stopconstructionfalls.com](http://www.stopconstructionfalls.com)

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Source 1: CPWR Quarterly Data Report, Second Quarter 2019  
<https://www.cpwrc.com/sites/default/files/publications/Quarter2-QDR-2019.pdf>  
Source 2: BLS, 2018 Census of Fatal Occupational Injuries, <https://data.bls.gov/gov/RequestData>

Source: Brown S, Harris W, Brooks RD, Deng XJ. Data Bulletin: Fatal Injury Trends in the Construction Industry. The Center for Construction Training and Research, CPWR, February 2021. Available from: <https://www.cpwrc.com/wp-content/uploads/DataBulletin-February-2021.pdf>

Source 1: The Construction Chart Book, Section 2 and Section 44, Charts 2a and 44c.  
<https://www.cpwrc.com/construction-chart-book-4th-edition-forecast/>  
Source 2: Cunningham, J, Jacobson, J. Safety Rate and Safety Culture: Discursive Repertoires as Indicators of Workplace Safety and Health Practice and Readiness to Change. Ann Work Expo Health, 2018 Sup. 13: 432-440. doi:10.1016/j.annweh.2018.05.001

# What's changed?

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Updated disclosure rules that impact publicly available tool, public data requests, and microdata

CFOI modernized disclosure methodology starting for reference year 2019

- Goal=Strengthen protection of confidential data
- Why= Identifiable data can only be used exclusively for statistical purposes and are protected under the Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA) which is protected under a pledge of confidentiality

# Primary vs. secondary suppression

Primary suppression only The count for occupation 3 doesn't meet publishability criteria	
Occupation	Number of fatal injuries
All Occupations	100
Occupation 1	80
Occupation 2	18
Occupation 3	--

Even though this cell is suppressed, we have enough information to compute its value:  
 $100-80-18=2$

Primary and secondary suppressions The count for occupation 2 is suppressed as well	
Occupation	Number of fatal injuries
All Occupations	100
Occupation 1	80
Occupation 2	--
Occupation 3	--

With the two cells suppressed, we don't have enough information to compute either value. Possible values include 20 and 0, 19 and 1, 10 and 10, 15 and 5....

# How to implement secondary disclosure?

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Apply secondary disclosure within each published article

- This is doable! (see previous slide)
- Table differencing makes it possible to learn more
- Users may request more data than the tables on our website

To adequately protect respondents, we need something that will account for all combination of variables in all possible tables

# How does this impact the data?

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Reduced ability to report high-risk groups at a descriptive level

Reduced ability to communicate circumstances surrounding specific types of injuries (e.g., injury source or location) at a descriptive level

Inability to examine the role of establishment size on injuries

Can still produce models/run other statistical tests using micro data to identify these factors, but this complicates producing user-friendly statistics

# Example of Impact

With changes it is no longer feasible to look at the Number of fatal falls to lower levels by ethnicity through public tool, data request, or micro data

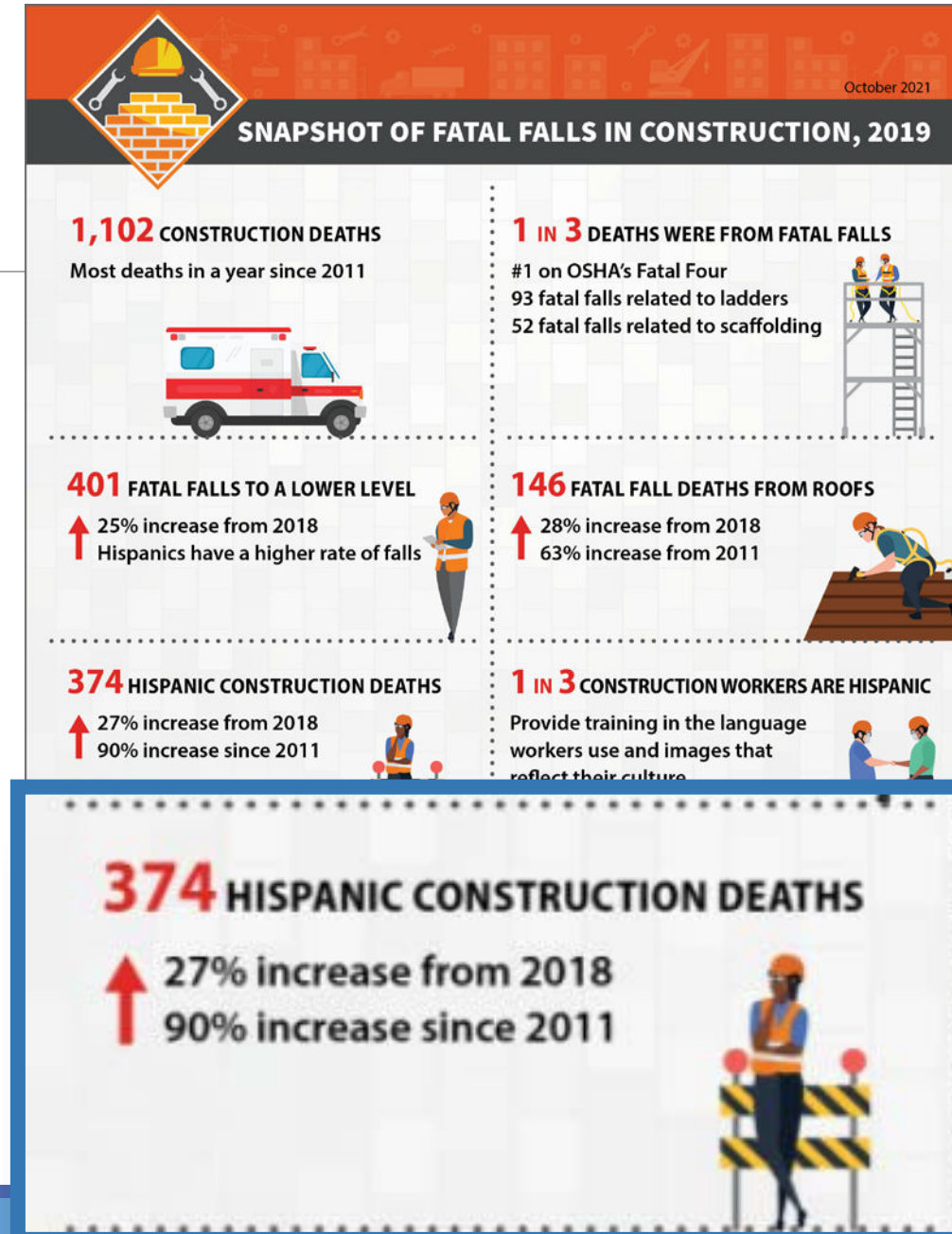
## What can we get?

- In 2017, of the 367 construction workers fatally injured due to a fall to a lower level 195 were white, non-Hispanic and 142 were Hispanic or Latino.

**VS**

- Hispanic or Latino construction workers were almost twice as likely to die from a fall to a lower level compared to white, non-Hispanic workers.\*

\*Hypothetical statistic.



Let's learn more

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How do we get a  
National database?

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# Coordination with States

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While the Constitution doesn't explicitly list the powers retained by the states, the founders included a catch-all in the 10th Amendment, ratified in 1791:

***“The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.”***

Those so-called “reserved” powers include all authority and functions of local and state governments, policing, education, the regulation of trade within a state, the running of elections and many more.

What are agency and  
researcher obligations?  
Limitations?

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How can we overcome the disclosure changes to meet the needs of the construction industry?

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# Publish what we can

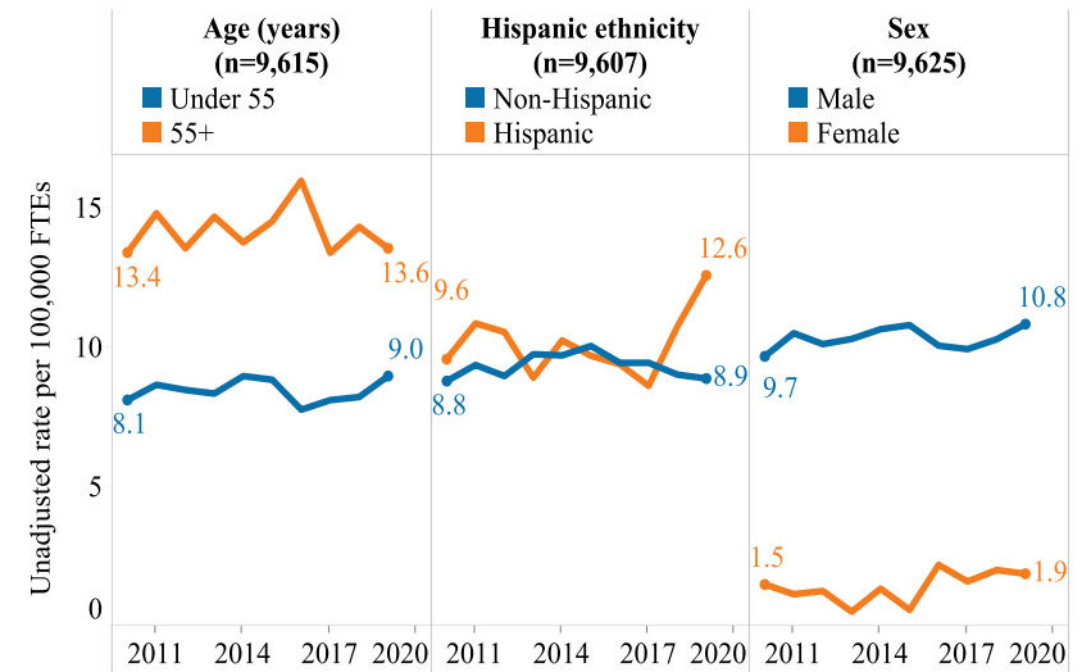
General industry injury trends by subsector, occupation (where available), and demographics

## Remember our Injury Data Goals:

- Surveillance ✓
- Identify high-risk groups ✓
- Identify injuries of concern ✓
- Identify related factors

Note: Limitations impact our ability to completely achieve these goals due to suppression of certain categories in public data (e.g., occupation) and lack of access to certain important variables (e.g., establishment size).

**Rate of fatal injuries in construction by demographics, 2011-2020\***



**Source:** U.S. Bureau of Labor Statistics, 2011-2020 Census of Fatal Occupational Injuries and 2011-2020 Current Population Survey.

\*Cases missing age or ethnicity data were excluded.

# Statistical Modeling

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## Injury Data Goals:

- Surveillance
- **Identify high-risk groups ✓**
- Identify injuries of concern
- **Identify related factors ✓**

**Note: Modeling/statistical testing would require access to CFI microdata.**

Structural Metal Workers  
(BOC 597)

Fall from Building	E882	8.0
Fall from 1 Level to Other	E884	4.6
Fall from Ladder, Scaffold	E881	3.4
Struck by Falling Object	E916	3.0
Electric Current	E925	2.3
Machinery	E919	1.9

**TABLE V.** Lifetime Risk Estimates from Published Studies Identifying Occupational Exposures to Hazardous Substances

<b>Authors</b>	<b>Population</b>	<b>Exposure</b>	<b>Working lifetime</b>	<b>Illness</b>	<b>Lifetime risk (deaths/ 1,000 workers)<sup>a</sup></b>
Nurminen et al., 1992	General exposed population	0.2 mg silica/m <sup>3</sup> <sup>b</sup>	40 Years	Silicosis	8.7

Q&A

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# Thank you!

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# References

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Fosbroke DE, Kisner SM, and Myers JR. (1997). Working Lifetime Risk of Fatal Occupational Injury. *American Journal of Industrial Medicine*, 31: 459-467. [https://doi.org/10.1002/\(SICI\)1097-0274\(199704\)31:4<459::AID-AJIM13>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0274(199704)31:4<459::AID-AJIM13>3.0.CO;2-Z)

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