

BLS Data Collection and Sharing Issues

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NORA
CONSTRUCTION
SECTOR COUNCIL
MEETING

JUNE 8TH, 2022

Presentation Outline

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

CFOI Background

Background

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

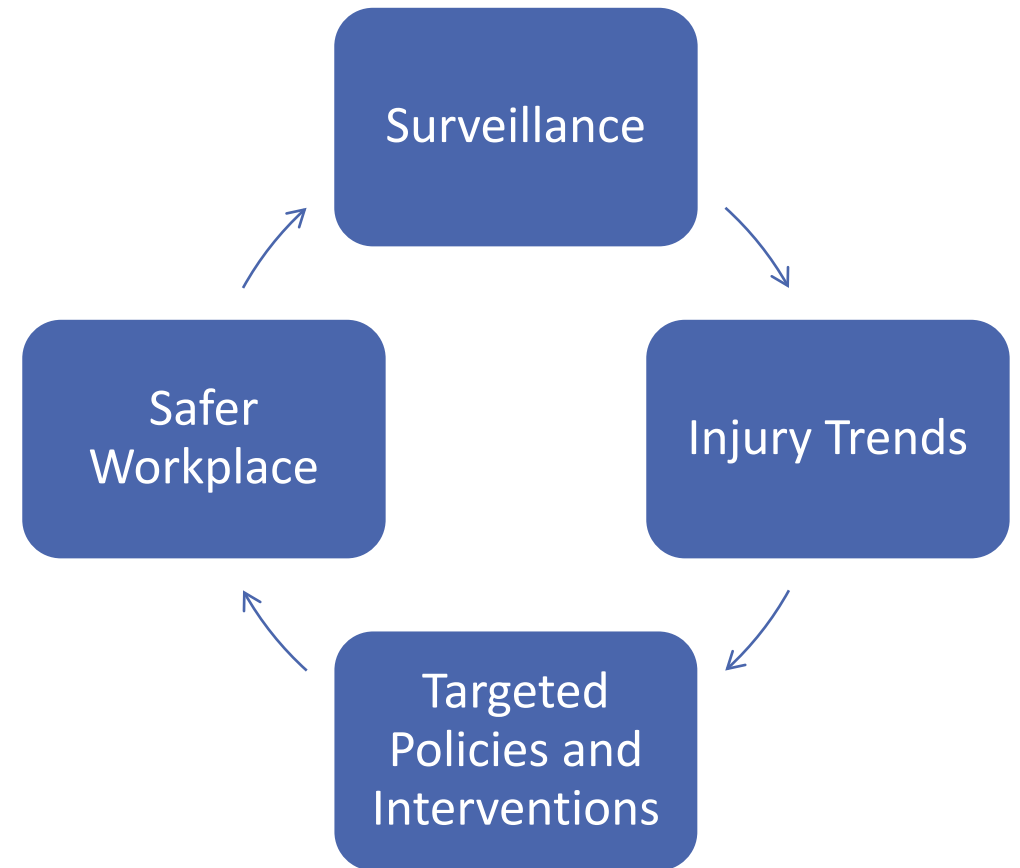
Background

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

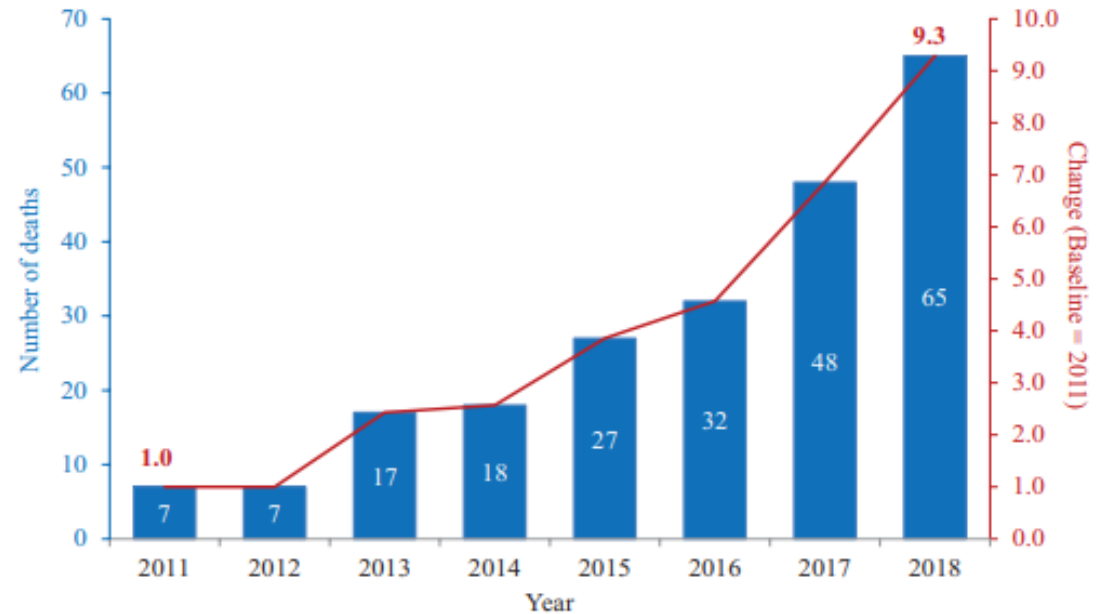
Chart Book

Data Reports

Peer-Reviewed Manuscripts

Infographics

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



CPWR & NIOSH Historical Use of Data

SNAPSHOT OF FATAL FALLS IN CONSTRUCTION June 2020

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

#StandDown4Safety

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

SNAPSHOT OF FATAL FALLS IN CONSTRUCTION October 2021

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!
www.stopconstructionfalls.com

#StandDown4Safety

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.cpwrcan.org/wp-content/uploads/DataBulletin-February-2021.pdf>

SMALL BUSINESSES AND SAFETY June 2020

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

#StandDown4Safety

Source 1: The Construction Chart Book, Section 2 and Section 44, Charts 2a and 44c. <https://www.cpwrcan.org/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. 15, 432-440. doi:10.1016/j.aehw.2018.05.005

What's changed?

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?

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?

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

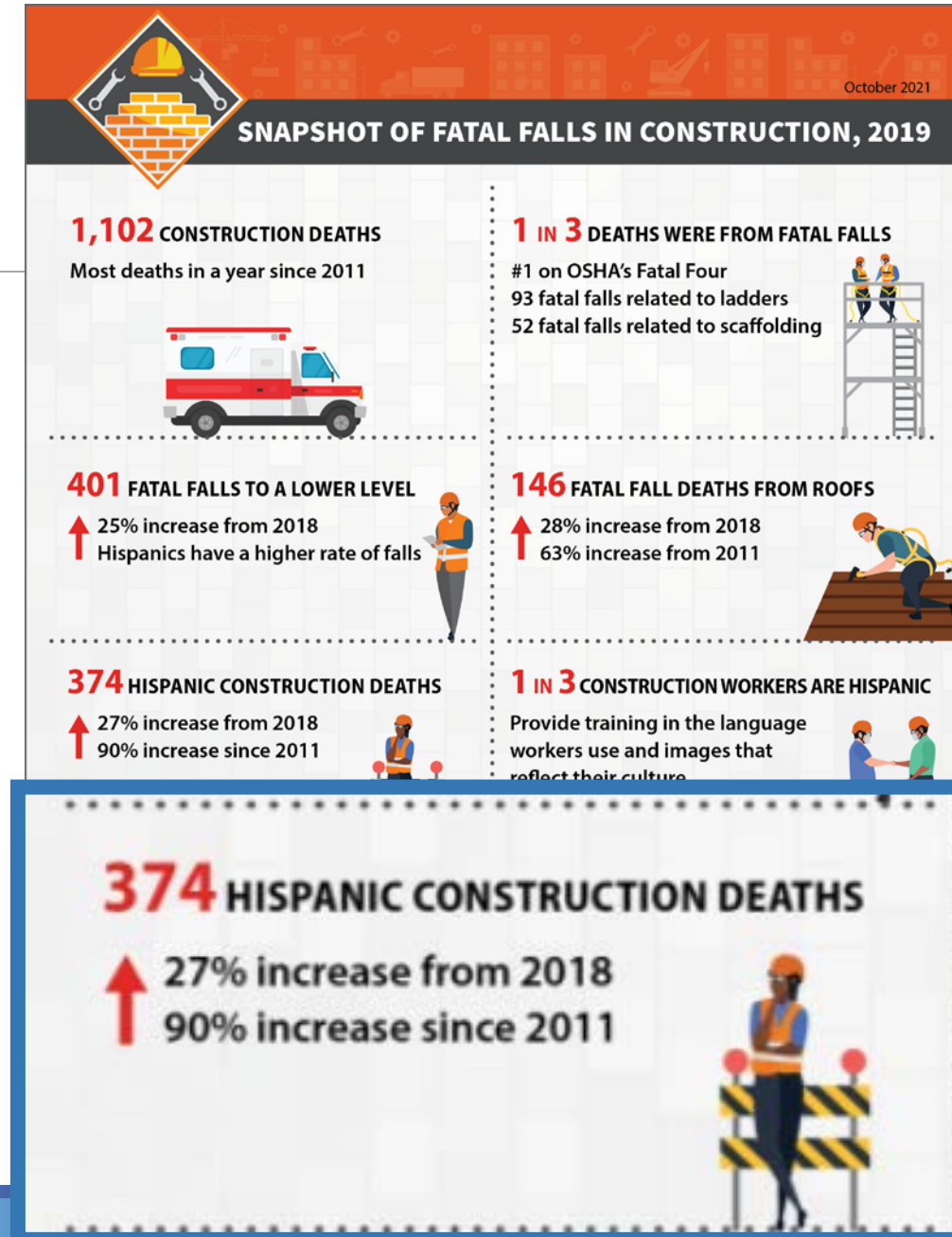
What can we get?

- 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

How do we get a
National database?

Coordination with States

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?

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

Publish what we can

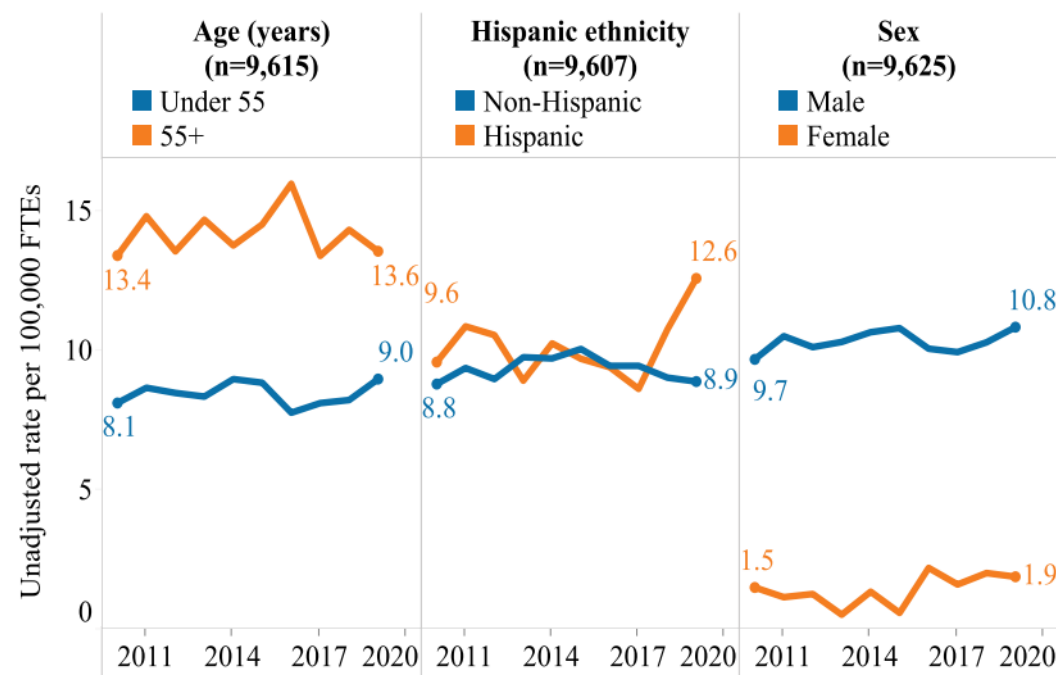
General industry injury trends by subsector, occupation (where available), and demographics

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

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

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

Q&A

Thank you!

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