



THE CENTER FOR CONSTRUCTION
RESEARCH AND TRAINING

Using the Chart Book and Accompanying Data Dashboards to Support Intervention and Prevention Efforts

January 21, 2026

Amber Trueblood, DrPH, Data Center Director

Derek Dufoe, MS, Research Assistant

Housekeeping

- Today's webinar will be recorded and automatically shared via follow-up email.
- The recording and slides will also be posted on cpwr.com/webinars.
- Attendees are automatically muted! Please submit panelist questions via the Q&A box.
- Spanish audio is available via simultaneous interpretation.

Simultaneous Interpretation

Interpretación simultánea

WINDOWS - MAC (Navegador web/Browser)

1. En los controles del seminario web, haga clic en **Interpretación** 
2. Haga clic en el idioma que desee escuchar.
3. (Opcional) Para escuchar solo el idioma interpretado, haga clic en **Silenciar audio original**.

Nota: Hay que unirse al audio del seminario web a través de audio o VoIP de la computadora. No podrá escuchar la interpretación de idiomas si utiliza las funciones de audio de teléfono [llamada directa](#) o [recibir llamada](#).

ANDROID - iOS (Aplicación móvil/Mobile App)

1. En los controles del seminario web, toque los puntos suspensivos ...
2. Toque **Interpretación de idiomas**.
3. Toque el idioma que desee escuchar.
4. (Opcional) Toque el botón de alternancia **Silenciar audio original**.
5. Haga clic en **Finalizado**.

Nota: No podrá escuchar la interpretación de idiomas si utiliza las funciones de audio de teléfono [llamada directa](#) o [recibir llamada](#).

1. *In your webinar controls, click **Interpretation** *
2. *Click the language that you would like to hear.*
3. *(Optional) To hear the interpreted language only, click **Mute Original Audio**.*

Note: You must join the webinar audio through your computer audio/VoIP. You cannot listen to language interpretation if you use the [dial-in](#) or [call me](#) phone audio features.

1. *In your webinar controls, tap the ellipses ...*
2. *Tap **Language Interpretation**.*
3. *Tap the language you want to hear.*
4. *(Optional) Tap the toggle to **Mute Original Audio**.*
5. *Click **Done**.*

Note: You cannot listen to language interpretation if you use the [dial-in](#) or [call me](#) phone audio features.

Presentation Outline

History of the Chart Book

7th Edition Chart Book

- PDF
- Interactive

Topics Covered

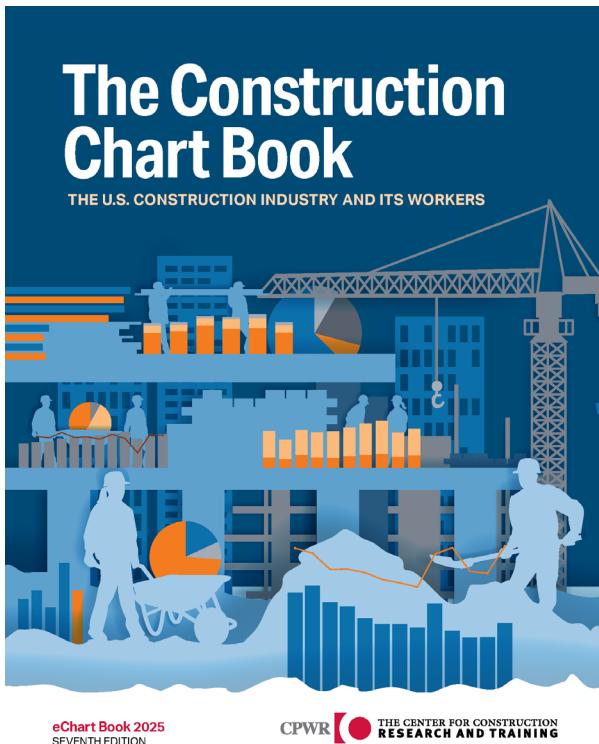
Using the Data for Intervention and Prevention Efforts

History of the Chart Book

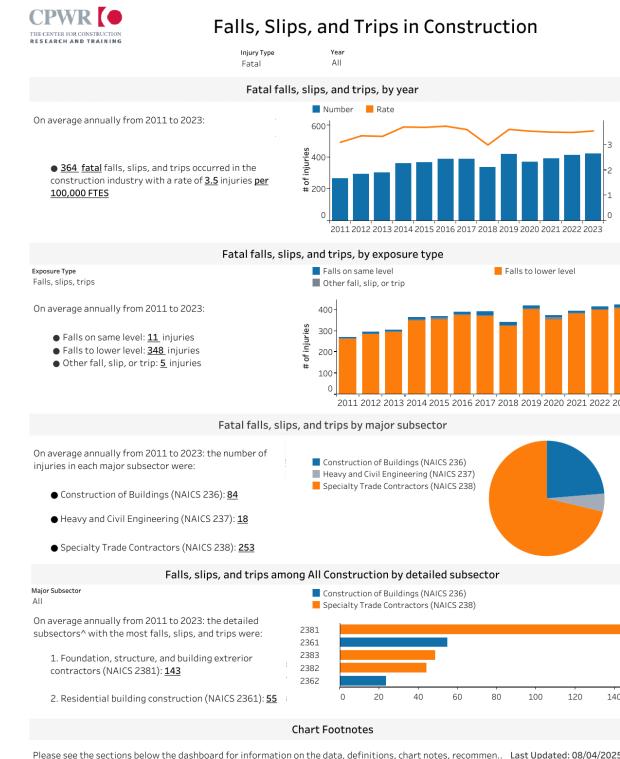
- First launched in 1997.
- Published under CPWR's cooperative NIOSH grant as the National Construction Center.
- New topics introduced with each edition.
- Pulls data from a variety of sources, such as:
 - U.S. Bureau of Labor Statistics, U.S. Census Bureau, and Centers for Disease Control and Prevention, OSHA, NIOSH.
- 6th edition
 - Introduced an ebook with static webpages with the PDF content.
- 7th edition
 - Data Dashboards launched in 2021 serve as the framework for the 7th edition
Interactive Data Dashboards launched in 2025.

7th Edition Chart Book

Downloadable PDF



Interactive Data Dashboards



7th Edition Chart Book PDF

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Establishments by Payroll Status

Construction establishments are classified as either *payroll* or *nonemployer* (with no paid employees or payroll). Historically, nonemployer establishments have accounted for approximately 75% of establishments in construction (CPWR, 2018). From 1997 to 2012, nonemployer establishments, which include independent contractors, increased from 74% to 80% of all construction establishments.

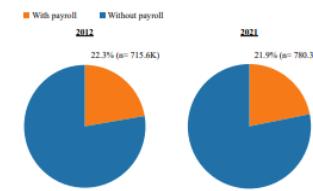
In many industries, the two establishment types are linked, with one report finding that increases in the number of nonemployer establishments in a given year resulted in growth in the number of payroll establishments over the next three years due to independent contractors eventually hiring employees (Moore, 2018). That study estimated that an average county with 1,000 new establishments without payroll would see 350 new payroll establishments in the following three years. This pattern is one reason it is important to understand how establishments with and without payroll change over time: this information can help guide decisions by business owners and government officials, as well as efforts to improve worker safety and health, as outreach methods differ by the type of establishment.

The U.S. Census Bureau produces the County Business Patterns (CBP), an annual series that provides information on establishments with paid employees (payroll), as well as Nonemployer Statistics (NES), an annual series on establishments with no paid employees (nonpayroll); U.S. Census Bureau, n.d.-c, n.d.-b). The CBP-NES Combined Report merges both data sources (U.S. Census Bureau, n.d.-a).

FINDINGS

Three out of four construction establishments are nonemployer (i.e. without payroll; Chart 2a). In 2021, there were 2.8 million (M) nonemployer establishments in construction, a 12.0% increase from the 2.5M in 2012. In comparison, there was a 9.0% increase in payroll establishments over that period, from 715.6 thousand (K) to 780.3K. A majority (71.7%) of employees worked for establishments with payroll (data not shown; assumes one worker for each establishment without payroll). This figure is consistent with research showing almost a quarter of the construction workforce being self-employed (Harris et al., 2023).

Chart 2a. Percentage of construction establishments, by payroll status (2012 versus 2021)



Source: U.S. Census Bureau, 2021 CBP-NES Combined Report.

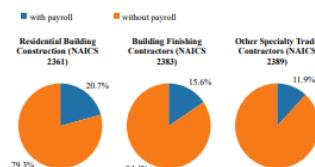
THE CONSTRUCTION CHART BOOK, SEVENTH EDITION

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2

Of the three *detailed subsectors* with the largest number of establishments, Residential Building Construction (NAICS 236) had similar distribution by payroll status as its major subsector, Construction of Building (NAICS 236), with slightly over 20% of establishments being payroll (Chart 2c). In comparison, 15.6% of Building Finishing Contractors (NAICS 238) and 11.9% of Other Specialty Trade Contractors (NAICS 2389) were establishments with payroll, lower than the 21.0% for all Specialty Trade Contractors (NAICS 238).

Chart 2c. Distribution of payroll status among the top* detailed subsectors (2021)

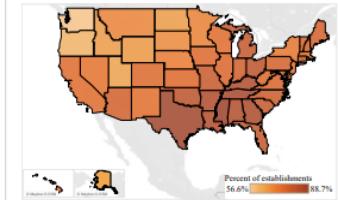


Source: U.S. Census Bureau, 2021 CBP-NES Combined Report.

*Top defined on number of establishments.

The proportion of establishments with and without payroll also varies by state (Chart 2d). In 12 states and the District of Columbia, establishments without payroll made up more than 80% of construction establishments in 2021 (highest to lowest percentage): Mississippi, Texas, Tennessee, Georgia, Arkansas, Kentucky, Alabama, Louisiana, Oklahoma, Ohio, Florida, District of Columbia, and Michigan. There were 10 states in which payroll establishments accounted for more than 30% of establishments (highest to lowest percentage): Washington, Oregon, Alaska, Utah, Idaho, North Dakota, Wyoming, South Dakota, Montana, and Minnesota.

Chart 2d. Establishments without payroll as a percentage of all construction establishments, by state (2021)



Source: U.S. Census Bureau, 2021 CBP-NES Combined Report.

THE CONSTRUCTION CHART BOOK, SEVENTH EDITION

7th Edition Chart Book Interactive Data Dashboards



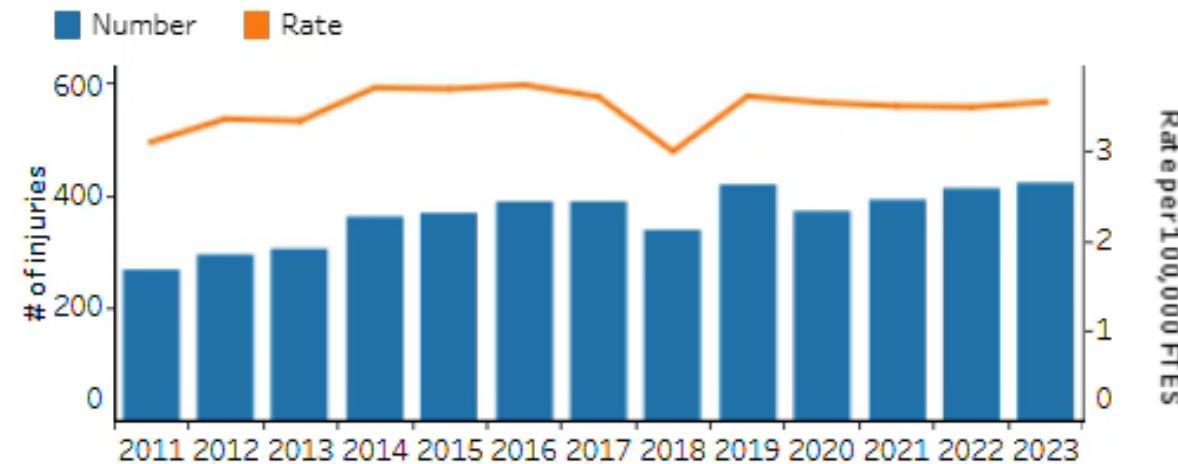
Falls, Slips, and Trips in Construction

Injury Type:

Fatal falls, slips, and trips, by year

On average annually from 2011 to 2023:

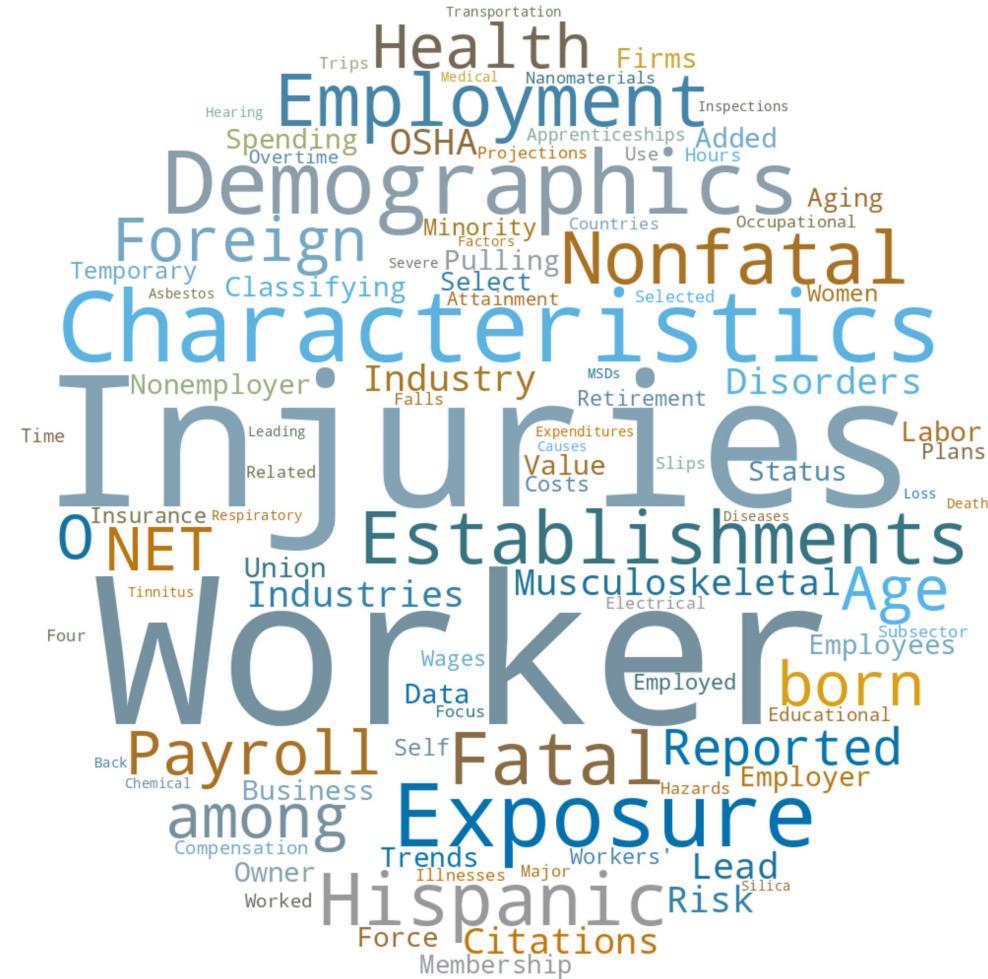
- 364 fatal falls, slips, and trips occurred in the construction industry with a rate of 3.5 injuries per 100,000 FTEs



Topics Covered



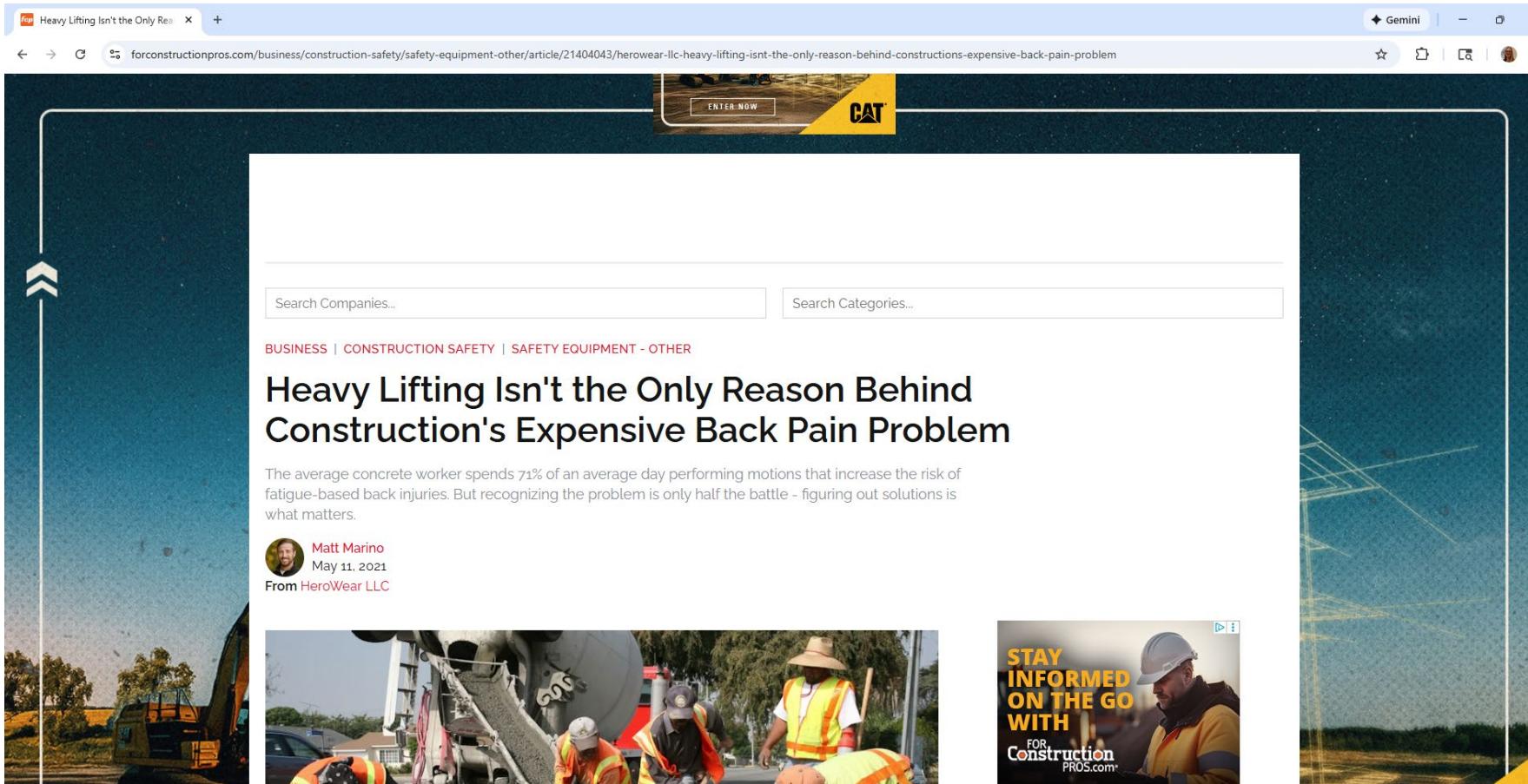
Topics Covered



Using Data for Interventions and Preventions



Identify Trends/Raise Awareness



Heavy Lifting Isn't the Only Reason Behind Construction's Expensive Back Pain Problem

The average concrete worker spends 71% of an average day performing motions that increase the risk of fatigue-based back injuries. But recognizing the problem is only half the battle – figuring out solutions is what matters.

Matt Marino
May 11, 2021
From HeroWear LLC

STAY INFORMED ON THE GO WITH FOR Construction PROS.com

It's no surprise that reported back pain for construction workers is 20% higher than all other industries, [according to a study](#) by the [Center](#) for Construction Research and Training (CPWR). What might be more surprising is that construction workers are [higher than the average](#) across all age groups.

Track Trends Over Time



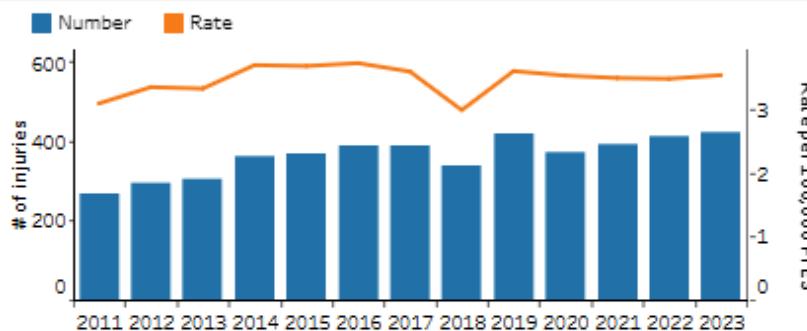
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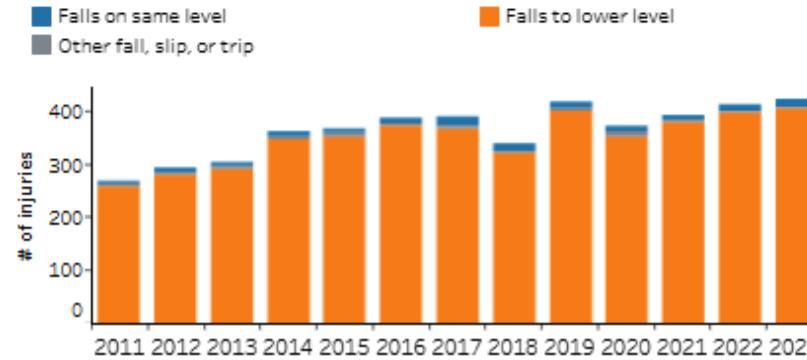


Fatal falls, slips, and trips, by exposure type

Exposure Type:

On average annually from 2011 to 2023:

- Falls on same level: 11 injuries
- Falls to lower level: 348 injuries
- Other fall, slip, or trip: 5 injuries



Identify those at greatest risk

**OCCUPATIONAL HEALTH INEQUITY:
HISPANIC WORKERS MORE LIKELY TO DIE FROM FALLS**

IN 2017, THE RATE OF HISPANIC WORKERS WHO DIED FROM FALLING TO A LOWER LEVEL WAS 50% HIGHER THAN THEIR NON-HISPANIC COUNTERPARTS...^{1,2}

142 HISPANIC WORKERS DIED FROM FALLS TO A LOWER LEVEL IN 2017.²

HISPANIC VS. NON-HISPANIC FALL FATALITIES PER 100,000 FTEs*

Group	Fatalities (2017)	Rate (per 100,000 FTEs)
HISPANIC WORKERS	142	50% higher than Non-Hispanic
NON-HISPANIC WORKERS	~90	3.0

**ALL FALLS ARE PREVENTABLE!
DO YOUR PART TO MAKE SURE ALL WORKERS ARE EQUALLY PROTECTED!**

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

Find planning and training resources in Spanish [here](#).

Join the Campaign to Stop Construction Falls!
www.stopconstructionfalls.com

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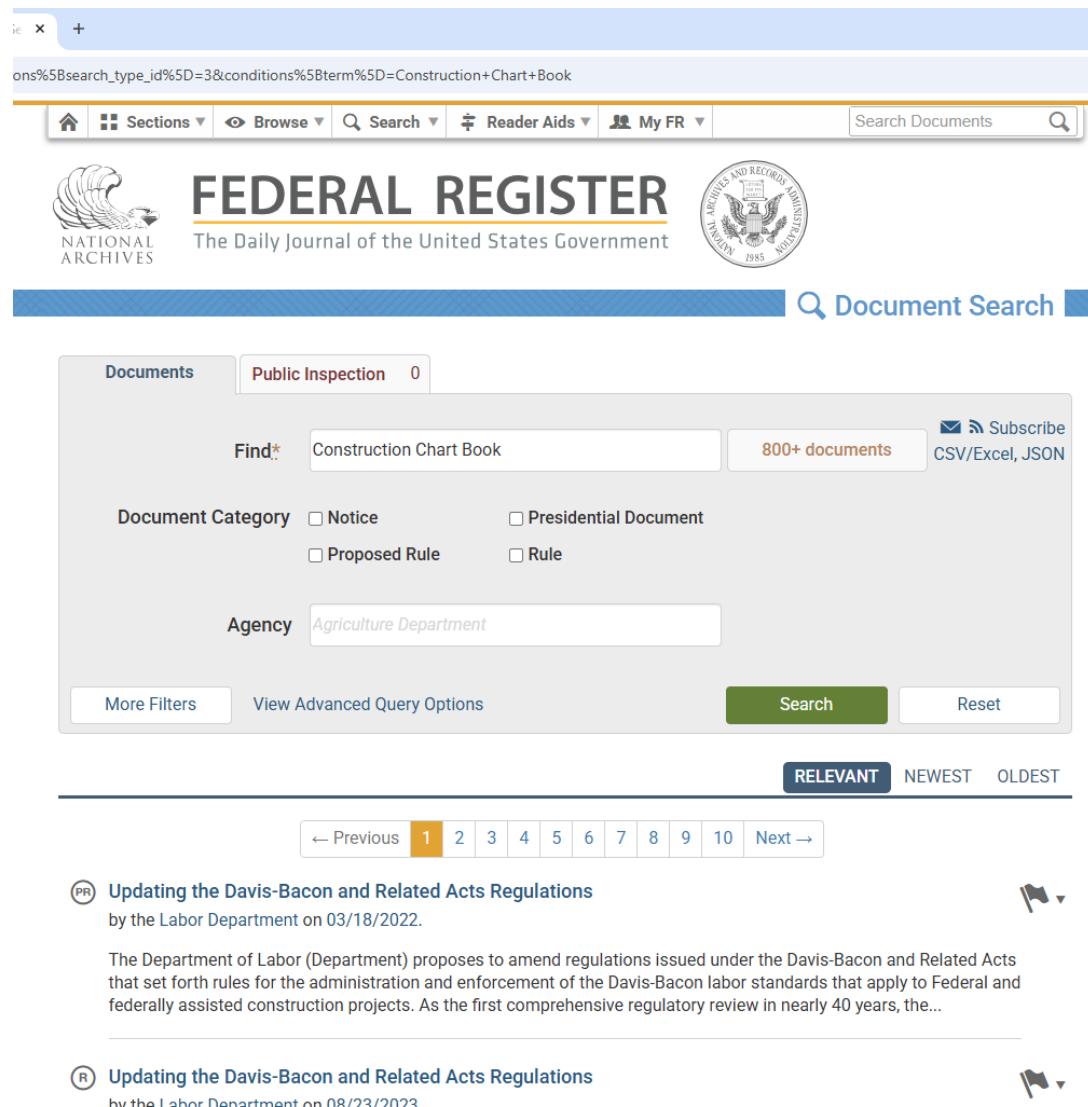


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¹Flood et al. (2021) Integrated Public Use Microdata Series, Current Population Survey, Version 9.0 [dataset]. https://doi.org/10.18128/0030_09.0

²U.S. Bureau of Labor Statistics, Fatal occupational injuries due to fall to lower level in the construction industry (all ownership), 2017. <https://www.bls.gov/iif/oshatal-construction-falls-2017.xlsx>. 225 non-Hispanic workers were killed due to falls to a lower levels in 2017.

Evidence-based actions and policies



The screenshot shows the Federal Register website interface. At the top, there is a search bar with the URL: `ons%5Bsearch_type_id%5D=3&conditions%5Bterm%5D=Construction+Chart+Book`. Below the search bar are navigation links for Home, Sections, Browse, Search, Reader Aids, My FR, and a search input field. The main header features the National Archives logo, the text "FEDERAL REGISTER", and "The Daily Journal of the United States Government". To the right is the seal of the National Archives and Records Administration. A blue banner at the bottom of the header contains a search icon and the text "Document Search".

The main content area has tabs for "Documents" and "Public Inspection 0". A search bar is present with the text "Find* Construction Chart Book" and a result count of "800+ documents". Below the search bar are filters for "Document Category" (with checkboxes for Notice, Presidential Document, Proposed Rule, and Rule), an "Agency" filter set to "Agriculture Department", and buttons for "More Filters", "View Advanced Query Options", "Search", and "Reset".

Below the search filters, there are sorting options: "RELEVANT", "NEWEST", and "OLDEST". A navigation bar shows page numbers from 1 to 10, with page 1 highlighted in yellow. Below the navigation bar, two search results are listed:

- Updating the Davis-Bacon and Related Acts Regulations**
by the Labor Department on 03/18/2022.
The Department of Labor (Department) proposes to amend regulations issued under the Davis-Bacon and Related Acts that set forth rules for the administration and enforcement of the Davis-Bacon labor standards that apply to Federal and federally assisted construction projects. As the first comprehensive regulatory review in nearly 40 years, the...
- Updating the Davis-Bacon and Related Acts Regulations**
by the Labor Department on 08/23/2023.

Evidence-based actions and policies

- 2019-07902 (84 FR 21416): Standards Improvement Project-Phase IV. Support for OSHA's proposed cross-reference to § 1904.5 in § 1904.10(b)(6).

(OSHA-2012-0007-0781). The CPWR Chart Book notes that in the 7 years between 2004 and 2010, the BLS reported 1,400 cases of hearing loss in construction. They contrasted this number with hearing data that are collected by the National Health Interview Survey (NHIS), a large household survey in the U.S. In the NHIS Survey, at least one in five (21.4%) construction workers self-reported some hearing trouble in 2010 (chart 49b). The CPWR Chart Book indicates that this is nearly one-third higher than the proportion of workers with hearing trouble for all industries combined (16.3%). *Id.*

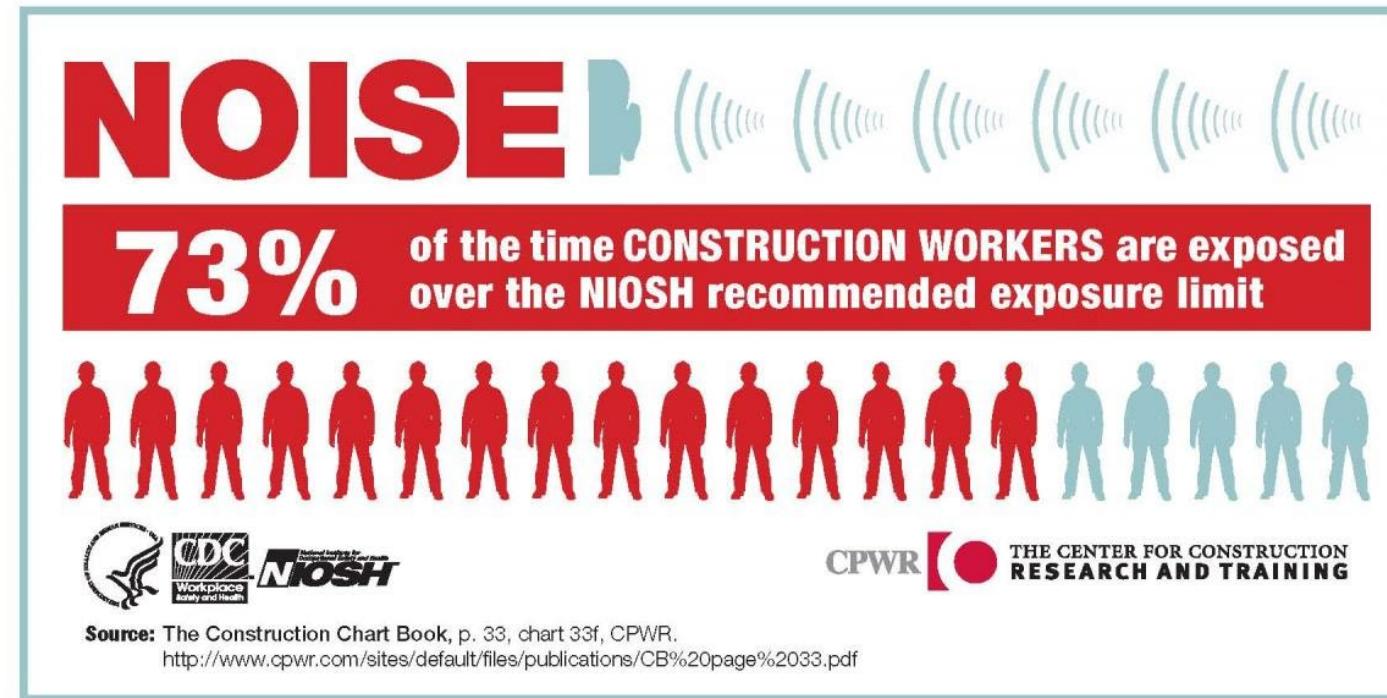
- Updating the Davis-Bacon and Related Acts Regulations

The Department notes that the demographic characteristics of workers on DBRA projects may differ from the general construction industry; however, data on the demographics of workers on DBRA projects is unavailable. Demographics of the general workforce are also presented for comparison. The Department welcomes comments and data on how the demographics of workers on DBRA projects would differ from the demographics of workers in the construction industry as a whole. Tabulated numbers are based on 2019 CPS data for consistency with the rest of the analysis and to avoid potential impacts of COVID-19. Additional information on the demographics of workers in the construction industry can be found in *The Construction Chart Book: The U.S. Construction Industry and Its Workers*.^[146]

Support Decision-Making

- Needs Assessments/Making a Business Case
 - Scope of the Problem
 - High-Risk Populations
 - Identifies Gaps
 - Can support prioritization for limited resources

Influencing Workers/Developing Resources

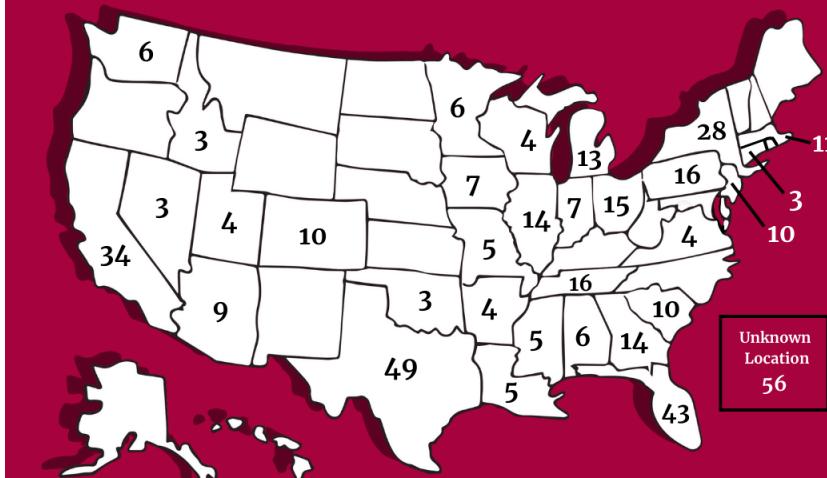


Safety Stand-Down to Prevent Falls



<https://stopconstructionfalls.com/stand-down/>

Did You Know Falls Are the Leading Cause of Death in Construction?



*Numbers represent fatal construction falls, slips, and trips in 2023

BLS CFOI data from 2023

Join the Campaign to Stop Construction Falls!

www.StopConstructionFalls.com

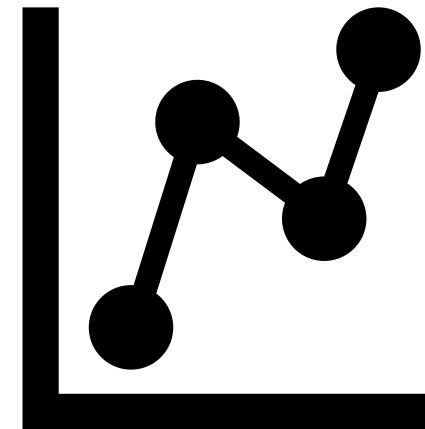


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Need Something Else

We respond to data requests year-round, contact us at
datacenter@cpwr.com.



CPWR Data Center Survey 2026

- CPWR's Data Center is seeking your feedback to better understand how our products support the industry's data needs and their overall usability. Through a short survey, we aim to gather insights on what's working well, identify gaps, and learn how we can improve. Your input will help guide future enhancements and ensure our data resources continue to meet the industry's evolving needs.

- Survey Link:

https://cpwr.az1.qualtrics.com/jfe/form/SV_6QfqoqrueqcU1Aq



CPWR Data Center Resources

Data Bulletins

- Transportation Injuries in Construction (Coming February 2026)
- Occupational Exposures in Construction (December 2025)
- Medical Expenditures in Construction (October 2025)

Construction Chart Book

- PDF
- Interactive Data Dashboards

Thank you for attending today. Questions?

Amber Trueblood, DrPH

Data Center Director

atruelblood@cpwr.com

Derek Dufoe, MS

Research Assistant

ddufoe@cpwr.com