

**The National Campaign to Prevent Falls in
Construction Evaluation Report:
2021 Safety Stand-Down Based on
OSHA Certificate of Participation Data**



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Background

Falls are the leading cause of workplace death for construction workers. On average in 2019, more than one construction worker died every day as a result of a fall to a lower level.¹ Fatal falls to a lower level increased by 25% in 2019 compared with 2018.² In 2020, lack of proper fall protection in construction remained the most frequently cited violation by the Occupational Safety and Health Administration (OSHA) for the ninth consecutive fiscal year.^{3,4}

The National Campaign to Prevent Falls in Construction (Falls Campaign) seeks to address this preventable cause of workplace injury and death. Founded by the National Occupational Research Agenda (NORA) Construction Sector Council, OSHA, the National Institute for Occupational Safety and Health (NIOSH), and CPWR–The Center for Construction Research and Training (CPWR) in 2012, the Falls Campaign will complete its eleventh year in 2022.

In 2014, as part of the Falls Campaign, the organizing partners created the National Safety Stand-Down to Prevent Falls in Construction (Stand-Down). Through the Stand-Down, employers, workers, safety associations, labor unions, and other partners pause work annually to host fall-related toolbox talks, demonstrations, trainings, story-telling, and other activities to prevent falls. As one organization described, “We have made great strides with fall protection awareness by participating in this program.”

The Stand-Down has widespread reach. Since its inception, millions of workers have participated. Stand-downs have been reported in every state in the United States and internationally. For past evaluation reports, see Stop Construction Falls: Evaluation Efforts.

¹ 401 workers died as a result of falls to a lower level in 2019. Source: CPWR – The Center for Construction Research and Training. (2021). Fatal Injury Trends in the Construction Industry. <https://www.cpwr.com/wp-content/uploads/DataBulletin-February-2021.pdf>. (Accessed November 2021).

² CPWR – The Center for Construction Research and Training. (2021). Fatal Injury Trends in the Construction Industry. <https://www.cpwr.com/wp-content/uploads/DataBulletin-February-2021.pdf>. (Accessed November 2021).

³ OSHA. (2020). The Top 10 Most Frequently Cited Standards FY 2020. <https://www.osha.gov/top10citedstandards>. (Accessed November 2021).

⁴ From FY 2012-2020, Fall Protection 1926.501 was the most cited OSHA standard. In 2011, Scaffolding 1926.451 was the most frequently cited OSHA standard. 2011, 2013, 2014, 2015, 2017, 2018, and 2019 were confirmed via the Way Back Machine’s internet archives of the OSHA webpage cited above. Archives were not available for FY 2012 and 2016. As such, FY 2012 was confirmed via the following source: Safety and Health Magazine. (2012). OSHA Announces ‘Top 10’ Violations of 2012. <https://www.safetyandhealthmagazine.com/articles/safety-health-oshaannounce-top-10-violations-of-2012-2>. (Accessed March 2021). FY 2016 was confirmed via the following source: Safety and Health Magazine. (2016). OSHA’s Top 10 Most Cited Violations for 2016. <https://www.safetyandhealthmagazine.com/articles/14927-2016-oshas-top-10-mostcited-violations>. (Accessed March 2021).

Methods

Data were generated from OSHA's 2021 Certificate of Participation Database for the National Safety Stand-Down. To receive a certificate, respondents submitted information about their organization, stand-down event, and participants. There are limitations to this database. All data are self-reported and subject to selection and recall bias. Based on anecdotal and experiential data, we have been informed that only some organizations obtain certificates, and therefore understand this analysis to be a sample rather than a count of all stand-downs. Moreover, the submission form is only available in English, which may limit the ability of speakers of other languages to obtain certificates.

Data were cleaned via the identification and removal of duplicates. For organization-level analysis, entries with like names that had only small variations in spelling or grammar were consolidated. Company information was kept anonymous and confidential. Data are reported in aggregate except where detailed quotes and comments were used from respondents that opted to allow OSHA to publish their responses when completing the submission form.

This report is a mixed methods analysis of the database. A quantitative analysis was performed in Excel. Maps were created using Datawrapper. A thematic qualitative analysis was performed using ATLAS.ti 6.2 and Excel. Based on a review of all qualitative data, a codebook with eight topical and interpretive codes was created. Data were coded and analyzed iteratively. Analytical products were developed to identify key themes.

CPWR has been working with OSHA since 2014 to analyze the certificate data, but due to variations in the data collected and gaps in analysis, this report focuses on trends beginning in 2019. Additional reports on the 2014, 2015, and 2016 Certificate of Participation data are available at <https://stopconstructionfalls.com/about-the-campaign/evaluation-efforts>.

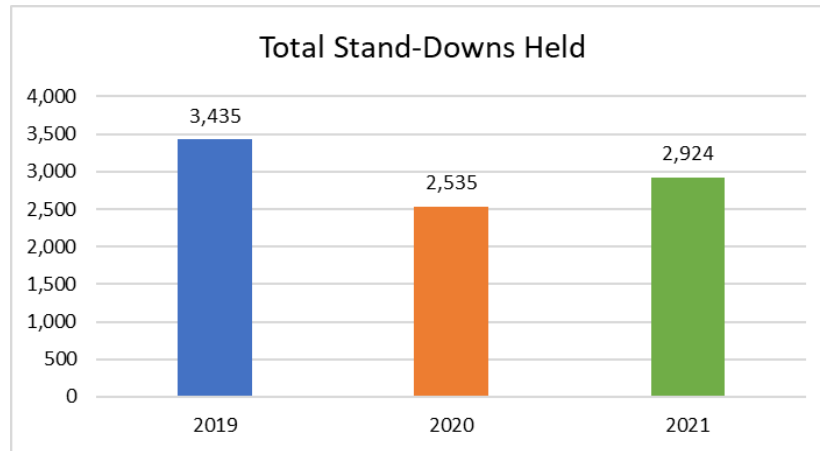
Total Number of Stand-Downs and Workers Reached

In 2021, the Stand-Down engaged hundreds of thousands of workers about the importance of fall protection. Participating organizations held **2,924 stand-downs that reached a total of 453,362 workers** across the United States, territories, and internationally.

Recent Overall Participation Trends

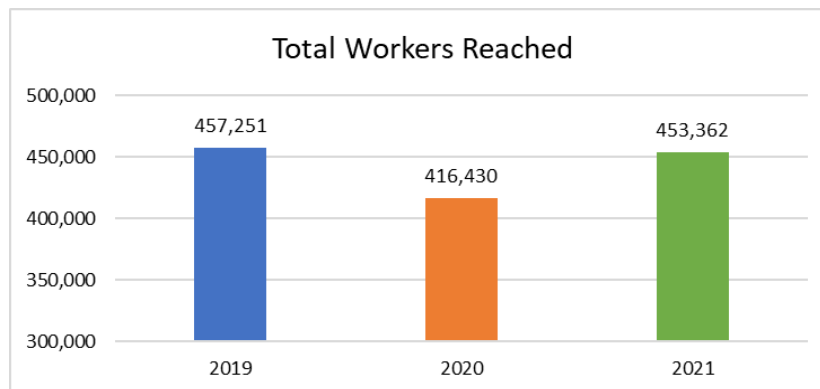
A. Stand-Downs Held Over Time

Compared to 2019, the final Stand-Down prior to the COVID-19 pandemic, the total number of **stand-downs held decreased in 2020 but partially recovered in 2021**. In 2020, as the Stand-Down was rescheduled and reimagined as a virtual event, the number of stand-downs held fell by 26%. In 2021, however, there was a 15% increase in events held compared with 2020. As one respondent explained, “This was a long overdue Stand-Down due to COVID.”



B. Workers Reached Over Time

Compared to 2019, the total number of **workers reached decreased in 2020 alongside the number of stand-downs, but almost completely recovered in 2021**. Despite fewer events being reported in 2021, the number of workers reached was only 1% short of the 2019 total.



Extent of Ongoing Participation

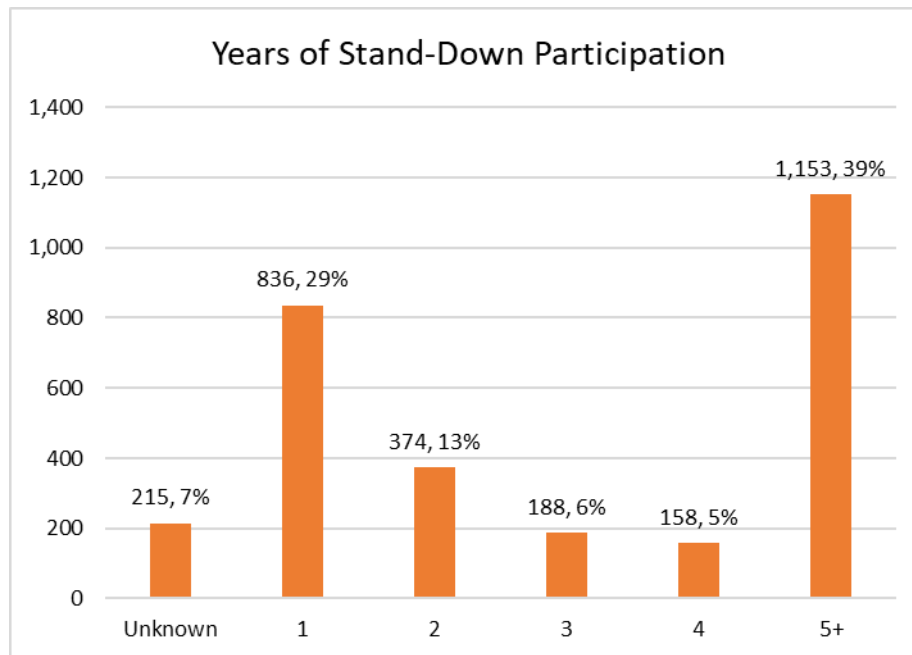
A. Multiple Stand-Downs Within Organizations

To investigate how widespread participation was within organizations, we assessed how many organizations reported holding multiple stand-downs such as events on multiple jobsites or multiple events on the same jobsite. **Most participating organizations hosted a single event rather than multiple events.** Of the 1,672 unique organizations that obtained certificates, 81% (1,352) held a single stand-down whereas 19% (320) held multiple stand-downs.

B. Multiple Stand-Downs Across Years

New organizations continue to join the Stand-Down and veteran organizations continue to return to it. **Approximately three in ten organizations (29%) participated for the first time.** As one respondent described, “This was our first year of participation and the information provided was very helpful to get us started.”

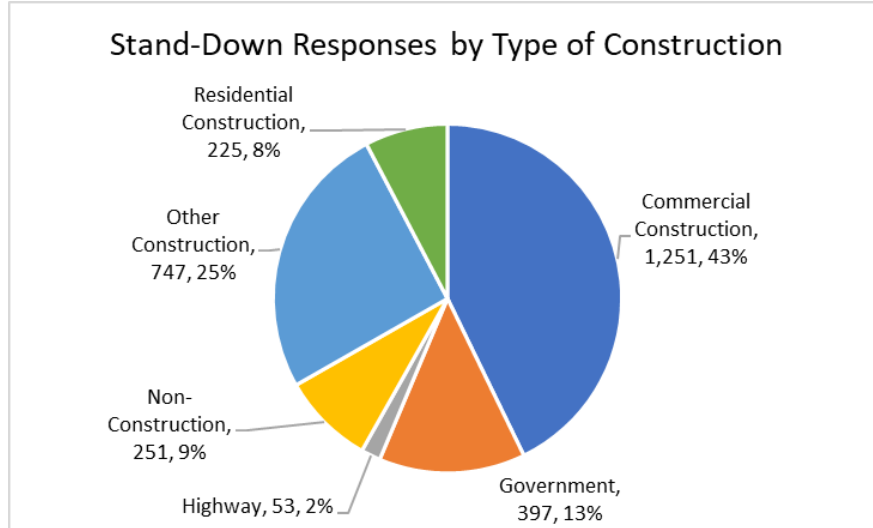
In addition, **51% of organizations reported that this was their third or more year holding stand-down events.** One respondent said: “This is my third year participating in this event! I think it is a great event. It provides for a great opportunity to review and remind everyone that we do work in potentially dangerous profession but also, that it is easy to avoid accidents if we just take the time.”



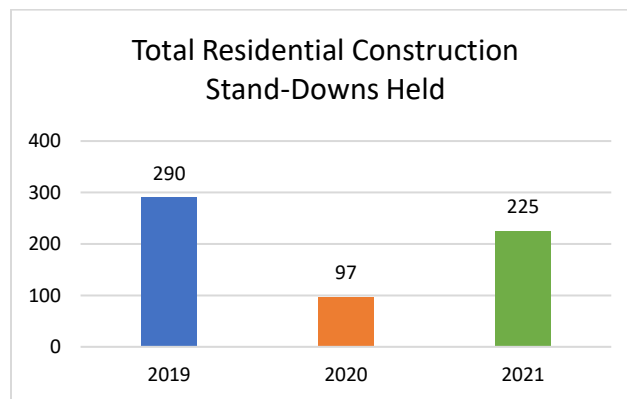
Stand-Down Demographics

A. Stand-Downs by Type of Construction

Respondents were asked to select the construction sector they primarily work in from the categories below. As in 2019 and 2020, **commercial construction was the most selected category** in 2021, with 43% (1,251) of the total stand-downs held by companies operating in that sector. The **second most selected category was other construction**, which made up 25% (747) of the stand-downs.



An original goal of the Falls Campaign was to reach out to residential construction workers. Residential construction workers face elevated risk of fatal falls.⁵ In 2021, **residential construction organizations hosted 8% of stand-downs with a total of 225 events held**. Although this was a 132% increase in residential construction events held compared with 2020, when residential construction organizations held 97 stand-downs, residential construction events held in 2021 did not rebound to their 2019 level. In 2019, residential construction organizations held 290 stand-downs.

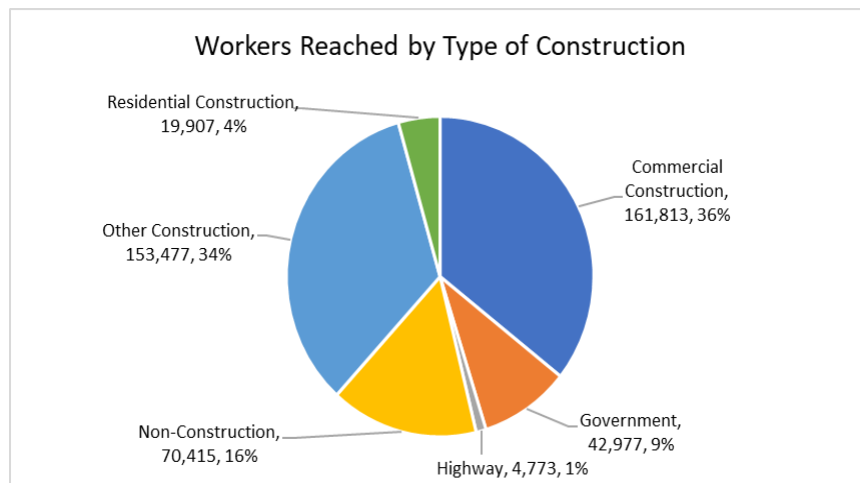


⁵ CPWR – The Center for Construction Research and Training. (2021). New Trends of Fatal Falls in the Construction Industry. <https://www.cpwr.com/wp-content/uploads/DataBulletin-Falls-Special-Issue-2020.pdf>. (Accessed November 2021).

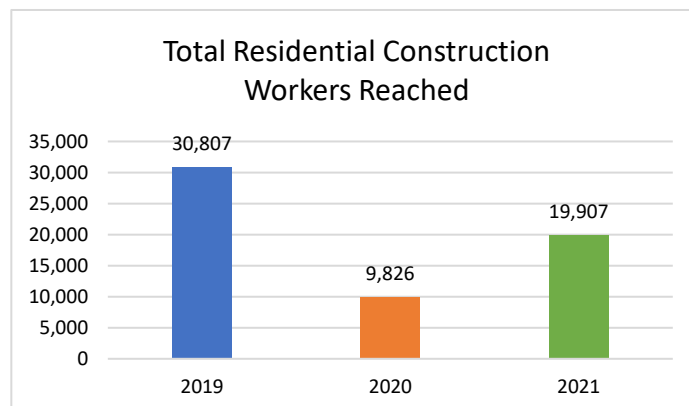
B. Workers Reached by Type of Construction

Respondents were asked what type of construction they perform and how many workers attended the stand-downs they hosted. This data provides an indicator of how many workers were performing that type of construction when the Stand-Down occurred, however we cannot conclude whether the workers attending self-identify as part of that sector. Individuals completing the certificate form can only choose one sector and likely default to the primary sector for their company, which may or may not reflect the primary sector of the workers who attended. For example, a general contractor who selected “commercial construction” as their type of construction may have hosted participating workers who primarily work in a different sector.

Based on the data available, we calculated the numbers of workers reached as part of a stand-down event in a particular sector. **Thirty-six percent of workers reached (161,813) were working in commercial construction at the time of the Stand-Down.** The second largest category of workers reached were those working in other construction, with 34% of workers reached (153,477).



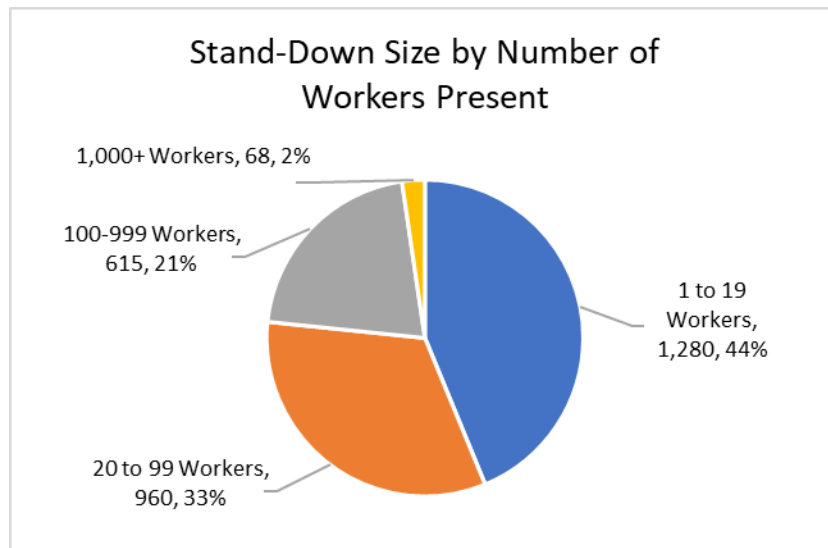
Four percent of workers reached (19,907) were working in residential construction. Residential construction workers reached followed the same trend as residential construction events held: although there was a 103% increase in total residential workers reached in 2021 compared with 2020, residential construction workers reached in 2021 still fell short of 2019 levels.



C. Stand-Down Size

A key goal of the Falls Campaign is to reach small residential contractors. Although the Certificate of Participation database does not request information on organization size, it does ask how many workers were present at the stand-down event. While it does not account for situations such as large events with multiple employers or small events held by large employers, this data does provide some insight into the size of jobsites where events are being held.

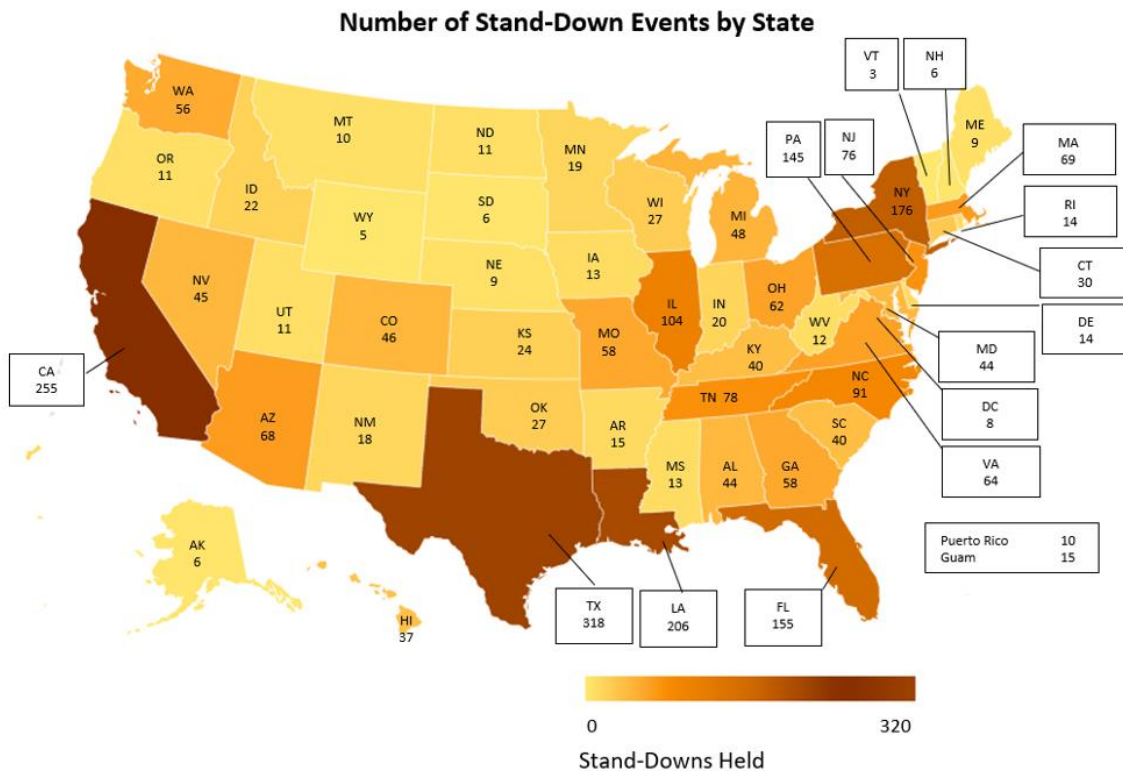
Forty-four percent of all stand-downs were at sites with one to 19 workers present (1,280). Similarly, within residential construction, 40% of all stand-downs were at sites with one to 19 workers present (90).



D. Stand-Downs by State

In 2021, **stand-downs took place in every state in the United States**. In addition, stand-downs were also held in Puerto Rico (10), Guam (15), and internationally (153).⁶ The states with the highest number of stand-downs held were **Texas (318)**, **California (255)**, **Louisiana (206)**, **New York (176)**, and **Florida (155)**.

For information on fall fatalities by state, refer to CPWR’s Construction Fatality Map Dashboard: <https://www.cpwr.com/research/data-center/data-dashboards/construction-fatality-map-dashboard>.



⁶ Some participants that held their Stand-Down event outside of the United States and territories described their location in their organization name, project title, or comments. International locations included Afghanistan, Japan, Mexico, China, India, Romania, Saudi Arabia, Kuwait, and Qatar.

E. Workers Reached by State

In total, **453,362 workers** were reached in stand-downs in 2021. The five states with the highest numbers of workers reached were **Alabama (62,112)**,⁷ **California (57,764)**, **Texas (41,957)**, **Louisiana (24,779)**, and **New Mexico (24,045)**. An additional **69,289 workers were reached internationally**.⁸

For information on fall fatalities by state, refer to CPWR’s Construction Fatality Map Dashboard: <https://www.cpwr.com/research/data-center/data-dashboards/construction-fatality-map-dashboard/>.



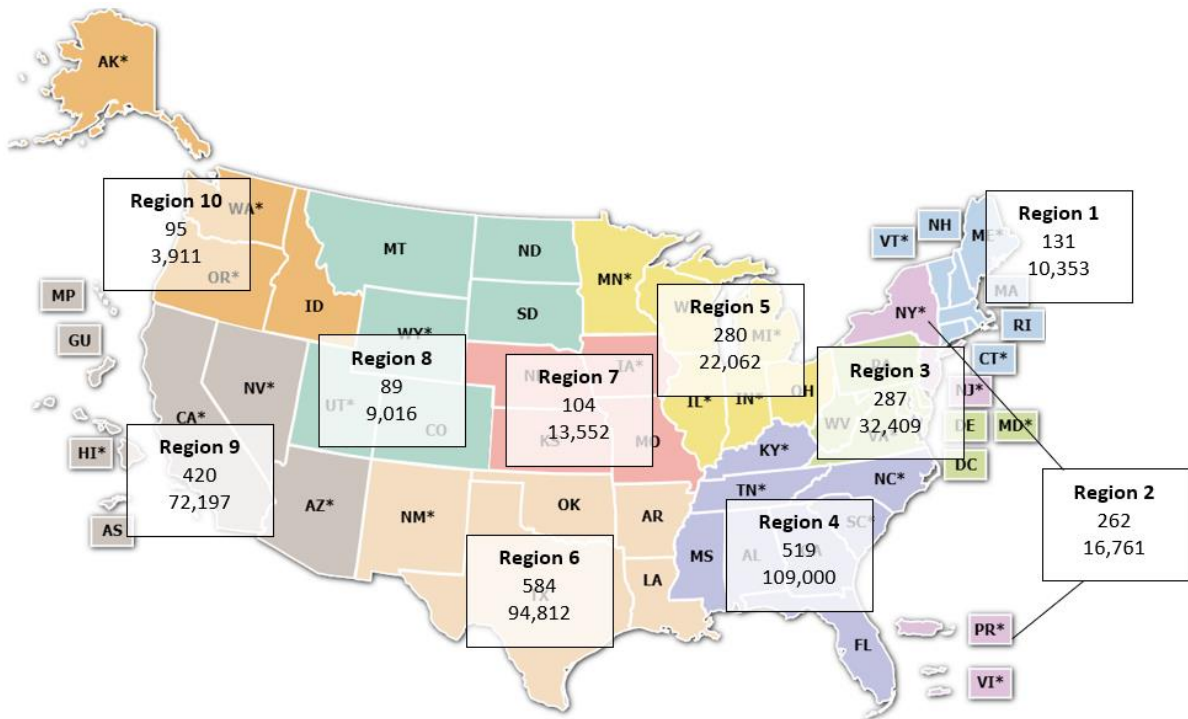
⁷ A major national company registered its 50,000-participant stand-down as taking place in Alabama. It is likely that this registration reflects nation-wide participation rather than participation only in Alabama.

⁸ Some participants that held their Stand-Down event outside of the United States and territories described their location in their organization name, project title, or comments. International locations included Afghanistan, Japan, Mexico, China, India, Romania, Saudi Arabia, Kuwait, and Qatar.

F. Stand-Downs and Workers Reached by OSHA Region

OSHA regional offices and training centers promote participation, raise awareness, and provide critical support for the Stand-Down. **Region 6 (584), Region 4 (519), and Region 9 (420) held the greatest numbers of stand-downs.** In terms of workers reached, **Region 4 (109,000),⁹ Region 6 (94,812), and Region 9 (72,197) also reached the highest number of workers.**

	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10
Stand-Downs	131	262	287	519	280	584	104	89	420	95
Workers Reached	10,353	16,761	32,409	109,000	22,062	94,812	13,552	9,016	72,197	3,911



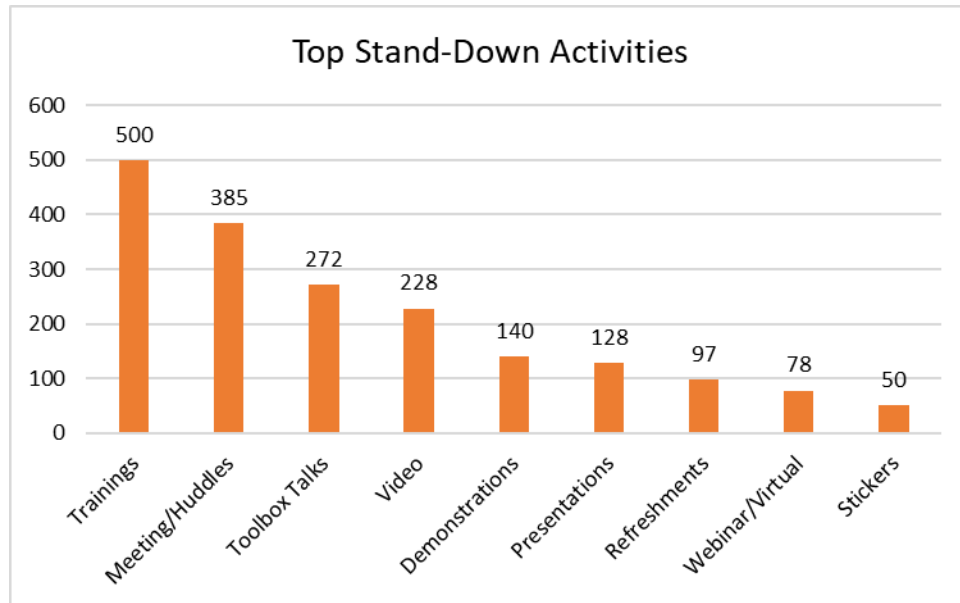
⁹ A major national company registered its 50,000-participant stand-down as taking place in Alabama. It is likely that this registration reflects nation-wide participation rather than participation only in Alabama.

Stand-Down Content

Respondents were asked to describe what they did in their stand-downs.

A. Popular and Unique Activities

Some respondents described the activities they conducted for their stand-downs. The most mentioned activities were **trainings** (500), **meetings/huddles** (385), **toolbox talks** (272), and **videos** (228).



Many sites **combined multiple types of activities during their stand-downs**. Instead of limiting themselves to a single activity, they provided multiple ways for participants to learn and interact. For example, one site combined providing training on ladder safety, hosting a demonstration how to use equipment, facilitating a discussion about personal fall experience stories, and cooking homemade sausage and biscuits at a mobile cooking station.

Respondents described **adjusting their activities to promote safety amid the ongoing COVID-19 pandemic**. For those that organized in-person events, some used social distancing, promoted masking, met in well-ventilated or outdoor areas, and/or split larger in-person events into smaller events. Others kept their stand-downs entirely virtual as a safety precaution.

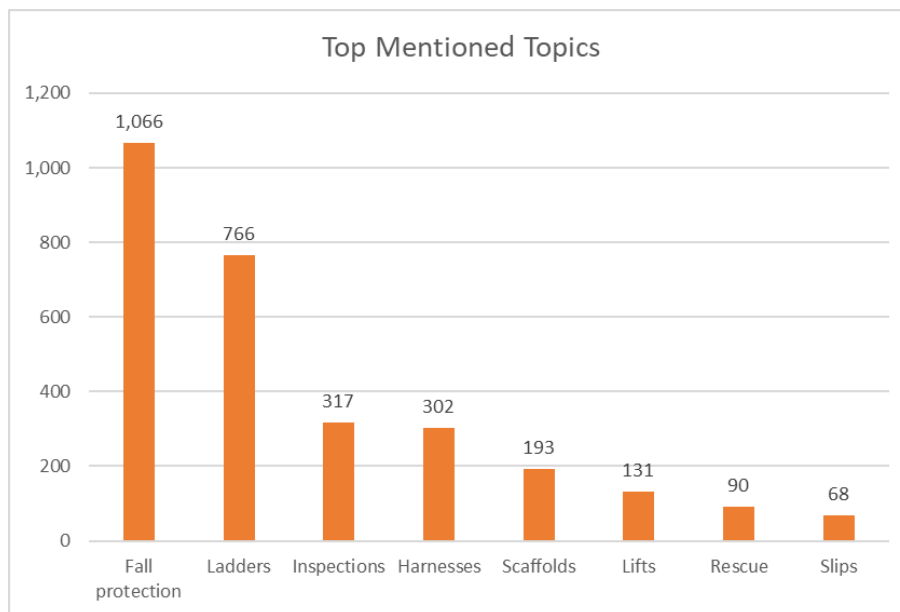
Some respondents **described stand-down activities that were less commonly mentioned**. These respondents:

- **Remembered and honored workers who have died as a result of falls.** They held moments of silence “in remembrance of all workers lost to gravitational injuries” and to “[reflect on] chances taken that could have been catastrophic, and how a moment can change a lifetime.” Another site read the names of workers who died as a result of falls as part of its commemoration.

- **Asked employees for their perspectives on fall prevention efforts.** Instead of using the Stand-Down as just a time to impart knowledge to employees, these respondents also used it as an opportunity to ask employees for their input through activities like employee focus groups.
- **Used phone-based apps** such as NIOSH’s Ladder Safety Mobile App, Harness Hero, Miller Fall Clearance App, Drop Hurt Calculator App, and Kahoot to share information in an interactive digital way.
- **Made routine inspections more challenging and interactive.** Instead of asking employees to perform routine inspections of existing equipment, one site intentionally set up ladders correctly and incorrectly for an inspection activity. They then asked employees “to identify which ladders could be used on the jobsite by performing hands-on inspections.”
- **Hosted contests and incentivized event participation with prizes and raffles** to promote engagement.

B. Popular and Unique Topics

Respondents mentioned key falls-related topics in their responses. The top mentioned topics were **fall protection (1,066)**, **ladders (766)**, **inspections (317)**, **harnesses (302)**, **scaffolds (193)**, and **lifts (131)**.



Topics that were mentioned less frequently but still regularly mentioned included guardrails, housekeeping, fall prevention planning, safety culture, warning lines, and walking/working surfaces.

In addition, some respondents used their event as an opportunity to train on additional non-falls occupational safety and health topics. They provided training on heat stress and illness, mental health, suicide, Narcan administration for opioid overdose, COVID-19 infection prevention, and COVID-19 vaccination.

C. Main Messages

Some respondents described a main message they sought to communicate through their stand-down. Rather than technical knowledge about equipment or procedures, these were broader conceptual ideas they wanted workers to internalize. These main messages formed four themes: falls happen in a split second, falls have serious and life-changing consequences, fall prevention is a year-round organizational value, and falls can be prevented by paying attention and speaking up.

1. Falls happen in a split second.

Respondents sought to emphasize how quickly falls happen. They wanted employees to understand that **“it only takes a split second for a fall to occur.”** As another respondent described, “I wanted to impress upon everyone **how quickly accidents can happen** and to raise their awareness of working at heights.”

2. Falls have serious and life-changing consequences.

Respondents communicated the potential **serious, life-changing consequences of falls**. They explained that falls are the “leading cause of serious injuries in the construction industry.” They emphasized that “nothing is worth losing a life over.”

Many stressed **that every worker should get to go home safely**. As one respondent described, “The most important thing in our jobsite is to ensure everyone goes home safely at the end of the day.” This framework often included discussions of how a fall could impact an employee’s family. For example, a respondent urged employees to “remember your family, loved ones and how that few seconds taking a short cut can cause years and years of pain and sorrow to those we care most about.”

3. Fall prevention is a year-round organizational value.

Respondents communicated that preventing falls was important to their organizations. They emphasized that **“safety has to come first.”** They said safety was their “a core value,” “a top priority,” and “the most important tool on the jobsite.” By discussing **“the importance of safety and fall protection in our industry and how we, as an organization, take it very seriously”** they communicated their organizational values.

They also said **that preventing falls was an ongoing, year-round priority**. Although the stand-down happens once per year, respondents wanted to communicate that “fall prevention is not just a one-week activity.” As one respondent described, “... we need to make sure that we not only participate this week, but every other week, day, hour. Safety never stops.”

4. Falls can be prevented by paying attention and speaking up.

Respondents emphasized that employees should always **pay attention** to fall prevention. They emphasized the importance of vigilance: “Our expectation is just constant awareness of working at heights, training, inspection of equipment, etc. to prevent any type of fall occurring on our projects.”

They also stated it was important for workers to **speak up** when they identified hazards or had concerns. Organizational mottos such as “If you see something, say something” reflected this perspective. As one respondent explained, they hoped the Stand-Down would give employees “empowerment to say something when there is an unsafe condition during their daily task to protect themselves as well as other workers around.”

Changes for Future Stand-Downs

Respondents were asked what, if any, recommendations they had for future Stand-Downs. The Falls Campaign is considering changes based on their feedback.

A. Language Accessibility

Respondents asked for more materials to be translated into Spanish and additional languages other than English. The Falls Campaign is:

- Translating all materials on stopconstructionfalls.com into Spanish.
- Offering Spanish-language falls webinars. The first Falls Campaign Spanish-language webinar was held in May 2021, and more will take place in 2022.
- Building and expanding an “Additional Languages” section on the stopconstructionfalls.com website for falls resources in languages other than Spanish and English. Currently, falls resources are available in Portuguese, Haitian Creole, Cambodian, Vietnamese, and Laotian in this section.
- Identifying which falls-related resources are used most often and prioritizing these top resources for translation into additional languages.

B. Other Industries

Respondents recommended officially expanding the Stand-Down to non-construction industries and developing materials for these industries. Other industries are welcome to adopt the Falls Campaign and their participation is valued. However, the Falls Campaign was a directive of the NORA Construction Sector Council and is organized by the OSHA Directorate of Construction,

the NIOSH Construction Safety and Health Office, and CPWR – the Center for Construction Safety and Health. These groups’ missions are to improve safety in the construction industry.

C. Earlier Advertising

Respondents recommended advertising for the Stand-Down earlier so organizations could have more time to prepare for the event. The Falls Campaign is:

- Developing and distributing Stand-Down materials earlier in the year to provide greater flexibility for those participating.

D. Year-Round Events

Respondents asked for falls-related events to also be held year-round instead of only once per year at the Stand-Down. The Falls Campaign is:

- Holding additional falls-related webinars and events throughout the year while maintaining the early May schedule for the Stand-Down event to be as consistent as possible for partner organizations.
- Encouraging organizations to participate in the Falls Campaign at any time by using the Stand-Down resources available on stopconstructionfalls.com.

Are you interested in participating in the National Campaign and Safety Stand-Down?

For resources on how to hold your event,
visit: [One-Stop Stand-Down Shop | Stop Construction Falls](#)

"Our participation in this year's National Fall Protection Safety Stand Down was rewarding and educational. We look forward to next year's safety stand down."



**Safety Pays
Falls Cost**

**For more information on the National Campaign to Prevent Falls in
Construction and the National Safety Stand-Down,
visit the OSHA-NIOSH-CPWR campaign site:**

www.stopconstructionfalls.com