

The National Campaign to Prevent Falls in Construction:

A Social Network Analysis Executive Summary



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Executive Summary

What is the National Campaign to Prevent Falls in Construction?

The National Campaign to Prevent Falls in Construction, also known as the Falls Campaign, is an initiative led by CPWR-The Center for Construction Research and Training, the Occupational Safety and Health Administration (OSHA), and the National Institute for Occupational Safety and Health (NIOSH). It was created to encourage contractors to **PLAN** ahead to get the job done safely; **PROVIDE** the right equipment to workers; and **TRAIN** everyone to use the equipment safely year-round (CPWR, 2014). The Falls Campaign provides research, materials, and support for construction industry stakeholders to promote fall safety and prevention.

About this project.

In 2017, five years after the Falls Campaign's conception, CPWR approached the Center on Network Science (CNS) at the University of Colorado Denver, to conduct a Social Network Analysis (SNA) on the network that has been developed through the Falls Campaign. This project focused on the following areas:

- What organizations are part of the Falls Campaign network, and how are they working together?
- What are the benefits and challenges of participating in the Falls Campaign?
- Who/what are the audiences that the Falls Campaign is reaching?
- Who/what are the potential audiences that the Falls Campaign could reach through its partners?
- Is the Falls Campaign impacting those who are most at-risk of falling?
- What encourages partners to become involved and remain involved in the Falls Campaign?

Methods.

To answer these research questions, the Center on Network Science conducted a Social Network Analysis using an online survey via the PARTNER Tool (www.partnertool.net). Key informant interviews were held to inform the revisions of the Falls Campaign PARTNER survey, and representatives from leadership organizations provided feedback throughout the survey development process. The survey was distributed to 157 known Falls Campaign partners (organizations that participate in the Falls Campaign). As part of the survey, these partners were asked to list and answer questions about the organizations that they work with in regard to the Falls Campaign, and their relationships with those organizations. *More detail can be found in the Methods section of this report.*

Findings.

Network Demographics. In total, **157 partners** were identified by the lead organizations (OSHA, NIOSH, and CPWR) to participate in the SNA (they each received the Falls Campaign PARTNER Survey). Of the original 157 partners that received the survey, **77 responded (49% response rate)**. In turn, these 77 partners listed an additional **117 organizations** as partners

that they work with around the Falls Campaign, resulting in a total of **274 organizations** identified for their involvement in the Falls Campaign.

The 274 total partner organizations represented a variety of sectors, including:

- ❖ **Academic/Government/Research** (105 organizations);
- ❖ **Contractors and related Associations** (67 organizations);
- ❖ **Manufacturers, Suppliers, and related Associations** (44 organizations);
- ❖ **Unions** (23 organizations);
- ❖ **Safety Agencies, Groups, Associations and Insurance** (25 organizations); and
- ❖ **Other** (10 organizations).

Network Reach. In addition to varying by sector, organizations involved in the Falls Campaign also varied in size and possible reach. Partner organizations represented the following levels of reach:

- ❖ **68 International** (includes businesses in the United States with an international market);
- ❖ **67 National**;
- ❖ **111 State and Regional**;
- ❖ **16 Local**; and
- ❖ **12 Unknown.**

When asked in an open-ended question to self-identify their organization's full audience, including their work outside of the Falls Campaign, the primary audiences were **workers in general** (which may or may not include contractors) (N=25 respondents), and **contractors and subcontractors** (N=23 respondents). Other audiences reached included groups such as university students and industrial hygienists (N=14 respondents for all other audiences).

Although it is not possible to know the total number of unique individuals reached through the Falls Campaign (since individuals may be receiving information from multiple organizations they are involved with), partners reported reaching anywhere from **36 individuals to 2,500,000 individuals a year** (excluding the lead organizations – OSHA, NIOSH, and CPWR). Some respondents described their audience in terms of how many organizations they reach, rather than the number of individuals; these **5 partners** reported reaching **30,760 organizations** a year cumulatively, which equates to a much larger number of individuals.

Network Activity. Respondents reported a great deal of activity, particularly **leading up to and during the National Safety Stand-Down** (an annual event where contractors take time to stop work and educate workers about fall prevention). In fact, **71%** of respondents said their organization is most active during these times (N=122 total responses).

As far as promoting the Falls Campaign to their specific audiences, **75%** of respondents said that they have conducted **“a fair amount”** or **“a great deal”** of promotion over the past year.

The most commonly reported activities that Falls Campaign partners participated in (N=63 respondents) were:

- ❖ **Distribution or posting of Falls Campaign materials** (79% of respondents);
- ❖ **Newsletter articles or blog posts** (70% of respondents); and
- ❖ **Email promotions** (70% of respondents).

Out of the 77 partners that responded, **46 respondents** described **208 unique partnerships** that they have with other organizations around the Falls Campaign. A partnership is defined as any two people or organizations and the relationship between them (also known as a dyad). These partnerships have led to **951 Falls Campaign-related activities**. When describing activities that their organization participated in with their Falls Campaign partners, the most common activities included:

- ❖ **Sharing information between organizations** (85% of partnerships);
- ❖ **Specifically providing information or materials to another organization** (76% of partnerships); and
- ❖ **Promoting the Falls Campaign** (70% of partnerships).

All of these activities highlight the strength of the Falls Campaign network as an **information sharing network**. While respondents reported a great deal of information sharing and communication, organizational participation seemed to decline around more time- or resource-intensive activities, such as performing equipment audits or fall safety drills at their organizations.

Who are the main points of contact? The lead organizations (OSHA, NIOSH, and CPWR) play a key role in both gaining partner engagement and distributing information. In fact, **62%** of respondents reported that they became involved in the Falls Campaign because of **an invitation from OSHA, NIOSH and CPWR** (N=61 respondents).

Other primary points of contact in the network were spread across sectors. When excluding the lead organizations, **Academic/Government/Research** partners still accounted for much of the information distribution, reaching **57 organizations** with information about the Falls Campaign (**42%** of activity). The second most active information distributors were **Contractors and related Associations**, reaching **27 organizations** (**20%** of activity).

Partner Motivation for Initial and Current Involvement. The most common reason that partners became initially involved with the Falls Campaign was receiving an **invitation from OSHA, NIOSH or CPWR** (**62% of respondents**, N=61 respondents). However, the most common reason for staying involved in the Falls Campaign was to **demonstrate an overall corporate or organizational commitment to safety** (**56% of respondents**, N=61 respondents).

Benefits and Challenges for Falls Campaign Partners. Partners reported a number of benefits that their organizations receive from participating in the Falls Campaign. **Note:** **Respondents could select multiple responses.

The **top benefits** selected (N=76 respondents) were:

- ❖ **Being part of a national campaign** (80% of respondents);
- ❖ **Access to training resources and campaign materials** (70% of respondents);
- ❖ **Increased opportunities to share resources** (67% of respondents);
- ❖ **Motivation to focus on fall safety** (66% of respondents); and
- ❖ **Improved relationships with other stakeholders** (66% of respondents).

The **most commonly experienced challenges** reported by Falls Campaign partners (N=75 respondents) included:

- ❖ **Finding time to conduct a Stand-Down or other Falls Campaign event** (35% of respondents);
- ❖ **Uncertainty about the impact of your activities** (33% of respondents); and
- ❖ **Generating interest in the Falls Campaign** (33% of respondents).

Perceptions of Value and Trust. Ratings of trust (measured as reliability, mission support, and open to discussion) and value (measured as: power/influence, level of involvement, and resource contribution) among partners was captured in the survey. The scores below reflect average scores when a respondent answered a question about their partners regarding their perception of that partner’s value and trust on a scale of 1-4: (1) not at all, (2) a small amount, (3) a fair amount, or (4) a great deal. Overall, respondents reported high levels of trust in their Falls Campaign partnerships, with scores that averaged above 3 in all categories, as indicated in **Table 1**. Several of the network’s value scores fell slightly below an average of 3. The value scores that fall between 2 and 3 indicate that partners believe that other organizations involved in the Falls Campaign network on average have a lesser amount of resource contribution and organizational involvement in the Falls Campaign.

Overall Value Score	2.85	Overall Trust Score	3.52
Power/Influence	3.12	Reliability	3.55
Level of Involvement	2.97	Mission Support	3.43
Resource Contribution	2.47	Open to Discussion	3.58

Network Outcomes. When asked if they have noticed an increase around fall prevention activities within their

organization or within the industry as a whole, the majority of respondents said they have seen **“a fair amount” (61% of respondents)** or **“a great deal” (14% of respondents)** of change (N=59 respondents). Similarly, respondents said that they have observed **“a fair amount” (47% of respondents)** or **“a great deal” (25% of respondents)** of improvement in overall safety and health initiatives on topics other than falls within their organization or the construction industry (N=60 respondents).

Reaching at Risk Contractors. Since reaching the most at-risk contractors (small residential contractors and their employees) is a core priority of the Falls Campaign, respondents were asked if they believed those most at-risk of falls were receiving Falls Campaign information. While **nearly half (47%)** of respondents said the Falls Campaign **is reaching these populations (33%)** or **is reaching these populations but could do more (14%)**, some partners felt the Falls

Campaign was **not reaching (12%)** the most at-risk contractors, or they were **uncertain (17%)** about whether this population was receiving the information (N=58 respondents, 24% of respondents had a response categorized as “Other”).

Role of Falls Campaign Leadership. The Falls Campaign leaders (OSHA, NIOSH and CPWR) each received **high overall trust and value** scores from respondents who selected them as an organizational partner. The leadership organizations were also identified as the primary distributors of information in the network. In fact, **nearly a third (29%)** of respondents reported **receiving information directly** from OSHA, CPWR, and/or NIOSH (15, 9, and 8 respondents, respectively). This highlights the importance of these lead organizations’ roles, which is primarily that of information exchange.

The top outcomes that partners reported when working with the lead organizations included (N=35 respondents):

- ❖ **Increased organizational capacity to address falls** (83% of respondents);
- ❖ **Improved relationships between their organization and the lead organizations** (80% of respondents); and
- ❖ **Increased organizational knowledge around fall prevention** (66% of respondents).

Conclusion/Recommendations.

The Falls Campaign network has proven to be highly effective as an information sharing network, with considerable information flow occurring from Falls Campaign leadership down to the full network, from partners back up to leadership, and between partners. However, there are certain recommendations that leadership might consider to help the network develop further and function more effectively to reach the Falls Campaign’s overarching goals. These recommendations are laid out by topic area below.

Partner Engagement.

1) Utilize the pull of leadership organizations to engage “hard to reach” partners.

Since invitations from leadership organizations were significant for gaining initial partner engagement, leadership should consider what types of direct outreach may be helpful in gaining new members and retaining the existing network. Reaching out to smaller or more “difficult to connect with” partners directly demonstrates a willingness to work together on behalf of the leadership and provides validation to the organization being contacted.

Additionally, connecting with these more non-traditional intermediary type partners may provide beneficial insight into how to reach the more difficult populations, such as at-risk contractors, at the individual level.

A suggestion for how to build a focused strategy for this recommendation may be to use the data in the PARTNER tool to identify those “hard to reach” and “non-traditional” partners that were rated as the most influential, and target outreach to those specific

organizations. These data are included in the dataset and if this strategy is selected, can be pulled to inform the work.

2) Be strategic in partner engagement. What sectors and types of partners are currently missing, or are less engaged in the network? Are the current partners all of the right partners, and are current partners engaged at the appropriate level to meet the goals of the Falls Campaign?

Several partners reported that they were incentivized to join the Falls Campaign because they wanted to gain new and improved partnerships. For these partners, and in general, consider how the Falls Campaign might be able to promote more interconnectedness between partners rather than being primarily “top-down” in nature. In the world of Network Science, this would be called increasing the “density” of your network; in essence, creating more “ties” or relationships among members rather than the network being centralized around a small number of organizations.

3) Play the “National Campaign” card. Many respondents reported that being part of a national-level campaign was an important benefit for their organization. How can leadership use this to incentivize new and increased participation? Is there any funding or recognition that can be organized to help promote participation? Another federal-level public health network, for example, created something called Network “Champions”. These “Champion” organizations were high functioning network members, and this campaign praised and highlighted their hard work by, for example: listing their initiative’s website on the campaign website, and news about the work of these organizations was posted and distributed as examples for other partners.

Creating some type of recognition, reward, or other type of incentive program would also help partners to “demonstrate an organizational commitment to safety”— something which was a strong motivator for many respondents. For more information about what motivated organizations to participate in the Falls Campaign, see pages 32 & 33.

4) Consider options for a new governance structure. Currently, the Falls Campaign is primarily managed by the lead organizations. Formally integrating leadership from partner organizations at the regional or local levels to increase shared accountability and facilitation of Falls Campaign related work can ensure that the work can be sustained. Building a localized governance structure could help to both expand reach and ensure longer sustainability opportunities.

Partner Activity.

5) Evaluate the level of activity of different partners. Consider the partners who reported being less active around promoting the Falls Campaign, or partners who showed overall less engagement (for example: not responding to the survey, only participating in limited activities, etc.). Think about why these partners may not be currently engaged, and how these relationships can be developed.

Partners reported being most active before or during Stand-Down events. Consider if it would be beneficial to try to engage partners throughout the year or in conjunction with other industry events. Different types of engagement may be appropriate at different points throughout the year.

6) Incentivize participation in more “difficult” activities. The network has already demonstrated effectiveness in low resource activities, such as sending emails or sharing Falls Campaign materials. However, activities which required more staff time or financial resources were much less frequent. Think about how these more resource intensive activities, such as formal presentations or drills, might be incentivized for partners by either providing something beneficial to the organizations or reducing the level of “burden” on the organization.

7) Build strategies to increase perceptions of lead organizations’ openness to discussion. Some respondents reported that the lead organizations appeared to be less open to discussion. While these scores represent perceptions of these organizations and may not be realized in practice this same way, the perception that partners have of one another is powerful in terms of how relationships are built and sustained. When organizations are identified as being less open to discussion, it could mean that partners find them difficult to contact or that the exchanges they have with these organizations are not authentic and transparent. In this case, it could be helpful to dive deeper into these reported perceptions and identify if there are adverse effects of this, or whether the network continues to perform as expected, even with these varying perceptions of the lead organizations.

Addressing Challenges.

8) Helping partners “find the time” to promote fall safety. Over 25% of respondents stated that their greatest challenge with participating in the Falls Campaign is finding the time to conduct an event, such as a Stand-Down. Similar to the previous recommendation, consider how time and resource intensive activities, like hosting an event, can be incentivized for partners by either providing something beneficial to the organizations or reducing the “burden” on them.

9) Removing uncertainty for partners. A large number of respondents expressed uncertainty around understanding or demonstrating the impact of their work around the Falls Campaign. Some reported difficulties with knowing or tracking how many people are being reached, whether information is reaching those workers most at-risk, and whether this has led to increased fall safety. Greater partner buy-in may be generated by helping Falls Campaign partners to measure the impact of using fall safety and prevention practices at their organizations, thus more effectively demonstrating the benefits of participation. Consider how leadership might provide partners with more resources or support to track, understand, and demonstrate the impact of their work around the Falls Campaign.

What's next for the Falls Campaign?

As described in this report, the Falls Campaign is a very successful effort that is reporting a broad reach in terms of exposure and connection to people in the construction industry. The lead organizations play an influential role in the network and seem to be leaders that people respect and look to for guidance on the Falls Campaign work. Partner organizations that participate in the Falls Campaign report many benefits and a few challenges. As the Falls Campaign moves ahead, focusing on outreach to a high-risk audience, developing a governance structure that includes partners at the local level, and strategizing to reach goals while minimizing the amount of resources required could help to take the Falls Campaign to the next level.