

**A. COVER PAGE**

<b>Project Title:</b> Occupational Safety and Health Research (R01) (¡Ponte Listo!)	
<b>Grant Number:</b> 5R01OH012177-03	<b>Project/Grant Period:</b> 08/03/2020 - 07/31/2023
<b>Reporting Period:</b> 08/01/2022 - 07/31/2023	<b>Requested Budget Period:</b> 08/01/2022 - 07/31/2023
<b>Report Term Frequency:</b> Final	<b>Date Submitted:</b> 01/30/2025
<b>Program Director/Principal Investigator Information:</b> JOSEPH G GRZYWACZ , BS MS PHD  <b>Phone Number:</b> 3363910202 <b>Email:</b> joe.grzywacz@sjsu.edu	<b>Recipient Organization:</b> FLORIDA STATE UNIVERSITY FLORIDA STATE UNIVERSITY 874 Traditions Way, 3rd Floor TALLAHASSEE, FL 323064166  <b>UEI:</b> JF2BLNN4PJC3 <b>EIN:</b> 1591961248A3  <b>RECIPIENT ID:</b>
<b>Change of Contact PD/PI:</b> NA	
<b>Administrative Official:</b> STACEY PATTERSON FLORIDA STATE UNIVERSITY 874 Traditions Way Third Floor TALLAHASSEE, FL 323064166  <b>Phone number:</b> 8506445260 <b>Email:</b> SRA-PRE@fsu.edu	<b>Signing Official:</b> STACEY PATTERSON FLORIDA STATE UNIVERSITY 874 Traditions Way Third Floor TALLAHASSEE, FL 323064166  <b>Phone number:</b> 8506445260 <b>Email:</b> SRA-PRE@fsu.edu
<b>Human Subjects:</b> NA	<b>Vertebrate Animals:</b> NA
<b>hESC:</b> No	<b>Inventions/Patents:</b> No

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**B. ACCOMPLISHMENTS**

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**B.1 WHAT ARE THE MAJOR GOALS OF THE PROJECT?**

Please see the attached document.

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**B.1.a Have the major goals changed since the initial competing award or previous report?**

No

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**B.2 WHAT WAS ACCOMPLISHED UNDER THESE GOALS?**

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**B.3 COMPETITIVE REVISIONS/ADMINISTRATIVE SUPPLEMENTS**

**For this reporting period, is there one or more Revision/Supplement associated with this award for which reporting is required?**

No

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**B.4 WHAT OPPORTUNITIES FOR TRAINING AND PROFESSIONAL DEVELOPMENT HAS THE PROJECT PROVIDED?**

NOTHING TO REPORT

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**B.5 HOW HAVE THE RESULTS BEEN DISSEMINATED TO COMMUNITIES OF INTEREST?**

Please see that attached document.

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**B.6 WHAT DO YOU PLAN TO DO DURING THE NEXT REPORTING PERIOD TO ACCOMPLISH THE GOALS?**

Not Applicable

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## B.2 ACCOMPLISHMENTS

**¡Ponte Listo!** developed, implemented, and partially evaluated a multilevel safety intervention for Latino workers in the small-scale residential construction industry. It was conceptually guided by a people-based safety approach to address safety in a population experiencing elevated injury and fatality in construction. Following NIOSH's focus on rigorous Research to Practice (r2p) research, our community-based participatory strategy engaged Latino contractors, workers, and workers' family members in resolving excess injury and death.



### B.2.1 Major Activities

This project was transferred from Oklahoma State University to Florida State University during the COVID19 pandemic; it was officially transferred on 9/24/2020, with the project period beginning on August 3, 2020. Human participants research was approved on 9/10/2020.

Specific Aim 1.	<p>Document strengths, weaknesses, opportunities, and threats of contractors in small-scale residential construction to enhancing fall prevention initiatives with their workers.</p> <ul style="list-style-type: none"> <li>Contractors characterize workers as “hard workers” who are adaptive and smart in securing new skills. Contractors also unanimously characterized Latino workers as having a strong work ethic (Grzywacz et al., 2021; Montgomery et al., 2021). These <i>strengths</i> were built into the design of all six <b>¡Ponte Listo!</b> lessons. One literal translation of <b>¡Ponte Listo!</b> “work smart.”</li> <li>Contractors identified two dominant <i>weaknesses</i> to safety on the job site. Contractors consistently reported that Latino workers' tendency to prioritize speed can lead to carelessness and safety events (Grzywacz et al., 2021). This pressure to work quickly can result in workers “doing things without paying attention because they want to do everything quickly.” Contractors also identify alcohol consumption as a barrier to safety. One contractor reported, “Most of them, I think most people who work in construction, many of those people drink while working.” There is a conception that beer is a better alternative to dehydration than water. Another contractor, in the context of a discussion of his crew of predominantly young unattached men, commented, “it’s difficult when you have to watch that they don’t drink or come to work hungover” (Grzywacz et al., 2021). These common impediments to safety became the subject of two <b>¡Ponte Listo!</b> lessons.</li> <li>Contractors see an <i>opportunity</i> to improve safety by providing “a couple of safety training” and ensuring workers have “good equipment.” Still, this theme is probably an artifact of social desirability: they felt they had to say it. Indeed, several contractors acknowledged training and equipment would have little opportunity for success because of workers’ focus on working fast.</li> <li>A critical <i>threat</i> contractors noted from the external environment is their own bidding practices. Although they did not articulate it as a “business model,” the interviewed contractors relied primarily on “low price-high volume” (Grzywacz et al., 2021). They did not seem to recognize that their bidding practices reinforced, possibly perpetuating workers’ tendency to prioritize “work fast.”</li> </ul>
Specific Aim 2.	<p>Describe beliefs held by family members about the risks Latino construction workers encounter on the job, the modifiability of those risks, and the ability family members have in minimizing those risks</p> <ul style="list-style-type: none"> <li>Family members of Latino construction workers believe the job is inherently dangerous (Merten et al., 2021). One family member, a wife, reported, “It’s very dangerous because they never use protection,” while another (a mother) comment, “He’s always at risk.” However this knowledge was primarily of the outcomes indicating experienced danger, like falls, electrocution, or nail gun injuries. Few families understood the source of those outcomes. Nevertheless, family members</li> </ul>

	<p>feel the dangers are real but modifiable, urging workers to "be careful," wear appropriate clothing and shoes, use safety equipment like harnesses." Family members tended to believe their influence is limited but significant, relying on conversations that emphasize the impact of an accident on the family: "Imagine what could happen to us if we didn't have you" (Merten et al., 2021). While acknowledging "workers' stubbornness," they persist, hoping to instill caution and responsibility. These sentiments of "avoiding stubbornness" and the implications of "accident for their family" were woven throughout the six <i>¡Ponte Listo!</i> lessons.</p>
Specific Aim 3.	<p>Determine the added impact of a "Lay Health Advisor" (LHA), "employer-enhanced" and "family-enhanced" intervention strategy in comparison to a control group that receives written safety education alone.</p> <ul style="list-style-type: none"> <li>• The implementation of <i>¡Ponte Listo!</i> failed. As outlined in previous RPPRs, the project hit several major problems ranging from the COVID-19 pandemic and corresponding ramping down (and up) of research activities, to longer-term economic impacts of supply chain disruption and contractions in construction. These realities "put the project behind an 8-ball" from which we never recovered.</li> <li>• <i>¡Ponte Listo!</i> did not achieve its recruitment, randomization and data collection goals: we closed the project having recruited N=131 workers, completing training with n=48 workers, and obtaining post-intervention and three-month follow-up data from n=19 workers. Between the data presented about workers' and contractors openness to training (see narrative for Specific Aim 1), poor adherence is not surprising, even without the pandemic and its economic consequences. Nevertheless, the collected data are not sufficient for evaluating the intervention.</li> <li>• Attempts to overcome recruitment and intervention problems described in previous RPPRs had little success. The external advisory committee that we assembled to help brainstorm solutions to recruitment and implementation problems yielded little success. The lack of success was attributed partly to the fact that, at the time, everyone was experiencing similar challenges without clear solutions. However, a second realization became the fodder for a session our team assembled at the 2022 3<sup>rd</sup> Annual Total Worker Health Symposium (see <b>Dissemination of Results</b>). That is, illustrative community-engaged strategies for occupational health are predominantly from very specific locales with specific profiles (e.g., strong labor union penetration [Atlantic Northeast] or stronger worker protections [California], large cities with long-standing "neighborhood" infrastructure [e.g., Chicago, San Francisco], and corresponding deep ethnic enclaves [Texas, Arizona]. The models emerging from these communities have several pieces of invisible capital that is challenging to mimic in rapidly growing new immigrant communities (no history, therefore little depth of "neighborhood infrastructure") with strong anti-immigrant sentiments. The critical "finding" is that the challenges <i>¡Ponte Listo!</i> encountered reflect limitations in available models of community-engaged intervention. PI Grzywacz has shared some of these "lessons learned" in NIOSH CORE Community of Practice (see <b>Dissemination of Results</b>).</li> </ul>

### B.2.2 Specific Objectives

*Not Applicable*

### B.3 COMPETITIVE REVISIONS

*Not Applicable*

### B.4 OPPORTUNITIES FOR TRAINING & PROFESSIONAL DEVELOPMENT

Dr. Shannon C. Montgomery, a postdoctoral research associate was added to the project. Dr. Montgomery delivered two conference presentations based on *¡Ponte Listo!* data, she has been supporting the project statistician (Dr. Washburn) in data collection and cleaning protocols, and the project has added a section to the questionnaires to map the structure and stability of social networks within the small crews. Finally, Dr. Montgomery gained experience mentoring undergraduate researchers (see next).

Two undergraduate students have been working on the *¡Ponte Listo!* project since October 2021 and will remain engaged with the project through April 28, 2022. Ms. Sandy Escalante (Nursing major) and Mr. Sergio Belalcazar (Public Health major), both children of immigrants, selected to participate in the *¡Ponte Listo!* Project through Florida State University's Undergraduate Research Opportunity Program. Ms. Escalante and Mr. Belalcazar were instrumental in completing coding of all the qualitative data. Each student created a poster presentation as part of FSU's 22<sup>nd</sup> Annual Undergraduate Research Symposium on April 7, 2022. The posters are included below.

One Florida State University alumni, Mr. Charles "Jack" Story, participated in *¡Ponte Listo!* between April and August of 2021. Mr. Story majored in Comic Book Artistry and was hired to complete the art work needed for the intervention lessons.

## B.5 DISSEMINATION OF RESULTS

### Conferences

Three conference presentations were given as part of the Joint CIB W099 & W123 *Annual International Conference 2021: Good Health, Changes & Innovations for Improved Wellbeing in Construction*.

1. Montgomery, S.C., Grzywacz, J.G., Merten, M., Mills, T., Marin, A.J., Nunez-Reyes, E. (2021). *Work Ethic and Cognitive Models of Work: Contractors and Workers Perspectives on Elevated Injury and Fatality among Latino Workers in Small-Scale Residential Construction*.
2. Merten, M.J., Grzywacz, J.G., Montgomery, S.C., Mills, T., Nunez-Reyes, E., & Marin, A.J. (2021). *Family members' perspective Regarding safety behaviors and responsibility of Latino Construction workers*.
3. Grzywacz, J.G., Montgomery, S.C., Merten, M.J., Mills, T., Marin, A.J., & Nunez-Reyes, E. (2021). *Elevated Injury among Latino Workers in Small-Scale Residential Construction: Contractor and Worker Perspectives*

One conference presentation was given as part of the Ex4OSH 2021: Expanding Occupational Safety and Health conference co-sponsored by the National Institute for Occupational Safety and Health and the Southwest Center for Occupational and Environmental Health.

1. Montgomery, S.C., Grzywacz, J.G., Merten, M., Mills, T., Marin, A.J., Nunez-Reyes, E. (2021). *Work Ethic and Cognitive Models of Work: The contribution of Family members, Contractors and Workers Perspectives on Elevated Injury and Fatality among Latino Workers in Small-Scale Residential Construction*.

Two poster presentations were given as part FSU's 22<sup>nd</sup> Annual Undergraduate Research Symposium:

1. Escalante, S., Belalcazar, S., Montgomery, S.C., & Grzywacz, J.G. (2022). *Influence of contractors on immigrant Latino construction workers' safety behaviors in small-scale residential construction*.
2. Belalcazar, S., Escalante, S., Montgomery, S.C., & Grzywacz, J.G. (2022). *Investigating the Relationship Between Working Fast and the Risk of Injury in Latin American Construction Workers*.

*¡Ponte Listo!* provided a session (1210) at the 3<sup>rd</sup> Annual Total Worker Health Symposium, held on the NIH campus in Bethesda, MD in October 2022. That session was titled "Eliminating Overlapping Vulnerabilities: A Strategy Combining Something Old with Something New.

Finally, MPI Grzywacz has given three presentations specific to NIOSH informed by *¡Ponte Listo!*.

1. Reaching Hispanic Construction Workers: The *¡Ponte Listo!* Project. NORA Construction Sector Council Webinar. (2023 May 23).
2. Culture and Heritage: Any Solutions to Eliminating Overlapping Vulnerabilities? NIOSH Hispanic/LatinX Heritage Month Webinar. (2024 October 3)
3. Safety and Health: An Immigrant Perspective. NIOSH CORE Community of Practice Webinar. (2024 December 11).

#### Manuscripts

Grzywacz, J.G., Montgomery, S.C., Merten, M.J., Mills, T., Marin, A.J., & Nunez-Reyes, E. (2021). *Elevated Injury among Latino Workers in Small-Scale Residential Construction: Contractor and Worker Perspectives*, In: Hare B., Sherratt, F., and Emuze, F. (Eds.) Proceedings of the Joint CIB W099 & W123 Annual International Conference 2021: Good health, Changes & innovations for improved wellbeing in construction, 9th-10th September, Glasgow (on-line), UK, ISBN: 978-1-91418-801-5

Merten, M.J., Grzywacz, J.G., Montgomery, S.C., Mills, T., Nunez-Reyes, E., & Marin, A.J. (2021). *Family members' perspective Regarding safety behaviors and responsibility of Latino Construction workers*, In: Hare B., Sherratt, F., and Emuze, F. (Eds.) Proceedings of the Joint CIB W099 & W123 Annual International Conference 2021: Good health, Changes & innovations for improved wellbeing in construction, 9th-10th September, Glasgow (on-line), UK, ISBN: 978-1-91418-801-5

Montgomery, S.C., Grzywacz, J.G., Merten, M., Mills, T., Marin, A.J., Nunez-Reyes, E. (2021). *Work Ethic and Cognitive Models of Work: Contractors and Workers Perspectives on Elevated Injury and Fatality among Latino Workers in Small-Scale Residential Construction*, In: Hare B., Sherratt, F., and Emuze, F. (Eds.) Proceedings of the Joint CIB W099 & W123 Annual International Conference 2021: Good health, Changes & innovations for improved wellbeing in construction, 9th-10th September, Glasgow (on-line), UK, ISBN: 978-1-91418-801-5.

#### Publications

*Not Applicable*

### **B.6 NEXT STEPS**

*Nothing to Report*

### **E.3 IMPACT ON TECHNOLOGY TRANSFER**

*Nothing to Report*

### **F.2 ACTUAL OR ANTICIPATED CHALLENGES OR DELAYS & ACTIONS OR PLANS TO RESOLVE THEM**

*Nothing to Report*

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**C. PRODUCTS**

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**C.1 PUBLICATIONS**

**Are there publications or manuscripts accepted for publication in a journal or other publication (e.g., book, one-time publication, monograph) during the reporting period resulting directly from this award?**

No

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**C.2 WEBSITE(S) OR OTHER INTERNET SITE(S)**

NOTHING TO REPORT

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**C.3 TECHNOLOGIES OR TECHNIQUES**

NOTHING TO REPORT

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**C.4 INVENTIONS, PATENT APPLICATIONS, AND/OR LICENSES**

**Have inventions, patent applications and/or licenses resulted from the award during the reporting period?** No

**If yes, has this information been previously provided to the PHS or to the official responsible for patent matters at the grantee organization?** No

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**C.5 OTHER PRODUCTS AND RESOURCE SHARING**

NOTHING TO REPORT

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D. PARTICIPANTS

D.1 WHAT INDIVIDUALS HAVE WORKED ON THE PROJECT?

Commons ID	Sr/Key	Name	Degree(s)	Role	Cal	Aca	Sum	Foreign Org	Country	SS
JGRZYWACZ	Y	GRZYWACZ, JOSEPH G.	BS,MS,PHD	PD/PI	0.0	0.0	0.2			NA
THOMMILL@VT.EDU	N	Mills, Thomas		Co-Investigator	1.9	0.0	0.0			NA
MERTENMJ	N	MERTEN, MICHAEL J.	PHD,MS	Co-Investigator	1.5	0.0	0.0			NA
	N	Nunez-Reyes, Elsa		Non-Student Research Assistant	12.0	0.0	0.0			NA
	N	Marin, Antonio		Project Manager	12.0	0.0	0.0			NA

Glossary of acronyms:

Sr/Key - Senior/Key  
Cal - Person Months (Calendar)  
Aca - Person Months (Academic)  
Sum - Person Months (Summer)

Foreign Org - Foreign Organization Affiliation  
SS - Supplement Support  
RS - Reentry Supplement  
DS - Diversity Supplement  
OT - Other  
NA - Not Applicable

D.2 PERSONNEL UPDATES

D.2.a Level of Effort

Not Applicable

D.2.b New Senior/Key Personnel

Not Applicable

D.2.c Changes in Other Support

Not Applicable

D.2.d New Other Significant Contributors

Not Applicable

D.2.e Multi-PI (MPI) Leadership Plan

Not Applicable





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**E. IMPACT**

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**E.1 WHAT IS THE IMPACT ON THE DEVELOPMENT OF HUMAN RESOURCES?**

Not Applicable

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**E.2 WHAT IS THE IMPACT ON PHYSICAL, INSTITUTIONAL, OR INFORMATION RESOURCES THAT FORM INFRASTRUCTURE?**

NOTHING TO REPORT

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**E.3 WHAT IS THE IMPACT ON TECHNOLOGY TRANSFER?**

Not Applicable

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**E.4 WHAT DOLLAR AMOUNT OF THE AWARD'S BUDGET IS BEING SPENT IN FOREIGN COUNTRY(IES)?**

NOTHING TO REPORT

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**G. SPECIAL REPORTING REQUIREMENTS SPECIAL REPORTING REQUIREMENTS**

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**G.1 SPECIAL NOTICE OF AWARD TERMS AND NOTICE OF FUNDING OPPORTUNITIES REPORTING REQUIREMENTS**

NOTHING TO REPORT

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**G.2 RESPONSIBLE CONDUCT OF RESEARCH**

Not Applicable

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**G.3 MENTOR'S REPORT OR SPONSOR COMMENTS**

Not Applicable

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**G.4 HUMAN SUBJECTS****G.4.a Does the project involve human subjects?**

Not Applicable

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**G.4.b Inclusion Enrollment Data**

File(s) uploaded:  
Cumulativ Enrollment, Final.pdf

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**G.4.c ClinicalTrials.gov**

Does this project include one or more applicable clinical trials that must be registered in ClinicalTrials.gov under FDAAA?

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**G.5 HUMAN SUBJECTS EDUCATION REQUIREMENT**

NOT APPLICABLE

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**G.6 HUMAN EMBRYONIC STEM CELLS (HESCS)**

Does this project involve human embryonic stem cells (only hESC lines listed as approved in the NIH Registry may be used in NIH funded research)?

No

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**G.7 VERTEBRATE ANIMALS**

Not Applicable

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**G.8 PROJECT/PERFORMANCE SITES**

Not Applicable

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**G.9 FOREIGN COMPONENT**

No foreign component

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**G.10 ESTIMATED UNOBLIGATED BALANCE**

Not Applicable

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**G.11 PROGRAM INCOME**

Not Applicable

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**G.12 F&A COSTS**

Not Applicable

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## Cumulative Inclusion Enrollment Report

This report format should NOT be used for collecting data from study participants.

**Study Title:**

**Comments:**

Racial Categories	Ethnic Categories									Total
	Not Hispanic or Latino			Hispanic or Latino			Unknown/Not Reported Ethnicity			
	Female	Male	Unknown/ Not Reported	Female	Male	Unknown/ Not Reported	Female	Male	Unknown/ Not Reported	
American Indian/ Alaska Native										
Asian										
Native Hawaiian or Other Pacific Islander										
Black or African American										
White										
More Than One Race										
Unknown or Not Reported										
Total										

## I. OUTCOMES

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### I.1 What were the outcomes of the award?

The primary outcome of this award was the generation of new insight into circumstances contributing to poor occupational health outcomes among immigrants. The results of our qualitative research replicate several previous papers and extend those works by indicating that workers' behavior on the job site is both a choice and imposed upon them. Workers choose to don a safety harness or rely on a beverage supporting hydration. However, workers also exist in a context where their "boss" works on thin margins that exaggerate a tendency to focus on working fast rather than safely. Some workers, like immigrants without documentation, have few employment options, so any job is better than no job. Frequently, work crews are also family units where nephews or children are "workers" and "uncles" or "fathers" are employers – blurring familial and workplace roles. The "businesses" are not developed entities with a "business model," a strategic plan, and a team of experts: they are simply a willingness to work hard using the resources I have (a truck, tools, a social network), regardless of the circumstances. Insights from talking with contractors and family members, in addition to workers, enrich the discussion of past descriptions of immigrant Latino construction worker safety-related behavior.

A second critical learning is the appropriateness of dominant community-engaged occupational safety and health models. Most models emerge from major academic centers in unique rather than typical contexts. The Harvard Total Worker Health Center, for example, does its fabulous work in a region with a long history of union representation, robust union penetration, and (even without the union) a storied role in the battle for safe workplaces. The California Labor Lab, likewise, does its fabulous work in places like San Francisco's Chinatown, a place with over 200 years of history of immigrant presence (and strife), a state that is "immigrant-friendly," as well as some of the most progressive occupational labor protections in the country. The critical question is, "can models from locations like this inform other communities very different from them?" Our project was situated in a state where "workplace safety" is, at best, a second thought, working with an immigrant community that is less than 30 years old and had a record of strong anti-immigrant legislation (HB 1804). Common rhetoric of community-engaged methods like "build trusting relationships" and "engage community leaders" likely means something different in a 30-year-old than a 150-year-old community. Unlike the community partners of established centers like Harvard and California Labor Lab, our partner was a 501(c)3 born during the pandemic because the planned partner dissolved a few years earlier. The critical learning underlying is that the next generation of community-engaged strategies surrounding occupational health must think more deeply about the models deployed and speak more clearly about the meaning of "building trust" or "identifying leaders."