Trades Women Build Nations 2023

Safety & Health Research & Resources for Women in Construction

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Who is CPWR?

CPWR is dedicated to reducing occupational injuries, illnesses & fatalities in the construction industry through:



The training offered by CPWR builds on the existing infrastructure of the Building Trades Unions and the 2,000 joint apprenticeship and training programs in all 50 U.S. states and in Canada.

In order to prevent deaths, injuries and illnesses in construction, interventions must be evaluated in the workplace and communicated to employers and workers.



CPWR's Mission

- Encourage the elimination or reduction of conditions constituting hazards to the safety or health of U.S. construction workers, and to promote the maintenance and improvement of safe and healthy working conditions for workers in the construction industry;
- Publicize the results of research findings, and to make them widely available to construction industry owners/users, employers, associations, unions, workers, academia, government, and others with an interest in construction industry safety and health;
- Provide training resources and technical services to apply research findings at the work site and to direct research in defining and addressing issues of importance to workers; and
- Conduct research concerning the quality of working conditions; the social, economic, and psychological factors influencing work organization; the impacts on workers and working conditions of new technologies and industry change; and analyses of corporate and government policies and consensus standards that affect the worksite.



r2p Program Research & Resources

PPE Fit Survey Results

PPE for Women Construction Workers

Physicians' Alert for Pregnant Workers

Women in Construction Webinars



PPE Fit Survey Methods

- Mixed-methods survey on experiences with PPE fit
- Delivered via Qualtrics in English in 2022 and 2023
- Targeted women but did not ask participants demographics questions. Participants are referred to as women in this presentation, but it is possible that people of all sexes and genders participated in the survey, and it is a limitation of survey design that experiences specific to non-binary and transgender workers cannot be disaggregated
- Launched at the 2022 Tradeswomen Build Nations
 Conference; additional recruitment took place afterwards via members of the NABTU Trades Women Committee



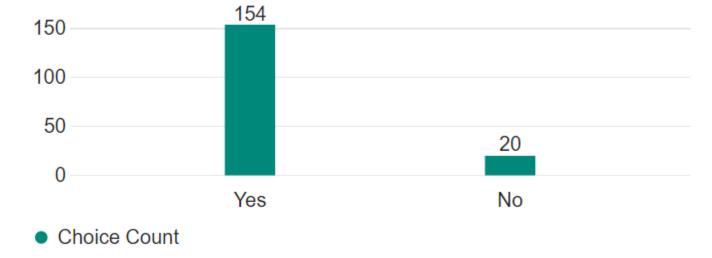


PPE Fit Survey Findings

- Workers commonly reported that they had had difficulties getting PPE that fit them well at work
- Almost nine in ten participants (89%) said that they had experienced difficulties getting PPE that fit them well (e.g., harnesses, gloves, high visibility clothing)

Have you ever experienced difficulties getting PPE that fits well at work (e.g., harnesses, gloves, high visibility clothing)?

174 Responses



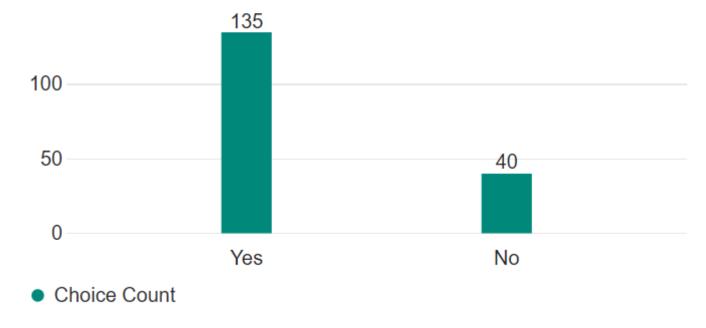


PPE Fit Survey Findings

- Workers reported being exposed to hazards unnecessarily because their PPE did not fit them properly
- Seventy-seven percent said they had been exposed to a hazard unnecessarily because their PPE did not fit them properly

Have you ever been exposed to a hazard unnecessarily because your PPE did not fit properly?

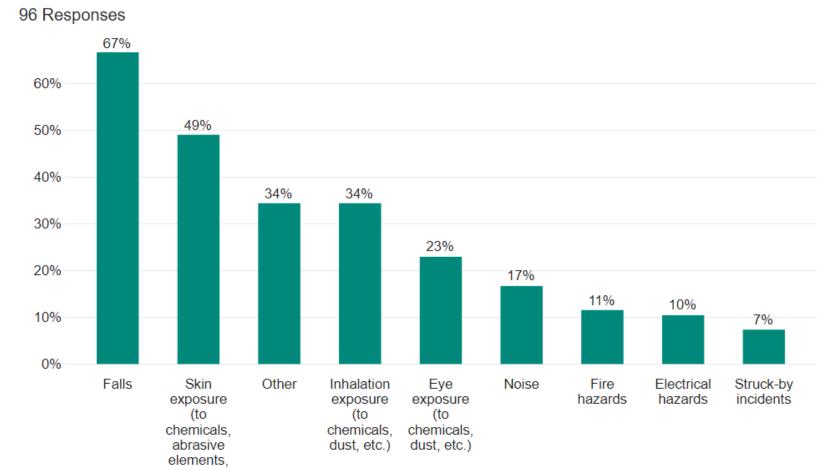
175 Responses





PPE Fit Survey Findings

What kind of hazard(s) were you exposed to? (Select all that apply)



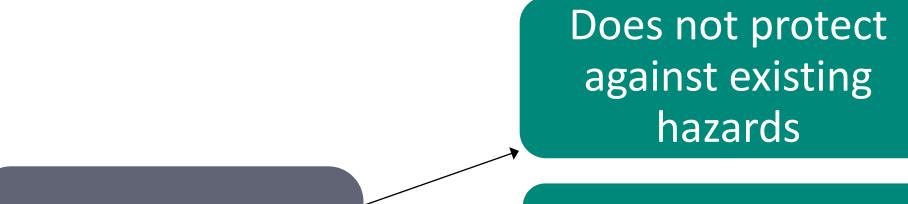
- Workers who reported they had been exposed to a hazard unnecessarily because of improper PPE fit were asked to which hazards they had been exposed
- The most common response were falls (67%), skin exposures (49%), other hazards (34%), and inhalation exposures (34%)



Percentage of Responses

etc.)

PPE Fit Survey Findings: Qualitative Themes



Impacts of Improperly Fitting PPE

Impairs women's ability to work

Creates new hazards



PPE Fit Survey Findings: Does Not Protect

If PPE does not fit properly, it may fail to protect workers against existing hazards. Participants described many examples of improperly fitting PPE failing to protect them against known hazards:

PPE Type	Examples of Lack of Protection			
Fall protection	"Harness too big. If there were a fall, it would not have protected me."			
Respiratory protection	"My company only had medium respirators. I failed the fit test, but they did not have smalls. I had to use a medium that did not seal completely."			
Hand protection	"Gloves too big almost continually, using cloth riggers for torching and welding. Lots of small cuts, burns, and abrasions on my hands from gloves that don't fit."			
Hearing protection	"Ear protection doesn't fit either. I'm constantly exposed to loud noise."			
Eye protection	"The entire crew had the same size safety glasses. My glasses were so big, they would slide off my face. When grinding, the wind would whip around the edge of the glasses, bringing metal debris directly into my eyes."			
Head protection	"Hard hats can't get tight enough to fit circumference of [my] head [and] just fall off when I look up."			

PPE Fit Survey Findings: Impairs Ability to Work

- Improperly fitting PPE can make it hard or impossible to handle tools and materials, move, climb, and perform other work duties
- When workers cannot work efficiently, they face pressure to work without PPE. Without PPE, they are not protected against hazards

"Handling heavy gauge studs. [My] [g]loves were too big for me to properly pick up and handle screws. I had to keep taking them off to handle screws and then put them back on to handle the studs.

After a while of this inefficient pat[t]ern of putting on and taking off, I just got fed up and decided to keep them off.

As I was picking up a stud to hand to my partner, my thumb [jammed] into the oval opening of the stud and sliced my thumb right through the nail. The doctor had to remove some of my nail to give me 5 [stitches]."

PPE Fit Survey Findings: Creates New Hazards

"PPE needs to fit the wearer correctly; otherwise, it becomes a hazard."

Improperly fitting PPE is more likely to get caught on machinery, materials, or equipment

- PPE could easily become snagged during work, which in turn created hazards such as getting fingers caught in machinery or being exposed to a slip, trip, or fall
- Gloves were often mentioned as an issue

"Harness that are too big getting stuck on objects that create more of a hazard of a fall than not wearing one at all."

Improperly fitting PPE can be uncomfortable or or painful

 Improperly fitting PPE may pinch, chafe, or cause pain or discomfort for workers in other ways

"[My ill-fitting harness]
left huge bruises and
caused circulation
issues."

Improperly fitting PPE can create and worsen psychosocial hazards

 By impairing one's ability to work efficiently, ill-fitting PPE can reinforce normative expectations about which workers are capable of high performance, making it more difficult for women to feel and be accepted in construction

> "It's embarrassing to work slowly due to not being able to grip or having to continuously fix your PPE. It's demeaning and dehumanizing."

PPE Fit Survey Findings: Conclusions

- Improper PPE fit is a serious issue that harms the ability of women in construction to work safely
- Almost nine in ten participants (89%) said that they had experienced difficulties getting PPE that fit them well, and three quarters (77%) said they'd been exposed to hazards because of improper PPE fit
- Improperly fitting PPE in construction:
 - Does not protect against existing hazards
 - Impairs women's ability to work
 - Creates new hazards

PPE for Women Construction Workers



PERSONAL PROTECTIVE EQUIPMENT FOR WOMEN CONSTRUCTION WORKERS

One of the challenges facing women, non-binary workers, and transgender workers in the construction industry is accessing personal protective equipment (PPE) that fits properly. In a 2021 survey of 2,635 tradeswomen and non-binary tradespeople by the Institute for Women's Policy Research, only 19.1 percent of participants said that they were always provided with gloves or safety equipment in sizes that fit them while working. This is a serious issue because PPE that does not fit properly will not adequately protect against occupational hazards and may cause hazards in itself. For example, oversized protective clothing can lead to tripping hazards or get caught in machinery and result in a serious injury. Poorly fitted fall protection harnesses may lead to other injuries or may not be effective in the event of a fall. Similarly, gloves that are too big put a worker at risk of coming in contact with chemicals that can cause dermatitis or other skin diseases. Learn more about PPE fit from NIOSH's Science Blog.

The number of women workers in construction is increasing, but women remain underrepresented in the industry. Between 2011 and 2022, the percentage of women in the construction workforce increased from 9% to 11% and the percentage of blue-collar women workers in the industry rose from 2% to 4% (https://www.cpwr.com/wp-content/uploads/DataBulletin-May2023.pdf). However, as of 2021, women accounted for only 3.7% of blue-collar occupations in construction, which is about one-fourth the level of women in blue-collar jobs across all industries (https://www.cpwr.com/research/data-center/data-dashboards/women-in-construction/).

Providing PPE that fits properly helps ensure that all employees, including women, non-binary workers, and transgender workers, are protected. The following list of examples of commercially available PPE has been compiled to help employers and workers in the trades find PPE that accommodates a range of anthropometry.

Check https://cpwr.com/femalePPE for the most up-to-date links.

COMPANIES FOCUSED EXCLUSIVELY ON WOMENSWEAR:

- Xena Workwear for Women
- Libaerty
- Juno Jones Safety Boots
- Dovetail Workwear
- Red Ants Pants
- Seraphina Safety Apparel
- EMBHE
- Covergalls Workwear
- · Dawson Workwear for Her
- Safety Gir
- Charm and Hammer
- See Her Work

CONSTRUCTION FOOTWEAR:

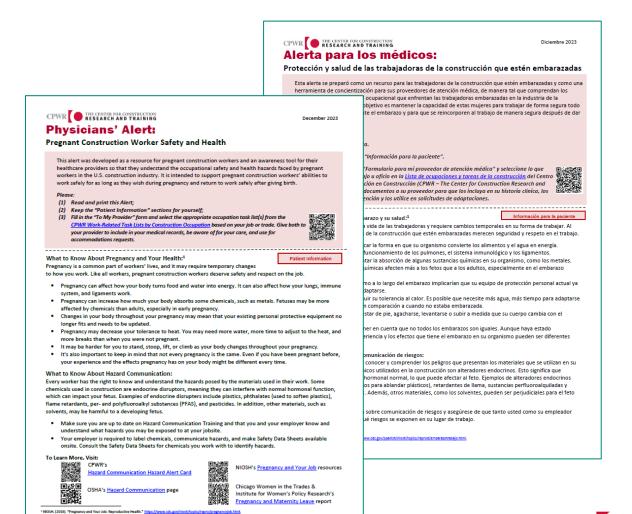
- Carhartt Footwear Wellington Boot ASTM 2413-18 EH compliant
- Caterpillar ECHO Steel Toe Boots

- CPWR tracks and aggregates PPE options that are designed for women and/or to accommodate a range of anthropometry. The information is available on our website and in a downloadable, printable PDF
- Resources include:
 - List of companies focused on womenswear
 - Product links by category of PPE (footwear, footwear cold climate accessories, ear protection, harnesses, hardhats, high visibility clothing, flame resistant clothing, safety glasses and goggles, safety gloves, and more)
- If you see options we are missing, please contact us!
 This list is non-exhaustive and always growing



Physicians' Alert for Pregnant Workers

- Physicians' Alerts are developed to help ensure that all construction workers at risk of developing work-related medical conditions are properly diagnosed and treated
- Alerts contain valuable information for the worker and their physician related to common exposures and tasks in construction and include best practices to prevent and mitigate exposure-related conditions
- Recently released Physicians' Alert is a resource for pregnant construction workers specifically



Physicians' Alert for Pregnant Workers

- Offers a set of information for the worker/patient and their healthcare provider
- Worker/Patient information:
 - Facts about pregnancy and health
 - Overview of how Hazard Communication rights can be used during pregnancy
 - Information sheet and further resources on your federal and state workplace rights, including information about the newly implemented Pregnant Worker Fairness Act
 - Link to the new CPWR Work-Related Task List by Construction Occupation so that you can bring a resource with you to your healthcare appointment that outlines major elements of your job
- Healthcare provider information:
 - Summary of major exposures and considerations for treating pregnant construction workers
 - Examples of possible workplace accommodations
 - Resources on legal best practices for writing accommodation letters and supporting workers



Women in Construction Webinars

CPWR partnered with NABTU & many others to hold a webinar mini-series in 2023:

- Why We Need More Women in Construction
- 2. Strategies to Recruit and Retain Women in Construction
- 3. Being an Ally Improving Treatment of Women on Jobsites

Recordings available on CPWR's Women in Construction YouTube Playlist:

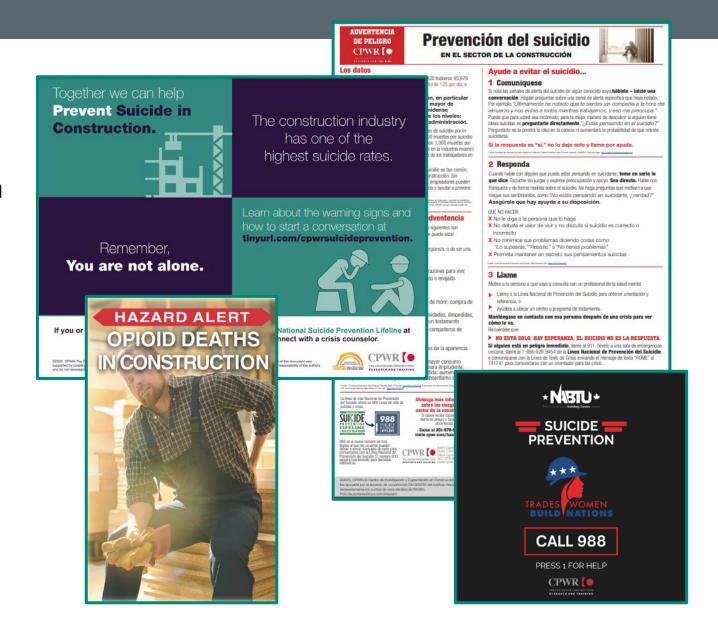
https://tinyurl.com/ms2xep6j



Mental Health Resources

- 988 sticker
- CPWR has resources on:
 - Opioids and primary prevention
 - Suicide prevention
 - Job-related stress
 - Building resilience

https://www.cpwr.com/research/research-topractice-r2p/r2p-library/other-resources-forstakeholders/mental-health-addiction/



CPWR Environmental Career Worker Training Program

Transforming Lives by Preparing Community Residents for Careers in the Construction



Steve Surtees, ECWTP Director, CPWR

2023 TradesWomen Build Nations Conference December 2, 2023 Washington, D.C.



What is the ECWTP?

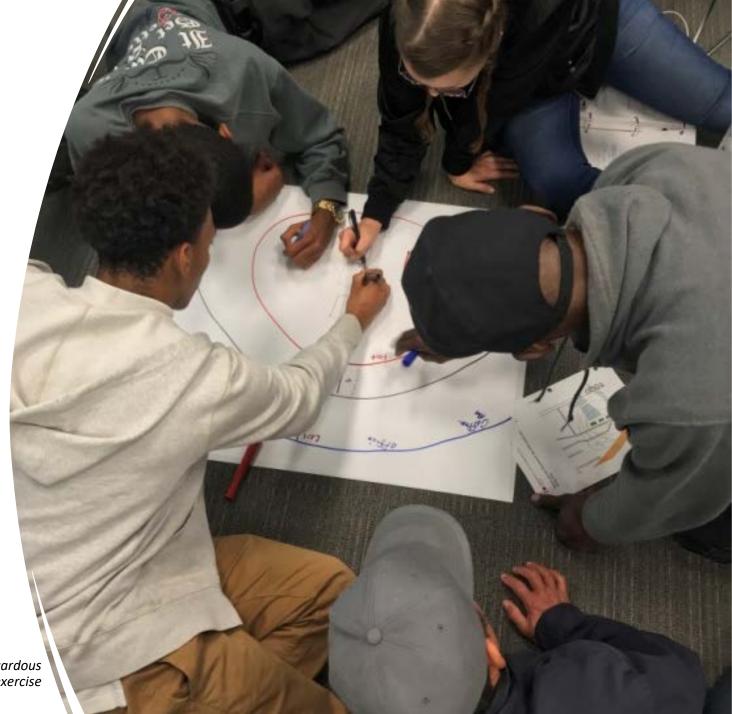
- Funded by NIEHS
- Result of Environmental Justice Movement
- Comprehensive training program for local, underserved residents in construction and environmental restoration
- Emphasis on life skills, job skills, and health and safety
- Designed to give community residents access to jobs involved with the restoration of their communities



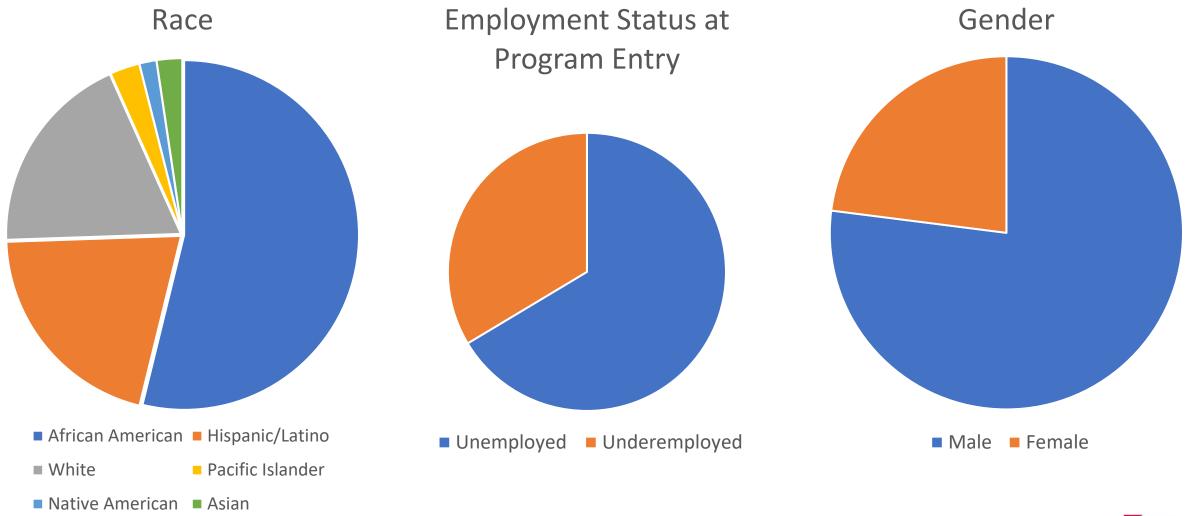
The CPWR ECWTP Consortium

- Programs in 4 cities:
 - o Boston, MA Building Pathways
 - o East Palo Alto, CA JobTrain
 - o Flint, MI GST Michigan Works
 - o New Orleans, LA IUPAT DC 10
- Operate as Apprenticeship Readiness Programs (ARP's)
 - Preparing students for the Building Trades





Student Demographics







Program Performance and Highlights

For the recently completed grant year:

- 95 graduates
- 77 placed in registered apprenticeships/jobs
- \$22.03 average hourly wage
- Success in retention 97% of prior grant year students placed in jobs remain employed one year on
- ECWTP selected as a pilot program under the White House's Justice40 initiative



Photo: a student poses prior to hazardous waste decontamination line simulation

2022 TWBN Conference

- CPWR sponsored 5 ECWTP graduates to attend 2022 TWBN
- Report conducted by Dr. Sue Ann Sarpy: *Identifying Challenges and Facilitating Success for Women Building Careers in Construction*
- Report identifies strategies to:
 - promote networking, mentoring, and resource sharing among graduates
 - coordinate supportive services postgraduation





The CPWR ECWTP Consortium

- Boston, MA
- East Palo Alto, CA
- Flint, MI
- New Orleans, LA





The CPWR ECWTP Consortium

• Boston, MA



- East Palo Alto, CA
- Flint, MI
- New Orleans, LA



Building Pathways – Boston, MA







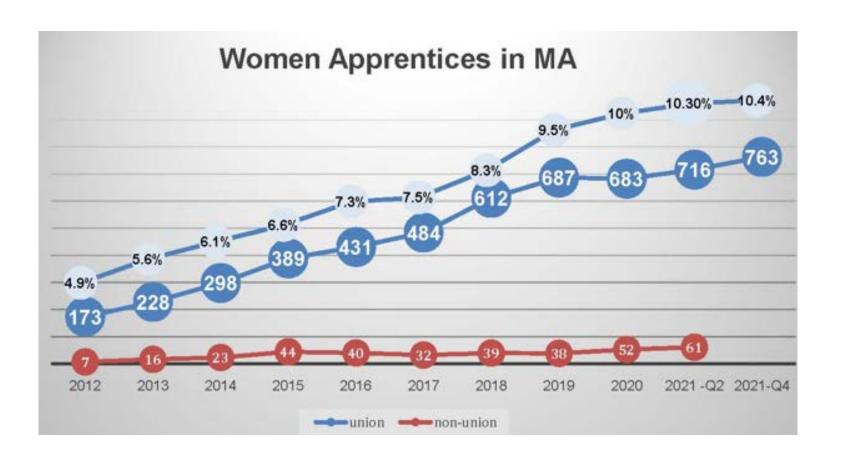
Building Pathways – Boston, MA

Construction-hours childcare now available!

- Pilot program in Boston area working with licensed family childcare providers to offer childcare starting at 5 or 5:30am
- Childcare providers all accept childcare vouchers, their weekly rates vary
- Scholarships for families without vouchers of \$100/week for 6 months paid to provider for tuition discount

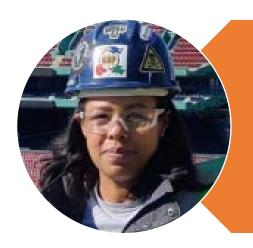


Making an Impact





Changed Lives



Ayesca M – 2021 Boston Graduate

Unemployed and recently divorced at program entry

Currently working with Pipefitters Local 537

Selected to represent her union at the Tradeswomen Building Bridges international conference held in London



Emily W - 2016 Flint Graduate

Single mother, underemployed at program entry

Now works as member of Bricklayers and Allied Craft Workers Local 2

Recently purchased first home for her and her children

"I don't have a job, instead I have a career."



Ian P - 2013 East Palo Alto Graduate

Single father, ex-felon and unemployed at program entry

Working as a journeyman with Operating Engineers Local 3

Purchased first home for he and his daughter



Olivier F – 2015 New Orleans Graduate

Chronically underemployed at program entry

Became a journeyman with Carpenters Local 1846 in 2019

Purchased his own home, serves as president of the homeowner's association, and recently started a non-profit to renovate homes for low-income families





Thank you!

Steve Surtees

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Supported by NIEHS Cooperative Agreement ES006185

Photo (left): students in a decontamination line during hazardous waste training.

Photo (right): students donning air-purifying respirators during hazardous waste training



Mentoring SMART Women:

A coordinated approach to supporting safety, health, and wellbeing

Dr. Marissa Baker, University of Washington

Lily Monsey, Research Coordinator

Department of Environmental and Occupational Health Sciences

December 2, 2023



Study Background

- > Tradeswomen are at higher risk for a variety of psychosocial and physical risk factors on the job than their male counterparts
- > Pilot research: Washington Women in the Trades
 - identified mentorship as an intervention strategy to offer empowerment, skills to new tradeswomen through support from experienced journeywomen
- Partnership with SMART International, funded by CPWR
- Part of NABTU's efforts to improve working conditions for female construction workers



Photo courtesy of SMART International



Module 1:

Building

Module 2:

Mentor Toolbox

Module 3

Mentee

Module 4:

Moving Forward

Asynchronous Sections (4)

Section 1:

Diving into Mentorship

Why this kind of mentorship, why now?

How does being a mentor help me?

Using the mentor notebook

Section 2: Relationship Building

What does the daily practice of mentorship look like?

What mentor styles can I model?

How do I build a foundation of trust?

How do I assess what level of support my mentee needs?

Section 3:

Goal Practices

Connecting Goals to your mentee's sense of purpose, individual interests and strengths

Developing small, sustainable goal practices

How to adjust for the unforeseen

Section 4: Active Listening

What is active listening, and why is it key in mentorship?

A model for active listening: 3 step communication

Section 5: Problem Solving

ADAPT problem solving process

Section 6:

Self Confidence and Self Advocacy

Section 7: Navigating

Challenges What are realistic

challenges?

When you can't get in touch

Burnout, Self-care

Boundaries

Section 8:

Pulling it all together

Using combinations of mentoring skills

Ending the relationship

Synchronous Section 1: Mentor Kickoff

Introduction to the program

Synchronous Section 2

Active listening, goal setting practice

Group discussion

Synchronous Section 3

Problem solving, selfadvocacy practice

Group discussion

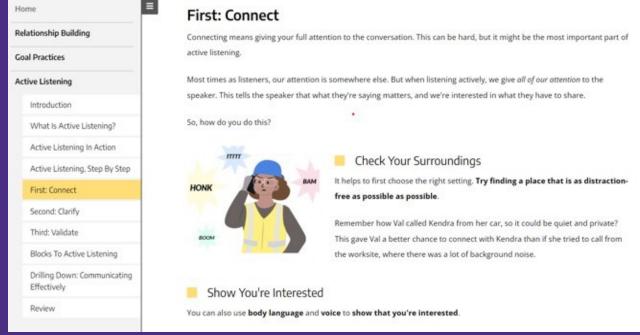
Synchronous Section 4

Conclusion, support and structure moving forward

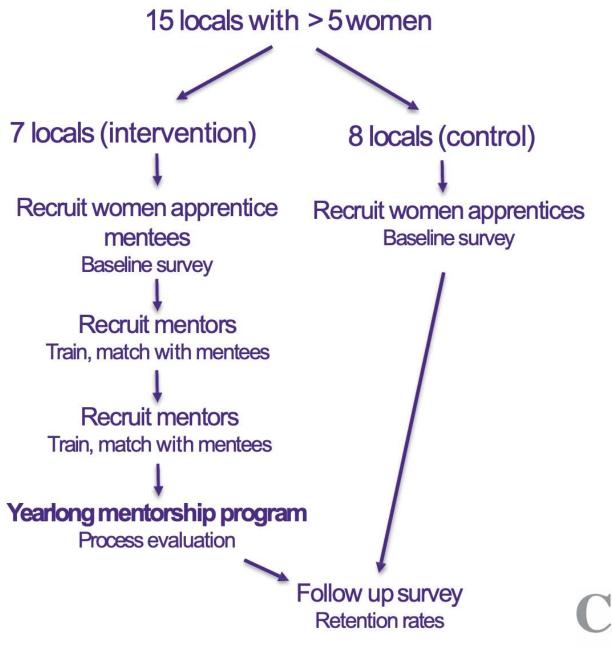
Asynchronous Mentor Training

Video, text, and audio elements 15-25 minute sections









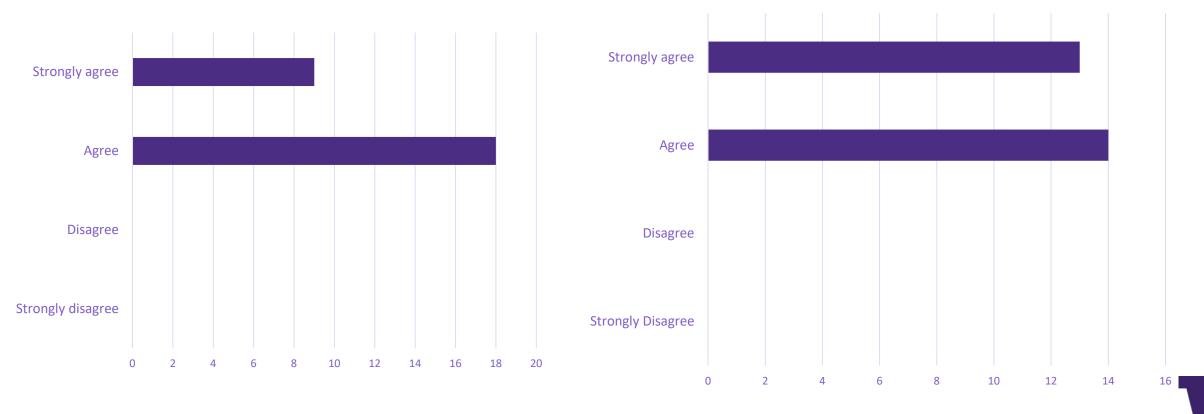




Mentorship Training Evaluation: Rounds 1 and 2

After receiving this training, my overall confidence as a mentor has increased. (n = 27)

This training series was effective in advancing my understanding of mentoring relationships. (n = 27)



Confidence in Training Skills

How did the training change your confidence in the following skills? (n=27)

	not at all	a little	some what	very much
Understanding the need for mentoring skills for women in the trades.		11%	33%	56%
understanding the role of trust, boundaries, and confidentiality in a mentor/mentee relationship.	8%	4%	20%	<mark>68%</mark>
Understanding the importance of goal setting for supporting mentee growth.	8%		22%	<mark>70%</mark>
Understanding how to use active listening skills to support my mentee.	4%	8%	37%	<mark>51%</mark>
Understanding the process of problem solving (ADAPT) and feeling like I can use it to help my mentee.		4%	44%	<mark>52%</mark>
Understanding strategies that I can use to navigate challenges in mentorship.	4%	8%	33%	<mark>55%</mark>
Understanding how to use a combination of mentoring skills.		4%	33%	<mark>63%</mark>

Mentor Feedback, Qualitative Interviews

"This program...has given me skills that have helped me transition into my role as a business rep for my local."

- Mentor

"I really enjoyed the real-life example between Lisa and [mentor], it gave me a lot of insight into how a real-life situation could evolve and how to use the tools I have available...."

- Mentor

"Men were some of my greatest allies on the jobsite. At the same time, the older generation is where a lot of the problems are."

project coordinator& retiredtradeswoman



Next steps: Dissemination of Training

Products to share widely:

- 1. Our asynchronous mentor training, with skill-based videos
 - to be accessible on CPWR's website

2. Mentor Handbook

- complementary guide for training, also a standalone resource

3. Training Guide

- designed to help locals and groups administer synchronous training elements

4. Best Practices Guide

- A general guide to administering all elements of mentor training



Support and Acknowledgement

- > CPWR
- > SMART International
- > External Advisory Board
- > Study team members: Dr. Noah Seixas, Dr. Hendrika Meischke
- > Trainer: M Miller
- > SMART extraordinaire: Lisa Davis



Questions

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