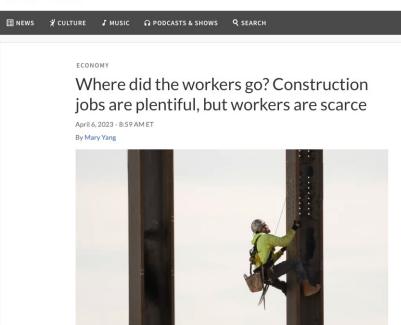
Improving the Recruitment and Retention of Construction Apprentices Through Oregon's Highway Construction Workforce Development Program

Institute for Construction Employment Research (ICERES)
Annual Research Symposium
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Dr. Maura Kelly
Department of Sociology
Portland State University
www.maura-kelly.com







An ironworker scales a column during construction of a municipal building in Norristown, Pa. on Feb. 15, 2023









CONSTRUCTION

Half a million workers needed, building group claims, despite housing slowdown

by Zachary Halaschak, Economics Reporter | ≥ | February 09, 2023 01:21 PM









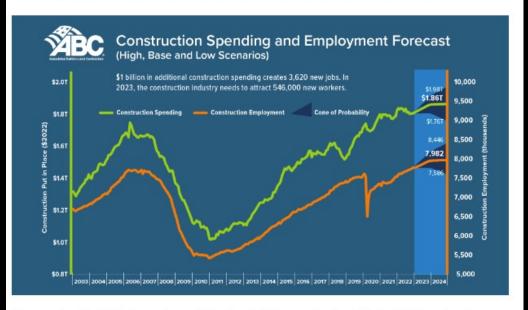


Construction Workforce Shortage Tops Half a Million in 2023, Says ABC

THURSDAY, FEBRUARY 9, 2023 9:50 AM

Posted in Construction Economic Update, Construction Economics, News Release 2023

WASHINGTON, Feb. 9-The construction industry will need to attract an estimated 546,000 additional workers on top of the normal pace of hiring in 2023 to meet the demand for labor, according to a proprietary model developed by Associated Builders and Contractors.

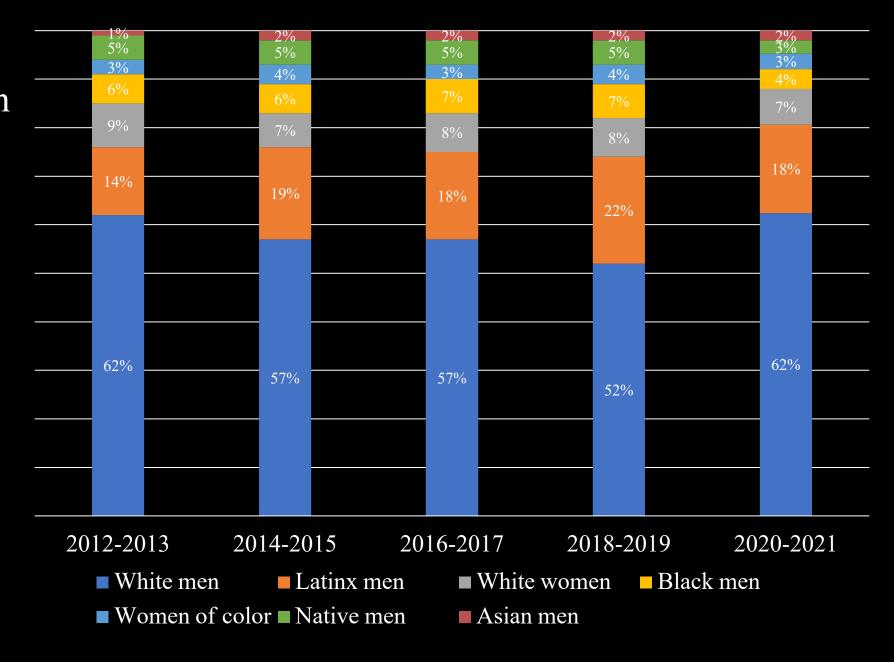


"The construction industry must recruit hundreds of thousands of qualified, skilled construction professionals each year to build the places where we live, work, play, worship, learn and heal," said Michael Bellaman, ABC president and CEO. "As the demand for construction services remains high, filling these roles with skilled craft professionals is vital to America's economy and infrastructure rebuilding initiatives."

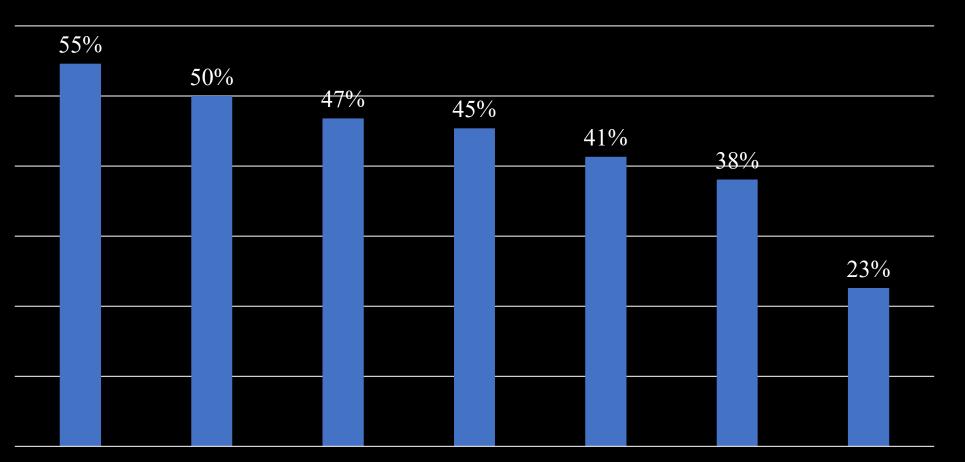
New apprentices in highway trades by race and gender, 2012-2021 (OAS data)

In 2020-2021:

- 10% of new apprentices were women (all races)
- 31% were people of color (all genders)
- Average age of new apprentices was 28



Oregon highway trades construction apprenticeship six year completion rates, 2014-2015 cohort, by race/gender (OAS data)



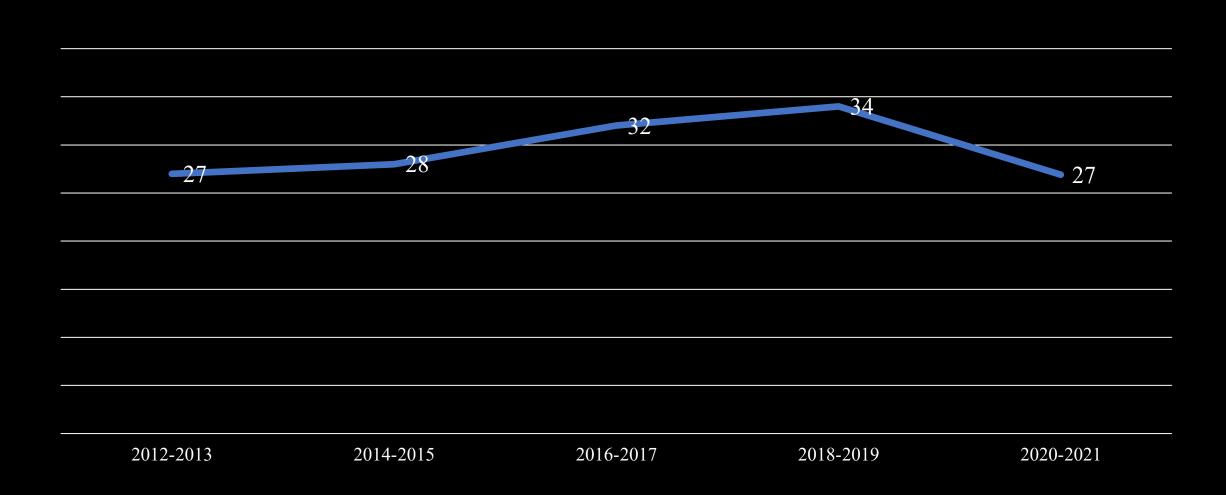
Highway trades include:

- Carpenter
- Cement mason
- Inside electrician
- Ironworker
- Laborer
- Operating engineer
- Painter

White men Latinx women Asian men Native men Latinx men White women Black men

The overall completion rates for apprentices who started a highway trades apprenticeship in 2014-2015 was 49%.

Percent of newly credentialed journey workers in highway trades who are women and/or people of color, 2012-2021(OAS data)



Reasons given for leaving apprenticeship (2022 Oregon Apprentice survey)

Not a good fit

- ~Nature of the work
- ~Compensation
- ~Working conditions
- I just figured out that it wasn't the right occupation for me.
- Wanted to go into a different field of work.
- That specific career wasn't for me.

Lack of work

- Kept getting laid off and every two or three months would have a lull in work.
- It was really hard to find work.
- Inconsistency in pay

Job site harassment

- Constant belittling, other harassment.
- Felt disrespected.
- Coworker environment.

Illness, injury, and concerns about safety

- Kept getting injured but feeling like I couldn't report it.
- The company I was working for had a lot of dangerous circumstances, and safety was not paramount to them.

Lack of mentoring on the job

- My journeymen did not want to train apprentices, they made that pretty clear and treated me awful.
- I didn't learn anything other than picking up wood and keeping the job site tidy. The contractor had no intention of teaching me about the trade.

PSU Evaluation of The ODOT/BOLI Highway Construction Workforce Development Program

- Pre-apprenticeship: four to nine week classes that prepare individuals for careers in the trades
- Respectful Workplaces: Job site trainings that give tradespeople tools to address harassment on the job.
- Supportive services
 - Ready items (tools, clothing, PPE)
 - Child care subsidies
 - Assistance for travel to and from job sites and required classes
 - Hardship funds
 - Non-financial support services (e.g. social support, mentoring, budget class)

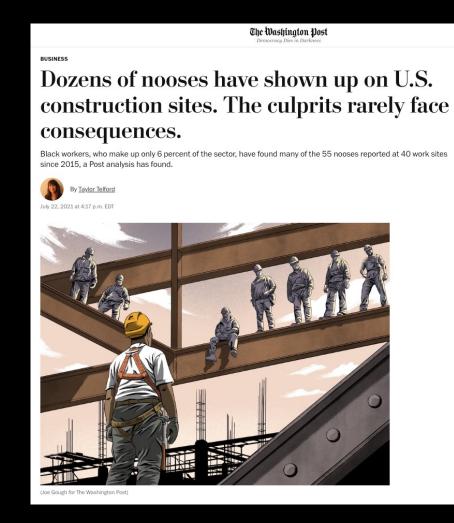


Impact of pre-apprenticeship

27% of all women who completed a highway trades apprenticeship entered the trades via preapprenticeship (2014-2015 cohort).



Apprentices' experiences of harassment on the job



I would say the hardest part [of my apprenticeship] was racism (Black man, 2020 interview).

There's some guys out there that really hate women and it's dangerous (white woman, 2020 interview).

Why We Recommend Green Dot and RISE Up

After reviewing the four models described in Appendix A, the Committee strongly recommends Green Dot and RISE Up as the most promising for the industry in the region.

Green Dot

The Green Dot Bystander Intervention training is based on amodel that has been applied in school, community, and military settings and has trained over 600,000 individuals. The Construction specific curriculum was first designed in partnership with Alteristic in 2015 in Portland, Oregon. The design process included deep focus groups made up of women, people of color, General contractors, apprentices, journey level workers and other stakeholders all informing the approach and what aspects of the trades were critical to take into account when applying the Green Dot program to this industry.

The Committee was impressed with many attributes of this training. Alteristic was the organization with the long est history and experience with prevention and culture change work. Green Dot for construction has the potential to go national as a model, given its proven history of scaling training on coilege campuses, the military and the Forest Service. Alteristic has a deep understanding, based in research and evaluation, of what it takes to truly shift behavior real-time in a workplace based on best practices in culture change work. They are well known across the country as experts in harassment prevention approaches. The adaptation of Green Dot for the Trades was developed in Portland by real construction workers and contractors.

Additionally, the model is user friendly and accessible. It includes addressing real issues head on directly on the jobsite, it is well-structured with a variety of modules such as toolbox talks and longer trainings for influencers of the jobsite cultrue. The Green Dot concept is easy to visualize: a negative event is a "red dot," and every choice to be proactive as a bystander is categorized as a "new behavior" and thus a "Green Dot." Individual decisions (green dots) group together to create larger change and translates directly to culture change on worksites.

Lastly, preliminary evaluation conducted by Portland State University on the Multnomah County Central Courthouse (MCOCH) jobsite that piloted Green Dot proves that the training does improve the jobsite culture. In that way, this model presents real promise. None of the other models have yet been evaluated for effectiveness, but Green Dot has a history of ongoing evaluation, adaptation, and improvement. This pilot project shows that the model has demonstrated measured improvement and therefore is a model that has the potential to make real impact in addressing jobsite culture in construction.

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RISE Up

The Committee also strongly recommends RISE Up, which has many similar positive aspects. As with Green Dot, RISE Up uses a bystander intervention model to prevent bullying and harassment. The program was also developed through in-depth focus groups of women and minorities in the trades locally in the Seattle area. It is a program that was created by ANEW. a local community-based pre-apprenticeship program, who also administers the program and trainings.

Additionally, RISE Up is currently going through an evaluation process with Portland State University: evaluation of its effectiveness should be available within the next year or so. It also uses a variety of modules such as employee orientations, tool box talks, and manager training, making the curriculum easily accessible to all workers throughout the organization.

RISE Up has additional aspects the Committee found to be more comprehensive as an overall package. This includes marketing and jobsite materials, meritorship programs, organizational assessments, a Jobsite Team creation, and a 3rd party incident reporting service. RISE Up has been scaled in the Seattle area with public owners such as the

City of Seattle and Sound Transit requiring it on their jobsites. ANEW has worked with these project owners to cater the program branding as well as customize the trainings to fit their ager!

Lastly, RISE Up is actively being explo by industry leaders and has a busines structured to expand quickly, AGC Wi looking to adopt for their members as chapters across the country. Through model, RISE Up is willing to train and c local providers to administer the train

The Committee felt that the RISE Up in the most desired elements: It is scalab outlines the costs to participate, is ope and customization, covered more brea and resources beyond the training, we community partner invested in diversil is specific for construction and is afrea Seattle, includes clear policy influence developed by those most impacted by









Metro











REGIONAL RESPECTFUL WORKPLACE MODEL REVIEW COMMITTEE RECOMMENDATIONS:

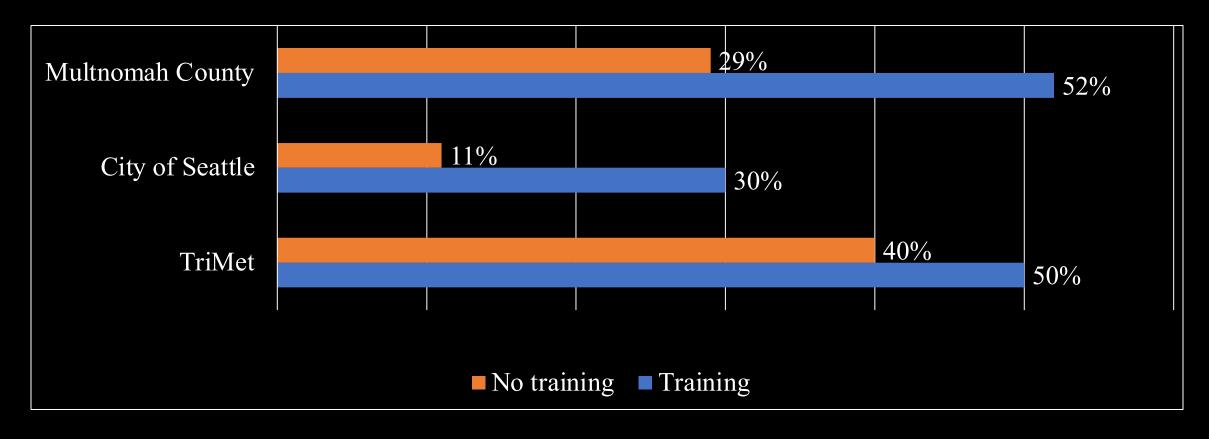
Tools to Address Jobsite Culture in Construction

Through an "affiliate" model, RISE Up is willing to train and designate local providers to administer the training locally



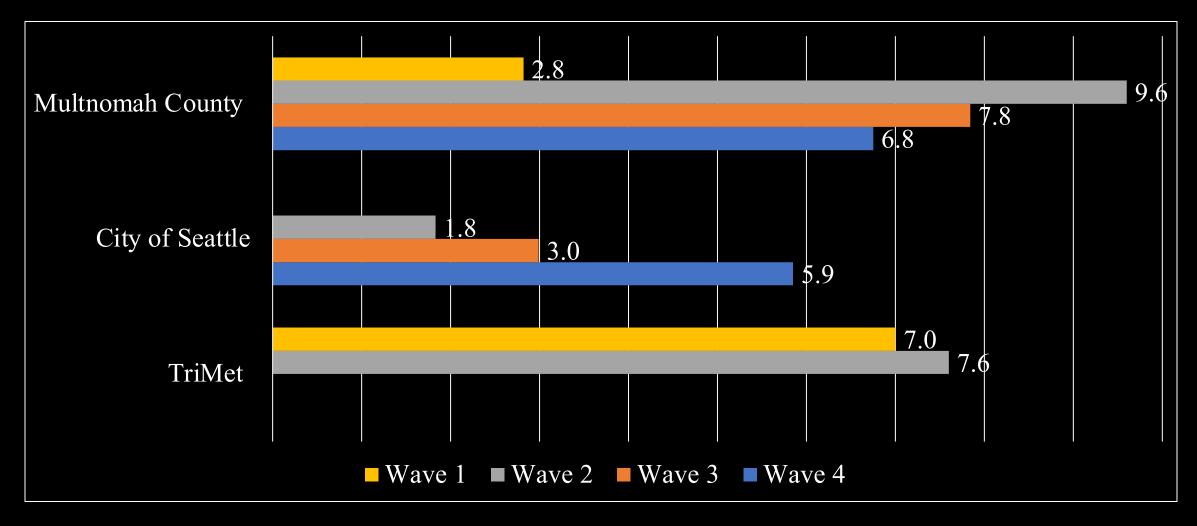
Regional Respectful Workplace Model Review Committee Recommendations

Percent of workers reporting bystander interventions in the last month at evaluation end, by training status



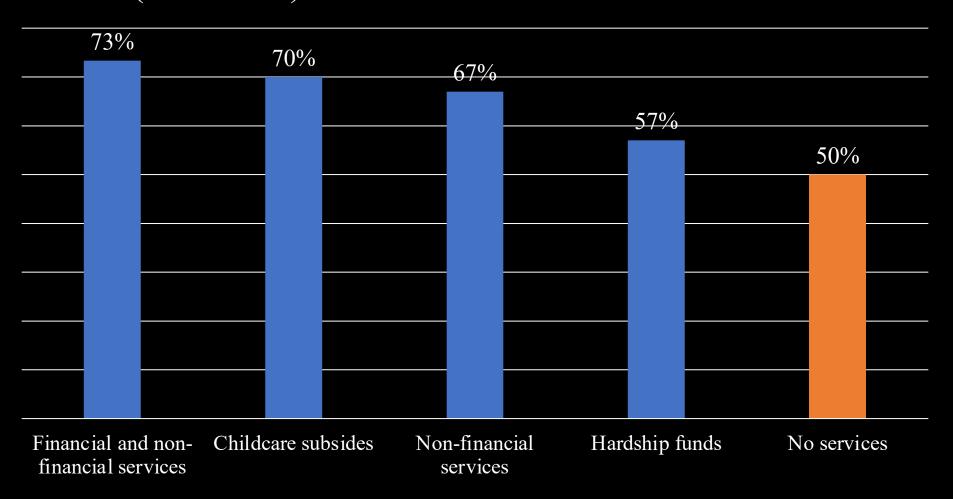
Training includes attending a train-the-trainer, manager training, bystander intervention trainings, and/or toolbox or job box talks

Mean number of instances of harassing behavior observed in the last month



In only one of three evaluations did levels of harassment (slightly) decrease over the study period.

Percent of the 2014-2015 cohort of highway trades apprentices completing an apprenticeship, by type of ODOT/BOLI supportive service (OAS data)



It helped me be able to perform the job and be confident and keep up.

~Service recipient

It really got me started and informed, made me feel like someone wants me to be successful. ~Service recipient

Non-financial support included a budget class, referrals to other service providers, and one-on-one mentoring, advice, and encouragement.

PSU Evaluation of The ODOT/BOLI Highway Construction Workforce Development Program

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Ongoing and upcoming projects

- Market Study to assess construction workforce available for the \$6B Interstate Bridge Replacement Program
- Evaluation of respectful workplace initiatives (RISE Up or Green Dot for the Trades) for Portland Community College
- 2024 evaluation of ODOT BOLI Highway Construction Workforce Development Program (study period 2022-2023)
- Ongoing availability as a public sociologist to industry stakeholders, construction workforce researchers, and news media.

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