



Oregon

Tina Kotek, Governor

HPAC Work Group Recommendation

Last Update: 10/30/2023

Work Group

Availability of land
Land development permit applications
Codes and design
Workforce Shortages
Financing

Recommendation: 5-year construction workforce development program connecting workers with jobs

- **Invest \$77 million over five years** to generate 6,000 new trained, skilled construction workers around the state whose participation in the construction workforce to fill in 50% of the gap identified by the state's Office of Economic Analysis of construction workers to meet the Exec Order housing production goals.
- **Adoption of BOLI curriculum statewide.** Develop a statewide standardized curriculum for construction trades training through adoption of BOLI-approved curriculum for apprenticeships and pre-apprenticeship programs.
- **Create new curriculum to support related fields.** Create a curriculum for construction related jobs such as surveyors, building inspectors, permit technicians, etc., to build this secondary workforce necessary for rapid housing production.
- **Local Workforce Development Boards responsible for statewide program.** Fund and use the state's 9 local Workforce Development Boards to serve as hubs of coordination, recruitment, and administration of regional construction workforce development training programs. The boards will be responsible for partnering with local employers, community colleges, ESD and regional construction programs (i.e Youthbuild, Adjudicated Youth, etc), to coordinate, recruit, and connect the governmental agencies (HECC, BOLI and Department of Education), to ensure that the community based organizations/regional needs are met. Boards will hire state and regional program coordinators, and be the funnel for direct funding to local pre-apprenticeship and apprenticeship programs.
- **Fund workers to build affordable housing.** Provide dollars to local contractors to encourage affordable housing to be built by hiring apprenticeship students and pay them a living wage. The contractors will receive a wage reimbursement fund to encourage hiring apprenticeships to work on affordable housing projects increasing the number of apprentices.
- **Support community colleges directly.** Pay for creation of mobile construction training units, staffing, and consumables for construction trade and pre-/apprenticeship related education for community college in rural areas.
- **Support education service districts and CTE classes.** Fund high school level programs with capital for staffing, consumables, equipment and facility needs.

Related Workplan Topics:

None

Adoption Date:

October 30, 2023

Method of Adoption:

Approved by Consensus by Workforce Shortages WG

Co-chairs Guidance: Standards for Analysis

- 1. Clearly describe the housing production issue that the recommended action(s) will address. Describe the barrier(s) or solution(s) the recommendation seeks to address, and how the existence of the barriers hinders production or how the solution supports production.**

The statewide scarcity of construction workers exacerbates the challenge in achieving Governor Kotek's goal of building 36,000 units annually for the next 10 years. The state's Office of Economic Analysis has identified that 12,000 new construction industry workers (net) are needed to offset the deficit of 140,000 housing units¹. The state must jump-start, develop, build, and sustain a strong pipeline of qualified, trained construction workers to bring us to a base level of trained trades workers in the state.

In order to reach the requisite number of new construction workers to meet the state's housing production goals, the construction industry must recruit from and retain a much more diverse workforce. Oregon simply cannot build 140,000 new housing units with a predominantly white, male residential construction workforce.

This recommendation would fund, expand, standardize, and incentivize existing regional vocational training programs that integrate construction employers with area youth and adult learners (who seek meaningful careers) through BOLI-approved pre-apprenticeship and apprenticeship programs administered by regional Workforce Development Boards and their districts' community colleges. It would also increase the recruitment and retention of diverse workers while developing more robust and systemic equity policies.

These workers will need to staff a wide variety of construction, installation, maintenance and repair, and production occupations, each of which require varying levels of education and training.

Critically, 12,000 additional construction workers is the *net* growth requirement; the increase in the workforce must account not only for new laborers but also replacement laborers to account for retirements, attrition, out-of-state pay differentials, and turnover as a result of the physical strain that the low-barrier-to-entry (day labor, framing, roofing) puts on the workers' body

Specifically, Oregon must increase the number of workers in the skilled trades (plumbers, electricians, HVAC technicians, etc.).

¹ Office of Economic Analysis data cited throughout this document is drawn from Josh Lehner's "Housing Construction Workforce" [presentation to the House Committee on Housing and Homelessness on 5/11/23](#).

It's critical to note that the greatest need for construction workforce increases are in occupations (painters, day laborers, fencers, etc.) that have low barriers to entry and require minimal education and training (anywhere from several weeks to one year); these jobs average earnings of ~\$50,000/year for the median workers. These workers will largely be in the pre-apprentice program.

Yet the greatest challenge to scaling the state's construction workforce will be to increase the skilled trades (electricians, plumbers, etc.), which require much more formal, established, BOLI-approved apprenticeships (typically 4 years); these jobs average earnings of ~\$80,000/year for the median worker.

Infrastructure with which to increase Oregon's construction industry workforce already exists in the state: high school and community college career and technical education programs; BOLI-approved apprenticeship programs; WorkSource Oregon-delivered vocational programs

By implementing the vocational training infrastructure recommendations above, Oregon will concurrently improve the recruitment and retention of diverse construction industry workers. However, the state will need to do and invest more to sufficiently and sustainably diversify the sector, including in areas of worksite trainings; mentorships; creation, oversight, incentivization, and enforcement of diverse workforce goals.

2. Provide a quantitative, if possible, and qualitative overview of the housing production issue. Summarize the quantitative and qualitative information available, and reviewed by the work group, that informed the analysis of the barrier or solution and led to the recommendation included in this form.

According to the Oregon Office of Economic Analysis, the state's construction industry has seen zero productivity growth in the last 40-50 years. We are currently using the same amount of labor per new housing construction start that we have for decades.

Oregon must increase the number of construction trades workers by 12,000 (net) over the next ten years. Specifically, Oregon must increase the number of workers in the skilled trades (plumbers, electricians, HVAC technicians, etc.).

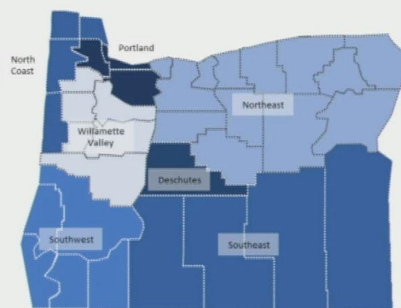
- 70% of the construction industry workforce increase will need to work in the trades.
- 30% of the construction industry workforce increase will work in other occupations (office and administrative staff, management, cost estimators, permitting, etc.)

Over the next ten years, 6,300 net new residential construction laborers with 3-12 months of general training will be required, and an additional 3,600 net new residential construction more skill-specific laborers with 3-4 years of formal apprenticeship training will be required.

We need more construction workers everywhere across the state because we need more housing everywhere. The regional distribution of necessary construction industry workforce growth is as follows:

Region	Number of Housing Units of Historical Underproduction plus Housing for the Homeless	Proportionate Allocation of Additional Workers in Construction, Installation, Maintenance & Repair, and Production Occupations	Proportionate Allocation of Additional Workers in All Other Industry Occupations
Portland Metro	70,200	5,150	850
Willamette Valley	44,900	3,300	550
Southwest	14,900	1,100	175
Deschutes	6,000	425	75
North Coast	2,600	200	25
Northeast	900	75	10
Southeast	500	50	10
TOTAL	140,000	10,300	1,700

Regions Used in the Oregon Housing Needs Analysis



The increase in the construction industry workforce must account not only for new laborers but also replacement laborers to account for retirements and attrition; it's difficult to recruit and train workers in a tight labor market, and Oregon's construction industry labor market is predicted to remain structurally tight due to demographics with increased retirements as well as slower gains due to low state birth rates and slower migrations.

Growth in the housing construction industry workforce is undermined by current wage trends; residential construction pay (\$54,000 annually) within the state of Oregon is below the state average (\$64,000 annually). There is also currently a large difference between residential and nonresidential (\$86,000 annually) construction wages. Those workers with more experience and skill are thus moving to the non-residential construction industry to earn a higher wage.

Housing construction industry also needs more entrepreneurs: housing construction underwent an industry consolidation following the 2007-2008 Great Recession "bubble burst". The result is that Oregon now has 1,300 fewer residential construction companies than expected (the number of construction firms as a share of the economy remains lower than in the pre-bubble era).

According to Worksystems, additional barriers impeding the growth of the construction industry workforce include both the sector's systemic lack of diversity and the systemic workplace bias experienced by historically underrepresented demographics (women, BILAPOC, etc.). These issues undermine the sector's ability to successfully recruit and retain diverse workers.

- Recruitment of all skilled trades apprentices is primarily through referrals, which largely reproduces a white male workforce.
- There's a lack of uptake of diversity, equity, inclusion and belonging policies and practices among private construction companies/employers
- As mentioned above, residential construction pay in the state of Oregon is below the state average, and marginalized workers are less likely to earn as much as their white, male counterparts and are less likely to have stable or consistent employment.
- Outreach and marketing efforts for pre-apprenticeship and apprenticeship opportunities are largely not targeted for marginalized communities
- Construction industry culture is often hostile, fosters a need to "prove yourself", enables harassment, isolation, and overt discrimination
- Diverse workers currently have limited support for mentorship
- Retaining diverse workers is further challenged by the affordability of and access to childcare statewide

- 3. To assess the issue and potential action(s), include subject matter experts representing all sides of the issue in work group meetings, including major government, industry, and stakeholder associations. List the observers and participating SMEs at the work group meetings as the recommendation was developed. Identify which participating SMEs provided information to the work group and how. Summarize the information and perspective provided by the participating SMEs. If the participating SMEs expressed disagreement or concern with the work group recommendation, describe the reason.**

Heather Ficht, East Cascade Works
Kelly Haines, Work Systems
David – Lane County CTE Programs
Portland State Community College
Andre Bealer, Workforce Equity Program Manager, Metro
Pat Daniels, Constructing Hope
Jim Taylor, OHCS
Kerry Thomas, Future Ready Oregon
Jennifer Purcell, Future Ready Oregon
Kerry Rodriguez, Apprentice Manger, BOLI

- 4. Provide a quantitative, if possible, and qualitative overview of the outcome of the recommended action(s). Outline the impact of the recommendation on housing production.**

Infrastructure with which to increase Oregon's construction industry workforce already exists in the state: high school and community college career and technical education programs; BOLI-approved apprenticeship programs; WorkSource Oregon-delivered vocational programs.

Within the trades, 84% of construction occupations have some form of existing apprenticeship programs in Oregon.

An existing model that could be used to create a statewide program is found in Central Oregon, under the leadership of East Cascades Works (the region's local Workforce Development Board), utilizes existing training infrastructure and offers a scalable prototype which can be implemented statewide to build and train the construction workforce pipeline needed to end Oregon's affordable housing crisis.

- The Central Oregon partnership successfully builds the trades workforce in the Deschutes County, Jefferson County, and Crook County region while providing local, living-wage careers for individuals across the district.
- The program is rooted in a workgroup convened since 2017 by East Cascades Works called the Central Oregon Construction Sector Partnership. This partnership unites nearly 40 construction industry partners to solve their most pressing challenges with the support of regional partners including secondary and post-secondary education providers, non-profits, and industry associations.
- This problem-solving and collaboration has resulted in alignment of trades curriculum from high school through post-secondary education to adult workers seeking a career change.

- The program model is based on a clear trajectory from pre-apprenticeship to apprenticeship opportunities that has generated a strong pipeline of new workers ready to hit the ground running on the job.
- Central Oregon Community College (COCC) and High Desert Education Service District ensure curriculum alignment and coordination with High School Career Technical Education (CTE) programs, as well as private and alternative schools to offer students the pre-apprenticeship program.
- Central Oregon Community College also provides Heart of Oregon Corps (regional YouthBuild Program), and J Bar J Boys Ranch of Adjudicated Juveniles with instructors and facilities such as a mobile classroom in order to deliver the curriculum to youth ages 16 – 24 years.

Here's how Central Oregon Construction Sector Partnership training programs are deployed:

- Central Oregon Construction Sector Partnership Pre-Apprentice Programs: Providing trained workers for entry-level construction jobs and pathways to apprenticeship
 - Student age: 16 and older
 - Program length: 3-8 weeks long, with few barriers to entry
 - Curriculum offered: BOLI-approved curriculum, nationally recognized National Center for Construction Education & Research curriculum, industry sector-informed curriculum
 - Skills: Programs are based on specifically identified skills by regional employers, including job-site and tool safety, entry-level construction skills, and soft skills employers require such as punctuality and professionalism
 - Credits: High school student participants earn both high school and community college credit for completing the course. Adult learners earn community college credit
 - Mobile Pre-apprenticeship Classroom: This mobile truck-and-trailer allows community college to serve rural, tribal, and homeschooled communities by taking the classroom to these populations
 - Ready for Work: Successful students who complete these program completers can be hired the day their course concludes and be on a residential construction job site that day, ready to help frame a house under direction of a foreman
 - Costs:
 1. High School/Youth Program: Participants do not pay to attend these programs. If they're attending via their high school or youth program, their organization pays for community college's instructors, materials, and curriculum
 2. Adult Learners: East Cascade Works (local WorkSource board) pays community college's program costs and pays the participant a weekly stipend for attending the course
- Central Oregon Construction Sector Partnership Apprentice Programs: Providing trained workers for construction job leads, foremen, master carpenters, journeymen.
 - Student age: 18 and up; must be hired/sponsored by participating employer to participate
 - Program Length: Typically 4 years
 - Skills: Available in a wide variety of skilled trades, the programs are BOLI-registered, employer-sponsored
 - "Earn While You Learn": Apprenticeships are designed for participants to earn while they learn; community college apprentices are guaranteed pay raises by their

sponsoring employer every six months of the apprenticeship program, and they earn college credit from community college offering the training

- Journeymen & Future Construction Entrepreneurs/Business Owners: Those who complete an Apprenticeship program are considered masters in their trade – many industries refer to these individuals as Journeymen

- 5. Provide an estimate of the time frame (immediate, short, medium, long-term), feasibility (low, medium, high), and cost (low, medium, high) for implementation of the recommended action(s).** *Outline the work group's estimate of the time for implementation of the recommendation and its impact on housing production once implemented. Describe the work group's assessment of the feasibility of the recommendation being implemented and feasibility of success. Provide any estimates on the cost for implementation.*

Time Frame - Medium/Long Term

Feasibility – Medium

Cost – Medium

- 6. Provide a general overview of implementation, the who and how for the recommended action(s).** *To the extent the work group knows, is this implemented in state statute or rule, by the state or local government, by a particular agency, etc.*

Detailed outline of the \$77 million investment in this 5-year construction workforce development initiative for continued pipeline of construction workers across the state.

- Adopt the BOLI-approved programs as a statewide curriculum:** Utilize the BOLI certified pre-apprenticeship and apprenticeship programs in Oregon using the NCCER standards/curriculum delivering a consistent/duplicatable construction education program statewide. [NO ADDED COST]
- Expand BOLI curriculum to other construction related jobs:** Including surveyors, building inspectors, permit technicians, designers, etc. that private employers or municipalities can hire. [NO ADDED COST]
- Fund the local Workforce Development Boards:** Utilize the existing local workforce board infrastructure to activate WorkSource Oregon as well as leverage their use of the state's sector partnership model to bring together industry leaders. The regional workforce board is key in leading and coordinating employment partners and the training programs so that the training and the outcomes meet the specific needs of the region.
 - Pre-Apprenticeship cohort/student Training: Local workforce boards to coordinate and fund BOLI-approved pre-apprenticeship programs delivered by community-based organizations and/or community colleges statewide. [\$27 MILLION]
 - Staffing: This funding will be invested in a workforce state coordinator and local construction industry coordinators. [\$5.5 MILLION]
- Incentivize hiring pre-apprentice workers to build Oregon's affordable housing units:** Create a reimbursement wage program to encourage construction employers (private,

public/municipalities or non-profit developers/contractors) to hire pre-apprenticeship completion achievers and ensure a living-wage job, continuing on the job training and advancement within the company. Specifically, a reimbursement would be available for these hired employees from the program (verification would be required) for wages paid on affordable housing projects and/or shelter for the homeless for that individual compounding for the next 5 years. [\$15 MILLION]

e. Support Community Colleges [\$12 MILLION]

- i. Hire Educators: Programs struggle to hire teachers who are Invest in mobile unit infrastructure: To support equitable access, mobile units are a highly valuable component of expanding construction workforce development to communities across the state where facilities for training are scarce. An investment of 2 mobile units in each local workforce area to access rural communities and tribal regions and to create equitable opportunities by bringing the classroom to the students. The local construction coordinator by the Workforce Development Board could have discretion on what is needed for mobile units. NOTE: Mobile Units maybe better served through the ESD due to regional specifics.
- ii. willing to leave high-paying construction jobs to provide classroom training. Add 2 competitively funded positions (averaged) based on workers to support needed housing analysis to entice quality educators

f. Support Educational Service Districts (ESD)/ High School Construction Technical Education (CTE) Programs and/or Community Based Non-Profit Organizations [\$18 MILLION]

- i. Reimbursement Dollars for Students Constructing Emergency Shelters: Through affordable housing dollars contribute to ESD, CTE and CBO programs providing an amount per enrolled youth/young adult that assists in constructing homeless shelters throughout the state.
- ii. Grants for Facility Upgrades for ESD/HS CTE Programs: Grants committing to High School CTE programs focused on construction and ESD programs, utilizing the BOLI-approved curriculum and providing credits. Grants available for facility upgrades and modern technology for learning supporting and enhancing our construction focused CTE programs and Educational Service District supporting both our urban and rural schools.
- iii. Grants for supporting construction learning/removing barriers ESD/HS CTE Programs AND CSB Programs: Grants committing to High School CTE programs focused on construction and ESD programs AND CSB programs, utilizing the BOLI approved curriculum and providing credits. Grants can be applied for training materials, upgraded/modern equipment and technology, and removing barriers for learning (i.e. laptops, internet access, etc.).

By implementing the vocational training infrastructure recommendations above, Oregon will concurrently increase the recruitment and retention of diverse construction industry workers — thus making the industry more equitable — by:

- Ensuring steady funding streams to increase capacity of pre-apprenticeship programs
- Increasing direct entry from pre-apprenticeship in apprenticeship programs
- Coordinating additional outreach and referral efforts across regions through partnerships with trusted and diverse community organizations and community leaders
- Increasing monitoring of on-the-job training of apprentices by well-trained experts
- Increasing and improving ongoing supportive services for apprentices

- Improving and ensuring a transparent system for workforce reporting and monitoring
- Adopting shared policies and processes across agencies
- Creating consistent opportunities for connections across sectors to collectively problem solve

Oregon must do more to dramatically improve the recruitment and retention of diverse construction industry workers by:

- Addressing construction job site culture through respectful workplace trainings with proven results
- Formalizing mentorship resources for diverse workers
- Enforcing contract goals, with consequences for non-compliance
- Improving oversight to achieve diverse workforce goals on public projects
- Creating contractor incentives in bidding process for past equity performance and compliance

7. Outline the data and information needed for reporting to track the impact and implementation of the recommended action(s). *Identify the data the Governor's Office would need to track to determine if the recommendation is increasing housing production.*

- **Utilize the Regional Housing Needs Analysis/OHNA to set benchmarks** around the state for how many new construction workers must be generated in each region to achieve our goals.
- **Developed, implement, and refine a tracking system to ensure accountability.** The state does not currently collect aggregated data among vocational and apprenticeship programs on how many individuals complete these programs, nor on how many individuals move through the available training pipelines and successfully enter (and keep) a job in the construction industry.
- **Establish & Track public project workforce projects:** The non-profit organization WorkSystems states that the majority of public projects currently have no workforce goals. Where goals do exist, a lack of transparent and accessible data, monitoring, and enforcement undermines the efficacy and intended purpose of these goals.
- **Track that statewide equity policies** and practices to promote the recruitment and retention of a diverse workforce, Oregon must:
 - Enforce contract goals, with consequences for non-compliance
 - Improve oversight to achieve diverse workforce goals on public projects
 - Create contractor incentives in bidding process for past equity performance and compliance
 - Improve and ensure a transparent system for workforce reporting and monitoring
 - Adopt shared policies and processes across agencies

8. Identify any major unknowns, tradeoffs, or potential unintended consequences. *Based on the work group's analysis and information provided by participating SMEs, outline what is unknown, the tradeoffs exist by implementing the recommendations, and any known potential unintended consequences.*

By encouraging local contractors to hire apprenticeship you may get less skilled oversight on affordable projects. This may result in a longer construction time frame due to affordable housing projects having less experienced employees.

Please include any relevant reports, data analyses, presentations, or other documents that would be informative and useful for the full HPAC as the recommendation is discussed and considered.