



# A BLUEPRINT FOR PROGRESS: ADVANCING A BOLD HOUSING VISION

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## I: Executive Summary

MBCB is a consulting company that specializes in market research and analysis focused on engaging populations that are often underrepresented and underserved as a funnel for increasing workforce capacity in the trades. Our thesis focuses on a “business first” principle. Specifically, we start with an examination of the actual skills and knowledge required by potential employees to successfully participate in the trades as an equally contributing team member. Thus, our recommendations focus on building A level employees from among cohorts that have been underutilized due to lack of outside of the box thinking when it comes to engagement, training and development of workforce participants with unique traits.

Our unique approach was developed by our Founder, Steve Johnson, who was a career player for the National Basketball Association (NBA). Steve drew from engagement, training, professional development and team building approaches that worked successfully in the NBA to build A Level ball players to develop a strategy to build A level employees in the trades. The NBA recognized that the cohort of players that were frequently targeted for recruitment had unique cultural traits that could be leveraged to create world class barriers and concurrently must be addressed to ensure that players were in sync with the league’s priorities.

Likewise, the trades function at worksites as groups of workers that each need to be experts in their role to function as a high performing team. However, trade skills are just one part of the equation, cultural differences must be addressed to ensure effective motivation, communication, and clarity on the project goal. This is where MBCB comes into play. The trades have many workers with shared characteristics. For instance, many tradesmen in Oregon are white, males. However, there is opportunity to pull from groups outside of this “norm” to beef up the capacity of this workforce. To train and develop A level workers from other cultures, it is important to understand the differences in how other cultures are engaged and motivated.

The first step is acknowledging that there are large swaths of underemployed persons from these underrepresented and underserved groups that are seeking a job in which they can make a living wage and build intergenerational wealth. However, they are not being adequately engaged because they do not fit into the stereotypical worker persona of an Oregon Tradesman. Members of underrepresented groups who have already broken through these norms to build successful businesses recognize this capacity gap and have already begun to tap into recruiting from these cohorts.

In that the Governor's initiative to build 36,000 new residential units a year for 10 years recognizes a deficiency in current capacity and construction throughout the United States as well as the world recognizes there are a dearth of workers it's only logical to begin to focus on how to successfully draw from this potential workforce pool for this initiative (Associated Builders and Contractors, 2024).

To accomplish meeting capacity needs, this report focuses on how to draw new workers into residential housing immediately in years 1 - 3 as well as developing a pipeline for continued workforce participation and growth from years 4 through 10.

To build a strong and sustainable pipeline into the construction industry and close persistent disparity gaps, it is crucial for the industry to re-engage at scale with both K-12 and post-secondary education to create meaningful opportunities for underrepresented groups. However, true progress requires more than educational initiatives alone. A significant challenge arises when students enter the trades but lack authentic relationships with mentors and professionals who reflect their backgrounds and can provide the guidance, training, and support needed to achieve their aspirational goals.

Therefore for years one through three this report highlights the critical need to invest in contractors that look like and are culturally competent in engaging and motivating the underrepresented and underserved groups that we seek to engage —individuals who serve as primary recruiters, come from these shared communities, share the experiences of the members of these groups, and already play an integral and successful role in skill-building and workforce development. Their involvement not only fosters meaningful connections, increases representation, and opens doors to underserved people to have new opportunities, but also ensures that the construction industry thrives through expanding their potential pool of workers.

Furthermore, it is imperative that contractors that have themselves risen out of underrepresented groups and underserved communities have a seat at the table where policies are shaped and resources allocated. Their voices are essential in influencing decisions that directly impact the future of workforce development at scale, ensuring strategies are effective and culturally reflective of the communities they aim to uplift.

## II: Introduction

### Governor Kotek's Executive Order 23-24

In January 2023, Governor Tina Kotek took decisive action to address Oregon's housing crisis, signing Executive Order 23-04 on her first day in office. This landmark initiative established a bold target: the construction of 36,000 housing units annually, marking an 80% increase in housing production statewide. This ambitious goal seeks to alleviate Oregon's current housing shortage while keeping pace with projected population growth, addressing a challenge that has persisted across urban and rural communities alike.

The Executive Order highlights three interconnected priorities to address Oregon's housing needs:

1. **Responding to the Homelessness Crisis:** Recognizing the urgent need to reduce and prevent homelessness, the Governor declared a state of emergency to mobilize resources and accelerate solutions.
2. **Increasing Housing Supply:** Accelerating the pace of construction with innovative approaches, improved efficiency, and increased investments across all housing affordability levels.
3. **Promoting Equity and Accessibility:** Embedding equity, inclusion, and accessibility into housing production efforts, with a focus on ensuring that all Oregonians, especially those in historically underserved communities, benefit from the initiative.

To guide this effort, the Housing Production Advisory Council was created to develop strategies and solutions that not only boost housing production but also ensure alignment with the state's equity and economic mobility goals. Central to this mission is addressing the severe shortage of skilled workers in the construction industry, which has become a key bottleneck in delivering affordable housing at scale.

### The demographics of the underrepresented groups and underserved communities targeted in this report.

Throughout this report we will refer to underrepresented groups and underserved communities. These cohorts are defined as:

#### **Underrepresented groups**

Potential members of the workforce that are currently underemployed or open to opportunities in careers which provide a living wage and the potential to build intergenerational wealth and who do not fit into the demographic norm of the Oregon Trades

worker or Residential Construction Business Owner. Specifically, the demographic norm of the Oregon Trades worker and Residential Construction Business Owner are peoples and businesses that would not meet COBID guidelines (Oregon Department of Administrative Services, n.d). Therefore, typical underrepresented population demographics in the construction industry include Women, BIPOC persons, Veterans, People with Disabilities, Emerging Small business.

### **Underserved Communities**

Underserved Communities are even broader, drawing from communities of people that have additional barriers to participation in this initiative due to lack of resources (Survey Analysis, 2024). For example, economic challenges, special needs such as ADA requirements and childcare, legal barriers such as formerly incarcerated and immigrants. Many people from underserved communities also meet the definition of underrepresented.

### **The Role of MBCB**

MBCB Consultants (Minority Business Capacity Building), led by Steve Johnson, was contracted to conduct research with a specialized focus on equity and the unique needs of underserved populations. This work addresses both current stakeholders in Oregon's residential construction industry and prospective future stakeholders who have the potential to contribute to the industry's growth and diversity.

As a minority-owned business with deep roots and a robust network of business and educational leaders in the residential construction sector, MBCB brings a distinctive and authentic perspective to this effort. This perspective is grounded in a clear understanding of the systemic barriers faced by historically marginalized communities and is informed by decades of leadership in promoting opportunity for all.

MBCB's approach is distinguished not only by its extensive expertise but also by its empathetic methodology. The team's commitment to fostering trust and authentic connections enables them to engage research participants in a manner that values their lived experiences and encourages open and honest dialogue. By creating an environment where participants feel heard and respected, MBCB ensures that the findings and recommendations emerging from this study are grounded in real-world insights and reflect the voices of those most impacted by the challenges facing Oregon's construction workforce.

This research reflects also MBCB's broader mission to empower communities of color and other under-served populations by fostering equal access to education, training, career opportunities, and authentic relationships that lead to success. Through this work, MBCB aims to not only identify existing gaps and barriers but also to propose actionable strategies that will enable Oregon's residential construction industry to thrive while becoming more inclusive and equitable for all.



# A Brief History of Underrepresented Groups in Oregon's Construction Industry

## Introduction

The history of Oregon's construction industry reflects a long-standing pattern of exclusion and systemic barriers faced by underrepresented groups. This report provides a chronological analysis of key events, policies, and organizations that have impacted marginalized communities in construction, alongside efforts made to address these inequities.

## 19th Century

### *1860s–1880s: Chinese Labor and Exclusion Policies*

Chinese immigrants played a significant role in Oregon's early construction industry, particularly in railroad building. However, discriminatory policies such as the Chinese Exclusion Act of 1882 severely limited their workforce participation (Fang, 2021).

### *Late 1800s: African American Exclusion Laws*

African Americans faced systemic labor force barriers due to Oregon's exclusionary state constitution, which initially prohibited Black individuals from settling in the state (Oregon Encyclopedia, n.d.).

## 20th Century

### *1940s: Hispanic Workers and the Bracero Program*

- During World War II, Hispanic laborers were recruited through the Bracero Program to fill labor shortages, including construction work. Despite their contributions, they encountered discrimination and limited career mobility (Oregon Encyclopedia, n.d.).

### *1950s–1970s: Civil Rights and Workforce Equity*

- The Civil Rights Movement raised awareness about employment discrimination, prompting federal mandates for non-discriminatory hiring practices (Oregon Secretary of State, n.d.).

### *1970s: Minority Apprenticeship Initiatives*

- The U.S. Department of Labor and Bureau of Apprenticeship and Training initiated programs to promote minority participation in apprenticeship programs within Oregon (Oregon Bureau of Labor and Industries, n.d.).

### *1980s: The Founding of the Oregon Association of Minority Entrepreneurs (OAME)*

- OAME was established in 1987 to support minority-owned businesses in construction and other industries by providing technical resources and financial support. Despite these efforts, many minority-owned businesses struggled to achieve parity with their white counterparts (Oregon Secretary of State, n.d.).

### *1980s–1990s: Women in the Trades*

- Increased advocacy from organizations like Oregon Tradeswomen led to greater awareness of the barriers women faced in construction, spurring efforts to improve gender equity in the field (Oregon Tradeswomen, n.d.).

## **21st Century**

### *2000s: Expanding Minority Contractor Support*

- The National Association of Minority Contractors-Oregon (NAMC-Oregon) gained prominence, focusing on training and empowering minority contractors (NAMC-Oregon, n.d.).
- Programs supporting formerly incarcerated individuals emerged, aiming to reintegrate them into the workforce with construction skills training (Oregon Bureau of Labor and Industries, n.d.).

### *2010s: Workforce Equity Partnerships*

- The Oregon Bureau of Labor and Industries collaborated with local organizations to address disparities in public infrastructure projects (Oregon Legislature, n.d.).
- Vocational rehabilitation programs partnered with Oregon’s Department of Human Services to provide job accessibility support for people with disabilities entering construction (Oregon Bureau of Labor and Industries, n.d.).
- LGBTQ+ inclusion efforts within construction began to take shape, though progress was slower than in other areas (Prosper Portland, n.d.).

### *2019: The Founding of LatinoBuilt*

- LatinoBuilt was established in Oregon to advocate for Hispanic and Latinx contractors. The nonprofit focuses on increasing access to resources, training, and business opportunities for Latino-owned construction firms. LatinoBuilt’s advocacy efforts parallel NAMC-Oregon’s work in supporting Black contractors (LatinoBuilt, n.d.).

## 2020s: Modern Advancements and Challenges

### 2021: Minority-Owned Firms Leading Infrastructure Projects

- Raimore Construction, a minority-owned firm, played a lead role in major public infrastructure projects, such as the I-5 Rose Quarter project, prioritizing inclusive hiring and subcontracting (Prosper Portland, n.d.).

### 2022: Reintegration and Workforce Development Initiatives

- Programs like Constructing Hope expanded efforts to support formerly incarcerated individuals through construction training (Constructing Hope, n.d.).
- Pre-apprenticeship programs in Oregon high schools increased participation among women, veterans, and people of color (Oregon Bureau of Labor and Industries, n.d.).

### 2023: Strengthening Business Inclusion and Certification

- The Certification Office for Business Inclusion and Diversity (COBID) increased support for minority-owned businesses, improving access to public contracts (Oregon Department of Administrative Services, n.d.).
- Future Ready Oregon launched funding for equity-focused workforce development programs, although construction was notably left out of the initiative (Prosper Portland, n.d.).

### 2024: Ongoing Systemic Barrier Reduction

- Collaborative partnerships between NAMC, LatinoBuilt, Constructing Hope, and public agencies have focused on addressing systemic barriers such as funding gaps, childcare, and workplace inclusion (Prosper Portland, n.d.).
- Targeted programs to support LGBTQ+ construction workers were introduced, emphasizing workplace safety and mentorship (NAMC-Oregon, n.d.).

## Summary

The construction industry in Oregon has historically marginalized underrepresented groups, but advocacy efforts and policy initiatives have progressively worked to bridge these inequities. Organizations like NAMC-Oregon, LatinoBuilt, and Constructing Hope continue to play a crucial role in ensuring diversity, equity, and inclusion in the field.

## Timeline References

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### III: Current Landscape of The Oregon Construction Industry

#### General Demographics of the Construction Industry

Although Oregon is predominately white (73.9%), a majority of the state population identifies with, and faces challenges from, at least one minority group (Figure 1.) (Oregon Metro, 2016; Survey Analysis, 2024). Minority populations include (but are not limited to) Women, BIPOC, Hispanic, English as a Second Language, LGBTQ+, and socioeconomic class.

**Figure 1. Approximate Percent Minority Populations in Oregon State**

<b>Demographic Group</b>	<b>Percentage of Oregon’s Population</b>
Female	50.5%
Low-Income	37%
Language other than English Spoken at home	15.1%
Hispanic or Latino (of any race)	14.9%
With a disability (under age 65)	10.8%
Veterans	7.4%
LGBTQ+	5.6%
Asian	5.2%
Two or More Races	4.4%
Black or African American	2.4%
Native American and Alaskan Native	1.9%
Native Hawaiian and Other Pacific Islander	0.5%

Currently Oregon’s construction industry employs about 118,200 people - about 5.9% of the state population - on a seasonal basis (Cooke, 24). As of 2016, only 4% of this industry was made up of women, with the other 96% being men (Oregon Metro, 2016). This means of approximately 2,349,805 women in Oregon, only 4,728 of them are in construction (0.002%). Meanwhile, the percentages of Hispanic, Black, Asian, and White individuals are closer to matching their percent population state-wide in that same year (Figure 2.) (Oregon Metro, 2016).

## Deficits and Opportunities

If the government is going to be able to meet the workforce demand for this project, it is likely the government through RFP process, the Oregon educational system, and other stake-holders in the construction industry, will need to attempt to appeal to the female audiences in addition to the minority male audiences, since they make up the majority demographic in Oregon State.

Further, although other represented groups more closely match their percent population state-wide, these groups have disproportionate poverty rates thus identifying them as underserved and underemployed (Oregon Center for Public Policy, 2020). Thus, an opportunity to enter a career pathway in the trades is an enticing incentive to pull significantly more workers and potential small business owners into the residential construction sector.

**Figure 2. Approximate 2016 Racial and Ethnic Demographics of the Oregon Construction Industry (Metro Stats)**

<b>Race and Ethnicity</b>	<b>Percent of Oregon Construction Industry</b>
Hispanic	14%
Black	2%
Asian	2%
White (Non-Hispanic)	82%

## Residential Construction Roles

The residential construction industry encompasses a wide array of roles, ranging from entry-level positions to highly skilled trades and managerial roles. At the core of the industry are skilled trades such as carpenters, electricians, plumbers, roofers, drywall installers, painters, and HVAC technicians (Figure 3) (Bureau of Labor Statistics [BLS], 2024). These workers are critical for the construction, installation, and maintenance of housing units. Entry-level laborers also play an essential role by supporting skilled trades, performing tasks like material handling, site preparation, and demolition (Figure 3). Beyond the hands-on work, supervisory positions such as superintendents, project managers, and site foremen oversee construction projects, ensuring they are completed on schedule and meet quality standards. Administrative roles, including estimators, schedulers, and safety coordinators, are equally vital in managing logistics, budgets, and safety compliance.

### Deficits and Opportunities

Many conversations with interviewees and focus group members spoke to the fact that - especially in residential construction- it was most difficult to engage workers from skilled trades which require certification and licensure. However, they did state that there were many workers that started as Laborers and developed significant on-the-job skills development who would be qualified to perform a significant portion of skilled work if there were a formal certification for the role of multi-tradesperson.

In addition, as sustainability becomes a growing priority, the demand for green building specialists and energy-efficiency consultants continues to rise. Finally, new technologies such as 3D printing and AI require an entirely new set of skilled workers to enter this sector (AGC, 2025).

**Figure 3: Union Trade Data**

Trade	Union Hourly Wage <sup>1</sup>	Education Requirements <sup>3</sup>	Physical/Mental Capabilities <sup>4</sup>	Resources <sup>5</sup>
Carpenter	\$43.80	High school diploma; apprenticeship	Physical stamina, manual dexterity, problem-solving skills	<a href="#">AGC Oregon</a>
Electrician	\$29.57	High school diploma; apprenticeship; state license	Color vision, hand-eye coordination, troubleshooting skills	BOLI Apprenticeships
Plumber	\$28.53	High school diploma; apprenticeship; state license	Physical strength, analytical skills, attention to detail	<a href="#">Oregon CCB</a>
HVAC Technician	\$44.81	High school diploma; technical school; apprenticeship	Mechanical aptitude, problem-solving, customer service skills	<a href="#">Rogue Community College</a>
Painter	\$28.75	High school diploma; on-the-job training	Steady hand, attention to detail, color vision	<a href="#">Trade Schools in Oregon</a>
Mason	\$43.80	High school diploma; apprenticeship	Physical strength, hand-eye coordination, precision	<a href="#">AGC Oregon</a>
Roofer	\$29.57	High school diploma;	Balance, physical	BOLI

		on-the-job training	stamina, ability to work at heights	Apprenticeships
Sheet Metal Worker	\$28.53	High school diploma; apprenticeship	Technical skills, precision, ability to read blueprints	<a href="#">Oregon CCB</a>
Laborer	\$44.81	High school diploma; on-the-job training	Physical endurance, teamwork, basic math skills	<a href="#">Rogue Community College</a>
Operating Engineer	\$28.75	High school diploma; apprenticeship	Mechanical skills, coordination, attention to safety	<a href="#">Trade Schools in Oregon</a>

**Figure 4: Union Leadership/Management Role Data**

Role	Average Annual Salary	Education Requirements	Essential Skills	Resources
Construction Manager	\$104,900 <a href="#">Bureau of Labor Statistics</a>	Bachelor's degree in construction management, civil engineering, or related field; on-the-job training	Leadership, project management, budgeting, scheduling, problem-solving, communication	<a href="#">Bureau of Labor Statistics - Construction Managers</a>
Project Manager	\$120,859 <a href="#">Salary.com</a>	Bachelor's degree in construction management, civil engineering, or related field; PMP certification preferred	Project planning, risk management, communication, budgeting, scheduling, leadership	<a href="#">Salary.com - Project Manager - Construction Salary in Oregon</a>
Site Supervisor	\$93,269 <a href="#">Salary.com</a>	High school diploma; extensive construction experience; supervisory training programs	Team leadership, safety management, quality control, communication, problem-solving	<a href="#">Salary.com - Construction Project Supervisor Salary</a>
General Contractor	Varies widely; median around \$75,526 <a href="#">PayScale</a>	High school diploma; extensive construction experience; state contractor's license required	Project management, budgeting, contract negotiation, knowledge of building codes, leadership	<a href="#">PayScale - Construction Supervisor Salary</a>



Estimator	\$87,752 <a href="#">PayScale</a>	Bachelor's degree in construction management, engineering, or related field; on-the-job training	Analytical skills, attention to detail, proficiency in estimating software, understanding of construction methods	<a href="#">PayScale - Construction Project Manager Salary</a>
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## Career Pathways into the Trades

There are many pathways into careers in residential construction, offering options for people at all levels of experience. Pre-apprenticeship and apprenticeship programs are among the most structured and effective entry points. Pre-apprenticeships introduce participants to the construction industry (Figures 5 and 6), while apprenticeships combine hands-on training with classroom instruction, often leading to certifications and journey-level status (Bureau of Labor and Industries [BOLI], n.d). High schools offering Career and Technical Education (CTE) programs in construction technology, drafting, and design prepare students for immediate entry into the workforce or further training. Additionally, on-the-job training (OJT) provides another common route, where new workers learn directly from experienced tradespeople without a formal program. For those seeking specialized knowledge, community colleges and technical schools offer certifications and associate degrees in areas like construction management, carpentry, and HVAC. Finally, unions play a role by providing job referrals, training pipelines, and career advancement opportunities through structured apprenticeship programs.

## Deficits and Opportunities

Interviewees and focus group participants have discussed three primary pathways for people from underserved and underrepresented groups to enter the trades which provide a culturally competent support system:

1. *Referrals of people from underserved populations from within their family and communities.* Specifically, these are people who have had challenges -for a myriad of reasons- entering the workforce or sustaining employment outside of their communities and are then referred by members of their family or community organizations, such as churches and other community groups, to “go to work” with another person in the community who has a job or leadership role in the trades. This informal network needs to be more fully accessed by government and contractors via public awareness campaigns, direct marketing and direct incentives to workers and contractors that are engaged in this type of capacity building.

2. *Trades organizations representing various underrepresented populations such as NAMC, Oregon Tradeswomen and Latino Built.* These organizations have more “street credit” and trust out of the gate given that the organizations are led by people that look like those seeking employment or to build a business in the trades. These organizations should be leveraged as heavily as the unions to serve as a feeder for training up a more skilled workforce.
3. *Minority led Prime and Subcontractors.* This group is perhaps the best place to start in years one through three in building capacity among underrepresented and underserved groups. They are actually a subgroup of 1. *Referrals of people from underserved populations from within their family and communities* in that many of these businesses have very deep ties to underserved communities. They also have the expertise and resources to train up workers quickly and effectively. Although these groups are targeted by COBID to participate in projects, government initiatives to increase workforce could benefit from offering separate incentive to these businesses to take on a more formal role in training up new workers and small businesses.

Finally, significant emphasis during the interviews was placed on the need to develop additional pathways for career growth in the trades via micro-credentialing and formalizing a multi-trades certified career pathway.

**Figure 5: Youth Pre-Apprenticeship Programs**

Name	Location	Geographic Location	Typical Enrollment Size	Financial Capacity	Targeted Audience	Completion Rate
Beaverton School District Construction Technology	Beaverton, OR	Urban	38,000 (General School Population)	Funded by school district and local grants	High school students	88% (General School population)
Benson High School	Portland, OR	Urban	824 (General School Population)	School district funding with industry partnerships	High school students	92%(General School Population)
Cascadia Technical Academy	Vancouver, WA (serves Oregon students)	Urban	1,487 (General School Population)	State and federal funding	High school students, including cross-border students	N/A
Center for	Gresham,	Urban	n/a	School	High school	99%

Advanced Learning (CAL)	OR			district and local industry funding	students	(General School Population)
Chemeketa Campus-Based Pre-Apprenticeship	Salem, OR	Urban	n/a	Community college funding	High school and adult learners	n/a
MPACT (Medford Pre-Apprenticeship Construction & Trades)	Medford, OR	Urban	3,907 (General School Population)	Local education and industry grants	High school students	85.3% (General School Population)
Portland YouthBuilders	Portland, OR	Urban	50-75 students per year	Grants and private donations	Low-income youth	75%
Reynolds High School HVAC Program	Troutdale, OR	Urban	2,474 (General School Population)	School district funding	High school students	71% (General School Population)
Reynolds Learning Academy (Trading Up)	Fairview, OR	Urban	203 (General School Population)	Local education funding	High school students	37% (General School Population)

**Figure 6: Adult Pre-Apprenticeship Programs**

Name	Location	Geographic Location	Financial Capacity	Targeted Audience
Constructing Hope Pre-Apprenticeship Program	Portland, OR	Urban	Funded by grants and donations	Adults, including individuals with prior incarceration histories
Oregon Tradeswomen Pre-Apprenticeship Program	Portland, OR	Urban	Funded by industry partnerships and grants	Women seeking careers in the trades
Pacific Northwest Carpenters Institute (PNCI) – Carpenter Trade	Portland, OR	Urban	Supported by union funding	Adults seeking careers in carpentry

Preparation (CTP)				
Portland Opportunities Industrialization Center (POIC) – Construction Pre-Apprenticeship Program	Portland, OR	Urban	Supported by grants and local funding	Adults aged 18-24 seeking trades careers
Portland Community College (PCC) – Pre-Trades Programs	Portland, OR	Urban	Community college funding and partnerships	Adults seeking to enter apprenticeship programs
Central Oregon Community College (COCC) – Pre-Apprenticeship Program	Bend, OR	Rural	Community college funding and grants	Adults seeking trades and apprenticeship readiness
Edvocation – Manufacturing Pre-Apprenticeship	Douglas County, OR	Rural	Local grants and state funding	Underrepresented and disadvantaged adults

## Union vs. Non-union

A critical distinction in the construction industry lies between union and non-union work, each offering unique benefits and challenges. Unionized construction jobs are known for providing higher wages, comprehensive benefits such as healthcare and retirement plans, and access to structured apprenticeship programs (Bureau of Labor Statistics [BLS], 2024). Workers in unions, such as the International Brotherhood of Electrical Workers (IBEW) or the United Brotherhood of Carpenters, benefit from strong advocacy for worker rights and support in workplace disputes. However, union membership often requires dues and may limit individual job selection, as unions typically assign work through hiring halls.

In contrast, non-union jobs offer more flexibility, allowing workers to negotiate directly with employers and choose their own projects. Independent contractors and small businesses often provide on-the-job training tailored to specific roles, enabling quicker entry into the workforce. However, non-union work may lack the wage consistency and benefits offered by unions, and workers in these roles may encounter fewer opportunities for formal career progression or structured support.

## Deficits and Opportunities

Both union and non-union sectors play vital roles in the residential construction industry, providing workers with different pathways based on their goals and priorities. For Oregon's construction workforce to meet the state's ambitious housing goals, it will be critical to strengthen both pathways and ensure that all workers, regardless of their chosen sector, have equitable access to training, resources, and opportunities for advancement.

Many interviewees discussed trust issues among underserved and underrepresented groups in working with the unions as they felt they held them back from rising while they were already at an innate disadvantage to start with. Given this, it is clear that a public-private partnership with the unions that does not force union membership on organizations that are doing well to train and develop workforce members from underrepresented groups but rather incentivizes partnership would benefit any capacity-building initiative in residential construction.

Another glaring consideration regarding union participation that was observed by multiple interviewees and focus group participants is the fact that there is a large, yet undocumented, amount of very skilled labor participating in the residential housing construction industry in Oregon and, frankly, throughout the United States. These potential participants are barred from entry through the union pathways.

## **IV: Research and Findings: Secondary Research, Survey, Interviews and Focus Groups.**

### **Research Methodologies**

First a total of 9 individual interviews were conducted with various leaders whose roles are either directly in the residential construction industry, k-12 education, post-secondary education, and workforce development. These interviews were held over zoom and recorded with transcripts generated by notetaking AI technology. Each interview took between 30 to 60 minutes. The participants in these interviews were asked about their personal background, career journey, current professional role, and barriers specific to underrepresented and underserved groups (both business owners and employees).

The insights from the individual interviews were then used to develop focus group questions. Two focus groups were conducted. The first focus group was for general contractors, and the second group was for subcontractors. Both groups also took place over zoom. Each group was between 60 and 90 minutes long. They discussed what their roles looked like, the barriers they face, and resources that would be important to have that are currently lacking.

It is important to note that it was extremely challenging to engage focus group participants. Most initially interested participants did not follow up after hearing that there was no payment for participation, steering committee members who offered participants also did not respond to follow up requests to schedule and other outreach to potential participants via email was met mainly with silence. Given these challenges, we chose to hold the focus groups with two members in each group. For the Prime Contractor focus group we engaged the CEOs of two of the largest minority-led primary contractors in the state of Oregon. These participants had a plethora of exposure to the sector and individuals from the targeted population as well as the community leadership in the communities in which the targeted populations reside. The second focus group was with two smaller business owners, one who engages in residential construction primarily as a painting subcontractor with 30+ years in the field and another who leads a concrete business which has been in business in Oregon for 5+ years. Both subcontractor leaders also represent multiple workers and have had partnership with multiple subcontractors hired under COBID. All focus group participants also emerge from underrepresented groups and/or underserved communities.

In addition to the qualitative data gathered, our team also analyzed data collected from the survey distributed to stakeholders in the Oregon residential construction industry by EcoNorthwest. Their survey was not created to be specifically for minority populations, but for the residential construction industry as a whole. Our team examined the data from the perspective of being specifically focused on equity for underserved populations.

Finally, where we found the need to cross-check trends discussed by the survey, interview and focus group participants, we turned to secondary research to shore up data for analysis.

Throughout the project, both MBCB and EcoNorthwest had monthly check-in meetings with a Steering Committee put together to provide support and additional insights for us throughout our research. On top of their insights and support, our team sought out all available secondary data that was relevant to our research focus.

## Purpose of This Report

This report has been commissioned to support Governor Tina Kotek’s ambitious housing initiative, which seeks to construct 36,000 housing units annually over the next decade. At the core of this initiative lies the necessity to develop a skilled, diverse, and sustainable workforce that can meet the demands of Oregon’s rapidly growing residential construction industry. By addressing workforce gaps and systemic inequities, this report aims to inform actionable solutions that align with the state’s commitment to equity and inclusivity.

The purpose of this report is to provide a comprehensive analysis of Oregon’s residential construction workforce through an equity-focused lens. Specifically, it seeks to:

1. **Evaluate Workforce Demographics and Barriers:** This report examines the current demographics of Oregon’s construction workforce, highlighting underrepresentation specifically among women, BIPOC individuals, veterans, LGBTQ+ workers, and individuals with disabilities. It identifies the systemic barriers these populations face when entering, remaining in, or advancing within the construction industry.
2. **Assess Workforce Needs and Opportunities:** By analyzing current and projected workforce demand, the report identifies opportunities to expand participation among underrepresented and underserved populations. It emphasizes the need for targeted strategies to address the state’s labor shortages while creating pathways for economic mobility.
3. **Promote Equity-Centered Solutions:** Guided by Oregon’s Equity Lens framework, this report outlines recommendations to eliminate systemic barriers and foster equitable access to training, career advancement, and entrepreneurial opportunities in the construction industry. These recommendations prioritize historically marginalized communities and ensure that all Oregonians have the opportunity to benefit from the state’s housing initiative.
4. **Guide Policy and Investment Decisions:** This report serves as a tool for policymakers, industry stakeholders, and educational institutions to align their

efforts in creating a more resilient construction workforce. By providing actionable insights, it aims to shape policies and investments that not only meet housing production goals but also uplift Oregon’s underserved communities.

Through this analysis, the report aspires to advance the dual goals of achieving housing production targets and addressing the historical barriers that have limited workforce participation for many communities. By focusing on underserved and underrepresented groups in workforce development, this report envisions a future where Oregon’s construction industry becomes a leader in reversing the underutilization of the multiple cohorts of prospective tradespeople to provide pathways to a sustainable career with a prevailing living wage and prosperity for all citizens of the State.

## Findings Overview

The findings presented in this section are the result of comprehensive construction qualitative research via secondary research, survey, interview and focus group that explores key elements influencing Oregon’s residential construction industry. These elements include K-12 education, workforce recruitment and retention strategies, training and development programs, workforce supply and demand, barriers for minority-owned businesses, equity-centered workforce policies, pre-apprenticeship and apprenticeship programs, and the integration of technology and training.

By examining these critical areas, this report identifies systemic challenges and opportunities for fostering a more inclusive and sustainable construction workforce. Each element is analyzed through an equity-focused lens, emphasizing the importance of addressing barriers faced by underrepresented and underserved populations to meet the state’s ambitious housing production goals.

## K-12 Education

The foundation for a robust and diverse construction workforce begins with education. Educational attainment plays a critical role in shaping career pathways, particularly for underrepresented and underserved populations in Oregon. However, disparities in educational attainment persist among demographic groups, as shown in **Figure 7**, with minority and underserved populations often facing significant barriers to achieving higher levels of education (Oregon Department of Education, 2024). For example, 35.4% of Hispanic individuals have less than a high school education, compared to only 7.4% of white individuals. Similarly, the Black population reports disproportionately high rates of individuals with less than a high school diploma, at 12%. These disparities underscore the importance of targeted interventions at the K-



12 level to ensure equitable access to educational opportunities and to foster pathways into construction careers.

**Figure 7: U.S. Educational Attainment Demographics**

<b>Demographic Group</b>	<b>Less than High School (%)</b>	<b>High School Graduate (%)</b>	<b>Some College, No Degree (%)</b>	<b>Associate's Degree (%)</b>	<b>Bachelor's Degree (%)</b>	<b>Graduate or Professional Degree (%)</b>
White	7.4	25.5	20.5	10.4	24.6	11.6
Black	12.5	30	20.8	9.1	17.6	10
Hispanic	35.4	27	17	8	9.8	2.9
Asian	13.4	17	16	7.8	30.6	15.2
Women	10.3	25.8	21.5	9.4	20.4	12.6
Disabled	25.1	36.6	20.3	6.5	8.9	2.6
Low-Income	27.9	35.7	20	6.2	8.1	2.1

\*This table shows educational attainment by demographic group in the United States. Please note that this does not account for intersectionality (examples: women of color, black people with disabilities).

Despite the critical role K-12 education can play in fostering construction career pathways, systemic barriers continue to limit opportunities for underrepresented students. One major challenge highlighted in both survey and interview data are the lack of consistent and equitable access to Career and Technical Education (CTE) programs across Oregon schools. While schools like Parkrose High School partner with workforce development organizations

to offer pre-apprenticeship pathways, many rural and low-income districts lack the resources to provide similar opportunities. As noted by Participant H from East Cascades Works, systemic biases often result in students of color being “tracked” into lower-wage occupations, further perpetuating inequities (Participant H, 2024).

Language and cultural barriers disproportionately affect students who speak English as a second language, a challenge echoed in survey responses and interviews. For example, Participant B, from Northwest College of Construction, identified that schools often lack bilingual trainers and resources tailored to ESL students, making it difficult for these students to access construction-related education (Participant B, 2024). Survey respondents also emphasized that technical jargon in training programs creates additional hurdles for non-native English speakers, limiting their ability to transition seamlessly from education to workforce training (Survey Analysis, 2024).

The focus groups reinforced the importance of hands-on learning and relatable mentorship in addressing these barriers. Participants pointed to the success of pre-apprenticeship programs like those run by Constructing Hope and YouthBuild, which provide immersive, skill-based learning opportunities for priority populations. However, the capacity of these programs remains limited, leaving many students unable to participate. In the subcontractor focus group, participants also stressed that partnerships between schools and construction businesses are critical to exposing students to real-world career opportunities and fostering early engagement (Subcontractor Focus Group, 2024).

Moreover, the lack of representation in outreach efforts was identified as a persistent issue. Participant A of Walsh Construction noted that students from minority backgrounds often struggle to see themselves in construction due to the absence of diverse role models in the industry (Participant A, 2024). This gap in representation, combined with cultural stereotypes about the construction industry, discourages many women and BIPOC students from pursuing these careers. Focus group discussions emphasized that increasing visibility of successful minority professionals in the trades could help address this challenge (Subcontractor Focus Group, 2024).

Effective strategies to overcome these barriers include expanding CTE and pre-apprenticeship programs, providing culturally relevant communication to students and families, and building partnerships between schools, workforce organizations, and industry leaders. Survey data highlighted the need for long-term investments in these initiatives to ensure that all students—particularly those in underserved communities—have access to equitable and sustainable pathways into construction careers (Survey Analysis, 2024).

By addressing these systemic challenges and investing in targeted solutions, Oregon’s K-12 education system can play a pivotal role in building a diverse and resilient construction workforce. These efforts are critical not only to meeting the state’s ambitious housing goals

but also to ensuring that all students, regardless of background, have the opportunity to thrive in rewarding construction careers.

### Pre-Apprenticeship and Apprenticeship Programs

Pre-apprenticeship and apprenticeship programs play a critical role in bridging the gap between education and employment, particularly for individuals seeking to enter Oregon's residential construction workforce. These programs provide structured pathways to careers in the trades, equipping participants with essential skills, industry connections, and hands-on experience. Findings across secondary data, interviews, focus groups, and survey responses underscore the importance of these programs in addressing systemic barriers faced by underrepresented groups, including women, BIPOC individuals, and low-income populations. The pre-apprenticeship programs listed in **Figure 5** cater to youth, offering targeted resources and training to high school students through partnerships with school districts, local grants, and community organizations. Similarly, adult-focused pre-apprenticeships, detailed in **Figure 6**, provide opportunities for individuals facing unique barriers, such as prior incarceration histories, financial constraints, or limited access to higher education. Apprenticeship programs, such as those located near pre-apprenticeship sites **Figure 8**, create seamless transitions for graduates by offering specialized, paid training in trades like HVAC, carpentry, and manufacturing. Together, these programs form a comprehensive pipeline to address Oregon's construction workforce needs while promoting equity and access for underrepresented populations.

**Figure 8: Apprenticeship and Pre-Apprenticeship Programs by County (Aggregated BOLI Data)**

County	# of Apprenticeships	# of Pre-Apprenticeships
Baker	15	1
Benton	42	2
Clackamas	50	0
Clatsop	32	0
Columbia	49	1
Coos	33	2
Crook	21	0
Curry	25	0
Deschutes	33	2
Douglas	46	1
Gilliam	15	0
Grant	14	0

Harney	13	0
Hood River	24	0
Jackson	41	3
Jefferson	28	0
Josephine	31	1
Klamath	34	2
Lake	23	0
Lane	53	2
Lincoln	32	1
Linn	48	2
Malheur	17	0
Marion	58	4
Morrow	21	0
Multnomah	61	22
Polk	36	0
Sherman	11	0
Tillamook	23	1
Umatilla	38	1
Union	19	0
Wallowa	12	0
Wasco	19	0
Washington	63	5
Wheeler	12	0
Yamhill	52	0

It is important to note while examining **Figure 8** that many counties with apprenticeship programs have no pre-apprenticeship programs based on publicly available BOLI data.

While pre-apprenticeship and apprenticeship programs are vital to fostering a skilled construction workforce, systemic barriers often limit access to these opportunities for underrepresented groups. Interviews, focus groups, and survey responses highlighted challenges such as financial constraints, geographic disparities, and limited program capacity. These barriers disproportionately affect priority populations, including women, BIPOC individuals, English Language Learners (ELLs), and those from low-income backgrounds.

One recurring theme from interviews and focus groups was the financial burden associated with participation in pre-apprenticeship programs. Participant B from Northwest College of

Construction noted that many participants struggle to afford necessary tools, boots, and transportation costs during training. Additionally, focus group participants emphasized the importance of wraparound services—such as childcare, stipends, and transportation assistance—in enabling participation and retention, especially for low-income and single-parent households. Programs like Constructing Hope and Oregon Tradeswomen, which specifically address these barriers through grants and donations, were frequently cited as successful models (Participant B, 2024; Subcontractor Focus Group, 2024).

Geographic disparities were another major challenge identified across data sources. Survey responses indicated that rural communities in Oregon, such as those in Deschutes and Jackson counties, have fewer pre-apprenticeship and apprenticeship programs, limiting access for residents outside urban centers. For example, Central Oregon PACT and Edvocation, two rural programs, operate with smaller enrollment capacities and rely heavily on local community partnerships for funding. Expanding funding and outreach to rural areas remains a critical need, as highlighted by Participant A of Walsh Construction, who stressed that rural regions are underserved despite their labor potential (Participant A, 2024).

Workplace culture was also identified as a barrier, particularly for women and BIPOC participants. In interviews and focus groups, respondents shared that discrimination and bias during apprenticeships and job placements often hinder retention. Participant H from East Cascades Works emphasized that mentorship and inclusive work environments are crucial to ensuring long-term success for these individuals. Additionally, survey data revealed that many programs lack diverse mentors who can provide culturally relevant guidance, further isolating underrepresented participants (Participant H, 2024; Survey Analysis, 2024).

Despite these challenges, several programs were highlighted as exemplary models for fostering equity and access. Constructing Hope, for example, provides training specifically tailored for individuals with prior incarceration histories, while Oregon Tradeswomen focuses on creating safe and supportive spaces for women entering the trades. Both programs demonstrate high completion rates of 76% and 87% (Gunderson, Helmer, & Cheyney, 2021) and robust transition pathways into apprenticeships. Similarly, programs like the Pacific Northwest Carpenters Institute (PNCI) leverage union funding to provide comprehensive support and career-readiness training for adults entering carpentry (Survey Analysis, 2024; Pacific Northwest Carpenters Institute, n.d).

Apprenticeships located near pre-apprenticeship programs, such as those associated with Beaverton School District and Reynolds Learning Academy, provide direct pathways for participants to advance into paid, specialized training. Focus group participants noted that co-locating pre-apprenticeship and apprenticeship programs strengthens continuity and minimizes the transitional barriers that often discourage participants from advancing in their careers (Subcontractor Focus Group, 2024).

Survey responses and interviews consistently emphasized the need for increased capacity and funding for pre-apprenticeship programs to meet growing demand. Direct-entry agreements between pre-apprenticeships and registered apprenticeship programs were identified as an effective strategy to create seamless pipelines into the construction workforce. Additionally, partnerships with schools, community colleges, and industry leaders were recommended to expand outreach and strengthen pathways, particularly in underserved communities (Participant B, 2024; Participant A, 2024; Survey Analysis, 2024).

By addressing these systemic barriers and scaling successful models, Oregon’s pre-apprenticeship and apprenticeship programs can play a pivotal role in building a diverse and skilled construction workforce. These efforts are critical not only to achieving the state’s ambitious housing goals but also to ensuring that all Oregonians have equitable access to career opportunities in the trades.

### **Recruiting and Hiring**

Recruitment and hiring practices in Oregon’s construction industry play a critical role in shaping the diversity and sustainability of the workforce. However, findings across secondary research, interviews, focus groups, and survey data reveal significant barriers that continue to limit equitable access to construction careers. While some employers are beginning to adopt proactive recruitment strategies, many hiring practices remain informal and reliant on existing industry networks, making it difficult for underrepresented populations—including women, BIPOC individuals, and low-income applicants—to enter the field.

One of the most significant barriers identified in interviews and focus groups is the reliance on word-of-mouth recruitment, which favors individuals who already have personal or family connections in the industry. Participant A from Walsh Construction noted that many employers continue to hire based on referrals rather than structured outreach, unintentionally excluding those without pre-existing networks in construction (Participant A, 2024). This practice is particularly limiting for women and BIPOC candidates, who historically have had lower representation in the trades. Additionally, subcontractors in the focus group acknowledged that smaller construction firms, which make up a large portion of the industry, often lack formal recruitment strategies, further restricting opportunities for diverse applicants (Subcontractor Focus Group, 2024).

Another key challenge is the lack of targeted outreach to underrepresented communities. Survey responses indicated that many construction firms do not actively engage with high schools, community-based organizations, or pre-apprenticeship programs to attract diverse talent (Survey Analysis, 2024). Employers who have successfully increased workforce diversity have done so by partnering with organizations such as Constructing Hope and

Oregon Tradeswomen, which provide training and job placement support for priority populations. However, these partnerships remain limited in scope and are not consistently utilized across the industry.

Even when underrepresented candidates enter the hiring process, systemic inequities can hinder their success. Interviews and survey data highlighted bias in hiring decisions, particularly for women and non-native English speakers. Participant B of Northwest College of Construction noted that language barriers often prevent otherwise qualified applicants from advancing through interviews and onboarding, especially when employers lack bilingual staff or accessible training materials (Participant B, 2024). Additionally, hiring managers frequently prioritize previous experience over skills training, making it difficult for recent pre-apprenticeship graduates to secure entry-level positions, despite having industry-relevant training.

Bias also extends to job postings and application processes. Many job listings use industry jargon that is unfamiliar to those new to construction careers, further deterring diverse applicants. The survey analysis indicated that standardizing hiring criteria and implementing blind recruitment practices—where personal identifiers such as name, gender, and race are removed from applications—could improve fairness in hiring (Survey Analysis, 2024).

Recruitment alone is not enough to sustain workforce diversity—retention strategies must also be strengthened. Several interviews and focus groups pointed to workplace culture as a key factor influencing retention, particularly for women and BIPOC workers. According to Participant H from East Cascades Works, many underrepresented employees report feeling isolated or unwelcome on job sites, leading to higher attrition rates (Participant H, 2024). Discrimination, lack of mentorship, and limited career advancement opportunities further contribute to high turnover.

Retention challenges were also noted in the subcontractor focus group, where participants emphasized the need for stronger mentorship programs to support new hires and ensure they feel valued in their roles. Companies that have successfully improved retention often do so by investing in cultural competency training, creating mentorship networks, and establishing clear career advancement pathways (Subcontractor Focus Group, 2024).

Despite these challenges, some employers and organizations have developed effective recruitment and hiring models -which serves as a bright spot in that data- that improve access for underrepresented groups. Focus group with prime contractors highlighted that these contractors invest significant resources in recruiting from underserved communities to offer opportunities for a livable wage and the potential to build intergenerational wealth. These General Contractors who also identify as rising up from an underrepresented group explain that they feel the fact that leadership looks like the people that they hire and promote

makes recruitment much easier for them. Their explanation is similar to the popular “If You Can See Her You Can Be Her recruitment campaign to get women into STEM.

These focus group members share a preference for hiring from underrepresented groups and through underserved communities. Which further builds trust and retention as employment with similar sized and larger prime contractors often have the feel of tokenism when these contractors engage the same employees to become competitive for COBID contracted work. The prime contractor focus group -consisting of the CEOs of these companies- shared that employees that they trained are sometimes lured away by higher compensation by the competition to participate in these COBID-contracted jobs only to return when the contract is over seeking higher compensation than when they left. Their return is often led by being released when the contract is ended. It was explained that these returning employees often are stunted during their time away from the company due to the lack of investment in their ongoing mentorship and training while on the COBID job further supporting the appearance of tokenism being present. It is then challenging to justify rehiring these workers from underrepresented groups back when they are now demanding the higher wage offered by their competitor when they have no additional skills growth to justify the increase. Focus group members have stated this has even led to dead ends in the careers for workers of underrepresented groups because once they hit the top pay rate on COBID contracted jobs and then are let go they are basically rendered unhireable for anything other than another COBID job which requires minority participation.

On the bright side these contractors state that they have a high retention rate with the workers that chose to focus on career ladders as opposed to pay based upon their underrepresentation.

Another promising approach involves expanding outreach efforts to high schools and community colleges. Partnerships between construction firms and Career and Technical Education (CTE) programs help expose students to the trades earlier, increasing the likelihood that they will pursue apprenticeships after graduation. Employers that actively participate in school-based job fairs, mentorship programs, and industry networking events have been more successful in attracting a diverse workforce (Participant H, 2024).

However, interviewees and focus group participants indicate there is still a lot of work to be done in engaging people from underrepresented groups in the trades while school age. This is especially true of girls who continue to lag behind in entering the trades proportionate to their representation in the general population.

By addressing these barriers, acknowledging where the traditional recruitment efforts often fail these populations -such as relying too heavily on COBID as a silver bullet- and scaling successful recruitment models, Oregon’s construction industry can better meet its workforce needs. Ensuring that hiring practices align with the state’s long-term housing and workforce



goals will be essential in creating a diverse, skilled labor force capable of supporting Oregon's construction demands.

## **Training and Development**

Training and development are essential components of building a skilled and sustainable construction workforce. In Oregon's residential construction industry, much of the responsibility for training new employees falls on contractors and subcontractors, who must balance workforce development with the demands of managing projects. While formal apprenticeship programs and trade school pathways exist, many workers receive the majority of their training on the job, often in informal or unstructured settings. Findings across secondary research, interviews, focus groups, and survey responses reveal significant disparities in training accessibility, particularly for rural communities, non-English speakers, and underrepresented populations. Small construction firms, in particular, face challenges in providing structured training due to limited resources and time constraints. Additionally, many entry-level workers struggle to advance beyond basic labor roles due to a lack of clear career progression frameworks. As the demand for skilled labor increases, expanding and improving training opportunities will be critical in ensuring that Oregon's construction workforce can meet the state's ambitious housing production goals while promoting equity and career mobility.

While training and development are essential to sustaining a skilled workforce in Oregon's residential construction industry, systemic barriers often limit access to effective training programs, particularly for underrepresented workers. Findings across secondary research, interviews, focus groups, and survey responses indicate that many new construction workers receive the bulk of their training on the job, rather than through structured programs. This reality must be considered when developing training programming that is subsidized by the state. Hybrid and on-the-job programs should take precedent when considering how to train new workers. Consideration should be made for incentivizing contractors willing to provide resources to develop private-public training programs which allow students to work as pre-apprentices and apprentices on job sites during the school day.

### **On-the-Job Training: Strengths and Challenges**

For many entry-level workers, training begins the moment they step onto a job site. Contractors and subcontractors, who are already responsible for project deadlines and budget constraints, often bear the additional responsibility of teaching new employees essential skills. On-the-job training typically involves learning basic safety procedures, material handling, equipment operation, and task-specific techniques such as framing, drywall installation, or roofing. However, this type of training is often unstructured, varying greatly depending on the employer, job site, and available mentors.

Participant A from Walsh Construction noted that smaller firms in particular struggle with providing consistent training, as experienced workers may not have the time or resources to properly mentor new hires (Participant A, 2024). However, it is interesting to note that the subcontractor focus group recognized that large primes often do not provide their apprenticeships variances to perform the work at their experience level and, rather, demand master level work from apprentices. Subcontractors have expressed that this is a tactic sometimes employed by large contractors to meet COBID requirements when bidding but then justifying the release of the minority subcontracting firm using the excuse that they are not competent enough to complete the job. While it was acknowledged that some prime contractors are willing to engage in helping subcontractors from underrepresented groups rise, many seem to engage these subcontractors as tokens to be competitive in the bidding process.

### Barriers to Accessing Formal Training

While formal training programs, including apprenticeships and trade school courses, exist to provide structured learning opportunities, access to these programs remains limited for many workers. Survey responses highlighted three major barriers: cost, location, and time constraints (Survey Analysis, 2024).

- **Cost:** Many workers struggle to afford tools, protective equipment, or the fees associated with formal training and certification programs. Even when pre-apprenticeship programs cover tuition, the loss of income during unpaid training periods can be a significant obstacle.
- **Location:** Many training programs are concentrated in urban centers, making it difficult for rural workers to access them without long commutes or temporary relocation. Participant B from Northwest College of Construction emphasized that rural areas lack sufficient training infrastructure, limiting opportunities for those outside major metropolitan regions (Participant B, 2024).
- **Time Constraints:** Workers, particularly those supporting families, often cannot afford to take time off for training. This is especially true for low-income individuals who must prioritize immediate job stability over long-term skill development.

Employers who do offer structured training often find that workers cannot fully participate due to these limitations. One focus group participant noted that training sessions scheduled outside of working hours often result in low attendance, as employees are either too exhausted from their shifts or have personal obligations that prevent them from engaging (Subcontractor Focus Group, 2024).

## Training limitations as a barrier to Career Advancement

Even when workers complete initial training and gain experience, many struggle to advance beyond entry-level roles. Several systemic challenges hinder promotion opportunities, particularly for women and BIPOC employees.

- **Lack of Clear Advancement Pathways:** Many workers remain stuck in general labor positions because they are unaware of the steps needed to advance to supervisory roles. Unlike unionized settings, where apprentices follow a defined pathway to journeyman status, non-union workers often lack formalized progression frameworks. While it may seem logical to have all workers then attend union programs, this is not realistic due to capacity constraints of union program, regional limitations of union programs and legal requirements which are often not attainable for Hispanic workers who make up a significant proportion of workers in the residential housing sector.
- **Discrimination and Bias:** Several interviewees, including Participant H from East Cascades Works, highlighted that women and other underrepresented workers often face barriers in moving into leadership roles, as they are frequently overlooked for promotions in favor of workers from more traditional backgrounds (Participant H, 2024).
- **Workplace Culture and Networking:** Multiple respondents discussed the culture of promoting from within social circles, shared communities and family ties in this industry. Many promotions in the construction industry are based on personal recommendations rather than formal evaluations. This favors workers who have strong connections within the industry, or even familial ties, which can disadvantage those who are new to the field or who come from historically excluded backgrounds, particularly Black subcontractors (Subcontractor Focus Group, 2024). Interestingly, this cultural phenomenon serves the Hispanic population very well within the residential housing sector of the construction industry, as many first- and second-generation immigrants are offered work by family and community members. This was shared as a significant reason the residential construction industry maintains such a large proportion of workers in this sector.
- **Lack of Leadership Training:** Even when workers are interested in advancing, few training programs focus on developing management and business ownership skills, such as team coordination, budgeting, communication, project oversight, setting up a business and getting insured. Without this training, many skilled workers remain in labor roles rather than moving into supervisory roles or starting their own business.

By addressing these barriers and expanding access to training and development, Oregon's construction industry can ensure that all workers—regardless of background—have the opportunity to build long-term careers in the trades. These efforts are essential not only to

meet the state’s growing labor demands but also for fostering an equitable and inclusive workforce.

## Workforce Retention and Career Growth

Retaining a skilled workforce is a critical challenge in Oregon’s residential construction industry, where high turnover rates and limited career advancement opportunities create instability. Many construction workers leave due to inadequate compensation, lack of clear career pathways, burnout from demanding work schedules, and concerns over workplace safety. Additionally, systemic barriers disproportionately impact underrepresented male workers, who often face discrimination, occupational segregation, and limited access to leadership roles. Even more so with women who additionally 1) are often the primary caregivers for children and lack sufficient childcare resources to engage in the construction industry and, 2) struggle culturally in a male-dominated, “boys club” environment often experienced on the job site.

Findings from secondary research, interviews, focus groups, and survey responses emphasize that improving retention requires a multifaceted approach, including competitive wages, structured career progression frameworks, mentorship programs, and workplace culture improvements. Addressing these challenges will not only strengthen the industry’s workforce but also create equitable opportunities for long-term career growth in the trades.

Retention in the construction industry is a persistent challenge, with turnover rates significantly higher than those in comparable sectors like manufacturing. Findings from secondary research, interviews, focus groups, and survey data indicate that many workers leave due to compensation concerns, unclear career advancement pathways, workplace culture issues, and high rates of job-related injuries. Additionally, systemic inequities disproportionately impact women, BIPOC workers, and non-native English speakers, further exacerbating retention challenges.

The construction industry experiences a turnover rate of 65%, which is more than double the 31.6% turnover rate in the manufacturing industry. This high attrition rate is largely attributed to inconsistent work schedules, seasonal employment, and a competitive labor market where workers leave for better-paying opportunities (Zippia, 2024). By contrast, manufacturing jobs often provide more stable employment with set schedules and benefits, making them more attractive for long-term career retention.

Survey responses and interviews also suggest that construction workers frequently leave due to job dissatisfaction related to work conditions, limited opportunities for promotion, and lack of employer-provided support (Survey Analysis, 2024). Addressing these issues through structured career development programs, stable wages, and workplace culture improvements could help mitigate high turnover.

**Figure 9: Construction vs. Manufacturing Turnover in the U.S**

Industry Name	Industry Population (millions, U.S.)	Turnover Rate (%)
Construction	8.3	65
Manufacturing	12.6	31.6

One of the most significant challenges in workforce retention is the high risk of workplace injuries. The construction industry is among the most hazardous sectors, with an estimated 74,500 workers per year suffering injuries that require time off from work, accounting for approximately 0.90% of the total construction workforce (BLS, 2024). Jobs with the highest risk of injury include roofers (59.0 fatalities per 100,000 workers), construction laborers (213.9 nonfatal injuries per 10,000 workers), and structural iron and steel workers (19.8 fatalities per 100,000 workers) (BLS, 2024).

Workers who experience injuries often face financial hardships due to lost wages and medical expenses, leading many to leave the industry in search of safer employment. Additionally, non-native English speakers face higher injury risks due to language barriers, which hinder their ability to understand safety instructions, signage, and emergency procedures. Participant B of Northwest College of Construction emphasized that bilingual training programs and culturally inclusive safety protocols are critical in reducing injury rates and improving retention among non-English-speaking workers (Participant B, 2024).

**Figure 10: Construction Jobs with Highest Risk of Injury**

Job Title	Primary Hazards	Fatal Injury Rate (per 100,000 workers)	Injury Rate (per 10,000)
Roofers	Falls from heights, extreme weather	59	Data not available
Construction Laborers	Heavy lifting, excavation, demolition	Data not available	213.9
Structural Iron and Steel Workers	Falls from heights, struck-by hazards	19.8	Data not available
Helpers, Construction Trades	Various site hazards, lack of experience	27.4	Data not available
Electricians	Electrical shocks, burns, falls	7.6	Data not available

Even when workers remain in the construction industry, career advancement opportunities are often limited, particularly for women and BIPOC employees. Key barriers to career progression include:

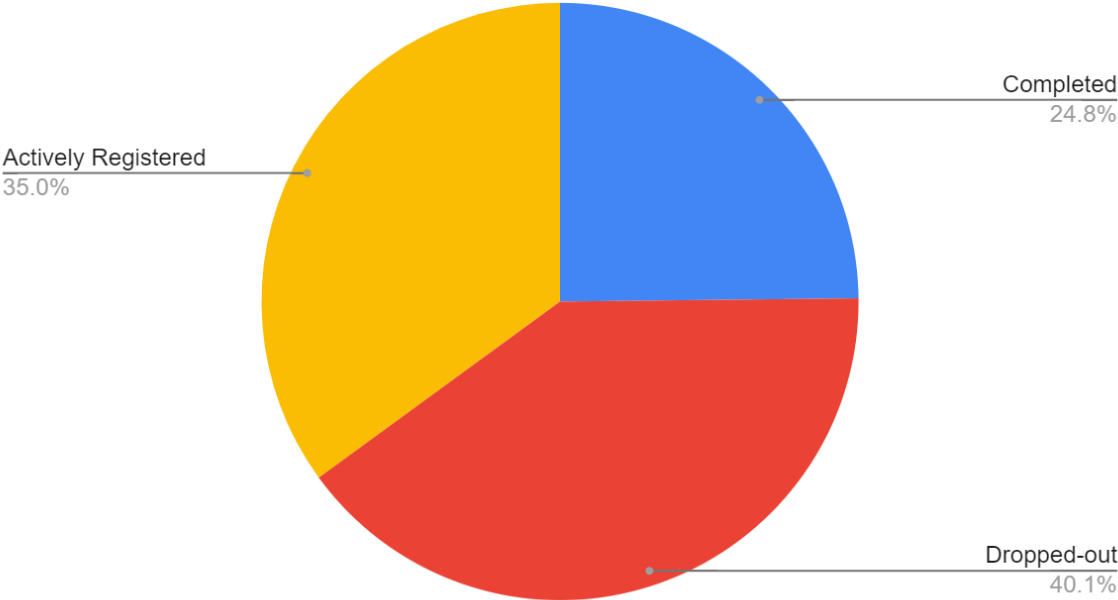
- **Lack of Clear Advancement Pathways:** Many workers remain in entry-level positions because they are unaware of the steps needed to advance into supervisory roles. Unlike union apprenticeships, where structured pathways exist, non-union workers often lack formalized career progression frameworks (Participant A, 2024).
- **Discrimination and Bias in Promotions:** Participant H from East Cascades Works noted that women and minority workers often face additional barriers in moving into leadership roles, as they are frequently overlooked in favor of traditional hires (Participant H, 2024).
- **Occupational Segregation:** Minority workers are more likely to be concentrated in lower-wage positions, reducing their chances of transitioning into high-paying trades or leadership roles. Research shows that Black apprentices are underrepresented in high-wage occupations and overrepresented in lower-wage ones, which contributes to higher dropout rates from apprenticeship programs (AIR, 2023).
- **Lack of Support Services:** The absence of mentorship, leadership training, and career counseling prevents workers from developing the skills needed for management roles. Survey responses indicated that employers who invest in leadership training and mentorship programs see higher retention rates among their workforce (Survey Analysis, 2024).

Retention challenges in apprenticeship programs remain a significant concern, particularly for women, BIPOC workers, and those from low-income backgrounds. While apprenticeships provide structured pathways into the construction industry, completion rates remain low across the board, with minority apprentices facing even greater hurdles. Interview and focus group discussions revealed that workplace culture is a major factor influencing retention, with many minority apprentices reporting experiences of discrimination, lack of mentorship, and isolation on job sites. Participant H from East Cascades Works highlighted that without an inclusive work environment, apprentices are less likely to complete their training and advance within the industry (Participant H, 2024). Additionally, financial challenges continue to be a leading reason for early program exits, as many apprentices struggle with the low wages offered during training, combined with the costs of tools, transportation, and certification fees (Survey Analysis, 2024). Employers and industry organizations that invest in wraparound support services, such as childcare assistance, stipends for equipment, and mentorship programs, tend to see higher retention rates among apprentices. However, as noted in the subcontractor focus group, these resources are not uniformly available across all apprenticeship programs, leaving many apprentices without the support they need to persist (Subcontractor Focus Group, 2024). Furthermore, occupational segregation limits career mobility, as Black apprentices are disproportionately placed in lower-wage trades, reducing their motivation to complete training when higher-paying opportunities seem inaccessible (Survey Analysis, 2024). Addressing these issues requires industry-wide commitment to equitable training conditions,

increased financial support, and stronger mentorship networks to ensure that all apprentices, regardless of background, have the opportunity to build long-term careers in construction.

**Figure 11: Apprenticeship Completion Status in the U.S (Cambridge Data)**

2012 - 2023 Apprenticeship Completion Status



**Figure 11: Apprenticeship Completion Rates in the Construction Industry by Demographic Group**

Demographic Group	Apprenticeship Completion Rate (%)
Black Apprentices	24%
White Apprentices	33%
Asian Apprentices	30%
Overall Completion Rate	Less than 35%

**Equity-Centered Workforce Policies**

Ensuring equity in the construction workforce requires intentional policies that address long-standing disparities in hiring, training, and career advancement. Historically, the construction industry has been dominated by white, male workers, with women, BIPOC individuals, and other underrepresented groups facing systemic barriers to entry and promotion. While government contracts and public projects often include diversity hiring

goals through COBID, many of those interviewed -who have the same demographic profile as underrepresented groups- stated that this program lacks the oversight to ensure fairness.

Findings from secondary research, interviews, focus groups, and survey responses indicate that many prime contractors struggle to implement meaningful policies that take into account the needs of different workers and subcontractors due to a lack of resources, accountability measures, standardized best practices and, simply, it would add cost to their bid. Additionally, workers from underrepresented backgrounds frequently encounter discriminatory workplace cultures, wage disparities, and limited access to leadership positions. Addressing these challenges requires strengthening policy enforcement, expanding financial incentives for equitable hiring, and fostering workplace cultures that support workers and business owners from underrepresented groups in meaningful and lasting ways.

### **Existing Policies and Their Limitations**

Several policies at the federal and state levels aim to promote equity in the construction workforce. The Disadvantaged Business Enterprise (DBE) Program, enforced by the U.S. Department of Transportation, requires that minority- and women-owned firms receive fair access to federally funded projects. Similarly, Oregon's Certification Office for Business Inclusion and Diversity (COBID) certified Minority Business Enterprises (MBEs), Women Business Enterprises (WBEs), and Emerging Small Businesses (ESBs), giving them opportunities to participate in public contracts. However, focus group participants noted that while these certifications provide access to bidding opportunities, they do not guarantee contract awards, and many minority-owned firms still struggle to secure work (Subcontractor Focus Group, 2024). Two cited reasons are 1) prime contractors often have their go-to "minority" contractor that they hire repeatedly and 2) a minority contractor may be hired to gain the project but subsequently underutilized or replaced.

Additionally, the Community Benefits Agreement (CBA) Model, used in some public projects, includes diversity hiring requirements and workforce training commitments. While these agreements have increased access to apprenticeships for underrepresented groups, survey responses indicate that enforcement of these policies is inconsistent, with some contractors failing to meet hiring requirements without facing consequences (Survey Analysis, 2024). Interviewees, including Participant A from Walsh Construction, emphasized the need for stronger accountability measures to ensure firms meet their commitments to workforce diversity (Participant A, 2024).

Despite the presence of equity-focused policies, several barriers continue to limit the effectiveness of workforce diversity efforts. One major issue is the reliance on word-of-mouth hiring practices, which disproportionately exclude workers from many marginalized communities. Many construction firms prioritize referrals from existing employees, making



it difficult for newcomers, particularly women and Black participants, to access job opportunities (Survey Analysis, 2024). As stated earlier, particularly in the residential housing sector, Hispanic populations tend to fare well via word of mouth; however, that falls apart when unions are required to participate or are involved in the hiring process. This is due to both the legal requirements that sometimes cannot be met by immigrant Hispanic workers as well as the fact that many who are fully documented already have significant multi-trade experience which is not recognized by the union certification programs.

Despite these challenges, several policies and initiatives have successfully increased workforce diversity and inclusion in construction. Programs like Oregon Tradeswomen and Constructing Hope have been instrumental in recruiting and training women and minority workers for construction careers, providing them with pre-apprenticeship training, mentorship, and direct connections to employers. Companies that partner with these organizations have seen higher retention rates for underrepresented employees (Participant B, 2024).

Additionally, some employers have implemented structured DEI (Diversity, Equity, and Inclusion) initiatives, such as blind hiring practices, standardized performance evaluations, and leadership development programs. These strategies help mitigate biases in hiring and promotion decisions, ensuring that all workers have equal access to advancement opportunities. Firms that actively participate in mentorship programs and professional development initiatives tend to have better retention rates for diverse employees (Participant A, 2024). However, recent federal changes indicate that these programs are likely to be cut or slowly fall by the wayside.

### **Minority Owned Business Barriers**

Minority-owned construction businesses play a vital role in Oregon's economy, yet they continue to face systemic barriers that limit their growth and success. Despite the presence of government programs and diversity contracting requirements, interviewees and focus group members report that many minority-owned firms struggle with cash flow challenges, limited access to contracts, and administrative burdens associated with certification processes. Additionally, discriminatory industry practices, lack of networking opportunities, workforce development constraints and the historical head-start intergenerational white family owned and operated businesses have over Black and other minority owned businesses further hinder their ability to compete with larger, more established firms. Findings from secondary research, interviews, focus groups, and survey responses indicate that while some policies have been designed to support minority-owned businesses, enforcement remains inconsistent, and many firms find it difficult to secure meaningful contracts in both public and private sectors. Addressing these challenges requires greater financial accessibility, equitable contracting opportunities, and strategic policy reforms to

ensure that minority-owned construction businesses have the resources and support needed to thrive.

Large minority-owned construction firms often have better access to capital, established industry connections, and the resources necessary to navigate complex bidding and compliance processes. In contrast, smaller minority-owned firms face substantial financial and administrative barriers, making it difficult to compete for contracts at the same level. Participant A from Walsh Construction and participants from the prime contractor focus group noted that many minority subcontractors experience payment delays that strain their cash flow, making it difficult to cover payroll and material costs (Participant A, 2024). Without financial reserves or access to affordable credit, these businesses struggle to sustain operations between payments, placing them at a disadvantage compared to larger firms with greater financial flexibility.

Access to contracts is another key challenge. Although Oregon's Certification Office for Business Inclusion and Diversity (COBID) provides Minority Business Enterprise (MBE), Women Business Enterprise (WBE), and Emerging Small Business (ESB) certifications, many small firms find that certification alone does not guarantee contract opportunities. In focus group discussions, subcontractors emphasized that large contractors frequently fulfill diversity requirements by subcontracting minor portions of projects to minority-owned businesses, rather than fully integrating them into larger contracts (Subcontractor Focus Group, 2024). This practice limits the growth potential of minority firms, keeping them in smaller, lower revenue projects rather than allowing them to scale their operations.

Several grants exist to support minority-owned businesses in construction, but many firms struggle to access these resources due to complex application processes and restrictive eligibility criteria. The Minority Business Development Agency (MBDA) offers approximately \$11 million in federal grants to support minority-owned businesses, including funding for rural business centers and women's entrepreneurship programs (MBDA, n.d.). The U.S. Small Business Administration (SBA) also provides training, counseling, and funding opportunities tailored to minority entrepreneurs (SBA, n.d.). However, despite these initiatives, many firms report that the administrative burden of applying for grants is overwhelming, particularly for small businesses without dedicated administrative staff.

Smaller businesses, start-ups, and non-certified firms are often alienated from grant opportunities due to stringent eligibility requirements. Many grants require a business to have been operational for a minimum number of years, effectively excluding start-ups that could benefit the most from financial assistance. Additionally, some funding programs only support for-profit businesses, leaving non-profit construction firms without access to these critical resources. In focus groups, subcontractors noted that language barriers and lack of

grant-writing expertise further exclude many minority-owned firms from accessing available funding (Subcontractor Focus Group, 2024).

Despite these challenges, various organizations provide mentorship, training, and networking opportunities to help minority-owned businesses succeed. The National Association of Minority Contractors (NAMC) offers advocacy and training programs that assist firms in securing contracts and expanding their business networks (NAMC, n.d.). Similarly, the National Black Contractors Association partners with government programs like the Neighborhood Stabilization Program, creating affordable housing and increasing contract access for Black-owned businesses (National BCA, n.d.). The National Association of Black Women in Construction (NABWIC) focuses on increasing visibility for Black women in the industry and advocating for equitable contracting opportunities (NABWIC, n.d.). Additionally, Construction Allies in Action takes a holistic approach by addressing multiple barriers faced by minority contractors, including access to financing, business development support, and industry mentorship (Construction Allies, n.d.).

By leveraging these resources, minority-owned businesses can gain access to critical support systems that help them navigate contracting barriers and secure long-term success. However, without systemic reforms to increase financial accessibility, streamline grant and certification processes, and enforce equitable contracting policies, many minority-owned firms will continue to face disproportionate challenges in Oregon’s construction industry. Addressing these disparities will require coordinated efforts from policymakers, industry leaders, and advocacy organizations to ensure that all businesses—regardless of size or background—have a fair opportunity to thrive.

## **Workforce Supply and Demand**

Oregon’s residential construction industry is facing a severe labor shortage (Oregon Office of Economic Analysis, 2022), with minority populations being particularly underrepresented in key trades. As the state works toward Governor Kotek’s goal of producing 36,000 housing units annually, the demand for skilled workers is increasing at a pace that the current workforce pipeline cannot sustain. Findings from secondary research, interviews, focus groups, and survey responses indicate that barriers such as financial constraints, limited access to training programs, and systemic hiring challenges disproportionately affect BIPOC workers, women, and other underrepresented groups. Additionally, rural communities face even greater workforce shortages, as many workers relocate to urban centers for better opportunities. Without significant investments in expanding apprenticeship programs, strengthening recruitment efforts in minority communities, and creating equitable pathways into high-demand trades, Oregon will struggle to meet its housing production goals. Addressing these disparities is essential for not only building a sustainable labor force

but also ensuring that historically excluded populations have access to well-paying, stable careers in the construction industry.

The demand for construction workers in Oregon has been steadily increasing, but the supply of trained workers has not kept pace. Retirement rates among skilled tradespeople have accelerated, leaving a gap that is difficult to fill with new apprentices and entry-level workers. Participant A from Walsh Construction as well as participants from the prime contractor focus group emphasized that the current workforce pipeline is not strong enough to sustain the level of labor needed for large-scale housing production, particularly in rural areas where training opportunities are scarce (Participant A, 2024). Survey data similarly highlighted that contractors and subcontractors are struggling to hire and retain enough workers, delaying project completion and raising overall costs (Survey Analysis, 2024).

Despite efforts to increase diversity in the construction workforce, BIPOC workers, women, and other underrepresented groups remain disproportionately excluded from high-demand trades. Several barriers contribute to this, including:

- Limited Outreach and Awareness: Many minority communities are not adequately informed about career opportunities in the trades, leading to lower participation in apprenticeship and training programs.
- Financial Barriers: The cost of tools, certifications, and unpaid training periods prevents many low-income individuals from entering the workforce.
- Discriminatory Hiring Practices: Word-of-mouth recruitment and bias in hiring and promotions continue to favor workers with existing industry connections, leaving out first-generation tradespeople from minority backgrounds (Subcontractor Focus Group, 2024).
- Retention Issues Due to Workplace Culture: Many minority workers report feeling isolated on job sites, experiencing discrimination, or facing limited opportunities for career progression, all of which contribute to higher turnover rates (Participant H, 2024).

Without direct efforts to increase recruitment and retention among minority populations, the industry will continue to lack the workforce necessary to meet Oregon's growing housing needs.

In addition to racial and gender inequities, rural communities face a particularly stark labor shortage. While urban centers like Portland have multiple pre-apprenticeship programs and strong industry partnerships, rural areas often lack access to training programs, career exposure, and networking opportunities. Participant B from Northwest College of Construction noted that many rural workers interested in the trades must relocate or commute long distances to access apprenticeship opportunities, creating an additional

barrier to entry (Participant B, 2024). Employers in these areas struggle to recruit skilled labor, further limiting the ability to build affordable housing in underserved communities.

### The Significance of Modern Technology

As the demand for housing increases in Oregon, modern technology is playing a critical role in improving efficiency, reducing costs, and addressing labor shortages in the construction industry. Innovations such as building information modeling (BIM), automation, drones, and prefabrication are transforming how projects are designed and executed, leading to faster and safer construction processes. However, findings from secondary research, interviews, focus groups, and survey responses indicate that access to these technologies remains uneven, particularly for small and minority-owned businesses. Many firms face financial barriers, workforce readiness challenges, and resistance to adopting new tools, limiting their ability to compete with larger, well-resourced companies. Additionally, a lack of accessible training programs, particularly for non-English speakers and underrepresented workers, further widens the technology gap. Expanding access to construction technology training, financial incentives, and mentorship programs will be essential in ensuring that all businesses and workers—regardless of size or background—can benefit from industry advancements.

Oregon’s construction industry has shown a strong commitment to adopting technology-driven solutions, as reflected in the 2025 Construction Outlook Oregon Survey (Associated General Contractors of America [AGC], 2025). According to the survey, companies plan to increase investment in several key technologies, including:

- Document Management Software (41%) and Estimating Software (38%) to streamline bidding and project coordination.
- Fleet Tracking/Management Software (37%) to improve logistics and equipment utilization.
- Artificial Intelligence (30%) and Building Information Modeling (BIM) (25%) to enhance project planning and predictive analytics.
- Drones (16%) for site surveying and monitoring.
- Robotics (4%), although still in its early stages of adoption.

This increasing investment signals that companies recognize the long-term benefits of technology in reducing costs and increasing productivity. However, the survey also highlights disparities in adoption rates, particularly among small and minority-owned firms, which often lack the capital and technical resources to implement these tools effectively.

While technology is becoming more prevalent in Oregon’s construction industry, several barriers prevent full-scale adoption, particularly among smaller firms and underrepresented workers. The 2025 Construction Outlook Oregon Survey identifies the top challenges:

- **Employee Resistance to Technology (45%):** Many workers, especially those who have been in the industry for decades, are hesitant to shift from traditional methods to digital solutions.
- **Communication Between Field and Office (39%):** Integrating real-time digital workflows remains a challenge for many companies.
- **Keeping Software Current (39%):** Firms struggle to ensure that their systems and tools remain up to date.
- **Time Needed for Implementation and Training (32%):** Many firms lack the resources to properly train employees in new technologies (AGC, 2025).

Interviews and focus groups reinforced these findings, with Participant A from Walsh Construction noting that smaller firms often struggle to integrate technology due to financial constraints and the steep learning curve for workers unfamiliar with digital tools (Participant A, 2024). Participant B from Northwest College of Construction added that many training programs do not adequately prepare workers for technology-heavy roles, particularly for non-English speakers who face additional barriers in accessing training materials (Participant B, 2024).

Despite the widespread benefits of technology, minority workers and small businesses face systemic barriers to adoption. Many training programs do not offer bilingual instruction, limiting access for non-native English speakers who might otherwise benefit from upskilling opportunities. Additionally, the high cost of software, automation tools, and digital training programs disproportionately affects minority-owned firms, which often operate on smaller budgets and with less financial flexibility than larger corporations (Subcontractor Focus Group, 2024).

To bridge this gap, some initiatives have been successful in providing accessible technology training. Programs like Constructing Hope and Oregon Tradeswomen have started incorporating digital construction skills into their curricula, ensuring that underrepresented workers have the opportunity to learn about tools like BIM, fleet management software, and automated scheduling (Survey Analysis, 2024). However, these efforts remain limited in scale, and without greater investment in affordable, inclusive training programs, the industry risks widening the gap between technologically advanced firms and those that lack access to modern tools.

The increased investment in construction technology has led to the integration of key tools that are reshaping the industry, including:

- **Cloud-Hosted Solutions:** Oregon firms are increasingly using cloud-based systems, particularly for accounting (57%), field operations (53%), and project management (37%). However, 23% of firms report not using cloud-hosted technology at all, highlighting a significant gap in digital transformation (AGC, 2025).

- **Mobile Software Solutions:** The use of mobile technology for field operations has become more widespread, with 70% of companies using mobile apps for daily field reports, 50% for time tracking, and 50% for sharing project drawings and documents (AGC, 2025).
- **Drones and Prefabrication:** While drones (16%) and prefabrication techniques are being adopted to enhance efficiency, their usage remains limited due to cost barriers and the need for specialized training.
- **Automation and Robotics:** Robotics adoption is still in its early stages, with only 4% of firms investing in automation, indicating significant room for growth in this area.

To ensure that all workers and businesses—especially minority-owned firms—can benefit from technological advancements, the industry must prioritize:

#### 1. **Expanding Technology Training Programs**

- Increase the availability of bilingual and community-based digital skills training to support workers with limited English proficiency.
- Partner with apprenticeship programs to integrate construction technology into hands-on training curriculums.

#### 2. **Providing Financial Assistance for Small Firms**

- Offer grants, low-interest loans, and tax credits for small and minority-owned construction businesses to adopt technology.
- Create industry-led technology adoption funds to subsidize training costs for disadvantaged firms.

#### 3. **Encouraging Employer-Led Digital Initiatives**

- Promote on-the-job training programs where experienced workers mentor new employees on technology use.
- Develop technology internship programs for young and underrepresented workers to gain hands-on experience in digital construction methods.

#### 4. **Strengthening Industry Collaboration**

- Foster partnerships between construction firms, tech providers, and workforce development organizations to make technology training more accessible.
- Advocate for statewide technology adoption standards, ensuring that firms of all sizes and backgrounds have equal opportunities to integrate digital tools.

While Oregon’s construction industry is making strides in adopting modern technology, barriers related to cost, training accessibility, and workforce readiness continue to limit its full potential. Small and minority-owned businesses, in particular, struggle to keep pace

with larger firms, creating an uneven playing field in the industry. However, by investing in inclusive training programs, offering financial incentives, and improving workforce access to construction technology, Oregon can create a more equitable and technologically advanced construction sector that supports the state’s ambitious housing and infrastructure goals.

## Themes

Across all data sources—including secondary research, interviews, focus groups, and surveys—several recurring themes and barriers emerged, highlighting systemic challenges within Oregon’s residential construction workforce. These findings underscore the structural inequities, workforce shortages, training gaps, and policy failures that continue to shape industry outcomes. Addressing these barriers will be critical to building a diverse, well-trained, and sustainable workforce capable of supporting the state’s ambitious housing production goals.

One of the most pressing challenges identified across data sources is the severe labor shortage affecting the residential construction industry. The demand for workers, particularly in skilled trades like electrical work, plumbing, and framing, continues to grow while the supply of trained labor has not kept pace. An aging workforce, declining apprenticeship enrollment, and a lack of structured career pathways for new workers have all contributed to this issue. While pre-apprenticeship and apprenticeship programs provide valuable entry points, their capacity is limited, and many prospective workers—especially those from minority backgrounds—struggle to access these opportunities due to financial constraints, geographic disparities, and lack of industry connections.

Additionally, workforce development efforts are not equitably distributed across Oregon. Rural communities face even greater workforce shortages as training programs and job opportunities remain concentrated in urban centers. Without targeted investments in regional training programs, transportation support, and direct-entry apprenticeship agreements, these workforce gaps will persist, delaying housing production and infrastructure developments.

Systemic inequities continue to prevent women, BIPOC workers, and other underrepresented groups from fully participating in the construction workforce. Discriminatory hiring practices, lack of outreach to minority communities, and reliance on word-of-mouth recruitment disproportionately exclude first-generation tradespeople. Language barriers further exacerbate these challenges, as many training programs, job site materials, and safety instructions are not accessible to non-English speakers, increasing workplace risks and limiting advancement opportunities.



Similarly, minority-owned construction businesses face financial and institutional barriers that prevent them from competing for large contracts. While certification programs such as MBE (Minority Business Enterprise) and COBID (Certification Office for Business Inclusion and Diversity) are intended to provide access to procurement opportunities, many minority-owned firms report that certification alone does not translate into meaningful contract awards. Large contractors frequently fulfill diversity requirements by subcontracting only small portions of projects to minority-owned businesses, limiting their ability to scale. Additionally, delayed payments, high bonding requirements, and restricted access to capital make it difficult for small firms to sustain operations and invest in workforce development.

While recruitment remains a major challenge, retention of existing construction workers—particularly those from historically excluded backgrounds—presents another critical issue. Many workers leave the industry due to unstable job schedules, lack of benefits, and physically demanding conditions. However, workplace culture also plays a significant role in workforce retention. Across multiple data sources, discrimination, harassment, and exclusionary job site environments were cited as key reasons why women and BIPOC workers exit the industry at higher rates. Employers who have successfully improved retention tend to have mentorship programs, structured career development pathways, and targeted leadership training initiatives in place—though such programs remain rare across the broader industry.

Additionally, promotion and career advancement remain largely informal, often based on personal recommendations rather than transparent, skills-based evaluations. This system disproportionately disadvantages women, BIPOC workers, and first-generation tradespeople who may not have the same networks or visibility within the industry. Without clear pathways for growth, many skilled workers remain stuck in entry-level positions, leading to higher turnover and fewer long-term career opportunities in the trades.

While technology is transforming the construction industry, its adoption remains uneven, particularly among small and minority-owned firms. Large companies are increasingly investing in Building Information Modeling (BIM), drones, automation, and cloud-based project management tools, while smaller firms struggle to afford and implement these technologies. Additionally, a lack of accessible technology training programs for non-English speakers and workers from underrepresented backgrounds further widens the gap. Many workers are not provided with on-the-job technology training, limiting their ability to advance into higher-paying, tech-driven roles.

Survey data revealed that employee resistance to technology, lack of training resources, and poor communication between field and office staff remain major barriers to widespread adoption. Without industry-wide investments in bilingual training, financial support for

small firms, and structured technology onboarding, modern construction innovations risk reinforcing existing workforce inequities rather than addressing them.

Although Oregon has policies in place to promote workforce diversity, support minority-owned businesses, and expand training programs, enforcement and accountability remain inconsistent. Many public contracts require a certain percentage of work to be awarded to minority-owned firms, yet oversight is often weak, allowing larger firms to circumvent true equity participation by subcontracting minimal portions of projects to meet diversity benchmarks.

Similarly, hiring and retention goals outlined in state and federal workforce initiatives are rarely enforced, leading to continued underrepresentation of minority workers in high-wage trades and leadership positions. While some companies have taken proactive steps toward improving hiring and retention through internal DEI initiatives, industry-wide change remains slow. Many employers cite lack of resources, unclear policy guidelines, and competing priorities as reasons why they struggle to implement equity initiatives effectively.

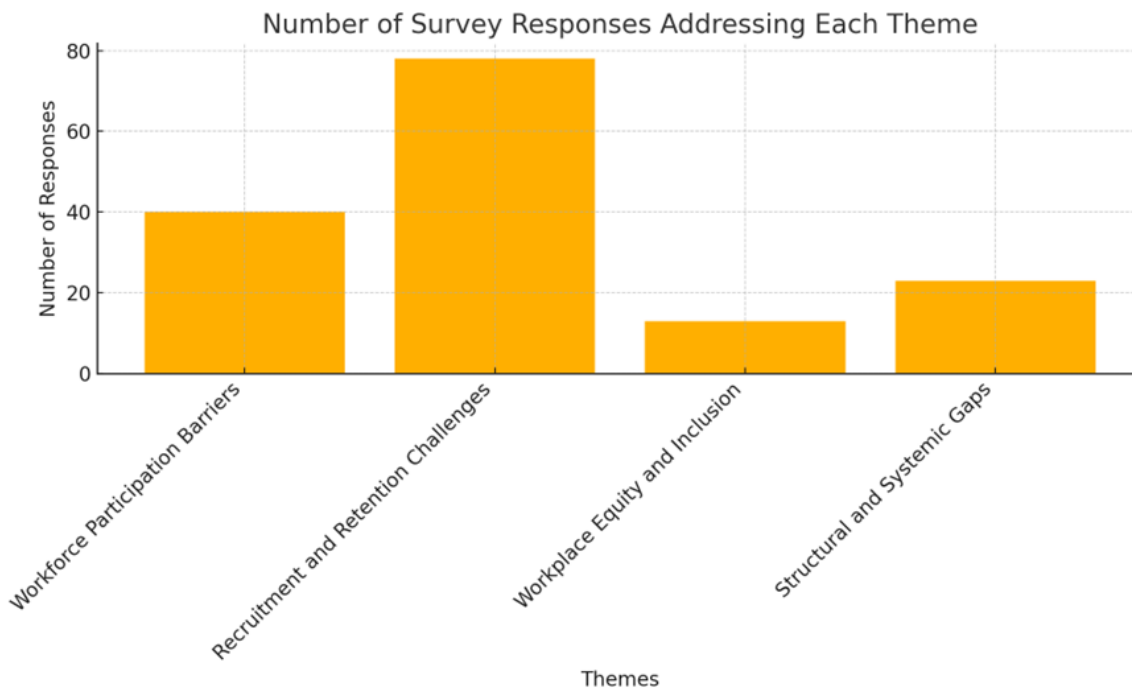
### **Analysis Per Data Source**

In this section we will explore the analysis per qualitative data source to better understand the data points that led to the aggregate findings.

#### **Survey Findings**

A survey was distributed to various stakeholders in Oregon’s residential construction industry. This survey was not directly aimed at equity for minorities in the industry, but more of a general climate survey. Our team was tasked with examining the responses of the survey through an equity lens.

**Figure 12: Survey Response Themes Addressed**



#### ***Workforce Participation Barriers***

Respondents highlighted significant challenges related to participation barriers for underrepresented groups in the residential construction workforce. Difficulty in filling positions with diverse applicants, particularly by gender and race/ethnicity, was a recurring issue. These challenges often stem from systemic inequities such as limited access to affordable training, certifications, and resources tailored to diverse communities. Additionally, language and cultural barriers were noted as obstacles, particularly for non-native English speakers. The high cost of living, which disproportionately impacts marginalized groups, further limits their ability to enter or remain in the workforce, compounding the difficulty of achieving diversity goals.

#### ***Recruitment and Retention Challenges***

Many respondents expressed their struggles with recruiting and retaining a diverse workforce. While there is a growing interest in diversifying teams, employers reported limited success due to insufficient outreach efforts and the lack of a robust talent pipeline. Existing efforts to diversify the workforce often rely on ad hoc initiatives rather than structured, long-term strategies. Mentorship opportunities and tailored support for underrepresented workers were frequently cited as missing elements that could improve retention. Moreover, respondents noted that the broader industry lacks cohesive programs or partnerships to bridge gaps in recruitment and retention.

### *Workplace Equity and Inclusion*

Workplace inclusivity remains a critical area of concern, with respondents frequently identifying wage disparities and discriminatory practices as key barriers. These inequities disproportionately affect women and workers of color, creating an environment where diverse employees are less likely to thrive. The lack of childcare support emerged as a major issue, particularly for women and single parents, further hindering their ability to participate fully in the workforce. Respondents also underscored the importance of fostering inclusive work environments where employees from diverse backgrounds feel valued and supported, but they acknowledged that these practices are not uniformly implemented across the industry.

### *Structural and Systemic Gaps*

Respondents identified significant structural and systemic gaps that impede workforce diversification and inclusion. A common concern was the lack of collaboration between industry leaders, workforce development providers, and community organizations to create sustainable pathways for underrepresented groups. Additionally, many noted that existing training programs and hiring pipelines are not adequately aligned with industry needs, leaving significant gaps in skilled labor. Respondents also highlighted limited enforcement of policies promoting diversity and equity, as well as insufficient community engagement to build trust and awareness in marginalized populations. These systemic issues create persistent barriers to achieving an equitable and inclusive workforce.

### *Interview Findings*

Summarize key insights and barriers from the interview data.

#### *Overview*

Nine interviews - each being 30 to 60 minutes - were conducted over zoom to capture a range of perspectives and insights from professionals working across various sectors within the construction industry. The interviewees represented a mix of general contractors, workforce development leaders, educators, sustainability advocates, and minority-focused construction leaders. Collectively, these individuals provided a comprehensive understanding of the systemic challenges and opportunities for fostering equity, workforce development, and inclusion in the construction field.

#### *Participant Demographics*

Several participants identified as women, first-generation immigrants, or leaders of minority-owned businesses, ensuring a broad representation of lived experiences and professional expertise.

**Figure 13: Interview Participant General Information**

Name	Education Level	Education Background	Job Title	Company	Sector	Skills	Stakeholders	Background
A	Master's	International Political Economy, MBA	Project Manager	Walsh Construction	Industry	Strategic Planning, Team Leadership, Project Planning	6,000 Employees	Transitioned from Boeing; significant expertise in project management and subcontractor relationships.
B	Bachelor's (At Least)	N/A	Student and Public Affairs	Northwest College	Construction Education	Apprenticeship Administration and Management, Curriculum Development, Public Relations	400 Apprentices	Over 25 years in workforce development; extensive experience in apprenticeship programs.
C	Bachelor's (At Least)	Architecture	Leadership	NAMC	Industry	Real Estate Development, Green Building, Contract Negotiation/Management, Construction Management	300 members (Businesses)	Leads NAMC; focuses on equity and inclusion in construction.
D	Master's	Environmental Science and Architecture	Business Owner	P3 Consulting (Worked for LatinoBuilt as Executive Director)	Industry	Sustainability, Green Building, Comprehensive Planning, Architecture, LEED	96 Construction Contractor Members, 43 Community Partners (LatinoBuilt)	First-generation immigrant; combines sustainability with equity in construction.
E	Bachelor's	Civil Engineering	Program Dean	Portland Community College	Construction Education, Industry	Stormwater, Water Quality, Engineering	53,820 students	Experienced project manager with a focus on equity and sustainability.

F	Master's	Teaching and Educational Leadership	SuperIntendent	Hillsboro School District	K-12	Student Engagement, Teaching, Administration	18,000 students	Advocates for integrating CTE pathways into schools; background in teaching.
G	Master's	Social Work	Executive Director	Portland YouthBuild	Construction Education	Mental Health, Case Management, Psychotherapy, Adolescents	200 student/yr	Specialist in workforce equity with a social work foundation.
H	Master's	Sociology, MSW	Executive Director	East Cascades Workforce Investment Board	Construction Education,	Workforce Development, Program Development, Training, Community Outreach, Nonprofits	10 counties	Directs workforce development in Central Oregon; focuses on inclusion and training.
I	Master's	Education (unknown specifics)	Superintendent	Reynolds School District	K-12	K-12 Leadership, Education	10,400 students	Experienced K-12 leader; integrates career pathways for underserved students.

The participant table provides a comprehensive view of the educational and professional backgrounds, organizational affiliations, and expertise of nine key individuals involved in the construction, education, and workforce development sectors.

- **Education Levels:**
  - Seven of the nine participants hold at least a master's degree, reflecting a highly educated group of professionals.
  - Two participants, **Participant B** and **Participant C**, have at least a bachelor's degree, though specific advanced education for Participant B is not explicitly noted.
- **Fields of Study:**
  - Educational backgrounds span a variety of disciplines, including:
    - Social Sciences (**Sociology, Education, Social Work**)
    - STEM fields (**Civil Engineering, Environmental Science, Architecture**)
    - Business disciplines (**International Political Economy, MBA**)
  - This diversity of academic foundations highlights how various fields contribute to leadership and innovation in the construction and workforce development sectors.

**Trend:** Many participants leverage their formal education to specialize in leadership, strategic planning, and workforce development, emphasizing the importance of interdisciplinary knowledge in addressing systemic challenges.

- **Job Titles:**
  - All participants hold leadership roles such as Project Manager, Superintendent, President, or Executive Director, indicating a high level of professional achievement.
- **Type of Field:**
  - Participants are distributed across three primary areas:
    - **Industry (4 participants):** Includes private-sector professionals like Participant A, Participant C, and Participant D, who work directly in construction or sustainability.
    - **Construction Education (4 participants):** Includes leaders like Participant B and Participant H, who focus on workforce development and apprenticeship programs.
    - **K-12 Education (2 participants):** Includes Participant F and Participant I, who emphasize integrating construction pathways into K-12 curricula.

**Trend:** This distribution shows a balance between on-the-ground industry expertise and educational leadership, demonstrating how both perspectives are essential for advancing equity and workforce development in the construction sector.

- **Size of Organizations:**

- Participants work in organizations of varying sizes:
  - **Large-scale organizations:** Walsh Construction (6,000 employees) and Portland Community College (53,820 students) represent institutions with significant resources and influence.
  - **Mid-sized organizations:** Northwest College of Construction (400 apprentices) and Reynolds School District (10,400 students) cater to specific regional needs.
  - **Smaller organizations:** Portland YouthBuild (200 students annually) and NAMC (300 members) focus on highly targeted, specialized programs.

**Trend:** Larger organizations provide the infrastructure and resources for large-scale projects, while smaller organizations often act as nimble, community-focused entities addressing niche issues like minority contractor support or youth engagement.

- Participants bring expertise in diverse but complementary areas:
  - **Project and Construction Management:** Professionals like Participant A and Participant C bring skills in strategic planning, contract management, and construction leadership.
  - **Workforce Development and Equity:** Leaders like Participant B, Participant H, and Participant G focus on training programs, inclusion, and addressing systemic barriers.
  - **Education and Student Engagement:** Participant F and Participant I specialize in integrating construction pathways into K-12 education, ensuring early exposure to trades.
  - **Sustainability:** Participant D and Participant E bring expertise in green building, environmental planning, and LEED certification, aligning construction with environmental goals.

**Trend:** The collective expertise of these individuals highlights an ecosystem of interconnected focus areas, from foundational education to high-level construction leadership and sustainability.

- Many participants emphasize equity and inclusion as a central theme of their work:
  - **Participant C and Participant D:** Focus on supporting minority contractors and fostering diversity within the construction workforce.
  - **Participant H and Participant G:** Lead programs aimed at breaking systemic barriers for underrepresented groups through workforce training and community outreach.
  - **Participant F and Participant I:** Work to create equitable pathways for students from underserved communities to enter the trades.



**Trend:** Equity and inclusion are not only priorities but also shared responsibilities across sectors, illustrating a unified commitment to improving access and outcomes for marginalized groups.

- **Regional Focus:**

- Participants' organizations collectively serve diverse populations across Oregon:
  - **Urban Centers:** Walsh Construction, Portland Community College, and Portland YouthBuild primarily serve metropolitan areas.
  - **Rural Regions:** East Cascades Workforce Investment Board and Reynolds School District focus on underserved rural and suburban populations.
- **Populations Served:**
  - The organizations collectively serve tens of thousands of students, apprentices, and professionals annually, from youth in K-12 education to apprentices in workforce programs.

**Trend:** The geographic reach of these organizations ensures that both urban and rural communities benefit from workforce development and construction initiatives, creating broad-scale opportunities for growth.

- Professionals like Participant D and Participant E highlight sustainability as a core part of construction and workforce development:
  - Emphasis on green building, LEED certification, and stormwater management reflects the industry's shift toward environmental accountability.
  - These efforts align with broader workforce goals, preparing apprentices and students for roles in a rapidly evolving, sustainability-focused construction industry.

**Trend:** Sustainability is increasingly integrated into construction practices, reflecting both environmental responsibility and future workforce needs.

The participant table reveals a wealth of expertise, diversity, and leadership across various sectors related to construction and workforce development. Key trends include a strong emphasis on mentorship, equity, and sustainability, as well as the critical role of interdisciplinary knowledge in driving systemic change. The collective efforts of these leaders create a robust foundation for addressing challenges in the construction industry and advancing workforce equity, aligning with broader goals such as the governor's housing initiative.

### *Purpose of the Interviews*

The primary objectives of the interviews were:

1. **Identify Key Challenges:** Understand the systemic, financial, and operational barriers faced by minority contractors, workers, and businesses in the construction industry.

2. **Assess Workforce Development Needs:** Explore gaps in existing workforce training, mentorship programs, and career advancement pathways for underrepresented groups.
3. **Evaluate DEI Initiatives:** Gather perspectives on the effectiveness of Diversity, Equity, and Inclusion (DEI) efforts within the industry and identify opportunities for meaningful improvement.
4. **Develop Actionable Recommendations:** Use the insights gathered to inform strategies for addressing inequities and enhancing workforce development, particularly in the context of the governor’s housing initiative.

### *Key Insights from All Interviews*

#### 1. Mentorship and Networking as Foundational Tools

- Participants emphasized that mentorship and networking are vital for overcoming systemic barriers and fostering professional growth.
  - **Participant A:** Credited networking as a key factor in his transition to Walsh Construction, highlighting the importance of relationships in career progression.
  - **Participant B:** Discussed how program coordinators serve as mentors for apprentices, providing critical guidance on workplace challenges and personal development.
  - **Participant C:** Highlighted the need for mentorship programs that integrate technical skills and business development, particularly for minority contractors.
  - **Participant E:** Shared that mentorship is essential for helping women and minorities navigate a male-dominated industry and access leadership opportunities.

#### 2. Systemic Barriers Persist Across the Industry

- Structural inequities were consistently identified as obstacles for minority-owned businesses and workers.
  - **Participant A:** Pointed to cash flow instability and the reliance on subcontractors as significant challenges for small businesses.
  - **Participant C:** Criticized union practices and Project Labor Agreements (PLAs) as exclusionary, limiting opportunities for minority contractors.
  - **Participant D:** Highlighted the lack of formal pathways for Latino workers transitioning to commercial construction projects.
  - **Participant H:** Discussed systemic biases that funnel BIPOC and LGBTQ+ individuals into lower-paying roles, limiting upward mobility.

### 3. Workforce Development Requires Structural Reform

- Workforce development programs were deemed inadequate in addressing long-term career pathways and skill-building for underrepresented groups.
  - **Participant B:** Highlighted the need for wraparound services, including childcare, transportation assistance, and financial support for apprentices.
  - **Participant F:** Emphasized the importance of introducing CTE pathways in middle and high schools to engage students early.
  - **Participant C:** Stressed the need for career ladders and mentorship opportunities to help minority workers advance within the industry.
  - **Participant I:** Called for pre-apprenticeship programs that provide foundational skills and help students transition into the trades.

### 4. DEI Initiatives are Often Superficial and Lack Accountability

- While some participants acknowledged the value of DEI initiatives, they criticized their superficial implementation and lack of meaningful outcomes.
  - **Participant C:** Argued that DEI initiatives often focus on quotas rather than fostering substantive change and measurable outcomes.
  - **Participant D:** Advocated for equity initiatives that prioritize decision-making power and capacity-building for minority contractors.
  - **Participant E:** Highlighted inclusivity training as critical for retaining diverse talent.
  - **Participant F:** Suggested ensuring that CTE programs reflect the diversity of the student population.

### 5. Financial Instability as a Major Barrier

- Financial barriers, particularly delayed payments and high operational costs were recurring challenges for minority contractors.
  - **Participant A:** Highlighted how delayed payments disrupt operations for subcontractors and create cash flow instability.
  - **Participant C:** Called for direct funding and financial support mechanisms to enable minority contractors to scale their businesses.
  - **Participant H:** Identified scholarships and financial assistance as crucial for improving retention in apprenticeship programs.

## Key Insights by Sector

### Industry Insights

The participants from the industry include **Participant A**, **Participant C**, and **Participant D**:

- **Financial Instability:** Delayed payments and limited access to capital disproportionately impact minority-owned businesses. Participant A, Participant C, and Participant D emphasized the need for faster payment cycles and targeted financial assistance to stabilize operations.
- **Equity and Inclusion:** Participants criticized the superficial nature of many DEI initiatives and advocated for measurable outcomes that support minority contractors.
- **Sustainability:** Participant D highlighted the integration of green building practices and LEED certifications, demonstrating how sustainability can align with equity.
- **Mentorship and Networking:** Professional relationships and mentorship programs were identified as critical tools for navigating systemic barriers and creating opportunities for underrepresented groups.
- **Leadership and Advocacy:** Participant C and Participant D stressed the importance of advocacy organizations like NAMC and LatinoBuilt in driving systemic change and supporting minority-owned businesses.

### **Construction Education Industry Insights**

The participants from the construction education industry include **Participant B**, **Participant G**, **Participant H**, and **Participant E**:

- **Workforce Development:** Workforce programs focus on bridging the gap between education and industry by offering hands-on training, mentorship, and holistic support services like childcare and transportation.
- **Systemic Barriers:** Participants addressed systemic challenges such as financial instability and limited access to training resources, particularly for underserved populations.
- **Equity and Inclusion:** Leaders in construction education emphasized the need for inclusive recruitment and retention strategies to support diverse apprentices and students.
- **Partnerships:** Collaboration with industry partners ensures that training programs remain relevant and responsive to workforce demands.
- **Sustainability:** Participant E's expertise in stormwater management and green building practices aligns with industry trends toward sustainability-focused training.

## K-12 Industry Insights

The participants from the K-12 industry include **Participant F** and **Participant I**:

- **CTE Pathways:** Both participants emphasized integrating career pathways into K-12 curricula to engage students early and prepare them for construction careers.
- **Systemic Barriers:** Participant F and Participant I addressed issues such as poverty, language barriers, and limited transportation, which disproportionately affect underserved students.
- **Equity:** Programs focus on creating equitable access to education and career opportunities, particularly for marginalized communities.
- **Partnerships:** Collaboration with apprenticeship programs and local businesses ensures students have access to real-world experiences and career opportunities.
- **Retention:** Efforts to keep students engaged through hands-on learning and alternative pathways are critical for reducing dropout rates and improving outcomes.

### *Barriers Identified*

#### 1. Delayed Payments and Financial Instability

- Minority contractors and subcontractors frequently face cash flow issues due to delayed payments, making it difficult to cover operational costs, pay employees, and scale their businesses.
- Participants emphasized the need for systemic changes, such as policies requiring faster payment cycles and financial assistance programs.

#### 2. Complexity of Compliance

- Government contracts often include complex compliance requirements that disproportionately impact smaller businesses, particularly minority-owned firms. Navigating these requirements diverts resources from growth and operations.
- Simplifying compliance processes and creating standardized requirements were identified as necessary reforms.

#### 3. Access to Training and Workforce Development

- Existing workforce programs often fail to create long-term career pathways or adequately prepare participants for evolving industry demands.
- Participants noted gaps in pre-apprenticeship and apprenticeship programs, along with barriers like childcare and transportation that limit participation.

#### 4. Superficial DEI Initiatives

- Diversity, Equity, and Inclusion (DEI) programs often focus on meeting quotas without addressing systemic inequities. Larger firms benefit from surface-level compliance, leaving smaller, minority-owned businesses marginalized.
- Participants advocated for measurable outcomes and accountability to ensure DEI initiatives lead to meaningful change.

#### 5. Systemic Barriers to Access and Opportunity

- Structural inequities, such as generational wealth disparities, lack of access to mentorship, and exclusionary practices in unions and project labor agreements, create significant challenges for minority contractors and workers.
- Participants stressed the importance of targeted reforms to address these systemic inequities, including mentorship programs, policy changes, and financial assistance mechanisms.

### Individual Analysis

Interviews were conducted with mid-level to C-level leadership among construction businesses as well as trade organizations from the building side and from school leadership on the school's side. Each person interviewed works or has worked with upwards of hundreds of workers within the residential construction industry across all job categories. For instance, we have trade leadership that focuses on engaging and training minority business owners, contractor leadership which works with laborers, skilled tradespeople, project managers, architects, engineers, etc. and superintendents that oversee the education of thousands of students a year. Given the range of oversight, we are confident that the number of interviewees covers a wide breadth of experience and knowledge related to the barriers encountered by underrepresented groups as well as meaningful insights into how we may innovate to overcome these barriers.

#### Participant A's Interview Insights

Participant A, a project manager at Walsh Construction, shared insights into his educational background, career path, and experiences in the construction industry. His journey demonstrates the importance of adaptability, continuous learning, and a strong network in advancing one's career in the construction sector.

Participant A began his education at Jesuit High School and later attended the University of Puget Sound, where he majored in International Political Economy. His father's career in commercial real estate investment and development played a significant role in shaping his interest in the construction industry. After graduating, Participant A worked at Boeing for 10 years, where he

managed all construction projects at the Everett production site, the company's main facility for commercial airplanes. Despite holding a significant role at Boeing, Participant A acknowledged that he lacked basic construction skills, such as reading construction plans, when he transitioned to Walsh Construction.

The opportunity to join Walsh Construction arose from Participant A's long-standing relationship with the Walsh family. Networking played a crucial role in his career transition, as his previous experience at Boeing piqued Walsh Construction's interest in hiring him. Initially, Participant A started as a project engineer on job sites to gain hands-on experience in construction, a position that allowed him to learn foundational skills. This role served as a steppingstone to his current position as a project manager, where he oversees multiple projects and coordinates with subcontractors and clients.

Participant A highlighted the unique organizational structure at Walsh Construction, describing it as flat and emphasizing the autonomy granted to employees. The company prioritizes hiring individuals with a strong willingness to learn and a genuine passion for the construction industry. In recent years, Walsh has enhanced its training and development programs by implementing a Learning Management System (LMS) and hiring a head of training. The company's training initiatives now encompass both technical and interpersonal skills, including lessons on submittals, specifications, and writing RFIs. Participant A reflected on how these structured programs would have been beneficial when he first joined the industry, as he initially relied on peer support and on-the-job learning.

Subcontractor management is a key aspect of Participant A's role at Walsh. He noted that subcontractors can be inconsistent in terms of quality and reliability, which can significantly impact project timelines and outcomes. Walsh addresses these challenges by actively monitoring subcontractor workloads to prevent overextension and ensure consistent performance. Participant A also emphasized the importance of subcontractor honesty about their capacity to take on projects, as this transparency fosters trust and accountability.

Walsh Construction has a strong commitment to supporting minority- and women-owned businesses, often working on projects with COBID-certified goals that target 28-30% participation from these businesses. While the company maintains relationships with reliable minority subcontractors, it actively seeks to engage with new partners as well. Walsh collaborates with organizations like NAMAC (National Association of Minority Contractors) to strengthen these efforts. However, Participant A identified cash flow issues as a significant barrier for minority-owned businesses, as delayed payments can strain their operations.

Participant A also discussed broader workforce challenges, noting significant labor shortages in trades such as plumbing and electrical work. He expressed concerns about whether the current minority workforce has the capacity to meet Governor Kotek's ambitious goal of constructing 36,000 housing units annually. Additionally, he emphasized the importance of increasing

awareness of construction careers at earlier stages of education. Initiatives like "Take Your Kid to Work Day," which Walsh actively participates in, serve as valuable tools for engaging young people and sparking interest in the industry.

Inclusivity and accessibility are central to Walsh's workplace culture. The company makes concerted efforts to remove language barriers and foster an environment where all employees can thrive. These initiatives reflect Walsh's commitment to equity and its dedication to cultivating a skilled and diverse workforce.

Participant A's journey highlights the dynamic nature of the construction industry and the critical role of adaptability, education, and equity-focused practices in addressing workforce challenges and fostering career growth.

### **Points of Analysis**

Participant A was influenced by his father from a young age to have a good work ethic, drive, and strive for career growth. His father's expertise in skills related to the construction field provided Participant A with natural exposure early on in his life. Although Participant A had an idea of what he wanted to do with his life relatively early on, he had some room to explore the realm of his interests in college and figure out what was right for him. His entrance into Boeing via an internship - leading into a fruitful full-time career - highlights the importance of having access to programs such as internships, apprenticeships, and pre-apprenticeships. These programs provide more immersive educational experiences on top of professional credibility needed to have a leg up when entering the workforce. His transition to Walsh construction shows the importance of building a network and knowing how to display your professional skills and experience. Walsh's value of hiring interns that will hopefully turn into full-time employees echoes Participant A's own experience earlier in his life of being integrated into the world of construction full-time.

In his interview, Participant A explains how when he started as a project engineer at Walsh Construction, he was not yet good at reading a set of plans. It took time and field experience for him to get better. Now as a project manager, Participant A tries to ease the language barrier some subcontractors face by taking out the less relevant information, thus making the set of plans easier to look through. Although he does not understand what it is like to not have English as a first language, he does understand what it is like to have trouble comprehending the plans. Additionally, by understanding the importance of subcontractors on a project, he prioritizes supporting them so that they can do their best work.

### **Participant B Interview Insights**

Participant B, a director of student and public affairs, shared her extensive experience and the initiatives led by Northwest College to support apprenticeships and workforce equity. Her career



spans over 25 years, including two decades at a community college and seven years at Northwest College, where she has been instrumental in shaping apprenticeship programs.

Participant B described Northwest College as both a related training provider and administrator for various apprenticeship programs, including carpentry, laborers, heavy equipment operators, roofers, brick masons, tile setters, and more. These programs, managed under the Construction Industry Training Trust and overseen by AGC (Associated General Contractors), serve as critical pathways for individuals entering the construction trades. Despite the breadth of these offerings, the most in-demand programs, such as heavy equipment operators and laborers, are limited in capacity, with only two programs of their kind statewide, one union-affiliated and one non-union operated by Northwest College.

Diversity and inclusion are central to the college's mission. Participant B highlighted the participation of priority populations, noting that minority representation in their programs stands at 51%. However, female participation, including female minorities, is an area where improvement is needed. Currently, 3% of participants are female minorities, and 9% are women overall, falling short of their historical benchmark of 13%. Efforts such as offering roofing cohorts in Spanish have aimed to address these disparities, though cultural and logistical challenges have required adjustments, including integrating these cohorts with broader classes.

The college has taken significant steps to address barriers faced by apprentices. Financial struggles, including the inability to afford basic supplies like PPE or travel expenses, are common challenges. Additionally, childcare, especially for evening programs, remains a critical issue for many participants. To support retention, the college provides scholarships and encourages apprentices to take leaves of absence during difficult periods, such as the pandemic, rather than withdrawing entirely. This strategy has proven effective in keeping apprentices engaged and improving overall program outcomes.

Recruitment efforts at Northwest College are robust and strategic. The college collaborates with schools, pre-apprenticeship programs, and community organizations like the Boys and Girls Club to build awareness about apprenticeship opportunities. Tailored marketing campaigns on platforms such as Facebook, Instagram, and Roku help reach specific populations based on workforce needs. Hands-on events like the NUCCA Trade Fair and Oregon Tradeswomen Fair, along with mobile resources such as a heavy equipment operator simulator, further enhance accessibility for rural and underserved communities.

Program expansion has been a key focus for Northwest College. New programs, including a sheet metal apprenticeship and HVAC training, reflect the college's commitment to adapting to industry demands. Partnerships with AGC, ABC (Associated Builders and Contractors), and NUCCA ensure that training aligns with employer expectations and workforce requirements. Contractors play a vital role in these efforts, participating in events, providing mentorship, and offering direct feedback to improve program relevance.

Participant B underscored the systemic barriers faced by minority contractors and workers in accessing opportunities. Simplifying compliance requirements, providing technical assistance, and addressing cash flow issues are essential steps to fostering equity in the construction industry. Additionally, expanded childcare options and transportation solutions are critical to making apprenticeship programs more accessible.

Through her leadership, Participant B has positioned Northwest College as a driving force in workforce development, focusing on equity, accessibility, and alignment with industry needs. By addressing systemic challenges and expanding opportunities, the college continues to prepare individuals for successful careers in the construction trades.

### *Points of Analysis*

Participant B's ability to leverage her deep experience in education and workforce development provides a strong foundation for the success of the college's programs. Her leadership in managing 13 apprenticeship programs reflects a strategic vision that aligns with industry demands and inclusivity goals. Compared to the rate of minority representation currently in the Oregon State construction industry (largest being about 14% Hispanic, 2% Black, 2% Asian, and 4% women) the college's 51% minority participation rate is a huge success. However, like the state construction industry, they are still seeing only a small percentage of their participants be female (specifically only 3% are women of color).

The college's strategic and multi-channel recruitment efforts demonstrate a well-rounded approach to attracting diverse populations. By leveraging digital tools and community partnerships, the college ensures its programs are visible and accessible, particularly to underserved communities. Moreover, the expansion of programs to meet evolving industry needs is a testament to Participant B's forward-thinking leadership. The alignment with industry stakeholders ensures that graduates possess relevant skills, enhancing their employability and addressing labor shortages in critical sectors.

Participant B's identification of systemic challenges reflects a deep understanding of the structural inequities within the construction industry. Tackling these barriers requires collaboration between workforce development organizations, industry stakeholders, and policymakers to create equitable access to opportunities. The college's emphasis on retention through direct communication and feedback mechanisms demonstrates a strong commitment to apprentice success. These practices create a supportive environment that encourages program completion and long-term career development.

## Participant C's Interview Insights

Participant C, an officer-level executive of NAMC (National Association of Minority Contractors), provided a comprehensive overview of NAMC's role in minority workforce development, its alignment with Oregon's Affordable Housing Initiative, and the organization's broader vision for equity and inclusion in the construction industry. His insights highlight NAMC's unique position as both a convener and advocate for minority contractors and workers.

Participant C agrees with the idea of pushing the industry to come together and produce more housing in order to address the current housing crisis in Oregon State. He emphasized the importance of incorporating energy-efficient features like EV charging stations and solar panels into these projects to benefit housing providers and tenants. While NAMC's efforts are not yet fully aligned with the initiative, Participant C outlined plans to create a workforce talent board to coordinate training, retention, and deployment of workers for affordable housing projects. This board would also serve as a platform to connect trainees with minority-owned businesses and ensure equitable access to project pipelines.

NAMC is launching a new initiative called the Building Green Futures Program, supported by a PCEF (Portland Clean Energy Fund) award. This program builds on the existing NAMC University Technical Assistance Training Program and includes training in energy-efficient construction techniques, workforce development for pre-apprentices and entrepreneurs, and workshops that foster collaboration between workforce participants and businesses. The goal is to equip individuals with the skills to start their own businesses or succeed as employees in the energy efficiency sector.

As an owner's representative on agency-led and for-profit developer projects, NAMC plays a pivotal role in setting hiring goals, procurement strategies, and equity targets. Participant C highlighted the success of projects like the Port of Portland, which achieved an unprecedented \$250 million in minority spending. He emphasized the need to replicate such successes by positioning NAMC as a convener for high-equity projects and empowering minority contractors to take on leadership roles. Unlike many trade associations, NAMC focuses on developing minority-owned businesses from within, providing contractors with decision-making power and autonomy.

Youth engagement is a key component of NAMC's strategy. Participant C discussed efforts to expose middle and high school students to construction careers through job site visits and mentorship programs. These initiatives aim to shift students' aspirations beyond media-driven careers like sports and gaming to viable opportunities in construction, architecture, and engineering. Representation is critical, with NAMC ensuring that minority professionals serve as role models and messengers of change. Activities such as leveraging sports as a bridge to connect with youth further reinforce these efforts.

Participant C identified referral-based entry as the most common pathway into construction careers, underscoring the importance of personal connections. Schools with Career and Technical Education (CTE) programs also play a vital role in providing direct pathways into the industry. NAMC acts as a workforce navigator, bridging gaps for individuals without access to traditional pathways and guiding them toward training programs and job opportunities. Marketing campaigns, word-of-mouth, and community engagement are central to NAMC's outreach efforts, highlighting the low barriers to entry and high earning potential in construction.

Despite these efforts, Participant C acknowledged systemic inequities in advocacy, where larger, well-funded organizations like unions (only 20% of their members are union, the other 80% are non-union) dominate legislative and decision-making spaces. NAMAC lacks resources like a full-time lobbyist to sustain consistent advocacy. To address this, Participant C emphasized the need for stronger representation and collaboration with policymakers to advance equity goals.

Looking ahead, NAMC aims to build stronger relationships with project owners who prioritize diversity, equity, and inclusion. By being actively involved in RFP processes and funding decisions, NAMC seeks to ensure minority contractors and workers are included in major projects statewide. The organization's long-term vision includes creating its own workforce engine through in-house training programs, further solidifying its role as a leader in minority workforce development.

Through its initiatives and advocacy, NAMC continues to champion equity, empower minority contractors, and build pathways for underrepresented groups to thrive in the construction industry.

### *Points of Analysis*

This interview indicates that NAMC is already working on many initiatives that are necessary to reach the housing production goal (EX: energy efficiency, workforce development, youth outreach, etc.). Additionally, they already have a good reputation and solid network within the Oregon State Construction Industry.

### *Participant D Interview Insights*

Participant D, a leader in sustainability and workforce equity, provided insights into his professional journey and the systemic challenges faced by minority workers and contractors in the construction industry. As a first-generation immigrant from a Mexican family, Participant D's career has been shaped by personal experiences working in construction with his father, who was a general contractor, as well as his education and expertise in environmental science and architecture.

Participant D began his career working alongside his father on residential and light commercial projects, gaining firsthand knowledge of the construction trades. As the first English speaker in his family, he took on the role of translator, assisting with permits, blueprints, and communication on job sites. While pursuing higher education, Participant D specialized in environmental science and architecture, which led him into sustainability and green building practices within the commercial and industrial sectors. His career includes working with small businesses, Fortune 100 companies, and government agencies to develop sustainability and equity-focused policies. Over the past 16 years, Participant D has also volunteered with small business advocacy organizations in Oregon, furthering his commitment to fostering equitable opportunities for minority contractors.

During his tenure at Latino Built, Participant D observed the significant contributions of Latino workers in the construction industry, particularly in residential and light commercial sectors. He emphasized the need to support these workers by creating clear pathways to transition into larger infrastructure and government-funded projects. Many Latino workers enter the construction workforce organically through family businesses or mentorship, learning skills on the job rather than through formal training programs. However, systemic barriers, such as limited access to government contracts, delayed payments, and compliance challenges, hinder their ability to scale up and compete in larger markets.

Participant D highlighted that residential housing relies heavily on small subcontractors, many of whom are minority-owned. These businesses often operate in a multi-trade environment, handling diverse tasks to reduce costs. However, transitioning to government-funded affordable housing projects requires navigating complex regulations, securing upfront investments, and adhering to strict compliance standards. Addressing these challenges requires tailored technical assistance, mentorship programs, and improved onboarding systems to help minority contractors succeed in larger-scale projects.

Mentorship emerged as a recurring theme in Participant D's interview. He underscored the importance of mentorship models that not only provide technical training but also focus on business development and financial management. These relationships are crucial for helping small contractors expand their capabilities and grow their businesses. Participant D's vision for equity in construction extends beyond diversity quotas, advocating for systemic change that increases decision-making power, capacity, and representation for minority-owned businesses. Collaborative efforts between policymakers, contractors, and industry stakeholders are necessary to create environments where minority contractors can thrive.

To better support minority workers and contractors, Participant D proposed developing systems that validate and transfer skills from residential to commercial construction. Training programs tailored to the unique challenges faced by minority contractors, along with expanded access to funding and mentorship opportunities, are critical to bridging skill gaps and fostering growth.

Additionally, building long-term partnerships with minority contractors can enhance trust and stability within the industry.

Participant D's insights highlight the need for alignment between equity goals and practical implementation in the field. By focusing on capacity-building, mentorship, and systemic change, the construction industry can create sustainable pathways for minority workers and contractors to achieve success. Through his work, Participant D continues to advocate for a more inclusive and equitable construction industry that values the contributions of underrepresented groups.

### *Points of Analysis*

Participant D's personal and professional background uniquely positions him to address the intersection of sustainability, equity, and workforce development. His journey demonstrates how lived experiences and education can inform a more inclusive and environmentally conscious approach to construction. Participant D's emphasis on systemic barriers highlights the inequities embedded in the construction industry's infrastructure. Addressing these challenges requires comprehensive reforms, such as simplified compliance processes, technical assistance, and access to financial resources, to create equitable opportunities for minority contractors.

The reliance on small subcontractors underscores the critical role they play in the housing market. However, the report identifies a need to bridge the gap between residential and commercial construction by providing targeted training and mentorship to align skills with the demands of larger projects. Mentorship offers a dual benefit by building technical expertise while fostering the business acumen necessary for minority contractors to succeed. Expanding mentorship opportunities could accelerate the growth of minority-owned businesses and promote greater equity in the industry. Participant D's perspective on equity underscores the importance of moving beyond superficial benchmarks to address the structural issues that hinder minority participation. His call for systemic change aligns with broader industry goals to foster meaningful and sustainable inclusion.

The integration of sustainability into workforce development reflects the growing importance of environmentally conscious practices in construction. Aligning training programs with green building standards ensures that workers are equipped to meet future industry needs while contributing to broader environmental goals.

### *Participant H Interview Insights*

Participant H, a workforce development leader in Central Oregon, shared her career journey, the challenges faced by underserved communities, and the initiatives led by her workforce development board to create equitable opportunities in the construction and trades industries. Participant H's background in social work and workforce development underscores her commitment to addressing systemic barriers and fostering inclusion.

Participant H began her career in social work after earning a sociology degree from the University of Wisconsin-Madison. She later pursued a master's degree while working with homeless youth at New Avenues for Youth in Portland. Her experience developing a job training program at the organization inspired her to transition into workforce development. Today, Participant H serves as the director of a workforce development board in Central Oregon, focusing on creating pathways to high-demand careers.

The workforce development board actively collaborates with organized labor, including unions such as IBEW and UA290, as well as laborers' unions overseeing Joint Apprenticeship and Training Committees (JATCs). Participant H has facilitated sector partnerships with unions, education providers, builders, and contractors to improve training alignment and workforce outcomes. These collaborations aim to address critical labor shortages, particularly in plumbing and electrical trades.

Participant H emphasized the systemic barriers faced by underserved groups, including BIPOC and LGBTQ+ individuals, in accessing education and career opportunities. Assumptions about the capabilities of BIPOC students often lead to lower expectations and limited opportunities, while LGBTQ+ individuals face systemic homophobia and transphobia. For transgender workers, the challenges are even greater, with heightened discrimination in the workplace. Participant H also highlighted the lack of widespread effort to support individuals with disabilities in the trades, despite partnerships with vocational rehabilitation services to provide accommodations for apprentices with disabilities.

Schools in Central Oregon have implemented initiatives to promote construction careers, such as regional trades fairs that bring thousands of students together to explore career technical education and construction trades. The High Desert Education Service District partners with local schools, community colleges, and youth programs to standardize curricula and provide certifications like NCCER (National Center for Construction Education and Research) credentials. These efforts ensure that students graduate with industry-recognized skills, improving their chances of entering the trades.

Recruitment strategies focus on engaging diverse populations through outreach to schools, community organizations, and events. Participant H's board works to address barriers like language and cultural perceptions, partnering with organizations serving priority populations to increase participation in apprenticeship programs. Hands-on learning experiences and clear career pathways play a crucial role in motivating students, particularly those who are kinesthetic learners and thrive in practical, skills-based environments.

The workforce development board also emphasizes alternative education and training programs, such as YouthBuild, to provide non-traditional pathways into the trades. These programs are particularly valuable for individuals who may not thrive in mainstream education settings, offering technical training alongside wraparound support services.

Participant H's vision for equity in workforce development includes removing systemic barriers, fostering inclusive environments, and ensuring equitable access to opportunities for all individuals. By addressing biases and creating pathways for underserved populations to thrive, the workforce development board is paving the way for a more inclusive and sustainable construction workforce.

### *Points of Analysis*

Participant H's transition from social work to workforce development demonstrates her ability to integrate social justice principles into workforce initiatives. Her leadership is instrumental in addressing structural inequities and creating sustainable opportunities for priority populations. Participant H's emphasis on systemic barriers highlights the entrenched inequities within the construction and trades industries. Addressing these issues requires not only targeted outreach but also structural changes to ensure equitable access and support for all individuals. The board's commitment to equity is evident in its targeted efforts to recruit diverse populations. However, ensuring long-term success requires additional investment in retention strategies and support systems to help participants overcome systemic challenges.

Partnerships are a cornerstone of Participant H's approach, enabling the board to offer industry-aligned training and certifications. These collaborations ensure that students are prepared to meet workforce demands while addressing regional labor shortages. Participant H's focus on outreach and hands-on experiences effectively engages students who may not thrive in traditional classroom settings. These efforts are crucial for changing the perceptions of the trades and promoting them as viable career paths.

Alternative education programs are essential for expanding access to the trades. By supporting individuals who may face barriers in traditional settings, these initiatives create more inclusive opportunities for workforce participation.

The focus on labor shortages highlights the urgent need to attract and retain skilled workers in critical trades. Addressing these challenges requires a dual approach to expanding recruitment efforts and improving workplace conditions to ensure long-term retention.

### **Participant F Interview Insights**

Participant F, Superintendent of the Hillsboro School District (over 18,000 students), discussed his background and the Hillsboro School District's efforts to integrate construction and trades pathways into its curriculum. With a strong focus on Career and Technical Education (CTE), the district aims to prepare students for high-demand careers while addressing systemic barriers to access and equity.



Participant F grew up in Eugene, Oregon, and was the first in his family to attend college. After receiving an academic scholarship, he pursued a master's in teaching from Pacific University. His career began as an instructional assistant and teacher before he advanced to leadership roles, including principal, CTE coordinator, and director of ESL and migrant programs. His passion for workforce development stemmed from working with at-risk students in a night school setting.

Hillsboro School District offers a range of construction and trades-related programs through its CTE curriculum. High schools in the district provide electives in construction technology, including framing, tiling, surveying, and forklift certification. Students gain hands-on experience by working on industrial and residential projects, such as tiny homes, structural beams, and sustainable designs. The district also emphasizes green technologies like water recapture and solar energy systems. These programs are strategically distributed across schools: construction programs are offered at Glencoe and Liberty High Schools, while drafting and design (CAD) and sustainable design programs are available at Century and Hilhi High Schools.

Partnerships play a critical role in supporting these programs. Local companies sponsor materials and projects, while industry advisory committees ensure curricula align with workforce needs. For example, the sustainable design program receives support from Portland General Electric (PGE) and other environmental organizations. Additionally, the district collaborates with middle schools to introduce students to career pathways early and maintain engagement through high school.

The district's youth apprenticeship program offers students opportunities to gain hands-on experience as certified manufacturing technicians. Partnering with companies such as Toso Quartz and Jira Semiconductor, students split their time between school and on-the-job training, earning wages and national credentials. The program aligns with Bureau of Labor and Industries (BOLI) standards, ensuring quality and reciprocity across states.

Despite its successes, the district faces challenges in scaling these programs. Limited space, funding, and resources restrict the expansion of construction and auto tech programs. High costs for equipment and facilities necessitate additional state funding or industry sponsorships. Engagement from the construction industry, while strong, must be sustained to meet growing demand for skilled workers.

Equity is a core focus for the district's CTE and apprenticeship programs. Participant F emphasized the importance of equitable enrollment, ensuring programs reflect the diversity of the student population. Efforts to address barriers for underrepresented groups include targeted outreach, wraparound support services, and partnerships with organizations serving diverse communities. The district also promotes alternative education models, such as YouthBuild, to provide non-traditional pathways into the trades.

Participant F' vision for workforce development includes building long-term career pathways that connect students to high-demand industries like construction, healthcare, and manufacturing. By fostering partnerships, integrating sustainability into curricula, and addressing systemic barriers, the Hillsboro School District aims to prepare students for meaningful and well-paying careers while strengthening the local economy.

### **Points of Analysis**

The district's diverse curriculum not only prepares students for careers in construction but also introduces them to cutting-edge practices like green building and renewable energy. These programs address labor shortages while meeting the evolving needs of the industry. Partnerships play a critical role in aligning educational programs with industry needs. By involving industry leaders, the district ensures students graduate with relevant skills and strong connections to potential employers.

Equity is a cornerstone of the district's workforce development strategy. By prioritizing diverse enrollment and alternative education models, the district addresses systemic barriers and expands access to the trades for all students. The district's apprenticeship program addresses the critical need for real-world experience in workforce preparation. By combining classroom learning with paid work opportunities, the program offers students a direct pathway into high-demand careers. While the district's programs are impactful, their scalability is constrained by resource limitations. Securing additional funding and expanding partnerships will be essential to meeting growing workforce demands in construction and other trades.

### **Participant G Interview Insights**

Participant G, the Executive Director of Portland YouthBuilders, shared his insights into the challenges faced by minority workers and contractors in the construction industry, as well as the systemic changes needed to foster equity and inclusion. His interview highlighted the importance of community engagement, tailored educational approaches, and accountability in creating sustainable career pathways.

Participant G holds a master's degree in social work, though his educational background did not directly influence his current career in construction workforce development. Instead, his career evolved through exploring various roles and finding his niche in the construction industry. Reflecting on his professional journey, Participant G acknowledged that barriers often cannot be fully overcome but require consistent effort and perseverance to navigate.

Although Participant G did not have mentors early in his career, he received guidance later in life when most of his major career decisions had already been made. He expressed a cautious view of mentorship, emphasizing that it is a significant responsibility and should be approached with respect and understanding of its impact on an individual's trajectory.

In discussing diversity, equity, and inclusion (DEI), Participant G highlighted the construction industry's ongoing struggles with systemic inequities. He described construction as a white male-dominated industry, where conversations about DEI have gained momentum but have yet to result in meaningful systemic change. While dialogue is a good starting point, Participant G stressed the need for accountability and actionable steps to create more inclusive workplaces.

Participant G also explored the factors that motivate young people to pursue construction careers. He observed that economic hardship often drives interest, as young people seek stable, well-paying opportunities to escape poverty. However, many students lack adult guidance and must navigate career pathways through trial and error. Participant G emphasized the importance of engaging with young people on their terms, asking about their interests and tailoring programs to meet their goals.

Barriers such as extensive prerequisites for certain careers deter many students from pursuing those paths. Participant G noted that young people often evaluate opportunities based on the number of obstacles involved, gravitating toward roles with fewer barriers to entry. This insight underscores the importance of creating accessible pathways and removing unnecessary hurdles to participation.

Systemic accountability for workplace safety and inclusion remains a significant issue. Participant G noted that many workplace conversations focus on resources and partnerships but fail to address on-site cultural challenges directly. He called for greater accountability to ensure that job sites are safe, inclusive, and welcoming for all workers.

When envisioning an ideal educational program for construction careers, Participant G proposed a model that includes housing for students and employs trainers who reflect the population being served. He stressed the importance of hiring trainers with direct experience in the trades to ensure practical and relatable instruction. This approach would provide students with the support and skills necessary to thrive in the industry.

Participant G concluded by offering advice to organizations promoting equity and inclusion in construction. He emphasized the importance of reciprocity when asking marginalized groups to share their experiences, as such requests can be emotionally taxing. Moving beyond conversations to implement systemic changes is essential for creating equitable opportunities in the construction industry. Through his leadership, Participant G continues to advocate for accountability, inclusivity, and sustainable workforce development.

### *Points of Analysis*

Participant G's personal and career journey reflects resilience and adaptability, providing him with a deep understanding of the barriers faced by minority workers. His cautious perspective on

mentorship highlights the importance of intentional and meaningful support systems to guide career development effectively.

Participant G's critique of DEI efforts underscores the gap between awareness and implementation. While conversations about diversity are a good starting point, they must be followed by concrete policies and practices to dismantle systemic barriers and create inclusive workplaces. Simplifying entry requirements and fostering accountability on job sites are essential for creating a more inclusive industry.

### Participant E Interview Insights

Participant E, a seasoned project manager with over 15 years of experience in the construction industry and current Program Dean of Portland Community College, shared her perspectives on the challenges faced by women and minorities in the field, as well as the intersection of sustainability and workforce development. Her insights provide valuable context for understanding how to foster equity, inclusivity, and sustainability in construction.

Participant E's career began with internships in project management, which paved the way for her roles in both residential and commercial construction. Over time, she developed a strong focus on integrating sustainability into her projects, aligning with broader environmental goals. Additionally, Participant E has played an active role in workforce development initiatives aimed at creating equitable opportunities for underrepresented groups in the construction industry.

As a woman in construction, Participant E described facing significant gender bias, particularly early in her career. On job sites, she was often one of the only women present and had to work harder to earn respect and recognition. Building technical knowledge and demonstrating expertise were key strategies she used to overcome these challenges. Networking with other women in construction provided a critical support system, helping her navigate the industry's inherent biases.

Participant E highlighted her company's commitment to diversity, equity, and inclusion (DEI). The company has implemented policies such as targeted recruitment and mentorship programs for underrepresented groups. Collaborations with organizations like NAMAC (National Association of Minority Contractors) and local workforce development boards have expanded opportunities for minority contractors and workers. Additionally, regular DEI training sessions for staff and leadership help reinforce the company's inclusivity goals.

Participant E identified several key barriers preventing women and minorities from entering the construction industry. Lack of awareness about construction as a viable career path is a significant challenge, compounded by financial obstacles such as affording tools, transportation, and other essential resources. Cultural biases and workplace environments that are not always inclusive further deter participation. To address these issues, Participant E recommended expanding

outreach to schools and communities, offering scholarships and stipends, and providing toolkits to reduce financial barriers. She also stressed the importance of mentorship programs and workplace inclusivity training to retain diverse talent.

Sustainability is a core component of Participant E's work, and she sees its integration into workforce development as essential for preparing workers for the evolving demands of the industry. Her projects focus on using energy-efficient materials, minimizing waste, and partnering with environmental organizations to align construction practices with sustainability goals. Workforce development programs are increasingly incorporating sustainability training, equipping workers with the skills needed for green building practices.

Recruitment strategies that attract diverse talent have proven effective under Participant E's leadership. Career fairs, trade workshops, and partnerships with schools and community organizations help raise awareness about construction careers. Social media campaigns and collaborations with initiatives like Future Ready Oregon have enabled her company to connect with pre-apprenticeship students from priority populations. These efforts highlight the importance of targeted outreach in creating equitable opportunities.

Mentorship and networking are central to Participant E's vision for workforce development. She emphasized the critical role mentorship plays in guiding women and minorities through the construction industry. Formal mentorship programs within companies, as well as networking opportunities through organizations like NAMAC, provide the support and connections needed for career growth.

Participant E also addressed the broader issue of labor shortages in the construction industry. She emphasized the importance of retention by creating supportive work environments and offering competitive wages and benefits. Expanding pre-apprenticeship and apprenticeship programs can attract new talent, while marketing campaigns showcasing the stability and earning potential of construction careers can shift public perceptions.

Looking to the future, Participant E envisions an inclusive construction workforce where diversity is celebrated, and sustainability is a standard practice. She sees building stronger pipelines from schools and community organizations into the industry as a top priority. Her efforts demonstrate how equity, sustainability, and workforce development can intersect to create a more resilient and inclusive construction industry. The persistence of gender bias and financial barriers underscores the systemic inequities within the construction industry. Participant E's experiences highlight the need for targeted efforts, such as mentorship programs, financial support, and inclusivity training, to address these challenges and create a more equitable industry.

### *Points of Analysis*

Participant E's professional journey demonstrates resilience and adaptability. Her ability to excel despite industry biases exemplifies the importance of creating supportive environments to enable underrepresented groups to succeed in construction careers.

Sustainability is no longer a niche focus but a necessary component of modern construction practices. Participant E's leadership in this area positions her as a trailblazer in aligning workforce development with environmental priorities, preparing students/workers for long-term industry demands.

Mentorship and networking are essential tools for fostering equity and inclusivity. By creating structured mentorship programs, companies can provide the guidance and support needed for women and minorities to advance in their careers.

Labor shortages remain a significant challenge for the construction industry. Addressing these shortages requires a dual focus on recruitment and retention, ensuring workers have both access to opportunities and reasons to stay in the field.

### **Participant I Interview Insights**

Participant I, Superintendent of Reynolds School District, shared his career journey and the district's efforts to integrate construction and trades programs into its curriculum. His insights highlight the challenges and opportunities in workforce development, particularly for a highly diverse and economically disadvantaged student population.

Participant I began his career as an elementary school teacher and later became an English Language Learner specialist. He served as an elementary school principal in Albany, Oregon, for seven years before transitioning to roles with education nonprofits. Prior to becoming Superintendent at Reynolds School District, he held leadership positions such as Assistant Superintendent and Executive Director of High Schools in Hillsboro. Participant I also spent a decade teaching outdoor and environmental education in California, which further shaped his commitment to hands-on and experiential learning.

Reynolds School District's current construction-related curriculum is primarily housed in its high school Career and Technical Education (CTE) programs. These include woods, metals, automotive, and computer science electives. The woods program is undergoing a transformation to focus on construction trades, moving away from hobbyist projects like cutting boards to building tiny houses and sheds. However, K-8 education lacks any direct alignment with construction or trades-focused curricula, which Participant I identified as a gap.

Participant I emphasized the importance of CTE and trades programs, noting that approximately 50% of Oregon students do not pursue post-secondary education and instead enter the workforce.

Providing pathways to high-wage, high-demand jobs is critical to engaging these students and addressing statewide attendance issues. By aligning programs with students' interests and entrepreneurial aspirations, the district aims to foster meaningful engagement and long-term success.

Many Reynolds students face challenges balancing work and school, with some working overnight shifts at companies like Amazon or participating in gig economy jobs. To accommodate these students, the district is exploring alternative schedules, including offering classes from 7:00 AM to 7:00 PM. This flexibility would allow students to continue their education while meeting their financial responsibilities.

Transforming the woods program has been a priority, but it comes with challenges. While the program's shift toward construction-focused skills has been positively received, finding qualified teachers with both trade experience and teaching credentials remains difficult. Lower pay in education compared to the trades further complicates recruitment efforts. Despite these obstacles, the program is progressing under the leadership of a new teacher with trade experience.

Funding for these programs primarily comes from the general state school fund, supplemented by Measure 98 High School Success funds. Participant I envisions creating a skilled trades center separate from the high school to provide students with hands-on, work-like experiences. Such a facility would focus on developing soft skills like teamwork, problem-solving, and communication while preparing students for professional environments.

Reynolds School District serves approximately 10,000 students across five cities, including Portland, Troutdale, and Fairview. The student population is highly diverse, with 75% qualifying for free and reduced meals and 10% experiencing homelessness. Students speak over 100 languages, reflecting significant cultural diversity and concentrated poverty. Pre-COVID, the district's graduation rate was 78%, and efforts are underway to return to those levels.

The district faces numerous barriers to student success, including language challenges for Latino and refugee students, housing instability, violence, and poverty. While the district has expanded its social work staff, these challenges persist. To address them, Participant I advocated for expanding dual-language programs to build literacy through students' native languages and investing in middle school programs to engage students earlier. He also emphasized the importance of internships and job shadowing opportunities in grades 11 and 12 to provide real-world experience.

Pre-apprenticeship and entrepreneurship initiatives are key components of the district's vision. Although an HVAC pre-apprenticeship program was attempted, it faced challenges due to limited industry partnerships. Participant I stressed the need to lead with job opportunities rather than education to better engage students and create clear pathways into the workforce. Many students,

particularly those from minority backgrounds, aspire to own businesses, and the district integrates entrepreneurship training into programs like cosmetology and trades to support these aspirations.

Participant I's interview underscores the district's commitment to addressing systemic barriers and creating equitable opportunities for students. By expanding career pathways, building industry partnerships, and providing flexible educational models, Reynolds School District is preparing its diverse student population for success in both the workforce and their communities.

### *Points of Analysis*

Participant I's leadership style reflects a deep understanding of the systemic challenges faced by underserved students. His commitment to experiential learning and workforce alignment ensures that educational initiatives are both accessible and impactful.

The district's shift toward construction-focused projects reflects its responsiveness to industry needs and labor shortages. However, the absence of K-8 alignment suggests an opportunity to introduce foundational career awareness earlier in students' education.

By recognizing the financial pressures faced by its students, the district demonstrates a practical approach to education. Flexible scheduling could significantly improve attendance and engagement, but its success will depend on effective implementation and support systems.

A dedicated trades center would address resource constraints and enhance workforce readiness by simulating professional environments. Securing funding for such a facility will be critical to realizing this vision and scaling programs.

The diversity and challenges faced by Reynolds students underscore the need for targeted support systems, such as dual-language programs and social services, to ensure equitable access to educational and career opportunities.

Strengthening partnerships with local businesses and industry leaders is essential for scaling programs and providing students with real-world experience and job placement opportunities.

### *Focus Group Analysis*

As stated earlier in the Research Methodologies section, it was more challenging to engage people to participate in focus groups rather than the interviews. Workers and subcontractors were mainly unresponsive, did not follow up or were seeking compensation to participate. We also anticipate time was an issue given the request to be compensated to participate. Given that funding was not available to compensate participants and given that the interviewees tended to focus on the role the prime and subcontractors play in training in engaging, hiring and training underrepresented



populations we decided the most meaningful data would be collected from a deep dive into the topics discussed through individual interview with these two groups.

We were able to engage leaders of color of two large prime contracting companies and the same for two smaller subcontracting companies. These leaders were extremely helpful in elaborating on the issues discussed in the individual interviews with an eye on how issues impact both large and small business ownerships. One smaller business owner also provided a deep dive into how hidden disabilities such as ADHD, PTSD, Depression and other medical disabilities create even more hurdles for participants in the residential housing sector who are already identified as COBID eligible.

### **General Contractor Focus Group**

This report summarizes the insights and perspectives shared by Participant 1 and Participant 2 during a focus group discussion about the challenges faced by minority-owned businesses in the construction industry. The participants provided detailed accounts of their experiences, highlighting systemic barriers, workforce development challenges, and recommendations for improving equity within the industry.

### *Overview of the Participants*

Participant 1 and Participant 2 are experienced contractors and leaders of minority-owned businesses. Both participants have built their companies in an industry where systemic inequities and barriers to access have long persisted. Their insights reflect a deep understanding of the obstacles minority-owned businesses face and offer actionable recommendations for creating a more equitable construction landscape.

- **Participant 1:** As a leader of a minority-owned construction business, Participant 1 emphasized the structural disadvantages minority contractors face compared to multigenerational white-owned firms. He discussed systemic barriers, including union exclusion and ineffective DEI policies, while advocating for long-term investment in workforce development.
- **Participant 2:** Participant 2 shared his perspective on how current policies and practices, such as Project Labor Agreements (PLAs), often exclude minority businesses from opportunities. He highlighted the severe underrepresentation of Black workers in unions and emphasized the importance of meaningful DEI initiatives that focus on workforce training and mentorship.

## *Key Themes from the Discussion*

### 1. Systemic Barriers to Equity

Participant 1 and Participant 2 both identified systemic barriers that hinder the growth and participation of minority-owned businesses:

- **Participant 1:**
  - Pointed out that government policies, such as PLAs, often exclude minority contractors and fail to create equitable opportunities.
  - Highlighted that DEI initiatives lack enforcement, allowing larger firms to meet diversity goals superficially without real impact.
- **Participant 2:**
  - Noted that unions serve as gatekeepers, limiting access for minority workers and contractors.
  - Discussed how funding for DEI and workforce programs is often spread too thin across organizations, reducing effectiveness.

### 2. Challenges with Workforce Development

Both participants emphasized the importance of workforce development and the challenges in creating meaningful pathways for minority workers:

- **Participant 1:**
  - Criticized the allocation of resources to DEI consultants instead of direct workforce training.
  - Highlighted the need for career ladders that allow minority workers to advance and gain skills.
- **Participant 2:**
  - Stressed the importance of long-term investments in companies with proven success in training and developing workers.
  - Suggested incentivizing primes to hire and mentor minority subcontractors.

### 3. The Role of Unions

The participants expressed concerns about the role of unions in perpetuating inequities:

- **Participant 1:**
  - Shared that Black workers are underrepresented in unions, with only 85 Black members in the Oregon Carpenters Union out of 4,600 members.
  - Pointed out that unions often limit access for minority contractors and workers, acting as systemic barriers to entry.
- **Participant 2:**

- Highlighted that unions must lower barriers to entry and allow minority-owned businesses to access diverse workforces embedded in their communities.

#### 4. Advantages of Multigenerational White-Owned Firms

Both Participant 1 and Participant 2 discussed how multigenerational white-owned firms have an inherent advantage over minority-owned businesses:

- **Participant 1:**
  - Explained how generational wealth, established networks, and mentorship create an unequal playing field.
  - Noted that white-owned firms benefit from cash flow and community resources that minority businesses lack.
- **Participant 2:**
  - Highlighted that many white-owned firms are in their second or third generation of ownership, giving them a competitive edge in terms of resources and expertise.

#### *Recommendations from the Participants*

- **Timely and Direct Investment:**
  - Both participants emphasized the need for direct funding and resources to support businesses with a proven track record in workforce training and development.
- **Policy Changes:**
  - Reform PLAs and other government policies to ensure equitable access for minority contractors.
  - Standardize government contract requirements to simplify compliance and reduce administrative burdens.
- **Workforce Development Programs:**
  - Invest in programs that create career ladders for minority workers to gain skills and advance within the industry.
  - Focus on mentorship and training programs that directly support minority-owned businesses.
- **Improved DEI Accountability:**
  - Move beyond superficial diversity metrics to evaluate companies based on long-term outcomes and internal diversity.
  - Incentivize general contractors to hire and mentor minority subcontractors meaningfully.
- **Educational Outreach:**
  - Expand outreach to K-12 students to introduce them to construction careers early and build a diverse talent pipeline.

## Conclusion on Individual Interviews

The focus group with Participant 1 and Participant 2 shed light on the systemic challenges faced by minority-owned businesses in the construction industry. Their insights highlight the need for targeted investments, policy reforms, and accountability measures to foster a more equitable and inclusive construction workforce. By addressing these challenges, the industry can better support minority contractors and advance the goals of the governor's housing initiative.

## Sub-Contractor Focus Group

### *Overview of Businesses*

Participant 3 and Participant 4 began by sharing details about their respective businesses. Participant 3 operates a small business focused on residential projects, with occasional government contracts. Her business has been running for over a decade and has faced significant hurdles related to compliance and cash flow. Participant 4, who specializes in plumbing and electrical trades, has been in business for nearly 15 years. He highlighted the challenges of scaling his operations due to labor shortages and financial constraints.

### *Key Challenges Faced by Subcontractors*

Both participants outlined the difficulties they face in the construction industry:

- **Cash Flow Issues:** Participant 3 emphasized how delayed payments from general contractors create a domino effect, impacting her ability to pay workers and suppliers. Participant 4 echoed this concern, particularly in the context of government jobs, where payment delays strain smaller businesses.
- **Compliance and Administrative Burdens:** Participant 3 described navigating government contract requirements as complex and time-consuming, while Participant 4 noted the lack of consistency across contracts, making it difficult to plan and budget.
- **Insurance and Bonding Costs:** Participant 3 pointed out the prohibitive expense of meeting insurance and bonding requirements, which often places smaller subcontractors at a disadvantage.
- **Labor Shortages:** Participant 4 discussed the persistent difficulty in recruiting skilled workers, especially in specialized trades, and the turnover caused by workers leaving to start their own businesses.

### *Experiences with General Contractors*

The participants shared their perspectives on working with general contractors and offered suggestions for improvement:

- **Communication and Transparency:** Participant 3 highlighted the inconsistency in communication from general contractors, particularly regarding project timelines and expectations. Participant 4 suggested that general contractors provide clearer feedback on bid performance to help subcontractors improve.
- **Breaking into Preferred Networks:** Both participants noted that general contractors tend to prioritize their preferred subcontractors, making it challenging for new businesses to establish relationships.

### *Suggestions for Systemic Changes*

Steve asked participants what changes they would implement if they had control over contracting processes. Both Participant 3 and Participant 4 provided actionable ideas:

- **Timely Payments:** Participant 3 proposed holding general contractors accountable for paying subcontractors on time, while Participant 4 advocated for mandatory transparency in payment schedules.
- **Simplified Compliance:** Both participants emphasized the need for standardized requirements across government contracts to reduce administrative burdens.
- **Incentives for Equity Goals:** Participant 3 suggested creating incentives for general contractors to hire diverse subcontractors and meet equity targets.

### *Support Needed for Subcontractors*

When asked what support would be most beneficial, the participants identified several priorities:

- **Training and Mentorship:** Participant 3 stressed the importance of training programs on compliance and financial management, as well as mentorship opportunities for new subcontractors. Participant 4 echoed the need for workshops that teach bidding strategies and project management.
- **Networking Opportunities:** Participant 4 emphasized the value of connecting with general contractors and other subcontractors to share resources and best practices.
- **Advocacy:** Both participants highlighted the need for advocacy to simplify compliance processes and reduce insurance and bonding costs for small businesses.

### *The Role of Diversity, Equity, and Inclusion (DEI)*

The participants reflected on how DEI initiatives impact their work:

- **Participant 3:** She acknowledged that DEI initiatives have created opportunities for minority-owned subcontractors but noted that these efforts are often underfunded and lack enforcement. She called for more targeted outreach and support.
- **Participant 4:** He expressed frustration with diversity goals that feel like a checkbox rather than a meaningful commitment. He emphasized the systemic barriers minority-owned businesses face, such as limited access to funding and mentorship.

### **Conclusions on Focus Groups**

The subcontractor focus group highlighted several recurring themes, including cash flow issues, administrative burdens, and the challenges of breaking into preferred contractor networks. Both participants underscored the need for systemic changes, such as timely payments, simplified compliance processes, and robust DEI initiatives. Their suggestions for training, mentorship, and advocacy reflect a strong desire for meaningful support to address the inequities and hurdles faced by small subcontractors in the construction industry.

## V. Conclusions and Recommendations

### Summary

The findings from this research underscore the importance of addressing avoidable barriers to participation for underserved and underrepresented groups in the Governor's Housing Initiative. Whereas the goal of this initiative is not only to provide new opportunity for underserved and underrepresented groups but also to draw on the untapped potential within these groups to enhance capacity and achieve the Governor's ambitious housing targets our recommendations aim to speak to these two priorities.

We have identified several key areas of focus within our recommendations where we believe immediate impact and progress may be made to start building capacity from underserved and underrepresented groups starting in year one. Given the urgency and proximity of need, as well as the historical disadvantages to underrepresented groups when swift and decisive government directives are not made and enforced, our recommendations are focused on direct action by the government as opposed to committee, collaborative or workgroup development for this piece of the initiative.

Where workgroups are formed to address increased capacity needs, we cannot emphasize strongly enough that representative from the following groups are provided with a seat at the table:

- Prime contractors whose leadership reflects the underrepresented groups we aim to engage including, Black, Hispanic, Women, LGBTQ, Veterans and those with hidden disabilities (which may be also cross represent veterans).
- Subcontractors from the same demographics as above
- Leadership from trades organizations that represent these groups.

We strongly believe, if decisive action is taken by Oregon state leadership to implement innovative and courageous solutions, coupled with providing underrepresented groups with a seat at the table, this initiative will impactfully increase capacity among populations that have been resistant to engage due to lack of trust.

## Years One Through Three

### Capacity Building in the Residential Housing Sector: Strategic Prioritization of Capacity Funnel

Efforts to build capacity must prioritize two primary feeders for workforce development which serve as funnels to increase capacity over time:

#### 1. **Prime contractor and Subcontractor Ecosystems:**

Contractors led by people who have risen from underrepresented populations and underserved communities are experts at trust building among the cohorts we seek to engage. Therefore, it is critical that we:

- a. Engage and incentivize current prime contractors and subcontractors that are excelling in recruiting, training and developing workers from underrepresented groups and underserved communities.
- b. Encourage referrals for potential hires to participate in apprenticeship programs offered by unions and other external agencies that offer robust training, development and mentorship of workers and construction business owners from underrepresented groups and underserved communities.

#### 2. **K–12 Education and Secondary Schools:**

These institutions play a critical role in preparing the next generation of skilled workers. In the short term, specifically years one through three, scaling up capacity depends heavily on leveraging existing contractors and subcontractors, as they already possess the foundational infrastructure necessary to meet immediate housing goals and success working with workers from the targeted populations.

Unions and trades agencies that provide apprenticeship and other training certification courses should also be engaged during this phase. However, we have heard repeatedly from interviewees and focus group members that share the same demographics as many workers within underrepresented groups that significant barriers remain to engaging with the unions. These include trust issues, access to training slots, and poor engagement by the unions with underserved communities. Instead, the interviewees, many in leadership roles, rely on trades organizations such as NAMC, Latino Built and Oregon Tradeswomen for programming, when needed. Both prime contractors and subcontractors that share the same demographics as the underrepresented groups state that they have more success training up their workers in-house and on-the-job than through union referral because their culture is more aligned with the entry level worker from these underserved communities, thus trust is stronger.



Additionally, we have heard that among Hispanic groups, which make up a significant portion of workers within the trades, a multi-trades credential is needed to offset the dearth of certified skilled tradesmen such as carpenters, plumbers, electricians, etc. These credentials would be more successfully offered through the trade organizations like NAMC and LatinoBuilt which have an existing rapport with this group. Having a dual pipeline through minority trade organizations for new, lower-skilled worker credentialing and higher skilled union-trained workers to supervise, albeit at increased ratios, would also keep costs lower overall to better ensure hitting targets.

If emboldened to provide multi-trades credentials these minority-led organizations may partner with the unions who would feed the skilled workers to supervise the multi-trades workers. This credentialing would also enable the government to lower the supervisory ratios as workers receive additional safety training when attaining their multi-trades credentials.

Over the medium to long term -years three through ten- efforts should pivot to investments in educational and apprenticeship programs, ensuring a pipeline of workers who can support the initiative's objectives over the next decade. For instance, children currently in elementary school (grades 3–5) could form the backbone of the workforce needed in years 8–10 of the program. Although the groundwork may begin to be laid on how to execute new programming within schools from year one, it is prudent to acknowledge that it would take a minimum of two years to even begin to offer meaningful programming throughout the public school system given the number of stakeholders impacted by educational changes and the bureaucratic intricacies required to affect change within this system.

### **Defining the lens through which we developed our recommendations.**

MBCB's portion of the capacity analysis for this initiative is to analyze the current capacity, and potential for building future capacity, among underserved and underrepresented groups using a lens that promotes equal opportunity for all. This approach ensures opportunities not just for "the usual players" in the residential construction sector of the State of Oregon but also ensures that this initiative creates opportunities for capacity building among typically overlooked, underserved, and underrepresented groups. These groups often have capacity in the form of skills and availability but face more systemic barriers to participation as outlined throughout this report.

The benefits of establishing engagement practices and removing barriers for these groups are significant. There is substantial skilled capacity in the residential housing sector in Oregon, demonstrated by successful participation by underserved communities in privately funded residential housing projects, i.e., the individual "mom and pop" homeowner who engages this cohort to successfully build or renovate a home at the lowest possible cost.

However, these workers and businesses are often marginalized in government-funded projects due to various factors outlined in this report.

Interview and focus group participants from underserved and underrepresented groups have shared that many of the barriers they encounter are also faced by groups typically not defined as underserved or underrepresented. Specifically, non-minority contractors, non-minority workers, large well-funded contractors with sufficient cash reserves to manage government payment delays, and intergenerationally owned businesses with deep networks all face certain challenges. Given this, they feel the time is ripe for sweeping, systemic change on how underrepresented groups are engaged to benefit both the underrepresented contractors as well as traditionally led large primes.

Understanding that even these non-marginalized groups identify barriers to participation in the requirements of large government-funded projects, our equity lens is designed to offer recommendations that bridge the shared goals of both cohorts to better ensure successful implementation with the positive impact to underrepresented groups and underserved communities that we seek. Specifically, our lens guides us in:

- Determining whether there is equal access for underserved and underrepresented groups to establish careers in the trades, specifically in residential housing construction.
- Determining whether there is equal access for underserved and underrepresented groups to secure education and training that drives career pathways in the trades, specifically in residential housing construction.
- Determining whether underserved and underrepresented groups have access to authentic, non-transactional mentoring relationships with leaders in the residential housing sector that come from the same communities from which they hope to rise.

To achieve equal access to these three critical components of success in the residential housing sector, we must identify the types of barriers that continue to undermine participation by underrepresented groups in this initiative even when they come armed with experience, ability or skills.

The conclusion and recommendations of this research identifies targeted areas where government intervention is necessary to engage underrepresented groups effectively. Because the barriers identified in this report are persistent and not unique to this initiative, it is also important to provide out-of-the-box solutions to address these long-standing inequities and rethink the traditional access points. For each barrier identified, we offer recommendations -many of which are innovative and forward-thinking- to level the playing field in the residential housing sector. These initiatives strive to optimize the procurement of capacity from within Oregon and consistently achieve the Governor's annual objectives.

## Addressing Intersectionality

Intersectionality, a term coined by Kimberlé Crenshaw in 1989, is a sociological framework that examines how different aspects of a person’s identity—such as race, gender, socioeconomic status, language ability, and disability status—interact to create unique experiences of privilege or oppression. In Diversity, Equity, and Inclusion (DEI) work, intersectionality is critical because it highlights the fact that inequality is not one-dimensional. Instead, it is shaped by the overlapping and compounding effects of multiple social identities.

For example, a low-income, Black, female construction worker may face distinct challenges that cannot be fully understood through race, gender, or class alone—instead, her experiences are shaped by the combination of these factors. Similarly, a Latino construction worker with limited English proficiency may experience barriers that are different from those faced by English-speaking Latino workers, illustrating how language intersects with race and employment opportunities.

In the construction industry, applying an intersectional lens is crucial for identifying which workers experience the greatest structural barriers and for designing policy solutions that address multiple layers of disadvantage simultaneously. Without an intersectional approach, equity efforts may overlook the most vulnerable populations and fail to create truly inclusive workforce policies.

### Recommendations:

- Immediately help current workers from unserved and underrepresented populations get promoted, so that there is more representation shown in leadership positions.
- Increase recruitment efforts in high schools, community colleges, and rural areas with a high concentration of people from various underserved populations.
- Refrain from just check-boxing specific identities to look for in recruitment and hiring. Instead take the time to get a more in-depth look at the candidate’s lived experience.
- Develop marketing campaigns that showcase workers from different identities and walks of life.

## Addressing the Themes Extracted from Qualitative Analysis of Survey, Interviews and Focus Groups

Through our analysis of survey data, interview and focus groups transcripts, certain themes arose repeatedly when discussing barriers to participation in the Governor’s initiative. In this section we will explore recommendations that explicitly address those themes.

### Culture Eats Capacity for Lunch

#### *Cultural Considerations in Workforce Development and Strategic Targeting for Capacity Building*

A significant factor in capacity building is addressing the culture within the residential housing workforce.

#### Current Workforce Demographics

- **Race and Ethnicity:** A gross proportion of workers and leaders within the construction industry identify as white with various ethnic backgrounds.
- **Gender:** The industry remains overwhelmingly male.
- **Education:** The trades tend to be dominated by people with a High School Diploma or equivalent. Although there is a current push to encourage skilled trades workers to achieve some college, we are hearing anecdotally that this trend is encouraging people in the trades to move into management roles and contributing to the dearth of skilled trades workers on the construction site even further. Certain higher-skilled roles which are more often office-based, such as architect, project manager and human resources personnel, are also more inclined to have a college degree.
- **Multi-trade, first- and second-generation immigrant “laborers”:** A significant proportion of residential construction workers (with interviewees citing as high as 60%) are Hispanic and, often, first- or second-generation immigrants. These workers are often primarily Spanish speaking and informally acknowledged as multi-trade skilled. This is defined as not licensed in one of the specific skilled worker domains such as carpentry, plumbing, electrical, etc. but possessing experience, ability, knowledge and skills across many of these skilled trades. These workers tend to be the lowest paid in the sector and often cannot access government contracted work due to documentation requirements.

#### Demographics of underserved and underrepresented groups in the construction industry

Workers and leaders from underserved and underrepresented groups in residential construction, *and particularly government-funded contracts*, make up the minority of the residential construction workforce and tend to be defined as:

- **Race and Ethnicity:** Racial minority and ethnic minority groups that are typically categorized as BIPOC (Black, Indigenous and People of Color) make up the bulk of underrepresented people. However, a large proportion of underrepresented groups are also racially white or mixed race. This includes women, LGBTQ, veterans and people with disabilities.
- **Low wage:** A subcategory of BIPOC is the Hispanic first- or second-generation immigrant who often *do* participate in the construction industry and tend to be most often in the lower skilled job categories at the lowest wages. This group’s unique barriers often arise from not having the proper documentation to participate in government contracted work or being non-native English speaking which may cause barriers to participation along with the intersectionality of being BIPOC.
- **Gender:** Underrepresented groups represent both male and female genders. Men tend to come from BIPOC ethnic groups. Women fall into various cohorts including women who cannot participate due to childcare obligations, those without familial ties in the construction industry and those impacted by gender stereotyping when school age, thus not encouraging -or outright discouraging- a career in the trades. For this reason, wives and sisters of the majority demographic are commonly placed in administrative leadership roles to qualify the family business as minority-owned under COBID.
- **Health status:** People with disabilities participate in this sector but are often underserved and overtly underrepresented. This includes people with what are often considered “invisible disabilities” such as ADHD, dyslexia, high functioning autism, PTSD, depression, irritable bowel diseases (Crohn’s, ulcerative colitis, etc.) and other chronic conditions that may well hidden or masked, as well as people with more recognizable disabilities including hearing loss and visual impairment. Veterans also often fall into this category.
- **Sexual Orientation and Gender Identification:** LGBTQ people are often underserved or represented in this sector due to construction sites tending to be leaning towards male gender-oriented cultural norms. The current federal legislation barring gender variance further contributes to people identifying as transgender being underserved.
- **Intersectionality of all the above:** Many underrepresented individuals will identify as belonging to multiple underrepresented groups and underserved communities. Examples being:
  - Female, Black and Lesbian
  - Hispanic, Veteran with ADHD and PTSD
  - Black, Hispanic male
  - Etc.

Given the majority demographic of the residential construction industry and its largest primes, cultural norms on these job sites are primarily white, male-gender oriented, with

predominantly English-speaking leadership. Participants in survey, interview and focus groups have repeatedly reported difficulty for people who do not fit the cultural norms encountering bias and, often, outright discrimination. Cited examples include but are not limited to being called the “N” word on the jobsite, sexual discrimination through underutilization, being denied mentorship when brought on as an apprentice or new employee, and not being provided the apprenticeship variance of work product when participating in a contract as a minority subcontractor to meet COBID requirements.

In the interest of meeting short-term goals, i.e., in years one and two, initial recruitment efforts may focus on individuals who can easily integrate into the existing culture, albeit with its significant flaws. For example, it may make sense to initially focus on increasing engagement among BIPOC men and veterans as a quick win to build capacity on job sites while working currently through the schools to change the narrative discouraging women and other underrepresented groups from entering this sector.

Another quick win would come from a focus on incentivizing the hiring of workers trained by existing minority-led, prime and subcontractors and those who participate in apprenticeship programs provided by minority-led trades organizations, such as NAMC, LatinoBuilt and Oregon Tradeswomen rather than waiting for new union-led apprenticeship programs to be spun up around the state which would logistically takes months to years.

We would discourage increased focus on the COBID program as this strategy risks perpetuating systemic inequalities. Subcontractors and workers of color report that there is still a significant barrier to entry for those who have not yet developed authentic relationships within the trades and the same minority workers and contractors tend to be hired repeatedly to meet COBID requirements rather than paving the way for multiple minority workers and subcontractors to be brought on to government contracted work. Additionally, many interviewees and focus group participants relay that COBID has created a sense of tokenism on job sites which creates additional barriers -and even resentments- for and towards underrepresented groups rather than removing barriers as originally intended.

So, although it makes sense that in years one through two, efforts should focus on capacity building among Hispanic, Black, Mixed-race and Veteran male workers who have pre-existing experience in the trades, controls should be put in place to ensure that the same individuals are not hired repeatedly minimizing the requirement of this initiative to offer opportunity to all experienced underserved and underrepresented groups.

*Concurrently*, to further hedge against perpetuating embedded systemic bias, it is important for the government to invest in programming within the school to change the narrative towards other underrepresented groups in the trades, including women, LGBTQ and disabled persons to develop new capacity among underserved and underrepresented groups so that by year three there are multiple feeders established to sustain the need and true

opportunity is established for all. These programs should be both in the form of public campaigns to encourage participation and hands on training to build the skills, knowledge, credentialing and capacity to participate.

## **Training and Community Engagement**

In this section we will focus on contractor and trades organization-based training opportunities for underrepresented groups in years one and two, the establishment of a public ad campaign to start to change the narrative for harder to engage underserved groups in years one and two and the development and implementation of new schools programs with the intention of these programs starting to bear fruit by year three.

### **Recommendations to Rocket Minority Capacity Building in Years One and Two**

To target expeditious capacity building and participation in the Governor’s initiative among underserved and underrepresented groups in years one and two we look for where there is low hanging fruit to quickly build engagement and capacity from these cohorts. Interviews and focus groups revealed that many workers from minority groups receive their training on the job, often from contractors or business leaders who share their racial or ethnic background. This mirrors the principles of campaigns like “If You Can See Her, You Can Be Her,” which emphasize the importance of relatable role models in fostering engagement.

Primary and subcontractors frequently recruit from within their communities, leveraging existing relationships to reduce attrition and enhance trust. Respondents noted that hiring within communities creates meaningful connections, fostering loyalty and conflict resolution between employees and employers. Furthermore, the residential housing sector, *in particular*, leans on family and community ties to onboard workers on these smaller jobs for the individual homeowner. So it is in these places that we will find capacity that is ripe for development for this larger initiative which more closely resembles commercial contracting given its scale although the capacity mainly resides outside of commercial contracting at the moment.

To address this phenomenon the following recommendations may be considered:

- 1. Promote Role Model Programs:**
  - Implement mentorship initiatives based on the “If You Can See Her, You Can Be Her” concept.
  - Highlight successful individuals from underserved and underrepresented groups within the construction industry in training materials and outreach campaigns.
- 2. Support Contractor-Led Training:**

- Provide resources and incentives for primary and subcontractors to develop structured, community-based training programs utilizing private-public partnerships.
  - Encourage knowledge transfer within communities by promoting peer-to-peer learning models on job sites.
  - Spin up certifications for multi-trades professionals so that we may increase the ratios between skilled workers and the certified multi-trades workers who should be required to undergo safety training.
3. **Strengthen Recruitment Efforts:**
- Embolden minority owned contracting businesses to utilize their networks to build recruitment pipelines within minority communities by incentivizing these businesses that partner with local organizations, schools, and faith-based institutions to successfully recruit, train and employ individuals from underserved and underrepresented groups.
  - Use culturally relevant messaging to communicate opportunities effectively.
4. **Enhance Retention Through Trust and Support:**
- Offer trades organizations and contractors that are successfully building capacity of underrepresented workers government-funded wraparound service incentives, such as childcare, translation technology (for non-native English speaking workers) and transportation vouchers, to reduce barriers to participation.
  - Establish feedback mechanisms to ensure accountability and build trust that employee needs and concerns are consistently addressed.

### Addressing the "Diversity Hire" Phenomenon

A focus group participant from minority-owned primary contractors highlighted a troubling trend: white contractors sometimes recruit minority workers to meet diversity requirements for government contracts, often pulling from low-skilled workers who are also ethnically and/or racially diverse. These workers are offered a wage that is higher than they were previously making but often below the top rate. These diversity hires are valued for the diversity they bring to meet COBID requirements but are frequently provided with less training to assist them in establishing a career ladder and, thus, are given lower performance expectations. This creates a cycle where minority workers employed by predominantly white contractors to meet diversity goals gain little skill development and become vulnerable to job loss once they reach top pay grades. As a result, this “diversity hire” phenomenon undermines the long-term career development of minority workers and perpetuates disparities in the industry.



This is problematic on multiple levels. Let's walk through the scenario to best understand how this phenomenon circles back to hurt both the individual worker and the minority-led business owner who initially trained them:

- Workers are being tokenized, which is an ethical issue.
- Some tokenized workers are ok with not being skilled up in the short term because they are provided with easy work for more money.
- These workers are lured away from minority-led businesses that originally recruited them from underserved communities.
- The same workers eventually hit top pay grade and cannot understand why they are laid off when the purse strings contract.
- These workers seek re-employment in the minority-led businesses they left at the top paid grade they were last earning.
- Minority-led contractors can only offer them a reduced pay position or no position at all due to their lack of skills and often poor attitude, given that they were "valued" at a higher rate by the white-led contractor who had to lay them off.
- Thus, the COBID program which was meant to empower minority workers has left them unemployable, disenchanting and disengaged from seeking additional skills training while the minority business is left urgently seeking to refill their capacity each time they lose a worker to COBID and find themselves losing trust with the very people they intended to help rise up.

### Leveraging Minority Trade Organizations

Multiple interviewees and a focus group participants discussed the role of trade organizations representing minority workers and contractors in training. They discussed these organizations being in a better position to provide training to underserved and underrepresented groups because they are more well versed in the culture and common barriers these cohorts face when seeking sustainable employment and upward mobility within the residential construction sector. These organizations may be leveraged to:

- provide training that speaks directly to what being a token hire looks like and why to avoid it.
- provide the cultural competency to assist underrepresented groups in successfully assimilating into a predominately mainstream-led workforce
- operate public relations campaigns to assist in recruiting harder to engage underrepresented populations.

However, a large concern is that when considering which programs to incentivize, the dollars given should be proportionate to the amount of capacity that is actually established. Trade organizations that are actively partnered with prime contractors that hire from their programs are more likely to produce workers that are able to sustain in the industry.

Specifically, trade organizations that partner with minority led contractors and subcontractors have a funnel to employment in worksites that are culturally competent to receive the newly minted minority workers.

The expectation should not simply be that the number of hires from underrepresented groups is rewarded but rather a ladder approach which increasingly rewards private business and nonprofits as workers pass certain milestones such as:

1. Micro-certifying workers and small businesses (residential subcontractors) through public-private partnerships as Tier 1 reward
2. Placing a worker in sustainable employment as evidenced by two years experience on active job sites as Tier 2
3. Subcontractor award of a government housing grant as Tier 2
4. Demonstrated evidence of a worker being promoted and maintaining their promotion for two years as Tier 3
5. Subcontractor maintaining employment of at least five workers from underrepresented groups for *at least* two years *or* demonstration that they have promoted one worker from an underrepresented group and maintained them on the rolls for at least two years.

***Additional recommendations to address cultural disconnects and discourage tokenism.***

1. Establish foundational programs in schools to develop interest and skills in residential construction among underserved and underrepresented groups.
2. Set clear cultural standards in the workforce, ensuring accountability across all contractors.
3. Implement policies to prevent exploitation of minority workers under diversity hiring practices, fostering genuine skill development and career growth.

By addressing these issues comprehensively, the Governor’s Housing Initiative can achieve its dual goals of providing opportunity for underserved and underrepresented groups and capacity building thus ensuring a future of opportunity and participation for all tradespeople operating within Oregon’s residential construction industry.

**Mental Health and Disabilities in the Trades: An Overlooked Source of Capacity from an Underserved Population**

The construction worksite presents unique challenges for individuals with mental health conditions, neurodiversity, and cognitive impairments. The prevailing culture of construction, which often prioritizes toughness, efficiency, and traditional hierarchies, can make it particularly difficult for these individuals to assimilate and thrive. Below is a

discussion of these challenges, drawn from the dynamics described in the transcript and broader industry trends.

## Challenges of Assimilation for Individuals with Mental Health, Neurodiversity, and Cognitive Impairments

### 1. Stigma and Misunderstanding

- **Mental Health Stigma:** The construction industry often carries a culture of stoicism, where seeking help for mental health issues may be seen as a weakness. Workers may fear judgment or dismissal if they disclose their challenges.
- **Misinterpretation of Behavior:** Neurodiverse individuals (e.g., those with autism or ADHD) or those with cognitive impairments may exhibit behaviors that are misunderstood as uncooperative, unmotivated, or unskilled, further alienating them from peers and supervisors.

### 2. High-Stress, High-Pressure Environment

- **Demand for Precision:** As a focus group participant mentioned, trades like concrete work demand high levels of precision, often with no margin for error. This creates stress, which can be particularly overwhelming for individuals managing anxiety, depression, or other mental health conditions.
- **Time-Sensitive Tasks:** Tasks tied to rigid timelines (e.g., concrete pouring) leave little room for cognitive or emotional processing, making it difficult for those who may require more time to adjust or respond to unexpected situations.

### 3. Rigid and Competitive Workplace Culture

- **Hypermasculine Norms:** Construction sites often uphold traditional "tough guy" norms, where emotional expression or visible struggle may be ridiculed or dismissed.
- **Joking and Teasing:** While camaraderie and joking are part of the culture, they can easily turn into microaggressions or targeted harassment, particularly toward those who are perceived as "different" due to cognitive or emotional challenges.

### 4. Limited Accommodations and Awareness

- **Lack of Support for Variability:** Most construction sites operate on standard expectations of productivity and behavior, often without accommodations for those who might need flexibility or alternative approaches.
- **Untrained Supervisors:** Foremen and project managers may lack the training to identify or address the needs of neurodiverse or mentally diverse individuals, perpetuating an unsupportive environment.

## 5. Hierarchical Structures and Communication Barriers

- **Lack of Direct Access:** Workers with disabilities may have difficulty navigating the hierarchical nature of construction, as A focus group participant noted, where decisions and accommodations often depend on the attitudes of immediate supervisors rather than organizational policy.
- **Difficulty Advocating for Needs:** Fear of retaliation or being perceived as a burden may deter workers from advocating for their accommodations.

## 6. Intersectionality Compounds Challenges

- **Double Marginalization:** For minority workers who also have mental health or cognitive impairments, the compounded effects of racial or gender discrimination add another layer of difficulty.
- **Cultural Barriers:** Workers from minority backgrounds may also face cultural stigmas around mental health, making them less likely to seek help or disclose their needs.

### Impacts on Workers with Disabilities and the Residential Construction Industry at Large.

#### *For Workers*

- **Emotional Strain:** Constantly masking symptoms or coping with a lack of support exacerbates mental health conditions.
- **Turnover and Attrition:** Many workers with mental health or cognitive challenges leave the industry due to hostile or unsupportive environments, depriving the sector of valuable talent.
- **Loss of Potential:** Without the right support, these individuals are unable to fully develop or showcase their skills, limiting their career growth.

#### *For the Industry*

- **Retention Challenges:** An inability to accommodate diverse needs reduces workforce retention at a time when the industry is already facing labor shortages.
- **Missed Opportunities for Innovation:** Neurodiverse individuals often bring unique problem-solving skills and creativity, which are lost when they are excluded from the workforce.
- **Reputation and Inclusivity:** A failure to foster inclusivity could harm the industry's reputation, particularly as younger workers increasingly prioritize equitable workplaces.

### Recommendations for Change

1. **Promote a Cultural Shift**
  - Encourage leadership at all levels to prioritize inclusivity, empathy, and mental health awareness as core values on construction sites.

- Fund public relations campaigns to change the narrative about people with disabilities on job sites.
  - Incentivize based on tiered, milestone-driven outcomes, not demographics or number of diversity hires.
2. **Invest in Education and Training**
    - Provide comprehensive health training for supervisors and workers on neurodiversity and mental health awareness to reduce stigma and foster understanding.
    - Incentive innovation for enforcement of ADA guidelines for workers with hidden or masked disabilities.
  3. **Integrate Flexible Policies**
    - Create roles and expectations that accommodate diverse needs, such as flexible task assignments (multi-trade work), quiet spaces for office workers, or task rotation (multi-trade work).
  4. **Empower Workers Through Advocacy**
    - Fund public awareness campaigns regarding the requirements of the ADA.
    - Encourage unions to lobby for fair access for people with disabilities in the residential construction sector.
  5. **Foster Peer Support Networks**
    - Encourage peer mentorship programs to connect neurodiverse and mentally diverse workers with supportive colleagues.
    - Establish public relations campaigns to call out the unsung value persons with hidden disabilities play within the construction industry.
  6. **Enforce Anti-Discrimination Policies**
    - Include clear and enforceable guidelines to address harassment or exclusion based on mental health or cognitive disabilities.
    - Enforce the creation of compliance officers and hotlines for whistleblowers when ADA policies are breached.

By addressing these cultural and systemic challenges, the construction industry can become more welcoming and sustainable for individuals with mental health conditions, neurodiversity, and cognitive impairments, while also tapping into a wider pool of talent and skills.

## Analysis of Union Efficacy and Government Requirements in the Context of Affordable Housing Initiatives

Unions are afforded significant leverage by government to participate in the construction industry. While many interviewees and focus group members did not feel empowered by the unions, they would like to see the unions partner with minority-led organizations to be more proactive in training up underrepresented populations in the skilled trades which leads to higher pay and the potential for self-employment.

Interviewees and focus group members acknowledged pros and cons to union participation in this sector. Through analysis and recommendation innovation we sought to find the middle ground to create partnerships that may benefit all groups.

### Union-Centered Approaches

Pros of Union-Centered Approaches:

#### 1. **Structured Training and Certification:**

- Union apprenticeship programs like those promoted by BOLI provide rigorous training with a combination of classroom and fieldwork. This ensures workers achieve standardized competencies and meet safety and quality standards.
- The time-based, uni-trade approach of unions supports specialization, offering workers clear career paths and higher earning potential.

#### 2. **Workplace Protections and Benefits:**

- Unionized environments often offer workers benefits such as health insurance, pensions, and safe working conditions. These features make union jobs attractive for long-term workforce stability.

#### 3. **Alignment with State-Level Policies:**

- Unions are well-equipped to comply with government regulations, such as wage laws and project safety standards, making them reliable partners for large-scale public initiatives.

### Cons of Union-Centered Approaches:

#### 1. **Barrier to Entry for Minority and Immigrant Workers:**

- Union requirements, such as lengthy apprenticeships and formal certifications, can be a significant barrier for immigrant workers who may lack English proficiency, formal education, or documentation to enroll.

- First-generation workers accustomed to informal, multi-trade practices may find it challenging to transition into unionized environments.
  - Lack of instruction that is competent in training to non-native English speakers
  - Inability to access trainings due to lack of transportation, childcare and other logistical considerations
2. **Higher Costs for Affordable Housing:**
    - The union model's specialization and adherence to commercial construction practices can increase the cost of Type 5 stick-frame projects, which dominate affordable housing.
  3. **Limited Flexibility for Multi-Trade Environments:**
    - Affordable housing projects often rely on a multi-trade workforce that can handle various tasks without subcontracting. The union model's specialization contrasts with this approach, creating inefficiencies and higher overall costs for the builder and funder.

### **Union Disconnect with Real World Capacity Building Opportunities Among Underserved Groups**

One interviewee that has led Hispanic-centered residential workforce participants, highlights the disconnect between union-centric, uni-trade training models and the organic, multi-trade practices common in immigrant communities. He notes that many first-generation immigrant workers already possess the skills for low-rise, Type 5 construction but face hurdles adapting to unionized standards, particularly in navigating government systems.

While unions bring valuable structure and stability to workforce development, their requirements can unintentionally exclude immigrant workers essential to meeting the ambitious housing goals. Bridging these approaches requires innovative policy adjustments, targeted training programs, and a commitment to inclusivity. By leveraging the strengths of both unionized and community-based workforce models, Oregon can meet its housing goals while empowering immigrant workers to thrive in the construction sector.

### **Recommendations for Bridging Union-Focused Initiatives and Engaging Immigrant Workers:**

1. **Flexible Certification Pathways:**
  - Develop alternative pathways for BOLI certification that recognize prior experience and multi-trade skills.
  - Create assessment programs where workers can demonstrate competencies directly rather than enrolling in lengthy apprenticeships.
  - Provide PLA waivers for contractors that can spin up capacity in regions that have a dearth of workers or who have the ability to hit tiered milestones in building capacity among underrepresented populations.

2. **Community-Based Workforce Development:**
  - Require unions to partner with community organizations to create tailored training programs for immigrant workers. These programs should provide English language instruction, job-site safety training, and mentorship to prepare workers for union or government-contracted jobs.
3. **Government Support for Small Businesses:**
  - Simplify processes for small, immigrant-owned construction firms to become BOLI-compliant.
  - Offer workshops on government invoicing, compliance, and risk management to help these firms compete effectively in affordable housing projects.
4. **Hybrid Workforce Models:**
  - Encourage partnerships between union and non-union labor forces for specific projects.
  - Non-union workers can perform general tasks while union specialists handle trade-specific aspects, balancing cost and compliance.
  - Embolden minority trade organizations to certify workers as multi-tradespersons and reduce the supervision ratios of these workers by the skilled specialists
5. **Policy Advocacy for Multi-Trade Recognition:**
  - Advocate for adjustments to state policies that allow multi-trade, informal learning models to integrate into formal frameworks.
  - This could include financial incentives for projects employing a diverse, multi-trade workforce.

**Sample Policies to Integrate Unionized and Non-Unionized Workforces to promote capacity building among underserved and underrepresented groups.**

Following are hypothetical sample policies to demonstrate how union and non-union workforces may work together to overcome barriers to building immediate capacity among underrepresented groups and within underserved communities.

***Innovative Policy Proposal: Workforce Integration in Affordable Housing Construction Act***

**Policy Title:**

The Integrative Workforce Development and Affordable Housing Act (IWD-AHA)

**Purpose:**

To integrate unionized and non-unionized labor forces into Oregon’s affordable housing initiative while fostering economic opportunity and capacity building for immigrant and



minority workers. The policy aims to build a broad workforce pipeline integrating nonunionized underserved and underrepresented groups to achieve Governor Tina Kotek’s goal of constructing 36,000 affordable housing units annually for ten years.

## **Policy Components**

### **1. Flexible Certification Pathway Program (FCPP):**

- **Objective:** To allow non-union workers with prior experience to earn BOLI certification through alternative assessment methods.
- **Implementation:**
  - Develop a “Prior Experience Recognition” pathway where multi-trade and immigrant workers can demonstrate their skills through practical examinations, bypassing the need for traditional apprenticeships.
  - Create tailored training modules -offered by nonprofit minority trade organizations- in areas such as workplace safety, government invoicing, and compliance to fill gaps.
  - Partner with these organizations to deliver this training in accessible formats and in multiple languages, including Spanish.

### **2. Affordable Housing Multi-Trade Development Hub (AH-MTDH):**

- **Objective:** To establish regional hubs that blend union and non-union labor forces in a collaborative model for affordable housing construction.
- **Key Features:**
  - **Hybrid Workforce Projects:** Require a percentage of labor on state-funded affordable housing projects to come from certified multi-trade, non-union workers.
  - **Union Partnership Incentives:** Provide financial incentives (e.g., grants, tax credits) to unions that mentor and integrate non-union workers and immigrant laborers into their projects.
  - **Hands-On Learning Sites:** Each hub will host Type 5 training projects, combining field-based training with mentorship from union and experienced non-union supervisors.

### **3. Small Contractor Empowerment Program (SCEP):**

- **Objective:** To support small, immigrant-owned construction firms in becoming BOLI-compliant and competitive for government contracts.
- **Implementation:**

- **Simplified Compliance:** Streamline the process for firms to register with BOLI, reducing administrative barriers.
- **Financial Support:** Offer grants to minority trade organizations to cover costs of compliance training, safety certifications, and administrative upgrades.
- **Capacity Building:** Organize workshops focused on risk management, invoicing, and government contracting in collaboration with trade unions, voluntary agencies and local colleges.

#### 4. Integrative Workforce Incentive Fund (IWIF):

- **Objective:** To encourage participation from first-generation, immigrant, and minority workers in the affordable housing workforce.
- **Implementation:**
  - Employers who hire and mentor immigrant workers can apply for wage subsidies or tax credits.
  - Workers participating in certification programs receive stipends to cover costs like transportation, childcare, or lost wages.
  - Advocate for a visa class that may be offered to under-educated immigrants who have demonstrated multi-trade skills or experience in the residential construction industry.

#### 5. Language and Accessibility Support Initiative (LASI):

- **Objective:** To ensure immigrant and non-English-speaking workers can access training and certification opportunities.
- **Key Measures:**
  - Leverage translation technologies on the job so that non-native English speakers may participate on the job site side by side native English speakers.

#### Accountability and Monitoring

- **Annual Reporting:** The Oregon Department of Housing and Community Services (OHCS) will track workforce diversity, certification completions, and housing project outcomes.
- **Advisory Board:** Establish a Workforce Integration Advisory Board composed of minority trade organizations, minority led prime contractors, minority led subcontractors, union representatives, immigrant advocacy groups, and industry experts to provide oversight.

## Funding and Budget

- **State Budget Allocation:** Dedicate a portion of housing initiative funds for workforce development under this policy.
- **Federal Grants:** Leverage federal workforce development and housing grants to supplement state funds.
- **Public-Private Partnerships:** Collaborate with private developers and unions to co-finance training hubs and workforce programs.

## Expected Outcomes

1. Accelerated workforce capacity to meet affordable housing goals.
2. Increased representation of immigrant and minority workers in the construction sector.
3. Enhanced collaboration between union and non-union labor forces, reducing skill gaps and inefficiencies.
4. Cost-effective housing projects without compromising safety or quality standards.

The Integrative Workforce Development and Affordable Housing Act prioritizes collaboration, inclusivity, and innovation to build a diverse workforce for Oregon’s housing future. By addressing barriers faced by immigrant workers and leveraging union expertise, the state can achieve its housing goals while fostering equity and economic opportunity for all.

## Integrating informal, multi-trade learning models into formal workforce development

Integrating informal, multi-trade learning models into formal workforce development frameworks is a progressive approach to addressing labor shortages and promoting inclusivity in the construction industry. While specific state-level policies directly mirroring the proposed model are limited, several jurisdictions have implemented components that align with this strategy:

### 1. Recognition of Prior Learning (RPL):

- **Australia:** The National Centre for Vocational Education Research (NCVER) highlights the importance of combining formal, non-formal, and informal learning for workforce skill development. Their research emphasizes that recognizing skills acquired through various learning pathways can enhance workforce capabilities. (<https://www.ncver.edu.au/research-and-statistics/publications/all-publications/exploring-the-recognition-of-prior-learning-in-australian-vet>)

## 2. Integration of Formal and Informal Learning:

- **United States:** The Brookings Institution discusses state actions to value skills obtained outside the traditional classroom setting. They advocate for policies that standardize the process of awarding credits for work-based learning, non-credit credentials, apprenticeships, and career and technical education, thereby integrating informal learning into formal education systems. (<https://www.brookings.edu/articles/whose-learning-counts-state-actions-to-value-skills-from-outside-the-classroom/>)

## 3. Workforce Development Strategies:

- **United States:** The Center for American Progress conducted a 50-state scan of workforce development strategies, noting that many states are expanding opportunities by connecting education with workforce needs. This includes recognizing diverse learning experiences and integrating them into formal workforce development plans. (<https://www.americanprogress.org/article/workforce-development-state-strategies-a-50-state-scan-of-best-practices-from-recent-action/>)

While these examples may not encompass the full scope of the proposed policy, they demonstrate a growing recognition of the value in integrating informal learning and multi-trade skills into formal workforce development frameworks. Adopting similar strategies can help bridge skill gaps, promote inclusivity, and meet labor demands in various industries, including construction.

## Analysis of Stricter Government Rules Impacting Underserved Groups in Residential Housing Projects

Interviews with leaders in the residential construction industry reveal deep-seated challenges stemming from stricter government rules when initiating residential housing projects. These rules have disproportionately negative effects on underserved and underrepresented groups, particularly Hispanic workers. The following analysis seeks to convey the voices and experiences of those affected, offering a grounded understanding of the "why" behind these impacts. It concludes with actionable and empathetic recommendations to address these systemic issues.

### Key Challenges Identified

#### 1. Barriers to Entry for Hispanic and Multitrade Workers

Many Hispanic workers in the residential construction sector develop their skills through on-the-job training, often guided by family or community mentors. This pathway bypasses

formal apprenticeship programs offered by unions, leaving these workers without the licenses required for participation in government-funded projects.

- **Why This Matters:** These workers—often among the most experienced and reliable in their fields—are excluded not because of a lack of skill but due to systemic biases favoring formal certification. This exclusion perpetuates cycles of economic disadvantage and limits opportunities for upward mobility.
- **Real-World Impact:** Workers described feeling disheartened and marginalized, knowing that their hard-earned expertise is undervalued simply because it was acquired outside traditional systems.

## 2. Reduced Workforce Capacity

Government contracts often require projects to be completed in a segmented, specialized manner—carpenters frame, electricians wire, plumbers install pipes—rather than allowing multitrade workers to take on broader responsibilities.

- **Why This Matters:** Multitrade workers bring adaptability and efficiency, often completing tasks faster and at a lower cost. Excluding them hampers productivity and stretches project timelines unnecessarily.
- **Real-World Impact:** Construction leaders noted that projects stall as they wait for specific tradespeople to become available, increasing costs and delaying delivery.

## 3. Inflated Costs

Requiring only licensed tradespeople inflates costs in several ways:

- **Why This Happens:** Licensed tradespeople command higher wages and are less numerous, making their availability limited and expensive. Multitrade workers, who provide comparable quality for many tasks, are a cost-effective alternative but are often barred from participating.
- **Real-World Impact:** Smaller developers and community-driven projects struggle to stay within budget, leading to fewer affordable housing units being built.

## 4. Well-intentioned come across as gaslighting to underrepresented groups

By prioritizing licensed and union-affiliated tradespeople, government contracts unintentionally reinforce a broken system. Many underserved groups face cultural, linguistic, and financial barriers to entering formal training programs. When these realities are ignored it breaks trust with underrepresented and underserved communities.

- **Why This Happens:** Historical exclusion and lack of access to resources have left many communities without viable pathways into unionized trades.

- **Real-World Impact:** This exclusion is more than an economic issue; it signals to workers that their contributions are undervalued, further discouraging participation.

### *Recommendations*

The following recommendations aim to address these challenges while respecting the lived experiences and contributions of underserved workers. Each recommendation reflects insights gathered from interviews and real-world examples shared by industry leaders.

#### 1. Develop Alternative Certification Pathways

- **How This Was Decided:** Workers emphasized that their lack of licenses does not reflect a lack of skill but rather a lack of accessible certification options. Recognizing on-the-job training through alternative certification programs respects their expertise while meeting regulatory requirements.
- **Recommendation:** Partner with minority trade organizations and trade schools to establish affordable, accessible pathways for skill validation and licensure.

#### 2. Implement Inclusive Contracting Policies

- **How This Was Decided:** Interviewees highlighted the systemic barriers preventing many Hispanic workers from participating in government projects. Addressing these inequities requires deliberate policy changes.
- **Recommendation:** Require contractors to allocate a percentage of roles to multitrade workers and provide subsidies for skill development. Reduce supervision ratios of multitrade workers by licensed skilled workers.

#### 3. Simplify and Support Licensing Processes

- **How This Was Decided:** Workers often cited the complexity and expense of obtaining licenses as a major deterrent. Providing support—especially bilingual resources—can make licensure more accessible.
- **Recommendation:** Reduce licensing costs, streamline testing processes, and offer language support to ensure inclusivity. Provide these courses through minority trade organizations that are linked into underserved communities.

#### 4. Encourage Flexible Work Models

- **How This Was Decided:** Contractors noted that multitrade workers often thrive in less rigid work structures, which also increase efficiency.
- **Recommendation:** Revise government contracts to allow supervised multitrade work where appropriate, blending expertise with flexibility.

#### 5. Establish Community- and School-Based Workforce Programs

- **How This Was Decided:** Successful community-driven training programs demonstrate that investing in underserved groups benefits the entire industry.

- **Recommendation:** Create local partnerships to mentor multitrade workers and connect them to licensure and government projects. Offer multitrade programming through schools to encourage second generation immigrants to participate in the trades.

#### 6. Promote Accountability and Continuous Review

- **How This Was Decided:** Workers and leaders stressed the importance of monitoring policies to ensure they remain equitable and effective.
- **Recommendation:** Establish oversight committees that include representatives from underserved groups to review and adjust policies as needed. Specifically, invite minority trade organizations, minority prime contractors and minority subcontractors to have a seat at the table.

Stricter government rules disproportionately harm Hispanic workers and other underserved groups, reinforcing systemic inequities and excluding skilled labor from critical opportunities. These recommendations, rooted in the voices of those directly affected, aim to foster a more inclusive and efficient industry. By valuing the expertise of multi-trade workers and addressing systemic barriers, we can build a fairer, more equitable future for all.

#### **Analysis of Barriers Created by Registering with the Oregon Bureau of Labor and Industries (BOLI)**

This analysis explores the challenges faced by small minority contractors, particularly Hispanic leaders in the residential construction industry, when registering with the Oregon Bureau of Labor and Industries (BOLI). Drawing from an interview with an industry leader, this report details the systemic and structural barriers these contractors encounter, emphasizing the "why" behind these challenges. Given the urgency of addressing these barriers before the launch of an upcoming initiative, the recommendations focus on immediate, actionable solutions that require minimal new infrastructure or extended training.

#### **Key Challenges Identified**

##### 1. Lack of Upfront Knowledge and Support

The process of becoming a BOLI-registered training agent requires contractors to fundamentally restructure their businesses. While technical resources provide some guidance, they often fall short of addressing the full implications for small businesses.

- **Why This Matters:** Small contractors often enter the process unaware of the extent to which their existing business model will need to change. This leads to confusion, delays, and potential financial strain as they attempt to meet unfamiliar requirements.

- **Real-World Impact:** Many contractors find themselves at a crossroads, forced to choose a single trade specialization—a decision that limits their flexibility and potential client base. This lack of clarity creates unnecessary risk and frustration.

## 2. Structural Constraints of the Multi-Trade Model

Hispanic contractors, many of whom operate in a multi-trade environment, face unique challenges when registering with BOLI. The system often requires contractors to conform to a segmented model, which clashes with the integrated, adaptive approaches these businesses typically use.

- **Why This Matters:** Multi-trade contractors bring versatility and efficiency to residential construction projects. Forcing them into narrowly defined categories undermines their ability to compete and thrive.
- **Real-World Impact:** Contractors report feeling pigeonholed, with limited options to receive credit for their diverse skill sets. This restriction discourages participation and perpetuates systemic inequities.

## 3. Market Sector Specialization

Government projects often require contractors to adapt to specific market sectors, such as affordable housing or public infrastructure. This specialization demands separate business structures, adding complexity and cost.

- **Why This Matters:** The "one-size-fits-all" approach to registration fails to account for the nuanced differences between market sectors. Contractors must either create separate entities or risk operational inefficiencies.
- **Real-World Impact:** Without clear guidance, contractors frequently discover these requirements too late, leading to strained resources, failed contracts, and reputational damage.

## 4. Insufficient Coaching and Mentorship

Organizations like NAMEC and Latino Builds provide valuable resources but lack the capacity to offer comprehensive coaching tailored to the realities of BOLI registration.

- **Why This Matters:** Contractors need practical, hands-on support to navigate the complex requirements of government contracts. The absence of this guidance leaves many to learn through trial and error, compounding existing disparities.
- **Real-World Impact:** The lack of mentorship contributes to rumors of failure, discouraging others from pursuing BOLI registration and further weakening the pipeline of minority contractors.



## *Immediate Recommendations*

Given the urgency of addressing these barriers, the following recommendations focus on practical, immediate actions that minimize the need for new infrastructure or extended training:

### 1. Simplify Registration Guidance

- **Why This Is Needed:** Contractors require clear, concise guidance to navigate the BOLI registration process without unnecessary delays.
- **Recommendation:** Create a streamlined, step-by-step guide tailored for small contractors, available in multiple languages, which simplifies the requirements and outlines actionable steps.

### 2. Allow Interim Multi-Trade Registration

- **Why This Is Needed:** Forcing contractors to specialize in one trade limits their ability to participate effectively.
- **Recommendation:** Implement a temporary allowance for multi-trade contractors to register under a broader category while maintaining their existing business model.

#### Implementation Plan for Interim Multi-Trade Registration:

1. **Define Broad Multi-Trade Categories:** Collaborate with industry stakeholders to establish temporary multi-trade categories that reflect common skill combinations (e.g., carpentry and basic plumbing).
2. **Streamline Documentation Requirements:** Allow contractors to demonstrate multi-trade competency through a simplified affidavit or portfolio submission process, bypassing the need for extensive documentation.
3. **Issue Conditional Approvals:** Provide contractors with a temporary registration status valid for a set period (e.g., 18-24 months) while they transition to meeting full BOLI requirements.
4. **Leverage Existing Oversight Mechanisms:** Utilize current inspection and compliance teams to monitor performance and ensure adherence to safety and quality standards.
5. **Develop a Rapid Feedback Loop:** Establish a hotline or online portal where contractors can report challenges or seek clarification, ensuring the program remains responsive and adaptable.

### 3. Provide On-Demand Technical Support

- **Why This Is Needed:** Many contractors lack access to immediate, reliable support when questions arise during the registration process.
- **Recommendation:** Establish a dedicated helpline or virtual support team to address contractor concerns in real-time, reducing delays and confusion.

#### 4. Leverage Existing Mentorship Networks

- **Why This Is Needed:** Comprehensive mentorship programs are not feasible in the short term, but existing networks can be utilized more effectively.
- **Recommendation:** Partner with organizations like NAMEC to provide immediate, focused mentorship sessions, helping contractors address specific challenges without requiring long-term training.

#### 5. Facilitate Temporary Business Adaptations

- **Why This Is Needed:** Restructuring a business is time-consuming and costly, making it impractical for contractors needing to participate in the near term.
- **Recommendation:** Encourage contractors to use temporary solutions, such as setting up project-specific divisions within their existing business structure, to meet BOLI requirements without overhauling their operations.

#### 6. Increase Transparency Around Expectations

- **Why This Is Needed:** Miscommunication and unclear requirements create unnecessary barriers for contractors.
- **Recommendation:** Host virtual Q&A sessions and publish a list of frequently asked questions to clarify expectations and reduce uncertainty.

Registering with the Oregon Bureau of Labor and Industries presents significant barriers for small minority contractors, particularly those operating in a multi-trade environment. By implementing these immediate, practical solutions, we can reduce the barriers to participation in the upcoming initiative without requiring extensive new infrastructure or prolonged training. These recommendations aim to empower contractors to participate effectively, fostering a more inclusive and equitable construction industry.

#### **The Disconnect Between Current Subcontractor Practices and Government Contract Expectations**

Interviewees, prime contractor focus group participants and subcontractor participants all discussed the business challenges of rising up from an underrepresented group in the trades to start a residential construction contracting business. Specifically, quite a few participants identified having the cash on hand to participate in government contracts as a major problem given payment delays. Additional barriers included lack of business training and inadequate resources for securing proper bonding for larger jobs.

#### ***The Current State of Subcontractor Practices***

The residential construction industry, particularly among Hispanic workers and immigrant subcontractors, operates largely on informal but effective systems that prioritize experience, adaptability, and on-the-job skills. Key features of this system include:

1. **Crew-Based Communication:** Multilingual job sites function effectively due to strong intra-crew communication, with shared common language elements that transcend formal linguistic barriers.
2. **Labor Proven by Performance:** The industry relies on demonstrated ability rather than formal credentials, emphasizing work outcomes over paperwork.
3. **Flexible Structures:** Businesses operate in adaptable, multi-trade environments that focus on efficiency and cost-effectiveness, leveraging the expertise of individuals across multiple roles.
4. **Limited Compliance Frameworks:** Immigration and business registration processes, such as E-Verify, have not historically been a central part of this operational model.

### *Government Contract Expectations*

Government contracts, particularly those involving federal or state funding, demand a more rigid, credential-based structure. Key requirements include:

1. **E-Verify Compliance:** Mandating documentation for all employees creates barriers for subcontractors reliant on immigrant labor, many of whom lack formal work authorization despite being long-time contributors to the industry.
2. **Specialization:** Contracts often require workers to fit into narrowly defined trade categories, clashing with the multi-trade, generalist nature of many subcontractor crews.
3. **Formal Reporting and Audits:** Government projects necessitate detailed documentation, including tax compliance, licensure, and operational oversight—requirements that many small businesses are unprepared to meet.

### *Disconnect Between Practices and Expectations*

The disconnect lies in the government's expectation that subcontractors conform to existing bureaucratic frameworks without acknowledging the informal systems that have successfully supported the construction industry for decades. Key points of contention include:

1. **Imposition of Rigid Structures:** The government's insistence on formalized roles and credentials disregards the industry's reliance on flexible, multi-trade operations.
2. **Inadequate Recognition of Experience:** Informally trained, highly skilled workers are excluded from projects due to a lack of formal certifications, despite their proven expertise.
3. **Immigration Barriers:** Policies like E-Verify disproportionately affect immigrant workers, many of whom play critical roles in the industry but lack legal documentation.

## *Recommendations to Address the Disconnect*

### 1. Create a Transitional Credentialing Program

- **Objective:** Recognize the expertise of informally trained workers and provide them with provisional credentials for specific projects.
- **Implementation:**
  - Develop a short-term certification pathway for experienced workers that validates their skills without requiring lengthy apprenticeships.
  - Allow these credentials to be used exclusively for state-funded affordable housing projects.

### 2. Facilitate Multi-Trade Business Models

- **Objective:** Accommodate the industry’s multi-trade nature within government contracts.
- **Implementation:**
  - Establish a “multi-trade contractor” designation within BOLI, allowing subcontractors to register as generalists.
  - Develop a streamlined reporting framework tailored to multi-trade operations.

### 3. Introduce State-Supported Work Authorization Pathways with Sponsorship

- **Objective:** Enable immigrant workers with a clean record and established presence to participate in state projects through sponsorship by U.S. citizens or entities.
- **Implementation:**
  - Create a pathway for immigrant workers to gain temporary work authorizations through sponsorship by a U.S. citizen or certified contractor.
  - Sponsors would assume partial responsibility for ensuring the sponsored worker complies with state and project requirements, such as tax reporting and adherence to labor laws.
  - Pair this program with workshops for sponsors to understand their obligations and streamline compliance.

### 4. Streamline E-Verify Compliance for Small Businesses

- **Objective:** Reduce the administrative burden of E-Verify requirements.
- **Implementation:**
  - Offer free, state-supported training on E-Verify for small contractors.
  - Create a dedicated state liaison to assist subcontractors with onboarding employees into the E-Verify system.

### 5. Pilot a Multi-Trade Inspector Program

- **Objective:** Expedite affordable housing projects by integrating multi-trade expertise into final inspections.

- **Implementation:**
  - Develop a training program for multi-trade workers to serve as inspectors for key project elements, such as utility connections.
  - Incorporate this program into affordable housing contracts as a cost-saving measure.

#### 6. Develop Flexible Reporting Mechanisms

- **Objective:** Reduce administrative burdens while ensuring compliance with government standards.
- **Implementation:**
  - Implement simplified reporting templates that focus on outcomes rather than processes.
  - Allow subcontractors to submit aggregated, crew-based documentation instead of individual employee records where appropriate.

The current disconnect between subcontractor practices and government contract expectations arises from systemic differences in operational models and compliance requirements. By adopting transitional measures that include sponsorship pathways, respect the construction industry’s unique dynamics, and simplify compliance processes, the government can bridge this gap. These changes will empower subcontractors to participate effectively in affordable housing initiatives while maintaining accountability and fostering inclusion.

Following is a sample program to address these needs and others as outlined by interviewees and focus group participants.

#### **Sample Program: Project-Specific Division Support for Small Minority Subcontractors**

##### *Program Title: Pathways to Compliance: Project-Specific Division Support Program*

Following is a sample program to demonstrate how to address disconnects between current residential construction practices and government expectations.

#### **Purpose**

This program is designed to assist small minority subcontractors in establishing project-specific divisions within their existing business structures to meet Oregon Bureau of Labor and Industries (BOLI) requirements. By providing tailored guidance, technical support, and streamlined resources, the program aims to foster compliance, empower business growth, and reduce barriers to participation in government-funded projects.

## Objectives

1. **Facilitate Compliance:** Support subcontractors in meeting BOLI requirements through the establishment of project-specific business divisions.
2. **Enhance Business Adaptability:** Equip subcontractors with tools to create flexible structures that align with diverse project needs.
3. **Promote Inclusion:** Increase the representation and participation of minority subcontractors in government initiatives.
4. **Minimize Disruption:** Offer solutions that integrate seamlessly into existing business operations without requiring significant new infrastructure.
5. **Provide Direct Incentives:** Ensure participants benefit financially from their involvement in the governor's residential housing initiative.

## Key Components

### 1. Program Eligibility

- Subcontractors must meet the following criteria:
  - Operate as a small business based in Oregon.
  - Be minority-owned and/or operated.
  - Demonstrate prior experience in residential or commercial construction. This can be accomplished through homeowner contract presentation or even consider affidavit to help further remove barriers.

### 2. Initial Assessment and Consultation

- Participants will receive an in-depth assessment to evaluate:
  - Current business structure and operations.
  - Readiness for creating a project-specific division.
  - Specific compliance gaps related to BOLI requirements.
- A dedicated advisor will work with each subcontractor to outline a tailored action plan.

### 3. Project-Specific Division Toolkit

- The program will provide a comprehensive toolkit that includes:
  - **Templates:** Ready-to-use organizational charts, compliance checklists, and reporting forms.
  - **Guidelines:** Step-by-step instructions for establishing project-specific divisions.
  - **Example Documents:** Sample contracts, employment agreements, and policies aligned with BOLI requirements.

#### 4. Technical Assistance

- Subcontractors will have access to:
  - **One-on-One Coaching:** Advisors will provide personalized guidance on implementing the action plan.
  - **Workshops:** Targeted sessions on topics such as legal compliance, payroll setup, and subcontractor agreements.
  - **Real-Time Support:** A dedicated hotline for immediate assistance with questions or challenges.

#### 5. Financial Support

- To reduce financial barriers, the program will offer:
  - **Micro-Grants:** Small grants (e.g., \$5,000-\$10,000) to cover costs associated with setting up project-specific divisions.
  - **Fee Subsidies:** Partial reimbursement for legal, accounting, and registration expenses.

#### 6. Direct Budget Incentive

- **Why This Is Needed:** Ensuring financial returns incentivizes participation and fosters economic inclusion.
- **Incentive Design:**
  - Participants in the program will be allocated a percentage of the budget for building residential housing units under the governor's initiative.
  - A minimum of 10% of the total project budget will be earmarked for qualified subcontractors who successfully establish project-specific divisions.
  - Payment Milestones:
    - **Initial Milestone:** 30% of the allocation will be disbursed upon project initiation and compliance confirmation.
    - **Midpoint Milestone:** 40% upon successful completion of halfway deliverables.
    - **Final Milestone:** Remaining 30% upon project completion and approval.
  - Additional financial bonuses will be awarded for exceeding project benchmarks such as early completion or achieving specific diversity goals.

#### 7. Ongoing Monitoring and Feedback

- Participants will receive continuous support to ensure successful implementation:
  - Monthly check-ins with advisors to track progress.
  - Access to an online portal for reporting compliance milestones.

- Feedback surveys to refine program offerings.

### **Implementation Timeline**

1. **Phase 1: Outreach and Enrollment (Months 1-2)**
  - Conduct outreach through minority-focused business organizations.
  - Open applications and select participants.
2. **Phase 2: Assessment and Planning (Months 3-4)**
  - Perform individual assessments and develop action plans.
3. **Phase 3: Implementation Support (Months 5-8)**
  - Deliver toolkits, conduct workshops, and provide financial support.
4. **Phase 4: Evaluation and Scale-Up (Months 9-12)**
  - Collect feedback, measure outcomes, and adjust the program for future iterations.

### **Expected Outcomes**

- **Increased Participation:** At least 75% of program participants successfully meet BOLI requirements.
- **Enhanced Business Capabilities:** Participants report improved operational efficiency and compliance readiness.
- **Broader Inclusion:** Greater representation of minority subcontractors in government projects.
- **Tangible Financial Impact:** Participants receive direct economic benefits through allocated budget incentives.

### **Partnerships**

To maximize impact, the program will collaborate with:

- Minority business organizations (e.g., NAMEC, Latino Builds).
- Legal and financial professionals specializing in small business compliance.
- Community colleges and trade schools offering relevant workshops.

### **Budget Overview**

- **Program Development:** \$100,000
- **Toolkits and Resources:** \$50,000
- **Financial Support (Grants/Subsidies):** \$300,000
- **Incentive Budget Allocation:** \$500,000
- **Staffing and Administration:** \$150,000
- **Outreach and Marketing:** \$50,000 **Total Estimated Budget:** \$1,150,000



## Summary

The Pathways to Compliance program provides an immediate, practical solution to help minority subcontractors navigate BOLI requirements while minimizing disruption to their existing business operations. By incorporating a direct budget incentive tied to the governor's residential housing initiative, the program not only supports compliance but also ensures financial empowerment and inclusion for minority-owned businesses. These efforts will strengthen industry diversity and create a more equitable economic landscape.

### Schools: The Capacity Pipeline to the Future

Working with the adult population and encouraging participation by already able, knowledgeable or skilled workers will meet the immediate need. To build a sustainable pipeline, we must focus on the school.

Unfortunately, a very successful campaign to encourage students and their parents to consider future workers pursue a career in STEM had almost rendered the trades programs extinct. There is a general belief that programs promoting the trades need to be embedded within the schools, but current programs still remain a mere ghost of what they once were.

New capacity need, capacity gaps and new technologies being leveraged in the trades require the urgent rethinking of trades programming within the schools. Just as important is the requirement of a public relations campaign to undo the stigma of selecting a career in the trades that was created by the STEM focus. This is even more true for women who are not only encouraged to pursue STEM but continue to be discouraged from entering the trades due to persistent male-dominating cultural norms in this sector.

To achieve the Governor of Oregon's goal of building 36,000 housing units annually for the next decade, the residential construction industry must expand its workforce and pipeline of future professionals. It is important to focus on schools to achieve targets in years 3 through 10 as the current students from grades 3 – 12 may serve as a funnel to meet workforce demand as this initiative continues.

This section explores how to engage underserved and underrepresented student populations, including those balancing work and school, students with invisible disabilities (e.g., ADHD, dyslexia, high-functioning autism), and those drawn to gig work or entrepreneurship.

### *Considerations to create effective innovative programming to attract motivated talent to the trades*

Recognizing the financial challenges faced by public education systems and the pressing need for skilled labor in the trades, we must begin to think seriously about how to open these opportunities to students that are seeking a career to earn a sustainable wage and intergenerational wealth but do not fit the classic college-bound career path.

Following are some key issues that we have extracted from the qualitative data to use as a starting point for program development

#### **Students Balancing Work and School**

- Many Oregon high school students must work to support their families, often taking on physically and emotionally exhausting jobs such as graveyard shifts or gig work.
- These responsibilities leave students with limited time and energy for academic success, contributing to higher dropout rates and reduced engagement in school activities.
- The necessity of earning income creates a barrier to pursuing traditional career pathways that require upfront time and financial investments in education or training.

#### **Students with Invisible Disabilities**

- Invisible disabilities such as ADHD, dyslexia, and high-functioning autism often go unnoticed or unaccommodated in traditional academic settings, leading to frustration and disengagement.
- These students may struggle with rigid schedules, text-heavy curricula, and standardized teaching methods that fail to leverage their strengths.
- A lack of tailored support can result in lower academic achievement, self-esteem issues, and limited post-secondary opportunities.

#### **Interest in Gig Work and Entrepreneurship**

- Many students are drawn to gig work for its flexibility and immediate income potential, seeing it as a viable alternative to traditional part-time jobs.
- Entrepreneurship offers the allure of autonomy and control over one's career but often lacks accessible training or mentorship for young people.
- While appealing, these pathways may lack long-term stability and growth opportunities, leaving students without sustainable career prospects.

## Barriers and Their Impact on Learning Outcomes

The above challenges have historically hindered educational and career success for these populations:

- **Time Constraints:** Balancing work and school reduces students' ability to focus on learning, leading to absenteeism, lower grades, and a lack of meaningful engagement with academic material.
- **Mismatched Educational Models:** Traditional schooling methods prioritize rote learning and rigid schedules, disadvantaging students with unique cognitive needs or learning styles.
- **Economic Pressure:** The immediate need for income often forces students to prioritize work over long-term education, limiting access to higher-paying, skilled professions.
- **Lack of Relevant Pathways:** Many students see traditional academic or corporate career paths as irrelevant to their goals, further alienating them from the education system.

## Recommendations on how the Trades Can Transform These Outcomes

### 1. Flexible Training and Education Programs

- **Solution to Time Constraints:** Flexible apprenticeships and internships allow students to earn while they learn, reducing the conflict between work and education.
- **Innovative Scheduling:** Nontraditional class hours (e.g., evenings, weekends) align with students' work schedules, making participation feasible for those with demanding jobs.

### 2. Hands-On Learning for Invisible Disabilities

- **Strength-Based Approaches:** Trades emphasize practical, hands-on activities that cater to students who thrive in experiential learning environments.
- **Visible Progress:** The tangible outcomes of construction work provide immediate feedback and a sense of accomplishment, fostering motivation and confidence.
- **Tailored Support:** Accommodations such as visual aids, additional processing time, and mentorship programs ensure that students with learning differences receive the support they need to excel.

### 3. Pathways to Financial Stability and Independence

- **Immediate Economic Benefits:** Paid training and entry-level roles in the trades offer financial stability and reduce reliance on low-paying gig jobs.

- **Entrepreneurship Opportunities:** Trades provide clear pathways to self-employment, enabling students to build independent businesses in areas like carpentry, plumbing, or contracting.
- **Long-Term Growth:** Unlike gig work, the trades offer career progression, allowing workers to advance into higher-paying, skilled roles or managerial positions.

#### *4. Relevance and Engagement*

- **Alignment with Interests:** Trades careers align with students' desires for autonomy, creativity, and control over their schedules.
- **Community and Mentorship:** Strong mentorship networks within the trades foster a sense of belonging and provide guidance for long-term success.
- **Empowerment Through Skill Development:** Students gain practical, transferable skills that enable them to take control of their careers and achieve financial independence.

#### *A Sample Innovative School Program for Capacity Building*

Following is a hypothetical sample program to demonstrate how we may address the barriers and motivations gleaned from the qualitative data.

#### *Building Futures Initiative: A Public-Private Partnership Program*

##### **Program Overview**

The Building Futures Initiative (BFI) is a public-private partnership designed to address workforce shortages in the residential construction industry by creating a comprehensive training program for underserved and underrepresented high school students. The program equips students with the skills, certifications, and resources needed for successful careers in the trades while contributing to Oregon's goal of building 36,000 housing units annually.

##### **Key Features of the Program**

###### **1. Funding Model:**

- **Public Sector Contributions:** Grants from state and local governments for operational costs.
- **Private Sector Contributions:** Financial investments from construction companies, unions, and trade organizations, alongside in-kind donations of tools, materials, and industry professionals' time.
- **Community Support:** Partnerships with nonprofits to provide additional services like transportation and meals.

## 2. **Equitable Access:**

- Students must submit an application demonstrating either:
  - Employment history while attending school to recognize students who have gone above and beyond to contribute to the financial success of their household. Acceptable employment can be verified by a letter of recommendation from a non-family member employer or proof of income from a self-directed business such as selling crafts, tutoring, or childcare.
  - A documented educational challenge for which they have an Individualized Education Plan (IEP) or 504 Plan.
- Students must also complete an OSHA-sponsored safety course during the summer prior to program entry. This course, which can be taken online asynchronously, includes intensive instruction hours, quizzes, and a final exam to ensure readiness for worksite safety requirements.
- If more students apply than available slots, a lottery system will be implemented:
  - 75% of slots will be allocated to applicants who have been working while attending school.
  - At least 25% of slots will be allocated to applicants with an IEP or 504 Plan.

## 3. **Contractor Requirements:**

- Sponsoring contractors must be OSHA-approved and demonstrate a track record of having successfully mentored apprentices in the past. This ensures participating companies are prepared to provide meaningful and safe training environments for students.

## **Sample Curriculum**

The curriculum is structured to provide foundational knowledge, on-the-job training, and career readiness:

### 1. **Foundational Knowledge (Weeks 1-4):**

- Safety protocols and certifications (e.g., OSHA 10/30).
- Introduction to tools, equipment, and materials.
- Construction math and blueprint reading.

### 2. **On-the-Job Training (Weeks 5-20):**

- Students work four days a week at sponsoring private sector general and specialty contractor worksites.

- Hands-on experience in carpentry, plumbing, electrical work, and sustainable construction.
- Collaboration with industry professionals to develop practical skills in real-world environments.

**3. Career Readiness (Concurrent with On-the-Job Training):**

- Resume writing and interview preparation.
- Financial literacy for trades professionals.
- Entrepreneurship and small business management.

**Program Schedule**

The Building Futures Initiative operates year-round with a focus on worksite-based learning:

- **Monday to Thursday:**
  - 9:00 AM - 4:00 PM: On-the-job training at private sector contractor worksites.
- **Friday:**
  - 10:00 AM - 12:00 PM: Classroom instruction on theoretical concepts.
  - 1:00 PM - 3:00 PM: Career readiness workshops.

**Supplies and Resources**

- 1. Tools and Equipment:**
  - Each student receives a basic toolkit including hammers, screwdrivers, wrenches, and measuring devices.
  - Access to industry-grade equipment during training.
- 2. Personal Protective Equipment (PPE):**
  - Hard hats, gloves, goggles, and steel-toed boots provided at no cost.
- 3. Instructional Materials:**
  - Digital and physical copies of textbooks, blueprints, and safety manuals.
  - Access to online platforms for supplemental learning.
- 4. Support Services:**
  - Transportation assistance for students with limited mobility.
  - On-site meals and snacks during workdays.
  - Mentorship and counseling services to support personal and career development.

### **Sample Budget (Adjusted for On-the-Job Training)**

The annual budget for the Building Futures Initiative is as follows:

**1. Personnel Costs:**

- Instructors: \$150,000 (reduced due to less classroom time).
- Administrative staff: \$60,000.
- Mentorship stipends: \$20,000 (leveraging in-kind contributions).

**2. Facilities and Equipment:**

- Tools and equipment: \$40,000 (partially offset by in-kind donations).
- Technology and software: \$15,000.

**3. Student Support:**

- Transportation: \$20,000.
- Meals and snacks: \$15,000.
- Outreach and marketing: \$10,000.

**4. Program Operations:**

- Contingency fund: \$10,000.

**Total Estimated Budget:** \$340,000 annually.

### **Example Funding Breakdown**

The budget will be funded through a combination of public and private contributions:

● **Public Funding:**

- State Workforce Development Grant: \$120,000.
- Local Education Agency Support: \$100,000.
- Federal Grants for Career and Technical Education: \$50,000.

● **Private Funding:**

- Contributions from Construction Companies and Trade Organizations: \$50,000.
- In-kind Donations of Tools, Materials, and Professional Time: \$70,000.
- Sponsorships from Local Businesses: \$20,000.

**Total Funding:** \$340,000 (with in-kind savings factored).

## **Expected Outcomes**

### **1. Enrollment:**

- 120 students annually, with 30% from historically underrepresented backgrounds.

### **2. Certifications:**

- 95% of students earn OSHA certifications and complete core curriculum requirements.

### **3. Employment and Entrepreneurship:**

- 90% of graduates secure apprenticeships, entry-level positions, or launch their own businesses.

### **4. Industry Impact:**

- Increased workforce capacity for Oregon's housing initiative.
- Strengthened public-private partnerships driving innovation in construction education.

## **Summary**

The Building Futures Initiative exemplifies how public and private entities can collaborate to address workforce shortages while promoting social equity and economic growth. By integrating a mandatory OSHA-sponsored safety course, emphasizing the value of work experience, and requiring sponsoring contractors to meet high safety and mentorship standards, the program ensures participants are well-prepared and work in environments conducive to learning. This innovative model empowers underserved students and ensures Oregon's housing goals are met in a sustainable and inclusive manner.

## **Final Words**

This is a bold initiative which promises significant opportunity for participants, therefore bold problem-solving is required to break out of the status quo and open up these opportunities to underrepresented groups and underserved communities. The good news is that Oregon already has a strong group of leaders that has risen from these communities and has laid the groundwork for the necessary capacity building infrastructure to make this opportunity a reality for many people who are seeking a sustainable wage and a career which has the hope of accumulating intergenerational wealth.

We are excited to be a part of this initiative and confident that a bold architecture of public-private partnership between communities will move Oregon to the forefront of successfully generating new opportunities over the course of the next 10 years for all people in the residential construction sector.



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## Key Terms and Definitions

- Housing Production Advisory Council – A task force created under Executive Order 23-04 to develop strategies and solutions for increasing housing supply while ensuring equity and economic mobility for Oregon residents.
- Affordable Housing – Housing that is financially accessible to individuals and families at various income levels, ensuring that rent or mortgage payments do not exceed 30% of household income.
- Underrepresented Groups – Workforce members who are underemployed or seeking opportunities in living-wage careers but do not fit into the demographic norm of Oregon’s Trades worker or Residential Construction Business Owner (Oregon Department of Administrative Services, n.d.). These groups typically include

women, BIPOC individuals, veterans, people with disabilities, and emerging small businesses.

- Underserved Communities – Populations that face additional barriers to participation in workforce initiatives due to a lack of resources (Survey Analysis, 2024). These barriers may include economic challenges, ADA-related accessibility needs, childcare responsibilities, or legal obstacles such as formerly incarcerated individuals and immigrants.
- COBID (Certification Office for Business Inclusion and Diversity) – An Oregon state program that certifies minority-owned, women-owned, veteran-owned, and emerging small businesses to ensure equitable access to government contracts and economic opportunities (Oregon Department of Administrative Services, n.d.).
- Intergenerational Wealth – The ability of individuals and families to build financial stability over generations through stable, well-paying careers, homeownership, and access to economic opportunities.
- Emerging Small Business – A small-scale, developing business that is certified under COBID guidelines and may face challenges in competing for contracts, accessing capital, or growing within the construction industry.
- ADA (Americans with Disabilities Act) Requirements – Federal regulations ensuring equal access to employment, training, and physical job sites for individuals with disabilities, including workplace accommodations and accessibility standards.
- Formerly Incarcerated Individuals – People who have served time in the criminal justice system and face legal, social, and economic barriers when seeking employment in the construction industry.
- Immigrant Workforce – Individuals who have migrated to the U.S. and may face language barriers, work authorization challenges, and discrimination when entering the residential construction industry.
- MBCB (Minority Business Capacity Building) – A consulting organization led by Steve Johnson that specializes in equity-focused research, workforce development, and business capacity building for historically marginalized communities in Oregon’s residential construction industry.
- Authentic Engagement – A methodology used by MBCB that prioritizes trust, cultural competency, and respectful dialogue to ensure that research participants feel valued and heard, leading to accurate and meaningful data collection.
- Systemic Barriers – Structural obstacles that historically marginalized communities face when seeking employment, education, and advancement in the construction industry, such as discrimination, lack of resources, and exclusion from industry networks.
- Chinese Exclusion Act of 1882 – A federal law that severely restricted Chinese immigration and barred Chinese workers from obtaining U.S. citizenship, limiting their participation in industries such as railroad construction and general labor.

- Bracero Program – A U.S. labor program (1942–1964) that recruited Mexican workers to address wartime labor shortages, particularly in agriculture and construction, while subjecting them to exploitative labor conditions and discrimination.
- Civil Rights Movement (1950s–1970s) – A national movement aimed at ending racial discrimination, leading to federal mandates for non-discrimination in employment and workforce participation (BOLI, n.d.).
- Oregon Association of Minority Entrepreneurs (OAME) – A nonprofit organization founded in 1987 to support minority-owned businesses in construction and other industries by providing resources, training, and capital access (OAME, n.d.).
- Oregon Tradeswomen – A nonprofit organization advocating for gender equity in the construction trades, providing training and career opportunities for women in Oregon’s male-dominated industry (Oregon Tradeswomen, n.d.).
- National Association of Minority Contractors-Oregon (NAMC-Oregon) – A trade association supporting minority-owned construction firms through technical training, business development, and workforce advocacy (NAMC-Oregon, n.d.).
- Constructing Hope – A pre-apprenticeship program aimed at providing training, mentorship, and career pathways for formerly incarcerated individuals and other disadvantaged workers seeking construction careers (Constructing Hope, n.d.).
- Vocational Rehabilitation Programs – Workforce development initiatives, often in partnership with the Oregon Department of Human Services, which provide accessibility tools, job training, and employment support for people with disabilities.
- Certification Office for Business Inclusion and Diversity (COBID) – A state certification agency that supports minority-, women-, and veteran-owned businesses, improving their access to public contracts and economic opportunities (Oregon Department of Administrative Services, n.d.).
- Future Ready Oregon – A statewide workforce development initiative designed to expand funding for equity-centered career training, with targeted programs for veterans, LGBTQ+ individuals, and underrepresented communities (Oregon Department of Administrative Services, n.d.).
- Raimore Construction – A minority-owned construction firm that has led major public infrastructure projects in Oregon, including the I-5 Rose Quarter project, while emphasizing inclusion in hiring and subcontracting (NAMC-Oregon, 2024).
- Oregon’s Equity Lens – A framework designed to guide decision-making, policies, and investments in order to eliminate systemic barriers and promote equitable opportunities, particularly for historically underserved and marginalized communities (Oregon Department of Administrative Services, n.d.).
- Skilled Trades – Occupations that require specialized training and certification, including carpentry, electrical work, plumbing, roofing, drywall installation, painting, and HVAC (Bureau of Labor Statistics [BLS], 2024).

- Entry-Level Laborers – Workers who assist skilled trades professionals by performing basic construction tasks such as material handling, site preparation, and demolition (BLS, 2024).
- Green Building Specialists – Professionals who focus on sustainable construction methods and energy-efficient design, an area of growing demand due to climate concerns and state sustainability initiatives (AGC, 2025).
- Multi-Tradesperson Certification – A proposed certification pathway for workers who have developed a wide range of skills on the job but lack formal credentials, enabling them to perform multiple skilled tasks across different trades (Subcontractor Focus Group, 2024).
- Union Construction Workforce – Workers who are members of trade unions, which provide structured apprenticeship programs, negotiated wages, benefits, and job protections (BLS, 2024).
- Non-Union Workforce – Construction workers who are not affiliated with a union and may experience greater job flexibility but less wage consistency, benefits, and formal training opportunities (AGC, 2025).
- Operating Engineers – Skilled professionals who operate heavy machinery such as cranes, bulldozers, and backhoes on construction sites (BLS, 2024).
- Pre-Apprenticeship Programs – Structured training programs that introduce participants to the construction industry, providing foundational skills, hands-on experience, and industry exposure before entering full apprenticeships (Bureau of Labor and Industries [BOLI], n.d.).
- Apprenticeship Programs – Formalized work-based learning models that combine on-the-job training with classroom instruction, often leading to certifications, licensure, and journey-level status in a skilled trade (BOLI, n.d.).
- Career and Technical Education (CTE) Programs – High school-based educational programs focused on career preparation in fields like construction technology, drafting, and design, providing students with direct entry into the workforce or advanced training pathways.
- On-the-Job Training (OJT) – A learning model where new workers gain skills directly from experienced tradespeople on job sites without participating in a formal apprenticeship or classroom program.
- Community Colleges and Technical Schools – Institutions that offer certifications, diplomas, and associate degrees in construction-related fields such as construction management, carpentry, and HVAC, providing an alternative pathway into the industry.
- Union Training Pipelines – Workforce development programs operated by trade unions that provide job referrals, structured apprenticeship programs, and career advancement opportunities in skilled trades.

- Trade Unions – Organizations that represent workers in specific trades, negotiating on behalf of members for better wages, benefits, and working conditions. Examples include the International Brotherhood of Electrical Workers (IBEW) and the United Brotherhood of Carpenters.
- Hiring Hall System – A method used by unions to assign work to members through a centralized referral system, rather than allowing workers to directly negotiate jobs with employers.
- Union Dues – Membership fees that union workers pay to support union operations, collective bargaining efforts, and legal representation.
- Non-Union Construction Jobs – Employment in the construction industry that does not require union membership, allowing greater flexibility in job selection and direct negotiation with employers, but often lacking structured career pathways and benefits.
- Independent Contractors – Self-employed construction workers who operate without union affiliation, directly contracting with clients or construction firms to perform specialized work.
- Public-Private Partnerships in Workforce Development – Collaborative initiatives between government agencies, unions, and non-union organizations that aim to increase workforce training without requiring union membership, ensuring broader participation from underrepresented groups.
- Capacity-Building Initiatives – Programs designed to expand training, job placement, and career advancement for underrepresented groups, ensuring equal access to workforce development resources regardless of union status.
- Individual Interviews – One-on-one discussions conducted with leaders in residential construction, K-12 education, post-secondary education, and workforce development, aimed at gathering qualitative insights on barriers faced by underrepresented groups.
- Focus Groups – Group discussions held with prime contractors and subcontractors to explore barriers, industry roles, and resource gaps affecting underrepresented business owners and workers in residential construction.
- Steering Committee – A group of industry stakeholders convened to provide guidance, insights, and support throughout the research process, ensuring alignment with equity-focused objectives.
- Secondary Data Analysis – The process of gathering and reviewing existing research, reports, and industry statistics to support findings and validate qualitative insights from interviews and focus groups.
- Educational Attainment – The highest level of education completed by individuals, which significantly impacts career pathways and economic mobility, particularly for underrepresented and underserved populations (Oregon Department of Education, 2024).



- Language and Cultural Barriers – Obstacles faced by English as a Second Language (ESL) students, including lack of bilingual instructors, technical jargon in training programs, and limited culturally tailored resources, which make it difficult to transition into construction careers (Cloud, 2024; Survey Analysis, 2024).
- Direct-Entry Agreements – Formal partnerships between pre-apprenticeship and apprenticeship programs, allowing participants to seamlessly transition into paid, specialized training without additional application barriers (Survey Analysis, 2024).
- Team Oregon Build – A recruitment program aimed at expanding job opportunities in construction by engaging underrepresented workers through targeted outreach and workforce development initiatives.
- Occupational Segregation – The overrepresentation of minority workers in lower-wage positions, making it harder for them to transition into high-wage trades or management roles, contributing to higher dropout rates in apprenticeships (AIR, 2023).
- Disadvantaged Business Enterprise (DBE) Program – A federal program enforced by the U.S. Department of Transportation that requires minority- and women-owned firms to have fair access to federally funded construction projects.
- Community Benefits Agreement (CBA) Model – A contractual agreement used in public construction projects that includes diversity hiring requirements and workforce training commitments to increase participation of underrepresented workers.
- Minority-Owned Construction Firms – Businesses in the construction industry that are at least 51% owned and operated by individuals from underrepresented racial or ethnic groups, often facing systemic barriers in contracting and financing.
- U.S. Minority Business Development Agency (MBDA) Grants – A federal program that provides approximately \$11 million in funding for minority-owned businesses, including rural business centers and women’s entrepreneurship programs, though eligibility restrictions limit accessibility (MBDA, n.d.).
- U.S. Small Business Administration (SBA) Minority Business Support – A government agency that provides training, counseling, and funding opportunities tailored to minority entrepreneurs, but many small firms report that applying for SBA programs is administratively overwhelming (SBA, n.d.).
- National Association of Minority Contractors (NAMC) – A national advocacy and training organization that helps minority-owned businesses secure contracts and expand industry networks (NAMC, n.d.).
- National Black Contractors Association (National BCA) – An organization that partners with government programs, such as the Neighborhood Stabilization Program, to increase contract access for Black-owned construction firms (National BCA, n.d.).

- National Association of Black Women in Construction (NABWIC) – A professional association that advocates for increased opportunities for Black women in the construction industry, providing visibility, business development, and networking resources (NABWIC, n.d.).
- Construction Allies in Action – A holistic support program that helps minority contractors access financing, business development support, and industry mentorship to overcome barriers to success (Construction Allies, n.d.).
- Building Information Modeling (BIM) – A digital design and planning tool that enables construction firms to visualize projects in 3D, improving collaboration, cost estimation, and efficiency.
- Automation in Construction – The use of robotics, automated machinery, and AI-driven processes to enhance efficiency, accuracy, and productivity in building projects.
- Drones in Construction – Unmanned aerial vehicles (UAVs) used for site surveying, monitoring project progress, and improving safety assessments.
- Prefabrication – A construction method where building components are manufactured off-site and assembled on-site, reducing labor costs, material waste, and project timelines.
- Fleet Tracking and Management Software – A technology that optimizes logistics by monitoring vehicle and equipment usage, ensuring better efficiency and cost savings.
- Cloud-Hosted Solutions in Construction – Digital platforms that store and manage project data online, allowing construction firms to access and update information in real-time for accounting, field operations, and project management.
- Mobile Software in Field Operations – Apps and digital tools used for daily field reports, time tracking, and sharing construction drawings, allowing real-time communication between teams.
- Robotics in Construction – The implementation of automated machines and AI-powered tools to reduce manual labor and enhance precision in building projects, though currently in early-stage adoption (4%).
- Workforce Development – The process of recruiting, training, and retaining skilled workers to meet industry demands, particularly in response to labor shortages and economic trends.
- Prime Contractor – A lead contractor responsible for managing and overseeing an entire construction project, hiring subcontractors, and ensuring compliance with contracts and regulations.
- General Contractor – A construction professional or firm responsible for coordinating a project, managing workers, obtaining permits, and ensuring completion according to budget, schedule, and quality standards.

- Subcontractor – A specialized contractor hired by a prime or general contractor to perform specific construction tasks, such as electrical work, plumbing, roofing, or drywall installation.
- OSHA (Occupational Safety and Health Administration) – A federal agency that sets and enforces safety and health regulations in workplaces, including construction sites, to reduce accidents and hazards.
- Mentorship (in Construction) – A structured relationship where experienced industry professionals provide guidance, support, and career development to newer or underrepresented workers.
- Financial Barriers – Obstacles related to the cost of tools, certifications, unpaid training periods, and startup expenses, which prevent individuals or small businesses from accessing construction job opportunities or contracts.
- Cash Flow – The movement of money in and out of a business, which affects its ability to cover payroll, purchase materials, and maintain operations—a common challenge for minority-owned firms.
- Labor Shortage – The insufficient supply of skilled workers in the construction industry, leading to delays, increased project costs, and unmet housing production goals.
- Turnover – The rate at which workers leave a company or industry, often due to low wages, lack of career advancement, unsafe working conditions, or poor workplace culture.
- Alienation – The sense of exclusion or isolation experienced by workers, particularly underrepresented groups, due to workplace discrimination, cultural barriers, or lack of mentorship.
- Union (in Construction) – A trade organization that represents construction workers, negotiating for higher wages, benefits, and safer working conditions through collective bargaining agreements.
- Non-Union (in Construction) – A workforce or company that operates independently of trade unions, allowing more job flexibility but often lacking standardized wages and benefits.
- Strategic Partnership – A collaboration between construction firms, government agencies, workforce organizations, and educational institutions to enhance training, recruitment, and career pathways.
- Targeted Outreach – A recruitment approach that focuses on engaging underrepresented populations—such as women, BIPOC individuals, veterans, and non-English speakers—to increase workforce diversity.
- Bias – A preconceived opinion or preference that can influence hiring, promotions, and workplace interactions, often resulting in unfair treatment of underrepresented groups.

- Affinity Bias – The tendency to favor people who share similar backgrounds, experiences, or interests, which can limit diversity in hiring and career advancement.
- Cultural Competency – The ability to effectively work and communicate with individuals from diverse cultural backgrounds, ensuring inclusion, respect, and equitable treatment in the workplace.
- Bilingual – The ability to speak two languages fluently, a crucial skill in construction workforce training programs to support non-native English speakers.
- Scaling – The process of expanding a business or workforce to meet increased demand, often requiring additional resources, workforce investments, and streamlined operations.
- Support Services – Wraparound services such as childcare assistance, transportation stipends, financial counseling, and mentorship programs that help construction workers overcome barriers to employment and career advancement.
- Performance Evaluation – A structured review process used by employers to assess worker productivity, skills, and potential for promotion in a fair and standardized manner.
- Intersectionality – A framework that examines how multiple social identities (e.g., race, gender, socioeconomic status) intersect, affecting a person’s access to opportunities and experiences of discrimination.
- Streamlining – The process of making procedures more efficient, such as simplifying certification, hiring, and funding application processes to remove unnecessary barriers for businesses and workers.
- Accessibility – Ensuring that all individuals, regardless of ability, language, or socioeconomic status, have equal access to training, job opportunities, and workplace resources.
- Private Sector (Construction) – Construction projects funded by private companies, investors, or homeowners, often without the same diversity and inclusion requirements as public contracts.
- Public Sector (Construction) – Government-funded construction projects that often require compliance with workforce diversity, equity policies, and certified business participation.
- Small Business (in Construction) – A privately owned company with limited employees and revenue, often facing challenges in securing contracts, accessing capital, and competing with larger firms.
- Rural – Areas with lower population density where access to training programs, job opportunities, and construction resources is often limited.
- Urban – Highly populated areas where construction activity, workforce programs, and business opportunities are more concentrated but can be competitive and costly.

- Automation (in Construction) – The use of robots, AI, and automated machinery to perform tasks traditionally done by workers, improving efficiency but requiring new training for workers.
- Prefabrication (in Construction) – A building process where construction components are manufactured off-site and then assembled on-site, reducing project timelines and labor demands.
- Industry Collaboration – Partnerships between construction firms, technology providers, workforce organizations, and government agencies to address labor shortages, improve training, and advance construction technology.
- PLA (Project Labor Agreement) – A pre-hire agreement between contractors and labor unions that establishes work conditions, pay rates, and hiring practices for a construction project.
- Executive Order – A directive issued by a government official (e.g., Governor Kotek) that mandates policy changes, such as workforce development initiatives or diversity hiring requirements in public-sector construction projects.