HIGHER EDUCATION COORDINATING COMMISSION
FUTURE READY OREGON

INDUSTRY CONSORTIA FOCUS GROUPS

SUMMARY REPORT

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JENSEN STRATEGIES

HIGHER EDUCATION COORDINATING COMMISSION

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EXECUTIVE SUMMARY

Introduction

In 2022 the State of Oregon's Higher Education Coordinating Commission (HECC) was charged by statute to implement Future Ready Oregon, a workforce talent development initiative designed to allocate strategic financial investments, advance equitable access and success in postsecondary education, and enhance effectiveness of state and regional educational systems. A key priority for this program is to expand and enhance education, training, and support for people from historically underserved communities to help them achieve living-wage careers. In addition, the initiative seeks to strengthen and expand the network of Oregon's workforce partners to address complex workforce and talent development challenges.

To this end, statewide Consortia with a broad range of representatives for three key Oregon industries – healthcare, manufacturing, and technology – were convened. To inform their work, 15 focus groups were held with industry employers to hear their experience and perspectives related to workforce planning, training, development, and retention. This report summarizes the process, findings, and outcomes from the focus groups held from June to September of 2024.

The two and a half hour focus groups were held in-person at local higher education institutions and training facilities in eight regions across the state. The format for each session was consistent and conducted by a professional facilitator. Discussion questions were designed to learn about the participants' experiences, challenges, and ideas related to workforce development, recruitment, retention, and diversity. The participants were promised anonymity of their individual input in any summary reports or presentations related to the focus groups.

Overall Focus Group Findings

Representatives of all three industries stress the continued impact that the COVID-19 pandemic and changing workforce expectations have had on their respective industries over the last several years. These impacts are reshaping these employers' approach to workforce recruitment and retention as they adapt to a new norm.

While each industry had findings specific to it or it's sectors, there were common workforce themes emerged among the three industries including:

Demand Planning

- One year workforce planning timelines are common due to a variety long-term unpredictable factors.
- Workforce planning data needs, both internal and external, have been changing to adapt to changing workforce needs.

Recruitment

- Employers engaging more proactive recruiting approaches, beyond traditional passive advertising, to respond to a very competitive workforce market.

- Employers are also thinking longer term for workforce recruitment by reaching out through primary and secondary education programs to attract new generations.

- Employers are selling their organizations to prospective hires as employer reputations and workplace environment become important to job candidates.

- Employers are working to offer more creative and competitive incentives or benefits to recruit and retain employees.

Education and Training

- Employers are finding the contemporary workforce lacks critical soft skills to be effective in the workplace such as interpersonal skills, communication abilities, and teamwork.

- Participants say higher education programs are not always providing the technical knowledge or experience needed for their entry level jobs.

- Oregon higher education programs Access to Oregon's higher education programs is limited by geographic and financial factors, particularly for priority populations.

- Early and secondary educational programs are helpful to build early interest in industries but need to be expanded and strengthened.

Retention

- Retention approaches are shifting from employer to employee focus to align with workforce values, expectations, and needs.

- Employers are focusing more on meeting employees' personal needs to help them be successful.

General Opportunities

Focus group participants were asked for suggestions on how the State of Oregon and others, including themselves, could enhance workforce recruitment, development, and retention in their respective industries. Some opportunities crossed all three industries. In each case the opportunities are divided into one of three categories: policy, program, and funding.

Program

1. Establish an on-going forum for higher education representatives and employers to bring greater collaboration for curriculum alignment and coordination of student exposure.

2. Continue and/or enhance the inclusion of employer representation in policy and regulatory development at the State level.

3. Consider establishing a central data resource repository accessible to all employers including, but not limited to, state and/or national information on: demographics and population trends (regional, state, national); Employer retention levels by position, category, and/or sector; Position vacancy statistics; and compensation.

4. Create more routine job exposure.

5. Incorporate soft skills development at all educational levels.

6. Work with higher education and other programs to define and communicate career pathways for students.

7. Use local associations to help promote and educate potential workforce on industry careers and jobs.

8. Identify or establish a clearinghouse/connector organization for job sharing between employers.

9. Conduct and share research on key workforce trends, issues, and needs to help employers be more competitive and data driven.

10. Provide resources and training to support priority populations and other's ability to access the tools and knowledge needed to navigate their educational pathways and entry into the workplace

11. Provide education and resources for employer leadership and staff to help them foster culturally competent workplace environments and enable priority populations to be successful.

Policy

12. Evaluate opportunities to establish professional licensing and credential reciprocity agreements with other states.

13. Foster partnerships between the State and businesses to strategically market industry careers in Oregon to potential employees.

Funding

14. Provide tax breaks or other incentives for companies who provide training to entry level employees lacking key technical competencies not offered in higher education.

15. Provide employer incentives and/or resources for workplace enhancements to attract and retain employees, and particularly priority populations such as childcare, housing assistance, benefits, and DEI/cultural competency training.

INTRODUCTION

Project Background and Overview

In 2022, the Oregon State Legislature passed SB 1545 establishing the Future Ready Oregon initiative to take workforce talent development to a new level through targeted financial investments and enhance the effectiveness of state and regional educational systems. The enacting legislation designated the State's Higher Education Coordinating Commission (HECC), the agency responsible for coordinating pathways and advancing equitable access to and success in postsecondary education and training in Oregon, as the administrator of the program. As such, HECC was allocated $200 million to invest in workforce education and training through career-connected learning programs and competitive grants for innovative workforce and talent development models.

A key priority for these investments is to expand and enhance education, training, and support for people from historically underserved communities to help them achieve living-wage careers. The legislation defines these groups as Priority Populations, including communities of color, women, low-income communities, rural and frontier communities, veterans, persons with disabilities, incarcerated and formerly incarcerated individuals, members of Oregon's tribes, older adults, and individuals who identify as members of the LGBTQ+ community.

In addition, Future Ready Oregon is working strategically to strengthen and expand the network of Oregon's workforce partners – employers and industry, education and training providers, and community-based and culturally specific organizations – to address complex workforce and talent development challenges.

As part of the enacting legislation, HECC, in partnership with the Workforce and Talent Development Board (WTDB), convened statewide Consortia focused on three key Oregon industries – healthcare, manufacturing, and technology. These Consortia serve as a forum for connecting Oregon workforce interests to establish strategic partnerships, identify industry-specific needs, develop structured processes to address industry goals, develop recruitment strategies to increase priority population workforce participation, and promote workforce education and training. Each Consortium includes representatives from industry employers, education and training institutions, labor unions, and community-based organizations.

As the three Consortia began their discussions toward identifying Oregon's workforce needs in their respective industries and setting a foundation for recommendations, they stressed the importance of hearing from employers across the State. To this end, HECC staff proposed a series of focus groups to be held in key Oregon regions where industry employers are located to gain a better understanding of their workforce needs, challenges, approaches, and ideas. This framework and overall approach to this work was informed by several sources but substantively focused on an adaptation of the HECC Consortia's Foundational Focus Areas, which are outlined in the focus group framework section (See Figure 1).

Jensen Strategies (consultant) was retained by HECC to conduct these focus groups. The objective of this effort was to inform each industry Consortium's discussions and recommendations by obtaining information and perspectives from respective Oregon employers on their experience and needs related to workforce planning, training, development, and retention. This report summarizes the process, findings, and outcomes from the focus groups held from June to September of 2024.

A total of 15 focus group sessions were conducted for all consortia. These sessions were developed in coordination with HECC staff using the following process and approach. Appendices A-E include copies of planning and base materials.

Methodology

The approach for planning, developing, and implementing the employer focus groups was designed to identify what information the Consortia was looking for and build a framework to effectively obtain this information. The consultant worked closely with HECC staff during every step of the development and implementation process. The outcome was a series of in-person regional focus groups based on the Consortia's Foundational Focus Areas, incorporating input gathered from Consortium members, and a consistent framework for all the sessions. Each step in the process is described below.

Pre-assessment Interviews

As an initial step, the consultant conducted online preassessment interviews with selected Consortia members and industry experts to obtain foundational information for the facilitation approach development. These interviews included identifying local and global industry trends as well as key information helpful to the Consortium, specifically related to the key issues described in the Foundational Focus Areas. Interviewees were also asked to help identify a preliminary list of focus group invitees in each region. The insights from the pre-assessment interviews informed the development of focus group discussion questions and participant composition. A total of 17 interviews were conducted with representatives of the three industries including healthcare (8), manufacturing (4), and technology (5) (note: some interviews included more than one representative). A list of the interviewees and industry-specific insights from these interviews can be found in Appendix A and Appendix E, respectfully.

Focus Group Planning & Development

Based on the pre-assessment interviews and Consortia Foundational Focus Areas, a focus group framework was developed to be used with all three industries. Agendas were designed to provide contextual background on Future Ready Oregon and solicit employer input on key

workforce topics including demand planning, recruitment, training/education, career pathways, retention, and diversity.

Participants

HECC staff prepared a list of participants based on information from the pre-assessment interviews, Consortium member recommendations, local workforce board leadership, and other local government and regional organizations. All the participants were representatives of local and regional employers who were knowledgeable about their workforce needs and practices (i.e., chief executive officers, executive directors, human resource managers, talent acquisition leaders, etc.,). Any employer within the respective sector was eligible to participate in the focus group sessions. Most sessions had one representative per employer, but a few brought multiple representatives. A limited number of sessions conducted for healthcare and manufacturing sectors included participation from current Consortia members.

Scheduling/Invitations

HECC staff led focus group planning including scheduling, facilities, participant invitations and RSVPs. A sample invitation for these sessions can be found in Appendix C.

Locations and Facilities

The meetings were held in person at local higher education institutions and other training facilities. Regions and specific host locations for the focus groups were selected based on several factors unique to the industries and region. Geographic locations for the focus groups are summarized in each industry findings overview and a complete list can be found in Appendix A.

Facilitation Approach

All focus groups were consistent in approach with some adjustments for industry specific variations as appropriate. Each session's framework included an opening orientation by the facilitator followed by a facilitated discussion using questions within the Foundational Focus Areas (see Figure 1) including these workforce topics: demand planning and recruitment; education and training; career pathways; retention; sector specific questions; and diversity/equity/inclusion. No preparation or work was requested from participants in advance.

The agenda for the two and a half hour sessions was structured to provide participants helpful contextual information about Future Ready and their respective HECC Consortium to inform the discussion and allow the opportunity for questions. A sample agenda for these sessions can be found in Appendix D.

Figure 1: Foundational Focus Areas for Focus Groups

Foundational Focus Areas for Focus Groups

1. **Demand Planning** in the context of workforce demand. What data do employers use? How do they predict their workforce needs?

2. **Industry recognized skills, high value credentials, and education and training needs**. What are the high value and industry recognized credentials for that specific sector? If this is known (like healthcare), are there clear pathways and opportunities from entry to mid-level credentials that are in high demand? What are the perspectives of employers about how we can integrate education and training responses to meet the needs of employers?

3. **Equity and inclusion strategies / Diversifying our workforce**: What are the strategies employers are deploying to recruit and retain a diverse workforce? What are the biggest challenges in that specific industry sector to recruit and retain a diverse workforce?

4. **Sector specific question:** We will likely have a sector specific question that could be identified in the pre-assessment interviews. For technology, they are interested in exploring how AI is informing their future needs.

Each facilitator began discussions of the key workforce areas asking key questions to initiate the dialogue. Follow-up questions were asked to elicit greater detail and or clarification. A sample of these questions are listed below. For each topic area, there focused questions about how priority populations are, or could be, engaged to foster greater workforce diversity.

- *Demand Planning* - How do you plan for your long-term workforce needs? What tools do you use? How do you recruit?

- *Recruitment* - What are your current approaches to workforce recruitment? What challenges do you face? What positions are most difficult to fill?

- *Education and Training* - What industry skills, education/training, and credentials are needed? What gaps exist in Oregon education? How can these gaps be addressed?

- *Career Pathways* - Are there clear career pathways for those entering your sector's workforce? Or for those who are already in the workforce?

- *Retention* - How do you promote retention within your organization? What else could be done to help increase retention rates in your organization?

The facilitation approach sought to ensure full participation of focus group participants and to identify areas of agreement or differing opinions as opposed to seeking consensus. Each facilitator was supported by another consultant team member who documented the discussion and provided logistical support. All original materials from this process were retained by the consultant. Participants were promised their comments would be anonymous in any follow-up presentations or reports.

Project Timeline and Participation Overview

The following tables provide an overview of the project schedule and key events as well as a summary of the participant composition, employer details, and focus group locations for the sessions conducted.
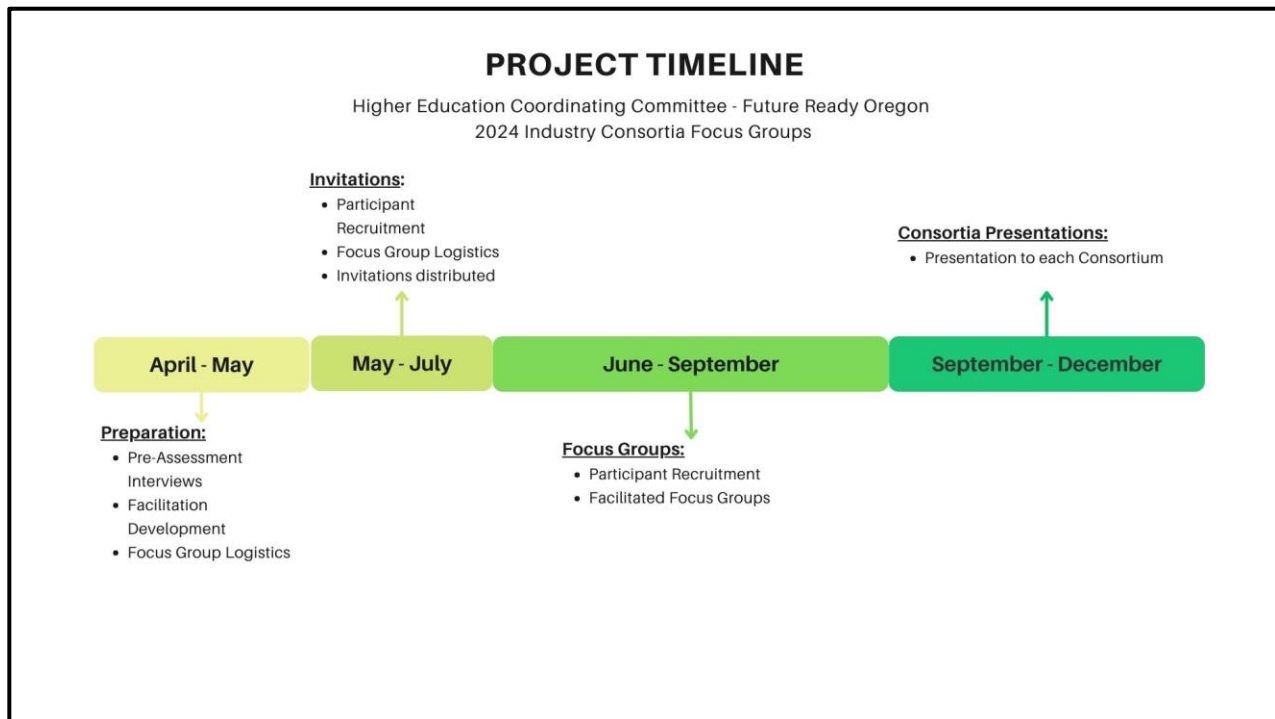
Figure 2: Project Timeline

PROJECT TIMELINE
Higher Education Coordinating Committee - Future Ready Oregon
2024 Industry Consortia Focus Groups

Invitations:
- Participant Recruitment
- Focus Group Logistics
- Invitations distributed

Consortia Presentations:
- Presentation to each Consortium

| April - May | May - July | June - September | September - December |

Preparation:
- Pre-Assessment Interviews
- Facilitation Development
- Focus Group Logistics

Focus Groups:
- Participant Recruitment
- Facilitated Focus Groups

Figure 3: Focus Group Locations and Participation

Focus Group Locations and Participation			
	Healthcare	**Manufacturing**	**Technology**
Total Held	7	4 and 1:1 interviews	4
# of Participants	41 participants (4-10 per session)	18 participants (1-7 per session)	17 participants (3-5 per session)
Participant Titles	COOs/CEOs/EDs, HR, recruitment, and talent acquisition leaders and professionals		
# of Employers Represented	33 employers* *One Healthcare Consortium member participated as an employer	18 employers* *Two Manufacturing Consortium members participated as an employer	16 employers* *One session included two representatives from one employer
Focus Group Locations	Portland Metro (2), Salem-Eugene, Oregon Coast, Rogue Valley, Central Oregon, Eastern Oregon	Northwest Oregon/ Greater Portland, Mid- and South Willamette Valley, Central Oregon, Southern Oregon	Portland Metro, Lane County Region, Columbia Gorge, Rogue Valley
Sectors	Hospitals, Direct Care, Behavioral Health, Long-term Care, Clinics, Community Based Care, Federally Qualified Health Centers	Wood, Metal, Food and Agriculture, Semi-Conductor Production, Regional Specific Producers, Large and Small Company Representation (60 – 1000+ FTE), Local, State, and Globally Operating Businesses	Software, Cyber Security, Chip Design & Development, Data Management, Biotech, Forest Products, Paint Coating, Aerospace Manufacturing, Video Games, A/V Products, IT Staffing, Tech Workforce Support

GENERAL FOCUS GROUP FINDINGS

Following the completion of the focus groups, the consultant prepared this summary report of the collective input and key findings from each set of industry focus groups. Insights that apply across the three industries are outlined in this section with industry specific findings shared in the next section. Industry specific summaries of these findings were presented at quarterly Consortia meetings, and an overall presentation of the findings was shared with the Oregon Workforce and Talent Development Board (WTDB).

Focus Groups Context

Facilitators' Observations on Focus Group Experience

For all the focus groups, regardless of region or sector, the facilitators experienced robust, positive, and constructive engagement from the employer representatives. Particularly in areas outside the Portland Metro region, participants consistently expressed genuine appreciation for the opportunity to share their perspectives and the regional in-person approach for the focus groups. Unilaterally, participant input was candid, thoughtful, and solution oriented. Participants recognized the workforce issues' complexity and acknowledged solutions to the challenges do not rest solely on the State or any one partner.

An organic outcome of these sessions was the natural synergy and connection that emerged with these local employers who often exchanged contact information after the session to continue engagement and/or collaborate on shared interests.

Participants consistently expressed a desire for continued involvement and dialogue on these workforce issues with HECC and others.

Contemporary Context for the Industries

All three industries shared that the COVID pandemic combined with a shift in workforce values, expectations, and needs, have had a profound impact on their organizations. In the last several years, these factors have created new challenges and necessitated changes in approaches to workforce planning, recruitment, development, and retention.

During the COVID pandemic a new class of essential workers were created in healthcare and manufacturing. In healthcare, their workers were in the eye of the storm. They were on the front lines of a crisis which brought new levels of stress and stretched them to capacity. Elements of the manufacturing industry were launched into critical production mode to keep up with the demands created by the pandemic. As the pandemic came to a close, these workers faced burnout, many retiring, or leaving the industry, and contributing to a labor shortage.

Coming out of the pandemic, having temporarily shifted to meet the needs of this global epidemic, employers found themselves short-staffed and needing to realign their operations to a new normal. This includes a variety of planning assumptions, from industry standard shipping and

fulfillment timelines, responding to changes in demand for service or products, and workforce related legislation to expected turnover rate and typical worker behaviors or motivations.

On a parallel track that began before the pandemic, the workforce was moving in a new direction with changing values, expectations, and needs related to their workplace. While wages and benefits remained a priority for the employees and candidates, other things also took priority including work/life balance, purposeful work, being valued in the workplace, opportunities for professional growth, a sense of belonging, and an ability to meet their personal needs such as childcare, housing, etc.

It is in this environment that these three industries find themselves. They are working to realign their workforce to meet new needs and operate with constrained staffing. In addition, the traditional approaches of recruitment, development, and retention, which used to be more employer focused, are shifting to an employee focused workplace. The following findings are consistent with these themes.

Overall Findings

The focus groups in all three industries shared several consistent themes outlined below and organized by the workforce topic areas.

Demand Planning

- Most employers reported operating on short planning horizons, but for different reasons depending on the industry or sometimes sector. One year planning timelines are common due to factors that make it challenging to project much further.

- Each industry uses a wide variety of data to inform its workforce planning. All noted their previously reliable planning standards are not as relevant because of the 'new normal' post pandemic environment described above as well as new workforce management regulations or policies.

Recruitment

- Employers recognize the traditional recruitment approaches, which are more passive (e.g., advertising), are no longer enough in this highly competitive employee market. To be successful recruiting, employers need to be more proactive to reach and attract targeted candidate pools.

- Employers are also thinking longer term for workforce recruitment. They are looking to attract new generations to their industries' careers by reaching out through primary and secondary education programs to attract and generate interest earlier.

- Contemporary workforce expectations and competitive employee markets are requiring employers to sell their organizations to prospective hires in addition to candidates

promoting themselves for positions. To this end, the reputation of the organization as an employer and attractive workplace is also important.

- Employers are working to offer more creative and competitive incentives or benefits to recruit (and retain) employees. These can be monetary, but many reported going beyond just salary or medical/retirement benefits to recruit and retain employees by helping meet their life needs (assistance with transportation, childcare, and/or housing) or workstyle preferences (remote work, work/life balance, professional development).

Education and Training

- All employers share that they struggle with a contemporary workforce lacking critical soft skills needed to be effective in the workplace such as interpersonal skills, communication abilities, and teamwork. For example, employers have found these employees challenged at clear verbal communication with their co-workers or clients sometimes preferring email or texting over conversation. In addition, employers have also experienced many new employees who have trouble collaborating with team members because they lack the both the verbal and/or the interactive skills to work in tandem with others.

- Employers say higher education programs in their industry areas are not providing the type of technical knowledge or experience needed as a foundation for their entry level jobs. Depending upon the industry, these types of technical skills may include specific procedural tasks (e.g., giving an injection, using Microsoft Office software) or core knowledge (e.g., accounting or current programing software).

- While Oregon higher education programs vary in availability and capacity between the three industries – access is limited due to geographic and financial factors. Priority populations often face greater educational access due to finances, geographic limitations, and/or lack of awareness of career opportunities. For example, it can be difficult for students or employees in rural areas to leave their communities to attend a specialized higher education institution when they cannot afford the tuition/expenses or must leave a career position with a local employer.

- Early and secondary educational programs are helpful to build early interest in industries but need to be expanded and strengthened. Employers in all three industries recognize and support current primary and secondary educational programs (e.g., STEM, Connected Lane County) but say their reach and programmatic offerings are limited relevant to industries' needs.

Retention

- Retention approaches are shifting from employer to employee focus to align with workforce values, expectations, and needs. Providing more flexibility in hours, conducting employee satisfaction surveys, offering and/or helping to fund professional growth opportunities, and remote work are some of the ways employers are working to retain their workforce.

- Employers are focusing more on meeting employees' personal needs to be successful through mentoring, assisting with transportation needs, flexible schedules/leave plans to meet different family needs, and similar types of support.

FINDINGS BY INDUSTRY

The following findings offer more specific insight into the three industries' workforce challenges and current approaches. Each industry section is organized by the workforce topics covered in the focus groups.

These findings represent the collective perceptions of the participants noting any differing opinions. The findings are based solely on participants' input shared at the focus groups. Most of the findings are relevant for all the regions unless a region-specific finding is noted.

Healthcare

Overview

The healthcare industry had been experiencing staffing shortages, particularly in nursing, prior to the COVID pandemic. The onset of the pandemic exacerbated this situation as retirees and others exited the workforce. Traveling medical professionals and the advent of telehealth added new workforce challenges such as having to pay higher compensation for outsourced professionals or navigating a remote workplace environment. Also, during the pandemic, turnover rates increased especially within the first year of employment. While the healthcare industry has not fully recovered from this staffing impact, employers note things are getting better overall – albeit not to pre-pandemic levels.

The seven healthcare in-person focus groups held across the State, engaged employers from a broad range of sectors including hospitals, direct care, behavioral health, long-term care, clinics, community-based care, and Federally Qualified Health Centers (FQHC). The 41 participants included Chief Operating Officers, Human Resources Directors, Talent Development Managers, and other staff with knowledge about their organization's workforce planning, recruitment, development, and retention. The focus groups were held in six different regions including Portland Metro area (2 sessions), Salem-Eugene, Oregon Coast, Rogue Valley, Central Oregon, and Eastern Oregon.

Findings from the focus groups represent the collective perceptions of the participants.

Demand Planning

Planning Horizon: The vast majority of healthcare employer participants, across all sectors, described their long-term planning timeline as "planning in the moment" or, at most going out as far as a year. Some described their workforce planning as a "triage approach" with demand for positions at a critical state. The idea of an expanded multiple year planning horizon was not perceived as viable since they were challenged to just meet current capacity needs. A few employers who rely on public funding noted they prepare five-year workforce plans as required to receive funds but shared the plans, while prepared with best available information, were not a reliable bellwether for their future needs.

Data: As noted above, like the other two industry focus groups, healthcare employers use both internal and external data in developing their workforce plans. Since their clientele is primarily based in Oregon communities, information about the demographics and welfare of state and local populations offers important data (e.g., aging, Medicaid recipients) in identifying and predicting demands on their workforce system. To this end, community needs assessments, and demographic profiles are key sources.

Government regulatory and public funding requirements also contribute to healthcare workforce planning. For example, many focus group members cited the State of Oregon's patient/nursing ratio requirements. For employers who receive public funds or are part of a local government, they may also need to meet accreditation requirements or are dependent upon General Fund revenues where annual or biennial budgets can dictate financial resources for workforce needs.

Challenges: Participating healthcare employers note their biggest challenge is catching up and recalibrating after pandemic workforce shortages. This situation is exacerbated by an unpredictable workforce supply due to continued shortages for certain positions such as nurses and technicians. In addition, for those reliant on public funding, the unpredictability of government funding poses another challenge.

Recruitment

Current Approaches: Most of the healthcare employers utilized the same traditional and contemporary recruitment approaches to fill existing vacancies as the other two industries described above. Many of them also instituted programs to raise awareness and interest from local high school students as well as partnered with post-secondary education institutions to recruit interns and fellows.

Challenges: The biggest recruitment challenge for these employers is a lack of candidates for key positions. A primary reason offered for the shortages are an absence or limited capacity of training programs in Oregon particularly for nursing, technicians, and all levels of behavioral health positions. Another factor is geography. For urban areas, cost of living (e.g., housing) can be a deterrent for those coming from areas with lower real estate values or other expenses. In the more remote or rural locations of the state it can be difficult to attract candidates who don't want to move far or perceive the communities as not having desired urban amenities.

Most of these employers have challenges attracting and/or finding priority population candidates. The first reason offered is a lack of diversity in the candidates graduating from medical profession training programs at the postsecondary level.   The second reason is a reluctance to work in communities where they do not see people from their priority population and believe they will not be accepted or feel comfortable. Some employers acknowledge that open discrimination in the community of some priority populations can also be a deterrent.

In some healthcare sectors and positions, recruitment is also challenged by low wages. Behavioral health employers share that very low compensation rates at all levels of their sector is a significant impediment to attracting candidates, or even to draw in new talent to the industry. They also note that the insurance industry has not raised its reimbursement rates for their

services compared to increases in other sectors. Long-term care employers note that lower-level positions, such as CNAs experience high levels of turnover due, in part, to low compensation and professional growth opportunities.

The healthcare employers were asked about the most difficult positions to fill, the following were mentioned most frequently:

Difficult Healthcare Positions to Fill:

Three positions, or job categories, were mentioned most:
- Nurses
- Behavioral Health: Psychiatrist, LCSW, QMHP, and After-Hours Supervisors
- Technicians: Lab, Imaging, Surgical, and Respiratory Therapists

Other positions shared more than once:
- Dental Hygienists
- Non-Credentialed: Housekeepers, Dietary Aides
- Primary Care and Specialist Positions
- Doulas
- Patient Navigators

Education and Training

Healthcare employers are looking for the skills, education, and training to set their workforce up for success. They want to hire people who have been technically trained to do the jobs they are entering. For example, nurses who know how to give injections, technicians that are familiar with current technologies, and have exposure to the types of tasks they will be conducting at the workplace. In addition, like employers in the other two industries, representatives in all healthcare sectors emphasize the importance of the early job exposure for students prior to completing their education and preferably earlier rather than later. This exposure is paramount in their view as they have experienced new hires who realize the job was not what they were expecting. The employers also emphasize the need for effective inter-personal, communication, and teamwork skills to be able to function effectively with their co-workers, supervisors, and clients.

When discussing gaps in the educational system, several points emerged for the focus group participants:

Workplace Expectations: Many employers raised concern that job candidates and recent hires have unrealistic or little understanding of what their day-to-day work, responsibilities, or workplace environment might entail. This disconnect in expectations is attributed to a lack of early job exposure and/or curriculums where not much is shared about the workplace the students would be entering. This issue was most strongly voiced by behavioral health employers who frequently cited the "shock and awe" experienced by new hires and interns who had little

preparation for a workplace where severe mental health and drug addiction crises are manifested daily.

Communication, Interpersonal & Teamwork Skills: This issue, as referenced earlier, is a challenge for the other two industries as well. With the advent of personal electronic technology (e.g., smart phones) enabling mass e-communication venues (e.g. texting, emails, TikTok, etc.) in lieu of personal interaction, there is a perception that these tools have caused a shift from in-person skillsets. It is also perceived the COVID pandemic exacerbated this trend during a time of social distancing.

Regardless, healthcare employers express frustration with an entry level workforce that appears to lack the soft skills to effectively navigate the workplace. The ability to communicate effectively with co-workers, supervisors, and patients is challenging for many entry-level employees, and in some cases, mid to upper level. Being able to share needed information at appropriate times, be customer service focused, and work as a team member, are examples shared in this area. As an educational gap, the lack of soft skills is seen by these employers as a K-postsecondary education issue where the emphasis on developing these skills should happen throughout educational levels.

Program Availability, Capacity, and Access: Healthcare employers note significant gaps in Oregon's medical training programs. First, the availability of the programs themselves is noted by many focus group participants. Most frequently cited are mental health education programs. According to focus group participants, Oregon does not have any significant mental health professional programs, requiring them to look out of state for candidates.

Second, the capacity of Oregon's current higher education medical training programs is lacking capacity – particularly within the areas of nursing and technician programs that are not keeping up with demand. Many of the focus group employers believe part of the reason for this capacity challenge is due to the low compensation of instructors who can make more money in hospitals, clinics, and with other private employers.

Third, access is an issue for students – both geographic and financial. Most of Oregon's medical training programs are in larger urban areas and/or along the freeway system. For potential students in the rural areas this geographic limitation can constrain accessibility. This situation can pose a challenge of having to move and possibly incur higher living expenses, not to mention tuition. For some priority populations, this cost factor is particularly challenging especially if they are low income or have financial challenges, such as for single parents.

Higher Education Curriculum: As noted above with all three industries, healthcare employers feel the existing Oregon postsecondary medical program curriculums are not always aligned with employers' workforce needs. They cite workforce candidates and incoming employees, as a rule, do not have the necessary technical knowledge and or skills for the positions for which they have trained. This lack of technical preparation often leaves the employers with responsibility for onsite training, beyond what would be considered routine onboarding.

Student Composition: While many healthcare employers are working toward diversifying their workforce, they note the demographic composition of higher education graduates, often lack diversity of priority populations.

Career Pathways

Overall, employers say career pathways for entry-level or mid-level employees are not clearly delineated or communicated by educational institutions or employers. While there are exceptions with some employers who have proactively defined the career pathway for their employees, that is not the norm. There is an expectation by many employers that defining healthcare career pathways should begin early – even in the K-12 system – but definitely at the postsecondary level.

Without these early awareness efforts of career pathways for the healthcare sectors, the employers believe there are missed opportunities to attract new talent, especially from some priority populations.

In the healthcare industry, navigating career pathways, can also be challenging when professional growth is dependent upon moving between credentialed positions. If an employee needs to leave their employment to seek the next level of credentialling, it can be detrimental to both the employee and the employer. For the employee, leaving an existing position to gain new credentialling, risks not being able to return to the employer or community. There are also financial obstacles or challenges when the employee has to leave a stable source of income, possibly move to a new community, and have the financial means for tuition and living expenses. For the employer, the prospect of losing an employee, especially if well performing, leaves them with an open position and loss of institutional memory as well as having to conduct a recruitment and an onboarding process.

Retention

As shared earlier in this report, employers are currently facing a shift in employee priorities. In addition to compensation and benefits, in the last several years, the workforce has been changing their priorities to include being valued in the workplace, purposeful and meaningful work, flexibility in hours, and maintaining a work/life balance.

For priority populations, employers note, there needs to be an emphasis creating workplaces with culturally competent supervisors and peers as well as a diverse workforce with affinity groups. While recruiting priority populations can be challenging, the ability to retain them can be more difficult than other employees. To be culturally competent, an organization needs the ability to understand, appreciate, and engage people from more diverse backgrounds, cultures, or beliefs. This approach is seen as meeting diverse populations where they are for training, professional development, and workplace interaction.

During the pandemic, the healthcare industry saw higher turnover rates especially those within the first year of employment. The turnover rates are still higher than before the pandemic. Some of the reasons for this turnover include workforce shortages causing greater competition

for high value positions (those with shortages), no evident career pathways for professional growth, and lack of job understanding prior to hire.

Retention approaches in the healthcare industry have varied, but the emphasis is on creating an attractive workplace environment, recognition of good work and longevity, building organizational commitment through ownership, creating opportunities for professional growth, providing financial assistance, and staying competitive with wages and benefits (if possible).

Some examples of these approaches include:

- Bonuses:
  - Performance
  - Longevity
  - Successful candidate referrals (increasing incrementally as the new hire stays)
  - Annual/holiday
- Paying for professional growth education (e.g., credentialling)
- Housing financial assistance
- Staying competitive with wages and benefits

For priority populations retention approaches can include:

- Establishing and supporting internal affinity groups
- Providing DEI / cultural competency training for staff/leadership
- Designated DEI staff to keep focus on diversifying and retaining priority populations
- Developing diversity statements and policies
- Recognizing diversity is an organization-wide and full employee life cycle responsibility

Manufacturing

Overview

There were four manufacturing in-person focus groups held regionally across the state. These sessions engaged employers from a broad range of statewide and regionally significant manufacturing sectors. Representation was specifically sought from employers who produce Oregon's four top goods - metal, food, wood, and semiconductors. In addition, a diversity of manufacturing company sizes (60-1,000+ employees) and product distribution ranges (local, regional, state, and/or global) were represented.

The 18 participants included Executive Directors, Presidents, Chief Operating Officers, Human Resources and Talent Development professionals, and other staff knowledgeable about their organization's workforce planning, recruitment, development, and retention.

The five regional focus group locations included:

- Northwest Oregon/Greater Portland - Portland
- Mid- and South Willamette Valley - Salem
- Central Oregon - Redmond
- Eastern Oregon – Boardman/Umatilla*
- Southern Oregon – Medford

* Cancelled (supplemental 1:1 interviews conducted)

The focus groups identified several contextual factors that were informing their workforce development needs and opportunities. These employers shared the following industry perceptions:

- Manufacturing companies, in most cases, work within tight profit margins which produces a challenging dynamic between prioritizing efficiency and organizational/workforce resiliency.

- The industry is strongly influenced by local, national, and global macroeconomic and political forces. Consequently, such production factors as raw material availability, overall supply chain health, and core domestic production needs or goals (e.g., CHIPs act) can significantly impact manufacturing employers and their workforce planning.

- Manufacturing industry production and operations often require certain workforce physical abilities, work times, and safety mitigation. It is primarily in person work operating in often inflexible production schedules and driven by machine or production requirements. This workplace environment requires low to high physical demands of employees, requiring implementation of critical safety standards.

- Several employers noted their company's recruitment and ability to attract their workforce is impacted by historic, often negative, cultural perceptions of the industry. While improvements have been made to educate and encourage new entrants to manufacturing and/or trade jobs, employers felt the industry is perceived as dirty, dangerous, and/or offering limited advancement opportunities. Notably, technology related companies that are included within the manufacturing sector (e.g., semiconductor production) were less impacted by this perception.

Demand Planning

Most employers reported having a well-defined labor demand formula to help determine the necessary workforce for output to meet projected production/sales including seasonal variation. Some companies operate on contracted sales models which provide longer but less flexible planning horizons and others rely more heavily on sales projections or forecasts which may change and can be difficult to plan for labor needs. Multi-state and international companies utilize location analyses to assess whether there are favorable conditions to meet their workforce needs and offer attractive local job prospects.

Planning Horizon: Most reported focusing on immediate workforce needs (six months to one year) while a few did engage in high level five-to-ten-year planning. While many expressed the resources or information to plan more long-term would be valuable, some voiced skepticism if that was an achievable or worthwhile endeavor with the ever changing and often volatile forces that drive supply and demand.

Challenges: Manufacturing employers expressed facing a dichotomy between planning for the availability of workers or necessary raw materials/components required for production. For many, the stability of the supply chain and raw material availability is seen as a greater challenge rather than availability of workforce, however, it is recognized the two are interrelated. Employers share they must balance human resource needs and costs, ensuring workers are available when needed while trying to avoid production downturns resulting in layoffs – which could also harm the employer's reputation with its workforce.

Demand planning, primarily for entry or frontline workers, can also be driven by passage of legislative initiatives regarding pay practices, working hours, breaks, and leave. For example, laws related to pay equity, 55-hour rule, paid leave, meals and/or breaks. Changes to existing legal requirements that impact company employee levels or management approaches may affect workforce planning formulas. As such, these changes invariably require an adjustment period that can be challenging for the employers and/or employees – not to mention the impact on the operating budget

Workforce Planning Data Sources: The manufacturing employers use a variety of internal and external sources in planning for their workforce needs. These sources are listed in the table below.

```
Manufacturing Employers Data for Workforce Planning

        Internal (on month/quarter/annual basis)
            •   Sales/demand forecasts
            •   Production goals
            •   Organization retirements
            •   Current vacancies
            •   Overtime/leave utilization

        Public Data Sources
            •   Bureau of Labor Statistics
            •   Commodities markets
            •   County / Regional sources

        Production Location Details
            •   Regulatory environment
            •   Cost of living
            •   Demographics / Population Trends
```

Recruitment

When it comes to recruitment, for entry and skilled roles, since manufacturing employers know they will have to train, it is most important to recruit responsible, competent, and respectful (as many said, "good humans") candidates. Most manufacturing employers are in a constant state of recruitment, processing a high volume of entry level applications while keeping notices up for interested talent as it may arise.

Approaches: Manufacturing employers understand traditional recruitment methods are necessary, but not enough to meet their short and long-term needs. Participants reported utilizing the full suite of traditional approaches (outlined in table below) for both entry level and experienced positions.

- The most effective and widespread traditional recruitment approaches for entry level workers included online advertising, employee referral/word of mouth, employment department resources, and temp agencies. Notably, temp agencies were an effective venue for not only emergent or short-term workforce needs, but also prospective future employees.

- Other common recruitment tools, particularly for large manufacturing employers, was to develop long-term interest in the industry. This approach ranged from involvement in K-12 school programming (as young as elementary school), higher education, and broader

community engagement (e.g. speaking events, factory tours, sponsoring local sport and community events, little league teams, fundraisers, and others). Manufacturing employers shared concern that promising prospective candidates can form opinions early in life and overlook careers in technical, basic or advanced manufacturing. Employers understand the need to expand their outreach to the broad range of individuals available to maintain the ongoing viability of the industry.

Recruitment Approaches for Existing Vacancies

    Entry Level

- Online Advertising*/Postings (e.g., company website, Indeed, Craigslist)
- Radio, TV, billboards, streaming, social media
- Employee referral and word of mouth*
- Temp Agencies*
- Employment Department platforms
- Temporary International Worker Resources
- Job fairs

    Management or Skilled Roles

- Internal recruitment
- LinkedIn (some Indeed)
- Recruiters

Despite the increased use of automated tools to source candidates such as paid platforms or some companies' internal analysis systems, most report still screening applicants by hand. Reaching out personally and evaluating candidates was seen as an important way to combat the high volume of candidates provided by online platforms and who may "ghost" them or be nonresponsive to interview requests.

Challenges: Manufacturing employers face different employment challenges between entry level and experienced workers, depending on the intensity of a company's demand for ongoing or seasonal entry level labor and level of specialization in the position. For entry level workers, most employers felt the volume of available workers has recovered since the pandemic but were finding it challenging to process the volume of nonresponsive applicants (largely from online sources) and to retain workers over the first six months. For the more experienced and skilled positions the most difficult to recruit roles are those with a high level of requirements or certifications or unique type of aptitude/skill (e.g., electricians, HVAC professionals, or operators

or technicians for specialized or proprietary equipment), management or training competency, or basic to advanced business acumen (e.g., reading profit and loss statements). Even more challenging are skilled/trade roles that include management responsibilities.

Difficult Manufacturing Positions to Fill:

- Electricians

- Technicians (assorted)

- Mechanics

- Welding

- Middle management or training roles

Technical skills and management roles are both difficult to recruit externally and often not viable to train in house. Beyond offering training, employers shared they frequently lack or struggle to identify incumbent staff who are prepared and willing to train up. The need is particularly acute for trade skills (e.g., represented by a formal trade organization or association), such as electricians, technicians, and mechanics. Technicians and mechanics in particular – roles that require a base of specialized knowledge paired with problem-solving acuity – may be trained for specializations in other manufacturing sectors or professions that are relevant to a company seeking to hire them but are more difficult to evaluate on an individual basis without directly related experience.

Other insights offered by participating employers:

- Many employers reported it was challenging to identify comparable career professionals/industries to recruit for specialized positions since they are unlikely to have relevant experience. This challenge was particularly true for roles without a consistent originating degree.
- With a workforce that changes jobs more frequently than the past, it can be difficult to evaluate candidates. With this shift in job changeovers, employers say it is challenging to effectively interpret resumes and evaluate the skills or professional credentials of candidates with many short tenured positions.

- Persistent negative perceptions of the industry limits companies to recruiting from candidates from the manufacturing field (in CTE or later in their professional careers). With this limitation, there is a correlating impact on building a more diverse workforce that is exacerbated by workforce composition perceptions that can be exclusive of women and other priority populations.

- Several employers shared anecdotal experiences of hiring individuals from priority populations who, while successful in their performance, were not able not continue their employment or who would not proactively seek their own advancement. Some promising employees were unable to continue due to socioeconomic hardship (e.g., punctuality or missing shifts due to unreliable transportation) and some failed to advance without intentional encouragement and support from management.   For individuals with previous criminal records, despite strong performance some were not able to continue current employment or advance to roles with client facing responsibilities due to external pressures.

Education and Training

While gaps were identified in preparing students to enter the manufacturing workforce, employers acknowledged that all candidates will still require minor to extensive in-house training on company specific processes, equipment, safety procedures, or other training needs. Many employers took pride in the in-house/company specific trainings they offered, noting employees successful in their trainings also gained skills that contributed to the employee's overall employability and professional growth.

Though more improvement is needed, many Oregon postsecondary programs were appreciated for their training, use of top-of-the-line equipment, and other contemporary educational resources. At the same time, employers recognized providing effective foundational training and education for the manufacturing sector can be challenging. The consistently changing equipment and production practices not to mention the product-specific or proprietary processes for individual companies.

Key skill needs/gaps: Employers agreed the most important skills they sought in entry level employees, but applicable to all, included:

- Communication skills
- Basic professionalism (timeliness, dress, basic office software competency – if applicable etc.)
- Physical or physics concepts aptitude
- Problem solving
- Basic business finance proficiency
- Basic schematic interpretation
- Management

Particularly for communication skills and general professional workplace preparedness, they felt it was important for employees to have a level of proficiency in these areas. These employers recognize they have a role to help build these skills as well, however, they expect a baseline proficiency before hire.

For the highest demand skill-based positions, employers did not identify specific competency or training gaps but noted the high level of experience and training required to attain certification

significantly limits the candidate pool. These requirements result in many employers, particularly those in more rural areas, not being able to find sufficient candidates or to compete with higher compensation offered by other companies with greater financial resources.

The most challenging positions to keep on staff are licensed electricians who are needed to address any electrical process. Even the most basic electrical task requires a journeyman level credential which is difficult to achieve. In addition, electrician credentials are not transferable from other states (e.g., California or Washington which may have lower requirements for the same roles). The lack of reciprocity agreements and Oregon's misalignment with peer states on credentialling requirements was cited as challenge that impacts Oregon's business environment.

Finally, employers shared their challenge of filling, via recruitment or internal promotion/training, roles that provide training, management, and/or leadership for the company. While employers felt greater training investment would be helpful, they also noted that technical aptitude and knowledge to train, does not necessarily align with being people oriented or having a strong management or leadership aptitude.

Employee access barriers: Across the industries, particularly for priority populations, there were several barriers to employees' ability to access entry level or training for career advancement. These barriers include, but are not limited to, tuition/enrollment costs, access or affordability of transportation, being underbanked (lacking access to basic banking functions), language, lack of job stability to meet personal and family needs, as well as an onerous time commitment or training schedule.

Employers noted traditional degree-based career advancement opportunities are more challenging for incumbent employees and priority populations due to the instruction schedule/ length of time commitment, pay or benefits they depend on, and need for job security. Also, the location and frequency of training programs was also cited as a barrier. Employers perceived some training shortages were due to funding limitations or instructor availability. In addition, the geographic availability of programs impacted incumbent workers' access to these resources, as well as constrained development of the local workforce.

Employer barriers to engagement: Focus group participants expressed a willingness and desire to work with educational institutions information gathering, curriculum development, and other workforce development partnership opportunities. They shared the need for enhanced collaboration and efficient coordination within the industry and in partnership with state and other local stakeholders and decisionmakers. Some had engaged with local educational institutions regarding training needs/career opportunities and found the discussions to be informal resulting in individual relationships with training organizations and instructors. While there were many tangible outcomes, they were often not sustainable as instructor positions turn over and required significant time and resource investment for the employers. Many participants wanted to create more capacity within their organizations for this type of work, perhaps including this role in job descriptions.

Career Pathways

While companies face different challenges planning or communicating long term workforce development opportunities, employers saw value in increasing career pathway knowledge or opportunity development as possible dependent upon the company structure (e.g., size, family ownership model, type of positions offered, etc.). Some had developed robust materials but recognized the level of time and resource investment that was required from the company to produce. For those who have worked on defining career pathways, they had challenges communicating realistic advancement timelines to meet the needs of the company and the employee.

Employers shared there was a lack of clarity for employees (and sometimes employers) regarding the transferability of skills such as between different technician career roles across manufacturing sectors. This lack of clarity is exacerbated by specializations without a specific degree (such as certain technician roles).

Without external training opportunities, depending upon the type of production or role, companies may have limited in house advancement opportunities to offer incumbent employees. The reason can be a specific area of knowledge or equipment needed to provide the training, or simply availability of staff with specific roles or skills to provide the training. As shared in the training and education findings, employers note it is challenging to consistently provide the types and levels of resources to keep an employee interested, able, and successful pursuing further training. For example, staff who excel at a technical role or skill employers wish to advance, may or in many cases may not the same types of individuals who excel at or enjoy management or teaching roles. Another challenge is developing career paths that span union level to management positions and navigate pay discrepancies.

The need for effective management and business skills training is highlighted as a gap in the career pathway. It often falls to mid-managers and team leaders to identify and develop internal talent to achieve higher positions. This works if you have effective managers to mentor the employee and/or an internal candidate who is self-motivated. Unless there is deliberate planning and investment in program policies/resources to help an employee achieve this professional growth, employee advancement will be self-selecting and not necessarily equitable, particularly as that relates to priority populations.

Retention

For both entry level and skilled roles, the participating employers shared they are trading employees among each other. Most felt this cross-company exchange was detrimental to both the company (inducing workers with marginal salary increases, turnover) and in some cases, the employee. Employees might value the immediate salary over long-term benefits, constantly training and not accruing longevity/employer specific experience, thus negatively impacting their professional reputation from a high volume of job changes. This type of turnover between companies was most extreme during the pandemic, particularly with one-time hiring bonuses or

other incentives. It has lessened but persists. These employees may make these decisions due to external life circumstances or provide for a family by chasing superficial wage increases. The employers note that changing jobs every few years may also be part of a new normal for the workforce.

Employers across the industries acknowledge a substantive shift in employee preferences and the associated contributing factors to retention. These shifts are particularly impactful on manufacturing sectors and the roles that require in person work and manual or skilled physical labor.

Participants shared their most utilized retention strategies including workplace culture and environment policies as well as direct or indirect financial benefits.

Retention Strategies in use by Manufacturing Employers:

Culture/Workplace	*Direct/Indirect Financial Benefits*
• Standard schedules	• Staying competitive, as possible, with wages and benefits
• Overstaffing when possible	
• Honoring leave requests/sabbatical	• Bonuses (e.g., hiring*, retention, referral, PTO)
• Employee engagement committees and satisfaction surveys	• Shift differential pay
	• New skill/cross-training differential
• Internal service navigator(s) for employee benefits	• Tuition – payments, reimbursements
• Onsite physical therapist	
• Many types of at work and community based social or benefit events	• Housing or transportation assistance
	*limited use since pandemic

Employers, particularly for entry level, noted the highest turnover rate can be as early as an employee's first shift and up to one year. When recruiting for more technical or physical based roles, several employers shared the importance of appropriate expectation setting, shadowing, and other one-on-one training efforts to allow the employee a more incremental adjustment to the shift demands (e.g., allowing shorter shifts to begin).

Regardless of the full suite of retention strategies in use by any company, manufacturing employers shared that being competitive in today's recruiting environment does require good pay and benefits but will be sustainable and resilient if they are accompanied by a positive organizational culture and reputation of being an Employer of Choice.

In alignment with the increased focus on workplace culture, manufacturing employers shared the importance of focusing on the employees' need to connect, early and often, and the impact of their work. To recognize the value proposition employees have working in this field, as well as the potential stability and desirability of careers in the manufacturing industry is important. This approach was seen as a key tool for both recruitment and in service of the industry, as well as important retention tool to generate and maintain employee pride in their company/work.

Technology

Overview

The technology and tech-enabled industry in Oregon, as well as around the country, has been experiencing strong competition in attracting its workforce. Tech companies develop and sell the technology such as software, hardware, or digital platforms. Tech-enabled companies use the technology to enhance or streamline their productivity. Due to the fast-paced and ever-changing technology, the hiring market for both types of companies can be very reactionary. This workforce also tends to be predominately white male in composition.

The four in-person focus groups held across the State, engaged employers from a broad range of sectors including software, cyber security, chip design and development, data management, biotech, forest products, paint coating, aerospace manufacturing, video games, audio-visual products, IT staffing, and tech workforce support. The 17 participants included Chief Executive Officers, Human Resources Directors, Talent Development Managers, Community Relations Managers, Production Managers, and other staff with knowledge about their organization's workforce planning, recruitment, development, and retention. The focus groups were held in four different regions including Portland Metro area, Lane County region, Columbia Gorge, and the Rogue Valley.

Demand Planning

Planning Horizon: Tech and tech-enabled employers long-term planning vary from one to 10 years depending on several factors. Most of the participating employers say their planning range is in the five-year time frame. The longer-term planning is often driven by capital projects and long-term government contracts where an expanded forecast is needed. However, almost all were very quick to note their planning reality is much shorter-term – perhaps a year or less – because ultimately, they need to be responsive to their clients' needs and changes in technology trends and innovation. One participant said even planning for three years was "a waste of time."

Data: For the tech and tech-enabled employers, data for demand planning is both internal and external. Internally, revenue projections, current staff allocations and needs are the main factors. Externally, some companies do projections of product demand and sales. Government regulatory requirements and funding availability for public clients are also taken into

consideration. In terms of data sources, the Tech Service Alliance as well as local tech associations are key resources for tech and tech-enabled employers.

Challenges: As an industry where the ultimate driver is meeting client needs and responding to technology trends and innovation, the main challenge for these companies is to be nimble in their workforce demand planning. Companies are still trying to figure out the trajectory for AI in terms of the specific role it will play in workforce development. Although it is moving at rapid speed worldwide as a core tool and technology, employers are not entirely sure how this technology will ultimately shape workforce needs and the job market.

For employers with federal agency contracts, such as with the Department of Defense, it is always a challenge to keep on top of the federal budgeting process, and with the advent of a new administration promising sweeping changes that question may also loom large.

And finally, the challenge of the post-pandemic shift in workforce expectations for employers and the workplace is still working itself out. Remote work has created a more transient and mobile workforce that changes the face of onsite work. For those companies wanting to bring some or all the workforce back onsite, demand planning will also necessitate a longer-term view and direction of workplace culture and quality of life as attractors.

Recruitment

Current Approaches: Most of the employers utilized the same traditional and contemporary recruitment approaches to fill existing vacancies as the other two industries described above. Specific organizations that tech and tech-enabled employers use to source both job candidates and interns including University of Oregon, Oregon State University, community colleges, Computing Technology Industry Association (CompTIA), and Historically Black Colleges and Universities (HBCUs).

Challenges: There were five primary recruitment challenges cited by the tech and tech-enabled employers – compensation, lack of priority population candidates, need for experienced candidates, the loss of tech industry luster, and - for onsite candidates (versus remote) - cost of living.

For the participating employers compensation is a recruitment challenge. There is strong competition, particularly for experienced candidates, among the employers. Locally, they note there are pools of industry personnel who can be attracted by other companies. More nationally and globally, larger corporations can pay more. And geographically some regions pay more than others.

Employers note that diversifying their workforce through recruitment is difficult. The industry has traditionally been comprised primarily of white males. While this trend is slowly changing, the pool of available priority population candidates remains disproportionate to the workforce. Many noted this challenge is rooted in early and secondary education where perceptions are shaped on the types of jobs that might be available for their future selves. This type of job profiling, or even lack of exposure to these opportunities, at early ages can influence future candidate pools for employers.

Due to the fast-changing nature of technology and a perceived disconnect with higher education curriculum with workforce needs (more on this issue later), tech employers have a high demand for experienced tech professionals that can hit the ground running faster than a new graduate. The consequence poses a challenge for those seeking entry-level jobs and/or are part of a priority population.

Some employers noted the tech industry has lost some of its luster from the days of the booming Silicon Valley start-ups with potential big financial returns. They believe this change in perception may be a factor for those thinking of entering the tech industry.

For those companies looking to hire an onsite workforce, the cost of living, housing availability, and quality of life are factors that present a challenge for attracting talent to the State or region.

Difficult Positions to Fill: Tech and tech-enabled employers were asked about the most difficult positions to fill.

Difficult Technology Positions to Fill:

Six positions, or job categories, were mentioned in the following order of frequency:

- Electrical and software engineers
- Digital signal processing (DSP) engineers exclusive to IoT (Internet of Things)
- Field service engineers (with high customer interface)
- Quality management engineers
- Chip designers
- Accounting professionals

Education and Training

Tech and tech-enabled employers are looking for technologically trained, highly skilled, and preferably experienced workforce. They want to hire people who have been technically trained to do the jobs they are entering. Also, like employers in the other two industries, these they stress the importance of early industry exposure for students prior to completing their education and preferably earlier rather than later. The employers also emphasize the need for effective inter-personal, communication, and teamwork skills to be able to function effectively with their co-workers, supervisors, and clients.

Regarding primary and secondary education, the focus group participants gave recognition to some of the early education tech programs including STEM, Connected Lane County, and the State's Career Technical Education (CTE) program, who they say offer opportunities for exposure

and interest in the industry. At the same time, they share expansion and/or enhancement of these programs is warranted. For STEM, there is a perception that tech is not getting the level of attention it should as part of the program and could be strengthened with greater emphasis. For Connected Lane County, while recognizing and praising the program's focus on priority populations, participating employers would like to see it become more integrated into regular school curriculum for all students to cast the net even wider. Regarding CTE, their perception is the program is inconsistently applied across school districts and has a reputation for being very bureaucratic.

At the postsecondary level, tech focus group participants most often cite Oregon State University as having the strongest tech programs. University of Oregon is also mentioned as a key source for tech interns.

When discussing gaps in the Oregon educational system, a few points emerged for the focus group participants:

> Communication, Interpersonal & Teamwork Skills: This issue, as referenced earlier, is a challenge for the other two industries as well. Tech and tech-enabled employers say that they hire lack the soft skills to effectively navigate the workplace. The ability to communicate effectively with co-workers, supervisors, and patients is challenging for many employees. These employers believe the lack of these skillsets pose the greatest challenge at the mid-level positions when team leadership and supervisory skills become necessary to grow professionally. As an educational gap, the lack of soft skills is seen by these employers as an important component of any tech training program and believe that separating the technological curriculum from soft skill development could be a detriment to the student's career if not otherwise developed.

> Higher Education Curriculum: As experienced with all three industries covered in this report, tech employers say the existing Oregon postsecondary curriculums are not necessarily aligned with employers' workforce needs. They assert that most of the current higher education tech curriculum is either outdated or not in concert with the technology used by their companies. Most commiserate with postsecondary curriculum planners because, from the employers' perspective, it would be very difficult for any academic institution to continually and expeditiously align with the changing technologies. That said, the current consequence of this misalignment between curriculum and workforce requirements is that employers must provide in-house training for employees.

> Student Composition: While many healthcare employers are working toward diversifying their workforce, they note the demographic composition of higher education graduates, often lack diversity of priority populations.

Career Pathways

Tech employers share that career pathways for entry or mid-level tech or tech-enabled employees are often not clearly delineated or communicated. Focus group participants say tech program graduates are coming out without an understanding of what professional opportunities are open to them. It is acknowledged that educational institutions and employers have not always been effective in communicating career opportunities. There are exceptions such as the STEM program that does offer career information. Some employers also help bring awareness to tech professional pathways through their on-the-job training programs.

As mentioned above in the Education and Training section, employers highlight what they refer to as "missing rungs" in the tech career pathway. These are positions requiring team management and/or supervisory skills where soft skills are important. Effective inter-personal, communication, and teamwork abilities are more important at this career stage for employees to move up.

Currently, AI is a wild card as part of the tech career pathway's role. While very prevalent in today's tech industry, not to mention many others, it is not fully known yet how it will eventually land as part of a tech career pathway. For now, AI will be an important but evolving tool and the jobs that follow have yet to be fully defined.

Tech career pathways are particularly challenging for priority populations who historically have not been part of this industries' workforce. As shared earlier, a lack of awareness to tech career opportunities and/or profiling jobs as not accessible may result in less diverse candidate pools. Even within the tech industry, different jobs can have different demographic profiles among the employees. Priority populations tend to work in lower-level positions. Remote work can give more access to a more diverse workforce but that is only part of the equation.

Retention

As shared earlier in this report, the contributing factors to retention have been changing in recent years. There is a shift from compensation as a primary priority for employees to including workplace environment, life balance, having valued and purposeful roles, as important to employees. The current workforce is looking for flexibility in hours and remote work. They want to experience a sense of engagement and belonging. Priority populations want to see people like them represented in the organization and leadership as well as affinity groups.

To meet this changing landscape of workforce expectations and needs, employers say they are shifting their attention to creating a workplace culture focused on employees. That means accommodating remote work, allowing flexible work hours, enabling and supporting work/life balance, professional development, and team building.

To this end, some employers are adjusting benefits and working to create a more inclusive and meaningful workplace environment including:

- Shorter work week (e.g., 36 hours)
- PTO donation program
- Employee satisfaction surveys (with follow-up)
- Childcare
- Housing assistance
- Greater focus on priority population needs such as providing workforce DEI training, incorporating DEI goals in employee evaluations, and remote work opportunities

Detailed Industry Finding Summary Tables

The following figures summarize the above findings in a table format.

Figure 4: Types/Sources of Data Used by Employers for Demand Planning

Types/Sources of Data Used by Employers for Demand Planning			
	Healthcare	**Manufacturing**	**Technology**
Internal	Organization retirements Current vacancies	Sales forecast Production goals Organization retirements Current vacancies Overtime/leave utilization	Revenue projections Current staff allocation Competitive Analysis – product demand, sales projections Market projections – sales
Community / State	Community Assessments Medicaid participant statistics Demographics / Population Trends	Bureau of Labor Statistics Commodities markets County / Regional sources Regulatory environment Cost of living Demographics / Population Trends	Federal and State Regulatory Requirements Public Funding – Federal
External/Global	Healthcare access Socioeconomic drivers of care needs	Global / national economic trends Raw material / supply chain impacts Legislative measures [e.g., Pay equity, 55-hour rule, Paid leave, Meals and breaks]	Tech Service Alliance Local tech associations

Figure 5: Recruitment Approaches Used by Employers

Recruitment Approaches Used by Employers		
All Industries		
All employers reported utilizing the following recruitment methods: • Internal recruitment • Online Advertising/Postings (e.g., company website, Indeed/LinkedIn, targeted professional & priority population websites, local ads) • Job or career fairs • Employee referral and word of mouth • Recruiters • Temp Agencies • International Resources – temporary or ongoing		
Healthcare	**Manufacturing**	**Technology**
• Provider network • Social media posts	• Employment Department platforms	• U of O (interns), OSU, Community Colleges • CompTIA (Computing Technology Industry Association) • Saturday Academy • Ongoing relationships with affinity groups (e.g., HBCUs) to recruit priority populations

Figure 6: Difficult Positions to Fill by Industry

Difficult Positions to Fill by Industry		
Healthcare	**Manufacturing**	**Technology**
• Nurses • Behavioral Health: Psychiatrists, LCSW, QMHP, After Hours Supervisors • Techs: Lab, Imaging, Surgical, Respiratory Therapists • Dental Hygienists • Non-Credentialed: Housekeepers, Dietary Aides • Primary Care and Specialist Positions • Doulas • Patient Navigators	• Electricians • Technicians (assorted) • Mechanics • Welding • Middle management	• Electrical and software engineers • Digital signal processing (DSP) engineers exclusive to IoT (Internet of Things) • Field service engineers (with high customer interface) • Quality management engineers • Chip designers • Accounting professionals

WORKFORCE DEVELOPMENT OPPORTUNITIES

During the focus groups, participants were asked for suggestions on how the State of Oregon and others, including themselves, could enhance workforce recruitment, development, and retention in their respective industries. These opportunities, as well as others derived from the consultant based on the input of the participants are listed in this section. There are some opportunities that cross all three industries and while the rest are industry specific.

In each case the opportunities are divided into one of three categories: policy, program, and funding. It is recognized that these categories are not necessarily mutually exclusive. Policy opportunity examples include legislation, rule revisions, and other changes. Program opportunities are either new programs or revisions to existing programs. While policy and program opportunities may involve additional or new monies, funding opportunities refer to an increased allocation to an existing program.

General Opportunities

In many cases, focus groups for all three industries identified similar suggestions of opportunities to enhance workforce development. These opportunities are provided in this first section.

Program

1. **Establish an on-going forum for higher education representatives and employers to bring greater collaboration for curriculum alignment and coordination of student exposure.** To enable employers and postsecondary institutions to connect and discuss how best to link Oregon educational curriculum and associated programs to the employers' workforce needs, it would be helpful to create a framework for an on-going working relationship. The scope of discussion may include a broad range of topics including curriculum, student job exposure, career pathways, program expansions, and greater accessibility for students. As part of this opportunity, discussions between regional or local postsecondary institutions and employers would be beneficial.

2. *Continue and/or enhance the inclusion of employer representation in policy and regulatory development at the State level.* Employers want to ensure they have a voice on policy and regulatory discussions that can impact their operations and finances as well as influence workforce capacity, recruitment, and benefits.

3. **Consider establishing a central data resource repository accessible to all employers including, but not limited to, state and/or national information on:**

   - Demographics and population trends (regional, state, national)
   - Employer retention levels by position, category, and/or sector
   - Position vacancy statistics
   - Compensation

4. **Create more routine job exposure.** Requiring job exposure as part of industry focused educational programs will help students to understand job expectations and the workplace environment. Internships, fellowships, and/or similar programs could be helpful in achieving this goal – preferably early in the educational process.

5. **Incorporate soft skills development at all educational levels.** Developing soft skills early in the educational system, and continued throughout the student lifecycle, will further enable the success of the future workforce. These skills, including interpersonal communication (verbal and written), collaboration, and teamwork will significantly help prepare students for an ever-changing work environment.

6. **Work with higher education and other programs to define and communicate career pathways for students.** All industries agree that their respective career pathways are either not clear and/or not communicated well to the potential and even current workforce. There is a need to define and effectively communicate these career pathways to attract and retain their respective workforces. Higher education will be a key partner in helping to communicate and guide students and give them a vision of the opportunities available.

7. **Use local associations to help promote and educate potential workforce on industry careers and jobs.** Local industry associations are well positioned to be a hub for information on their respective industries and, as such, can be the "cheerleaders" in promoting, educating and conducting outreach to potential workforce populations.

8. **Identify or establish a clearinghouse/connector organization for job sharing between employers.** Employers note Worksource Oregon may have the connectivity and knowledge to serve as an informational clearinghouse to connect employers who are willing to allow job sharing with full or part-time employees which can help both the company and employees.

9. **Conduct and share research on key workforce trends, issues, and needs to help employers be more competitive and data driven.** Information might include: current workforce attractors (e.g., benefits, workplace environment, life/balance); tenure trends; demographics and population trends; turnover rates including by position; and position trends (growth/decrease) by industry.

10. **Provide resources and training to support priority populations and other's ability to access the tools and knowledge needed to navigate their educational pathways and entry into the workplace.** These resources and trainings would provide tools to manage personal finances, identify educational funding, and career/retirement planning. In addition, providing education on key workplace skills such as technology (e.g. Microsoft Office software programs), basic business finance, and/or management/leadership skills.

11. **Provide education and resources for employer leadership and staff to help them foster culturally competent workplace environments and enable priority populations to be successful.** Cultural competency can be a key component for providing a successful working environment for priority populations. Preparing an organization to understand, engage, and appreciate a more diverse workforce can enhance the success of the organization and retention of priority population employees. The ability to create this environment can be enhanced thorough education of leadership, who can champion such efforts, and with the staff to gain understanding of what it means to have a culturally competent organization.

Policy

12. **Evaluate opportunities to establish professional licensing and credential reciprocity agreements with other states.** Currently, Oregon does not have reciprocity agreements with other states making it difficult to for Oregon employers to recruit qualified skilled professionals from out of state. This challenge also creates a higher administrative burden and restricts the mobility of the state and national workforce. Establishing such reciprocity agreements could assist in reducing some of the workforce shortages – such as in nursing and trade skills (e.g., electricians) - experienced by Oregon employers.

13. **Foster partnerships between the State and businesses to strategically market industry careers in Oregon to potential employees.** To help bring awareness to the workforce opportunities in Oregon and the benefits of working here. This initiative would help to dispel some negative perceptions about the State developed over the last several years.

Funding

14. **Provide tax breaks or other incentives for companies who provide training to entry level employees lacking key technical competencies not offered in higher education.** To assist employers who are finding candidates for entry level positions not prepared for their jobs, due to a lack of technical training not offered by Oregon's higher education system, tax breaks could help offset some of the cost of in-house training.

15. **Provide employer incentives and/or resources for workplace enhancements to attract and retain employees, and particularly priority populations such as childcare, housing assistance, benefits, and DEI/cultural competency training.**

Healthcare Opportunities

Policy

1h. **Streamline credentialing approval processes to reduce wait times for hired candidates.** Oregon healthcare employers have been experiencing long wait times to secure credentials particularly for out-of-state hires who are credentialed in other states. Even candidates that are applying for credentials from within the state are also experiencing long wait times. Such protracted application review processes can significantly the delay the start dates for incoming employees.

2h. **Create new roles that build the workforce but don't require licensure (e.g., Patient Tech).** The medical profession requires most healthcare positions to be licensed to practice in Oregon. Healthcare employers participating in the focus groups suggest there is an opportunity to create lower-level non-licensed positions, such as a Patient Tech, that can assist medical professionals with various tasks that don't require credentialed medical personnel. These positions may also allow greater access and exposure for priority populations, and others, who are looking to enter the healthcare field.

3h. **Utilize healthcare professional associations to represent and/or facilitate healthcare employers' interests with higher education institutions.** As mentioned above, employers are looking to foster stronger working relationships with higher education institutions to partner on curriculum development and job exposure programs. The goal is to better align the curriculum with industry workforce needs as well as providing early workplace experience. Many employers suggest industry professional associations can represent them in these discussions as they individually lack the capacity to participate.

4h. **Reduce barriers, red tape, and/or qualifying criteria for existing scholarships such as positions through the National Health Service Corps or OHA HRSA.** Healthcare employers perceive existing student scholarships as difficult to attain due to excessive red tape, and overly strict qualifying criteria. These scholarships are offered by a variety of government organizations including the National Health Service Corps and the Oregon Health Authority Health Resources & Services Administration.

5h. **Promote opportunities for healthcare employer staff to teach in higher education programs.** With the shortage of healthcare workers, employers suggest allowing their staff to help existing higher education medical training programs by teaching, or assisting, in some of the courses or associated postsecondary educational programs.

6h. **Enable healthcare employers to establish and conduct credentialing and other training programs at the workplace.** Another potential opportunity to increase Oregon medical credentialing capacity in Oregon would be to allow employers to provide on-the-job training where credentials can be obtained through pre-approved mentorship programs conducted by the employer.

7h. **Collaboration between healthcare employers to share candidate pools.** Given the smaller candidate pools for some medical positions, enabling regional or state healthcare employers to conduct shared recruitments and/or candidate pools could maximize their resources. This approach could allow candidates to apply for select positions within a region or the state to be considered by multiple employers. A similar program is being implemented in the Rogue Valley with direct care providers.

8h. **Ensure rural representation in employer/higher education discussions.** As the state and regions continue and/or enhance communication and collaboration between healthcare employers and higher education institutions, there is an opportunity to ensure rural community employers be represented at the table.

9h. **Establish a state level position to facilitate and coordinate dialogue between healthcare employers and Oregon's educational system.** Due to the lack of capacity for healthcare employers to individually participate in higher education curriculum and program coordination, there may be an opportunity to establish a state level position responsible for proactively facilitating, coordinating, and organizing these dialogues. The position could work with healthcare associations, individual employers, and higher education institutions to serve as a convener and architect of these discussions toward achieving tangible outcomes.

10h. **Build and/or expand Oregon behavioral healthcare educational programs.** Given the scope and breadth of mental health and substance abuse challenges in Oregon, concentrating program development for new and/or expanded behavioral health programs is an educational void that presents a significant opportunity to address workforce needs in that sector. A concentrated initiative, facilitated by the State, could help to accelerate and promote a behavioral health focused education infrastructure.

11h. **Expand geographic and financial access to higher educational opportunities.** To address challenges for rural and other priority populations to access postsecondary healthcare programs, there is an opportunity to comprehensively review and address, to the extent possible, their geographic and financial barriers. Such an initiative could include identification of tools, resources, and programs to achieve greater access, and remove barriers, to postsecondary healthcare education.

12h. **Provide childcare for student parents.** For single parents and other priority populations, a barrier to education can be access to childcare, particularly for single parents. Providing childcare at educational institutions or even with employers who have student interns, can remove a challenging obstacle.

13h. Continue and expand healthcare training and awareness programs in areas with significant priority populations. To reach potential workforce priority populations, strategically placing healthcare training programs, particularly for secondary and primary education level students could help to generate interest in the healthcare industry. For example, programs might be located at high schools with high percentages of priority populations. The focus on the priority population areas would be complementary of other healthcare training and awareness programs in their geographic area.

Funding

14h. Provide targeted funding to increase pay for higher education instructors who are training highly needed credentials. The challenge of finding healthcare instructors, such as for nursing, is due in part to low wages compared to compensation offered by providers. There may be an opportunity to provide supplementary funding to attract instructors who will teach the courses for high demand credentials such as nursing and technicians.

Manufacturing Opportunities

Program

1m. Develop trainings in professional preparedness, particularly for entry level employees. With employers finding more entry level candidates lacking professional skills needed in the workplace, there is an opportunity to offer trainings to provide the tools they need to be successful in the workplace. Some of these basic skills including timeliness, dress, basic office software competency, inter-personal communication, and problem solving. The goal of the training is to enable new employees to be successful by giving them the tools to do their job and grow professionally.

2m. Expand local and standalone non-degree professional growth training opportunities. To create greater access to training opportunities for current employees to grow professionally but may not have the time or means to attend a degree program, providing local training programs can offer access to technical and other skills education. Such standalone trainings could offer individual courses that allow flexibility for working individuals to take without leaving the workforce. These trainings would provide greater access for employee career advancement, and particularly priority population employees.

3m. Explore training approaches and equipment accessible for employees of all abilities. Many employers struggle with finding employees prepared for the demands of certain roles. This challenge can be due to the length of shift, level of physical intensity required, amount of

training required, or even overall stress from operating complex and potentially dangerous equipment. Some employers shared success adjusting preliminary expectations for new employees (e.g., shorter shift schedule for the first week) and providing supportive onboarding resources or equipment (e.g., language support, utilizing smaller or more basic equipment for initial training such as smaller forklifts). These incremental training steps can reduce early turnover, increase accessibility, and increase workplace attractiveness for several categories of priority populations.

4m. Assist employers by identifying and providing them with professional growth approaches to increase staff capacity. Identifying methods for companies to provide incremental training and advancement can be helpful to enable employee professional growth and promote retention. By providing employees a vision for advancement in their positions within the company, the ability to retain them increases. With increased expectations from the contemporary workforce regarding pay and advancement opportunities, companies can struggle to retain employees without higher level positions or training to offer. Providing clear and attainable professional growth opportunities for all employees, through training and/or transitionary job responsibilities, can create a more equitable advancement within the organization.

Policy

5m. Support existing and future efforts to identify complementary skills across manufacturing industries. Many vital positions in manufacturing are unique in specific function or title to a sector or company but often can be applicable to a broader skill base. Employers sometimes struggle to identify experience in other sectors or fields (e.g., automotive industry, military service-related positions, and other fields that involve physical components and/or problem solving) that may be applicable to their positions. Additionally, the participating manufacturing employers were aware of local or regional workforce development initiatives that were duplicative or complementary to other regions or statewide efforts. The State may have an opportunity to support the industry by a clearinghouse for information that could promote connectivity of skills across industries to help meet workforce needs and support worker mobility or advancement. Providing education regarding career skill crossover and related career paths earlier in student/employee education may also be beneficial for students to maximize their employability as well.

6m. Identify 'tried and true' opportunities for workforce training models utilized in other states and/or countries that could be used in Oregon. Participating manufacturing employers believed there are models of effective career technical education for prospective, new, and incumbent workers in Oregon, across the country, and even internationally that could be expanded or incorporated in the state. Examples offered included expanding earn and learn opportunities, particularly for early career including high school students, and general Career Technical Education (CTE) opportunities. Another component of this initiative could include

identifying the most successful training models which could help better direct funding allocations.

7m. Assist employers in providing cross training/other opportunities. Specialized positions not only can be hard to recruit for and provide training for new hires but also can cause instability for the organization in the case of employee emergencies or transitions. Exploring different staffing models and work scheduling techniques to allow greater cross training can help employers support career development opportunities and decrease volatility in their workforce needs and production.

Technology Opportunities

Program

1t. Promote, support, and enable workforce training resources, outside of four-year degree programs, such as Career Technical Education (CTE), CompTIA, and the Intel/PCC QuickStart program. With fast paced technology innovations and trends, it is nearly impossible for postsecondary degree programs to keep their curriculum current to prepare students for the industry's workforce need. Non-degree technology programs can provide targeted trainings on current technologies.   Increasing the flexibility and specificity of trainings can make career advancement education more accessible for incumbent employees and priority populations.

2t. Expand Oregon technology education programs in the higher education system to build effective and relevant skills needed by employers. There is an opportunity to expand Oregon's postsecondary technology programs to support this industry's workforce needs. Increasing the availability and access to Oregon technology education programs can also help increase the diversity of local candidates for employers to recruit. While technology employers believe it would be very difficult for higher education curriculum to adapt to their changing technology training needs, there is an opportunity to strengthen the curriculum by aligning more closely with the foundational technology skills they need in their workforce.

Funding

3t. Enhance and provide more resources to early education programs such as STEM, Saturday Academy and Connected Lane County to generate greater interest in tech and tech-enabled careers. These programs offer a good foundation for early exposure and learning in technology. However, there is great potential for expansion to reach more students and provide greater emphasis on technology to raise more awareness of technology focused careers. Particularly introducing these concepts earlier on could help increase the representation of women or other priority populations in the workforce by avoiding

exclusionary perceptions about the industry or their ability to succeed in it that can be formed early in the educational system.

4t. **Incentivize higher education faculty to build curriculums that result in tech employer hires.**
As part of realigning higher education curriculum closer to technology employer workforce needs, there may an opportunity to build in an incentive program for faculty members to strive toward a goal increasing graduate hires by technology companies.

CONCLUSION

The findings and opportunities in this report offer the perspectives of the workforce challenges, approaches, and suggested opportunities from the representatives of the three industries. This summary report should provide some helpful context as the Future Ready Oregon Consortia continue their discussions and recommendations.

As noted earlier, the participants in these focus groups participated fully, offering robust conversations, candid input, and constructive input. These employer representatives were very appreciative of the opportunity to share their perspectives and the regional in-person approach. The value of these focus groups goes beyond these sessions. There is an opportunity and desire for continued involvement as the Consortia move forward and provides a foundation for regional and state-wide partnership

HIGHER EDUCATION COORDINATING COMMISSION

FUTURE READY OREGON

INDUSTRY CONSORTIA FOCUS GROUPS

SUMMARY REPORT

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APPENDIX A: ACKNOWLEDGEMENTS

Focus Group Participants List

Scott Anderson, Senior Vice President, Kelley Create

Jay Arrera, Director of Production, Pipeworks Studios

Michael Barrow, Senior Development Engineer, SheerID, Inc.

Toni R. Bassetti, Director of Primary Care, Salem Health

Jim Bauer, COO, Salem Health

Rob Becker, Operating Manager, Carestream

Alicia Beymer,   Chief Administrative Officer, PeaceHealth Cottage Grove Medical Center

Kathy Bishop, Senior Director- Human Resources and Public Relations, Jireh Semiconductor, Inc

Corinne Bouchard, Talent Acquisition Manager, Biamp

Paul Brown, President, Cinder

Andrew Browning, CTO, Trillium Engineering

Paul Cantrell, Senior Director Technical Services, Sentinel One

Amber Clegg, Access & Integration Manager, Deschutes County Behavioral Health

Paul Davis, Director of Operations, Oshkosh Aero Tech

Melissa Eckstein, President (Unity), Legacy Health

Bryan Fix, CHRO, Sky Lakes Medical Center

Corie Ferestad, Director of Clinical Services, Morrison Child & Family Service

Ned Ford, COO, Harry & David

Hillary Forrest, Senior Director of Human Resources, St. Charles Hospital

Jeff Geddings, Region Human Resource Manager, Boise Cascade

Gabino Gispert, Director of Quality and Research and Development, Meduri Farms

Stephanie Green, Chief Human Resources Officer, Adapt Integrated Health Care

Courtney Griesel, Community Relations Manager, Sierra Pacific

Aaron Grigg, Director of Operations, New Directions NW

Dan Grigg, CEO, Wallowa County Healthcare District

Cassie Hammelman, Vice President of Human Resources, Synopsys

Katie Hawks, Human Resource Consultant, Kaiser Permanente

Kristy Hellwege, Human Resource Manager, East West Tea Company

Lisa Hilty, President/COO, Sapphire

Ryan Hutchison, Director of Operations, Providence Medford Medical Center

Brandi Jeffries, Regional Vice President, Evergreen Healthcare Group

Sean Jessup, CEO, EOCCO/Moda Health

Brenda Johnson, CEO, La Clinica

Tadashi Jones, Vice President Compliance, Rosen Aviation LLC

Brent Kell, CEO, Valley Immediate Care CEO

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Laurie Kicklighter, Human Resource Manager, Samtec

Mark Kinkade, Owner, Gateway/McKenzie Living

Kim Klotz, Community Health and Outreach Supervisor, Santiam Hospital

Abbot Koehler, Senior Director- Staffing, Kaiser Permanent

Chris Laman, Vice President of Strategy, Columbia Memorial Hospital

Paula Lawson, Director, People Operations, Quantum Innovations, Inc.

Brad Litle, President/COO, Ohana Ventures

Grant Loberg, COO, Work Sharp

Andrew Loomis, Vice President, Human Resources, Avamere

Krista Lovaas, Senior Director of Provider and Community Relations, WVP Health Authority

Jaime Mack, CEO/CTO, Zepher

Brian Mahoney, Senior Director IT, Thermo Fisher Scientific

Carl Mason, COO, Senior Housing Managers

Emily McDonald, Human Resources Director, Trillium Engineering

David Meador, Director of Strategic Engagement, NIC Industries

James Mockaitis, Agency Director, Juniper Mountain Consulting

Chandra Mola, Medical Team Program Manager, Deschutes County Behavioral Health

Nick Montabine, Director – Talent Planning & People Analytics, Legacy Health

Jerryck Murrey, CEO, Annum, Inc.

Jenise Narciza, Human Resources Manager, MasterBrand Cabinets

Kiki Prottsman, Director of Education, Microsoft MakeCode

Debbie Radie, Chief Operating Officer, Boardman Foods

Michelle Rasmussen MD, MHA, Associate Chief Medical Officer, Salem Health Hospitals and Clinics

Tracy Rumpca, Plant Manager, Quanex

Christian Rutledge, AHECSE Director, Aviva Health

Melinda Schellinkhout, Executive Assistant, Advanced Care Life Services

Alisa Schmalenberger, Vice President of Talent Acquisition, Marquis Companies

Kassie Schnell, Human Resources Business Partner, Grande Ronde Hospital

Kelsey Scotch, President, Madden Industrial Craftsmen, Inc

Karen Sheelar,   Chief Behavioral Health Officer, Waterfall Community Health Center

Hannah Strawn, Director of Talent Acquisition, Frontier Senior Living

Holly Tavierner, Chief Human Resources Officer, Lower Umpqua Hospital District

Blake Thompson, Chief Innovation Officer, Springfield Creamery

Bill Thorndike, President, Medford Fabrication

Matt Tobolski, President/COO, AAON, Inc

Dave Tribbett, Executive Director, SORIN

Charlie Vermilyea, Director of Human Resources, Emergence

Shankar Viswanathan, Director- Human Resource Business Partner, Kaiser Permanente

Claudia Wilcox, Training, Recruitment, & Special Projects Coordinator, New Directions NW

Shannon Wilhelm, Clinical Supervisor III, Marion County ABH

Sommer Wolcott, Executive Director, On Track Rogue Valley

HECC Project Team List

Jennifer Purcell, Director, Future Ready Oregon, HECC

Sarah Foster, Healthcare Industry Consortium Strategist, HECC

Ronan FitzSimons-Brey, Administrative Specialist, HECC

Carrie Weikel-Delaplane, Manufacturing Consortium Strategist, HECC

Erik Jensen, Principal, Jensen Strategies

Amelia Wallace, Senior Associate, Jensen Strategies

Emily Rehder, Operations Manager, Jensen Strategies

Turner Odell, Senior Project Manager, Oregon Consensus/Oregon Solutions

Pre-Assessment Interviews

Phil Bentley, President, Oregon Health Care Association

Bryan Boehringer, CEO & Executive Vice President, Oregon Medical Association

Jason Burk, Head of Production, Microchip

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Heather Ficht, Executive Director, Central Oregon Workforce Board

Courtney Griesel, Community Relations Manager, Sierra Pacific Industries

Jason Hartmann, Project Manager, Gorge Tech Alliance

Becky Hultberg, President/CEO, Oregon Hospital Association

Heather Jefferis, Executive Director, Oregon Council for Behavioral Health

Abbot Koehler, Senior Director of Staffing Systems, Kaiser Permanente

Andrew McGough, Executive Director, Multnomah and Washington County Workforce Partnership

Skip Newberry, President/CEO, Technology Association of Oregon

Carly Petrovic, Senior Human Resources Manager, Microchip

Cathy Reynolds, Director, Legacy Health Systems

Kyle Ritchey-Noll, Education & Workforce Policy Director Oregon Business Council

Heather Stafford, Executive Director, Rogue Workforce Partnership

Kyle Stevens, Executive Director, Southwest Oregon Workforce Board

Julie Stewart, Vice President, Reser's Fine Foods

Khanh Tran, Government Affairs, Radius Recycling

KS Venkatraman (Venkat), Senior Director for Artificial Intelligence Computing, NVIDIA

Shankar Viswanathan, Director, Human Resource Business Partner, Kaiser Permanente

Duncan Wyse, President, Oregon Business Council

Focus Group Host Organizations

Bend Community College- Redmond Campus

Central Oregon Community College- Bend Campus

Coos Bay Community Fire Department

Dalles Readiness Center

Eastern Oregon University

Lane Community College

Oregon Business Council

Portland Community College- Willow Creek Opportunity Center

Portland Community College- 42nd Ave Opportunity Center

Rogue Community College- Riverside Campus

Santo Community Center

State Library of Oregon

APPENDIX B: PROJECT SCHEDULE
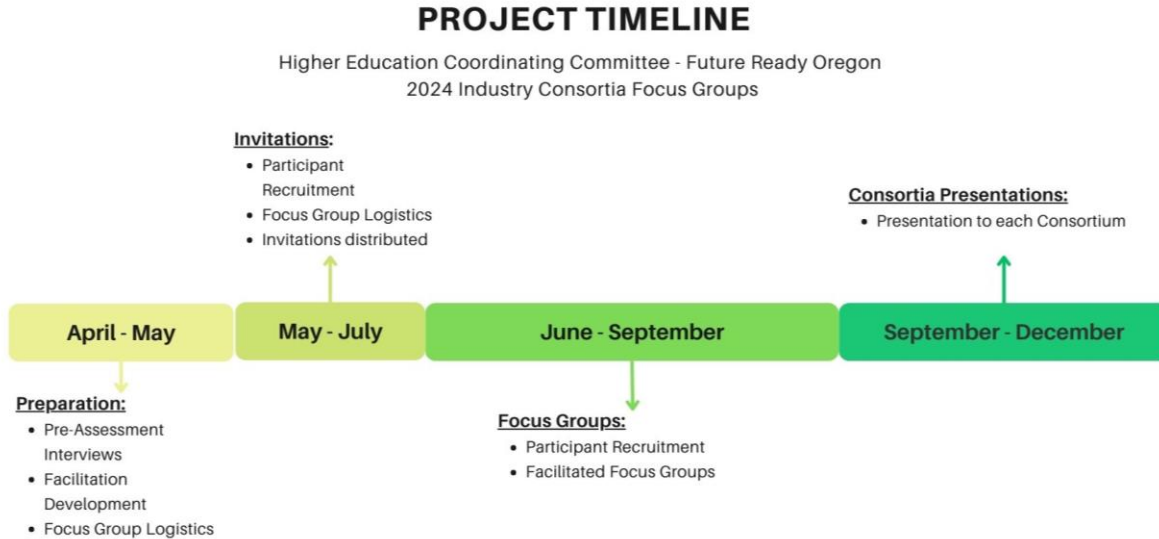
Project Timeline

PROJECT TIMELINE

Higher Education Coordinating Committee - Future Ready Oregon
2024 Industry Consortia Focus Groups

Invitations:
- Participant Recruitment
- Focus Group Logistics
- Invitations distributed

Consortia Presentations:
- Presentation to each Consortium

| April - May | May - July | June - September | September - December |

Preparation:
- Pre-Assessment Interviews
- Facilitation Development
- Focus Group Logistics

Focus Groups:
- Participant Recruitment
- Facilitated Focus Groups

Schedule of Events

Date	Event
June 6, 2024	Healthcare Focus Group- Coast, Coos Bay, OR
June 13, 2024	Healthcare Focus Group- Eastern Oregon- La Grande, OR
July 9, 2024	Healthcare Focus Group- Central Oregon/Gorge- Bend, OR
July 11, 2024	Healthcare Focus Groups- Portland- Portland, OR
July 23, 2024	Healthcare and Technology Focus Groups- Lane County – Eugene, OR
July 25, 2024	Manufacturing Focus Group- Portland- Portland, OR
July 31, 2024	Healthcare and Technology Focus Groups – Rogue – Medford, OR
August 1, 2024	Manufacturing Focus Group – Rogue- Medford, OR
August 6, 2024	Technology Focus Group – Gorge – The Dalles, OR
August 14, 2024	Manufacturing Focus Group- Willamette Valley- Salem, OR
August 22, 2024	Technology Focus Group- Portland – Hillsboro, OR
September 12, 2024	Manufacturing Focus Group- Central Oregon- Redmond, OR
September 19, 2024	Manufacturing Focus Group- Eastern Oregon- Phone meeting
September 24, 2024	Healthcare Consortium Meeting Presentation
October 1, 2024	Manufacturing Consortium Meeting Presentation
October 30, 2024	Technology Consortium Meeting Presentation
December 13, 2024	HECC Labor Board Presentation

APPENDIX C: SAMPLE FOCUS GROUP INVITATION

Oregon
Tina Kotek, Governor

Higher Education Coordinating Commission
Office of the Executive Director
3225 25th Street SE
Salem, Oregon 97302
www.oregon.gov/HigherEd

Greetings,

You are invited to participate in a special Manufacturing employer focus group on September 12th, 2024, in Redmond to share input on manufacturing workforce challenges and needs.

The focus group will bring together a small, representative group of regional employers to share insight on a number of important workforce topics in a collaborative conversation led by a professional facilitator from Jensen Strategies. This will include issues and opportunities around current manufacturing workforce training resources in Oregon, desired skills and credentials shared across the industry, employee recruitment and retention initiatives, as well as career and advancement pathways that are equitable and supportive of a diverse workforce.

Your firsthand experiences on these issues will provide invaluable feedback to the Consortium as we work to advance equitable opportunities and access to manufacturing workforce training and education.

For additional context, last summer, the Oregon Higher Education Coordinating Commission (HECC) launched a Manufacturing Industry Consortium to provide a forum for employers, educators, and community partners to better understand Oregon's manufacturing workforce needs and recommend strategies to address gaps and opportunities in the manufacturing workforce. This work is part of the HECC's initiative known as Future Ready Oregon - a comprehensive $200 million package of investments that advances equitable education and training opportunities, intentionally engaging Oregon's historically underserved and underrepresented communities and supporting people with the education, training, and resources they need to get into good-paying jobs in key sectors of Oregon's economy – Healthcare, Manufacturing, and Technology.

As part of this work, members expressed a need to gather direct input from manufacturing employers across the state regarding their experiences with workforce and talent development. To this end, the Consortium is organizing and conducting focus groups comprised of a variety of manufacturing employers from across the state. **We would greatly appreciate your in-person participation in the Central Oregon focus group which will be held on September 12, 2024 from 1:00 PM to 3:30 PM at Central Oregon Community College's Redmond campus (2030 SE College Loop) in Redmond.**

Please RSVP using this link. If you are unable to attend or wish to send another representative from your organization with insight on these issues, there is an opportunity to share that information in your response. If you have any questions about the focus group, please contact Amelia Wallace at amelia@jensenstrategies.com.

On behalf of our Manufacturing Industry Consortium co-chairs, thank you in advance for considering this request.

Jonath Colon, Deputy Director of Economic Development, Centro Cultural de Washington County
Ed Feser, Provost, Oregon State University
Mariah Robbins, Chief Human Resources Officer, Fieldpiece Instruments

Signed,

Jennifer Purcell
Director, Future Ready Oregon
Higher Education Coordinating Commission

APPENDIX D: FOCUS GROUP HANDOUTS

Sample Agenda

FUTURE READY OREGON

INDUSTRY FOCUS GROUP (CITY)

(DATE)

SAMPLE AGENDA

1. WELCOME REMARKS / OVERVIEW

2. FOCUS GROUP INTRODUCTIONS

3. DISCUSSION OVERVIEW: INDUSTRY WORKFORCE ISSUES

4. WORKFORCE DISCUSSION TOPICS

    A. DEMAND PLANNING / RECRUITMENT

    B. TRAINING/EDUCATION

    C. CAREER PATHWAYS

    D. RETENTION

5. CLOSING REMARKS

Future Ready Background/Overview Handout

INDUSTRY CONSORTIA:
A PROMISING NEW MODEL
FOR OREGON TALENT DEVELOPMENT

OREGON
BUSINESS PLAN

The Opportunity for Oregon

The Legislature's 2022 adoption of SB 1545, Future Ready Oregon, offers Oregon a generational moment to take workforce talent development to a new level. The legislation's greatest immediate impact has been its $200 million allocation to expand workforce education and training. Those moneys augment existing career-connected learning and apprenticeship programs, fund competitive grants to demonstrate innovative models of workforce and talent development, and pilot new workforce benefits navigators. These investments are distinguished by a focus on expanding education, training, and support for people from historically underserved communities to achieve living-wage careers.

Of equal significance Future Ready Oregon implicitly acknowledges that the statewide talent development *system* – at both state and regional levels – must become more effective in meeting the needs of Oregonians, employers, and the statewide economy over the long term. To this end the legislation identifies the creation of three industry sector consortia – manufacturing, health care, and technology – as a means for partners to work together on talent development and on workforce system improvement overall. Partners include employers, education and training institutions, labor unions, and community-based organizations.

The consortia represent a new model for organizing and driving statewide talent development, which encompasses education from K-12 to PhD level in the education system, and a range of specific occupational skills training offered through schools, apprenticeships, and employer training programs. The potential of Future Ready consortia makes it imperative to organize and launch them successfully, a process that is now under way through the leadership of the Higher Education Coordinating Commission (HECC). Oregon is counting on these consortia not only to meet the needs of the manufacturing, health care, and technology sectors, and not only to expand equity and opportunity, but also to serve as a model for other industry sectors in forming their own consortia or similar partnerships.

The Stakes in Consortia Building

It's important for industry sector consortia to flourish in Oregon because the stakes are significant. A high-functioning talent development system spurred on by industry consortia is essential to help Oregonians achieve job security and their individual aspirations, to meet the evolving skill needs of employers, to strengthen the diversity of the workforce, and to sustain regional and state economic competitiveness.

Building these consortia represents an inflection point for rethinking and reshaping a workforce system that has struggled to keep pace with significant workplace changes in recent decades. These include increased automation, off-shoring of jobs, increasingly higher skill demands, an aging workforce, the rapid advance of artificial intelligence, and the stresses of chronic understaffing on organizations and their employees.

These changes magnify the challenge of talent development.
- Rising skill requirements are putting many quality jobs out of reach for job seekers.
- Employers across the board are struggling to find and retain qualified talent.
- Adults displaced by changes in the labor market are unable to access the support and additional education they need to seize new opportunities.
- Persistent barriers to job readiness, job training, and career advancement prevent success for many workers from historically underserved communities.

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- As a result, significant inequities persist in education attainment, occupation training and readiness, income, and career advancement.

The System Challenge

Throughout the nation, including Oregon, there are significant system disconnects and gaps which make it difficult to address the talent development challenge noted above. Industry sector consortia are a promising way to take on these shortcomings, which include the following:

- Often there's too little collaboration between education, workforce training, and industry sectors. Not only do these parties operate too often in isolation, they also aren't structured for continuous communication or a broader regional, state, or industry perspective on talent development. As a result, schools or industries may reach out to one another in the form of one-off program arrangements, but only for a limited purpose or time, with little strategic or long-range purpose.
- Many businesses don't invest sufficiently in training, and too often don't engage or collaborate with one another or other stakeholders.
- The labor market information system is weak and siloed. As a result, employers don't adequately convey their skill needs, workers don't know what skills they need, educators don't know what skills to design curricula for, employers don't know what skills jobseekers have, and there is no cohesive systemwide credentialing system to serve job placement and advancement. Within this context, students too often know little or nothing about particular career paths or the kinds of jobs those paths lead to.
- Most training programs were not designed in the context of larger, longer pathways and lifelong learning, and wraparound supports for learners are inadequate.

Addressing these and other system gaps will make new demands on the talent development stakeholders noted above. On behalf of learners and job seekers, they will need to be more focused on inclusion, on closer and more sustained relationships with each other, and on improved education and training offerings and processes.

The Role of Industry Consortia

Industry consortia represent a great opportunity for industry sectors to engage deeply both internally and with partner institutions and policymakers to identify and develop the workforce talents they need to compete and thrive.

Each consortium's broad function is to develop and advocate policy recommendations to support stronger talent development among learners, jobseekers, and current employees. This includes:

- Assessing and forecasting workforce needs and trends across the industry in a strategic framework
- Recommending education and training standards, programs, and credentialing appropriate to the industry
- Advocating for adequate public investment in workforce talent development that serves industry sectors but also provides equitable opportunities in training, employment, and career advancement to workers.
- Eliminating barriers to student progress and completion and providing students more supports to succeed.

To be effective in this role, each consortium must be recognized and empowered by state government to have an upstream role in recommending and influencing the development of workforce talent goals, standards, credentialing, access and support policies, and budgeting of public funds to accomplish those purposes. Moreover, the consortia model enables sectors to collaborate on common talent

development issues and, where efficiencies are possible, to share resources on matters such as branding and communication.

Industry Consortia Organizational Concept
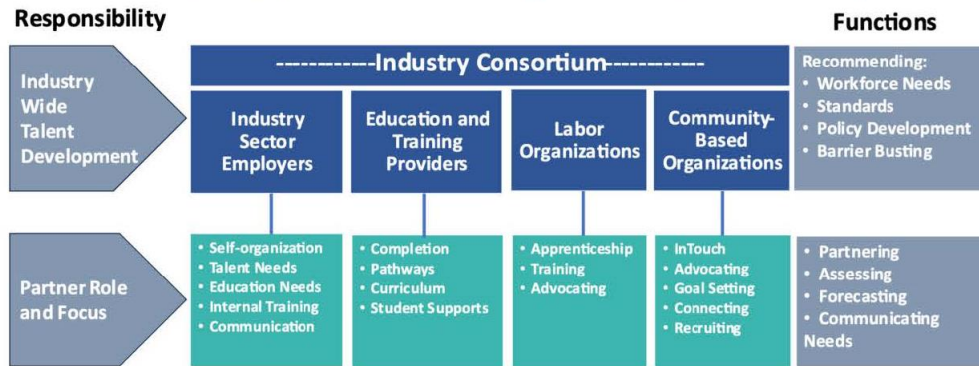
Key Roles and Responsibilities of Consortia Partners

Taking the talent development system to a higher level of effectiveness through consortia will demand more organizational focus of all partners within their own sectors, especially industry employers, but also education and training institutions, labor unions where they have an industry presence, and community-based organizations. Actions required will typically be common across each sector or the state as a whole, but should allow for differences in partnerships and their arrangements at the local or regional level.

Employers. As a way to support existing industry consortia – or to start new consortia where none exist – employers in each industry should organize themselves to better understand and advocate for their common workforce talent needs. Inside their own companies they must become better organized to assess their own talent development needs and then share that assessment across their industry sector. As a corollary to such assessment, they must contribute as an industry sector to development of education and training goals and standards, curriculum, and credentialing. They must become more engaged with talent development in public education and training systems as well as in their own organizations. This includes apprenticeships, on-the-job-training, and support for individuals pursuing postsecondary studies. They must invest in upskilling their existing employees. And they must collectively become stronger long-range partners with other players: education institutions, the state workforce system, and community-based organizations. Industry self-organization of this scale will greatly contribute to the success of existing consortia, and it will lay the foundation for establishing new consortia in the case of industries where none have been formed but are needed.

Education and Training Institutions. These organizations must become more focused on student support and completion as a corollary to their education offerings. As part of that they must forge better connected learning pathways to occupational skills and employment. The foundational and professional skills that they teach must support lifetime work. They must expand career-connected learning (especially STEAM and CTE programs) along with mentoring and career advising, development of high-quality microcredentials, short technical-training programs, and higher education degree attainment. They must create new delivery frameworks. That includes, building flexible programming that adjusts to

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changing conditions, expanding the availability of wrap-around services for learners, and creating youth apprenticeships and other "earn and learn" models.

Labor Organizations. Where unions have a presence in an industry sector, they should be at the consortia table as partners in apprenticeship programs and other training, and as advocates of employee skill needs and roles in the workplace.

Community-Based Organizations. These organizations, typically nonprofit and service oriented, are trusted partners of their constituent communities who stay close to community needs and aspirations, and advocate for the community as a whole and for individuals within it. Many organizations provide workforce education and training for their community members. They must help develop consortia goals and strategies to diversify the industry's workforce, raise awareness of career pathway opportunities, communicate community needs and barriers created by the system, and assist in recruiting and guiding community members into family-sustaining careers.

Creating Additional Industry Consortia

Future Ready Oregon provides a ready model for partnership in the service of talent development. As specified in the legislation and undertaken by the HECC, three statewide consortia are now being established to represent the healthcare, manufacturing, and technology industry sectors. They will build strategic partnerships, address mutual industry goals, identify industry specific workforce needs, develop targeted recruitment strategies, and promote workforce development programs and activities.

Experience in building out these three statewide consortia will inform the development of workforce consortia for other industry sectors. In fact, several successful models of sector-focused talent development partnerships have formed in Oregon, including Hillsboro Advanced Manufacturing Workforce Partnership, a regional effort focused on the semiconductor sector, and the Oregon Clean Energy Workforce Coalition, focused on the clean energy sector.

How additional industry consortia will be formed and launched is an open set of questions, in particular 1) who will convene stakeholders to form a consensus that a consortium is needed? 2) who will then organize consortium? 3) how will its staffing and maintenance be funded? and 4) how will it carry out its advocacy to recommend policy making, barrier busting, and government investment in the service of talent development? The HECC carries out the bulk of these needs for the consortia specified in Future Ready Oregon. Local government supports the partnership in Hillsboro. Energy utilities have stepped up to form the clean energy coalition.

A further question is how statewide consortia should interface with local workforce development partnerships, like those mentioned above. These partnerships naturally evolve in communities where employers and local organizations know one another, have a history of working together, and tend to work out arrangements to suit their particular circumstances and requirements. At a minimum they should be compatible with the talent expansion and equity goals of Future Ready Oregon, but just as importantly, they should inform and strengthen one another. In some cases for an industry sector they might have formal and regular communication in both directions, or local partners might also be members of a state-level consortium.

No matter how state-level consortia come together, the essential point is that they show great promise for taking workforce talent development to a new level in Oregon, creating more equitable opportunities and clearer pathways for Oregonians to jobs and careers, a stronger statewide talent pool, greater productivity and competitiveness among various industries, and better education and training tied to skill needs.

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Consortia Membership Lists (2024)

Oregon
Tina Kotek, Governor

Higher Education Coordinating Commission
3225 25th Street SE
Salem, Oregon 97302
www.oregon.gov/HigherEd

Future Ready Oregon: Technology Industry Consortium Membership

Skip Newberry *(chair)*
President and CEO
Technology Association of Oregon

Mike Barnes
Director of Technology Workforce Solutions
CompTIA

Belinda Batten
Senior Advisor for Special Initiatives
Oregon State University

Corinne Bouchard
Manager of Technology Recruiting
Biamp

Brooke Brownlee
Manager, State Government Affairs
Portland General Electric

Dr. Joseph Bull
H. Chik M. Erzurumlu Dean, Maseeh College of Engineering and Computer Science
Portland State University

Paul Cantrell
Senior Director of Customer Support
SentinelOne

Sara Dowty
Technology Workforce Manager
Warm Springs Community Action Team
(*Alternate:* Leah Guliasi)

Ashley Espinoza
Executive Director
Lane Workforce Partnership

Dr. Lisa Skari *(chair)*
President
Mt Hood Community College

Melissa Evers
VP of Software and Advanced Technology, GM Strategy to Execution
Intel

Fae
Executive Director
EncodeXP

Jeff Hampton
Regional Development Officer
Business Oregon

Cassie Hamelman
Vice President of Human Resources
Synopsys

Mark Hetz
Executive Director
HIT Commons

Wade Hopkins
Director
Northeast STEAM Coalition

Kendra Larsen
Senior Director of Human Resources
ESS Inc

Kevin Mackie
Associate Vice President, Information Technology
Oregon Health and Science University

K S Venkatraman *(chair)*
Sr. Director for Artificial Intelligence Computing
NVIDIA Corporation

Andrew McGough
Executive Director
Worksystems

Deb Mumm Hill
Oregon STEM Executive Director
Oregon STEM

Dr. Nagi Naganathan
President
Oregon Institute of Technology

Vince Porter
Economic Development and Workforce Policy Advisor
Office of Governor Tina Kotek

Jeff Rhoades
Technology Specialist
Oregon Department of Education
(*Alternate:* Jennell Ives)

Kyle Ritchey-Noll
Education and Workforce Policy Director
Oregon Business Council

Robert Westerman
Business Manager
IBEW

Amy Vander Vliet
Regional Economist
Oregon Employment Department

Oregon
Tina Kotek, Governor

Higher Education Coordinating Commission
3225 25th Street SE
Salem, Oregon 97302
www.oregon.gov/HigherEd

Future Ready Oregon: Manufacturing Industry Consortium Membership

Scott Bruun (*chair*)
Vice President for Government Affairs
Oregon Business and Industry

Jonath Colon (*chair*)
Deputy Director of Economic Development
Centro Cultural de Washington County

Ed Feser (*chair*)
Provost
Oregon State University

Mariah Robbins (*chair*)
VP, Global People and Operations
A-Dec

Erik Andersson
President
SEDCOR

Heather DeSart
Executive Director
Northwest Oregon Works
(*Alternate:* Logan Garner)

Abigail Lewis
Executive Director
Golden Rule Reentry
(*Alternate:* Paul Sheldon)

Jared Revay
Director of Manufacturing
Timberlab

Kathy Bishop
Human Resources Director
Jireh Semiconductor

Dave Dillon
President
Food NW

Dr. Kristin Lima
Dean of Applied Technologies
Mt. Hood Community College

Kyle Ritchey-Noll
Education and Workforce Policy Director
Oregon Business Council

Anna Browne
Workforce Development Manager
Port of Morrow

David Eveland
CEO
Sunwize Power

Ken Madden
Owner
Madden Industrial Craftsmen

Claudia Rizo
Youth Apprenticeship Manager
Hillsboro School District
(*Alternate:* Travis Reiman)

Brandon Bryant
President Directing Business Representative
IAMW – District W24

Dan Findley
Manufacturing Specialist
Oregon Department of Education
(*Alternate:* Jennell Ives)

Josie Majuri
Workforce Development Sector Manager
Immigrant and Refugee Community Organization

Catherine Rogge
Director, Employee Services
Tillamook County Creamery Association

Craig Campbell
Executive Director
OMIC R&D

Steve Johnson
Managing Partner
MCBC Consultants

Sarah Means
Semiconductor Manager
Governor's Office

Benton Strong
Director of Public Affairs
Vigor

Alicia Chapman
Owner and CEO
Willamette Technical Fabricators

Gail Krumenauer
State Employment Economist
Oregon Employment Department

Kim Parker-Llerenas
Executive Director
Oregon Workforce Partnership

Amanda Sullivan-Astor
Forest Policy Manager
Associated Oregon Loggers, Inc

Arthur Chaput
Regional Development Officer
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Jenny Laney
Training Senior Manager
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Carly Petrovic
Sr. Human Resources Manager
Microchip Technology

Adam Whalen
Director of Secondary Partnerships
Willamette Education Service District
(*Alternate:* Joel Sebastian)

April Cox
Director of Reentry Services
Mid-Willamette Valley
Community Action Agency

Sage Learn
Chief of Staff and Executive
Director of College Relations
Portland Community College

Trinh Le
Workforce Development
Program Manager
Rockwood CDC
(*Alternate:* Gustavo Guttierez
Gomez)

Dr. Rachel Pokrandt
President
Umpqua Community College

Anshuman Razdan
Vice President for Research and
Innovation
University of Oregon
(*Alternate:* Tina Guldberg)

Kristi Wilson
Workforce Development
Manager
City of Hillsboro

John Worst
Mechatronics Teacher
Forest Grove High School

Higher Education Coordinating Commission
3225 25th Street SE
Salem, Oregon 97302
www.oregon.gov/HigherEd

Oregon
Tina Kotek, Governor

Future Ready Oregon: Healthcare Industry Consortium Membership

Marin Arreola (Chair)
President
Advanced Economic Solutions Inc

Dr. Adrien Bennings (Chair)
President
Portland Community College

Janet Campbell (Chair)
President
Oregon Health Leadership Council

Becky Hultburg (Chair)
President and CEO
Oregon Association of Hospitals and Health Systems (OAHHS)

Melissa Unger (Chair)
Executive Director
SEIU Local 503

Philip Bentley
President
Oregon Health Care Association (OHCA)
(Alternate: Nicolette Reilly)

Robert Duehmig
Interim Director
Oregon Office of Rural Health

Heather Jefferis
Executive Director
Oregon Council for Behavioral Health

Melanie Olson
Regional Development Officer
Business Oregon

Kirt Toombs
CEO
Eastern Oregon Center for Independent Living

Jana Bitton
Executive Director
Oregon Center for Nursing (OCN)

Renee Edwards
Senior Vice President & Chief Medical Officer
Oregon Health and Science University (OHSU) Health

Dave Koehler
Dean of Instruction Health and Public Service
Rogue Community College

Christina Friedt Peters
Tribal Community Health Provider Project Director
Northwest Portland Area Indian Health Board

Miriam Vargas Corona
Executive Director
Unidos Bridging Community

Bryan Boehringer
Executive Director
Oregon Medical Association (OMA)

Charlotte Flood
CEO
Northwest Primary Care, Oregon Independent Medical Coalition (OIMC)

Gail Krumenauer
State Employment Economist
Oregon Employment Department

Liz Rain
CTE Health Sciences Specialist
Oregon Department of Education

Shankar Viswanathan, JD
Director, HR Business Partner
Kaiser Permanente

Cheryl Cohen
Provider Workforce Development Program Manager
PacificSource

Neelam Gupta
Director of Clinical Supports, Integration, and Workforce Unit Oregon Health Authority (OHA)

Sarah Lochner
Executive Director
Oregon Coalition of Local Health Officials (CLHO)

Cathy Reynolds
Director, Employment Strategy and Workforce Planning
Legacy Health Systems

Rob Winningham
Provost
Western Oregon University

Rachel Currans-Henry
Policy Advisor
Governor's Office
Health and Human Services

Chris DeMars
Director
Oregon Health Authority (OHA), Delivery System Innovation Office

Susan Hearn
Learning Well Officer
La Clinica

Emily Henke
CEO
Oregon Public Health Institute

Robin Moody
Executive Director
All Smiles (formally Dental 3)

Joanna Mott
Provost
Oregon Tech

Heather Stafford
Executive Director
Rogue Workforce Partnership

Kyle Stevens
Executive Director
Southwestern Oregon Workforce Investment Board

Duncan Wyse
President
Oregon Business Council

APPENDIX E: PRE-ASSESSMENT INTERVIEW SUMMARIES

FUTURE READY OREGON

INDUSTRY CONSORTIA FOCUS GROUPS

PRE-ASSESSMENT INTERVIEWS

HEALTHCARE SECTOR - INTERVIEW TAKEAWAYS

GENERAL WORKFORCE ENVIRONMENT

- Before the pandemic there were shortages in healthcare – especially in nursing. The pandemic accelerated exit of retirees and others. The industry hasn't recovered from this impact.

- Turnover in the healthcare field was the highest between 2020-2021. It is getting better but still not as good as pre-pandemic.

CURRENT WORKFORCE NEEDS AND CHALLENGES

- Oregon doesn't train nurses well. They are paid the 5th highest in country for nurses yet instructors are at the end of the pay spectrum.

- There is a lack of CNAs in the market. Wages are low for caregivers such as CNAs. They are not making livable wages. It takes at least two years to reach a livable wage for caregivers.

- Behavioral health professionals are paid comparatively lower than their physical physician counterparts. Insurance reimbursement rates are lower for behavioral health practitioners than physical health providers – commercial reimbursement is less than Medicaid. The behavioral health reimbursement rates haven't changed in 17 years.

- Nursing and assisted living facilities are having trouble finding direct workers and are relying on temporary staffing organizations.

- There is a lack of supply for positions across the board including nurses, CNAs, hospitalists, specialists.

- Candidate workplace expectations are changing in the areas of remote work and flex time that is adding to the challenges of recruitment. There is a draw to telehealth positions.

- Turnover numbers shifted in the pandemic with quick turnover in the first year. Now seeing a reduction in turnover during the first six months but the 1-2 year turnover rate has doubled.

- There is a shift away from the traveling professionals who were paid a lot more than the permanent staff.

- The impact of the dearth of healthcare providers includes a short-term decision-making mindset.

CURRENT HIRING APPROACHES

- Recruitment approaches have not been well organized but that is changing. Employers are moving to more data-driven recruitments that may help to save time. Although one data factor is ROI which just focuses on productivity.

- On the higher-level Oregon struggles to hire physicians b/c of housing costs.

- Hospitals in the Rogue Valley have created a recruitment group to combine their hiring efforts rather than compete for specialists.

- Behavioral health, advertising, recruitment – need better connections for work to learn projects. It is hard b/c don't have the structure to allow that. Trying to find ways to understand behavioral health. The talent is there but the structure isn't' there. No one has time to do that – room to do that better.

DIVERSITY IN HEALTHCARE – CURRENT AND CHALLENGES

- There is perception in the Latino community that they are not welcome in the healthcare profession. They tend to get lower-level jobs and there is no pathway upward from their perception.

- BIPOC nurses tend not to stay over a year. They don't feel welcome, and the organization was not culturally prepared.

- Diversity is not reaching the higher-level positions.

- Some providers have started DEI programs but it's too early to tell how effective they are.

CAREER PATHWAYS IN HEALTHCARE

- Employees don't see the career pathways. The pathway is clear but the obstacles in the communication of those pathways.

- Career pathways are not clear for the lower levels like CNAs.

AVAILABLE OREGON EDUCATIONAL RESOURCES FOR HEALTHCARE

- The community colleges think they are meeting the need for nursing, but providers disagree.

GAPS & CHALLENGES IN OREGON HEALTHCARE TRAINING

- Healthcare training programs are already stretched thin. Schools are speeding up the education processes because they don't have the resources for the volume. In some cases, that means employers are having to train and new employees are not bedside ready.

- LPN training is needed.

- Need to incentivize nurses to work in rural areas.

DESIRED SKILLS / CREDENTIALS

- Soft/human skills are needed to have compassion for the people they serve.

- Licensed professions – CNAs, Lobotomists, RNs, LPNs, Radiologists, Dental Hygienists,

- There is a huge shortage of psychiatrists.

- There is a large emphasis on developing prescribers like LPNs, PAs

REGION SPECIFIC OBSERVATIONS

- Healthcare professional wages are lower in the rural areas making it hard to compete with the Willamette Valley. The rural providers are lacking licensed staff.

- In the Rogue Valley, the hospitals have partnered with Rogue Community College to help pay for teachers with the understanding that the hospitals get first dibs on job candidates.

- The Columbia Gorge has a great need for behavioral health professionals.

DATA FOR THE CONSORTIUM

- The Oregon Center for Nursing did studies on nursing shortages and salaries.

- Look to the Oregon Employment Analysis Department for statistics

INFORMATION HELPFUL TO THE CONSORTIUM FROM THE FOCUS GROUPS

- How are they looking at talent development? Recruitment? Retention?

- How can employers organize themselves to share what they need as a group?

- What are their licensure issues?

- What are the regional issues?

- What innovative ideas do they have?

- How to address discrepancies in behavioral health compensation and reimbursement.

- What are the industry's pain points?

- How to increase retention?

Healthcare Interviewees

Abbot Koehler	Kaiser
Becky Hultberg	Hospital Association of Oregon
Cathy Reynolds	Legacy
Duncan Wyse	Oregon Business Council
Heather Ficht	East Cascades Workforce Investment Board
Heather Jefferis	Oregon Council for Behavioral Health
Heather Stafford	Rogue Workforce Partnership
Kyle Ritchey-Noll	Oregon Business Council
Kyle Stevens	Southwest Oregon Workforce Investment Board
Phil Bentley	Oregon Healthcare Association
Shankar Viswanathan	Kaiser

FUTURE READY OREGON

INDUSTRY CONSORTIA FOCUS GROUPS

PRE-ASSESSMENT INTERVIEWS

MANUFACTURING SECTOR - INTERVIEW TAKEAWAYS

GENERAL WORKFORCE ENVIRONMENT

MACROECONOMIC TRENDS

- Industry knows traditional models of recruitment and retention are not working – and most don't feel it's unique to manufacturing sector. Most reported things were challenging even before the pandemic and have improved since the pandemic - attributed to general economic recovery not action by industry.

- Impending retirements causing concern for loss of institutional knowledge, not being replaced at same rates with younger workers.

- K-12 schools often emphasize bachelor's degrees more than trade school opportunities – may deter kids who otherwise might be interested or well suited for this work.

- Employers, particularly during the pandemic, decision to utilize substantial hiring bonuses may have exacerbated turnover in these positions as employees may have used these opportunities to meet income needs for families (not super high paid positions) and employers ended up working at cross purposes with each other.

- Low profit margins make it challenging to raise wages or pursue other costly incentive or training programs even if needed and/or desired.

- Access to homeownership and childcare are key challenges for the current workforce can't be addressed through wages or employer decisions alone.

- Employers can compete against each other for employees by perpetually trying to beat the market or offering short term incentives that aren't sustainable for the employer and may not promote long term retention.

- Companies that operate in more urban environments require offering higher wages to be responsive to the cost of living however companies likely do not realize more profit or production despite the higher cost.

INDUSTRY SPECIFIC ENVIRONMENT

- This sector faces specific, challenging, historic, and current negative community perceptions.

The jobs are seen as old school, difficult, low skill ("they'll hire anyone"), always available, dirty jobs, and/or undesirable.

- o Companies are not necessarily viewed as an employer of choice

- o Some industries in particular have long standing "villain / hero" tropes that are hard to overcome as result of historic wrongs (which persist today regardless if corrected). Notably, can discourage companies from trying new things (there is a "learned history in industry that if you get it wrong it will haunt you for decades")

- o The sector can be maligned by leadership in elected positions and other.

    Note: semi-conductors deviate from this somewhat, more positively associated and newer industry with less historic baggage

- To repair harmful narratives, many companies are active in community - trying to be visible to create positive associations for current and prospective employees (e.g., school talks, parades, sponsor ballet or support local Latinx baseball team, donate materials to schools for building projects etc.)

- In the contemporary political environment, industries and companies are expected to take stances on issues that are not related to manufacturing specifically. This is challenging considering preferences will vary depending on the employee, the company, and/or the local culture. Notably, the political environment in Oregon cited as particularly challenging for right leaning industry, also seeing more workers leave Portland area.

- Social and political perspective on manufacturing industry also feels evident in policy and funding decisions by regulators and state agencies. There is more interest and willingness to allow rule exceptions or otherwise explore innovative opportunities in more 'politically flashy' industries (e.g. Boeing, CHIPS act, etc.).

- Competition for employees with other sectors with remote/hybrid opportunities is challenging for industries with little to no schedule inflexibility. Attendance policy is cited as one of the most frequent causes for termination.

- These can be dangerous jobs, so shortchanging training and safety is risky and often not a viable option - even the most experienced workers need employer and equipment specific training for consistency. Training typically takes several weeks in many cases and is difficult to shorten safely.

- Many challenging conditions of the industry are baked in – fluctuating production needs and demand, limited production space, off hour schedule and shift needs, physical requirements of positions, low profit margins, and others.

- Wage levels are not consistent across types of manufacturing, so it's challenging for sectors such as food or wood to compete with others such as chip production or pharmaceuticals even when overlapping skills are evident.

WORKFORCE RECRUITMENT NEEDS AND CHALLENGES

OVERALL

- Some companies are seeing the biggest recruiting challenge with front line workers and others are seeing it for their skilled workforce such as machine maintenance technicians and project/logic engineers (e.g., PLC engineers, electrical process engineers, programmers for electrical equipment) and machine operators are one of the most challenging to recruit and retain (e.g., the hard and software development and maintenance needs).

- This is particularly true for positions that do not have a dedicated degree pathway (e.g., more challenging to recruit technicians or operators than engineers).

- Some populations of potential employees may have the skills but not know they could be qualified for these roles, how to market themselves, or how to communicate their competencies (e.g., veterans with mechanic service experience).

- Challenging to fill critical off hour/weekend shifts – some use a pay differential for those shifts (one sector cited some success using part time workers for these shifts who are willing but not on a regular basis).

- Worker shortages lead some to look more heavily into automation – long term this will only increase the demand for skilled labor to maintain the machines and often reduce flexibility in production for companies short term and require substantial investments to update production processes periodically.

- There is a catch 22 to a weak talent pool – poor hires lead to more turnover which can impact company reputation and impact turnover rates and/or further weaken talent pool.

WAGES

- Wages in many positions are not high enough to support some individual or family's needs (leading to employees needing extra jobs like door dash, chasing hiring incentives, or other). Operators and technicians typically leave because they get a higher paying job elsewhere doing the same or a similar job.

- For starting positions, hourly wages can be seen as below market but come with high cost, substantial health and retirement benefits that aren't valued by the younger workers they are trying to attract.

- Pay equity – want to bring in new employees at competitive wage, but then someone right out of school is making more than incumbent employees.

- There is a perception among employers that the current workforce expects a clear, enumerated, pathway from entry level roles to upper level or management positions ("gamifying" their career path). Challenging because:

Some want this progression guaranteed ("if I do X, I will get Y").
  - Particularly youngest workers may be overly ambitious in their expectations for the timeline of their advancement.

  - Not everyone can be promoted, industries also rely on front line workers.

IDEAS AND QUESTIONS

- Would be helpful to have more community partners promoting these trades/job opportunities (e.g., community-based orgs, cities, etc.).

- What is the employer's role addressing housing and childcare access issues, what is sustainable?

CURRENT HIRING APPROACHES

- Getting the next generation of workers interested in these is seen as foundational to long term success. Key messaging for these groups is about starting front line but having access to upward mobility and good wages.

- Some employers are using hiring incentives or other benefits such as health care eligibility earlier in employment.

- Some employers are turning to temporary workers and using tools such as visa programs to fill frontline worker gaps.

- A number of new training programs and approaches have been developed and implemented over last few years.

- o Many are seeing early success (e.g., high interest, high completion rate, low turnover once placed, etc.) but results are early in program tenure.

- o Additionally, these initiatives have a high startup cost (e.g., classroom space, instructors, curriculum development, participation incentives such as travel reimbursement or stipends, etc.) most industries cannot support on without assistance.

- Companies are also investing in other ways to improve productivity such as LEAN or other process efficiency programs to operate with worker shortages.

- Employers sense there are individuals who would like to take advantage of more overtime work beyond what is statutorily allowed (note: interviewees were clear this was only suggested on a voluntary, basis as potential stopgap).

ADVANCEMENT IN MANUFACTURING SECTOR

- Most internal advancement comes from frontline workers. Lateral movement is most expected in skilled positions (e.g. engineers with two- or four-year degrees).

- Some companies noted retention was higher for skilled workers who were trained and advanced from within the organization.

- For sectors with persistent lower wages, workplace culture isn't enough to retain workers who are striving to achieve basic household finance and stability. This can lead to companies just 'trading talent' as well as disrupting advancement opportunities for workers who are enticed away by short term incentives or opportunities at other companies.

- Importantly, not all workers are interested even if they have the aptitude, to undergo training and take on more responsibility in higher level positions.

WORKFORCE DIVERSITY IN MANUFACTURING SECTOR

Priority Populations include communities of color, women, low-income communities, rural and frontier communities, veterans, persons with disabilities, incarcerated and formerly incarcerated individuals, members of Oregon's tribes, older adults and individuals who identify as members of the LGBTQ+ community.

- While typically still dominated by older, white, and male employees in some sectors the overall population of workers who identify as minority is approaching 40%.
- Women are more represented in upper-level positions than frontline. There are fewer women even in upper-level positions in the most male dominated industries (lack of pipeline and/or interest from that population).

- Veterans are also commonly employed in this industry.

- LGBTQ employees are also gaining in representation, and one employer reported newly formed employee resource groups/affinity groups to support these workers.

- Sectors such as the food industry can be successful environments for workers who speak English as a second language (e.g., instructions can be provided and/or translated once and then the worker can proceed, not as much need for emergency or ongoing communication in English). In some cases, bi- or multi-lingual employees can take leadership facilitating communication with the employees without English proficiency.

  o Workers can only advance to a certain point without gaining English proficiency and ability to read product or other specifications.

- Company operation dynamics (such as being a family-owned business) can influence workforce profiles and advancement opportunities.

- Certain industries struggle to adapt or reduce barriers to employment for individuals who have past or current mental health or drug use challenges due to imperative for both real mental acuity and perception of safety from workers and external audiences.

- It is also challenging to substantively or to long-term accommodate employees experiencing housing stability and/or transportation reliability issues due to need for reliable attendance.

- One company reported success training and employing formerly incarcerated and/or unhoused individuals for frontline operations, but the program is too new to fully evaluate effectiveness.

- One noted that translation of materials had not been pursued yet due to technical difficulty and cost/effort of anticipated ripple effects of other translations needed and adjustments.

- One company noted success focusing recruitment efforts in more economically depressed or immigrant dominated communities who may see jobs as attractive means to economic security.

- One noted a need/desire to enhance benefits to support and retain a more diverse workforce, e.g., education incentives, childcare benefits, maternity/parental leave. Awareness of level of important to or impact on employees and potential cost were identified as potential barriers to implementation.

EXISTING OREGON TRAINING RESOURCES AND PROGRAMS

- Portland Opportunities and Industrial Center partnership with a high school (classified primarily as underserved/justice involved) to offer apprentice tracks (culinary and construction pathways, looking at adding advanced manufacturing)

- Portland Youth Builders partnership to support professional competency (resumes, mock interviews, other workshops)

- Middle and high school partnerships with robotics and STEM programs

- Mobile teaching van – focused on incumbent workers (Mt. Hood Community College)

- Portland Community College and Clackamas Community College internship for wastewater treatment operator (relevant for semi-conductor production)

- PCC Swan Island HVAC program

GAPS & CHALLENGES IN TRAINING FOR MANUFACTURING ROLES

- The success of K12 school-based programs largely relies on the effectiveness of the partnership with the school and ability of company leaders to be advocates and representatives of the organization and industry. It can be challenging for company leaders to dedicate or maintain sufficient time to participate in panels or contribute to curriculum etc. (even if written into job role, turnover challenges result in triage).

- For lower skill manufacturing jobs, offering training programs to highschoolers has been successful getting new employees in the door but has not shown a return in the longevity of employment with most only staying a few years.

- In cases where overlapping skills or competencies are discovered in existing training programs with existing industry relationships, schools may be hesitant to expand outreach or promotion to other industries if it could compromise their current relationship with an industry which may include funding support for the program (e.g., automotive schools/industry).

- Some employers have documented interest from incumbent employees to participate in school base apprenticeship or training programs that were designed for students. These programs as designed would typically set back an existing worker in pay or healthcare coverage which may not be feasible for the worker and/or their family or may require full time school. Early success was reported with this adapted apprenticeship model for current employees.

ROLE / CREDENTIAL SPECIFIC NEEDS AND CHALLENGES

- Each industry has unique processes even when there are overlaps in skills or competencies. Requires minimum new training regardless of incoming skill level ("If you've seen one manufacturing process, you've seen one manufacturing process")

- Variable skills or aptitudes depending on the position ("not everyone is wired for the same activity")

- Companies are hiring from a diverse and highly variable population depending on the role (e.g., from 18-year old's to seasoned engineers)

- Skilled operator and maintenance labor will only become more important with increases in automation.

Example skills

Hard Skills	Soft Skills
- Aptitude for maintenance logic and problem solving - Background of working with equipment (can be wide range) - Basic understanding of physics (combustion, centrifugal force, gears, etc.) - Programming (Rockwell ladder logic) - General MBA business understanding for… - management related roles to interpret profit/loss statements, - shift and workforce planning, - inventory management, and - cycles of production.	- Wanting to be there, move up, and/or improve - Willingness to be coached, good attitude, work ethic, intelligence, awareness - Application and effective use of real-world senses (sight, sound, smell, etc. to monitor equipment etc.) and maintain safety in non-digital environment. - Communication, particularly for new crew members to articulate and advocate for themselves - not just I need a raise, but I could do that job, I need to be taught this, I'm not comfortable with this, etc.

DATA USED BY EMPLOYERS

- Less proactive tracking at front line levels

- Attrition rates (e.g. projecting planned retirements) and identifying a specific successor for as many as possible

- Internal promotion rates

- Retention information

- Exit interviews, however typically only conducted for planned departures

Out migration from the state, OBI competitiveness report (more challenging and potentially expensive to recruit people from out of region/state)

INFORMATION HELPFUL TO THE CONSORTIUM FROM THE FOCUS GROUPS

- Employment data – who is entering workforce, who is not, what is the 'typical' worker and how has that changed

- Who is hiring – what is the makeup of available jobs they are competing for workers for

- Economic data – wage information from Bureau of Labor or Oregon Employment Department, birth/death rates

- National/international commodities market trends, interest rates, consumer health (especially relevant for vertically integrated companies)

- Key legislative constraints – minimum wage, paid leave, total work hours, allowable overtime, allowable required overtime

- Henry Fields – regional economist covering Land and Douglas County (counties with largest wood product employment in state)

- Oregon Forest Resources Institute – wood product industry economics for the state

- Quality info.com

- St. Louis Federal Reserve data

- Qualitative information about what the current/younger workforce values the most in job opportunities – (e.g., do they care about companies doing community clean ups, sponsorships, how do strong health/retirement benefits compare to realizing a higher wage now or having different work/life balance?, are these age or societal factors?)
    - o Research on motivations for people leaving industry or Oregon
- EcoNorthwest research
- Key questions:
    - o What percent of the economy does the manufacturing sector make up?
    - o How to separate macroeconomic trends from industry specific phenomena?
    - o How to consider both small and large companies?
    - o How to bridge digital and analog device production

Manufacturing Interviewees

Carly Petrovic	Microchip
Jason Burke	Microchip
Courtney Griesel	Sierra Pacific Industries
Khan Tran	Radius Recycling
Julie Stewart	Reser Fine Foods

FUTURE READY OREGON

INDUSTRY CONSORTIA FOCUS GROUPS

PRE-ASSESSMENT INTERVIEWS

TECH SECTOR - INTERVIEW TAKEAWAYS

GENERAL WORKFORCE ENVIRONMENT

- Oregon is strong for tech because of the semi-conductor industry.
- Tech employers can hire from all over the world.
- There is high competition for the tech workforce.
- The sector is trending toward outsourcing.
- Due to the ever-changing technology the hiring market can be very reactionary.
- It is a white male dominated industry

CURRENT WORKFORCE NEEDS AND CHALLENGES

- Oregon's tech workforce is lacking in candidates.
- There have been some federal monies available to help the tech sector, but requirements prohibit using the funding for marketing to potential employees.
- There is a lack of comprehensive salary data on what tech employers are paying.
- There is no data on who is working remote vs onsite.
- We don't know where the jobs are going to be in five years with AI and metaverse. The sector needs to be resilient.

CURRENT HIRING APPROACHES

- Tech employers don't appear to have hiring strategies – seems ad hoc.
- Cost of living and quality of life (schools, etc.) seem to be drivers for employees.
- Resiliency in training to meet hiring needs.

DIVERSITY IN TECH – CURRENT AND CHALLENGES

- It is a white male dominated industry; women are less represented in the sector.
- Oregon doesn't have a diverse population to draw from which is challenging.
- Preparing the organization for cultural understanding is a challenge – to create a greater sense of belonging.
- When layoffs happen, women tend to have less seniority and are the first to go.
- Not many non-white employees are making it to the C-suite.
- TAO's Tech in Color program helps to support diversity in the tech industry.
- Many tech employers, particularly larger companies like Intel and NVADIA, are working to improve diversity outcomes in hiring processes.

- Employers have done a good job recruiting youth – catching them early, giving tours, etc.

CAREER PATHWAYS IN TECH

- There isn't any tracking of career paths for tech.
- Not clear what the career paths are for entry level employees.
- More people should be looking at public sector as entry points. It is a good place for people to get experience. Private firms might poach them later. Some may stay in the public sector because the of values and work environment. The public employers are one of the largest in OR.

AVAILABLE OREGON EDUCATIONAL RESOURCES FOR TECH

- There are 30 tracks for tech education at U of O.
- Some community colleges have done a lot of great work:

  o PCC, Mt. CC, Lane CC, Central OR have certificates for cyber security and data analysts.

  o PCC and Umpqua have an AI workforce program.

  o Columbia Gorge community college has programs in aircraft maintenance, advanced manufacturing, and welding technology.

- OSU has strong tech programs with good partnerships.

GAPS & CHALLENGES IN OREGON TECH TRAINING

- K-12 needs to help develop soft skills which are foundational skills, also to develop computer skills.
- The challenge in higher education is that it takes years to set up education programs, but the industry moves faster than the institutions can respond.
- Higher education needs to be more resilient to the tech sector's employment needs.
- Education institutions should look at coordinating tech training – don't duplicate trainings but provide a multi-institutional strategy.
- Need to attract more women into the field through training.
- Liberal arts schools could become more important for the tech world.

DESIRED SKILLS / CREDENTIALS

- Human or soft skills – missing component is communication, critical thinking, self-motivation, and collaboration skills.
- Tech employers need to look at other factors like innovative individuals who use tech.
- AI – sector employers don't know what they need regarding AI – it is a challenge in predictability. Right now, they need candidates who know how to use AI as a resource/tool.

- Cyber security certification.
- For tech-enabled companies – need people who can run robots.
- Microsoft certification.
- Game design certification.
- JAVA certification.

REGION SPECIFIC OBSERVATIONS

- Regionally, there are differences in compensation (e.g., Portland employers tend to pay more than those in the Columbia Gorge).
- The Columbia Gorge could use a four-year college or have higher education institutions partner with their tech employers.

DATA FOR THE CONSORTIUM

- Latest State workforce report.
- Check out qualityinfo.org – a lot of good data.
- World Economic Jobs report – on webforum.org (WEF_Future_of_Jobs_2023.pdf) has AI data.
- Kaufmann Foundation has good information on careers and tech.

INFORMATION HELPFUL TO THE CONSORTIUM FROM THE FOCUS GROUPS

- What do the Tech-enabled companies need for qualified professionals?
- How to help retain their employees.
- How to create employee pathways for growth.
  - How to reskill or upskill employees.
  - How to help people entering and in tech to understand career paths.
- How to sustain programs in boom-and-bust times.
- What to train people in first.
- How to bring in greater gender diversity.

Tech Interviewees

Ashley Espinoza	Lane Workforce Partnership
Heather Stafford	Rogue Workforce Partnership
Jason Hartmann	Gorge Tech Alliance
K S Venkatraman (Venkat)	NVIDIA
Skip Newberry	Technology Association of Oregon