

WTDB Report: Essential Employability Skills, Needed Now More Than Ever



Oregon Workforce and Talent Development Board

Essential Employability Skills Task Force

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Final Report

Essential Employability Skills (EES) Task Force

Background and context

The value of STEM-/STEAM-related skill development in our education system is unquestioned as technical skills often lead to higher-demand, higher-wage career pathways and job opportunities in the 21st century economy. At the same time, the development of so-called soft skills such as communication, problem-solving, critical thinking, and others, touted as critical to success in most any workplace, often lacks concerted and aligned skill development efforts amongst the employer community and education and training institutions and systems.

According to a survey by Adecco Staffing USA, 44 percent of executives report that a lack of soft skills was the biggest proficiency gap they saw in the U.S. workforce.¹ The International Association of Administrative Professionals, OfficeTeam, and HR.com report that 67 percent of HR managers would hire a candidate with strong professional skills even if his or her technical abilities were lacking. Only 9 percent of these managers would hire someone with strong technical credentials but weak soft skills.²

Additionally, a study from Boston College, Harvard University, and the University of Michigan found that in one industry, training for soft skills such as communication and problem-solving boosted productivity and retention by 12 percent and delivered a 250 percent return on investment based on higher productivity and retention.³

The September 2020 Artificial Intelligence (AI) Task Force report from the Workforce and Talent Development Board (WTDB) emphasizes the importance of human skills development and proficiency as a critical differentiator of value in our economy as we move at increasing speeds into a more automated and AI-driven world of work.

Although many examples of relevant and promising practices exist across the state of Oregon, the development of what this report refers to as **essential employability skills (EES)** is not broadly nor consistently aligned and implemented. To address this issue and elevate the urgency of EES in Oregon, the WTDB included them as a key component of its 2020-2021 Strategic Plan. The Plan calls out three important goals:



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¹ Adecco. (2020). "The American Skills Gap is Real." <https://www.adeccousa.com/employers/resources/skills-gap-in-the-american-workforce/>

² International Association of Administrative Professionals, OfficeTeam, and HR.com. (2007). *Survey Shows Ability to Organize, Communicate and Collaborate More Prized than Technical Talent*.

<https://iaaphq.connectedcommunity.org/HigherLogic/System/DownloadDocumentFile.ashx?DocumentFileKey=704cb6b2-3568-493b-bf2f-297f6fa2cb4e&forceDialog=0>

³ Boston College, Harvard University, and the University of Michigan. (2017). "Soft skills training boosts productivity." <https://news.umich.edu/soft-skills-training-boosts-productivity/>

- Develop a plan to increase problem-solving and critical thinking skills in response to the Oregon Talent Assessment.
- Create and recognize industry-driven certifications, including for essential employability skills.
- Align K-12, community colleges, universities, workforce, and employers with legislative strategy and changes, including changes related to essential employability skills.

The WTDB's 2018 Oregon Talent Assessment⁴ laid out the state's in-demand occupations, in-demand skills, talent gaps, and trends. The report introduced a common taxonomy of skill problems (i.e., gaps, shortages, and mismatches) and diagnosed conditions through a combination of employer surveys and analyses of economic data. The Assessment showed that employers didn't perceive basic skills gaps (e.g., reading, basic math) but did see a shortage of skills required for specific occupations—with problem solving and critical thinking at the top of the list. And the report concluded that key interpersonal skills (e.g., leadership, honesty, ability to work in teams) are lacking while also growing in importance. This assessment served as a foundational document for the 2020-2021 WTDB Strategic Plan.

The Office of Workforce Investments (OWI) and the WTDB are well positioned within the workforce system to lead efforts to help find solutions. Under the direction of the WTDB Essential Employability Skills (EES) Task Force, OWI and WTDB have conducted a broad, national scan involving the efforts of many board members, partners, and stakeholders. This research, summarized in this report, confirms that there is widespread and significant concern, interest, and support for the development and implementation of quality EES policies and programs.

An important note: This report focuses primarily on secondary and postsecondary education and workforce strategies to address EES development. However, many of the skills we consider foundational and essential are developed in the first five years of life and the elementary-school years and can be significantly influenced by factors both in and outside of the education and training system. These are important workforce and education issues and should be further investigated with relevant policy strategies developed by the WTDB and others in the future.

The WTDB, its leadership, and the Higher Education Coordinating Commission (HECC) would like to acknowledge and thank all of the thought leaders from around the state that participated in the work of the EES Task Force, on the Report Sub-Committee, and/or by contributing your time and efforts on the report. Your commitment to the success of Oregon and its citizens, your innovative and solutions-oriented thinking, and your leadership and passion around helping to improve Oregon's talent development system is exemplary. In addition, we would like to thank ECONorthwest for their careful review and production of this report.

⁴ ECONorthwest and Program and Policy Insight. (2018). *Oregon Talent Assessment*. <https://www.oregon.gov/workforceboard/talent/Documents/2018%20Talent%20Assessment%20-%20FINAL.PDF>

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EXECUTIVE SUMMARY

The WTDB Essential Employability Skills (EES) Task Force was officially established in 2019 by the Chair of the Oregon Workforce and Talent Development Board, Ken Madden. One of the key goals from its inception was to produce a report for the Governor's Office and Legislature with recommendations related to the significant importance of the development of EES skills to the success of all students, incumbent workers, dislocated workers, job seekers, employers, and businesses and to the success of Oregon's economy.

Charter highlights

The EES Task Force was charged with researching, discussing, and understanding the challenges, opportunities, and best practices in education and training related to EES in Oregon and nationally that will best prepare Oregonians for success in jobs and careers and meet the needs of businesses/employers. This work included grappling with the definitions of EES, developing a baseline understanding of existing efforts and perspectives around the state, and creating a plan in response to the Oregon Talent Assessment and in alignment with the WTDB Strategic Plan.

The EES Task Force was also responsible for exploring, considering, and developing effective policies and other mechanisms to address challenges and/or opportunities in EES models based on available data, research, analysis, and best practices. This final report includes prioritized policy recommendations and other methodologies that address challenges and/or opportunities and provide value-added solutions.

Report structure

This report includes the following sections: What are Essential Employability Skills?, Equity and Essential Employability Skills, Proven and Promising Models, Models to Watch, Business Perspectives on Essential Employability Skills, Data Strategy, Policy Recommendations, and Conclusion.

Key findings and policy recommendations

Essential employability skills are not easily classified nor defined. They are the collection of skills necessary to succeed in the workplace beyond those typically learned in academic settings. They include skills such as communication, problem-solving, critical thinking, teamwork, and work ethic. As EES training and education models are implemented and/or scaled through the policy recommendations included in this report, specific definitions may become clear for Oregon.

As Oregon implements best practices in developing EES among its workforce and works toward establishing standards for training, assessment, and certification of these skills, equity impacts are a critical consideration. The report describes four ways an EES strategy should address equity. EES programs have already been implemented in some Oregon communities and nationwide and there are a number of promising frameworks and models for the state to consider adopting and/or expanding.

The following high-level policy recommendations to Oregon's Governor and legislature emerged from the EES Task Force's research:

1. Engage community-based and culturally specific organizations and training programs in the design, delivery, and evaluation of statewide EES models, to strengthen equitable access to training and resources and establish equity-based curriculum and practices
2. Direct an ODE-HECC partnership to embed EES training in K-12 curriculum, integrate EES as appropriate into graduation requirements, and provide support to educators
3. Scale proven and promising models through expanding state and local infrastructure, curriculum distribution, and professional learning
4. Make strategic investments in EES programs and pilots
5. Create a state- and employer-recognized EES badge(s) and educate industry and educator partners around its importance

These recommendations focus on how to initiate or expand EES development in Oregon and align and coordinate related efforts throughout the education and workforce system – all with intentional and committed equity work around access to and application of EES training. There is no one-size-fits-all solution and even among a set of solutions, there will be change over time. The WTDB should remain focused on EES to ensure continued development in the area and to spur innovation.

WHAT ARE ESSENTIAL EMPLOYABILITY SKILLS?

The collection of skills that are the topic of this report go by many names, such as soft skills, interpersonal skills, essential skills, social skills, 21st century skills, and applied skills. This report will use the term **essential employability skills (EES)** as well as other terms when referring to specific models, frameworks, or products that use different terms.

Indeed refers to EES as soft skills and defines them as personal habits and traits that shape how you work on your own and with others. They include traits and skills like integrity, dependability, effective communication, open-mindedness, teamwork, creativity, problem-solving, critical thinking, adaptability, organization, willingness to



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learn, and empathy.⁵ Monster also refers to EES as soft skills and describes them as intangible and difficult to quantify.⁶ In addition:

*"One reason soft skills are so revered is that they help facilitate human connections. 'Soft skills are key to building relationships, gaining visibility, and creating more opportunities for advancement,' says Kathy Robinson, founder of the Boston career-coaching firm TurningPoint. Basically, you can be the best at what you do, but if your soft skills aren't cutting it, you're limiting your chances of career success. These skills include communication, teamwork, adaptability, problem solving, critical observation, conflict resolution and leadership."*⁷

Research from the Society for Human Resource Management found that technical abilities like reading comprehension and mathematics aren't as highly prized as EES, meaning employers want more than great sales numbers, coding languages, or test scores.⁸

A recent report by the Center on Education and the Workforce at Georgetown University, *Workplace Basics: The Competencies Employers Want*, identified the five most in-demand competencies across the labor market: communication, teamwork, sales and customer service, leadership, and problem-solving and complex thinking.⁹ The report states:

"In good job markets and in bad ones, a person's qualifications for employment are generally defined by a combination of their education, their experience, and their competencies: the skills, knowledge, and abilities that are essential to success on the job. Some job postings name a minimum level of education or a minimum number of years of experience that applicants need in order to be considered for a post, but while education and experience may be crucial to securing a job, these factors by themselves don't guarantee success in the workforce. Whether employees thrive in the specific work activities associated with their jobs depends on other crucial factors, including whether they have the mix of competencies that are most demanded within the specific contexts of their jobs."

The Georgetown report identified additional important workforce trends beyond the current five most in-demand competencies:

- "Structural changes in the economy have caused demand for cognitive competencies to rise and demand for physical competencies to fall;
- "Among the five competencies with generally high demand, communication is dominant: it has the highest demand across occupations, is in the top three most-demanded competencies within every occupational group, and is associated with the highest earnings boosts across the labor market; and

⁵ Indeed.com. (2020). "Soft Skills: Definitions and Examples." <https://www.indeed.com/career-advice/resumes-cover-letters/soft-skills>

⁶ Monster.com. (2020). "Soft skills to help your career hit the big time." <https://www.monster.com/career-advice/article/soft-skills-you-need>

⁷ Ibid.

⁸ Society for Human Resource Management. (2016). *SHRM/Mercer Survey Findings: Entry-Level Applicant Job Skills*. <https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/PublishingImages/Pages/Entry-Level-Applicant-Job-Skills-Survey-/Entry-Level%20Applicant%20Job%20Skills%20Survey.pdf>

⁹ Georgetown University Center on Education and the Workforce. (2020). *Workplace Basics: The Competencies Employers Want*. <https://1gyhoq479ufd3yna29x7ubjn-wpengine.netdna-ssl.com/wp-content/uploads/cew-workplace-basics-fr.pdf>

- “To succeed in their jobs and earn optimal compensation, workers need a balanced mix of competencies that are generally valued across the workforce and competencies that have high value within specific occupational contexts.”

In sum, there is currently no commonly accepted definition of EES. They are the collection of skills necessary to succeed in the workplace beyond those typically learned in academic settings. They include, but are not limited to, communication, problem-solving, critical thinking, teamwork, and work ethic. The number of these skills and the differing degree to which each one is important for particular occupations or employers make it difficult to arrive at a single definition. The Georgetown University report acknowledged this challenge, stating “it is impossible to assign value to competencies in a vacuum” disconnected from industry and occupation. As EES models are implemented and/or scaled through the policy recommendations included in this report, specific definitions may become clear for Oregon.

Oregon Talent Assessment—2018

The 2018 Oregon Talent Assessment provided a comprehensive assessment of both the types of skills required by businesses and the degree to which they represented a challenge for Oregon employers.¹⁰ In part, the drive by the WTDB to address EES development came from the need to provide focus to define and support the acquisition of these skills.

According to the report, about half of Oregon employers in the 2018 Assessment reported a shortage of occupational skills required for specific occupations—with problem solving and critical thinking at the top of the list. The report states:

“Interpersonal skills are lacking while also growing in importance. The skills are called by many different names: interpersonal, soft, essential, social. They are the skills associated with an individual’s habits, personality, and character, including dependability, leadership, honesty, and the ability to work in teams. Only a narrow majority of employers (55 percent) agreed that applicants possessed the interpersonal skills required for their vacant positions. When employers were asked what skills applicants lacked, communication skills, motivation, dependability, and time management all elicited high responses. The employers’ responses are echoed in recent research that tracked skills associated with growing and shrinking occupations over the past three decades.”

“Occupations that required a mix of high social and high math skills grew at the fastest rate followed by occupations that required high social skills. Occupations that require high math skills and low social skills shrank as a size of the labor market, while occupations that required low social and low math skills fared the worst of all. The conclusion: the labor market has been rewarding humans for performing tasks that computers cannot do.”

¹⁰ ECONorthwest and Program and Policy Insight. (2018). *Oregon Talent Assessment*.
<https://www.oregon.gov/workforceboard/talent/Documents/2018%20Talent%20Assessment%20-%20FINAL.PDF>

Oregon Talent Assessment—2020 Update

The 2020 update to the Oregon Talent Assessment affirmed the continued relevance of the 2018 findings. The Update highlighted the need to document, describe, and report skills and credentials.

In the section on Training for Work for the Future, the Update highlights the importance of “scaling practices that document and certify skills. As states develop strategies to meet their postsecondary completion goals, many distinguish between postsecondary degrees and postsecondary training. Degree attainment has long been the dominant indicator of potential worker productivity. But given the rapidly changing nature of work, policymakers recognize conventional 2- and 4-year degree programs are not well-suited, in cost or in time, for all the workers who need skill upgrades. They are exploring other ways to deliver and reliably document training and skill acquisition. On the documentation side, a national nonprofit, the Credential Engine, is one example of the work going on to bring transparency and organization to the rapidly evolving credential marketplace.”

“Better documentation is also required on the worker side. Employees build skills throughout their careers—some are signaled through a credential, but many others are not. Arnold Packer, formerly of Johns Hopkins University, has advanced the idea of a verified resume, which would attempt to bridge the gap between a LinkedIn skills profile and credential-based resume. Educators, nonprofits, and employers could document specific skills and behaviors with market value (e.g., the ability to work in teams, handle data, keep to a schedule). The Kellogg Foundation and Open Society Institute have funded demonstrations to test feasibility of the concept.”

“The sooner Oregon documents all the ways that workers can acquire focused, market-relevant training, including through competency-based education, the sooner policymakers will be able to steer investments in productive directions and prospective trainees will be able to steer themselves to opportunity.”¹¹

A forthcoming EES badge or certificate

Oregon House Bill 2311 (2017) directed the Higher Education Coordinating Commission (HECC) and the WTDB to establish a statewide education and training goal for adult Oregonians separate from Oregon’s 40-40-20 education goal.¹² The HECC and WTDB convened the Adult Attainment Workgroup, which recommended the following statewide Adult Attainment Goal:

“Oregon anticipates more than 120,000 additional jobs requiring postsecondary training or education between now and 2030. In order to meet this need, 300,000 additional adult Oregonians should earn a new degree, certificate, or credential valued in the workforce during that time. Because Oregon has substantial attainment gaps among minority, low income, and rural Oregonians, the state will also commit to reducing those attainment gaps by half during the decade.”

¹¹ ECONorthwest. (2020). *Oregon Talent Assessment - 2020 Update*. <https://www.oregon.gov/highered/institutions-programs/workforce/SiteAssets/Pages/talent-summit/2020%20Talent%20Assessment%20Update.pdf>

¹² Higher Education Coordinating Commission. “Oregon 40-40-20 Educational Attainment Data.” <https://www.oregon.gov/highered/research/Pages/educational-attainment.aspx>

The HECC adopted the Workgroup's recommended Adult Attainment Goal in November 2018. The Goal applies to adults 25 to 64 years old who are not currently enrolled in a high school equivalency program, an institution of higher education, or another postsecondary training program.

The broader purpose of the Adult Attainment Goal is to drive improvements in Oregon's educational and workforce systems. The state needs a broad and inclusive approach to understanding how and when people gain skills. The Adult Learner Advisory Committee (ALAC), a joint HECC and WTDB committee, was established to develop strategies and disseminate best practices regarding how adults gain skills outside the traditional P-20 education system pipeline; develop strategies and disseminate best practices addressing education and training attainment gaps among minority, low-income, and rural adult Oregonians; investigate and provide recommendations regarding the evolving definition of "credential of value"; develop and maintain a list of Oregon credentials of value; and evaluate progress toward achievement of the Adult Attainment Goal, among other tasks.



Badges or certification for completing EES training programs in skills such as time management or communication may help Oregon reach its Adult Attainment Goal and also increase educational access and job training opportunities for adults.

The discussion of the meaning and definition of "credential of value" is ongoing. However, the state's eventual categories of credentials of value are expected to be generally aligned with the framework below:

- EES badge or certificate (to be approved by the WTDB)
- Credentials that Work (based on industries and occupations critical to Oregon's economic growth that are high wage and high demand)
- On-Ramp or Growth Credentials (based on high demand and social need combined with a career ladder for future skill and wage growth)

The EES badge or certificate is expected to be an integral part of the ALAC's ongoing work and count as progress toward achievement of the Adult Attainment Goal.

EQUITY AND ESSENTIAL EMPLOYABILITY SKILLS

As Oregon implements best practices in developing EES among its workforce and works toward establishing standards for training, assessment, and certification of these skills, equity impacts are a critical consideration. From curriculum development, training provision, and integration into academic courses, to assessment tools, certifications, and employer recruitment strategies, there are numerous

opportunities to approach EES with an equity lens. Moreover, establishing a consistent and accessible program for developing EES among both entry-level jobseekers and incumbent workers can help close equity gaps and improve talent pipelines, retention and advancement, and representation in high-wage, high-demand careers.

An effective EES strategy should address equity in the following ways:

1. Strengthen community-based and culturally specific organizations and training programs by ensuring accessibility and resources to deliver EES training, and ensure these organizations have a voice in the development, evaluation, and continuous improvement of EES training pedagogy.
2. Ensure equity-based pedagogy and ensure that curriculum is designed to meet trainees where they are and is accessible to all, including individuals from underserved communities and those with disabilities or facing other barriers to training and employment.
3. Drive systemic change through the implementation and support of common models, practices, and language across the state.
4. Build skills and drive increased placement of individuals from underrepresented populations in high-wage/high-demand careers.

One of the imperatives in the WTDB's current Strategic Plan is to "create a culture of equitable prosperity." The WTDB identifies several objectives that will drive this, including an effort to increase problem-solving and critical thinking skills, in response to Oregon Talent Assessment findings. An effective EES strategy can accomplish this objective, especially if aligned with related objectives such as delivering training via organizations that are successfully moving underrepresented groups into the workforce and using disaggregated data to refine training programs. Creating a culture of equitable prosperity will require focused efforts, targeted resources, and responsive training that can be implemented and adapted for a variety of audiences without losing the fundamental qualities that make it effective.

Further, a key feature of Oregon's statewide Adult Attainment Goal described in the previous section is that it aims to address Oregon's substantial attainment gaps among people of color and low-income and rural Oregonians by reducing those attainment gaps by half by 2030.

As employers seek candidates, their primary concern is generally evidence of skills they deem essential for their particular industry and environment. Individuals who are unprepared to meet these expectations—or are unaware of them—face difficulty entering, retaining, and advancing in employment, and this mismatch of demands and skills is a crucial issue to be addressed by policy in order to move the dial on higher-order equity goals.



While growth sectors and talent demands may evolve, establishing the essential skills valued across industries allows for the development of consistent training programs that prepare workers with the fundamental skills and abilities sought by employers.

While growth sectors and talent demands may evolve, establishing the essential skills valued across industries allows for the development of consistent training programs that prepare workers with the fundamental skills and abilities sought by employers, whether for entry-level employment or jobs requiring specialized training.

Ensuring that EES training is consistent with employer standards and expectations is critical, and designing and deploying a training program for maximum accessibility and adaptability to reach the widest possible audience can drive equity in workforce development. An effective model will not only prepare the emerging workforce for success as they enter the workforce, it will also foster career advancement and increased wages for workers who build skills. Access is vital, but building a framework for advancement can also have a tremendous impact, in terms of both building economic prosperity in Oregon communities and addressing underrepresentation in high-paying fields and leadership opportunities. Developing an accessible system delivered in an equity-informed manner includes training program accessibility for potential workers as well as ensuring the system and employers are “ready” for diverse employees. It ensures that employers and training programs have the resources they need to be culturally responsive and adaptive to all employees.

A skill-development model that delivers consistent, proven, equity-informed training across all levels, platforms, and locations, could drive equitable access to opportunity and advancement for underserved populations. This model should incorporate a common language, equity lens, and evaluation metric understood by practitioners, trainees, and employers alike. Implementation of an EES model at all levels of the education system, enhanced by equity-focused professional development, could provide early learning service providers, teachers, counselors, postsecondary education institutions, Worksource staff, and workforce training providers with common vocabulary, standards, and goals within a framework of inclusive, cumulative skill-building.

Ensuring access and availability of training and resources is a key consideration in equitable EES program development. Whatever model(s) the state chooses to implement, adaptability and ease of access are critical factors in its design. Creating a culturally responsive curriculum designed and delivered to meet trainees where they are might not mean building something where “one size fits all” but rather leaving space for practitioners to make key adaptations and continuously engaging programs and practitioners who work with marginalized and underserved communities to gather their insights on design, delivery, and improvement of the model. In one example, English language acquisition for adult immigrants is combined in a professional context with EES and specific job-based skills through Integrated Education and Training (IET). Individuals have the opportunity to progress in English language learning in the context of the workplace and career pathways.

The state should commit not just to delivering EES training but also to learning continuously from communities in order to refine and improve the delivery of that training. An additional consideration is that the development of EES begins in the first five years of life and can be significantly influenced by factors both inside and outside of the education and training system. A culturally responsive effort will seek to understand and address early childhood barriers that manifest more significantly in different communities, particularly underserved and traditionally marginalized communities.

Finally, it is essential to engage community-based and culturally specific partners as trainers, curriculum designers, and program evaluators to effectively and continuously evaluate curriculum and training models to ensure accessibility, relevance, trainee and employer satisfaction, and alignment with industry demands and state workforce development goals. Both potential employees and

business/industry should have access to the training, tools, and resources they need in order to be responsive to all workers.

PROVEN AND PROMISING MODELS

This section describes models the Task Force views as proven and promising models for teaching or developing EES. They each provide potential frameworks for an effective statewide EES strategy.

New World of Work (NWoW)

The New World of Work (NWoW) program is a promising practice in a growing number of Oregon communities. NWoW was developed by the California Community Colleges Chancellor's Office and the Division of Workforce and Economic Development in an effort to prepare California's workforce for 21st century careers.¹³ Their approach considered industry, education, and workforce needs; included student voice; and evaluated information from both metropolitan and rural areas. JP Morgan Chase invested \$350 million to identify the top ten employability skills nationwide and the community colleges convened skills panels to better understand the top ten skills. This work resulted in a report and subsequent program that identifies and focuses on the top ten employability skills:¹⁴

- Self-Awareness (Self Understanding)
- Adaptability/Flexibility (Open to Change)
- Communication (Good Communicator)
- Collaboration (Team Player)
- Analysis/Solution Mindset (Problem Solver)
- Digital Fluency (Good with Technology)
- Empathy (Sensitive to Others' Feelings)
- Entrepreneurial Mindset (Go Getter)
- Resiliency (Plans for Success and Bounces Back from Failure)
- Social Diversity/Awareness (Sensitivity to Differences in Backgrounds and Beliefs)

NWoW was created for California's community college system but is serving as a useful foundation for Oregon's work to create, evaluate, and adapt its own EES training framework. The curriculum has been easily adaptable to Oregon industry, education, and workforce needs. Businesses and school districts in Lane, Linn, Benton, Marion, Malheur, Multnomah, Polk, Tillamook, Washington, and Yamhill counties have been introduced to the NWoW skills and have agreed that the skills are highly useful,

¹³ The Division serves as administrator for several streams of state and federal funds, including the Governor's Career Technical Education Pathways Initiative (SB70), Carl D. Perkins Career and Technical Education Act of 2006, and Proposition 98 dollars for Apprenticeship, Economic & Workforce Development and Career Technical Education (CTE). See <https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/Workforce-and-Economic-Development>.

¹⁴ Schulz, Amy and Gill, Rajinder. (2014). *Community Colleges and 21st Century Skills: Skills Panels to Assist Student Career Success*. <https://newworldofwork.org/wp-content/uploads/2016/10/New-World-of-Work-Skills-Panel-Report-April-2014.pdf>

transferable, and portable among Oregon's high-wage, high-demand sectors.¹⁵ Many educators have sought out training to provide explicit learning opportunities for students in classrooms and encourage students to demonstrate these skills through work-based learning opportunities.

*"Strong employability skills or personal attributes are equally essential to academic knowledge and technical abilities in the workforce. Academic knowledge and technical skill acquisition often secure an interview as they are easily represented in an application, but employability (people) skills and attributes most often land the job offer. Furthermore, the presence or absence of these skills can be a predictor of continued employment, promotion, and productivity. Therefore, we are determined to model, teach, assess and affirm these attributes in the culture and curriculum of our departments."*¹⁶

Oregon has begun and intends to continue enhancing and providing the NWoW curriculum and training, with additional support to meet the needs of future employees, including underrepresented and underemployed groups. An industry advisory group is being formed to keep industry engaged and provide feedback that seeks to ensure that adaptations to the model are relevant and responsive to industry needs, which in turn protects the relevance for students engaged in learning EES.

Willamette Education Service District example

The Willamette Education Services District (WESD), along with their industry, education, and workforce partnership, has begun the process of branding an Oregon-adapted version of NWoW, giving credit to NWoW as the foundational framework.

In October 2020, WESD established the first EES badges, called by WESD Oregon Employability Skills (OES), both for participants and for industry. Once an individual earns a badge it is available to put on a LinkedIn profile or resume. The required assessments to earn an OES badge have a portion that must be graded by a trained individual that is part of the WESD's Oregon Assessment Community of Practice to ensure rigor and transparency. Similarly, in Lane County, Elevate Lane County issues badges to students who participate in career-connected learning opportunities.

OES uses the online NWoW Learner Badges for middle school and some high school students. This model includes oversight and input from the business community. The materials and assessments are open source and do not require verification of the student taking the assessment. It is still deemed a useful way to allow individuals to



There are several proven and promising EES models across the state that could be adapted or scaled-up statewide.

¹⁵ While different sectors may order the importance of the skills differently, feedback gathered to this point suggests the differences are negligible.

¹⁶ Steve Schilling, Dean of Advanced Manufacturing & Transportation Technology, Linn-Benton Community College

access and learn the material at a lower rigor than the OES badges that meet postsecondary rigor and standards (postsecondary badges require verification of the individual attempting the assessment).

Acknowledging the OES model as a foundational and promising practice to build upon allows industry and education to better partner on the student-learner, work-based learning process. It also opens the door to more work-based learning opportunities for 16- to 18-year-old students. The student-learner process outlined by the Bureau of Labor and Industries (BOLI) ensures students in the workplace are learning a variety of skills and not just focused on one task, which allows students to increase their work readiness skills before entering the workforce. The explicit teaching and training of employability skills also supports industry onboarding of new employees, supports upward mobility in the industry, and provides tools to better understand the quality of potential employees, highlighting skills that potential employees may have that are not otherwise represented by more common, yet sometimes unpredictable, factors such as GPA or college major.

Hillsboro School District example

Hillsboro School District (HSD) has revitalized their relationships with the industry advisory committees for the district's CTE and career pathway programs. The Industry Advisory Committee has indicated over the past few years that students were lacking in professional or soft skills. HSD was introduced to NWoW and saw it as a potential solution for incorporating professional skills into the career pathways curricula. During the 2019-2020 school year, HSD trained two staff and began piloting the curriculum at Liberty High School, one of HSD's comprehensive high schools, and the alternative school program, and received positive feedback from both staff and students.

For the 2020-21 school year, HSD was interested in expanding NWoW curriculum. Through their relationship with the Northwest Regional Education Service District (NWRESD), HSD joined WESD in developing Oregon Employability Skills (OES) to serve a broader range of students and create a greater impact across the district. OES skills were incorporated into their Perkins plan. HSD anticipates training four CTE teachers at each high school, along with offering training to instructional coaches and senior seminar teachers. Moving into the 2021-22 school year, HSD has a goal of at least 20 percent of CTE teachers trained for OES delivery. The vision is to embed OES into career pathway courses so students cover a few skills each year and graduate with competency in all ten skills. A future goal includes incorporating badging for students to showcase their mastery. These badges are currently in development with industry partners.

COVID-19 has posed new challenges for HSD's integration of OES into comprehensive distance learning (CDL) practices. HSD is committed to social emotional learning (SEL) of students during CDL. Recognizing that OES maps very closely with the district's CASEL framework¹⁷ that teaches SEL and is being implemented K-8, HSD has started the process of embedding OES high school curriculum into the advisories to be delivered during CDL. This provides a foundation for the skills HSD students will eventually work through in career pathway programs as well as supporting SEL. The abrupt transition to CDL also illuminated challenges for emerging bilingual students, and with support from NWRESD and WESD, HSD now has all ten lessons available in Spanish.

HSD also partners closely with the Hillsboro Chamber of Commerce, who recently sent staff to OES training and will be using the same terminology and supporting industry guest speakers in reinforcing

¹⁷ CASEL. "SEL: What are the core competence areas and where are they promoted?" <https://casel.org/core-competencies/>

the OES concepts with real-life examples. Additional next steps include expanding access to this content by training internship coordinators, family outreach specialists, and the migrant education team. HSD continues to see tremendous value for their students in the partnership with the chamber.

Worksystems example

Worksystems is a nonprofit organization that staffs and supports the Workforce Development Board for the City of Portland and Multnomah and Washington counties. Since 2017, Worksystems has used the NWoW curriculum for their SummerWorks program, whose goal is to position youth (ages 16-24) to be competitive in the job market through work experience and related skill development. The SummerWorks program focuses on youth who are low-income, from communities of color and/or underserved populations. It includes career coaching, intern to worksite matching, work readiness training, and supportive services for youth as well as employer development.

NWoW curriculum delivery has been impacted by COVID-19 but is typically a mandatory prerequisite for placement in the SummerWorks Program. It is 12-15 hours of in-person, instructor-led training with weekday and weekend options. Successful completion results in a digital badge that stays with each individual beyond their experience in the SummerWorks program. Over 4,000 individuals have completed the NWoW training through Worksystems, with 85 percent of completers expressing that it is an important set of skills and almost 70 percent expressing that it helped make them a better employee.¹⁸

Oregon WORKS programs

Oregon WORKS is a collection of internship programs across the state that focus on matching qualified young professionals to businesses. All Oregon WORKS programs are designed at the community level; feature embedded EES training alongside professional training for interns; and are good for interns, companies, and communities. The programs have varied focuses and lead organizations, such as economic development organizations, community colleges, and chambers.

Oregon WORKS describes its founding and purpose as follows:

"The idea [for Oregon WORKS] began in 2013 when the McMinnville Economic Development Partnership needed a workforce solution to bring talented young workers into their community. To accomplish this task, MEDP convened a group of industry representatives who stated the desire for a community wide internship program. The McMinnville WORKS Internship Program was born. This program proved to be such a valuable resource for young people, local companies, and the community, that in 2017, the team at MEDP was given a grant through the Oregon Talent Commission to create a workshop to teach other communities in Oregon how to create similar programs. In 2017, MEDP taught four workshops to Oregon communities to establish new programs. In 2018, MEDP was approached by The Ford Family Foundation and the Oregon Community Foundation to hold four more workshops in rural Oregon communities. Since 2017, multiple communities in Oregon have started their own WORKS programs. Our goal is to support a robust network of industry-led, community-driven WORKS internship programs throughout the

¹⁸ Worksystems data reported to the Task Force

state of Oregon. This network will support each other with best practices, lessons learned, and regular opportunities to connect.”¹⁹

The Oregon WORKS network is widespread and continues to grow throughout the state. Oregon WORKS currently has established programs in McMinnville, Clatsop, the Gorge, Boardman, and Scappoose and developing programs in Columbia, Douglas and Malheur counties, Hillsboro, Tillamook, and the south coast. Several of the statewide WORKS programs are coordinated and supported by regional STEM hubs.²⁰

Oregon Youth Corps

The Oregon Youth Corps²¹ (formerly known as the Oregon Youth Conservation Corps or OYCC) is a program housed within the Office of Workforce Investments at the Higher Education Coordinating Commission that grants funds to local youth and community focused entities. The program has been in operation since 1987 and has the goal of providing grant funds to programs in each of Oregon’s 36 counties and nine federally recognized tribes. Program grants take place both in the summer and during the school year.

Oregon Youth Corps engages youth in community-based stewardship experiences that build, improve, and strengthen the participant’s social, emotional, and workplace skills. It does this by:

- Promoting team-based programs that develop youth’s technical and essential employability skills
- Providing resources and culturally responsive wraparound support to programs across Oregon that reach underserved and disconnected youth
- Advancing the mission of youth development by collaborating with community, state, and federal partners to share best practices and advocate for policy change
- Aligning initiatives and fostering partnerships with workforce and talent development, education and training, and postsecondary systems

Grants to local programming emphasize the introduction, practice, and development of participating youth to many of the following essential workplace skills:

- Problem Solving
- Critical Thinking
- Teamwork
- Communication

¹⁹ Oregon Works Website. (2020). <https://www.oregonworks.net/>

²⁰ The network currently includes regional WORKS, paid internship programs in McMinnville, Chemeketa, Clatsop, Tillamook, and Columbia counties, the Gorge, Port of Morrow, Douglas County, Hillsboro, Malheur, Central Oregon, and the South Coast. Clatsop, Tillamook, and Columbia counties are programs of the Northwest STEM Hub, Malheur is a program of the Frontier STEM hub, Douglas is a program of the Umpqua Valley STEAM Hub, and the Central Oregon is a program of the Central Oregon STEM Hub.

²¹ Oregon Youth Corps. (2020). <https://www.oyccweb.com/>

- Leadership
- Work Ethic
- Conflict Resolution
- Experiential Learning

The vast majority of the youth served through Oregon Youth Corps funds come from vulnerable populations that are “at-risk” and have traditionally been underserved and left behind. This includes youth of color, youth from rural communities, tribal youth, and youth that have dropped out of high school.

Oregon Youth Corps has an advisory board appointed by the Governor, Senate President, and Speaker of the House that helps guide policy, participates in strategic planning, and advocates for the program within the general public.

Oregon Youth Corps’s goals and initiatives are in alignment with the Workforce and Talent Development Board’s Strategic Plan.

Pearson Career Success

In a recent paper,²² David T. Conley, PhD, president and principal partner of EdImagine, observed that many young people and some adults lack basic employability skills such as self-management and general work readiness. Reflecting on the COVID-19 pandemic, Conley recommended that education and training programs “be created to develop these skills more explicitly and incorporate them as a component in all occupational training programs as well as credential and degree programs. Doing so will help ‘future-proof’ these workers to a greater degree in the event of any subsequent economic disruption or job loss.”

Conley expressed an important perspective on 21st century skills such as problem solving, critical thinking, researching, and data analytics, describing skills related to the desired mindset and behaviors of workers in occupations that require self-management and initiative. His list of critical skills that today’s and tomorrow’s workers need to master to be more “future proof” against economic disruption and job loss is as follows:

- *“Being self-aware by knowing one’s interests, passions, skills, and ambitions. This enables better career choices and greater success in a chosen career path.*
- *Setting goals. An ambitious, self-aware worker can set goals and work to achieve them. This type of self-management is crucial in a rapidly changing work environment.*
- *Being motivated. For success in a competitive employment economy, workers need to have a positive mindset focused on achieving their, and their employers’, goals.*
- *Persisting. As the workplace and employment picture continue to evolve, workers will confront numerous challenges. They will need to be able to persist when faced with the need to develop new skills that may not come easily to them or to function in a rapidly changing work environment.*

²² Conley, David T., PhD. (2020). EdImagine. *Issue Brief: The Human Development Side of Economic Recovery in Oregon*. https://www.oregon.gov/workforceboard/talent/Documents/Conley_Issue%20brief-v2-final.pdf

- *Monitoring performance. The workplace is increasingly one where workers need to monitor their own performance and have a realistic view of how well they are really doing, and then take control of improving their performance.*
- *Asking for help. Part of self-monitoring performance is knowing when one is stuck and how to get help. It is important in a changing workplace to be able to realize when help is needed to add a skill, solve a problem, or resolve an issue with a co-worker.*
- *Showing self-efficacy. This means knowing how to control the things that one is able to control, then taking control of them to achieve goals. It is the opposite of disempowered, passive workers who believe they cannot control anything that's happening to them."*

Conley is a respected Oregon education thought leader and his work will provide complementary opportunities to evaluate the success of effective EES training. His work has broad application and is also related to the Pearson Career Success model:

"Pearson Career Success was designed specifically for learners by pedagogy and subject matter experts, thought leaders, and authors, based on deep research into what is most useful, accessible, and effective. Its curated and contextualized modules, practical resources, assessments, focused assignments, and tools guide learners logically and efficiently toward their career goals. Step by step, learners build the skills employers demand today and tomorrow, and learn to showcase their strengths in a difficult job market."²³

The three main components of the model are:

- Find Your Career Path - Step-by-step activities to help individuals choose a career path that fits their goals and desires and identify the skills they need to succeed in their chosen field.
- Build In-demand Personal Skills - Activities to build, measure, and demonstrate crucial career success skills and behaviors including communication, critical thinking, creativity, leadership, teamwork, and GRIT (growth, resilience, instinct, and tenacity).
- Get Marketable and Ready for Interviews - Step-by-step tools to plan better job searches, build a great ePortfolio, demonstrate professional skills and improve research and writing skills.

Unfortunately, Pearson has recently decided to retire the Pearson Career Success model effective in 2021. It has several years of successful outcomes. The program information and research on the outcomes is available to inform other promising practices across the state and/or new investment.

Saturday Academy

Saturday Academy (SA) is a non-profit internship and educational program that focuses on increasing access to STEAM for diverse students in grades 2-12. SA provides wide access to hands-on learning for diverse students in grades 2-12 in the areas of Science, Technology, Engineering, Math, and the Arts (STEAM). SA emphasizes STEAM "because these fields are critical for children's careers and their fast pace of change is difficult to address in traditional school settings."²⁴ Founded in 1983, SA that

²³ Pearson Career Success. (2020). <https://www.pearson.com/us/higher-education/products-services-institutions/career-success/for-administrators.html>

²⁴ Saturday Academy. (2020). <https://www.saturdayacademy.org/about/work-people/mission>

combines hands-on, in-depth learning with connections to community experts as educators and mentors. Scholarships and focused outreach help SA be more inclusive.” Saturday Academy has four programs:

- Girls Engage Technology – Recognizes that women are significantly under-represented in technology fields and provides classes and camps designed specifically for girls
- SA-2-U – Community organizations, schools, or parents may request a class for their student group; student groups generally range from 5 to 15 students
- ASE – The Apprenticeships in Science & Engineering (ASE) program connects motivated high school students with mentors in pre-professional science, technology, engineering, and math (STEM) internships
- Classes and Camps – Open enrollment classes and camps

EES are embedded in the student experience and connecting with community experts as educators and mentors is important to highlight EES through career-connected learning. This is particularly true of the ASE Program. Almost 100 percent of interns surveyed stated that they believe their non-technical skills have increased as a result of the internship experiences (e.g. communication, professionalism, time management).

MODELS TO WATCH

This section includes examples of emerging EES models that may have useful elements for adapting into a statewide EES model.

Career Achievement Network (theNET)

The Career Achievement Network (theNET) is a system created in response to employer concerns over workplace conduct demonstrated by the emerging workforce and growing skills gaps around skills such as the ten described by NWoW.

TheNET participants completed a 28-hour discussion-based course called Rethinking Careers. The training utilized cognitive behavioral techniques to help set goals, problem solve, and build confidence. Participants developed interpersonal skills, such as learning to consider various points of view, while fostering maturity and emotional intelligence.

The course was combined with a 200-hour paid work experience providing opportunity to put the training into practice. Participants who successfully completed the course were armed with the confidence and emotional awareness necessary to succeed in the workplace. One graduate who was inspired to pursue a bachelor’s degree in computer science stated: “This program did more than give me on-the-job experience and career training. It gave me the confidence and strength to find a new lease on life. I have a future now. I don’t fully know what it holds, but I know it exists.”

The system was funded by the Oregon Employment Department and the Governor’s Strategic Reserve. State funding was matched by employer contribution via the paid work experience. This collaboration allowed for employer liability for the training participant to be covered by workers compensation.

The Career Achievement Network as a system, not a project or program, created the space for collaborative community effort to catalyze in support of training the emerging workforce. The state funded scale to expand the program, nonprofits referred participants to theNet, and local employers provided first-time work experiences.

The resources, structure, and associated curriculum for the theNET are housed with the Willamette Workforce Partnership and can be made available to inform other promising practices across the state and/or new investment.

Rogue Valley Essential Employability Skills Rubric

The Rogue Valley's Business-Education Partnership is a regional collaboration focused on aligning high school and postsecondary education programs with the needs of business and industry. Local partners created an EES rubric as a dynamic feedback tool to help students develop critical skills. The rubric focuses on the essential skills of reliability, collaboration, communications, respect, professionalism, attitude, and problem solving. For each area, it delineates and concretely describes four tiers of progressive skill levels that can be attained: beginning, developing, progressing, and advanced.²⁵

The unique features of this regional effort include the following:

- It is a grass roots initiative, home-grown in the Rogue Valley and created in a partnership between K-12 curriculum experts and business leaders
- A broad cross-section of partners are collaborating, breaking down silos and embracing the use of the EES Rubric—including all of the region's high schools, career fairs, Rogue Community College, Southern Oregon University, WorkSource Rogue Valley, and businesses
- The EES Rubric is now being used for youth, as well as adult job/career-seekers
- It's a business-led effort, with industry leaders from the region's six targeted sector strategies creating a demand/"pull" system for EES by incorporating them into their talent recruitment processes and their ongoing talent pipeline development work with high school students, adult job/career-seekers, and education and workforce partners.
- Regional partners have drilled down and added a deeper foundational layer to the U.S. Department of Labor's Competency Model²⁶ (also known as the Skills Pyramid), by incorporating the breakthrough understandings from neuroscience, public health, applied psychology and related research (e.g., resiliency, emotional intelligence, adverse childhood experiences, grit, mindfulness, social determinants of health)
- Seminars, webinars, and coaching supports in social and emotional well-being, mindfulness, grit, emotional intelligence, self-regulation, etc. are being woven into this effort as part of a holistic experiential learning process that fosters the growth and development of these personal effectiveness skills—especially for historically underserved and/or disadvantaged populations

²⁵ Rogue Valley Essential Employability Skills. (June 30, 2020).

<https://www.oregon.gov/workforceboard/board/Documents/Business%20Education%20Partnership.pdf>

²⁶ Competency Model Clearinghouse. US Dept. of Labor. <https://www.careeronestop.org/CompetencyModel/competency-models/building-blocks-model.aspx>

- Regional partners are also connecting these efforts with new Student Success Act initiatives being rolled out by school districts, particularly those focused on meeting student mental or behavioral health needs, reducing academic disparities, and Measure 98 High School Success efforts
- One of the region's industry leaders—a Grants Pass based web development company named Zeal—is creating an online platform that will allow students, teachers, career coaches, internship and worksite supervisors, etc. to track an individual's ongoing progress in these skill-building efforts
- Regional partners are eagerly exploring ways to dovetail the EES Rubric with the New World of Work badging system

Career Success Standards

Career Success Standards were developed for the students in the career vocational training programs at the Tongue Point Job Corps Center in Astoria.²⁷ These standards are a set of five performance levels for each of 13 elements: career readiness, communications, attendance and dress, personal growth and development (work ethic attributes), multicultural awareness, information management, workplace relationships and ethics, interpersonal skills, career and personal planning, independent living, problem solving/critical thinking, continuous learning, and compliance with center safety policies. Each of the five performance definitions is specific to each element and provides observable, measurable criteria to evaluate student progress.

Water The Bamboo

Portland's Greg Bell and his results-focused Water The Bamboo is a promising model to watch. Bell envisions schools where all freshmen high schoolers go through the Water The Bamboo curriculum. The purpose would be to increase student engagement and retention, raise graduation rates, decrease bullying, and contribute to better mental health of teens. The curriculum would be led by a Water The Bamboo certified teacher (train-the-trainer, including an instructor's guide and conference). In addition, once students go through the curriculum they are primed to be Bamboo Circle leaders; a mentorship program where incoming freshmen are matched with a Junior or Senior that has gone through the Water The Bamboo curriculum (Watering Partners). This would enhance student leadership and help school culture.

²⁷ Tongue Point Job Corps Center. Career Success Standards (CSS). <https://tonguepoint.jobcorps.gov/learn>

BUSINESS PERSPECTIVES ON ESSENTIAL EMPLOYABILITY SKILLS

This section compiles the perspectives of business representatives from various employment sectors on the importance EES among their employees.

Manufacturing

"Manufacturing today is not the same as it was in the past. It is a complex, ever-changing ecosystem of materials, machines, methods, people, economies, logistics, and cultures. To be successful in this environment requires critical thinking, problem solving, and adaptability as a regular part of daily activities. To maintain customers, businesses require a reliable workforce that is dependable in showing up to perform these required tasks. Unfortunately, these skills and traits are becoming increasingly difficult to find and it is stifling Oregon manufacturers' abilities to secure new opportunities for growth. The increased accessibility of new technological applications in manufacturing facilities will only exacerbate the issue. Machines are good at doing predefined and predictable tasks but they are not capable of knowing where or how to be appropriately deployed, nor do they know how to adjust to the inevitable variances of a manufacturing environment responding to supply chain and customer demands. The need for a workforce to support the unpredictable and foresee the potential will continue to increase as companies grow and further integrate technological assets. I frequently hear the same story from manufacturing business owners, 'find me a person that is willing to think and learn, accountable to show up when they are supposed to, and they will go very far in my company.'"²⁸

"In the 32 years I've been in the staffing industry, I have seen a growing concern from employers about the lack of soft skills in new applicants. This lack of essential employability skills results in frustration and lack of productivity from both the employers and employees. It's important for our state to recognize these gaps in soft skills and work towards structured policy to close them."²⁹

"It's a mistake to focus purely on technical skills and neglect employability skills. Technical skills might get you in the door, but employability skills turn one opened door into multitudes of growth opportunities."³⁰

Craig Campbell³¹ with Oregon Manufacturing Innovation Center (OMIC) applies the NWoW employability skills in the manufacturing setting as follows:

- "Self-Awareness (Self Understanding) – The ability to self-identify strengths and weaknesses allow employees to maximize their contributions and work to overcome their deficiencies, making them more valuable to their employer and improve their chances for advancement.
- Collaboration (Team Player) – Individuals are only as effective as the limitations of their experience and abilities. Those who are able to both lend their knowledge and ability to others

²⁸ Aaron Fox, President, Oregon Manufacturing Extension Partnership

²⁹ Ken Madden, Owner, Madden Industrial Craftsmen

³⁰ Deven Paolo, Solid Form

³¹ Craig Campbell, Executive Director, Oregon Manufacturing Innovation Center Research & Development

but who are willing to learn and accept assistance from others multiply their effectiveness in the workplace.

- Digital Fluency (Good with Technology) – Manufacturing equipment is increasingly dependent upon digital interfaces, programming, and some levels of artificial intelligence. In addition, technology in the manufacturing setting is advancing at a rapid pace. To be effective it is critical that manufacturing employees be competent with technological interfaces and be able to adapt as technology advances.
- Resiliency (Plans for Success and Bounces Back from Failure) – In a manufacturing setting, failures occur. However, manufacturing requires that such failures do not cause unnecessary interruption. Employees must be able to learn from failures quickly and rapidly and safely return to the work at hand.
- Analysis/Solution Mindset (Problem Solver) – Manufacturers need employees who are constantly looking for ways to improve the processes they are working on. “How can we do this better?” is a mindset that will make an employee more employable and will help them advance more quickly.
- Entrepreneurial Mindset (Go Getter) – Manufacturers are looking for employees that are interested in being active participants who are willing to advance ideas and solutions in the workplace. Those that come to work with a positive, engaged attitude are more likely to contribute to the company culture and contribute to the long-standing success of the company.
- Adaptability/Flexibility (Open to Change) – Manufacturing technology is advancing rapidly, so manufacturers depend upon employees who can advance and adapt quickly to changes in the workplace. In addition, employees who embrace change are also valued as future leaders.
- Communication (Good Communicator) – The ability to communicate clearly, confidently, and accurately is critical in the manufacturing sector. Safety, problem solving, and innovation all depend upon employees who are good communicators.
- Empathy (Sensitive to Others’ Feelings) – Drama in the workplace is never a productive element. Employees who are able to understand the needs, challenges, and feelings of others in the workplace are less likely to create unnecessary problems and are more likely to foster cooperation, trust, and team success.
- Social Diversity/Awareness (Sensitivity to Differences in Backgrounds and Beliefs) – Those that are not only sensitive and aware of social diversity but are able to embrace the benefits of working in a diverse workplace are more likely to be successful and advance in their careers.”

Energy sector

“Developing EES is a critical success factor for the energy industry’s workforce and prepares the individual to be future fit for our changing landscape. With ever-increasing customer expectations and an increasingly competitive environment, energy companies are reliant on one’s ability to communicate, work efficiently and effectively with others, and think critically. The energy workforce is often asked to work across a variety of distinct functional areas, requiring strong interpersonal skills, collaboration, and coordination. Likewise, with more customer-facing technologies being created and routine tasks becoming automated, the energy worker needs to be able to learn quickly in new

situations and take on the challenge of unfamiliar tasks. With developed EES, workers at all career levels open the door to grow a long and successful career in the energy industry.”³²

Healthcare

“Essential employability skills such as adaptability, collaboration, empathy, and communication are critically important to patients and their families during their experiences with any part of the healthcare system. Effective communication is one of the most critical, especially when combined with social diversity/awareness – being able to listen, understand, and engage with others across different backgrounds and lived experiences. Effective communication not only shapes our interactions with our patients and their families but is also critical to collaboration – much of what is done in healthcare is collaborative, with many individuals across different fields working together in providing patient care. Effective communication and collaboration ultimately contribute to better care and safety outcomes for our patients.”³³

“The health sector has been very acutely in focus during the COVID-19 pandemic and essential skills have become even more critical to succeed in jobs and careers. Indeed, without effective communication, dependability, critical thinking, reliability, and adaptability in taking care of patients, designing medical devices and developing treatments or vaccines are unlikely to succeed even with the best technical abilities and understanding of science. There were many stories of courage, adaptability, and critical thinking that were shared during the pandemic and those by themselves speak to the importance of these skills in the success of any employment in the healthcare sector. Providing pathways to increase the proficiency in these employability skills is extremely important for the development of an effective workforce. As we move beyond 2020, healthcare delivery models will need to adapt and change to the needs and these require such soft skills to be part of the education and learning in Oregon.”³⁴

Technology, AI, and automation

“As the fourth industrial revolution becomes increasingly pervasive, we need *human* skills rather than *hard* skills. Hard skills are temporary and change with technological advancements, whereas human skills are permanent and will always be in demand. We are transitioning to a world where people need to interact and work with automated, robotic and AI systems. In a recent talent survey report,³⁵ collaboration, communication, and leadership were revealed as top priority traits for talent development. In addition to these top 3 traits, employers demanded the following human skills during pre-pandemic times,^{36 37} many of which are important characteristics of emotional intelligence (EQ):

³² Anne Mersereau, VP Human Resources, Diversity and Inclusion, Portland General Electric

³³ Cathy Reynolds, Director of Employment Strategy and Workforce Planning, Legacy Health

³⁴ Soundharya Nagasubramanian, Director of R&D and Product Information Security, HillRom

³⁵ LinkedIn. (2018). “2018 Workplace Learning Report.” <https://learning.linkedin.com/resources/workplace-learning-report-2018>

³⁶ Petrone, Peter. (2018). “The Skills Companies Need Most in 2019 – And How to Learn Them.” *LinkedIn*. <https://www.linkedin.com/business/learning/blog/top-skills-and-courses/the-skills-companies-need-most-in-2019-and-how-to-learn-them>

³⁷ Levy, Francesca and Rodkin, Jonathan. “The Bloomberg Recruiter Report: Job Skills Companies Want But Can’t Get” *Bloomberg*. <https://www.bloomberg.com/graphics/2015-job-skills-report/>

- Creativity
- Persuasion and negotiation
- Adaptability: dealing positively with change and ambiguity
- Time management
- Problem solving
- Ethical judgement and decision making

"As we grapple with unemployment and true wages in a post-pandemic world, effective training programs in these human skills is crucial for new and displaced workers as well as upskilling our current workforce. Our recent work on the AI Task Force³⁸ recommends curriculum development for P-12 and in community colleges throughout the state. This recommendation is in addition to learning how to use and interact with AI and automated systems, not just developing them."³⁹

"Just as non-tech businesses are increasing their hiring of people with technical expertise, similarly, we are seeing tech companies increase their hiring of people who have market or sector knowledge along with technical expertise. Another trend—accelerated by COVID-related remote-work mandates—relates to an increased emphasis on 'soft' skills and attributes. These include resilience, communication, empathy, collaboration, adaptability, social fluency, etc.

"The software and electronics and hardware industries, as well as digital media industries represent some of the highest paid occupations in Oregon. While they also still require the highest levels of degree attainment relative to many other occupations, this is changing, with a greater emphasis placed on one's ability to demonstrate proficiency through tests as part of the hiring process and/or through an accessible portfolio of work. The COVID-19 crisis has only accelerated this trend, with recent announcements⁴⁰ by some of the largest tech companies of new certificate programs the completion of which those companies will treat as equivalent to four-year degrees. Micro-credentialing and digital badging hold a lot of promise for enabling portable, marketable skill attainment, including soft skills.

"While both software and the digital media occupations are least susceptible to automation in the short-term, no occupation—even technical occupations—are completely immune. This underscores the importance of EES as a hedge against the inevitable automation and rapid evolution of technical skills."⁴¹

Labor

"Essential skills or soft skills training is critical for members in workplaces that tend to hire and lay off. For the most part, the 'shop floor' has its own language and good communication skills are important in order to understand the work that is needed, speak professionally to co-workers, effectively

³⁸ WTDB. (2020). *WTDB Report: Talent Development for Artificial Intelligence in a Post-Pandemic World*. <https://www.oregon.gov/workforceboard/board/Documents/AI%20Task%20Force%20Report%20-%20FINAL%2020201106.pdf>

³⁹ KS Venkatraman, Senior Director of AI Computing Architecture, NVIDIA

⁴⁰ Leibowitz, David. (2020). "You Don't Need College Anymore, Says Google." <https://medium.com/discourse/you-dont-need-college-anymore-says-google-102d4beec668>

⁴¹ Skip Newberry, President and CEO, Technology Association of Oregon

communicate instructions, clearly state problems, and discuss and resolve problems as they occur. Daimler did a great job a few years ago, they brought in a teacher from PCC to teach essential skills to the managers, supervisors, and team leaders. That was great, but it did not get to the shop floor where it was needed the most. Supervisors now know how to talk to members, but never were trained on how to solve the problem when the shop members cannot speak the same language and then we head into discipline.

"The path forward is to allow this training to flow down to the employees on the shop floors. As noted earlier in this report, production will rise when there is clear communication, and efficiency will grow when everyone can understand what is being asked. And this will help people who are displaced from one work environment to another. An affordable and accessible path to learning EES is needed. Most will not take a class if it means sacrificing food or medicine. Also, it must be available as an online, learn-as-you-go type of lesson plan. Some of the exercises must be done with others to practice the skill, but most can be done in an online type of classroom."⁴²

Construction

"In the plumbing trades, it is more than just 'pipes.' It is also about teamwork, adapting to different situations, understanding technology, and being persistent through those 'tougher' jobs, to feeling confident about your work. The Oregon Employability Skills Training (using NWoW) helps develop those skill sets that are not only valuable in the trades, but any profession a student chooses to pursue. Assisting in developing our future workforce through employability skills not only improves our society with a stronger, socially experienced workforce, it can also strengthen our existing staffs—a 'Win Win' for everyone."⁴³

"The Associated General Contractors (AGC) has over 800 members across Oregon and SW Washington. Our industry is expecting to need to replace tens of thousands of workers over the next five to seven years, at all levels of skill and education. AGC members routinely report that the actual trade skills required can be taught, but essential employability skills are underdeveloped in most applicants. Members who have investigated the New World of Work top ten employability skills, or Oregon Employability Skills (using NWoW), are excited about seeing these skills incorporated into school curriculum, as well as into their own professional development. Some members are already working on project-based learning opportunities with pilot schools that allow students to showcase the Oregon Employability Skills."⁴⁴

"In the asphalt pavement industry, the only barrier to advancement is basic employability skills. You can succeed if you can be on time, communicate, work with others, prioritize safety for yourself and others, and make good decisions. We want to provide summer work experiences for students who want to learn and demonstrate those skills, which we think will be immensely helpful in their lives no matter what career path they choose."⁴⁵

⁴² Dwain Panian, Union Representative, IAM&AW District W24

⁴³ Steve Ferree, Owner, Mr. Rooter Plumbing

⁴⁴ Frosti Adams, Manager, Associated General Contractors Workforce and Professional Development

⁴⁵ John Hickey, Executive Director, Asphalt Pavement Association of Oregon

DATA STRATEGY

An EES data strategy should encompass qualitative and quantitative data collection to measure and demonstrate impact. The following are recommendations of data to collect as part of an EES strategy:

- Total EES credentials/badges issued
- Percentage of successful student/adult transition success to employment post high school/post college/post training
- Business surveys to assess EES competencies
- Student/adult pre/post assessment of skills
- Student surveys that assess student agency, self-confidence, and connection of EES training to classroom experiences

Professional development training for those providing the EES training is critical for successful curriculum development and to best support EES acquisition in secondary and postsecondary education. In addition, communities of practice to share best practices, address challenges, and recommend improvements at both the state and local/regional levels should be formed and supported with the necessary resources.

As one example, the Willamette Education Service District (WESD) currently has 19,984 students in Transeo jobs.⁴⁶ Transeo is an online system and database of business partners and advisors. The Transeo platform leverages these partners and advisors into a valuable student experience. In Transeo, learning and student progress are tracked, including badges earned. Through Transeo, every student can experience many levels of work-based learning and acquire EES. WESD has a pre and post survey for students and businesses and a feedback form used for businesses to provide feedback on the students' demonstration of the skills within the workplace.



Careful data keeping and tracking can help to assess the efficacy of a statewide EES training or credential program.

WESD also hosts micro-trainings (in partnership with Hillsboro School District and Portland Public Schools). There are 3 trainings:

- Group 1: Adaptability, Collaboration, and Communication
- Group 2: Self-Awareness, Resilience, Entrepreneurial Mindset, and Analysis Solution Mindset

⁴⁶ <https://gotranseo.com/>

- Group 3: Social Diversity, Empathy, and Digital Fluency

This train-the-trainer model tracks both those who were trained and those who are now able to train others. A community of practice is used to calibrate assessment scoring for NWoW badging.

Additional recommended data that are not currently available includes:

- Outcome data for all EES participants (youth, workers, etc.) by the credential/badge received
- Disaggregated demographic data on all EES participants to assess accessibility and equity
- Participating regions implementing EES models throughout the state
- Baseline data on current EES programs and models being implemented
- Cross-sector partnerships based on EES
- Outcome data from professional development opportunities for teachers and counselors

POLICY RECOMMENDATIONS

In order to better develop EES-focused programs in Oregon, the following policy recommendations to Oregon's Governor and legislature are identified to allow the state to take action to address skills gaps, implement proven, consistent practices, and begin building the skilled, future-ready workforce that can drive the state's economy.

1. Engage community-based and culturally specific organizations and training programs in the design, delivery, and evaluation of statewide EES models, to strengthen equitable access to training and resources and establish equity-based curriculum and practices
2. Direct an ODE-HECC partnership to embed EES training in K-12 curriculum, integrate them as appropriate into graduation requirements, and provide support to educators
3. Scale proven and promising models through expanding state and local infrastructure, curriculum distribution, and professional learning
4. Make strategic investments in EES programs and pilots
5. Create a state- and employer-recognized EES badge(s) and educate industry and educator partners around its importance

1. Engage community-based and culturally specific organizations and training programs in the design, delivery, and evaluation of statewide EES models, to strengthen equitable access to training and resources and establish equity-based curriculum and practices.

- A. Engage community-based and culturally specific organizations in the development of curriculum for all EES models as soon as possible in 2021;
- B. Strengthen and support community-based and culturally specific training programs by ensuring accessibility and resources to deliver EES training, and ensure these organizations have a voice in pedagogy, evaluation, and continuous improvement of training;
- C. Work with HECC, ODE, and other training providers to ensure that equity-shaped curriculum is accessible to all as well as equity-based recommendations for pedagogy. Curricula must address all populations, to include but not be limited to, students with disabilities, English language learners, individuals of color and indigenous students, incarcerated youth, previously

incarcerated Oregonians re-entering the workforce, veterans re-entering Oregon's workforce, and underemployed Oregonians, to decrease the skills gap and increase gainful employment, and provide Oregon industry with future employees that are able to demonstrate vital employability skills; and

- D. Consider establishing a task force in 2021 to investigate early childhood education and child care and their importance to the future workforce success of young Oregonians.

2. *Direct an ODE-HECC partnership to embed EES training in K-12 curriculum, integrate them as appropriate into graduation requirements, and provide support to educators.* EES, as envisioned in this report, are not currently a graduation requirement for Oregon high schools. Current requirements identify "Essential Skills" that are related to EES, but not the same, and only the first three essential skills of nine are actually required for graduation. The three required are purely academic in nature (read and comprehend a variety of text, write clearly and accurately, and apply mathematics in a variety of settings). Further, there is no stand-alone curriculum for EES or program of study. Personalized learning requirements may also be related to EES through career-related learning experiences and extended application, but EES skill certification is not required.

- A. Develop a study in partnership with ODE intended to provide recommendations for the K-12 system regarding EES by June 30, 2022, including the possibility of:
- Reducing "Essential Skills" to the three currently required, which are purely academic (reading, writing and mathematics);
 - Developing Essential Employability Skills curricula (using NWoW and/or other models) to be braided into existing programs of study;
 - Including career-connected learning in the curricula and increasing student access to industry experts and professionals across sectors; and
 - Developing a certificate or badge demonstrating EES that is required for and/or aligns to high school graduation.
- B. Although EES are currently embedded in postsecondary learning outcomes, the ODE-HECC partnership should include recommendations specifically regarding alignment with postsecondary education and explore the extension of badges to postsecondary education.

3. *Scale proven and promising models through expanding state infrastructure, curriculum distribution, and professional learning.*

- A. WTDB recommends work to scale NWoW, Oregon Works programs, Oregon Youth Corps, and/or Saturday Academy (and potentially Pearson Career Success) and build a statewide support structure utilizing relationships with chambers of commerce and other community organizations to build buy-in and promote the importance of EES.
- B. WTDB supports work to "Oregon-ize" proven and promising EES models, where appropriate, by enhancing the curriculum to support the diversity of Oregonians.

4. *Make strategic investments in EES programs and pilots.* There is no current state investment in EES. There are currently relatively small and inconsistent local or regional investments in EES.

- A. WTDB recommends to the Governor and relevant agencies and/or organizations capacity-building investments in EES (possibly by using the STEM and CTE model of FTE% to increase professional development and support to help other regions get on board) by June 30, 2021, including in:
- Administrative support

- b. Training of EES implementers
- c. Professional development and training for K-12 counselors and teachers
- d. Research and data
- e. Community of Practice (COP) for assessment and evaluation of program outcomes and results by an industry, education, and workforce statewide advisory group. This new and/or expanded COP would also evaluate NWoW and other models in terms of equity and access for all identified priority groups.
- B. WTDB recommends to the Governor and relevant agencies and/or organizations program investments and systems alignment in EES by June 30, 2021, including curriculum development and pilot implementation or expansion that will be awarded through an appropriate competitive process.
 - a. Initiating and/or expanding apprenticeship and pre-apprenticeship programs that support EES.
 - b. Initiating and/or expanding externships that support EES.
- C. WTDB recommends to the Governor and relevant agencies and/or organizations investments in EES promotion by June 30, 2021. Such a statewide campaign will be based on the most commonly needed EES and could be phased as follows:
 - a. Provide a campaign in year 1 (2021-2022 academic year) to help all industry, education, and workforce partners become familiar with and have the ability to provide explicit training in these skills.
 - b. In academic years 2022-2024, prioritize up to five essential employability skills to promote each year.

5. *Create a state- and employer-recognized EES badge(s)*: Currently EES training and development is not broadly implemented or aligned in Oregon. Based on the findings of this report, EES are a critical workforce development priority for Oregon worker and business success.

- A. WTDB recommends the development of a state definition of EES that is consistent with proven and promising EES models and provides flexibility in prioritization of individual skills in partnership with HECC, ODE, and others and recommends subsequent adoption by each agency by March 31, 2021.
- B. WTDB plans to approve, endorse, and promote an EES badge(s) as a part of the Credentials that Work initiative as the framework is developed and implemented through the leadership of the Adult Learner Advisory Committee of the HECC and WTDB.

CONCLUSION

The above policy recommendations address EES development in its relative infancy in Oregon. In many respects the recommendations focus on how to initiate or expand EES development in Oregon and align and coordinate related efforts throughout the education and workforce system – all with intentional and committed equity work around access to and application of EES training. Further review of the topic will be critical to ensure it remains current with employer and worker/student needs and priorities. There is no one-size-fits-all solution and even among a set of solutions, there will be change over time. The WTDB should remain focused on EES to ensure continued development in the area and to spur innovation.