

Oregon
TALENT
Council



AN EXECUTIVE SUMMARY

*Making Oregonians the
First and Best Choice of
Oregon Employers*

TALENT PLAN

Talent is a key driver of economic growth.

Today's desired professional and technical talent is a mix of education credentials and applied experience that combine technical knowledge with skills such as project management, teamwork, diagnostic thinking and problem-solving capabilities. Remaining competitive means that new and experienced talent must continually learn new skills and technologies.

When workers have a combination of educational credentials, applied skills and industry experience, they quickly become productive company assets. Without workers who have the right blend of skills our economy is at risk – companies grow more slowly, wages stagnate, and the best and brightest leave our communities for other opportunities.

Enabling workers to gain this desired mix of education and applied experience is challenging, because the knowledge and technology base for the vast majority of professional and technical occupations is changing rapidly. In addition to the core knowledge required for each specific occupation, significant trends such as big data, cyber vigilance and the Internet of Things are changing the way we work. The information we gather, manage and analyze, regardless of industry, is a driving force for every enterprise. So too are the advances in engineering and science that result in new materials for manufacturing, smart grid systems for energy, advanced diagnostic and therapeutic devices for health care and bioscience, and smart mobile technologies. In addition, most professional and technical jobs are part of interdisciplinary teams, with consistent customer interactions requiring workers to have stronger communication and professional interpersonal skills than ever before.

Not only is our knowledge changing; the pace of transformation in the global work place is influencing how we learn. Disruptive trends, such as these, necessitate a reassessment of the systems and resources needed to effectively support our state's talent:

- Human knowledge is estimated to double every 13 months; making much of what we learn today out of date in just a few years.
- Technology is automating tasks, yet also increasing the need for people to diagnose and rapidly respond to problems.
- The Internet, social media and mobile apps give customers (including students and employees) more choices and influence than ever before. They are increasingly turning to online, on demand and condensed solutions for education and skill development.

“The Oregon Talent Council bridges educational credentials with the applied skills and experience needed by employers.”

- The average job tenure has decreased to 4.6 years, and younger workers change jobs about every three years.
- More workers (~30-40%)¹ are freelancers, self-employed or contract workers who must rely on their own resources to keep up-to-date. That trend is expected to grow.

To provide a voice and focus for these issues, the Oregon Talent Council was established by the legislature in 2015 to “advise and be a resource for state agencies and educational institutions on issues of talent development, and to promote the growth and competitiveness of Oregon’s traded sector and high growth industries.”

The Oregon Talent Plan, a product of the Talent Council, has been developed in response to those challenges. The legislated purpose of the Plan is to be a resource for state agencies and education and training partners in their efforts to address Oregon’s critical gaps in professional and technical occupations. The Plan is a living document that will be continually updated to reflect changing needs.

A Coordinated Approach

Talent is a critical issue in both good and bad economic times. Economic growth can exacerbate current job vacancies without a pipeline of qualified workers; and recessions tend to push those with marginal skills to the ranks of the unemployed. Talent is also a competitive advantage, enabling our workers and companies to grow and succeed. At the heart of traded sector and high growth industries is a core set of professional and technical occupations that are mission critical and directly influence the availability of other jobs.

The combination of ever-changing knowledge, advancing technologies and fluid work environments demand more agile education and training systems. That requires greater alignment of programs among industry, education, workforce and government partners. Shorter, industry-led efforts are needed alongside longer term investments in higher education. Investments in incumbent worker training for higher skilled jobs are needed along with training that increases the skills of those with more limited education.

Oregon’s professional and technical talent gaps can be classified in three ways: 1) lack of qualified applicants, 2) mismatched skills, and 3) uneven geographic distribution. Each of these requires the engagement of various organizations to create viable solutions. There are no *one size fits all* answers. Instead, solutions are likely to come from a combination

¹ U.S. Bureau of Labor Statistics, 2012

“Today’s talent must continually learn new skills and technologies to remain competitive.”

of public and private sources. Findings of the Oregon Talent Plan suggest three key issues and opportunities:

MORE, meaning how many: Continuous and adequate higher education funding to develop the quantity of graduates and program completers needed for a healthy pipeline of professional and technical workers.

- Continued state investment in STEM/CTE programs.
- The allocation of university and college resources to degrees and programs that align with industry needs.

BETTER, meaning how prepared: Programs that augment degree credentials with applied skills for increased employability and have direct connections to employment opportunities.

- More internships and work-based learning integrated with higher education, such as the MECOP/CECOP engineering co-op programs.
- More industry-led efforts, such as the BioCatalyst and BioPro programs operated by the Oregon Bioscience Association, which help incumbent and under-employed workers gain new skills.

FASTER, meaning how quick: Scalable systems to deliver distance learning, on-demand and work-based programs that enable workers to more quickly reach needed proficiency and productivity, and that extend the geographic reach throughout the state. Examples include:.

- Collaborative and cross-institutional solutions such as the statewide reach of the radiology technician program operated from Linn-Benton Community College.
- Apprenticeship and internship programs in a wide range of industries.
- Investments in IT tools such as those developed by Oregon’s OpenSesame to deliver on-demand content for cross-cutting skills.

Focus on Critical Skills

The initial Oregon Talent Plan is a needs assessment that forms the foundation of the work of the Talent Council. The Plan focuses on five industry sectors² and ten occupational clusters that provide a strong return on public investment. These occupations:

- Are classified as professional and technical in nature,
- Pay at or above the state average wage,
- Require some form of post-secondary training,
- Have a demonstrated demand through 2022, and
- Are identified by industry as high demand, hard-to-fill or mission critical.

Key Professional and Technical Occupational Clusters		
High growth, high demand occupations	Mission critical occupations	Emerging occupations
<i>Significant new and replacement jobs with foreseeable demand and high growth rates that cut across industries and/or regions</i>	<i>Strong employment and above average projected growth; identified by industry as essential for core operations and often hard-to-fill</i>	<i>Relatively new and/or growing rapidly in support of multiple industries; critical to positioning the state as a leader in these skills</i>
Systems and data specialists needed in all industries who design, connect, and manage big data systems.	Technologically skilled mechanics and maintenance technicians who maintain and repair highly technical machines and equipment across industries including manufacturing, energy, healthcare and others.	Cyber and information security specialists who can develop, monitor and mitigate security risks for data and information systems.
Data and business intelligence analysts who analyze big data to enhance operations, predict market demand, mitigate risk and control quality and standardization.	Mental and behavioral counselors who are a growing part of integrated health systems and who support the ability of residents to have productive lives.	Advanced materials engineers and scientists enabling the development of products and devices that are smaller, tougher, lighter, more flexible and durable, less expensive and energy efficient.
Industrial machinists, millwrights and operators of highly computerized and/or automated processes requiring precision, quality control and strong diagnostic skills.	Interdisciplinary engineers who can integrate mechanics, electronics, and computer systems that comprise smart machines and connected devices.	
Rehabilitation therapists and assistants (physical, occupational, respiratory, etc.) employed in hospitals, clinical and long-term care systems.	Primary health care practitioners including physician assistants, nurse practitioners and specialty nurses, who are at the heart of new health models, and are hard-to-fill, especially in rural areas.	

² Initial industries include advanced manufacturing, biosciences, energy, healthcare and information technology.

“Addressing talent issues in a quickly changing environment requires a mix of industry, education and workforce solutions working hand in hand.”

The Talent Plan was developed using primary and secondary data sources from industry, government, and academia. Data were analyzed for skills and occupations that cut across industries, as well mission critical skills for specific traded and high growth industries. While each industry has additional professional and technical needs, the preceding table represents an initial set of occupations with strong overall need.

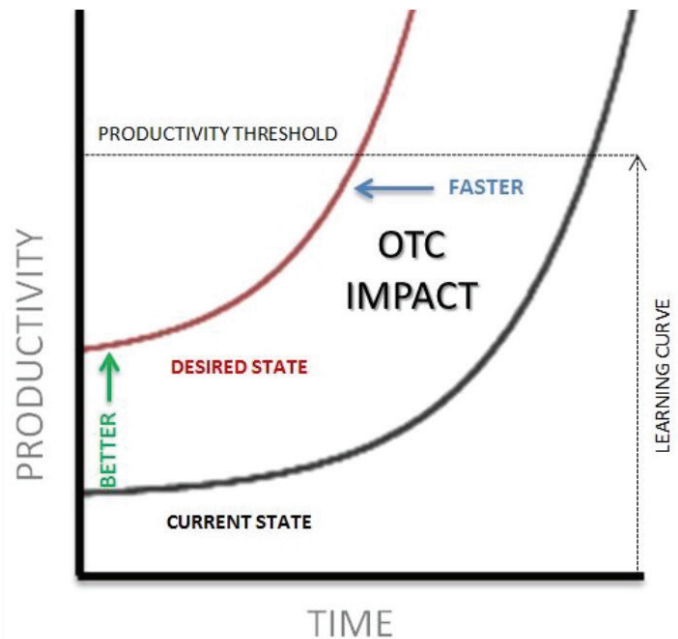
The Talent Council's Focus

Given the trends and key occupations identified in the Talent Plan, the Council has a unique opportunity to expand partnerships and pilot new programs that will create significant returns on public investment and fill gaps not being addressed by others.

Co-investment Focus

To complement and augment the work of higher education, the Council will focus investments on areas that address the better and faster components of developing talent, specifically:

- Skills and/or experience that increase employability and competitiveness. (*Better*)
- Delivery methods that bridge urban-rural gaps and/or address multiple occupations/skill sets. (*Faster*)



The Council anticipates funding a mix of efforts that serve incumbent workers, career changers and junior level talent. Projects funded by the Council will demonstrate:

Strong Contextual Content –

Applied skills and work experience alongside technical aptitude.

Robust Industry Engagement –

A strong level of collaboration, commitment and investment by industry.

Cost-effectiveness and Agility –

The ability to demonstrate scalability and return on investment.

Expanded Reach and Diversity –

The ability to serve diverse populations and multiple regions of the state.

Partnership Development

Successful examples are already in place in Oregon and elsewhere that demonstrate collaborative ways to address talent needs. In addition to co-investments, the Talent Council will continue to build the case for talent by working with industry associations, higher education and workforce organizations to:

- Research critical needs,
- Evaluate investments and demonstrate ROI,
- Highlight success stories,
- Benchmark the performance of Oregon's talent efforts against other states, and
- Host best practice forums to accelerate adoption of high impact models.

Over this first biennium, the Talent Council will refine its role in helping Oregon build a foundation of investments and partnerships that will effectively address the talent needs of our employers. The inaugural Talent Plan is the starting point for this journey.

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The Oregon Talent Council was established by the legislature in 2015 (House Bill 2728) to advise and be a resource on issues of talent development and to promote the growth and competitiveness of Oregon's traded sector and high-growth industries.



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