

February 2, 2015

## **A DETAILED OVERVIEW OF REGISTERED APPRENTICESHIP IN OREGON** **Senate Committee on Workforce**

### **Oregon Bureau of Labor and Industries** **Apprenticeship and Training Division**

#### **Basics of Registered Apprenticeship**

Registered Apprenticeship is a training system that combines job-related technical instruction (RT) with structured on-the-job training (OJT). It is often referred to as an “earn and learn” training model because workers earn a wage working at a job site while learning a skilled trade through a combination of OJT and RT. Unlike internships, in which individuals work for little or no money and rarely receive formal classroom training, apprenticeships are real jobs with extensive on-the-job and classroom-based training and wages that increase as skills are mastered, leading to a career credential.

Apprenticeship programs are sponsored by individual businesses or employer associations, some of which partner with labor organizations through collective bargaining. Institutions, such as apprenticeship training centers operated by labor unions and employer associations or community colleges, provide RT.

Apprenticeship programs in construction typically last between three and five years, with an average of about four years or about 8,000 hours of combined OJT and RT.

Upon completing a Registered Apprenticeship program, apprentices receive an industry-issued, portable and nationally recognized credential certifying occupational proficiency. In the construction industry, apprentices are typically known as journey workers upon completion of their programs.

The U.S. Department of Labor’s Office of Apprenticeship (OA) and State Apprenticeship Agencies (SAAs) oversees the administration of Registered Apprenticeship programs. OA and SAAs register apprenticeship programs that meet federal and state standards, issue Certificates of Completion to apprentices, assist in the development of new apprenticeship programs through technical assistance, and help market and monitor programs to ensure that educational, safety and training standards are met. Regulatory and program parameters, established under the National Apprenticeship Act and state law, are designed to protect the interests of the apprentice.

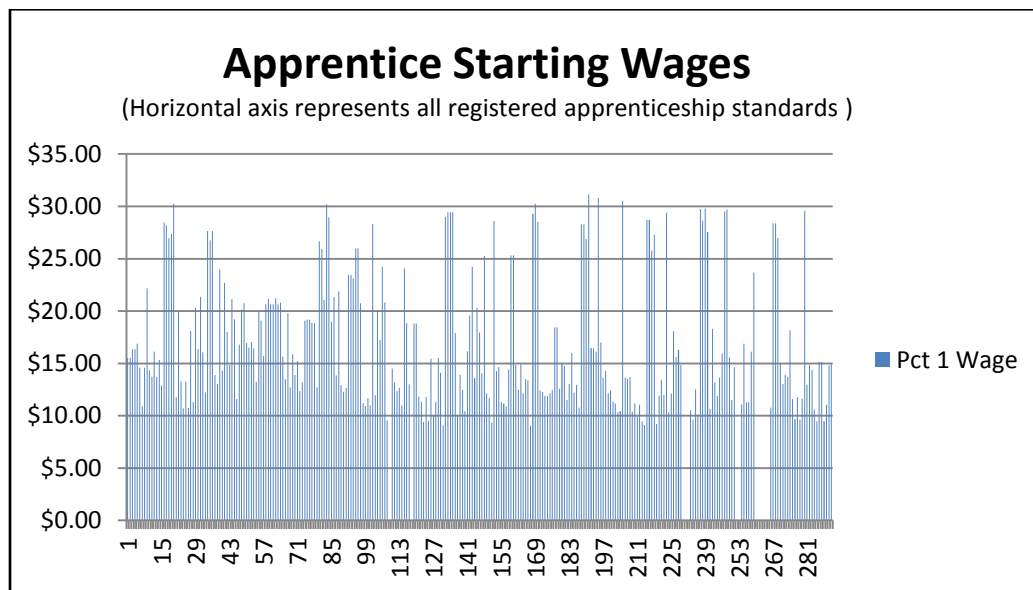
Program sponsors identify and define the qualifications needed to enter their respective apprenticeship programs. Minimum qualifications in construction usually include that the applicant has a high school diploma or GED, is 18 years or older (in some instances, 16 or older), are physically able to perform the job duties, and in some cases pass an aptitude test demonstrating a specified level of math and reading skills. The application process may include an interview or documentation of previous work experience.

Registered apprenticeship in 27 states and territories is currently administered by OA. This means that program sponsors submit their programs to OA for approval and registration; OA is responsible for program oversight and compliance and completion certificates are issued by OA.

Twenty five states and territories, including Oregon, have applied to and received from OA, exclusive authority to approve and administer the operation of registered apprenticeship in their states through a State Apprenticeship Council (SAC). (In these states, OA maintains the right to register programs and apprentices in federal facilities, for railroads and Native American lands.) These states have agreed to conform to the requirements of Title 29 CFR Part 29. Oregon is a SAC state and pursuant to federal regulations, the Bureau of Labor and Industry's (BOLI) Apprenticeship and Training Division (ATD) is responsible for any final decisions that may implicate federal purposes. ATD relies heavily on the expertise of its SAC members in making any such decisions.

By statute or executive order, SAC jurisdictions agree to abide by the applicable federal requirements as established by OA. These SAC states must also agree to financially support a state apprenticeship agency. In doing so, Oregon has established a regulatory structure that substantially mirrors the federal system, but with some differences based upon Oregon's history with registered apprenticeship that pre-dates the federal regulations.

Apprenticeships are real jobs and workers earn a paycheck during their apprenticeship—typically starting at 50 percent to 60 percent of their eventual journey level wages. An apprentice's wages go up 5% - 10% every six months as they successfully progress through the program, complete educational requirements and master additional skills.



Because on-the-job training is part of their job, participants do not have to forgo income from other employment, alleviating one of the key barriers to participating in other training programs. For individuals who are unable or unwilling to take time away from the labor market to pursue postsecondary education, an apprenticeship can be the perfect fit. For an unemployed worker who needs to upgrade his or her skills to find a job, an apprenticeship means an immediate job, steadily rising wages, and an entry into a successful and sustainable long-term career.

Apprenticeships dramatically raise workers' wages from the moment they finish training and continue to benefit them throughout their careers. While Oregon has not conducted research into wages earned by apprentices after completing their programs, the Office of Apprenticeship has noted that workers who complete an apprenticeship earn an average starting annual salary of \$50,000.<sup>36</sup> In the most comprehensive

research to date by OA, analysts conducted a cost-benefit analysis of registered apprenticeships in 10 heterogeneous states for the Department of Labor's Employment and Training Administration and found that apprenticeships confer both short- and long-term benefits to workers. The states were selected to run the gamut of a number of key factors, including program size, geographic region, and levels of union representation.

The study found that the estimated earnings of workers who participated in apprenticeships would be \$98,718 more over their lifetimes than similar nonparticipants; workers who complete an apprenticeship make an average of \$240,037 (\$301,533 including non-wage benefits) more than comparable job seekers in their lifetimes.

## **State Enabling Legislation/Program Authorization**

ORS Chapter 660 establishes the statutory authority for the SAC and ATD. This chapter encourages the development of formal occupational skill standards and the creation of local apprenticeship committees through the voluntary cooperation of management, labor, and government. The Oregon State Apprenticeship and Training Council advises ATD on issues regarding the operation of registered apprenticeship programs in the state. Council members are appointed by the Governor and confirmed by the State Senate.

## **Registered Apprenticeship in Oregon**

Oregon's Apprenticeship and Training Division, part of the Bureau of Labor and Industries, approves and registers apprenticeship training programs and certifies approximately 1,200 journeyworkers per year through collaborations with business, labor, government, and education partners. There are currently 142 active apprenticeship committees in Oregon training under 292 apprenticeship standards in 47 different occupations. These programs provide career training and employment opportunities in technical and craft occupations.

ATD provides services to approximately 4,500 employers. Registered apprenticeship is a sustainable, employer-driven training model offering equal employment opportunities for all Oregonians, moving people directly into career pathways and family wage jobs. The division is currently authorized for 18 FTE.

## **Program Description**

The Apprenticeship and Training Division (ATD) supports Oregonians by:

- Helping business and industry to identify skill gaps and develop training programs;
- Registering and monitoring the operation of apprenticeship programs;
- Registering apprentices in programs and issuing credentials upon completion of programs;
- Conducting annual program compliance reviews;
- Providing technical assistance to improve program operations, promote partnerships with the public education system, and develop diverse pools of applicants;
- Providing outreach and promotion of apprenticeship opportunities, with an emphasis on the recruitment of veterans, women, and people of color; and
- Collaborating with other state agencies with respect to classroom training, licensing, certification, and outreach.

As of January 1, 2015, there were 6,412 active apprentices and 4,485 employers participating in 142 approved programs in Oregon. ATD provides technical assistance to employers and industry groups operating apprenticeship programs. The majority of apprenticeship programs in Oregon are in the building and construction trades. Nationally recognized companies such as Boeing and Intel Corporation are also

program sponsors, as are many family owned businesses, all collaborating in a public/private partnership with the government to create a highly skilled workforce. Most apprenticeship programs partner with local community colleges, with tuition frequently paid by the employer or a training trust, enabling apprentices to earn college credit or obtain an associates' degree during the course of their apprenticeship.

ATD sees registered apprenticeship as an essential tool in closing the state's middle-opportunity job gap in most occupations. Middle-opportunity jobs are those requiring more than a high school education but less than a four-year degree. Middle-opportunity jobs currently make up the largest segment of jobs in our economy and will continue to do so for years to come. These jobs are primarily in the "middle 40" of Oregon's 40-40-20 plan. As more employers become active participants in developing their work forces, value can be realized by utilizing registered apprenticeship. Registered apprenticeship is a people-based strategy where employers and educators directly collaborate to cultivate a skilled workforce.

While the current base for registered apprenticeship in Oregon is primarily in the construction industry, the combination of occupational standards, supervised on-the-job training, and classroom instruction make the apprenticeship model applicable to almost any industry cluster. Expanded use of the apprenticeship model of training can help Oregon maximize its investments in the community college system by combining classroom education with on-the-job experience. ATD is the conduit and resource center for businesses and industry to develop and operate training programs built to their specifications.

Registered apprenticeships are ideal for high-demand careers such as industrial electricians, aircraft mechanics, or plumbers. Examples of occupations where apprenticeships are underutilized in Oregon include dental assistants, legal assistants, machinists, auto mechanics, accountants, and fire fighters. Many Oregonians are currently in school studying these disciplines with no direct connection to or employment within the industry cluster that they are pursuing. Apprenticeship can articulate work and education resulting in a better trained worker for the employer.

Registered apprenticeship helps ease the burden resulting from the recent decline and underfunding of career and technical education ("CTE") in the state. Registered apprenticeship recognizes the significant value of CTE as a tool for preparing current and future workers and creating more opportunities for students transitioning out of high school. Expanding CTE and career pathways in high-demand occupations, enhancing dual enrollment opportunities, and increasing articulation agreements between community colleges and universities are all steps that would help build the employee base for employers and would feed the registered apprenticeship system. ATD collaborates with public education partners to make apprenticeship a step along a career highway, providing training tailored to the needs of the job market -- closer to the employers and available jobs.

### **Veterans' Programs**

BOLI-ATD has a contractual relationship with the Federal Department of Veteran's Affairs to serve as the State Approving Agency for Apprenticeship and On the Job Training (henceforth known as OJT) Facilities. The contractual approval function allows BOLI to approve employers and apprenticeship committees as authorized training facilities to train veterans. Once a veteran is enrolled or hired into an approved training facility, they may make use of their G.I. Bill benefits. As of January 1, 2015, there are 600 veterans enrolled in registered apprenticeship programs and an additional 34 veterans hired into OJT programs. Of the 600 veterans enrolled in registered apprenticeship programs, 366 of those veterans are eligible to use their G.I. Bill Benefits.

The Apprenticeship and Training Division has increase the active facility count by 48% in the past Fiscal year bringing the Division up to 89 Active Facilities and 191 Approved Facilities. An Active Facilities is classified as a facility that currently has a veteran enrolled in its program and receiving benefits. There are currently 191

veterans making use of their G.I. Bill benefits through Apprenticeship and OJT facilities representing 52% of the eligible population.

## **Statewide Services**

Oregon's 147 active apprenticeship committees are widely dispersed throughout the State, although the majority of the large and mid-sized programs are in the Portland metropolitan area and along the Interstate 5 corridor. Approximately 52.6% of active all active apprentices and 51.1% of apprentices completing their programs in calendar 2014 resided in Clackamas, Multnomah and Washington counties. The remaining counties on the Interstate 5 corridor were responsible for 31.1% of all active apprentices and 32.2% of all completing apprentices in calendar year 2014.

While it may appear that registered apprenticeship has excluded the rural areas of the State, a look at overall statewide employment data by county shows that this is not necessarily the case. A comparison of each county's share of statewide employment with the percentage of active apprentices in each county shows that in all but two cases, the percentage of active apprentices in the rural counties is within one percentage point of that county's share of statewide employment. For the most part the distribution of apprentices by county corresponds roughly to the percentage of Oregonians employed by county. Put another way, there is no shortage of registered apprenticeship in Oregon's rural counties, but rather a shortage of jobs.

## **Demographics**

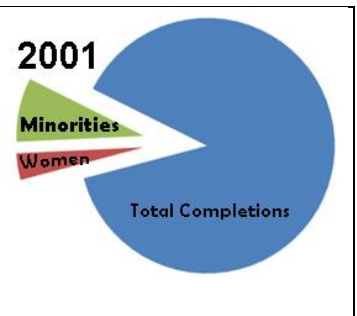
Despite decreasing demand for apprentices from 2009 – 2013 due to the declining economy, minorities and women have gradually increased their participation rates in registered apprenticeship programs.

Retention efforts have served to narrow the participation gap. Most programs have done a good job retaining minority apprentices and minimizing the impact of the 2008 - 2012 economic downturn resulting in greater diversity in the state's workforce. Over time the percentages of women and minorities participating in registered apprenticeship programs have continued to gradually rise, despite an overall decline in the gross number of active registrations through 2013.

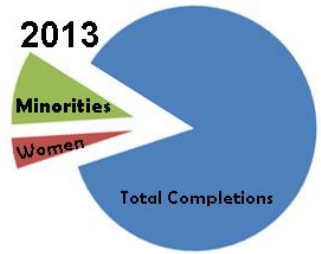
During the same time period, minorities have gradually increased their percentage of the number of individuals completing their apprenticeship programs. Program compliance and technical assistance activities from ATD have focused on the need for programs sponsors to address operational issues that result in a disparate impact for women and minorities. While similar gains have not yet been realized for women, ATD continues to work with program sponsors and community group to ensure equal access to trades careers.

### **Individuals Completing Apprenticeship Programs**

<b>Year</b>	<b>Total Number of Completions</b>	<b># of Women</b>	<b>% of Women</b>	<b># of Minorities</b>	<b>Percentage of Minorities</b>
2004	1013	50	3.81%	120	9.15%
2005	1297	39	3.01%	138	10.64%
2006	1026	22	2.14%	125	12.18%
2007	1006	44	4.37%	112	11.13%
2008	1276	53	4.15%	140	10.97%
2009	1323	68	5.14%	147	11.11%



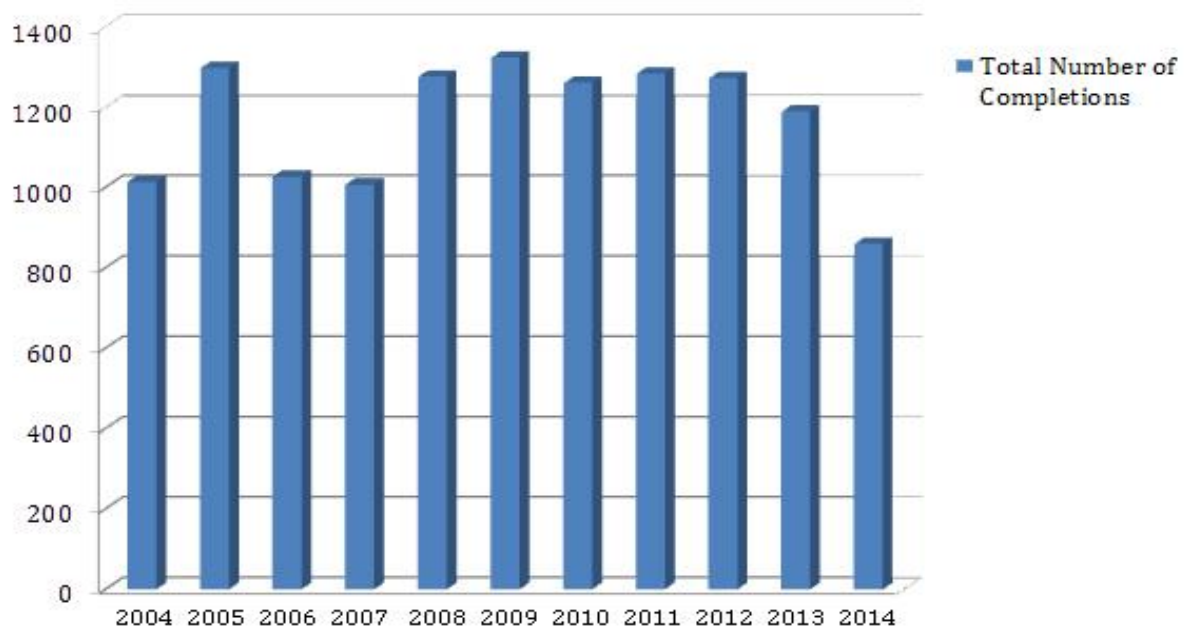
2010	1260	41	3.25%	142	11.27%
2011	1283	57	4.44%	160	12.47%
2012	1272	49	3.85%	140	11.01%
2013	1189	46	3.87%	139	11.69%
2014	860	53	6.16%	127	14.77%



ATD assists registered apprenticeship programs in certifying approximately 1,200 new journey workers every year (depending upon the health of the economy), as indicated in the chart below showing the number of individuals who have completed their programs over the past 10 years. During the 2009-2012 economic downturn, ATD's efforts to assist industry in retaining its current apprentices has actually helped industry increase the total number of individuals completing their apprenticeship programs over the past three years. These men and women now have a nationally recognized work credential and the ability to earn steady family wages. Based upon recent ATD budgeting trends, the state's investment in each completed apprentice is only \$1,013.

### Ten Years of Workforce Development – Year End Program Completions

## Total Number of Completions



Through its program review and technical assistance efforts, ATD has assisted business and industry in closing historic disparities in the number of women and ethnic minorities training in the technical trades.

### Challenges and Opportunities

#### Inadequate Linkages with K – 12 Education

Unlike programs in many countries, the registered apprenticeship system has little linkage with secondary schools and generally recruits adult workers. Only about one in five apprentices are under age 25 and the average age of a registered apprentice is about 30. Concerns about academic standards and educational attainment have supplanted worries about high youth unemployment in recent years. Attention has shifted away from the school-to-career transitions and toward how well elementary and secondary students perform on academic tests as well as the barriers to college enrollment and completion.

The ability to integrate vocational training within the K-12 system is essential to the growth of registered apprenticeship. A statewide policy to expand apprenticeships will need to target either existing Career and Technical education programs or build more programs at the high school level, increasing all types of apprenticeships so they become more common and well-known. Although the community college system's career programs generally have business groups that offer advice on curriculum and program development, a direct linkage between employers, colleges and the apprenticeship system raises collaboration to an unusually high level.

### Economic Cycles of Last 10 years

As the state and national economy improves, the number of registered apprentices should continue to increase in the foreseeable future. Active apprentice registrations dropped from a high of 8,149 in January 2008 to a low of 4,618 in March 2013 as the economic recession took its toll on both employment and training opportunities. As the economy recovers, active apprenticeship registrations have gradually increased to 6,418 as of December 2014. This increase is expected to continue for the next 18 months leading the Division to expend less time on program compliance while it turns its attention to providing technical assistance to programs with respect to recruiting, selecting and administering to new apprentices.

### Lack of Knowledge about Registered Apprenticeship

More broadly, most Oregonians know little about registered apprenticeships. Those that do so believe they are only relevant to workers in construction trades or to unionized workforces. However, the value of the concepts embodied in apprenticeship, such as contextualized learning, work-based learning, and the incentives built into structured programs leading to occupational mastery and certification are applicable to most occupations regardless of whether they are applied in a unionized environment. Moreover, apprenticeship approaches are used in prestigious occupations. Medicine requires work-based learning in medical schools, internships, and residencies. Law students typically spend summers between school years at law firms learning practical skills.

Expanding apprenticeship is critical to dealing with several structural problems plaguing Oregon's workforce. These include too many young people leaving school without skill certifications or adequate employability skills, shortages of workers in skilled trades, widening earnings inequality, and the sharply rising costs of college. Making major progress will depend on a greater recognition that employability and occupation skills deserve as high a priority as academic skills. Finally, policymakers and the public will find it increasingly difficult to ignore the success of apprenticeship in other advanced countries in diversifying routes to rewarding careers and helping the vast majority of workers achieve success in the labor market.

### Continued Lack of Diversity

For the most part, white male apprentices still complete their programs at a disproportionately high rate in comparison to women and ethnic minorities. More strikingly, women still make up less than 7% of all registered apprentices in Oregon despite the fact that they represent more than 51% of the State's workforce. This is partially the result of the heavy concentration of building and construction trades programs in Oregon.

However, more effort is needed to address the underrepresentation in the construction trades and to increase completion rates across all occupations.

Programs have made limited progress to increasing the percentage of women and people of color who actually complete their apprenticeship programs. The lack of statewide policies that recognize and address the disparities in female and minority participation and completion of apprenticeship programs leave the Division with few options to incentivize employer to changes their current recruitment and hiring patterns. Increasing opportunities for employment through the expansion of registered apprenticeship into more non-construction occupations is one step towards addressing this disparity.

#### ODOT – BOLI Supportive Services Program

ORS 184.866 requires the Oregon Department of Transportation (ODOT) to expend one-half of one percent up to an amount of \$2.1 million of the federal funds received each biennium by the Department of Transportation pursuant to 23 U.S.C. 140(b), to increase diversity in the highway construction workforce and prepare those interested in entering the highway construction workforce. ODOT has contracted with the Division to operate this program since 2010.

Between July 1, 2013 and December 31, 2014, the program has provided services to 4,953 individuals ranging from direct support in pre-apprenticeship training programs; pre-employment counselling; orientations about the heavy highway construction industry; basic skills improvement classes; remedial training; career counseling; and assistance with child care, transportation needs; work clothing, tools and equipment. Nationally, women make up fewer than 3 percent of all construction workers; in Oregon, where the vast majority of the registered apprenticeship programs are in the construction trades, women make up over 6.5% of the current program participants. The Institute for Women's Policy Research and Jobs for the Future recently recognized Oregon's efforts to improve gender diversity in the highway construction trades. The Division will continue to use these funds to assist industry partners in reaching employment equity. Intergovernmental agreements, partnerships with other agencies and organizations and participation from a variety of groups and individuals are all evidence of the efforts to move this initiative forward.

#### Collaborations with OED, CCWD and ODE

Many sponsors say they want help in finding and screening applicants, as well as in finding related classroom instruction. There is a great deal of potential in expanding the role of the workforce investment system in assisting apprenticeship programs in screening and identifying sources of related instruction. Finding the proper connection between apprentice program sponsors and employers could substantially increase the utilization of registered apprenticeship.

The Division continues to collaborate with the Oregon Department of Education, the Oregon Employment Department and the Department of Community Colleges and Workforce Development (CCWD) to create strategies for industry partners to recruit and evaluate potential applicants for apprenticeship programs. The Division will also increase its collaboration with CCWD to make sure that apprenticeship training is eligible for community college credit when instruction is provided directly by an apprenticeship program's private training center.