

Oregon Early Learning Workforce: Seven Years Beyond Baseline Comparison of 2012 and 2019

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INTRODUCTION

In Oregon, as in the rest of the nation, increased awareness of the importance of early learning and development has been accompanied by recognition of the critical role played by those who teach and care for young children. Oregon's ability to reach goals such as school readiness for all children entering kindergarten is linked to the knowledge and skill of its early learning workforce. Yet prior to 2012 Oregon lacked data to answer basic questions about those who work in early learning and development programs. We have not been able to answer such basic questions as:

- How many persons work in early learning and development programs?
- What positions do these persons hold?
- What is their gender, race, ethnicity, and primary language?
- What is their education level? How many hold postsecondary degrees?
- How much training do they receive in a year?
- How engaged are they in professional development?

In the late 2000s, members of the Oregon Child Care Research Partnership articulated questions they thought a state should be able to answer about its early learning workforce. The group then identified the information they would need to collect from members of the workforce in order to be able to answer these questions. The Early Learning Division (ELD), Oregon Department of Education, and the Oregon Center for Career Development in Childhood Care and Education (OCCD) at Portland State University designed a data sharing system that would link professional development and regulatory data on a daily basis. They ensured that the new system was designed to store the information needed to answer the policy-relevant questions about the workforce that partners had articulated. In 2012, ELD implemented the new system in which all staff working in regulated child care facilities submitted documentation of training and education to OCCD and that data began being linked with regulatory data managed by ELD. Electronic linking of professional qualification and licensing data has allowed Oregon to answer basic questions about the early learning workforce employed in regulated centers and home-based early learning facilities¹.

Baseline 2012 data on the workforce were reported in 2014 (OCCD & OCCRP, 2014) with follow up reports each year after the baseline (OCCD & OCCRP, 2015; OCCD & OCCRP, 2016; OCCD & OCCRP, 2017; OCCD & OCCRP, 2018; OCCD & OCCRP, 2019a; OCCD & OCCRP, 2019b) Working together, OCCD, ELD, and the Oregon Child Care Research Partnership at Oregon State University (OSU) have analyzed the data for an eighth year, 2019. As with the previous reports, this brief answers questions that partners have determined to be most critical for supporting decision makers as Oregon works to improve outcomes for its youngest children. This brief is the eighth annual report on the workforce. In this report, we compare findings with the baseline. This comparison provides a measure of the impact of early childhood investments on the workforce by viewing changes in important workforce characteristics.

Findings in the first portion of the brief are based on an analysis of data collected from individual workforce members and stored in the Oregon Registry Online database (e.g., age, education, training, and professional engagement). In the second portion of the report, findings are based on data about the workforce collected from child care facilities (e.g., compensation and retention).

¹ Home-based child care providers are typically identified within the field by their regulatory status: a) small home-based providers are known as registered family child care and b) large home-based providers are known as certified family child care. We use the terms small and large home-based providers rather than the regulatory titles throughout this report in order to communicate with a broad group of stakeholders.

FINDINGS BASED ON DATA COLLECTED FROM INDIVIDUAL WORKFORCE MEMBERS

Definition and Size of the Workforce

Importance of this information: The knowledge and skills of those persons who work directly with young children strongly impacts the learning and development of the young children enrolled in early learning and development programs. A critical step in supporting young children’s development is identifying and describing those who work directly with them in childhood care and education facilities.

How measured: Partners identified the positions associated with direct work with children. To be included in the workforce individuals had to be:

- employed in regulated facilities;
- working directly with children and families, operationalized by employment in the following positions² – Aide I, Aide II, Assistant I, Assistant II, Director, Head Teacher, Provider, Site Director/Supervisor, and Teacher; and
- known to be working in regulated facilities in 2019³. This criterion was based on the individual’s hire date as well as their position start and end dates.

24,269 people worked in Oregon regulated early learning facilities in 2019. This represents an increase of 66 individuals from last year, and an overall increase of 3,396 individuals since 2012.

2012	2013	2014	2015	2016	2017	2018	2019
20,873	23,488	22,101	24,761	23,683	24,124	24,203	24,269

Workforce by Type of Care and Position

Importance of this information: Members of the workforce play distinct roles and regulatory requirements vary by the position held so it is important to describe workforce characteristics by position held. Accurately describing the workforce by type of care and position within each type provides information needed for effective targeting of investments.

How measured: Workforce counts were created by type of care and by position within each type. We report counts of those employed in centers, large family homes, and small family homes.

Number of Persons in the Workforce by Type of Care

In 2019, center staff comprised the majority of the workforce with 77% of individuals working in child care centers. Large family child care homes comprised 15% of the workforce, and small family child care homes comprised 8% of the workforce. All individuals in small family homes were listed in the position of provider as small family child care home providers seldom hire staff. The data show a decrease in the number/percentage of persons employed in small home-based facilities and slight increases in both center and large home-based members of the workforce between 2012 and 2019.

² Using positions defined by the Office of Child Care for use in licensing, we determined the positions in which individuals primarily work directly with children and thus meet our definition for the child care workforce.

³ For 2019: Hire date and position start date needed to be less than 12/31/19; and end date needed to be greater than 12/31/18.

Table 1

Workforce by Type of Care	2012 N = 20,873		2019 N = 24,269		Difference 2012 to 2019	
	N	% of workforce	N	% of workforce	N	% of workforce
Center	15,069	72%	18,743	77%	3,674	5%
Large Home-Based	2,295	11%	3,554	15%	1,259	4%
Small Home-Based	3,509	17%	1,972	8%	-1,537	-9%

Note: Percentages throughout this brief are rounded.

Number of Persons in the Workforce by Position

Table 2 shows the number of individuals who worked in each type of care by position. Percentages are of individuals within each type of care (for example, 5% of center staff were directors in 2019). Within centers there was a slight decrease in directors and head teachers since 2012. This decrease may be associated with changes in position titles rather than a decrease in persons running programs. Although there was an increase in the number of large home-based providers, the providers were a smaller percentage of the large home-based staff due to increases in the assistant positions. The number of small home-based providers has continued to decline each year, with 1,537 fewer providers in the field in 2019 compared to 2012. The number of small home-based providers has decreased by more than one-third over the past eight years.

Table 2

Workforce by Position	2012		2019		Difference 2012 to 2019	
	N	% of persons within type of care	N	% of persons within type of care	N	%
Center						
Director	1,176	8%	951	5%	-225	-3%
Site Director / Supervisor	41	0%	281	2%	240	2%
Head Teacher	2,283	15%	2,551	14%	268	-1%
Teacher	7,672	51%	9,780	52%	2,108	1%
Aide II	1,071	7%	1,688	9%	617	2%
Aide I	2,826	19%	3,492	19%	666	0%
Large Home-Based						
Provider	745	33%	1,007	28%	262	-5%
Assistant II	735	32%	1,633	46%	898	14%
Assistant I	815	36%	914	26%	99	-10%
Small Home-Based						
Provider	3,509	---	1,972	---	-1,537	---

Characteristics of the 2019 Child Care Workforce

Importance of this information: Oregon’s young children are increasingly diverse in terms of race, ethnicity, and primary language (Ryan, 2013; U.S. Census, 2015). There is growing evidence of the importance of young children being cared for by persons with knowledge and experience of the child’s culture and language (McCabe et al., 2014). It is important to describe the race, ethnicity, and primary language of members of the early learning workforce in order to assess the extent to which children from diverse backgrounds have access to teachers and providers with shared culture and language.

How measured: Data on race, ethnicity, age, gender, and primary language were asked of providers on the Oregon Registry Online database (ORO) Enrollment form. Completion of this form was optional for those who did not participate in a program managed by OCCD (e.g., Betty Gray Early Childhood Training and Certification Scholarships, or Education Awards). In addition, completion of questions about race/ethnicity and primary language was optional due to the nature of the information. Thus, confidence in the estimates is limited by being based on incomplete data although each year we have seen an increase in the percentage reporting demographic information.

Findings on workforce demographics were based on data from those workforce members who provided that information. As can be seen in Table 3, 74% of workforce members provided all data for gender, race/ethnicity, and primary language in 2019. This reflects a 21% increase in the number reporting demographic data compared to 2012. Since over 99% of individuals had age data, age was not included in the analysis of missing demographic data.

Table 3

Available Demographics (gender, race/ethnicity, and language)	2012		2019		Difference 2012 to 2019	
	N	%	N	%	N	%
All Demographics	11,150	53%	18,003	74%	6,853	21%
Some Demographics	2,404	12%	2,548	10%	144	-2%
No Demographics	7,319	35%	3,718	15%	-3,601	-20%

Demographic Characteristics of the Workforce

In Table 4 below, the number reported in the shaded row for each characteristic is the number of workforce members in each year that provided information on that individual characteristic. When viewing the demographic characteristics of the workforce, the consistency in the findings from 2012 to 2019 is striking. The similarities in findings from year to year strengthen our confidence in the reliability of reported demographic data in describing the workforce.

Table 4

Demographics	2012		2019		Difference in Number or Percent*
Age	20,820		24,228		
Mean (SD)	38.44 (13.58)		36.97 (13.94)		-1.5 years
Range	18 to 91		15 to 88		
Gender	12,605		19,182		
Male	613	5%	1,123	6%	1%
Female	11,992	95%	18,059	94%	-1%
Race/Ethnicity	11,310		18,297		
American Indian	181	2%	263	1%	-1%
Asian	453	4%	819	4%	0%
Black	296	3%	667	4%	1%
Hispanic/Latino/Spanish	1,602	14%	3,549	19%	5%
Hawaiian/Pacific Islander	75	1%	154	1%	0%
White	8,517	75%	12,468	68%	-7%
Multiracial	55	<1%	234	1%	1%
Other	131	1%	143	1%	0%
Primary Language	12,487		20,253		
English	10,569	85%	17,224	85%	0%
Spanish	1,222	10%	2,162	11%	1%
Russian	226	2%	192	1%	-1%
Vietnamese	130	1%	81	<1%	-1%
Chinese	99	1%	130	1%	0%
Other	241	2%	464	2%	0%
Secondary Language			4,976		
English			1,980	40%	---
Spanish			1,696	34%	---
Russian			60	1%	---
Vietnamese			28	1%	---
Chinese			42	1%	---
Other			852	17%	---
Two or more second languages			318	6%	---

*A difference in percent does not necessarily indicate a decrease in the number of individuals in a category. The number of individuals may have increased, but it is a smaller percent of the total population resulting in a decrease in percentage.

Race/Ethnicity by Type of Care

Almost one-third (32%) of Oregon's workforce are persons of color, which includes those who are Hispanic/Latino, Black, Asian, Native Hawaiian/Pacific Islander, American Indian, or multiracial. As seen in Table 5, the percentage of persons of color increased from 2012 to 2019 for all types of care. The

workforce continues to be more diverse than the general adult population in Oregon (Figure 1), but not as diverse as children under 5 of which 36% are Hispanic or Non-White.

Table 5

Race/Ethnicity by Type of Care	2012 N = 11,255		2019 N = 18,297		Difference 2012 to 2019	
	White	Person of Color	White	Person of Color	White	Person of Color
Center	76%	24%	68%	32%	-8%	8%
Large Home-Based	78%	22%	68%	32%	-10%	10%
Small Home-Based	73%	27%	66%	34%	-7%	7%

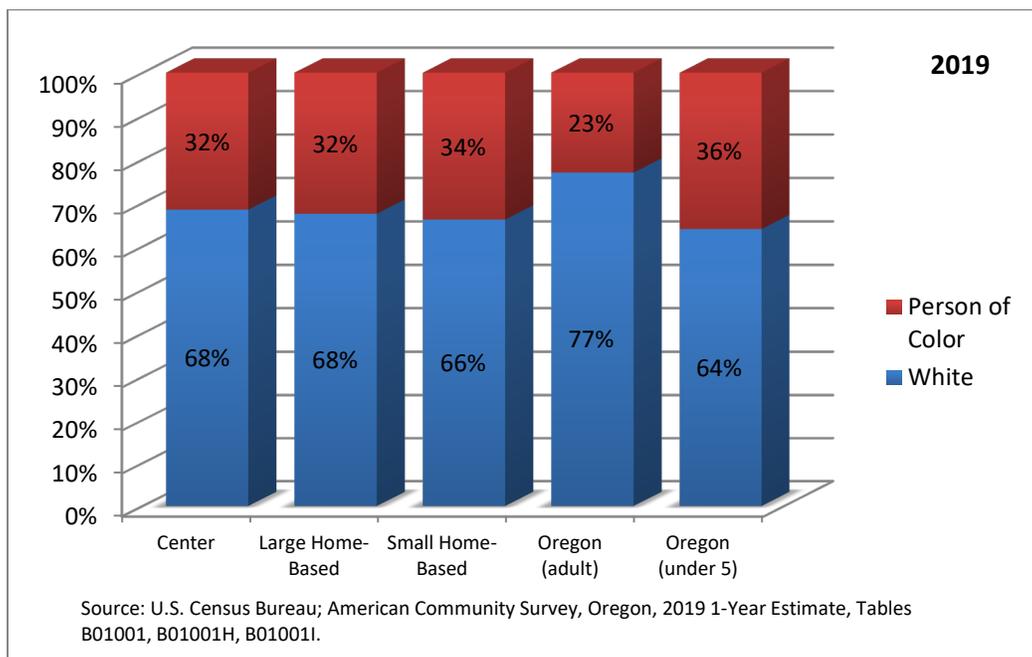


Figure 1

Primary Language by Type of Care

Overall, 85% of Oregon’s workforce reported speaking English as their primary language, with 15% reporting a primary language other than English. Languages other than English include Spanish, Russian, Vietnamese, Chinese, and Other languages. As seen in Table 6, the difference between small home-based providers and the rest of the workforce remained substantial with just over a third of small home-based members having a primary language other than English. Although the overall number of individuals in the workforce increased, the distribution of primary language spoken remained fairly consistent for center-based staff from 2012 to 2019, with increases in the percent of small and large home-based providers who have a primary language other than English. Fifteen percent of Oregonians age five years and older speak a language other than English, see Figure 2.

Table 6

Primary Language by Type of Care	2012 N = 12,487		2019 N = 20,253		Difference 2012 to 2019	
	English	Other Than English	English	Other Than English	English	Other Than English
Center	88%	12%	87%	13%	-1%	1%
Large Home-Based	90%	10%	85%	15%	-5%	5%
Small Home-Based	71%	29%	62%	35%	-6%	6%

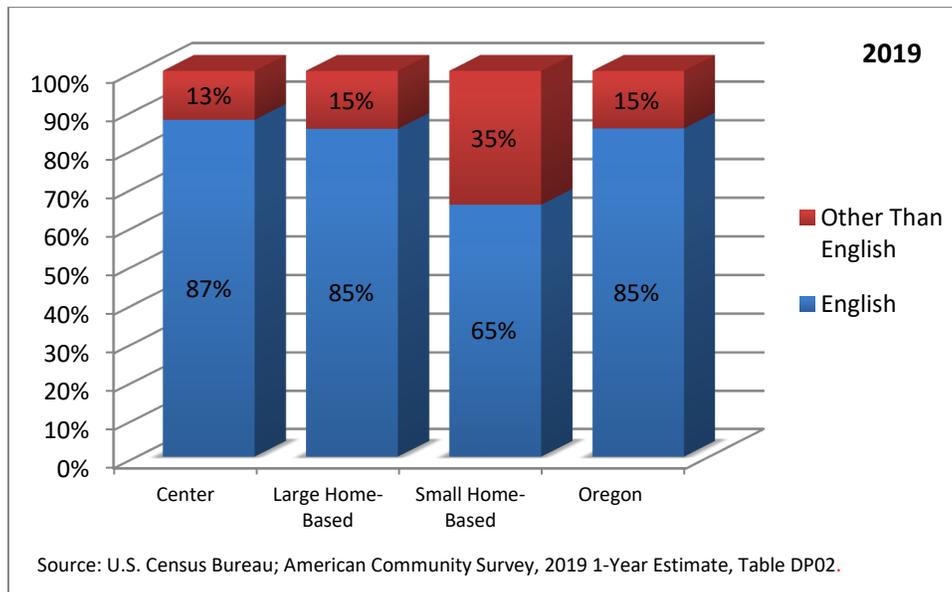


Figure 2

Gender by Type of Care

As seen in Table 7, the workforce continued to be predominantly female although the number of males in the workforce increased from 613 to 1,123 from 2012 to 2019. Even though the percentages do not show an increase for males in centers and small home-based facilities, the number of males increased between 2012 and 2019 in all types of care.

Table 7

Gender by Type of Care	2012 N = 12,605		2019 N = 19,182		Difference 2012 to 2019	
	Female	Male	Female	Male	Female	Male
Center	94%	6%	94%	6%	0%	0%
Large Home-Based	94%	6%	92%	8%	-2%	2%
Small Home-Based	99%	1%	99%	1%	0%	0%

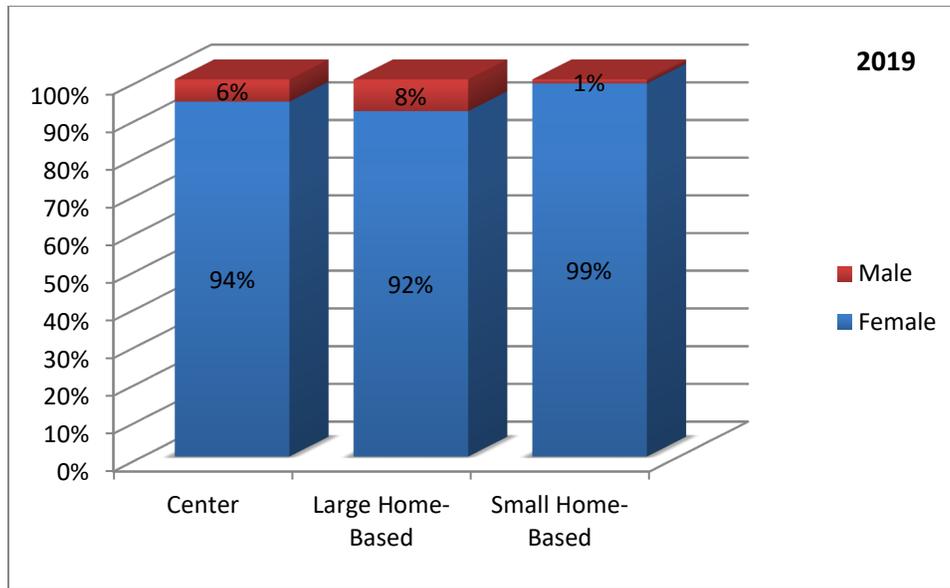


Figure 3

Education of Workforce

Importance of this information: Research has consistently found large positive associations between level of education of parents and teachers and the achievements and behavior of young children (Shonkoff & Phillips, 2000). Research has not yet identified a specific level of education (i.e. bachelors) associated with more positive outcomes (Early et al., 2006; Early et al., 2007; Vu, Jeon, & Howes, 2008). Yet, having less than high school has been found to be associated with less positive outcomes and more education with more positive ones (Ryan & Whitebook, 2012).

How measured: Data on education level was entered into ORO from multiple sources and verified by OCCD when possible. In order to earn a Step on the Oregon Registry Career Lattice (Registry) persons reported education and submitted documentation of coursework as well as degrees. Other workforce members self-reported education through the ORO Enrollment form when they applied for a program managed by OCCD or when they submitted information needed to meet regulatory requirements for the position they held. A final group submitted documentation of college credits to meet regulatory training requirements. In light of the fact that the Registry and other programs at OCCD are voluntary, this process resulted in missing education data on 24% (5,909) of the 2019 workforce. This was a decrease in workforce individuals missing education compared to 2012 (38%). Therefore, our confidence in the estimate of level of education is limited but continues to grow.

Level of Education for the 2019 Workforce

About a third of the workforce has a bachelor's degree or higher and another third have some college or an associate's degree. The remaining third have a high school diploma, GED, or less, with only a small fraction of that third having less than high school. As seen in Table 8, over two-thirds of the workforce had education levels beyond a high school diploma or GED.

Table 8

Education of Workforce	2012 N = 12,968		2019 N = 18,360		Difference 2012 to 2019	
	N	%	N	%	N	%
Less than High School Diploma/GED	418	3%	470	3%	52	0%
High School Diploma or GED	3,521	27%	5,297	29%	1,776	2%
Some college, certificate, or foreign degree	2,910	22%	4,268	23%	1,358	1%
Associate's degree	1,933	15%	2,419	13%	486	-2%
Bachelor's degree or higher	4,186	32%	5,906	32%	1,720	0%

Education Level by Type of Care

As can be seen in Table 9 and Figure 4, in 2019 there continued to be wide differences in education levels across types of care, with 72% of center staff having more than a high school diploma or GED compared with 60% of those in large home-based and 45% of those in small home-based facilities.

Table 9

Education by Type of Care	2012		2019		Difference 2012 to 2019	
	N	% of persons within type of care	N	% of persons within type of care	N	%
Center						
Less than High School Diploma/GED	178	2%	243	2%	65	0%
High School Diploma or GED	2,335	24%	3,741	26%	1,406	2%
Some college, certificate, or foreign degree	2,018	21%	3,348	23%	1,330	2%
Associate's degree	1,544	16%	2,009	14%	465	-2%
Bachelor's degree or higher	3,581	37%	5,066	35%	1,485	-2%
Large Home-Based						
Less than High School Diploma/GED	44	3%	87	3%	43	0%
High School Diploma or GED	402	29%	938	36%	536	7%
Some college, certificate, or foreign degree	381	28%	597	23%	216	-5%
Associate's degree	169	12%	265	10%	96	-2%
Bachelor's degree or higher	371	27%	687	27%	316	0%
Small Home-Based						
Less than High School Diploma/GED	196	10%	140	10%	-56	0%
High School Diploma or GED	784	40%	618	45%	-166	5%
Some college, certificate, or foreign degree	511	26%	323	23%	-188	-3%
Associate's degree	220	11%	145	11%	-75	0%
Bachelor's degree or higher	234	12%	153	11%	-81	-1%

Note: Data on education were not available for 4,336 (23%) individuals in centers, 980 (28%) in large home-based care, and 593 (30%) in small home-based care in 2019.

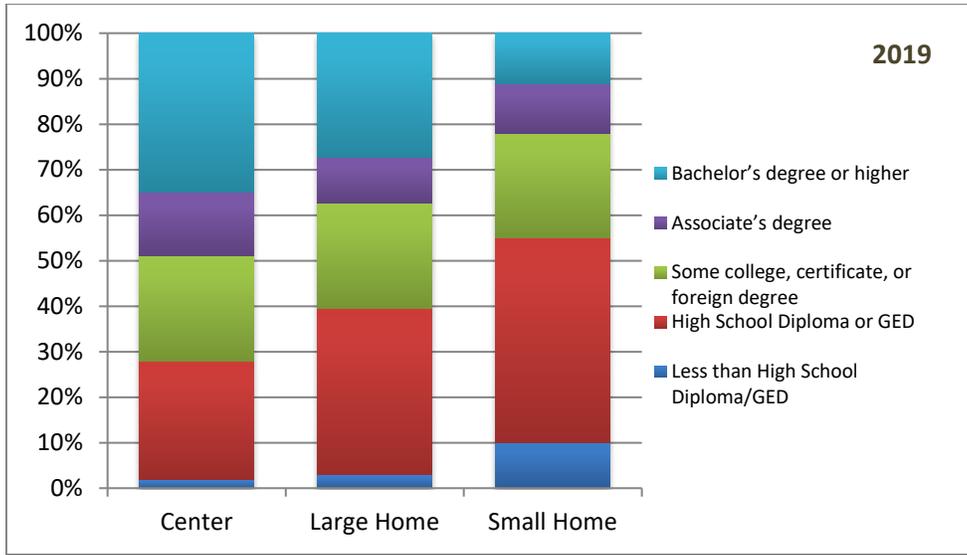


Figure 4

Education Level by Type of Care and Race/Ethnicity

In Figure 5, the difference in education level between white and persons of color are shown for each type of care. In each case, workforce members who were persons of color have lower levels of education. In 2019, the percentage of the workforce with a bachelor's or higher degree ranged from 38% of white staff working in centers to 5% of person of color providers in small home-based settings.

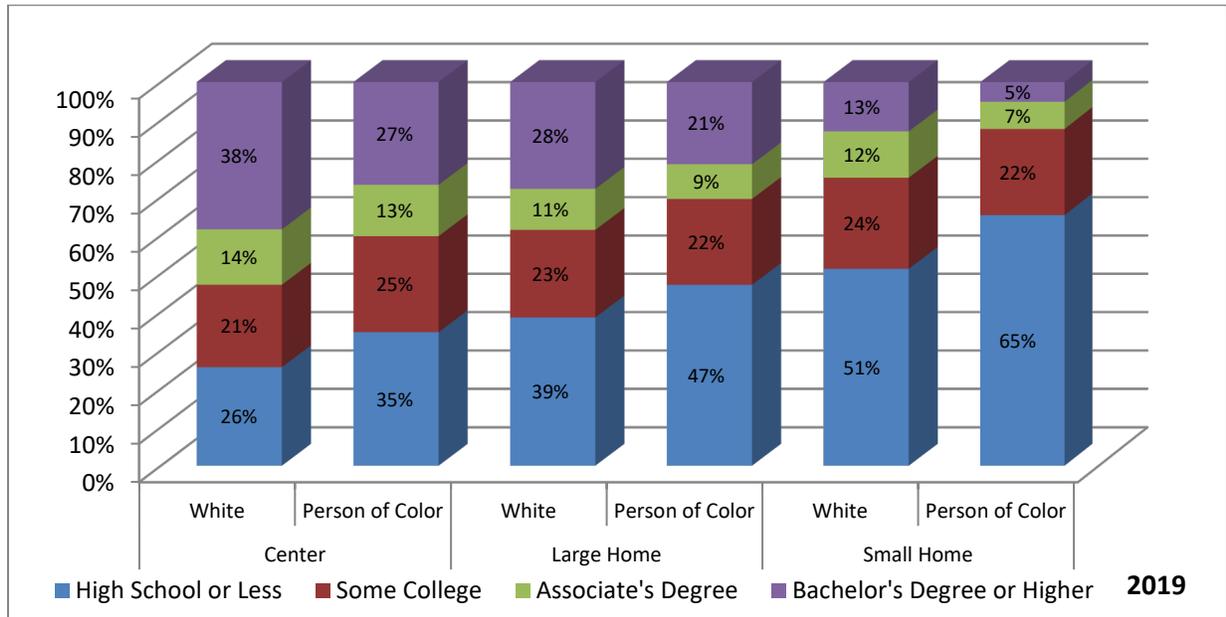


Figure 5

Education Level by Location

When examining education levels across metropolitan⁴ and non-metropolitan areas we again saw only small differences between 2012 and 2019 (see Table 10). Workforce members in metropolitan areas were more likely to have a bachelor's degree or higher but there has been an 1% increase in the percentage with a bachelor's degree or higher in non-metropolitan areas since 2012. Non-metropolitan individuals were slightly more likely to have some college or an associate's degree than individuals in metropolitan areas.

Table 10

Education by Location	2012		2019		Difference 2012 to 2019	
	Metro (10,838)	Non-Metro (2,027)	Metro (16,051)	Non-Metro (2,309)	Metro	Non-Metro
Less than High School Diploma/GED	3%	3%	3%	2%	0%	-1%
High School Diploma or GED	26%	31%	29%	30%	3%	-1%
Some college, certificate, or foreign degree	22%	27%	23%	28%	1%	1%
Associate's degree	14%	20%	12%	19%	-2%	-1%
Bachelor's degree or higher	35%	20%	34%	21%	-1%	1%

Note: In 2012, 202 individuals could not be given a metropolitan/nonmetropolitan distinction because of missing county information. In 2019, if individuals were missing resident county information, the county of their facility was used (n = 594). An additional 5,909 were missing education data.

Percentage of Center Staff that have a Bachelor's Degree or Higher

When we examined the percentage of staff with a bachelor's degree or higher, we saw that directors, site directors/supervisors, head teachers, and teachers were more likely to have a bachelor's degree than were other staff, see Table 11. Although the overall number of individuals with bachelor's degrees or higher increased for most positions, the percentage of individuals with bachelor's degrees or higher decreased for teachers, aides, assistant II, and small home-based providers.

⁴ The Office of Management and Budget (OMB) Core Based Statistical Area classification for counties was used to distinguish between individuals who live in urban and rural areas. Counties are classified as metropolitan if they include an urbanized area of 50,000 inhabitants or more, plus outlying counties with close economic or social ties to the central county. Nonmetropolitan counties include two groups: micropolitan and noncore. Micropolitan counties include at least one urban cluster of between 10,000 and 49,000 people, plus outlying counties. Noncore counties have no population cluster larger than 10,000. The 2012 results use the OMB 2003 definitions, whereas the 2019 results use the OMB 2013 definitions. Between 2003 and 2013, two Oregon counties (Linn, Josephine) moved from being defined as non-metropolitan to being classified as metropolitan.

Table 11

Percent with Bachelor's or Higher	2012		2019		Difference 2012 to 2019	
	N	% of position	N	% of position	N	%
Center						
Director	464	51%	499	56%	35	5%
Site Director / Supervisor	16	57%	149	58%	133	1%
Head Teacher	818	44%	1,157	50%	339	6%
Teacher	1,880	37%	2,637	33%	757	-4%
Aide II	122	21%	212	18%	90	-3%
Aide I	281	23%	412	22%	131	-1%
Large Home-Based						
Provider	180	29%	265	30%	85	1%
Assistant II	128	28%	313	26%	185	-2%
Assistant I	63	22%	109	23%	46	1%
Small Home-Based						
Provider	234	12%	153	11%	-81	-1%

Note: There were 5,909 individuals (24%) who had not submitted data on education.

Training of the Workforce

Importance of this information: Studies have shown recent training to predict quality in both centers and home-based facilities (Raikes et al., 2005) and may be especially important to the quality of family child care (Burchinal, Howes, & Kontos, 2002; Hughes-Belding et al., 2012).

How measured: Community-based training includes in-service sessions, workshops, and trainings from local Child Care Resource and Referral (CCR&R) programs, and training from other training agencies or independent trainers. Providers submitted documentation of community-based training hours to OCCD in order to meet regulatory requirements. An individual may have also completed college course credit hours toward training requirements, but these are not reflected in these totals.

Average Community-Based Training and Child Development Hours by Position

Training hour requirements varied by type of care and by position, with not all positions required to have training hours. In Table 12 below, the positions with shaded rows were required to have 15 hours of training annually with the exception of small home-based providers who were required to have 10 hours over two years⁵. It is interesting to note that the individuals with required hours all exceeded what was required and that those in positions without required hours had substantial numbers of training hours. The number of community-based training hours increased for nearly all positions between 2012 and 2019.

⁵ The training hour requirement for small home-based providers increased from 8 hours over a two-year licensing period to 10 hours over two years on July 1, 2015.

Table 12

Average Community-Based Training Hours by Position	2012		2019		Difference in Hours 2012 to 2019	
	Total	Child Dev ^a	Total	Child Dev ^a	Total	Child Dev ^a
Center Staff						
Director (N = 837) ^b	22.8	17.9	26.3	20.8	3.5	2.9
Site Director/Supervisor (N = 230)	17.2	14.7	31.2	24.4	14.1	9.8
Head Teacher (N = 2,239)	20.7	18.7	25.9	22.1	5.2	3.4
Teacher (N = 8,358)	18.8	17.4	22.5	19.6	3.7	2.2
Aide II (N = 1,329)	15.5	14.1	21.2	18.0	5.7	3.9
Aide I (N = 2,471)	14.3	12.9	15.4	13.3	1.1	0.4
Large Home-Based Staff						
Provider (N = 949)	22.5	20.2	28.1	24.1	5.6	3.9
Assistant II (N = 1,348)	18.3	17.0	19.2	17.3	0.9	0.4
Assistant I (N = 582)	12.3	11.9	12.6	11.2	0.3	-0.7
Small Home-Based Staff						
Provider^c (N = 1,669)	12.9	11.8	15.4	13.4	2.5	1.7

^a The Office of Child Care categorizes training hours directly related to work with children as Child Development Hours. We show these hours separately from total hours, but they are also contained within the total hours.

^b N = the number of individuals in each position that had training hours for 2019.

^c Includes all small home-based providers regardless of renewal cycle. Small home-based providers are on a two-year licensing cycle, the training hours listed are for the 2019 calendar year.

Community-Based Training Hours By Location & Position

As can be seen in Table 13, the number of community-based training hours increased for nearly all positions in both metropolitan and non-metropolitan areas. The pattern of more training hours in non-metropolitan than metropolitan areas has been found in every year since 2012. For the most part, the average increase in the number of training hours between 2012 and 2019 were greater in non-metropolitan than in metropolitan areas.

Table 13

Average Community-Based Training Hours by Location and Position	2012		2019		Difference in Hours 2012 to 2019	
	Metro	Non-Metro	Metro	Non-Metro	Metro	Non-Metro
Center						
Director	22.2	26.1	25.8	29.7	3.6	3.6
Site Director/Supervisor ⁶	16.9	19.3	28.0	51.4	11.1	32.2
Head Teacher	20.1	24.1	25.2	31.9	5.1	7.8
Teacher	18.2	22.7	21.7	28.7	3.4	6.0
Aide II	14.5	19.3	19.7	27.6	5.2	8.2
Aide I	13.5	18.0	14.2	22.1	0.7	4.1

Continued on next page

Table 13 (continued)

Average Community-Based Training Hours by Location and Position	2012		2019		Difference in Hours 2012 to 2019	
	Metro	Non-Metro	Metro	Non-Metro	Metro	Non-Metro
Large Home-Based						
Provider	22.9	20.2	28.2	27.2	5.3	7.0
Assistant II	18.2	20.2	19.1	21.1	0.9	0.9
Assistant I	12.5	12.1	12.7	12.2	0.2	0.1
Small Home-Based						
Provider^a	12.6	14.1	15.1	17.1	2.5	3.1

^a Includes all small home-based providers regardless of renewal cycle. Small home-based providers are on a two-year licensing cycle, yet the training hours listed are for the 2019 calendar year.

Training Hours through Credit Courses

Knowledge and competency of the workforce is a major contributor to the quality of early learning environments. As opposed to single workshops, college courses provide a broader and more in-depth exposure to the knowledge needed for work with young children (Raikes et al., 2006). Also, college credits facilitate the workforce member’s progress toward a certificate or degree. Although there are mixed findings on the importance of a bachelor’s degree to quality, there is recognition that postsecondary education in early childhood or a related field is foundational (Tout, Zaslow, & Berry, 2006).

Although the majority of workforce members continue to use community-based training rather than college courses for their training hours (see Table 14), 6% of the workforce had college credit hours in 2019 (1,281 out of 20,012 with training or education hours). The following table shows the percentage of staff in each position that had hours from credit courses for 2012 and 2019.

Table 14

Training Hours from Credit Courses	2012		2019		Difference 2012 to 2019	
	N	% of position	N	% of position	N	%
Center						
Director	25	3%	21	3%	-4	0%
Site Director/Supervisor	3	9%	16	7%	13	-2%
Head Teacher	92	5%	136	6%	44	1%
Teacher	280	6%	669	8%	389	3%
Aide II	42	6%	108	8%	66	2%
Aide I	73	6%	148	6%	75	0%

Continued on next page

Table 14 (continued)

Training Hours from Credit Courses	2012		2019		Difference 2012 to 2019	
	N	% of position	N	% of position	N	%
Large Home-Based						
Provider	47	8%	55	6%	8	-2%
Assistant II	27	5%	59	4%	32	-1%
Assistant I	16	5%	17	3%	1	-2%
Small Home-Based						
Provider	20	1%	52	3%	32	2%

Note: College credit were taken in a calendar year, 2012 or 2019.

Professional Engagement of the Workforce

Importance of this information: Perceiving oneself as a member of a profession (in a career or following a calling) has been shown to predict observed quality (Kontos, Howes, Shinn, & Galinsky, 1995). Oregon has three major professional development initiatives for which data are available: a) the Oregon Registry⁶, b) Education Awards (monetary award based on achieving a Step on the Registry), and c) the Oregon Statewide Scholarship Program (specific funds may vary by program year, and in 2019 included the Betty Gray Early Childhood Training and Certification scholarship and Oregon’s Family Child Care scholarship). Engaging in one or more of these professional development initiatives indicated an individual’s engagement in professional activity.

How measured: Oregon’s three major professional development initiatives are managed by OCCD. Participation in each of the initiatives was documented in the workforce member's record. To further understand participation in these professional development initiatives, we calculated the percentage of the workforce who participated in these initiatives by type of care.

Persons noted as receiving an Education Award or Oregon Statewide Scholarship could have received the award at any time during their tenure in the workforce. Persons were considered enrolled in the Registry when they applied for, documented competency, and were awarded a Step. This does not include those that were automatically assigned a Step 1 or 2 because of their participation in a program such as the one to earn an enhanced subsidy rate that did not require applying for a Step. Although the vast majority of enrolled persons earned a Step 3-12, a small number earned a Step 1-2.

Engagement in Professional Development Initiatives

As can be seen in Table 15, workforce members were more likely to have enrolled in the Registry or have received an Education Award than to have received a Statewide Scholarship. The percent of workforce members who have ever received an Education Award increased by 13% and the number enrolled in the Registry increased by 21% from 2012 to 2019. The Statewide Scholarship program has

⁶ In addition to those who work directly with children in a regulated facility, the Registry includes others employed in the field of early childhood such as trainers, home visitors, staff of Child Care Resource and Referral agencies, and others. Thus enrollment is far greater than the workforce members whose participation is reported in this brief.

fluctuated over time due to changes in funding sources⁷. Even though the percentage of the overall workforce receiving scholarships shows a slight decrease between 2012 and 2019, the number of workforce members who have received a scholarship increased by over 200 individuals in 2019.

Table 15

Engagement in Professional Development Initiatives	2012		2019		Difference 2012 to 2019	
	N	% of workforce	N	% of workforce	N	%
Enrolled in the Registry ^a	4,601	22%	10,526	43%	5,925	21%
Received one or more Education Award	3,838	18%	7,498	31%	3,660	13%
Received one or more Statewide Scholarship	2,044	10%	2,286	9%	242	-1%

^a Persons were considered enrolled in the Registry when they applied for, documented competency, and were awarded a Step. This does not include those that were automatically assigned a Step 1 or 2.

Number of Professional Development Initiatives

As seen in Figure 6, 44% of the 2019 workforce participated in one or more professional development supports, with 7% participating in all three. In 2012, only 24% of the workforce had participated in at least one professional development initiative, representing an 20% increase in overall participation from 2012 to 2019. Only small percentages of the workforce participated in only the Registry, only the BGECTC scholarship program, or a combination of those two programs (11%, 1%, and 1% respectively). Over half of the 44% who participated in at least one of the professional development initiatives combined enrollment of the Registry with receipt of an Education Award (24%).

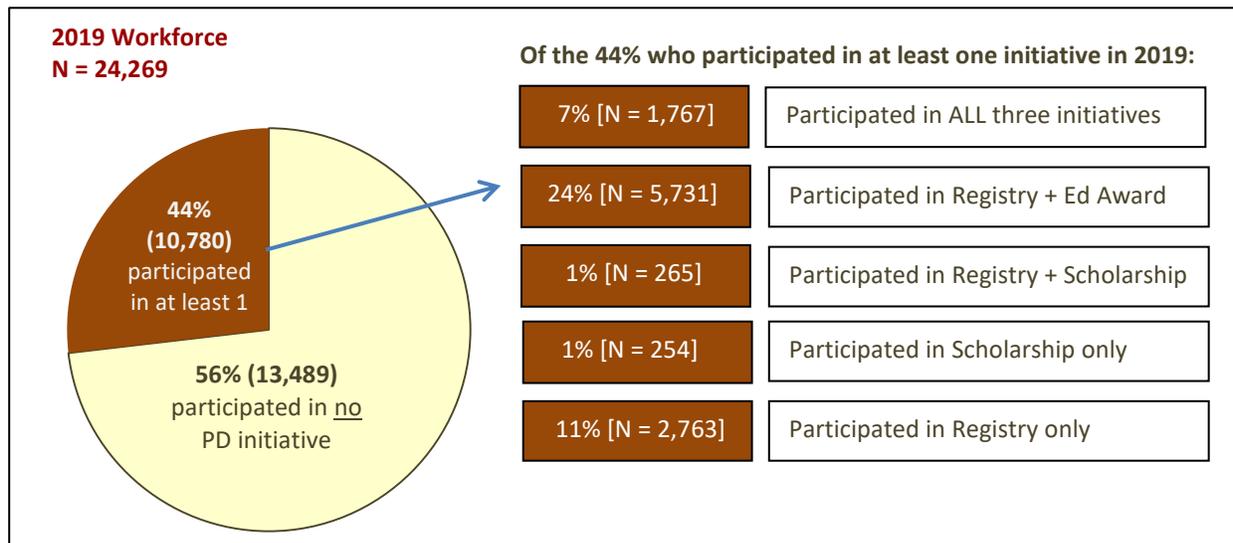


Figure 6

⁷ The BGECTC scholarship program was reorganized after 2012 to address funding decreases and to better target the funding toward providers who had higher needs for advancing their professional development. The reorganization reduced the number of awards available through the Statewide Scholarship Program. Total program participation declined by 70% from the 2011-12 scholarship program year to the 2016-17 program year. Since that time, participation has rebounded to its 2012 level, likely due to the addition of the Oregon’s Family Child Care scholarship in 2018.

Table 16

Combinations of Professional Development Initiatives	2012 N = 20,873		2019 N = 24,269		Difference 2012 to 2019	
	N	%	N	%	N	%
None	15,826	76%	13,489	56%	-2,337	-20%
All Three	1,419	7%	1,767	7%	348	0%
Scholarship & Registry Step	194	1%	265	1%	71	0%
Education Award & Registry Step	2,403	12%	5,731	24%	3,328	12%
Scholarship only	430	2%	254	1%	-176	-1%
Registry Step Only	585	3%	2,763	11%	2,178	8%

Note: Percentages are rounded, thus totals may exceed 100%.

Education Awards

Education Awards are payments that reward childhood care and education professionals for educational achievements and encourage continued training and education. When a person applies for a Step 3 through 12 on the Oregon Registry, they may be eligible for an Education Award. Award amounts are based on the professional development milestone achieved, including reaching Step 3-6, reaching Step 7-8.5, and reaching Step 9-12. Funding for these awards initially came from the 2009 American Recovery & Reinvestment Act and has continued thanks to support from The Oregon Community Foundation and Oregon’s Child Care Contribution Tax Credit.

Overall, 31% of the workforce has received an Education Award since 2012. As seen in Table 17, participation has varied by type of care. In 2019, 31% of center staff and 33% of small home-based providers have received an Education Award, compared to 28% of large home-based staff. Between 2012 and 2019, there were significant increases in Education Awards for all types of care.

Table 17

Education Award by Type of Care	2012		2019		Difference 2012 to 2019	
	N	% of persons within type of care	N	% of persons within type of care	N	%
Center	2,878	19%	5,863	31%	2,985	12%
Large Home-Based	452	20%	990	28%	538	8%
Small Home-Based	508	14%	645	33%	137	19%
Total	3,838	18%	7,498	31%	3,660	13%

Oregon Statewide Scholarship Program for Professional Development

Since 2012, there have been three main scholarships administered as part of the Oregon Statewide Scholarship Program for Professional Development – 1) the Betty Gray Early Childhood Training and Certification scholarship, 2) the Race to the Top Early Learning Challenge Grant scholarships and 3) the Oregon’s Family Child Care scholarship.

The Betty Gray Early Childhood Training and Certification (BGECTC) scholarship has been available to members of Oregon’s childhood care and education workforce since before 2012. The BGECTC scholarship supports the growth of quality child care in Oregon by providing workforce members financial support for training and education. The Oregon Community Foundation's Betty Gray Early Childhood Development Endowment Fund provides funding for the scholarship.

From 2014 to 2016, with funding provided by the Oregon Race to the Top Early Learning Challenge Grant in partnership with the Early Learning Division, the Statewide Scholarship Program administered a Race to the Top (RTT) Supplemental scholarship and an Early Learning Professional Development scholarship (ELPDS). Both Race to the Top funded scholarships aimed to enhance the quality of childhood care and education in Oregon by supporting Early Childhood Educators to obtain associates degrees in the field.

Starting in 2018, Oregon’s Family Child Care (OFCC) scholarship supports professional development for large home-based and small home-based providers. OFCC scholarships help pay for the following professional development opportunities: college coursework; training; conferences; and credential, endorsement, accreditation.

In 2019, 9% of the workforce had received one or more of these Statewide Scholarships, but as can be seen in Table 18, participation has varied over time by type of care. In 2019, 7% of center staff had received a scholarship, compared to 15% of large home-based staff and 19% of small home-based providers. Whereas in 2012, large home-based providers were the most likely to have ever received at least one scholarship (13%), followed by center staff (10%) and small home-based providers (8%). This increase in scholarships for home-based providers is likely due to the addition of the Oregon Family Child Care scholarship starting in 2018.

Table 18

Statewide Scholarships by Type of Care	2012		2019		Difference 2012 to 2019	
	N	% of persons within type of care	N	% of persons within type of care	N	%
Center	1,458	10%	1,392	7%	-66	-3%
Large Home-Based	306	13%	517	15%	211	2%
Small Home-Based	280	8%	377	19%	97	11%
Total	2,044	10%	2,286	9%	242	-1%

Scholarships can be received for a wide variety of purposes, including to support training, college coursework, barrier reduction, child development associate, credentials, accreditation, attendance at conferences, and turning prior learning into college credit. Table 19 displays the number of 2019 workforce members who have received one or more scholarships in each of these areas since 2012.

Table 19

Number of 2019 Workforce Members Who Received One or More Scholarships in Each Type Since 2012

Type of Scholarship	N
Community-Based Training	692
College Coursework Credit	577
Barrier Reduction ⁸	380
Child Development Associate Related	217
Oregon Registry Credential	26
Accreditation Support	30
Conferences	1,323
College Credit for Prior Learning	27
Other ⁹	1

Of 2019 workforce members who had received Statewide Scholarships, 80% had received scholarships that were funded by the Betty Gray scholarship program, 10% had received scholarships funded by the Early Learning Division (Race to the Top or Oregon’s Family Child Care scholarship), and 10% of individuals had received scholarships funded by both sources.

Workforce and Oregon's Registry

Importance of this information: Oregon aims to enroll each member of the workforce in the Registry. Not only does enrollment support professionalism, but having staff with Steps on the Registry is required for a facility’s achievement of a level 3, 4, or 5 in *Spark*, Oregon’s Quality Rating and Improvement System. The Step level of staff affects how high of rating a program can achieve.

How measured: Persons were considered enrolled in the Registry when they applied for, documented competency, and were awarded a Step. This does not include those that were automatically assigned a Step 1 or 2 because of their participation in a program such as the one to earn an enhanced subsidy rate that did not require applying for a Step. Although the vast majority of enrolled persons earned a Step 3-12, a small number earned a Step 1-2. Enrollment in the registry was explored by type of care, position, and location (metro/non-metro).

Registry by Type of Care

Overall, 43% of the entire workforce (10,526 individuals) were enrolled in the Registry in 2019 but as can be seen in Table 20, participation varied by type of care. Forty-five percent of center staff participated in the Registry, compared to 36% of large home-based staff and 38% of small home-based providers. Although the percentage only shows a 21% increase in overall Registry participation, it is noteworthy

⁸ Barrier reduction includes scholarships for activities that are not narrowly defined as training and education but that reduce institutional or economic barriers to individual professional development. Barrier reduction scholarships have included funding for out-of-country degree translation/evaluation, GED exams, college student stipends, and the Oregon Registry Step application fee (discontinued because there is no longer a Registry Step application fee).

⁹ In 2019, Other included the Oregon Family Child Care Infant Toddler Endorsement.

that the actual number of workforce members enrolled in the Registry more than doubled (4,601 to 10,526) in the eight years.

Table 20

Registry Participation by Type of Care ^a	2012		2019		Difference 2012 to 2019	
	N	% of persons within type of care	N	% of persons within type of care	N	%
Center	3,483	23%	8,481	45%	4,998	22%
Large Home-Based	535	23%	1,290	36%	755	13%
Small Home-Based	583	17%	755	38%	172	21%
Total	4,601	22%	10,526	43%	5,925	21%

^a Persons were considered enrolled in the Registry when they applied for, documented competency, and were awarded a Step. This does not include those that were automatically assigned a Step 1 or 2.

Registry by Position

The 2019 data showed that although 45% of the center-based workforce participated in the Registry, participation varied by position. Seventy percent of center directors and head teachers and 49% of teachers had enrolled in the Registry whereas only a combined average of 22% of aides in centers did. As seen in Table 21, 72% of large home-based providers had enrolled in the Registry whereas only a combined average of 22% of their assistants did. Only 38% of small home-based providers had enrolled in the Registry. For all positions, the percentage enrolled in the Registry was greater in 2019 than in 2012.

Table 21

Registry Participation by Position	2012		2019		Difference 2012 to 2019	
	N	% of persons in that position	N	% of persons in that position	N	%
Center						
Director	446	38%	611	70%	165	32%
Site Director/Supervisor	7	17%	185	66%	178	49%
Head Teacher	888	39%	1,775	70%	887	31%
Teacher	1,875	24%	4,746	49%	2,871	25%
Aide II	92	9%	612	36%	520	27%
Aide I	175	6%	502	14%	327	8%
Large Home-Based						
Provider	364	49%	729	72%	365	23%
Assistant II	106	14%	481	29%	375	15%
Assistant I	65	8%	80	9%	15	1%
Small Home-Based						
Provider	583	17%	755	38%	172	21%
Total	4,601	22%	10,526	43%	5,925	21%

Note: Percentages are rounded.

Registry by Location

In both 2012 and 2019, workforce members in non-metropolitan areas were more likely to have a Step on the Oregon Registry than those in metropolitan areas. Forty-two percent of people in metropolitan areas were enrolled in the Registry versus 57% of people in non-metropolitan areas.

Table 22

Registry Participation by Location	2012		2019		Difference 2012 to 2019	
	N	%	N	%	N	%
Metropolitan	3,707	22%	8,834	42%	5,127	20%
Non-Metropolitan	884	26%	1,692	57%	808	31%

Notes: Metropolitan and non-metropolitan were determined using Office of Management and Budget Core Based Statistical Area classification for counties, see footnote on page 15 for more information.

Registry and College Credit Hours

In 2012 and 2019, over half of workforce members who were enrolled in the Registry had college credit hours (see Table 23).

Table 23

Registry and College Credit Hours	2012 N = 4,601		2019 N = 10,526		Difference 2012 to 2019	
	N	%	N	%	N	%
Percent of Registry enrollees with college credit hours	2,514	55%	6,141	58%	3,627	3%

Note: College credits could have been taken prior to the time of the study (2012 or 2019).

Predictors of Participation in Professional Development Initiatives

What workforce member characteristics predict that a person participates in one or more of the following: Registry, Scholarship, Education Awards?

Importance of this information: Increased understanding of who does and does not participate in professional development initiatives can strengthen efforts to target limited professional development resources. Findings from this analysis will assist in identifying those we are reaching as well as those we are not reaching.

How measured: We used a logit analysis to model how workforce members' characteristics predicted engagement in professional development initiatives. Professional engagement was measured as a 1 if workforce members had engaged in at least one initiative (Registry, Scholarships, Education Awards), and a 0 if they had participated in no initiatives.

The characteristics associated with participation in at least one professional development initiative are discussed and presented in the table below. The numbers in Table 24 describe the probability of

engaging in an initiative associated with a change in that characteristic, controlling for the values of other characteristics. This enables us to assess the impact of each particular characteristic on probability of participating in professional development. Asterisks note the significance of the association. For example, in 2019 if the workforce member was an aide in a center the probability of engaging in an initiative was 11% less than the probability of a small home-based provider participating in professional development. The two asterisks show an association is highly significant, meaning it very unlikely that the difference was due to chance and highly likely to represent a real difference indicating a characteristic is associated with the probability of participating.

Table 24

Variable description	2012	2019
	N = 10,898	N = 17,996
Age	0.003**	0.005**
Aide at a center	-0.158**	-0.111**
Director at a center	0.096**	0.122**
Teacher at a center	0.052**	0.071**
Assistant at large home-based care	-0.065**	-0.087**
Provider at large home-based care	0.196**	0.203**
Non-Metro [1=Non-Metro, 0=Metro]	0.071**	0.141**
Training 1-8 hours	-0.017	-0.007
Training 9-15 hours	0.007	0.007
Training 16-25 hours	0.043**	0.064**
Training >25 hours	0.175**	0.234**
Gender [1=Female, 0=Male]	0.117**	0.062**
Race/Ethnicity [1=Person of Color, 0=White]	-0.032**	-0.001
Primary language [1=Non-English, 0=English]	-0.008	-0.088**
Some college, Certificate, foreign degree	0.155**	0.262**
Associate’s Degree	0.242**	0.229**
Bachelor’s Degree	0.174**	0.217**

* Significant at the .05 level; ** Significant at the .01 level

Note: Marginal effects reflect the predicted probability of engaging in an initiative for a change in a characteristic. The sample size for the model is significantly lower than the 24,269 (2019) total workforce due to missing data on education, ethnicity, and primary language. Since in 2012 the results of an imputed missing data model yielded similar results to a model run without imputation, we did not impute missing values in 2019.

Age

Older members of the workforce were slightly more likely to participate in an initiative than were younger members of the workforce. As age increased, the likelihood of participating in an initiative also increased. There was no change in the size or significance of this predictor between 2012 and 2019.

Position

All positions were compared to a small home-based provider. In both 2012 and 2019, aide at a center and assistant at large home-based care facility were significantly less likely to participate in any initiative than a small home provider, while center directors, center teachers, and large home-based care providers had a greater probability of participating in at least one initiative.

Non-Metropolitan

Those living in non-metropolitan areas of Oregon were more likely than those living in metropolitan areas to engage in an initiative in both 2012 and 2019, with the likelihood increasing from 7% in 2012 to 14% in 2019.

Training Hours

Those with training hours were compared to those with no training hours. In 2012 and 2019, those with training hours greater than 15 hours were significantly more likely to have participated in an initiative than were those without any training hours.

Gender

Being female was significantly associated with participating in an initiative in both 2012 and 2019. If the workforce member was female they were about 12% more likely to participate in one or more initiatives in 2012 and about 6% more likely to do so in 2019.

Race/Ethnicity

Race/ethnicity was significantly and negatively associated with engagement in an initiative in 2012, but not in 2019. If the workforce member was a person of color, the probability of engaging in an initiative was not significant in 2019, whereas they had been 3% less likely to do so in 2012.

Primary Language

Having a primary language other than English was significantly and negatively associated with participation in professional engagement in 2019, but not 2012¹⁰. Workforce members whose primary language was not English were 9% less likely to participate in professional development opportunities than their English-speaking counterparts in 2019.

Education

Education comparisons were made to those with a high school diploma or less. In both 2012 and 2019, workforce members who had some college or a certificate, an associate's degree, or a bachelor's degree were significantly more likely to participate in at least one initiative compared to those with a high school diploma or less.

FINDINGS BASED ON DATA ABOUT THE WORKFORCE COLLECTED FROM CHILD CARE FACILITIES

The following section of the brief contains findings based on analysis of data collected from child care facilities about their employees. Compensation data were only collected from centers. Home-based providers have business income, but not typically wages. Therefore, compensation is not an appropriate characteristic for describing home-based providers.

¹⁰ Prior to approximately 2014, most individuals' primary language defaulted to English if not otherwise given. Since then, system partners have increased the reliability of language data. This combination of factors could have influenced the results of this analysis.

Compensation Received by the Workforce

Importance of this information: Lower levels of compensation have been shown to be associated with higher teacher turnover, lower teacher morale, and lower levels of observed quality (Cochran, 2007; Torquati, Raikes, & Huddleston-Casas, 2007; Peisner-Feinberg et al., 2000). Stability of teachers and caregivers affects children both directly and indirectly. Directly, continuity in teachers is critical for children’s ability to feel secure and to ensure that the adult knows the children. Indirectly, children are affected negatively when teachers and caregivers leave because of the negative impacts on staff morale and increased difficulty for remaining staff to train and integrate new teachers into the program. Nationally, as in Oregon, childhood care and education teacher wages are substantially lower than those occupations held by persons with similar education and experience (U.S. Bureau of Labor Statistics, 2013).

Average Low and High Hourly Wage received by Center Teachers, by Facility

How measured: At the time of the annual recertification visit, directors were asked to report the lowest and highest teacher/head teacher wage and the benefits they provided to teaching staff. Prior to 2015, this was collected by licensing specialists. Starting in 2015, this was included as part of the child care center licensing application. Wage is available at the facility-level rather than that of the individual teacher level.

Between 2012 and 2019, center teachers experienced a slight increase in average wages, greater for those earning higher wages than those at the entry level. For context, Oregon’s minimum wage was \$8.80 in 2012 and ranged from \$10.50-12.50 in 2018¹¹.

Table 25

Teacher/Head Teacher Wages	2012		2019		Difference 2012 to 2019	
	Low	High	Low	High	Low	High
Median	9.50	13.61	12.91	18.00	3.41	4.39
Mean	10.33	14.96	13.21	19.07	2.88	4.11
Range (Lowest Low - Highest High)	8.00	45.00	10.00	50.00	---	---
Number of Centers Reporting	805	814	742	740	-63	-74
Percent of Centers Reporting	83%	84%	64%	64%	-19%	-20%

Based on the 2019 median lowest and highest wage, teachers in Oregon’s early learning and child care settings make an average of \$25,800 to \$37,400 annually. In comparison, an analysis completed for the

¹¹ In 2016, Oregon legislature established a series of annual minimum wage rate increases beginning July 1 of each year, as well as set separate rates for employers located in the Portland metropolitan area and within certain “nonurban” counties. Across the calendar year of 2019, the rates were \$12.00-12.50 for the Portland metro area, \$10.50-11.00 for nonurban counties (Baker, Coos, Crook, Curry, Douglas, Gilliam, Grant, Harney, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Union, Wallowa, Wheeler), and \$10.75-11.25 for all other areas of the state.

launching of Oregon’s Preschool Promise program found the average kindergarten teacher wage in Oregon ranged from \$48,000 to \$63,000 in 2016 (Mandell & Bachtle, 2016).

Association Between Teacher Education and Teacher Wages, by Facility

How measured: To answer the question of whether teacher education and wages in centers were related we relied on facility-level data. At the facility-level, we used highest wages paid and the percent of teachers who had an associate’s degree or higher. Wage estimates were divided into three equal parts and compared to whether facilities had more or less than 50% of their teachers with degrees. The table below shows how teacher education and wages were related.

The results indicated a relationship between higher education levels and wages. It is important to note that we viewed both teacher education and wages from a center level. For each center, we used the highest teacher wage paid to create three equal groups: lowest, mid, and highest. For education, we divided the percentage of teachers with a degree (associate’s degree or higher) into two groups: less than 50% of teachers with degrees and more than 50% of teachers with degrees. We then looked to see if there was an association – ***Did centers that paid higher wages also have teachers with higher levels of education?***

As can be seen in Figure 7, we found an association between teacher wages and teacher education. Centers who paid the highest wages had larger percentages of teachers with associate’s degrees or higher whereas those who paid the lowest wages had smaller percentages of teachers with degrees. Further, correlation results confirmed this association as median education was significantly correlated with the highest center wage ($r(673) = .209, p\text{-value} < .001$). This correlation would likely be stronger if data were available at the individual-level.

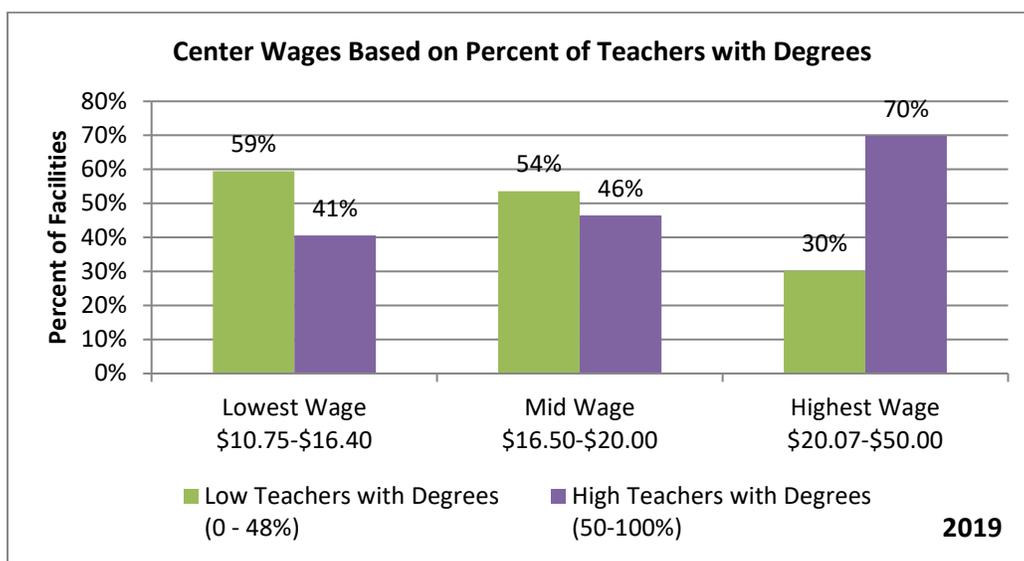


Figure 7

Benefits received by Center Teachers, by Facility

Importance of this information: Access to health and other benefits is vital to family well-being. It has also been linked to retention and staff morale, both of which have been linked to program quality (Whitebook, Sakai, Gerber, & Howes, 2001; Howes & Hamilton, 1993).

How measured: As noted above, center directors were asked to list the benefits they provided to at least some of their teaching staff. Prior to 2015, center directors were asked this in two questions: 1) whether they contribute any dollar amount toward medical benefits and 2) whether they contribute any dollar amount toward other benefits (if so, a list of other benefits was given). Responses to these questions were then compiled into six categories: 1) health insurance (includes medical, dental, vision, and supplemental), 2) paid time off, 3) retirement options, 4) financial supports for training and education, 5) free or reduced child care, and/or 6) paid membership in a professional organization.

In 2015, a change was made on the collection of benefits to collect all six categories individually, as well as breakdown the medical/health benefits into four sub-categories (medical, dental, vision, and supplemental). In order to compare to previous years, the health insurance category continues to be counted as only one benefit if a facility offers at least one of the four sub-categories.

The 2019 data showed improved provision of benefits to center staff. In 2019, 81% of facilities offered three or more benefits to their teachers, compared to only 25% of facilities in 2012. It is important to note that a change in data collection process occurred during this time. Therefore, it is unknown if the increase is due to the change in data collection or an actual increase in the number of benefits offered. We think collecting more specific information (starting in 2015) enabled the directors to report more accurately on the number of benefits they provide.

Table 26

Benefit Counts for Reporting Facilities	2012		2019		Difference 2012 to 2019	
	N	% of facilities	N	% of facilities	N	%
0 benefits	146	17%	26	3%	-120	-14%
1 benefits	269	32%	42	6%	-227	-26%
2 benefits	220	26%	73	10%	-147	-16%
3 benefits	144	17%	149	20%	5	3%
4 benefits	50	5%	196	26%	146	21%
5 benefits	23	3%	208	27%	185	24%
6 benefits			67	9%	67	9%

*Benefit information was reported by 88% (852) of centers in 2012 and 66% (761) of centers in 2019.

As seen in Table 27, there was substantial improvement in provision of most benefits in 2019 compared to 2012. Again, we cannot know if this improvement is due to real change or the changes in data collection that started in 2015.

Table 27

Type of Benefits for Reporting Facilities	2012 N = 852 facilities		2019 N = 761 facilities		Difference 2012 to 2019	
	N	% of facilities	N	% of facilities	N	%
Health Insurance	533	63%	553	70%	20	8%
Paid Time Off	351	41%	646	85%	295	44%
Retirement Options	197	23%	433	57%	236	34%
Training/Education	221	26%	616	81%	395	55%
Free/Reduced Child Care	154	18%	412	54%	258	36%
Membership Professional Org*	0	0%	221	29%	221	29%

*Providing professional membership for staff was not asked directly on the form in 2012, therefore this could account for the lack of facilities reporting it in 2012.

In 2019, sub-categories were collected under health insurance including medical, dental, vision, and supplemental¹⁰ insurance. In order to compare to previous years, the health insurance category was counted as only one benefit if a facility offered at least one of these sub-categories. However, it is important to note the difference in provision of these health benefits. Table 28 displays the number of overall facilities that reported offering each of the health sub-categories in 2019.

Table 28

Health Sub-Categories	N	% of reporting facilities
Medical	517	68%
Dental	440	58%
Vision	424	56%
Supplemental ¹²	194	25%

*Percentages are out of all programs reporting benefits, so they do not total to 100%.

Of those offering health benefits in 2019, 29% offered all four categories, 50% offered three categories, 10% offered two categories, and 12% offered one category (mostly medical). Medical insurance was offered by 97% of those offering health benefits.

¹² A supplemental insurance plan is a health care plan that covers services and out-of-pocket expenses above and beyond what minimum essential medical insurance covers. This may include paying for out-of-pocket medical expenses, such as deductibles and copayments, or by providing an individual with a cash benefit to cover other expenses, such as transportation costs, lost wages, or lodging and meals incurred for medical reasons. Common types of supplemental insurance include accident insurance, hospital insurance, and critical illness insurance. It is often used to supplement other medical insurance or provided alone to cover unexpected injuries or illnesses.

Teacher and Provider Retention in the Workforce

Importance of this characteristic: A higher percentage of teachers who remain in the same center for a year or more provides stability and continuity for children. As noted above teacher turnover negatively impacts children both directly by disrupting the child’s relationship with the adult and indirectly by negatively impacting the remaining staff and overall program.

Percentage of Teachers who Remain in the Same Center for a Year or More, by Facility

How measured: Administrative data enabled us to measure retention of the workforce employed in centers and home-based care. For each type of care we created the measure at the facility level. For centers, we calculated a facility-level percentage of teaching staff whose hire date was one or more years prior to the most recent licensing renewal. In addition to the facility-level measure, we also calculated a workforce measure of retention by analyzing the percentage of total teachers who were at their facility for a year or more.

At a facility-level, in the average center, 75% of teachers were at their center for more than one year in 2019. As seen in Table 29, about half of centers (45%) retained 75% or more of their head teachers and teachers for over a year. Low levels of stability (less than 25% of teachers retained) was an issue for 10% of facilities in 2019.

Table 29

Center Retention: Percent of Centers at Each Level of Teacher Retention

Percent of Teachers Retained at Centers	2012 N = 850 facilities		2019 N = 1,082 facilities		Difference 2012 to 2019	
	N	% of facilities	N	% of facilities	N	% of facilities
0% of teachers over a year	71	8%	76	7%	5	-1%
1% – <25% of teachers over a year	17	2%	28	3%	11	1%
25% – <50% of teachers over a year	126	15%	172	16%	46	1%
50% – <75% of teachers over a year	187	22%	315	29%	128	7%
75% – 99% of teachers over a year	141	17%	206	19%	65	2%
100% of teachers over a year	308	36%	285	26%	-23	-10%

*In 2019, 72 facilities did not have any teachers reported and therefore retention was unable to be calculated.

School age programs have unique challenges related to retention, therefore we further explored their level of retention. Out of all 1,082 centers, 179 programs serve only school age children. These school age only programs have lower retention than programs that serve a variety of age groups. For instance, in the average school age only center, 50% of teachers were at their center for more than one year in 2018. In comparison, 75% of teachers who were not in school age only programs were at their centers for more than one year. Over half (52%) of school age only facilities had 50% or less of their teachers at the center for more than one year, compared to 20% of facilities that are not school age only.

Median Number of Years Home-Based Providers Provide Care in the Same Community

How measured: Calculating retention for home-based providers is more complicated because home-based providers could move within their own community, thus not disrupting the child’s relationship with the provider. Thus, unless a provider moved outside a 10-mile radius or had more than a 30-day gap in service, we did not count the move as a disruption. Years of operation were determined by subtracting the date the facility was certified or registered from the date of the most recent renewal. Note this retention measure is not a measure of how long the average home-based provider continuously maintains their child care business as it does not capture those who enter, stay a limited period of time, and exit. We measure the time that those currently providing care have been providing that care at that home or a home within a 10-mile radius of the original home.

The median number of years providing care rose slightly from 2012 to 2019. Large home-based providers averaged six years of providing care and small home-based providers averaged ten years of providing care in 2019. It is important to note that Oregon created large home-based providers in 2002 and there has been a steady increase in their number since that time. Oregon has had registered small home-based providers since 1993. The number of small home-based providers continues to decrease each year.

Table 30

Home-Based Retention: Number of Years Providing Care in the Same Community

	2012	2019	Difference 2012 to 2019
Large Home-Based Providers	N = 497	N = 797	
Median Number of Years	5.0	6.0	0.00
Range of Years	1 - 20	1 - 33	---
Small Home-Based Providers	N = 1,084*	N = 1,614	
Median Number of Years	8.0	10.00	0.00
Range of Years	0 - 46	0 - 38	---

*Small home-based providers have a two year licensing cycle. In 2012, only small home-based providers that renewed their license in 2012 (about half of all small home-based providers) were included in the analysis. In subsequent years, all small home-based providers who were active in the calendar year were included in the analysis, regardless of their license renewal date.

CHALLENGE TO PROFESSIONALIZATION OF THE WORKFORCE PRESENTED BY TURNOVER AND INSTABILITY

Turnover and instability of the workforce are complex and of high policy relevance due to their impacts on multiple individuals and organizations. High turnover and the related instability within the workforce negatively impact:

1. **Children**, as it represents a loss for them; it decreases the stability and continuity of children’s relationship with adults.
2. **Centers**, as they need to recruit and train new staff.
3. The **professional development system** designed to support, train, educate, and professionalize the workforce, as those supported leave and those entering require basics.

In addition, it has the potential to weaken support for investments in professional development as policy makers might worry about the effectiveness of their investments if large numbers of those served leave the workforce.

Data allow us to examine the extent to which turnover and instability are challenges in Oregon. We have two distinct although related measures of turnover: an individual workforce member measure and a facility-level measure by type of facility. In this section, we look first at measures of turnover and stability from the perspective of the individual, including person-level turnover and person-level stability. In the next section, we look at turnover at the facility level; that is, how stable are a center's teachers. We end with a discussion of the implications of these findings.

Individual Child Care Workforce Member Measure of Turnover and Stability

Turnover of Workforce Members

How measured: A person is considered part of the workforce in a given year if they worked any part of that year based on ORO start, hire, and end dates. We created a longitudinal database of anyone who has been part of the workforce from 2012 through 2019. By matching data for multiple years using a person's unique identification number, we are able to see which years the person has been in the workforce.

It is important to note, however, that during the first few years of establishing the Oregon Registry Online database (linking Oregon Registry and licensing data), data accuracy issues were still being resolved as the system matured. Although initial analysis shows some trends in turnover of workforce members that are worth noting, implications of this analysis should be taken with caution. As more years of data are collected over time, confidence in trends associated with turnover increases.

By matching data for multiple years using a person's unique identification number, we are able to track each person and look at trends over time. Having longitudinal data allows us to increase our understanding of turnover and stability and makes it possible to view changes in the workforce from multiple perspectives. We introduce each measure by defining the question it answers.

How many people leave the workforce each year?

Twenty-four percent of the 2018 workforce exited prior to 2019; that is they were not employed in a regulated facility in 2019 although they had been reported as employed in 2018¹³. Over time, 24% of the 2017 workforce, 23% of the 2016 workforce, 29% of the 2015 workforce, 16% percent of the 2014 workforce, 24% of the 2013 workforce, and 20% of the 2012 workforce left the workforce by the following year, see Figure 8. A two-year moving average is included in Figure 8 to smooth fluctuations due to the cyclical nature of regulatory cycles and position end dates¹⁴. The average turnover rate from year to year has remained fairly stable, with a slight trend upward.

¹³ The year a person exits the workforce is based on their employment end date recorded in ORO.

¹⁴ End dates appear to be cyclically clustered in odd-numbered years, driven in part by regulatory cycles. A number of individuals may have left the workforce during the calendar year preceding that of their recorded end dates. Consequently, annual turnover may be overrepresented in odd years and underrepresented in even years. To account for this, a two-year moving average is being included to better represent the turnover rates across years.

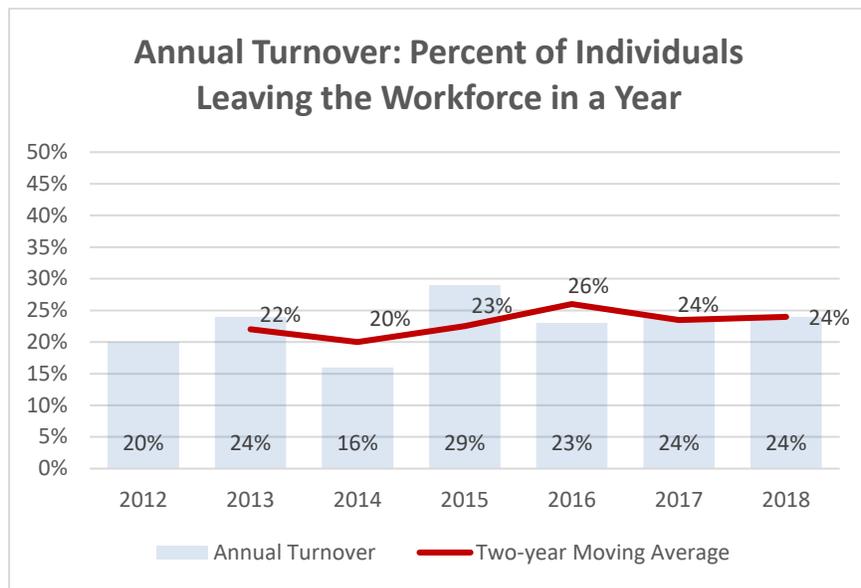


Figure 8

A 24% turnover rate translates to a 76% retention rate, meaning that 76% of individuals in the 2018 workforce were retained into 2019.

How many people entered the workforce each year?

Of the 24,269 individuals in the 2019 workforce, 5,157 (21%) entered as new in 2019 and 799 (3%) returned after a gap of a year or more. The remaining 18,313 individuals were in both the 2018 and 2019 workforce. As seen in Figure 9, the percent of new individuals who entered the workforce in a given year has ranged from 29% in 2013 to 21% in 2019. Table 31 displays the number who entered, returned, and remained in the workforce each year since 2013.

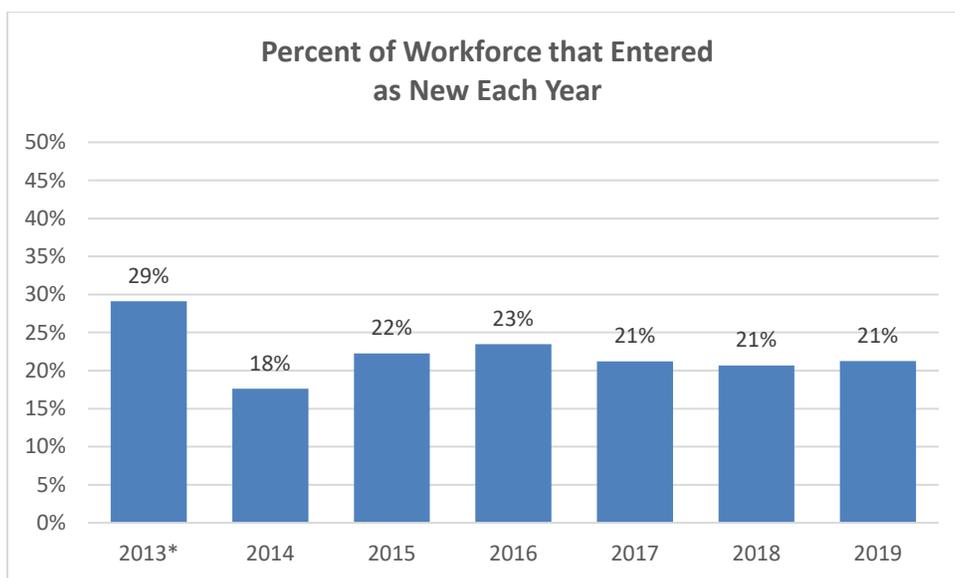


Figure 9

Table 31

Year	Entered as New	Returned After a Gap	Remained	Total Workforce
2013*	6,836	*	16,652	23,488
2014	3,898	321	17,882	22,101
2015	5,510	701	18,550	24,761
2016	5,555	515	17,613	23,683
2017	5,115	663	18,346	24,124
2018	5,007	762	18,434	24,203
2019	5,157	799	18,313	24,269

*For 2013, we are not able to separate the number of workforce members who returned after a gap from the number of new members. Therefore, numbers reported as new for 2013 may overestimate the number of new members entering the workforce. Other possible reasons for this higher number could be an increase in facilities or possibly economic factors as the economy improved.

Does the number of people leaving and entering the workforce differ by type of care?

Combining two years of data, we are able to compare differences in the number of people who enter and leave the workforce by type of care from year to year. For the period from 2018-2019, this includes 30,159 individuals who were in either the 2018 or 2019 workforce.

As seen in Table 32, the percent of individuals who entered and left the workforce varied by type of care. In particular, for all types of care, a similar percentage of the workforce left between 2018 and 2019 (18-20%), but small home-based providers appear to be entering the workforce at a lower rate than individuals in centers and large family homes. Only 9% of small home-based providers entered the workforce between 2018 and 2019, compared to 18-19% of individuals in centers and large family homes. Small-home based providers also had a higher rate of remaining in the workforce between the two years, with 69% of the small-home providers being in both the 2018 and 2019 workforce, compared to 60% of individuals working in centers and large family homes.

Table 32

Type of Care	Left the Workforce		Entered as New		Returned After a Gap		Remained	
	N	%	N	%	N	%	N	%
Center	4,628	20%	4,100	18%	639	3%	14,004	60%
Large Home-Based	778	18%	825	19%	122	3%	2,607	60%
Small Home-Based	484	20%	232	9%	38	2%	1,702	69%

Notes: *Left the Workforce*: were in the 2018 workforce, but left before the 2019 workforce. *Entered as New*: were new to the 2019 workforce and had not been in the workforce in any year prior. *Returned After a Gap*: were in the 2019 workforce, but were not in the 2018 workforce even though they had been in previous years. *Remained*: were in both the 2018 and 2019 workforce.

Over time, the number of small home-based providers in the workforce has consistently declined. There are likely multiple factors contributing to this ongoing decline. These results suggest that one contributing factor is the low rate of small home providers *entering* the workforce compared to other

types of care. Although these results only illustrate the change between the last two years, this trend has been seen consistently over time (going back at least seven years to the baseline of this report).

Stability of Workforce Members

How measured: We use the longitudinal database of all individuals who had been part of the workforce from 2012 through 2019. By matching data for multiple years using a person’s unique identification number, we are able to see which years the person has been in the workforce.

In order to capture stability, we looked at the number of individuals at start of measurement period who remained employed for entire measurement period. More specifically, we followed individuals from the 2012 workforce over time. By assessing how many were still employed in a regulated child care facility in 2019, we can gauge the stability of the workforce.

How stable is the workforce over time? What percentage of the 2012 workforce remained in the workforce over all eight years?

Of the 20,873 individuals in the 2012 workforce, 4,644 individuals (22%) remained in the workforce for all years through 2019 (“Stayers”). In addition, 1,308 individuals were in and out of the workforce, meaning they were in the 2012 workforce and 2019 workforce, but had not been in all years in between. An additional 71% of the 2012 workforce (14,921) had left before 2019 (“Leavers”).

Table 33

2012 Cohort	N	Percent
Stayers	4,644	22%
In and Out	1,308	6%
Leavers	14,921	71%
Total	20,873	100%

Of individuals in the 2012 workforce, 22% had been in the workforce for all eight years, 20% for five-seven years, 41% for two-four years, and 17% for one year, see Figure 10. It is also important to note that a significant percentage of individuals who were marked as in the workforce for eight years were likely in the workforce for years prior to 2012 when workforce data were first collected.

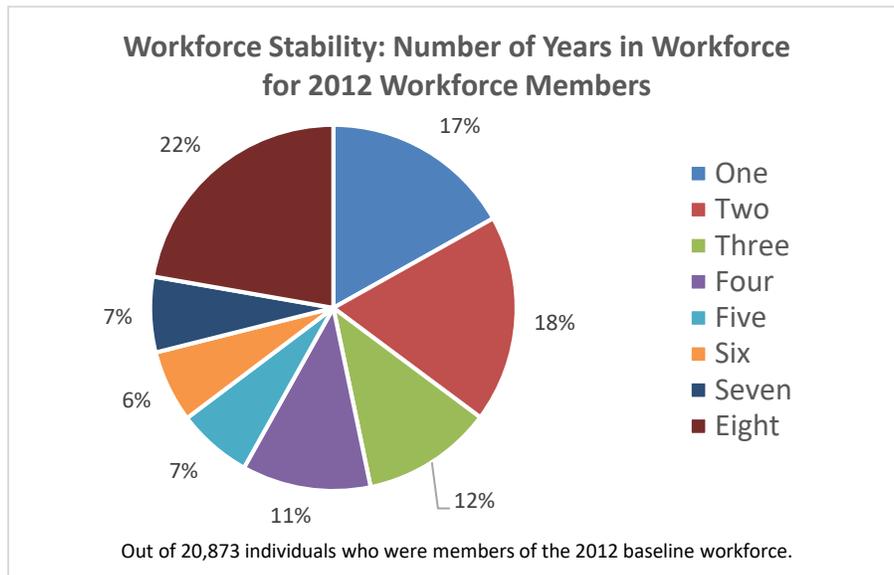


Figure 10

Did stability in the workforce vary by position and other demographic characteristics?

Stability of the 2012 workforce overtime varied by position. In centers, head teachers and directors were the most likely to stay in the workforce, with 29% of head teachers and 28% of directors in the workforce for all eight years. This was followed by teachers (21%), site directors (15%), and aide IIs (14%).

Home-based providers were among the most likely to remain in the workforce for all eight years, with 49% of large home-based providers and 29% of small home-based providers remaining in the workforce for all eight years. The least likely positions to stay in the workforce were center aide I and large home-based assistant I positions with only 9% and 8% of the 2012 cohort staying in the workforce for all eight years.

Table 34

2012 Position*	"Leavers"		"In and Out"		"Stayers"		Total	
	N	%	N	%	N	%	N	%
Center								
Director	795	68%	56	5%	325	28%	1,176	100%
Site Director / Supervisor	33	80%	2	5%	6	15%	41	100%
Head Teacher	1,459	64%	156	7%	668	29%	2,283	100%
Teacher	5,494	72%	546	7%	1,632	21%	7,672	100%
Aide II	840	78%	79	7%	152	14%	1,071	100%
Aide I	2,384	84%	175	6%	267	9%	2,826	100%

Continued on next page

Table 34 (continued)

Large Home-Based								
Provider	336	45%	43	6%	366	49%	745	100%
Assistant II	526	72%	61	8%	148	20%	735	100%
Assistant I	702	86%	51	6%	62	8%	815	100%
Small Home-Based								
Provider	2,352	67%	139	4%	1,018	29%	3,509	100%

*Based on the highest position an individual held during the 2012 calendar year.

In looking at demographic characteristics, “stayers” were on average older than those who were in and out or had left the workforce. The average age for “stayers” in 2019 was 42.29 years, compared to 36.59 for “in and out” and 37.41 for “leavers.” Other demographic characteristics, including education, race/ethnicity, primary language, and location (metro/non-metro), did not appear to influence stability in the workforce.

Is there a relationship between stability and engagement in professional development initiatives?

As can be seen in Figure 11, engagement in professional initiatives varied by how stable a person was in the workforce. Of the 2012 cohort, those who remained in the workforce (“stayers”) had the highest percentage of participation in professional initiatives (70% participating in at least one initiative), compared to those who were in and out (37%) or had left the workforce (26%).

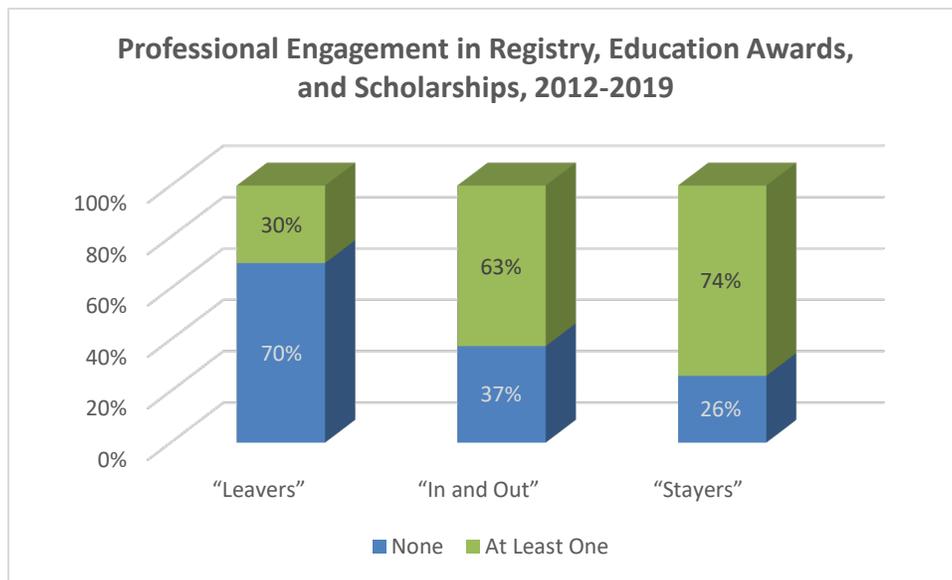


Figure 11

Looking at each type of professional engagement separately, a similar pattern is found. Those who stayed in the workforce were more likely to have been engaged in professional development compared to those who were in and out or had left the workforce. For example, 73% of “stayers” were enrolled in

the registry, compared to only 29% of “leavers.” A similar pattern is seen for those receiving Education Awards and Scholarships, see Table 35.

Table 35

Professional Engagement, 2012-2019	“Leavers” N = 14,921		“In and Out” N = 1,308		“Stayers” N = 4,644	
	N	%	N	%	N	%
Enrolled in the Registry ^a	4,281	29%	790	60%	3,368	73%
Received one or more Education Awards	3,550	24%	653	50%	3,011	65%
Received one or more Statewide Scholarships	1,250	8%	242	19%	1,225	26%

^a Persons were considered enrolled in the Registry when they applied for, documented competency, and were awarded a Step. This does not include those that were automatically assigned a Step 1 or 2.

Child Care Facility-Level Measure of Retention

At the facility level, we asked if there was an association between the level of retention and compensation offered (both wages and benefits) at the center.

Association Between Center Retention and Teacher Wages, by Facility

How measured: To answer the question of whether retention levels and hourly wages in centers were related we relied on facility-level data on highest wage paid at the center and the percent of teachers who were at the center for more than one year at the time of licensing renewal. The wage estimates were then divided into three equal parts and used to predict retention levels across Oregon centers.

To look at the association between teacher retention level and wages we viewed both retention and wages from a facility or center level. For each center, we had teacher wages and a measure of the percent of teachers who had been at the center for a year or more. We looked for a relationship between teacher retention (percent retained) in a center, and the wages the center paid teachers. Using highest reported wage we created three equal groups: lowest, mid, and highest wages reported by each center director. We then looked to see if there was an association – ***Did centers that reported higher wages tend to have higher retention levels than those reporting lower wages?***

As can be seen in Figure 12 below, we found an association between teacher wages and teacher retention, particularly for centers with low retention (i.e., those with less than 63% of the staff at center for more than one year). Specifically, among centers with the lowest level of retention, the largest percentage (41%) also paid the lowest wages. Whereas among facilities with the highest levels of retention, the largest percentages (37%) were paid the highest wage. Interestingly, the centers in the mid retention group were fairly spread out in terms of wages paid. Further, correlation results supported this association as teacher retention level was significantly, yet modestly, correlated with the highest center wage ($r(689) = .089, p\text{-value} < .05$). Results suggest that the relationship between wage and retention may be most clear in low-retention facilities.

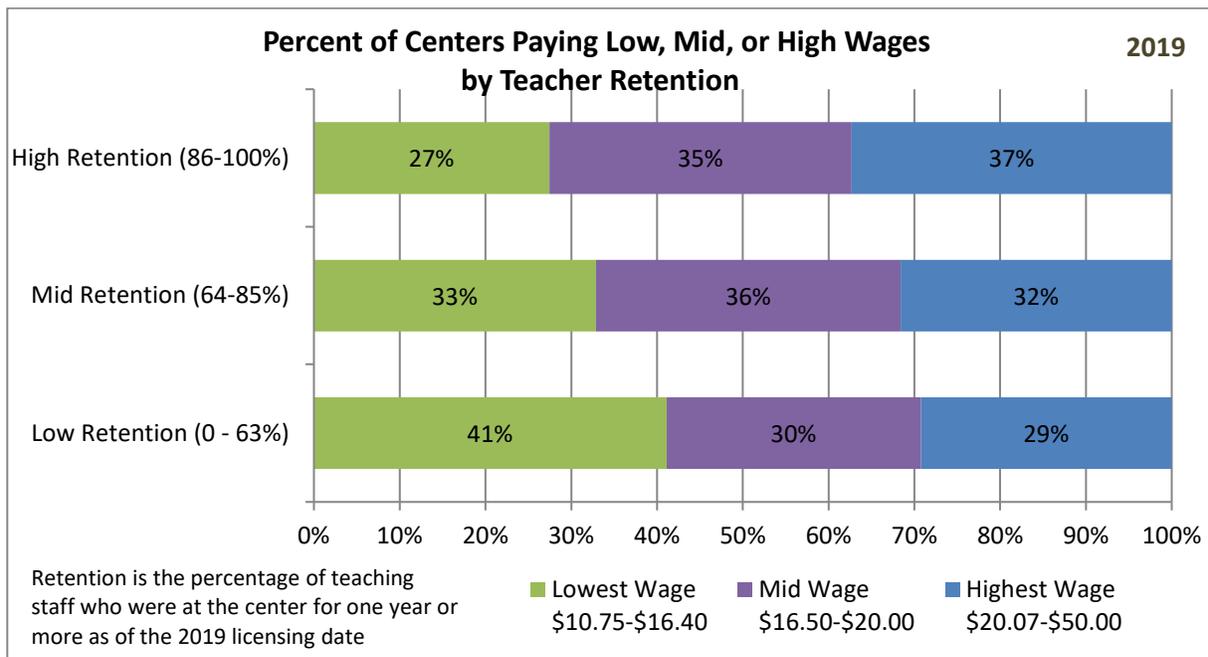


Figure 12

It is important to note that there may be more factors contributing to workforce retention, such as offering of benefits, workplace climate, and larger economic factors, that are playing a role in deciding to stay in the field. In addition, in terms of measurement, wage information is currently only available at the facility or center level. Directors report the highest and lowest hourly wage in their center. By using the highest hourly wage for this analysis, we must make assumptions about the variation in wages being paid in different centers. For example, one center may pay most of their staff \$12 an hour and have one or two individuals who are paid \$20 an hour, whereas another center may pay nearly all staff at \$20 an hour. In the current analysis, these two centers will look the same. Gathering more nuanced information about the nature of wages within centers from center directors or individual level wages from workforce members themselves would help clarify the complex relationship between wages and retention.

Reflections on Retention and Its Challenges to Professional Development

As noted at the beginning of this section, high levels of turnover raise concerns for children, early learning centers, and the professional development system. Data enable us to explore turnover/retention at the level of the individual and at the level of the facility (center, large- or small-home-based program).

When viewing turnover/retention from the level of the individual, we found that 76% of the 2019 workforce (all types of care and all positions who work with children included) had continued to work in the following year—a 76% retention rate. The same rate for K-12 school teachers nationally was 92% in the 2012-2013 academic year. However, that rate was only 85% in schools where the base salary rate was less than \$30,000 (Goldring, Taie, & Riddles, 2014). When using their reported highest wage, just under a quarter (23%) of early learning programs reported a salary under \$30,000 (an annualized

estimate of \$15.21 per hour), the amount associated with low rates of retention in K-12 (Goldring, Taie, & Riddles, 2014). However, when looking at the lowest wage for teachers, 90% of early learning centers had a base salary under \$30,000. Using longitudinal data, we found that 22% of the 2012 cohort had been in the workforce for all eight years.

Further, although turnover rates are similar across types of care (~20%), the small home-based provider workforce continues to see a substantially lower rate of individuals entering than other types of care. To better understand the ongoing decline in small-home care, future work would benefit from investigating reasons for the low entry rate. A deeper understanding of turnover among small home providers should be investigated through an equity lens, as compared to other types of care, small home providers are more likely to speak a primary language other than English and least likely to have a bachelor's degree (especially if they also identify as a person of color).

In terms of professional development, Oregon aims to train, support, educate, and professionalize the workforce including having all workforce members enroll in the Oregon Registry. Turnover, low retention rates, and instability challenge achievement of these goals to the extent that we lose those in whom we have made professional development investments. Luckily, the group that remained in the workforce (stayers) had higher levels of participation in professional development than did those who did not remain (leavers). But maintaining and hopefully growing the overall percentage of the workforce that has participated in professional development and enrolled in the Registry requires reaching large numbers of workforce members, especially if retention rates remain low and growth in the size of the workforce high.

Low levels of retention and overall instability over time decrease continuity for children, increase recruitment and training costs for child care programs, and challenge efforts to professionalize the workforce. In order to reach Oregon's goal of a stable professionalized workforce it seems clear that compensation issues need to part of the conversation. It would also seem that different quality engagement strategies are needed for facilities with higher levels of education, higher wages, and high levels of retention from those with the combination of lower levels of education, lower wages, and lower levels of retention. It seems unlikely that one strategy will work with facilities with such different conditions.

STUDY LIMITATIONS

The data used in this study were collected in the eighth year of a major transformation of Oregon's early learning system. Creation of the Oregon Registry Online (ORO) has enabled the state to collect workforce training and other data from all persons working in regulated child care facilities starting in 2012. Linking individual data with facility licensing data on a daily basis has allowed Oregon to associate each person with the facility in which they were employed at the time that facility was licensed. As with any major system transformation, there were challenges and these challenges likely resulted in missing or incomplete data. Missing data on key descriptors such as education, race, ethnicity, gender, and primary language were a major limitation, yet the percentage with these data has steadily increased and is now at 74% overall. In addition, data were available only for the members of the workforce employed in regulated facilities. Thus, it did not include data on those employed in programs exempt from licensing such as part-day preschools or regulated subsidy providers.

Similarly, data at the facility-level were collected only from regulated facilities. Data were collected at the time of license renewal. The data captured a characteristic related to the workforce but was based

on a characteristic of the facility, such as in the case of compensation (wages and benefits). The findings represent facility averages such as the lowest teacher wage paid or the highest teacher wage paid by centers. Were such data to be collected from individuals, more analyses could be conducted as the characteristic would be associated with an individual workforce member rather than with the facility which employed these workforce members.

CONCLUSION

As of 2012, Oregon has had in place a system that allows it to answer policy-relevant questions about the early learning workforce employed in regulated child care and education facilities. This brief describes the 2019 workforce and compares it with the 2012 workforce. Having a measure of turnover provides critical information for designing the training system. Comparing the 2018 and 2019 workforce, an average of 24% of the 2018 workforce exited; that is they were not employed in a regulated facility in 2019, although they had been in 2018. Twenty-one percent of the 2019 workforce entered, that is they were employed in 2019 but had not worked in a regulated facility in 2018. The 24% turnover rate in early learning facilities compares with an 8% national teacher turnover rate in K-12 and a 15% rate in K-12 schools with a base salary of \$30,000 or less. Low wages are associated with high turnover rates in both early learning and K-12. High turnover rates harm children and challenge professional development investments; although in Oregon's early learning workforce we find that those in whom we made professional development investments were mainly in the group who remained in the workforce.

Findings also support assessment of quality improvement efforts. In 2013, Oregon launched its Quality Rating and Improvement System (QRIS), known as Spark. Spark includes investments in individuals and facilities. Having 2012 baseline data allows Oregon to measure the impact of those investments on critical measures of workforce characteristics. This 2019 report is a measure of the impact of these investments. Workforce members earned higher numbers of training hours and slightly more of these hours were from college courses. Numbers participating in professional development increased substantially with 5,925 more workforce members having Steps on the Oregon Registry in 2019 than did in 2012. These findings enable decision makers to assess both the strengths and weaknesses of this workforce as well as change over time, information that is critical for making informed decisions about investments in professional development.

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