Oregon Early Learning Workforce: Nine Years Beyond Baseline Comparison of 2012 and 2021

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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. Prior to 2012 Oregon lacked data to answer basic questions about those who work in early learning and development programs. Since 2012, on an annual basis, we are now 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?

The development of this report started in the in the late 2000s when 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) (now Department of Early Learning and Care, DELC), 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 facilities[1].

Baseline 2012 data on the workforce were reported in 2014 (OCCD & OCCRP, 2014) with follow up reports each year after the baseline (OCCD & OCCRP, 2015-2023). Working together, OCCD, DELC, and the Oregon Child Care Research Partnership at Oregon State University (OSU) have analyzed the data for a tenth year, 2021. As with the previous reports, this report 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 report is the tenth annual report on the workforce. In this report, we compare findings with the baseline year (2012). 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 report 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). In 2021, not all facility-level workforce data were available, therefore, this report does not include a section on facility-level

[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.

retention that has been traditionally included in the annual workforce reports. Facility-level retention will again be available in the 2022 Workforce Report.

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 positions[2] – 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 2019[3]. This criterion was based on the individual's hire date as well as their position start and end dates.

23,066 people worked in Oregon regulated early learning facilities in 2021. As can be seen by Figure 1, the workforce fluctuated in the early years, stabilizing around 24,000 individuals around 2017. 2020 represents only a pre-COVID subsample of the workforce[4], with the workforce returning to 23,066 individuals in 2021. Overall, there has been an increase of 2,193 individuals in the workforce between 2012 and 2021.

2012	2013	2014	2015	2016	2017	2018	2019	2020[4]	2021
20,873	23,488	22,101	24,761	23,683	24,124	24,203	24,269	19,441	23,066

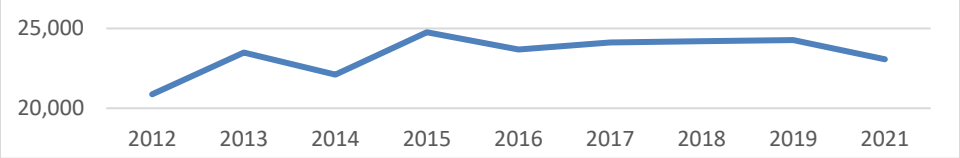

Figure 1 *Excludes 2020

When viewing the total workforce size estimates, it is important to note that 2020 is a subsample of the 2020 workforce that only includes individuals who worked in regulated early learning facilities during

[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 2021: Hire date and position start date needed to be less than 12/31/21; and end date needed to be greater than 12/31/20.

[4] In response to COVID-19 global pandemic, Governor Kate Brown declared a State of Emergency in Oregon on March 8, 2020. On March 25, 2020, child care providers were ordered to close unless they were providing Emergency Child Care (ECC). The transition to ECC changed how data on workforce members was collected from child care providers and resulted in an inability to confidently know who was working at a facility in the later parts of 2020. Therefore, the 2020 workforce is a subsample of those who worked in early care and education facilities in early 2020 (pre-covid), limiting the comparison to prior and preceding years based on total number.

January-March 2020 prior to the COVID-19 pandemic. The 2020 total excludes any individuals who joined or returned to the workforce in the later part of 2020, and therefore does not represent a workforce sample equivalent to that of other years.

The specific impact of the pandemic on the workforce during the later part of 2020 is outside of the scope of this report, however, we acknowledge that the landscape of the child care workforce in Oregon was greatly impacted by the COVID-19 pandemic in 2020, resulting in significantly lower availability of child care and smaller workforce during this time[5]. That said, the 2021 workforce (n = 23,066) has returned to within 5% of the total 2019 workforce (n = 24,269), which speaks to the recovery of the child care and early education field in the wake of the pandemic.

Although the main comparisons in this report compare 2021 to the 2012 baseline, any substantial changes between the pre-COVID (2019 or early 2020) workforce and current 2021 workforce are also noted.

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 2021, 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.

Table 1

Workforce by Type of Care	2012 N = 20,873		2021 N = 23,066		Difference 2012 to 2021	
	N	% of workforce	N	% of workforce	N	% of workforce
Center	15,069	72%	17,851	77%	2,782	5%
Large Home-Based	2,295	11%	3,476	15%	1,181	4%
Small Home-Based	3,509	17%	1,739	8%	-1,770	-9%

Note: Percentages throughout this report are rounded.

As seen in Figure 2 & Figure 3, the data show slight increases in both center and large home-based members of the workforce and a decrease in the number of persons employed in small home-based

[5] During the pandemic, federal and state emergency funding programs were enacted to support and stabilize the child care workforce (e.g., Oregon Emergency Child Care Grants and the Federal Paycheck Protection programs). For more on Oregon's policy efforts to stabilize the child care field, see Ginsberg et al., 2023 & Barrett Rivera et al., 2020.

facilities between 2012 and 2021. There was no difference in the distribution across types of care between pre-COVID (2019) and 2021.

Center Workforce from 2012 to 2021

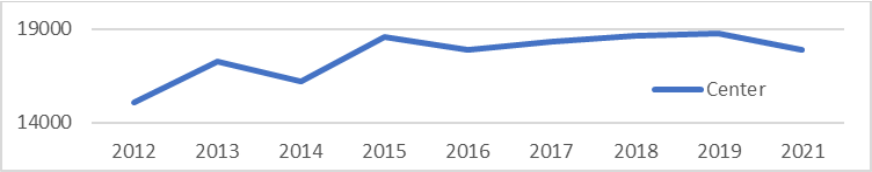

Figure 2 *Excludes 2020

Large and Small Home-Based Care Workforce from 2012 to 2021

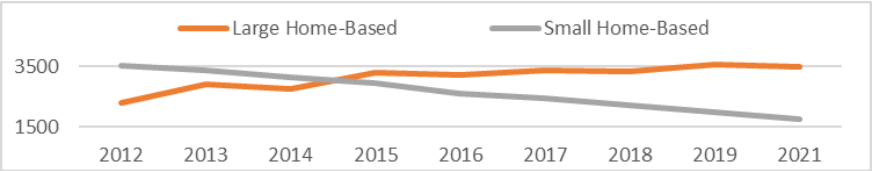

Figure 3 *Excludes 2020

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 2021). 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 1,770 fewer providers in the field in 2021 compared to 2012. The number of small home-based providers has decreased by more than half over the past ten years.

Table 2

Workforce by Position	2012		2021		Difference 2012 to 2021	
	N	% of persons within type of care	N	% of persons within type of care	N	%
Center						
Director	1,176	8%	929	5%	-247	-3%
Site Director / Supervisor	41	0%	270	2%	229	2%
Head Teacher	2,283	15%	2,178	12%	-105	-3%
Teacher	7,672	51%	10,006	56%	2,334	5%
Aide II	1,071	7%	1,650	9%	579	2%
Aide I	2,826	19%	2,818	16%	-8	-3%

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Table 2 (continued)

Workforce by Position	2012		2021		Difference 2012 to 2021	
	N	% within type of care	N	% within type of care	N	%
Large Home-Based						
Provider	745	33%	1,084	31%	339	-2%
Assistant II	735	32%	1,566	45%	831	13%
Assistant I	815	36%	826	24%	11	-12%
Small Home-Based						
Provider	3,509	---	1,739	---	-1,770	---

Characteristics of the 2021 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 the percentage reporting demographic information increases.

Findings on workforce demographics were based on data from those workforce members who provided that information. As can be seen in Table 3, 76% of workforce members provided all data for gender, race/ethnicity, and primary language in 2021. This reflects a 23% 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		2021		Difference 2012 to 2021	
	N	%	N	%	N	%
All Demographics	11,150	53%	17,444	76%	6,294	23%
Some Demographics	2,404	12%	2,838	12%	434	0%
No Demographics	7,319	35%	2,784	12%	-4,535	-23%

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 2021 is striking. The similarities in findings from year to year strengthen our confidence in the reliability of reported demographic data in describing the workforce. In looking over time, the proportion of Hispanic/Latino individuals has increased by 7% since 2012, with 1% increases for Black/African American and multiracial individuals, and an 8% decrease in the proportion of White individuals. There were no significant differences in the racial/ethnicity composition of the workforce between pre- and post-COVID (2019-2021).

Table 4

Demographics	2012		2021		Difference in Number or Percent*
Age		**20,820**		**23,066**	
Mean (SD)	38.44 (13.58)		37.27 (14.00)		-1.2 years
Range	18 to 91		16 to 90		
Gender		**12,605**		**18,767**	
Male	613	5%	1,144	6%	1%
Female	11,992	95%	17,623	94%	-1%
Race/Ethnicity		**11,310**		**17,781**	
American Indian/Alaskan Native	181	2%	271	2%	0%
Asian	453	4%	708	4%	0%
Black/African American	296	3%	646	4%	1%
Hispanic/Latino/Spanish	1,602	14%	3,758	21%	7%
Hawaiian/Pacific Islander	75	1%	171	1%	0%
White	8,517	75%	11,828	67%	-8%
Multiracial	55	<1%	216	1%	1%
Other	131	1%	183	1%	0%
Primary Language		**12,487**		**20,015**	
English	10,569	85%	17,016	85%	0%
Spanish	1,222	10%	2,200	11%	1%
Russian	226	2%	177	1%	-1%
Vietnamese	130	1%	61	0%	-1%
Chinese	99	1%	119	1%	0%
Other	241	2%	442	2%	0%

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Table 4 (continued)

Demographics	2012	2021		Difference in Number or Percent*
Secondary Language			**4,961**	
English	Secondary language not available for 2012	2,105	42%	---
Spanish		1,953	39%	---
Russian		75	2%	---
Vietnamese		24	0%	---
Chinese		58	1%	---
Other		520	10%	---
Two or more second languages		226	5%	---

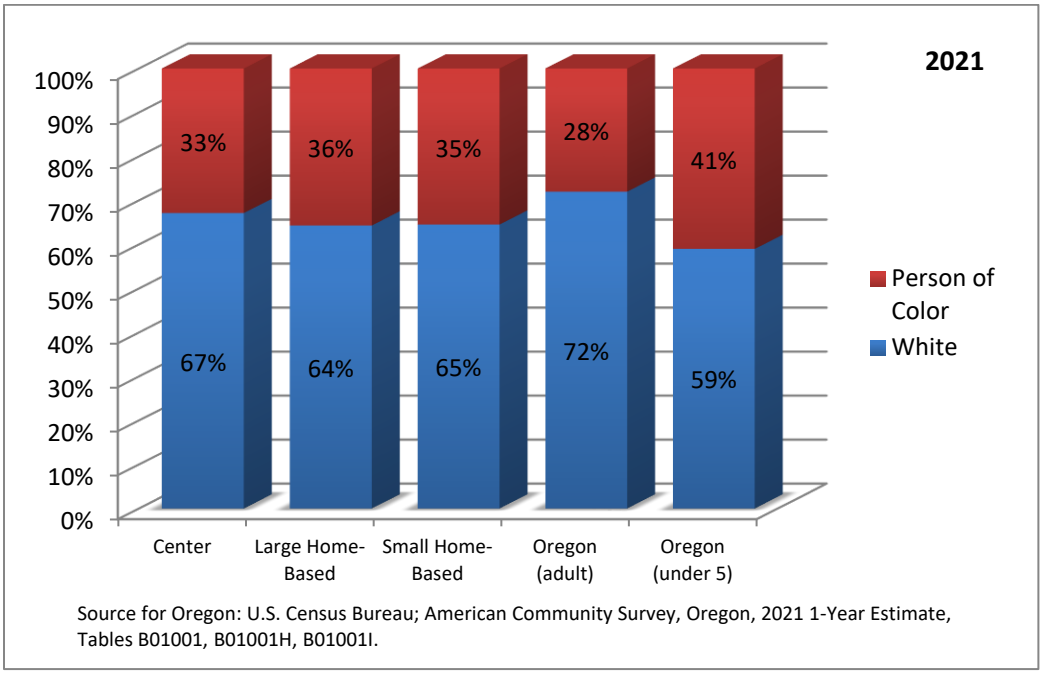
*A difference in percent does not necessarily indicate a decrease in the number of individuals in a category. The number of individuals may have increased, but it is a smaller percent of the total population resulting in a decrease in percentage.

Race/Ethnicity by Type of Care

One-third (33%) of Oregon's workforce are persons of color, which includes those who are Hispanic/Latino, Black/African American, Asian, Native Hawaiian/Pacific Islander, American Indian/Alaskan Native, or multiracial. As seen in Table 5, the percentage of persons of color increased from 2012 to 2021 for all types of care. The workforce continues to be more diverse than the general adult population in Oregon (Figure 4), but not as diverse as children under 5 of which 41% are Hispanic or Non-White.

Table 5

Race/Ethnicity by Type of Care	2012 N = 11,255		2021 N = 17,781		Difference 2012 to 2021	
	White	Person of Color	White	Person of Color	White	Person of Color
Center	76%	24%	67%	33%	-9%	9%
Large Home-Based	78%	22%	64%	36%	-14%	14%
Small Home-Based	73%	27%	65%	35%	-8%	8%



Source for Oregon: U.S. Census Bureau; American Community Survey, Oregon, 2021 1-Year Estimate, Tables B01001, B01001H, B01001I.

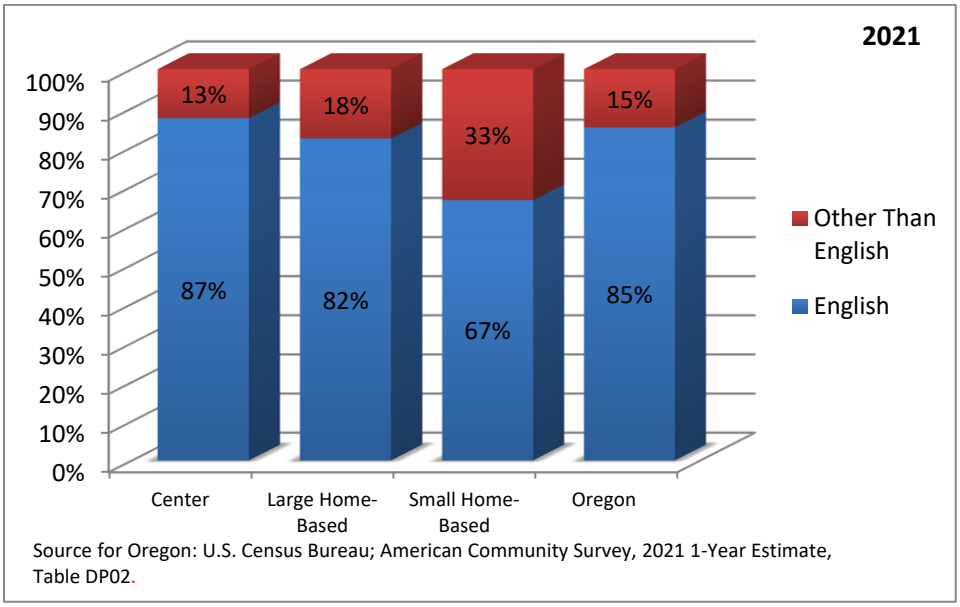
Figure 4

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 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 2021, 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 5. There were no differences from the pre- to post-COVID (2019-2021) in the percent of those with primary language of English compared to languages other than English.

Table 6

Primary Language by Type of Care	2012 N = 12,487		2021 N = 20,015		Difference 2012 to 2021	
	English	Other Than English	English	Other Than English	English	Other Than English
Center	88%	12%	87%	13%	-1%	1%
Large Home-Based	90%	10%	82%	18%	-8%	8%
Small Home-Based	71%	29%	67%	33%	-4%	4%



Source for Oregon: U.S. Census Bureau; American Community Survey, 2021 1-Year Estimate, Table DP02.

Figure 5

When looking at language by type of care, there was a slight shift from pre- to post-COVID (2019 -2021) for home-based providers. The percent of large home providers speaking a primary language other than English increased from 15% to 18% and percent of small home decreased from 35% to 33% from 2019 to 2021. It is hard to say whether we would have seen this shift due to the natural passage of time or if COVID or other factors contributed. It will be important to see if the numbers continue to shift when the 2022 study is completed.

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 1,144 from 2012 to 2021. 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 2021 in all types of care. There were no differences across pre- and post-COVID years (2019-2021) in the gender distribution of the workforce.

Table 7

Gender by Type of Care	N = 12,605		**2021** N = 18,767		**Difference 2012 to 2021**	
	Female	**Male**	**Female**	**Male**	**Female**	**Male**
Center	94%	6%	94%	6%	0%	0%
Large Home-Based	94%	6%	91%	9%	-3%	3%
Small Home-Based	99%	1%	99%	1%	0%	0%

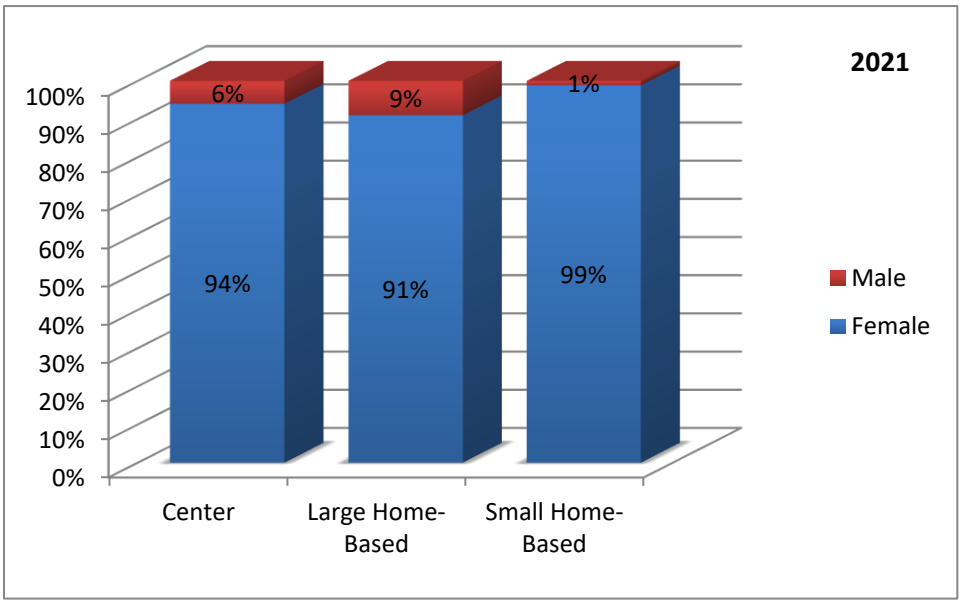


Figure 6

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% (5,540) of the 2021 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 2021 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. The education level of the workforce has remained consistent compared to 2012 and across pre- to post-COVID years (2019-2021).

Table 8

Education of Workforce	2012 N = 12,968		2021 N = 17,526		Difference 2012 to 2021	
	N	%	N	%	N	%
Less than High School Diploma/GED	418	3%	428	2%	10	-1%
High School Diploma or GED	3,521	27%	5,079	29%	1,558	2%
Some college, certificate, or foreign degree	2,910	22%	3,879	22%	969	0%
Associate's degree	1,933	15%	2,447	14%	514	-1%
Bachelor's degree or higher	4,186	32%	5,693	32%	1,507	0%

Education Level by Type of Care

As can be seen in Table 9 and Figure 7, in 2021 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 62% of those in large home-based and 47% of those in small home-based facilities. Workforce individuals with a bachelor's degree or higher showed a reverse pattern with 36% of center staff having a bachelor's degree or higher compared to 26% for large home-based staff and 11% for small home providers.

Table 9

Education by Type of Care	2012		2021		Difference 2012 to 2021	
	N	% of persons within type of care	N	% of persons within type of care	N	%
Center						
Less than High School Diploma/GED	178	2%	227	2%	49	0%
High School Diploma or GED	2,335	24%	3,661	27%	1,326	3%
Some college, certificate, or foreign degree	2,018	21%	2,921	21%	903	0%
Associate's degree	1,544	16%	2,029	15%	485	-1%
Bachelor's degree or higher	3,581	37%	4,891	36%	1,310	-1%
Large Home-Based						
Less than High School Diploma/GED	44	3%	94	4%	50	1%
High School Diploma or GED	402	29%	877	34%	475	5%
Some college, certificate, or foreign degree	381	28%	648	25%	267	-3%
Associate's degree	169	12%	282	11%	113	-1%
Bachelor's degree or higher	371	27%	661	26%	290	-1%

Continued on next page

Table 9 (continued)

Education by Type of Care	2012		2021		Difference 2012 to 2021	
	N	% of persons within type of care	N	% of persons within type of care	N	%
Small Home-Based						
Less than High School Diploma/GED	196	10%	107	9%	-89	-1%
High School Diploma or GED	784	40%	541	44%	-243	4%
Some college, certificate, or foreign degree	511	26%	310	25%	-201	-1%
Associate's degree	220	11%	136	11%	-84	0%
Bachelor's degree or higher	234	12%	141	11%	-93	-1%

Note: Data on education were not available for 4,122 (23%) individuals in centers, 914 (26%) in large home-based care, and 504 (29%) in small home-based care in 2021.

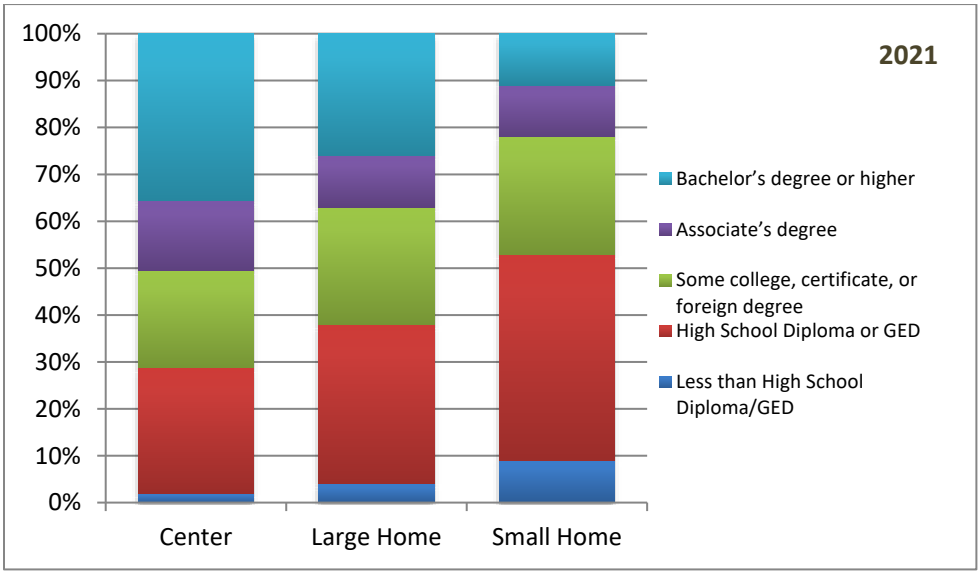


Figure 7

Education Level by Race/Ethnicity

In Figure 8, the difference in education level is shown for each individual race/ethnicity category. As can be seen by the chart, there is wide variation in education level across racial/ethnic categories. Individuals with a high school diploma/GED or less ranged from 23% of those who identified as Asian to 42% of those who identified as Native Hawaiian/Pacific Islander. Workforce individuals with a bachelor's degree or higher ranged from 18% of those who identified as American Indian/Alaskan Native to 51% of those who identified as Asian in 2021.

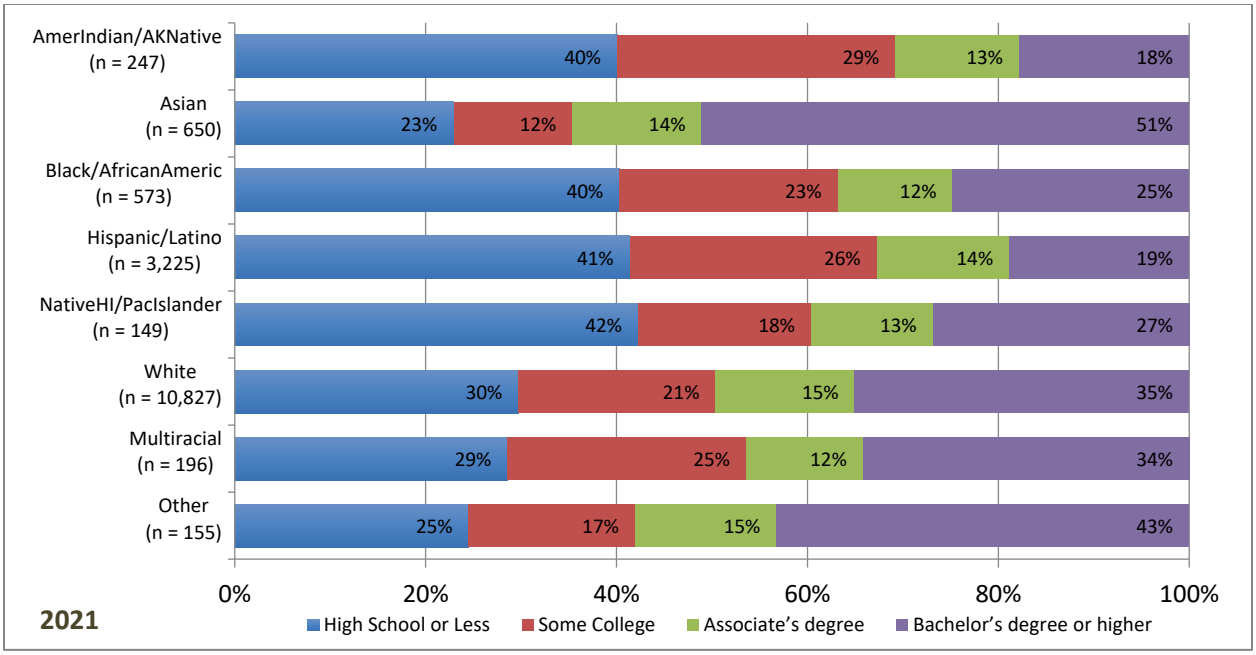


Figure 8

Education Level by Type of Care and Race/Ethnicity

In Figure 9, 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 2021, the percentage of the workforce with a bachelor's or higher degree ranged from 39% of white staff working in centers to 6% of person of color providers in small home-based settings.

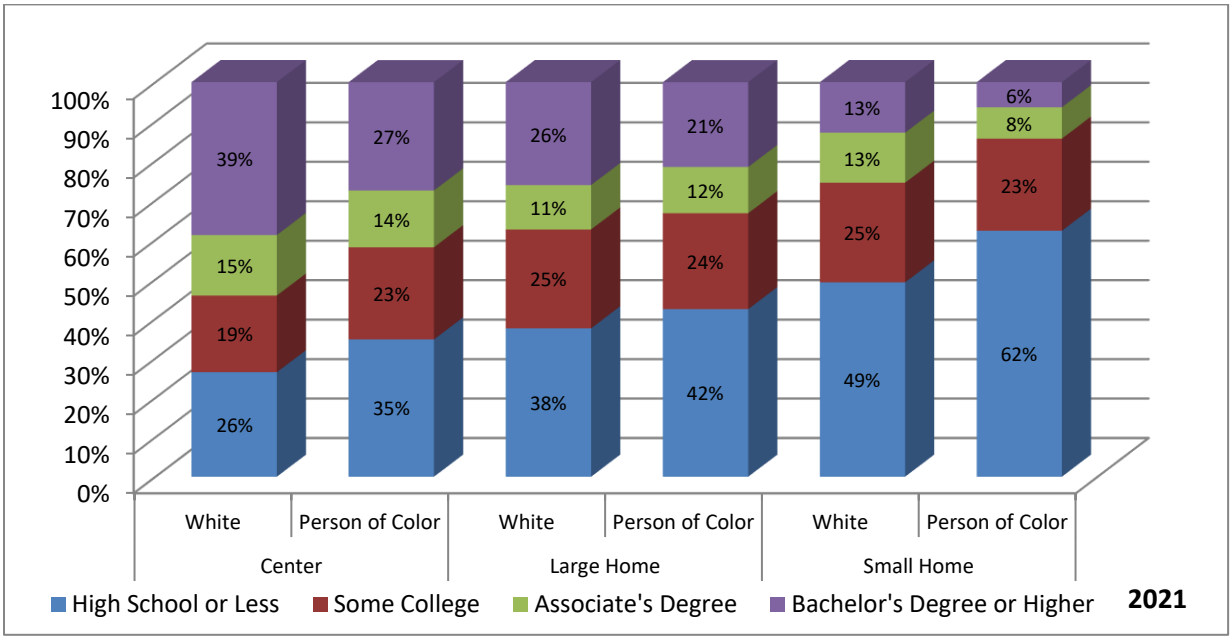


Figure 9

Education Level by Location

When examining education levels across metropolitan[6] and non-metropolitan areas we saw only small differences between 2012 and 2021 (see Table 10). As seen in Figure 10, workforce members in metropolitan areas were more likely to have a bachelor's degree or higher but there has been an 3% 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		2021		Difference 2012 to 2021	
	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%	2%	2%	-1%	-1%
High School Diploma or GED	26%	31%	29%	29%	3%	-2%
Some college, certificate, or foreign degree	22%	27%	21%	27%	-1%	0%
Associate's degree	14%	20%	13%	19%	-1%	-1%
Bachelor's degree or higher	35%	20%	34%	23%	-1%	3%

Note: In 2012, 202 individuals could not be given a metropolitan/nonmetropolitan distinction because of missing county information. In 2021, if individuals were missing resident county information, the county of their facility was used (n = 697). An additional 5,540 were missing education data.

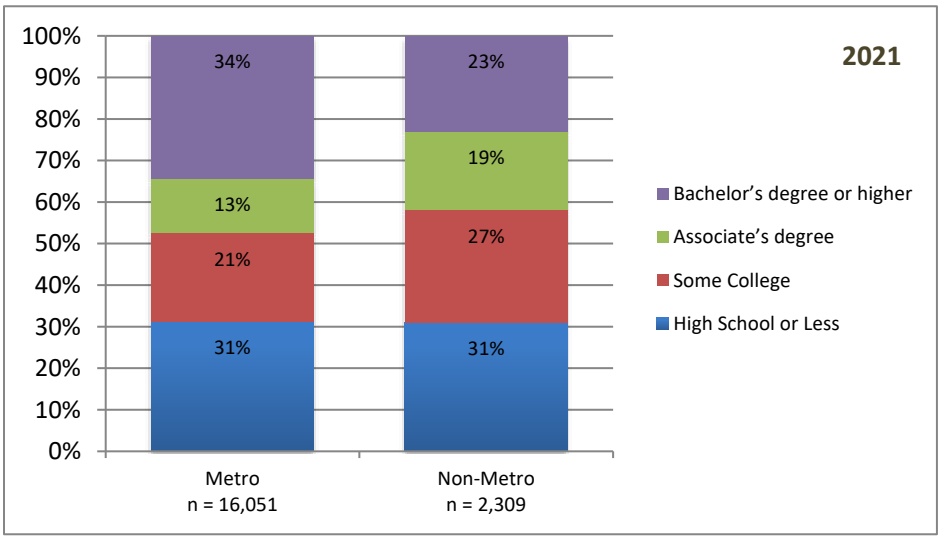


Figure 10

[6] 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 2021 results use the OMB 2020 definitions. Between 2003 and 2020, two Oregon counties (Linn, Josephine) moved from being defined as non-metropolitan to being classified as metropolitan.

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.

Table 11

Percent with Bachelor's or Higher	2012		2021		Difference 2012 to 2021	
	N	% of position	N	% of position	N	%
Center						
Director	464	51%	486	56%	22	5%
Site Director / Supervisor	16	57%	150	61%	134	4%
Head Teacher	818	44%	916	46%	98	2%
Teacher	1,880	37%	2,782	35%	902	-2%
Aide II	122	21%	193	18%	71	-3%
Aide I	281	23%	364	24%	83	1%
Large Home-Based						
Provider	180	29%	295	30%	115	1%
Assistant II	128	28%	248	22%	120	-6%
Assistant I	63	22%	118	26%	55	4%
Small Home-Based						
Provider	234	12%	141	11%	-93	-1%

Note: There were 5,540 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 years[7]. 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 as well. Aside from the entry level Aide I and Assistant I positions, all positions had an average of over 20 annual training hours in 2021. The number of community-based training hours increased for nearly all positions between 2012 and 2021.

Table 12

Average Community-Based Training Hours by Position	2012		2021		Difference in Hours 2012 to 2021	
	Total	Child Dev[a]	Total	Child Dev[a]	Total	Child Dev[a]
Center Staff						
Director (N = 771)[b]	**22.8**	17.9	**27.3**	22.4	**4.6**	4.6
Site Director/Supervisor (N = 190)	**17.2**	14.7	**28.1**	22.4	**10.9**	7.8
Head Teacher (N = 1,821)	**20.7**	18.7	**29.5**	25.8	**8.8**	7.1
Teacher (N = 7,983)	**18.8**	17.4	**23.2**	20.3	**4.4**	2.9
Aide II (N = 1,233)	**15.5**	14.1	**22.8**	19.8	**7.3**	5.8
Aide I (N = 1,809)	**14.3**	12.9	**15.7**	13.7	**1.4**	0.8
Large Home-Based Staff						
Provider (N = 992)	**22.5**	20.2	**29.7**	25.4	**7.2**	5.2
Assistant II (N = 1,174)	**18.3**	17.0	**21.2**	19.1	**2.9**	2.2
Assistant I (N = 443)	**12.3**	11.9	**13.5**	12.1	**1.2**	0.2
Small Home-Based Staff						
Provider[c] (N = 1,226)	**12.9**	11.8	**20.3**	16.6	**7.4**	4.9

[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 2021.

[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 2021 calendar year.

When looking at training hours from pre- and post- COVID (2019 to 2021), we found that head teachers and small home-based providers had an average increase in hours higher than other positions, increasing 3.6 and 4.9 hours, respectively, between 2019 and 2021. In contrast, the increase in all other positions ranged from 0.9 to 1.9 hours over those two years. Overall, we would expect to see hours increasing based on past trends, especially when looking at a two-year period to compare the pre- and post-COVID full year data, but head teachers and small home-home-based providers stand out as having higher increases than the rest over this two-year period.

[7] 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.

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 2021 were greater in non-metropolitan than in metropolitan areas.

Table 13

Average Community-Based Training Hours by Location and Position	2012		2021		Difference in Hours 2012 to 2021	
	Metro	Non-Metro	Metro	Non-Metro	Metro	Non-Metro
Center						
Director	**22.2**	26.1	**25.9**	36.4	**3.7**	10.3
Site Director/Supervisor[6]	**16.9**	19.3	**24.6**	49.0	**7.7**	29.8
Head Teacher	**20.1**	24.1	**27.8**	40.2	**7.7**	16.0
Teacher	**18.2**	22.7	**21.8**	32.9	**3.6**	10.2
Aide II	**14.5**	19.3	**20.0**	32.8	**5.4**	13.5
Aide I	**13.5**	18.0	**14.3**	21.8	**0.8**	3.8
Large Home-Based						
Provider	**22.9**	20.2	**29.8**	28.4	**6.9**	8.3
Assistant II	**18.2**	20.2	**21.1**	21.8	**2.9**	1.5
Assistant I	**12.5**	12.1	**13.9**	9.7	**1.4**	-2.4
Small Home-Based						
Provider[a]	**12.6**	14.1	**19.4**	24.4	**6.7**	10.3

[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 2021 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 2021 (981 out of 17,642 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 2021.

Table 14

Training Hours from Credit Courses	2012		2021		Difference 2012 to 2021	
	N	% of position	N	% of position	N	%
Center						
Director	25	3%	31	4%	6	1%
Site Director/Supervisor	3	9%	10	5%	7	-4%
Head Teacher	92	5%	106	6%	14	1%
Teacher	280	6%	522	7%	242	2%
Aide II	42	6%	61	5%	19	-1%
Aide I	73	6%	85	5%	12	-1%
Large Home-Based						
Provider	47	8%	63	6%	16	-2%
Assistant II	27	5%	60	5%	33	0%
Assistant I	16	5%	5	1%	-11	-4%
Small Home-Based						
Provider	20	1%	38	3%	18	2%

Note: College credit were taken in a calendar year, 2012 or 2021.

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 Registry[8], 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 2021 included the Betty Gray Early Childhood Training and Certification (BGECTC) 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.

[8] 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 report.

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 10% and the number enrolled in the Registry increased by 22% from 2012 to 2021. The Statewide Scholarship program has fluctuated over time due to changes in funding sources[9]. Even though the percentage of the overall workforce receiving scholarships shows a slight decrease between 2012 and 2021, the number of workforce members who have received a scholarship increased by almost 100 individuals in 2021. There was no significant change in the percent of the workforce participation in these initiatives between the pre- and post-COVID workforce (2019-2021).

Table 15

Engagement in Professional Development Initiatives	2012		2021		Difference 2012 to 2021	
	N	% of workforce	N	% of workforce	N	%
Enrolled in the Registry[a]	4,601	22%	10,053	44%	5,452	22%
Received one or more Education Award	3,838	18%	6,504	28%	2,666	10%
Received one or more Statewide Scholarship	2,044	10%	2,140	9%	96	-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 11, 45% of the 2021 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 a 21% increase in overall participation from 2012 to 2021. Only small percentages of the workforce participated in only the Registry, only the statewide scholarship program, or a combination of those two programs (14%, 1%, and 1% respectively). Almost half of the 45% who participated in at least one of the professional development initiatives combined enrollment in the Registry with receipt of an Education Award (21%).

[9] The Betty Gray Early Childhood Training and Certification 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.

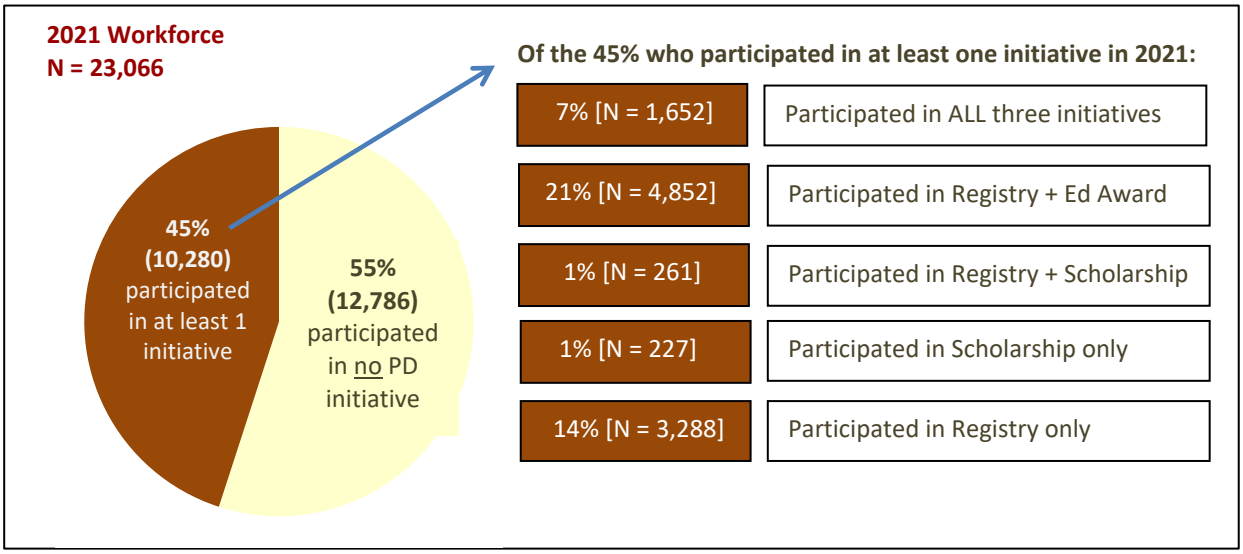


Figure 11

Table 16

Combinations of Professional Development Initiatives	2012 N = 20,873		2021 N = 24,269		Difference 2012 to 2021	
	N	%	N	%	N	%
None	15,826	76%	12,786	55%	-3,040	-21%
All Three	1,419	7%	1,652	7%	233	0%
Scholarship & Registry Step	194	1%	261	1%	67	0%
Education Award & Registry Step	2,403	12%	4,852	21%	2,449	9%
Scholarship only	430	2%	227	1%	-203	-1%
Registry Step Only	585	3%	3,288	14%	2,703	11%

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, 28% of the 2021 workforce has received an Education Award since 2012. As seen in Table 17, participation has varied by type of care. In 2021, 28% of center staff and large home-based providers had received an Education Award, compared to 32% of small home-based staff. Between 2012 and 2021, there were significant increases in Education Awards for all types of care.

Table 17

Education Award by Type of Care	2012		2021		Difference 2012 to 2021	
	N	% of persons within type of care	N	% of persons within type of care	N	%
Center	2,878	19%	4,974	28%	2,096	9%
Large Home-Based	452	20%	974	28%	522	8%
Small Home-Based	508	14%	556	32%	48	18%
Total	**3,838**	**18%**	**6,504**	**28%**	**2,666**	**10%**

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 2021, 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 2021, 7% of center staff had received a scholarship, compared to 15% of large home-based staff and 22% 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		2021		Difference 2012 to 2021	
	N	% of persons within type of care	N	% of persons within type of care	N	%
Center	1,458	10%	1,232	7%	-226	-3%
Large Home-Based	306	13%	522	15%	216	2%
Small Home-Based	280	8%	386	22%	106	14%
Total	**2,044**	**10%**	**2,140**	**9%**	**96**	**-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 2021 workforce members who have received one or more scholarships in each of these areas since 2012.

Table 19

Number of 2021 Workforce Members Who Received One or More Scholarships in Each Type Since 2012

Type of Scholarship	N
Community-Based Training	762
College Coursework Credit	558
Barrier Reduction[10]	327
Child Development Associate Related	208
Oregon Registry Credential	23
Accreditation Support	33
Conferences	1,159
College Credit for Prior Learning	1
Other[11]	1

Of 2021 workforce members who had received Statewide Scholarships, 73% had received scholarships that were funded by the Betty Gray scholarship program, 13% had received scholarships funded by the Early Learning Division (Race to the Top or Oregon's Family Child Care scholarship), and 14% of individuals had received scholarships funded by both sources.

[10] 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).

[11] In 2019, Other included the Oregon Family Child Care Infant Toddler Endorsement.

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, 44% of the entire workforce (10,053 individuals) were enrolled in the Registry in 2021 but as can be seen in Table 20, participation varied slightly by type of care. Forty-five percent of center staff participated in the Registry, compared to 40% of large home-based staff and 41% of small home-based providers. Although the percentage only shows a 22% increase in overall Registry participation, it is noteworthy that the actual number of workforce members enrolled in the Registry more than doubled (4,601 to 10,053) in the ten years.

Table 20

Registry Participation by Type of Care[a]	2012		2021		Difference 2012 to 2021	
	N	% of persons within type of care	N	% of persons within type of care	N	%
Center	3,483	23%	7,965	45%	4,482	22%
Large Home-Based	535	23%	1,380	40%	845	17%
Small Home-Based	583	17%	708	41%	125	24%
Total	**4,601**	**22%**	**10,053**	**44%**	**5,452**	**22%**

[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 2021 data showed that although 45% of the center-based workforce participated in the Registry, participation varied by position. Over 70% percent of center directors and head teachers and 47% of teachers had enrolled in the Registry whereas only a combined average of 19% of aides in centers did. As seen in Table 21, 75% of large home-based providers had enrolled in the Registry whereas only a combined average of 24% of their assistants did. Only 41% of small home-based providers had enrolled in the Registry. For all positions, the percentage enrolled in the Registry was greater in 2021 than in 2012.

Table 21

Registry Participation by Position	2012		2021		Difference 2012 to 2021	
	N	% of persons in that position	N	% of persons in that position	N	%
Center						
Director	446	38%	688	74%	242	36%
Site Director/Supervisor	7	17%	166	61%	159	44%
Head Teacher	888	39%	1,520	70%	632	31%
Teacher	1,875	24%	4,734	47%	2,859	23%
Aide II	92	9%	473	29%	381	20%
Aide I	175	6%	384	14%	209	8%
Large Home-Based						
Provider	364	49%	815	75%	451	26%
Assistant II	106	14%	466	30%	360	16%
Assistant I	65	8%	99	12%	34	4%
Small Home-Based						
Provider	583	17%	708	41%	125	24%
Total	**4,601**	**22%**	**10,053**	**44%**	**5,452**	**22%**

Note: Percentages are rounded.

Registry by Location

In both 2012 and 2021, workforce members in non-metropolitan areas were more likely to have a Step on the Oregon Registry than those in metropolitan areas. Forty-one percent of people in metropolitan areas were enrolled in the Registry versus 58% of people in non-metropolitan areas.

Table 22

Registry Participation by Location	2012		2021		Difference 2012 to 2021	
	N	%	N	%	N	%
Metropolitan	3,707	22%	8,253	41%	4,546	19%
Non-Metropolitan	884	26%	1,800	58%	916	32%

Notes: Metropolitan and non-metropolitan were determined using Office of Management and Budget Core Based Statistical Area classification for counties, see footnote on page 16 for more information.

Registry and College Credit Hours

In 2012 and 2021, 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		2021 N = 10,053		Difference 2012 to 2021	
	N	%	N	%	N	%
Percent of Registry enrollees with college credit hours	2,514	55%	5,784	58%	3.270	3%

Note: College credits could have been taken prior to the time of the study (2012 or 2021).

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 2021 if the workforce member was an aide in a center the probability of engaging in an initiative was 14% 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 N = 10,898	2021 N = 17,428
Age	0.003**	0.005**
Aide at a center	-0.158**	-0.142**
Director at a center	0.096**	0.149**
Teacher at a center	0.052**	0.058**
Assistant at large home-based care	-0.065**	-0.088**
Provider at large home-based care	0.196**	0.199**
Non-Metro [1=Non-Metro, 0=Metro]	0.071**	0.126**

Continued on next page

Table 24 (continued)

Variable description	2012 N = 10,898	2021 N = 17,428
Training 1-8 hours	-0.017	-0.017
Training 9-15 hours	0.007	0.003
Training 16-25 hours	0.043**	0.077**
Training >25 hours	0.175**	0.255**
Gender [1=Female, 0=Male]	0.117**	0.069**
Race/Ethnicity [1=Person of Color, 0=White]	-0.032**	-0.014
Primary language [1=Non-English, 0=English]	-0.008	-0.082**
Some college, Certificate, foreign degree	0.155**	0.255**
Associate's Degree	0.242**	0.218**
Bachelor's Degree	0.174**	0.182**

* Significant at the .05 level; ** Significant at the .01 level
Reference category for position is small home-based provider, reference category for training hours is those with no training hour, reference category for education was those with a high school diploma or less.
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 23,066 (2021) 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 2021.

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 slightly increased. There was no change in the size or significance of this predictor between 2012 and 20121.

Position

All positions were compared to a small home-based provider. In both 2012 and 2021, 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 2021, with the likelihood increasing from 7% in 2012 to 13% in 2021.

Training Hours

Those with training hours were compared to those with no training hours. In 2012 and 2021, 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 2021. If the workforce member was female they were about 12% more likely to participate in one or more initiatives in 2012 and about 7% more likely to do so in 2021.

Race/Ethnicity
Race/ethnicity was significantly and negatively associated with engagement in an initiative in 2012, but not in 2021. If the workforce member was a person of color, the probability of engaging in an initiative was not significant in 2021, 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 2021, but not 2012[12]. Workforce members whose primary language was not English were 8% less likely to participate in professional development opportunities than their English-speaking counterparts in 2021.

Education
Education comparisons were made to those with a high school diploma or less. In both 2012 and 2021, 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 report contains findings based on analysis of data collected from child care facilities about their employees. In 2021, facility level retention data were not available, therefore, this section only includes information on compensation. 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.

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).

[12] 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.

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

How measured: On the annual child care licensing application, 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 2021, 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 $11.50-14.00 in 2021[13].

Table 25

Teacher/Head Teacher Wages	2012		2021		Difference 2012 to 2021	
	Low	High	Low	High	Low	High
Median	**9.50**	13.61	**14.50**	20.05	**5.00**	**6.44**
Mean	**10.33**	14.96	**14.93**	21.95	**4.60**	**6.99**
Range (Lowest Low - Highest High)	**8.00**	45.00	**10.00**	58.00	---	---
Number of Centers Reporting	**805**	814	**1,069**	1,068	**264**	**254**
Percent of Centers Reporting	**83%**	84%	**82%**	**82%**	**-1%**	-2%

Based on the 2021 wages, teachers in Oregon's early learning and child care settings who make the lowest wage in their center make a median wage of $30,160 and those at the highest wage in their center make a median wage of $41,704 annually. In comparison, an analysis completed for the Oregon's Preschool Promise program found the average kindergarten teacher wage in Oregon was $63,000 in 2020 (Bachtle, 2020).

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,

[13] 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 2021, the rates were $13.25-14.00 for the Portland metro area, $11.50-12.00 for nonurban counties (Baker, Coos, Crook, Curry, Douglas, Gilliam, Grant, Harney, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Union, Wallowa, Wheeler), and $12.00-12.75 for all other areas of the state.

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.

A limitation of this measure is that it is unable to address how much of the benefits' costs are covered by the employer. It also is unable to measure how many employees choose to opt in to benefits offered.

The 2021 data showed improved provision of benefits to center staff. In 2021, 82% 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		2021		Difference 2012 to 2021	
	N	% of facilities	N	% of facilities	N	%
0 benefits	146	17%	59	5%	-87	-12%
1 benefits	269	32%	46	4%	-223	-28%
2 benefits	220	26%	95	9%	-125	-17%
3 benefits	144	17%	209	19%	65	2%
4 benefits	50	5%	293	26%	243	21%
5 benefits	23	3%	297	27%	274	24%
6 benefits	---	---	108	10%	108	10%

*Benefit information was reported by 88% (852) of centers in 2012 and 84% (1,107) of centers in 2021.

As seen in Table 27, there was substantial improvement in provision of most benefits in 2021 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		2021 N = 1,107 facilities		Difference 2012 to 2021	
	N	% of facilities	N	% of facilities	N	%
Health Insurance	533	63%	782	71%	249	8%
Paid Time Off	351	41%	936	85%	585	44%
Retirement Options	197	23%	610	55%	413	32%

Continued on next page

Table 27 (continued)

Type of Benefits for Reporting Facilities	2012 N = 852 facilities		2021 N = 1,107 facilities		Difference 2012 to 2021	
	N	% of facilities	N	% of facilities	N	%
Training/Education	221	26%	904	82%	683	56%
Free/Reduced Child Care	154	18%	582	53%	428	35%
Membership Professional Org*	0	0%	354	32%	354	32%

*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 2021, sub-categories were collected under health insurance including medical, dental, vision, and supplemental[10] 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 2021.

Table 28

Health Sub-Categories	N	% of reporting facilities
Medical	755	68%
Dental	653	59%
Vision	619	56%
Supplemental[14]	299	27%

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

Of those offering health benefits in 2021, 31% offered all four categories, 45% offered three categories, 12% offered two categories, and 11% offered one category (mostly medical). Medical insurance was offered by 97% of those offering health benefits.

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.

[14] 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.

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. In this section, we look at measures of turnover and stability from the perspective of the individual, including person-level turnover and person-level stability.

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 2021. 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-five percent of the early 2020 workforce exited prior to 2021; that is they were not employed in a regulated facility in 2021 although they had been reported as employed in January-March 2020[15]. Over time, annual turnover has ranged from 16% to 29%, see Figure 12. A two-year moving average is included in Figure 8 to smooth fluctuations due to the cyclical nature of regulatory cycles and position end dates[16]. The average turnover rate from year to year has remained fairly stable, with a slight trend upward.

[15] The year a person exits the workforce is based on their employment end date recorded in ORO. The 2020 workforce is a subsample of those who worked in early care and education facilities in early 2020 (pre-covid) because the transition to Emergency Child Care during the COVID-19 pandemic changed how data on workforce members was collected from child care providers, resulting in an inability to confidently know who was working at a facility in the later parts of 2020.

[16] 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.

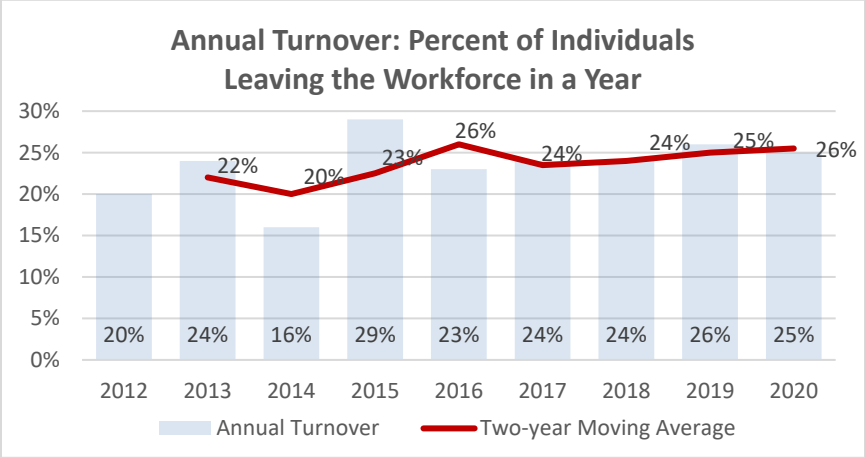


Figure 12

A 25% turnover rate translates to a 75% retention rate, meaning that 75% of individuals in the early (pre-COVID) 2020 workforce were retained into 2021. It is also important to note that the workforce is tracked over time at an individual level (using id numbers), so this means that 75% of the same individuals remained in the workforce from pre- to post-COVID (early 2020 to 2021), and this turnover is similar to what we have seen in any given year of the workforce study.

How many people entered the workforce each year?

Of the 23,066 individuals in the 2021 workforce, 6,787 (29%) entered as new in 2021 or the later parts of 2020 and 1,779 (8%) returned after a gap of a year or more. In 2021, these numbers are higher than seen in previous years due to the nature of the 2020 workforce analysis. This reflects a data issue and does not necessarily reflect changes in the field. The transition to Emergency Child Care in March 2020 due to the COVID pandemic resulted in an inability to confidently know who was working at a facility in the remainder of 2020. As a result, the 2020 workforce is a subsample of those who worked in early care and education facilities in early 2020 (pre-COVID), excluding any individuals who joined or returned to the workforce in the later part of 2020. As a result, individuals who joined as new or returned after a gap from April-December 2020 are captured in the 2021 analysis. This can be seen in Figure 13, where the percent of new individuals who entered the workforce in early 2020 was only 6%, compared to 29% for year 2021.

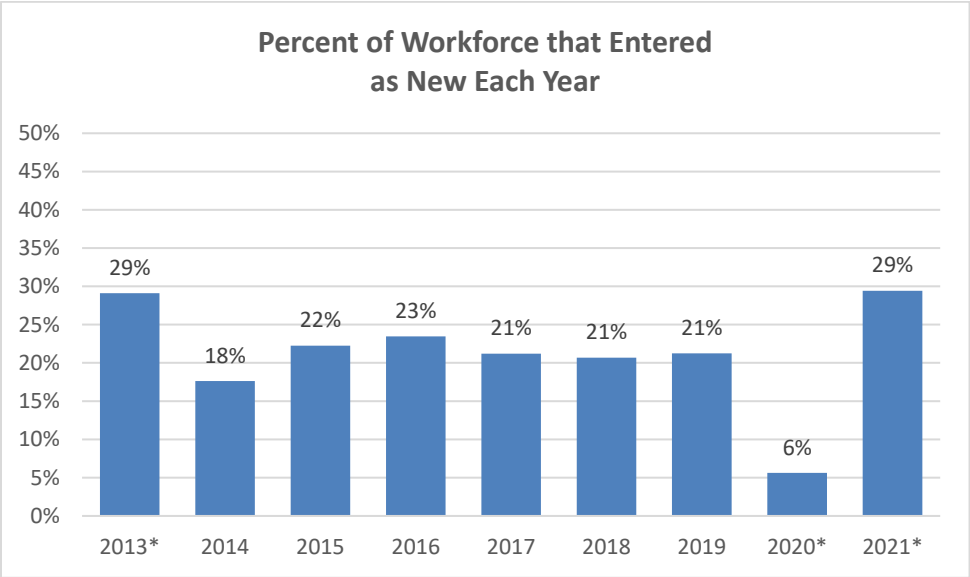


Figure 13

Table 29 displays the number who entered, returned, and remained in the workforce each year since 2013.

Table 29

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
2020**	1,093	282	18,066	19,441
2021***	6,787	1,779	14,500	23,066

*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.
**2020 reflects the time period of January to March 2020
***2021 reflects the time period of April 2020 to December 2021

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 early 2020-2021, this includes 28,007 individuals who were in either the early 2020 or 2021 workforce.

As seen in Table 30, the percent of individuals who entered and left the workforce varied by type of care. In particular, only 10% of small home-based providers left the workforce left between 2020 and 2021, compared to 16-19% of center and large home staff. Small home-based providers also appear to be entering the workforce at a lower rate than individuals in centers and large family homes. Only 11% of small home-based providers entered the workforce between early 2020 and 2021, compared to 25% 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 77% of the small-home providers in both the early 2020 and 2021 workforce, compared to 49-54% of individuals working in centers and large family homes.

Table 30

Type of Care	Left the Workforce		Entered as New		Returned After a Gap		Remained	
	N	%	N	%	N	%	N	%
Center	4,084	**19%**	5,563	**25%**	1,530	**7%**	10,758	**49%**
Large Home-Based	665	**16%**	1,021	**25%**	200	**5%**	2,255	**54%**
Small Home-Based	192	**10%**	203	**11%**	49	**3%**	1,487	**77%**

Notes: *Left the Workforce:* were in the early 2020 workforce, but left before the 2021 workforce. *Entered as New:* were new to the 2021 workforce or later part of 2020 and had not been in the workforce in any year prior. *Returned After a Gap:* were in the 2021 workforce, but were not in the early 2020 workforce even though they had been in previous years. *Remained:* were in both the 2020 and 2021 workforce.

Over time, the number of small home-based providers in Oregon's workforce has consistently declined, following a trend of declining small home-based programs nationwide (Bromer et al., 2021). 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 ten 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 2021. 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 2021, 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 ten years?

Of the 20,873 individuals in the 2012 workforce, 3,500 individuals (17%) remained in the workforce for all years through 2021 ("Stayers"). In addition, 1,296 individuals were in and out of the workforce,

meaning they were in the 2012 workforce and 2021 workforce, but had not been in all years in between. An additional 77% (16,077) of the 2012 workforce had left before 2021 ("Leavers").

Table 31

2012 Cohort	N	Percent
Stayers	3,500	**17%**
In and Out	1,296	**6%**
Leavers	16,077	**77%**
Total	**20,873**	**100%**

Of individuals in the 2012 workforce, 17% of the workforce has been in for all ten years, 26% for five-nine years, 40% for two-four years, and 17% for one year, see Figure 14. It is also important to note that a significant percentage of individuals who were marked as in the workforce for ten years were likely in the workforce for years prior to 2012 when workforce data were first collected.

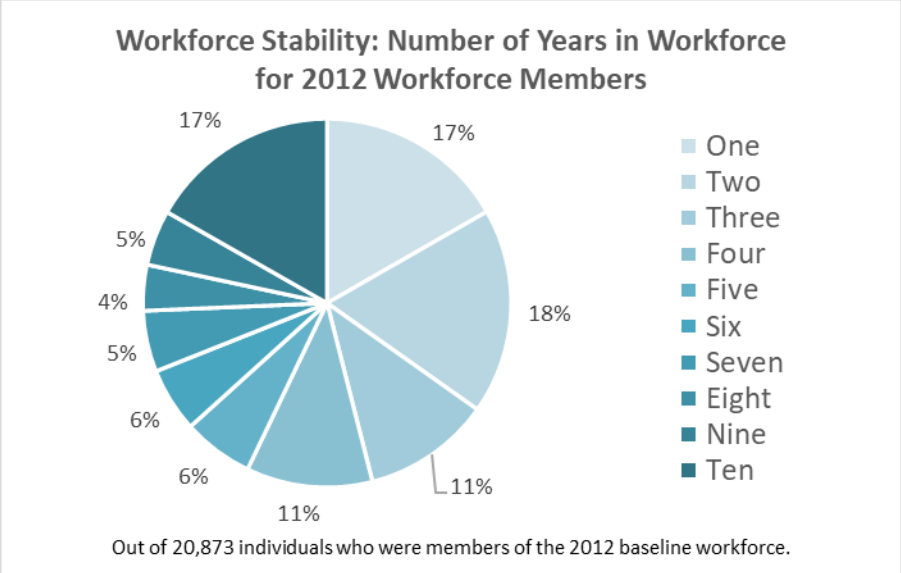


Figure 14

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

As can be seen in Figure 15, 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 (77% participating in at least one initiative), compared to those who were in and out (69%) or had left the workforce (33%).

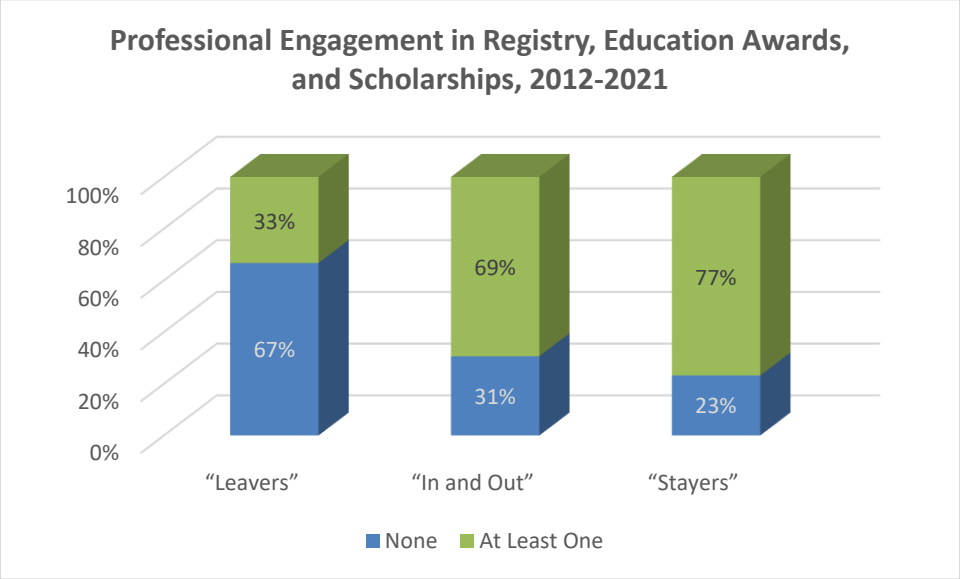


Figure 15

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, 75% of "stayers" were enrolled in the registry, compared to only 32% of "leavers." A similar pattern is seen for those receiving Education Awards and Scholarships, see Table 32.

Table 32

Professional Engagement, 2012-2021	**"Leavers"** N = 16,077		**"In and Out"** N = 1,296		**"Stayers"** N = 3,500	
	N	**%**	**N**	**%**	**N**	**%**
Enrolled in the Registry[a]	5,109	**32%**	883	**68%**	2,624	**75%**
Received one or more Education Awards	4,274	**27%**	717	**55%**	2,343	**67%**
Received one or more Statewide Scholarships	1,496	**9%**	260	**20%**	1,030	**29%**

[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.

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 75% of the early 2020 workforce (all types of care and all positions who work with children included) had continued to work in 2021—a 75% retention rate. In other words, 75% of the same individuals remained in the workforce from pre- to post-COVID (early 2020 to 2021), and this turnover is similar to what we have seen in any given year of the workforce study. Using longitudinal data, we found that 17% of the 2012 cohort had been in the workforce for all ten years.

Further, 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. Given that the decline in small home-based care is a national trend (Bromer et al., 2021), results could have relevance beyond the Oregon context. 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 tenth 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 limitation, yet the percentage with these data has steadily increased and is now at 76% 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 report describes the 2021 workforce and compares it with the 2012 workforce. It also mentions the degree to which the workforce has or has not changed from pre- to post-COVID (2019-2021).

Overall, the 2021 Workforce includes:

- 23,066 persons who were active at a regulated facility
- About three-quarters were employed in centers
- Most speak English as primary language, with one-third of small home providers speaking a language other than English
- One-third identified as a person of color
- Over a third of the workforce has a bachelor's or higher, and another third have some college or an associate's degree
- Training hours have increased across all types of care, averaging 23 hours annually
- Almost half have been involved in professional development initiatives
- Annual turnover has consistently been around 25%, meaning that 25% of individuals in the early 2020 workforce left before 2021
- Remaining in workforce was associated with participation in professional development

Having 2012 baseline data allows Oregon to measure the impact of quality initiatives and workforce investments on critical measures of workforce characteristics. This 2021 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 5,452 more workforce members having Steps on the Oregon Registry in 2021 than did in 2012. Having a measure of turnover also provides critical information for designing the training system. Comparing the early 2020 and 2021 workforce, an average of 25% of the early 2020 workforce exited; that is they were not employed in a regulated facility in 2021, although they had been in early 2020. 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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