Colorado Early Childhood Workforce Survey 2017

Research to Practice Brief 1

Who is Colorado's Early Educator Workforce? Demographic and Educational Characteristics

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KEY FINDINGS

- There is a need to recruit and develop more Latina, Spanish-speaking teachers for lead teaching positions. A sizable portion of early educators in this sample care for and instruct Spanish speaking children, but do not speak the language. In addition, Latina early educators are more likely to be in assistant teaching roles than in lead teaching roles, and targeting their development for lead teaching positions may help to ensure that the early educator population reflects the child and family population in Colorado.

- The majority of directors and lead teachers in this sample hold at least a Bachelor's degree; yet most do not have a degree focused on the care and education of young children, suggesting a need for post B.A. higher education opportunities for early educators to attain formal education in ECE.

- More strategies for financially incentivizing ECE programs with highly-qualified staff to accept Colorado Child Care Assistance Program (CCCAP) subsidies as a form of payment are needed, as programs enrolling children receiving CCCAP funding tend to employ staff with lower levels of education than programs that do not enroll children on CCCAP subsidies.

INTRODUCTION

Early care and education (ECE) has received unprecedented policy attention over the past 10 years. This attention stems from several decades of research that has found that high-quality, educationally stimulating ECE can have a number of positive benefits for children's school readiness skills, later academic aptitude, and

success into adulthood, and represents a sound economic investment[i]. Consequently, concerted efforts have been made both nationally and in Colorado to expand high-quality ECE services, especially for Colorado's most vulnerable children. This has resulted in many early educators experiencing increasing job demands and responsibilities. Many early educators are now being called upon to meet the distinct care and learning needs of a more diverse array of children, including dual language learners, children with special needs, and children living in poverty, as well as providing instruction across multiple academic domains, such as literacy, math, and science[ii].

However, questions have been raised about the extent to which Colorado's early educator workforce is prepared to meet the needs of all children in Colorado. Currently, few educational requirements exist for many early educators to obtain a job in the field. Yet given the complexity of their job roles, recommendations have been made by the Institute of Medicine and National Research Council to raise the educational standards for early educators to the level of a Bachelor's degree (B.A.)[1] to help ensure that children receive the types of early learning experiences that foster their positive social-emotional development and school readiness skills[iii]. This recommendation is undergirded by research that finds that early educators who have a B.A. and formal ECE coursework offer more responsive care and stimulating learning environments and that the children in their care show better language, literacy, and problem-solving skills than children cared for by early educators without a B.A. and formal ECE coursework[iv].

Consequently, a number of efforts are underway in Colorado to improve the knowledge, competencies, and skills of the early educator workforce and to improve the overall quality of children's experiences in ECE programs. However, these efforts are often challenged by the lack of detailed information about Colorado's early educator workforce that describes their characteristics, including their demographic information, employment characteristics, and education levels. Such information is

[1] For ease of reading, references made to a Bachelor's degree are abbreviated as a B.A. degree but also refer to Bachelor's of Science or B.S. degrees. References made to an Associate's degree are abbreviated as an A.A. degree but could also refer to an Associate's of Applied Science or A.A.S. degree.

needed to help decision-makers target policies and better understand the investments needed to help ensure an effective workforce across ECE service sectors. In addition, the Colorado Department of Labor and Employment predicts that by 2025, the state will need substantial increases in early educators across job roles, between 33%-43%, depending on the position[v]. Thus detailed information about the current gaps in the workforce are also needed to understand where recruitment efforts could be targeted to build a workforce pipeline that is well positioned to meet the needs of all of Colorado's youngest children.

RESEARCH QUESTIONS

This research brief has been designed to better understand Colorado's early educator workforce. Specifically it addresses the following research questions:

1. What are the demographic characteristics of a sample of early educators in Colorado?
2. What percentage of teachers and family child care providers report speaking the same languages as the children in their classrooms or family child care homes? What are the unmet language needs?
3. What are the education levels of early educators in the sample, and how do they vary by position, age group served, and service sector?
4. Do ECE programs and family child care homes that serve children living in poverty operate their programs with more highly-educated staff?

SAMPLE

The sample used for this research brief included 711 ECE center directors, 88 assistant directors, 2,306 lead teachers, 1,118 assistant teachers, and 496 family child care providers who provided ECE services for children birth through age five across Colorado. Of the directors and assistant directors, 72% worked in community-based ECE centers, 15% worked in Head Start centers, and 13% worked in public school-based ECE settings. Of the teaching staff in center and school-based programs, approximately 45% worked in community-based programs, 30% worked in Head Start, and 25% worked in public school ECE classrooms. For the purposes of this study, community-based ECE centers are defined as programs that are not housed in public schools and do not receive Head Start funding, Head Start centers are defined as centers receiving Head Start funding but not located in public schools, and public school-based ECE programs are defined as any classroom that is located in a public school and/or governed by a school or district. The majority of teachers, approximately 69%, worked in classrooms serving preschool-aged children, with the remainder, 31%, working in classrooms serving infants and toddlers. For more information about the sample and how it was collected, please see *Colorado Early Childhood Workforce Survey 2017 Final Report*[vi].

RESULTS

RQ#1. What are the demographic characteristics of a sample of early educators in Colorado?

Age

Table 1 displays the ages of the sample by job role. With respect to program leaders, the average age of directors was calculated at approximately 47 years and 41 years for assistant directors. The average age of lead teachers was approximately 41 years and 40 years for assistant teachers. The average family child care provider in this sample was 48 years old. Of the sample, 40% of directors, 25% of assistant directors, 27% of lead teachers, 25% of assistant teachers, and 47% of family child care providers were 50 years of age or older and may be nearing retirement.

Table 1. Age (Years) by Job Role

Age	Directors	Assistant Directors	Lead Teachers	Assistant Teachers	Family Child Care Providers
Under 20	0%	0%	1%	6%	0%
20-29	7%	22%	22%	27%	8%
30-39	25%	26%	26%	21%	19%
40-49	28%	27%	24%	21%	26%
50-59	27%	18%	20%	18%	33%
60 or older	13%	7%	7%	7%	14%

Experience

Table 2 displays the average years of experience in the field and in their jobs for the sample. Results suggest that directors have significantly more experience than lead and assistant teachers with respect to both experience in their current position and in the field, and that lead teachers have significantly more experience in the field and in their current position than assistant teachers[2]. With respect to program leadership, 57% directors and 47% of assistant directors reported more than 5 years of experience in their jobs, and 92% of directors and 86% of assistant directors reported more than 5 years of experience in the field. Alternatively, 20% of directors and 33% of assistant directors reported being in their jobs less than two years, and 4% of directors and 7% of assistant directors indicated that they had been in the field less than two years.

[2] In instances where key differences among types of early educators or service sectors are highlighted throughout this brief, the differences are statistically significant at the 0.05 level.

In this sample, 46% of lead teachers and 35% of assistant teachers reported that they have been in their jobs for more than 5 years, while 77% of lead teachers and 54% of assistant teachers indicated that they have been in the field for more than five years. On the other hand, 20% of lead teachers and 38% of assistant teachers reported being in their jobs for less than two years, while 12% of lead teachers and26% of assistant teachers reported being in the field less than two years. These figures reflect an unexpected stability in the center-based ECE workforce overall, at least for this sample. However less stability was observed within jobs.

Family child care providers in this sample also demonstrated stability in the field, and more stability in their jobs than center-based staff. For instance, the average provider reported that they had been operating their business for slightly over 14 years and in the field for slightly over 16 years. Seventy-six percent of the sample reported that they have been in operation for more than five years, and 82% have been in the field for more than five years. Only 13% percent of the sample indicated that they have been in operation for less than two years, and only 10% reported they had been in the field less than 2 years.

Table 2. Experience in the Field and Current Position

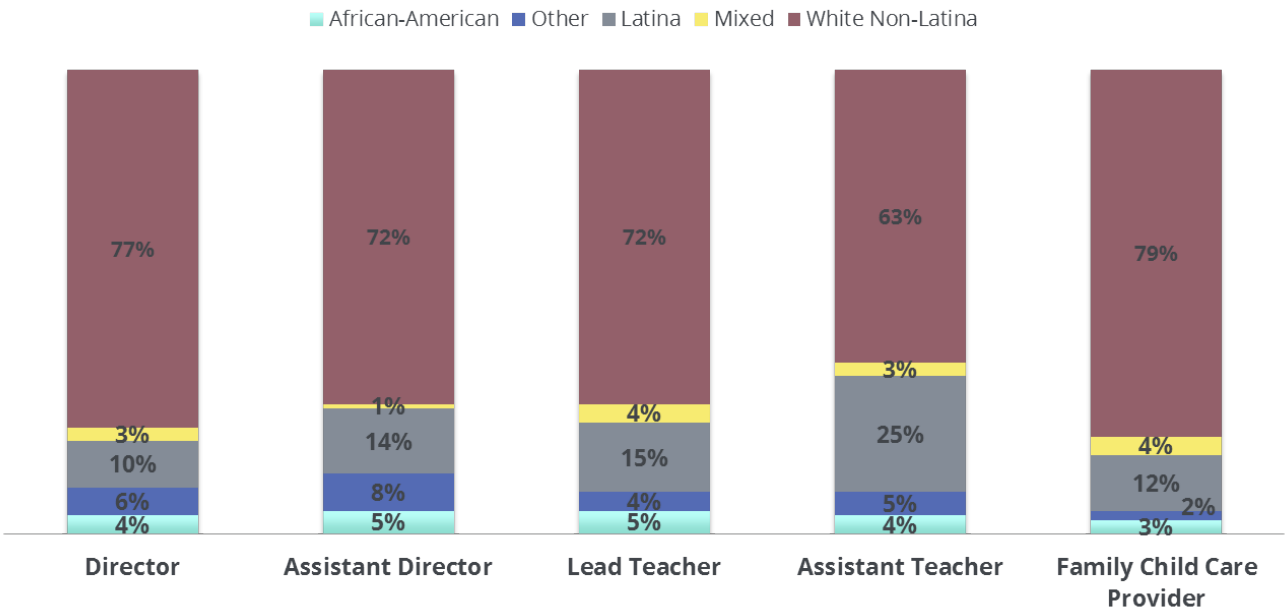
	Mean	Std. Dev.	Min.	Max.
Years of Experience in Field				
Director	17.69	9.42	0.00	45.33
Assistant Director	14.79	8.94	0.00	44.16
Lead Teacher	12.83	9.24	0.00	47.67
Assistant Teacher	8.28	7.76	0.00	47.00
Family Child Care Provider	16.23	10.26	0.08	40.50
Years in Current Position				
Director	8.67	7.62	0.08	41.25
Assistant Director	6.51	6.16	0.08	31.88
Lead Teacher	6.75	6.72	0.00	40.75
Assistant Teacher	5.02	5.54	0.00	47.00
Family Child Care Provider	14.28	9.97	0.08	40.50

Race/Ethnicity

Figure 1 displays the ethnicities of early educators in this sample across job roles. The figure shows that the majority of the sample identified as White, non-Latina. With respect to program leaders, approximately 77% of directors identified as White, non-Latina, 10% identified as Latina, and the remaining 13% were split among African or African-American (4%), Other[3] (6%), or reported being of mixed racial/ethnic backgrounds (3%). The majority of assistant directors, approximately 72%, identified as White, non-Latina, 14% identified as Latina, 8% identified as Other, 5% identified as African or African-American, and approximately 1% reported being from mixed racial/ethnic backgrounds.

With respect to teaching roles in center and public school-based programs, results suggest that Latina teachers were less likely to be in lead teaching roles and more likely to be in assistant teaching roles than were White, non-Latina teachers. Figure 1 shows that about 72% of the lead teachers in this sample were White, non-Latina, 15% reported being Latina, and the remaining 13% were almost evenly divided between Other (5%), African or African-American (4%), and mixed racial/ethnic backgrounds (5%). The ethnicities for assistant teachers show a slightly different distribution with approximately 63% of assistant teachers in the sample identifying as White, non-Latina, 25% as Latina, with the remaining 12% split among Other (5%), African and African-American (4%), and mixed racial/ethnic backgrounds (3%).

Figure 1. Ethnicity by Job Role



[3] The "Other" group consisted of Native American, Pacific Islanders, and Asian and Asian American. These groups were combined because there were too few respondents in each category to be able to make meaningful comparisons.

Figure 1 also shows that a substantial portion of family child care providers in the sample, almost 79%, identified as White, non-Latina, while approximately 12% identified as Latina, 3% identified as African or African-American, 4% identified as having a mixed racial/ethnic background, and 2% identified as Other.

RQ# 2. What percentage of teachers and family child providers report speaking the same languages as the children in their classrooms?

To understand the unmet language needs in ECE classrooms and in family child care homes, teachers and family child care providers were asked to report on the languages that they speak, and the different primary languages children in their classrooms and home-based programs speak. Within center and public school-based programs, 78% of teachers reported working in classrooms in which children speak a language other than English as their primary language, while 49% reported speaking the same language as all the children in the classroom.

Of the 51% of teachers in center and public school-based programs who reported a language mismatch, 62% of the mismatch occurred in instances where there were Spanish-speaking children in the classroom, but the responding teacher did not speak Spanish. Twelve percent of the mismatches occurred where there were Mandarin speaking children in the classroom but the responding teacher did not speak Mandarin, 7% occurred where there were Vietnamese speaking children in the classroom but the responding teacher did not speak Vietnamese, and 5% occurred where there were Arabic speaking children in the classroom but the responding teacher did not speak Arabic. No other specific language mismatches were identified in at least 5% of the cases.

Of family child care homes, 22% of providers reported that children in their program speak a language other than English, while 79% reported that they speak the same language of all children in their program. Of the 21% of providers who reported a language mismatch, 18% of the mismatch occurred when children spoke Spanish and the provider did not. No other specific language mismatches were identified in at least 5% of the cases.

RQ#3. What are the education levels of early educators, and how do they vary by position, age groups served, and service sectors?

<u>Educational Attainment</u>

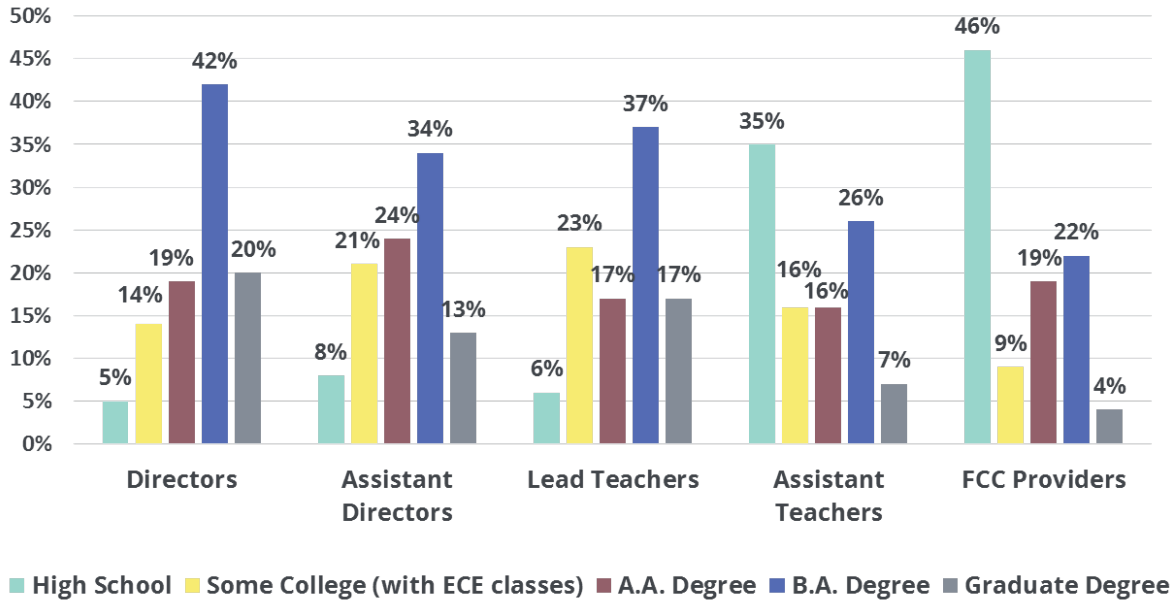
Early educators were also asked to report on their educational attainment. Figure 2 displays the highest level of education reported by different job roles. The figure shows that the majority of directors and lead teachers in this sample hold at least a B.A. degree. Approximately 62% of directors have a B.A. degree or higher, and 81% have an A.A. or higher, while only 19% do not hold a degree. Of those without a degree, 14% have taken some college ECE courses.

With respect to both assistant directors and lead teachers, 47% and 54%, respectively, hold at least a B.A. degree, and 71% within each job role hold at least an A.A. degree. Of the 29% in each job role who do not hold a degree, 21% of assistant directors and 23% of lead teachers have taken some college classes in ECE.

The figure also shows a much wider range of educational attainment for assistant teachers and family child care providers. For instance, approximately 31% of assistant teachers and 26% of family child care providers hold at least a B.A., while 49% of assistant teachers and 45% of family child care providers hold at least an A.A. Of the 51% of assistant teachers without a degree, 16% have taken some ECE classes. Of the 55% of family child care providers without a degree, 9% have taken some ECE classes.

When comparing education levels across job roles, directors in this sample were more likely than assistant directors, lead teachers, assistant teachers, and family child care providers to hold a B.A. degree. In addition, assistant directors and lead teachers were more likely than assistant teachers and family child care providers to hold a B.A. degree.

Figure 2. Highest Level of Education by Job Role

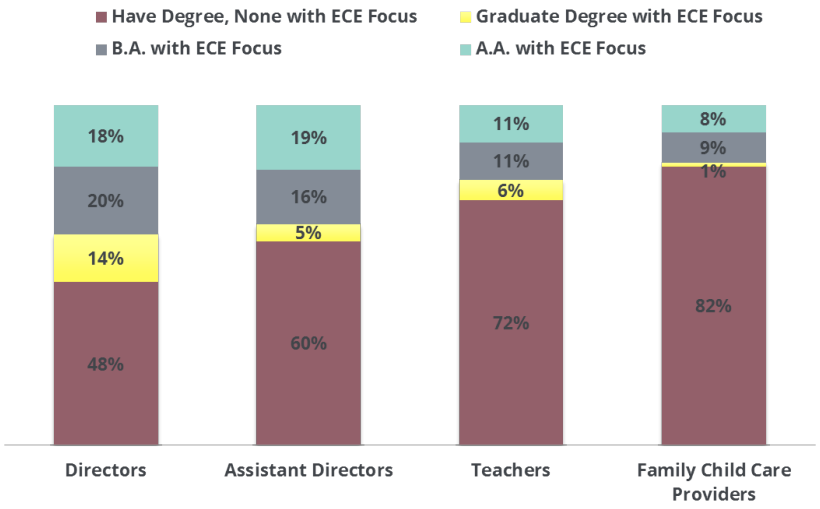


Degree Focus

Early educators also reported a wide range of educational backgrounds, many of which were not focused on young children. Figure 3 shows the percentage of degree holders in each job role that have at least one degree focused on young children, including a degree in Early Childhood Education, Early Childhood Special Education, Child Development, or Human Development and Family Relations, which collectively are referred to as a degree with an ECE focus. The results show that:

- Of the 81% of directors who hold at least an A.A. degree, approximately 52% have at least one degree with an ECE focus; Of the 71% of assistant directors who hold at least an A.A. degree, approximately 40% hold at least one degree with an ECE focus;
- Of the 63% of lead and assistant teachers who hold at least an A.A. degree, approximately 28% have at least one degree with an ECE focus; and
- Of the 45% of family child care providers who hold at least an A.A. degree, approximately 18% hold a at least one degree with an ECE focus.

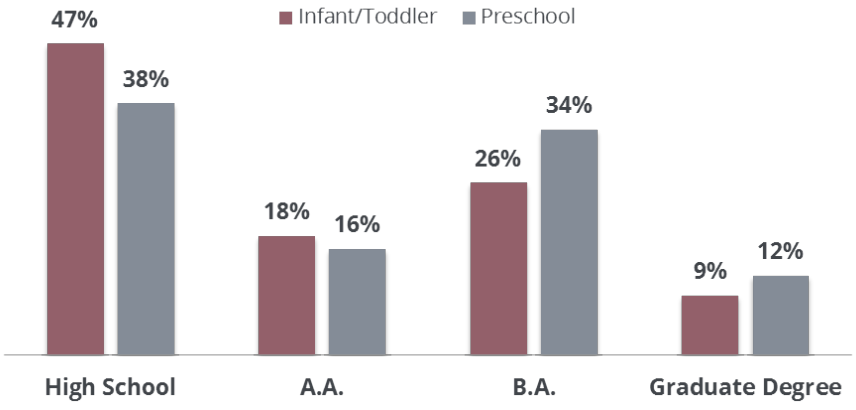
Figure 3. Degree Focus



Age Group Served

Differences in the educational attainment of lead teachers serving different age groups of children were also examined. With respect to highest level of education, lead infant toddler teachers were more likely to have a high school diploma and less likely to have a B.A. than preschool teachers. Figure 4 shows that approximately 35% of infant toddler teachers sampled hold at least a B.A. degree, and 53% hold at least an A.A. degree compared to approximately 46% of preschool teachers who hold at least a B.A. degree and 62% who hold at least an A.A. degree.

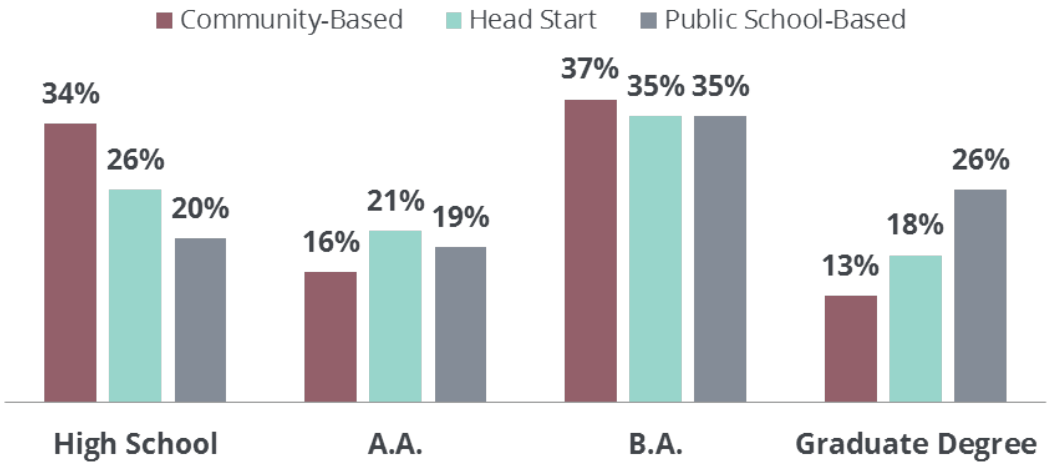
Figure 4. Lead Teacher Education Level by Age Group Served



Service Sector

Because different ECE service sectors have different educational requirements for their teaching staff, educational levels for lead teachers by service sector were also examined. Results suggest that community-based lead teachers were more likely to have a high school degree as their highest level of education than lead teachers in Head Start and public-school based ECE classrooms. Figure 5 shows that approximately 50% of community-based lead teachers, 53% of Head Start lead teachers, and 61% of public school-based lead teachers in this sample have at least a B.A. degree or higher. Sixty-six percent of community-based lead teachers, 74% of Head Start lead teachers, and 80% of public school-based lead teachers have at least an A.A. degree.

Figure 5. Lead Teacher Education by ECE Service Sector



RQ# 4. Do ECE programs and family child care homes that serve a higher density of children living in poverty operate their programs with more highly educated staff?

In this sample, 71% of center and public school-based programs and 35% of family child care homes reported enrolling children receiving Colorado Child Care Assistance Program (CCCAP) subsidies. Centers that enrolled children who received CCCAP subsidies were more likely to employ teachers who had taken "some college" as their highest level of education, while centers that do not enroll children on CCCAP were more likely to employ teachers with a B.A. as their highest level of education. Similar trends were found in family child care homes where results suggest that providers who enrolled children on CCCAP were more likely to have a high school degree as their highest level of education, whereas providers who did not enroll children receiving CCCAP subsidies were more likely to have a B.A. as their highest level of education.

IMPLICATIONS FOR POLICY & PRACTICE

The results of this research brief suggest that there are important areas in which Colorado could target early educator recruitment, development, and retention efforts.

Creating Scholarship Programs

For example, findings from this brief suggest the need for scholarship programs to advance the educational attainment of the early educator workforce in Colorado. Within this sample, 38% of directors, 53% of assistant directors, 46% of lead teachers, 67% of assistant teachers, and 74% of family child care providers hold less than the recommended B.A. degree. However it is important to note that because this survey used Colorado's Early Childhood Professional Development and Information System (PDIS) and professional listserves as the primary recruitment mechanisms for this study, it is likely that this sample is more highly educated than the general population of early educators in Colorado. Thus a sizable portion of the workforce may not have the formal educational preparation that they need to be effective. Unfortunately, the cost of higher education for early educators in Colorado, more often than not, falls on the shoulders of an already economically-strapped workforce. Thus, investing in loan forgiveness programs and scholarship models that link financial support for degree attainment to work commitments in the field is an essential strategy for transforming the workforce in Colorado. Importantly, targeting these scholarships to infant toddler teachers, to community-based teachers and family child care providers working in programs that accept CCCAP subsidies, and to Latina and Spanish speaking assistant teachers may help to ensure a diverse and well-qualified workforce across service sectors, age, and income groups served.

Creating Educational Pathways: Post B.A. Options

Colorado may also consider developing additional educational pathways targeted to the needs of the early educator workforce. For example, this study found that many early educators in Colorado do have B.A. degrees, but more often than not, these degrees are not focused on the care and learning needs of young children. Yet unlike in K-12 teacher preparation programs where students can pursue a one-year licensure program after completing their B.A. if they have a degree in another field, no such programs exist for early educators working in community-based programs to gain specialized training and licensure. As Colorado continues to explore the educational needs of the early educator workforce, it may be important to consider developing more post-B.A. ECE options that are aligned to the educational needs and levels of many professionals in the field.

Building Career Pathways

Colorado might also consider building more intentional career pathways linked to higher education for early educators to ensure pathways that support professionals' forward movement in building skills and competence. Given the extremely low wages paid to teachers, particularly in the community-based early learning service sector, it may not be viable for most well-qualified teachers to spend their entire careers in teaching roles. Thus it is important for Colorado to consider building more opportunities for career advancement for teachers to transition into administrative positions and to build a pipeline of effective directors, especially in light of findings in this brief that suggest that 40% of the directors in this sample are nearing retirement. This may include providing access to higher education focused on leading programs at key points along career trajectories. Currently, many early educators take two entry-level community-college classes on ECE program administration when they are preparing to be teachers, although when taken at this particular juncture in their career, the courses may not be entirely relevant. Along the same vein, building a career pathway for assistant teachers and targeting scholarships to them to transition to lead teaching positions with the attainment of an A.A. degree may help to build a pipeline of lead teachers.

Recruiting and Developing a Well-Qualified Latina and Spanish-Speaking Workforce

The findings from this research brief also suggest that targeting recruitment efforts toward Spanish-speaking Latina early educators may be an important strategy for Colorado. Indeed, a sizable portion of classrooms in this sample enrolled children who speak Spanish and teachers who do not. In addition, 30% of Colorado's adult population and 31% of Colorado's child population identifies as Latino/a[vii], yet only 10% of directors and 15% of lead teachers in this sample identified as Latina[4].

To help ensure that Colorado's early educator workforce represents the children and families in the state and can support the learning needs of a growing Spanish speaking child population, concerted efforts may be needed to develop a pipeline of Latina and Spanish-speaking early educators. Targeting scholarships toward Latina assistant teachers may be an important strategy for building this pool.

Incentivizing Programs with Highly Qualified Staff to Accept Subsidized Children

Colorado might also consider additional mechanisms by which to incentivize programs with highly-educated staff to accept CCCAP subsidies as a form of payment. A key finding in this study is that both family child care homes and center-based programs that enroll children receiving CCCAP subsidies employed staff with less education than programs that did not accept CCCAP subsidies as a form of payment. Unfortunately, children receiving CCCAP subsidies are the children who

[4] It is important to note that the sample used for this study may not be representative of the population of early educators in Colorado, and may specifically underestimate the population of Latina and Spanish-speaking early educators because the survey was unable to be translated into Spanish.

could benefit the most from highly qualified early educators[viii]. Currently Colorado links CCCAP payment rates to an ECE program's Colorado Shines quality rating. Colorado might consider supplemental payments that could also be distributed to programs earning the highest points on the Colorado Shines Staff Training and Education Indicator and for degreed providers. Additionally these supplements could be earmarked for enhancing staff wages to aid in workforce compensation and retention efforts.

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EARLY MILESTONES COLORADO

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