Strengthening the Knowledge, Skills, and Professional Identity of Early Educators

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By Abby Copeman Petig, Raúl Chávez, and Lea J.E. Austin

Established in 1999, the Center for the Study of Child Care Employment (CSCCE) is focused on achieving comprehensive public investments that enable the early childhood workforce to deliver high-quality care and education for all children. To achieve this goal, CSCCE conducts research and policy analysis about the characteristics of those who care for and educate young children and examines policy solutions aimed at improving how our nation prepares, supports, and rewards these early educators to ensure young children's optimal development. CSCCE provides research and expert analysis on topics that include: compensation and economic insecurity among early educators; early childhood teacher preparation, access to educational opportunities, and work environments; and early childhood workforce data sources and systems. CSCCE also works directly with policymakers and a range of national, state, and local organizations to assess policy proposals and provide technical assistance on implementing sound early care and education workforce policy.

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Introduction

Background and Purpose

Historically, educational requirements for early care and education (ECE) professionals have been inconsistent across settings and funding streams (e.g., public preschool, Head Start, family-based and center-based child care; Whitebook, McLean, Austin, & Edwards, 2018). Nonetheless, educational expectations are rising across the field as a growing body of research demonstrates the critical importance of early educator knowledge and skills in promoting children's development and learning (Limardo, Hill, Stadd, & Zimmer, 2016). However, many ECE professionals eager to advance in their careers do not pursue further education because of barriers. For example, educators cannot afford to take time off work to attend classes given their work arrangements and low earnings — the median hourly wage of child care workers across the country is just $10.72[1] — nor are they able to cover the expenses associated with higher education (Limardo et al., 2016; McCarthy, 2017; Schaack & Le, 2017; Whitebook et al., 2018). In addition, while educational advancement can increase pay rate and earnings, the bump is small compared to other occupations, and it varies in size depending on the ages of children served and the sponsorship and funding of ECE programs (McCarthy, 2017; Whitebook et al., 2018).

Ensuring that early educators have the skills, knowledge, and experiences necessary to implement effective practices and the access to education that provides wage improvement remains critical. To enable more early educators to successfully advance their qualifications, various initiatives have been piloted and, in some cases, implemented. Some of these initiatives are designed to make college coursework and degree attainment more affordable and convenient (e.g., classes offered in the community and on weekends), while other supports have also proved to be critical to successful participation in higher education, including academic, linguistic, and technological supports (Whitebook, Sakai, Kipnis, Bellm, & Almaraz, 2010; Whitebook, Schaack, Kipnis, Austin, & Sakai, 2013). Notable progress has been made in California through the AB212 and former Comprehensive Approaches to Raising Educational Standards (CARES) programs and elsewhere via the T.E.A.C.H. Early Childhood® scholarship programs operating in 22 states (T.E.A.C.H. Early Childhood® National Center, 2017). These initiatives rely on philanthropic and limited or discretionary public dollars. Although successful, they have been insufficiently funded to meet the demand for support, and in some cases (as with CARES), they have been defunded.

Quality improvement leaders and policymakers have increasingly considered alternative instructional and training models to deliver education, including alternatives to the higher education system and those that aim to deliver higher education coursework and experiences in nontraditional models or formats. Most recently, the apprenticeship model is gaining favor with many in the ECE field. This model combines classroom-based learning and on-the-job training to provide the knowledge and skills ECE workers need in order to implement effective practices in their early education roles (Lerman, 2013). The apprenticeship model allows workers to pursue higher education while they continue to earn wages and incur little out-of-pocket expense, as the majority of the costs are borne by the employer or covered by federal or state grant funding. Additionally,

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[1] Occupational Employment Statistics (OES) Survey, Bureau of Labor Statistics, Department of Labor. Retrieved from http://stats.bls.gov/oes/.

apprenticeship programs require increased wages upon achievement of certain criteria or milestones. In the United States, apprenticeships historically have been concentrated in the construction and building trades (often supported or initiated by unions), offering the promise of good wages to those who successfully complete them (Hanks, 2016).

Proponents of apprenticeship programs point to the many advantages that these programs can provide, both to the apprentices and their employers, regardless of sector or trade (Helper, Noonan, Nicholson, & Langdon, 2016; Reed et al., 2012; Task Force on Apprenticeship Expansion, 2018). These advantages include:
- Increased wages and benefits relative to non-apprentices;
- More affordable access to education and training for students than traditional higher education pathways — workers continue to earn wages, and educational expenses are typically covered;
- Increased employee productivity;
- Improvements to employee recruitment and retention; and
- Improvements to employees' soft skills (e.g., communication or problem-solving skills).

Because the current ECE financing structure relies heavily on parents to fund services, the system is persistently underfunded. As a result, paying the costs for apprenticeships has been a challenge. In typical apprenticeship models, employers are expected to share in the costs of both educational expenses and wage increases as apprentices move through their programs. In addition, apprenticeship programs applying for federal or state funding must meet certain criteria (e.g., scheduled wage/salary increases or other benefits), which may be difficult for ECE programs struggling to find a balance between increasing pay for workers and maintaining affordable fees for parents. The apprenticeship models' inherent appeal is that they are intentionally designed to allow early educators to remain in the workforce while expanding their knowledge and skills and earning higher wages. As a result, ECE apprenticeships have been growing in popularity in several states and communities as stakeholders have identified external resources to help support the models (see Limardo et al., 2016; McCarthy, 2017; Walker, 2016; Zero to Three, 2016).

To date, apprenticeship programs for early educators have generally been supported through public funding (e.g., Pennsylvania's ECE Registered Apprenticeship Program) or private grants and contracts with institutions of higher education (IHEs) to provide coursework, either through standard course offerings or as special courses specifically for current early educators. These programs typically include financial and academic support to attain: a state certificate or credential, a Child Development Associate credential (CDA),[2] or an associate or bachelor's degree; increased wages on a predetermined schedule; and on-the-job training and mentoring in community-based ECE settings (Limardo et al., 2016; McCarthy, 2017; Walker, 2016; Zero to Three, 2016).

SEIU California Early Educator Apprenticeships

A number of apprenticeship programs, collectively referred to as the SEIU[3] Early Educator Apprenticeships, have been undertaken recently in California. These include an ***Early Educator Center-Based Apprenticeship*** in Los Angeles; three ***Family Child Care Provider On-the-Job Training Programs (FCC***

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[2] The Child Development Associate (CDA) is a nationally recognized credential that early educators may earn through a combination of coursework and professional work experience with children.
[3] Service Employees International Union.

OJT Program), with sites in San Fernando Valley, Antelope Valley, Los Angeles County, and Alameda County; and a **Head Start Apprenticeship** in Alameda County.[4] These programs were supported by two California Apprenticeship Initiative (CAI) grants, four Workforce Accelerator Fund (WAF) grants, and in-kind donations from individual program sponsors, noted in **Table 1**. The program sponsors contracted with local IHEs to offer special courses targeting current early educators as well as individuals new to the ECE field and provided apprentices with stipends or wage increases associated with meeting certain criteria. All apprentices across programs received a set of academic and professional supports throughout their participation in the programs, including ongoing coaching, mentoring, tutoring, and individual advising. Apprentices also were given financial assistance for Child Development Permit application fees, no-cost college courses, and textbooks and laptops used in their coursework.

Table 1 *Overview of Apprenticeship Program Information*			
Type of Program	Early Educator Center-Based Apprenticeship	Family Child Care On-the-Job Training Program	Head Start Apprenticeship	Expanded Head Start Apprenticeship
Site(s)	Mexican American Opportunity Foundation (MAOF)	Child Care Resource Center, MAOF, Bananas	YMCA of the East Bay	
Location(s)	Los Angeles	San Fernando Valley, Antelope Valley, Los Angeles, and Alameda County	Alameda County	
Workforce Sector	Teachers at state-funded child care centers	Licensed family child care providers	Unemployed Head Start parents	Head Start teaching staff
Number of Enrollees	56	183	119	
Permit & Degree Goals	Associate Teacher Permit and Teacher Permit	Assistant Permit, Associate Teacher Permit, and Teacher Permit	Associate Teacher Permit	AA degree and Teacher Permit, BA degree and Site Supervisor Permit
Financial Benefits	Hourly wage increases of between $0.19 and $1.09 based on attaining ascending permit levels, number of hours worked, and tenure in role	Monthly stipend based upon meeting work and coursework requirements, ranging from $100-$450/month	Hourly wage increases of between $0.29 and $1.87 based on promotions/higher positions after attaining ascending permit levels, number of hours worked, and tenure in role	

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[4] Each of the center-based and Head Start apprenticeship programs described are registered with the California Division of Apprenticeship Standards. The Family Child Care On-the-Job Training Programs did not meet all the technical requirements of a registered apprenticeship program, although they contain many of the same elements as registered apprenticeships. This report will refer to all of the participants in these programs as "apprentices."

The **Early Educator Center-Based Apprenticeship** was launched in 2016 through the SEIU Early Educator Training Center (SETC). The program is a partnership between SETC, SEIU Local 99, and the Mexican American Opportunity Foundation (MAOF), which is a community-based organization that operates child care centers in low-income communities throughout southeast Los Angeles. To date, the **Early Educator Center-Based Apprenticeship** has engaged 56 apprentices at 13 state-funded child care centers. Apprentices pursue California Child Development Associate Teacher and Teacher Permits.[5] They receive on-site mentoring and supervision, participate in no-cost college courses through Los Angeles Trade Technical College (LATTC), and work full-time as assistants or associate teachers with children age two to six. As of June 2019, 11 apprentices have graduated from the program with Associate Teacher Permits, and another 22 earned Teacher Permits.

In 2017, the **FCC OJT Program** launched as a partnership between the SETC, SEIU Local 99, and the Child Care Resource Center, a resource and referral agency that provides training to ECE workers throughout San Fernando Valley and Antelope Valley in Los Angeles County. Additional cohorts were subsequently added: one in partnership with MAOF in Los Angeles and another in partnership with Bananas, a resource and referral agency that provides ECE support services for parents and programs in Alameda County. Apprentices receive bimonthly coaching, operate family child care homes that care mostly for infants and toddlers, and take no-cost community college courses through LATTC and Berkeley City College. Currently, the four cohorts of the **FCC OJT Programs** have involved 183 licensed family child care (FCC) providers. There are no professional development or certification requirements for FCC providers in California other than state licensing requirements (e.g., first aid, basic health and safety, sex offender background checks). Therefore, as a proxy for quality, the apprentices earn California Child Development Assistant, Associate Teacher, and Teacher Permits. As of June 2019, FCC apprentices had earned 19 Assistant Permits, 47 Associate Teacher Permits, and 31 Teacher Permits.

The **Head Start Apprenticeship** was built on a program originally launched in the summer of 2016 by the YMCA of the East Bay's Early Childhood Impact in Alameda County. The program provided a career on-ramp to enable unemployed Head Start parents to work in ECE and earn California Child Development Associate Teacher Permits through an intensive eight-month work/study program. Upon completion of the program, apprentices were hired as full-time Head Start assistant teachers.

The expanded **Head Start Apprenticeship** launched in 2017, incorporating the YMCA's existing program as the first tier of the apprenticeship and adding a second tier through which apprentices earn associate degrees from Berkeley City College and a third tier through which apprentices earn bachelor's degrees in Early Childhood Studies from Brandman University. The focus on degree attainment reflects the federal Head Start professional development requirements for teachers and master teachers. Apprentices simultaneously earn California Child Development Associate Teacher, Teacher, and Master Teacher Permits. As of June 2019, the partnership between SETC, SEIU Local 1021, and the YMCA of the East Bay involved 119 participants. Of these, 42 apprentices earned Associate Teacher Permits, 12 earned associate degrees and Teacher Permits, and 20 earned bachelor's degrees and advanced permits (e.g., Master Teacher, Site Supervisor).

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[5] California Child Development Permits are a series of stackable credentials that early educators may earn to meet qualification requirements for various job roles within ECE programs. Information about the permits can be found at the State of California's Commission on Teacher Credentialing website at https://www.ctc.ca.gov/credentials/req-child-dev.

Objectives and Evaluation Questions

In early 2019, the Center for the Study of Child Care Employment (CSCCE) conducted an evaluation of the SEIU Early Educator Apprenticeship Programs. The evaluation aimed to identify the benefits and challenges experienced by the participants and their workplaces and to inform the next iteration of these and other emerging ECE apprenticeship programs. In particular, it is important to understand how participants assess the program's impact on their knowledge, skills, and day-to-day practice with children, as well as their economic well-being and progress on their educational goals and career trajectory. From the employers' perspective, it is also important to assess changes in the apprentices' practice and attachment to their jobs, as well as the impact on the children and families served. Specifically, CSCCE sought to answer the following questions:

1. Who has participated in or is currently participating in these programs (demographic characteristics, previous education, and employment experience)?
2. What impact(s) do participants perceive as a result of their participation in the program in the following areas:
   a. Their knowledge, skills, and practice?
   b. Their commitment to the field of ECE?
   c. Their commitment to their current place of work?
   d. Their career goals and aspirations?
   e. Their personal/family well-being?
3. What impact(s) do sponsors/employers perceive as a result of their implementation of these programs?
4. What elements/aspects of these programs were most beneficial to participants, employers, and families?
5. What challenges did participants face in participating in the apprenticeship program?
6. What challenges did employers/sponsors face in implementing the apprenticeship program?

Methods

We employed a mixed-methods approach to evaluate the apprenticeship program. This methodology included online surveys sent to all previous and current apprentices; interviews and focus group discussions with key program informants; and focus group discussions with current apprentices. Evaluators also reviewed administrative data about the programs and participants, including demographic information, the number of permits earned, and so forth.

The data collection took place between January 2019 and April 2019. The online survey was open for approximately three months. Each individual who was previously or currently enrolled in one of the apprenticeship programs received an invitation to participate in the survey via a unique weblink. The interviews and focus group discussions with key program informants (e.g., coaches, mentors, faculty members) took place approximately one month prior to the focus group discussions with the apprentices. The data collected from the program stakeholders helped inform the questions employed during the apprentice focus groups.

Apprentice Online Survey

Early educators (n=277) currently or previously enrolled in one of the four apprenticeship program models (detailed in **Table 1**) were invited to participate in an online survey regarding their experiences with the apprenticeship program. Twelve surveys were unable to be delivered via email, for a total sample of 265 apprentices. Survey recipients received up to six email reminders to complete and submit the survey. Topics covered in the survey included demographics, educational attainment, employment status, and questions about the impact of the program on their knowledge, skills, and classroom practice, their occupational identity, and their personal and family well-being. Apprentices were also asked about the elements of the program that were most important to their success and any challenges they faced while participating. A total of 101 apprentices responded to the survey, representing a 38 percent response rate across the six sites participating in the four apprenticeship models (see **Table 2**).

Table 2 Apprenticeship Survey Respondents by Site			
Program	**Sample Universe**	**# of Respondents**	**Response Rate**
Head Start	95	33	35%
MAOF (Center-Based)	43	13	30%
MAOF (FCC)	29	12	41%
CCRC AV (FCC)	35	17	49%
CCRC SFV (FCC)	43	16	37%
Bananas (FCC)	20	10	50%
TOTAL	**265**	**101**	**38%**

Note: MAOF = Mexican American Opportunity Foundation; CCRC AV = Child Care Resource Center Antelope Valley; CCRC SFV = Child Care Resource Center San Fernando Valley; FCC = family child care.

Stakeholder Interviews and Focus Groups

Stakeholder interviews and focus groups gathered qualitative insights into: the key components of the program; the successes and challenges of the program; the program impact on apprentices, their families, their employers and colleagues, the children and families they serve, and colleges working with the program; and the changes they would make to improve the program. Six one-on-one interviews and four focus group discussions were conducted, for a total of 10 data collection points. This research component included stakeholders from all apprenticeship program sites (n=21). Stakeholders included center, Head Start, and apprenticeship program directors; center, Head Start, and apprenticeship program staff (e.g., academic advisors, success coordinators); and community college faculty members and deans.

Apprentice Focus Groups

These facilitated discussions captured apprentices' experiences with the program. Apprentices were asked to discuss: the program impact; the program components they found most critical to their success; the challenges

of participating in the program; and the changes they would make to improve the program. A total of five focus group discussions were conducted. This research component included apprentices from all apprenticeship program sites (n=26). Two of the focus group discussions consisted of Head Start providers, two consisted of family child care providers, and one was comprised of center-based providers.

Findings

This section presents quantitative and qualitative findings on each of the five evaluation categories:
1) Who are the program participants?
2) What do apprentices and stakeholders perceive to be the program impact?
3) What are the program successes for both apprentices and stakeholders?
4) What are the program challenges for both apprentices and stakeholders?
5) What changes do apprentices and stakeholders believe should be made to improve the program?

Program Participation

Demographics

The apprentices responding to the online survey were overwhelmingly female (98 percent)[6] and the average age was 45. Survey respondents were representative of the SEIU apprentice population overall, in which 97 percent of apprentices identified as female with an average age of 42. Nearly all of the apprentices were women of color: 70 percent of the apprentices responding to the survey identified as Hispanic/Latina, while another 25 percent identified as black/African American (see **Table 3**). Apprentices across the three program models (Head Start, center-based, and family child care) differed slightly in terms of their backgrounds. About one-half (46 percent) of participants working in Head Start identified as Hispanic/Latina, and one-half (46 percent) identified as black/African American, while almost all (92 percent) of the center-based participants and three-quarters (76 percent) of the family child care participants identified as Hispanic/Latina. These respondents similarly reflected the SEIU apprenticeship population, with two-thirds of the population identifying as Hispanic/Latina and one-quarter identifying as black/African American.

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[6] The vast majority of apprentices participating in the apprenticeship program and the evaluation identified as women, as is typical of the early care and education field. Only two survey respondents and two focus group participants identified as male. Therefore, this report will refer to all evaluation participants in the feminine, reflecting the overwhelming preponderance of women in the early care and education profession.

Table 3
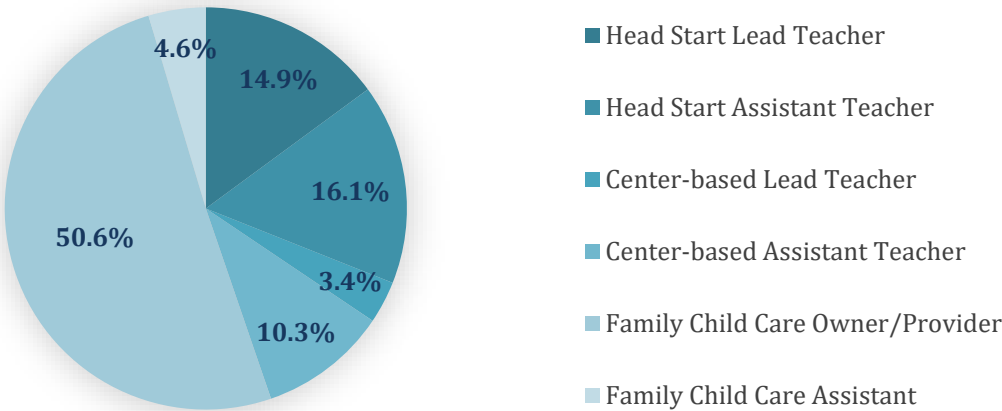### Demographic Characteristics of Apprenticeship Survey Respondents

Characteristics			
Gender	***n = 86***		**<u>%</u>**
Female	84		98%
Male	2		2%
Age in Years	***n = 79***	***<u>mean</u>***	***<u>range</u>***
		45	23–65
Racial/Ethnic Background	***n = 79***		**<u>%</u>**
Hispanic/Latina	55		69.6%
Black/African American	20		25.3%
Other	4		5.1%

Employment

Nearly all (91 percent) of apprentices surveyed reported working full-time in the field of ECE. On average, apprentices had worked in the ECE field for 11 years, however, there was a wide range of tenure in the field, with some apprentices having worked in ECE for less than a year and some more than three decades (34 years). Apprentices working in Head Start were more likely be to newer to the field, averaging nine years, compared to 12 years for both other center-based and family child care participants (see **Appendix A** for complete data).

As seen in **Figure 1**, 45 percent of the apprentices participating in the survey held roles in a center-based or Head Start setting, and 55 percent worked in family child care programs. Among the Head Start and center-based participants, 59 percent identified as assistant or associate teachers, and 41 percent identified as head or lead teachers. Of the family child care participants, 8 percent identified as assistants, and the remaining 92 percent identified as providers or owners.

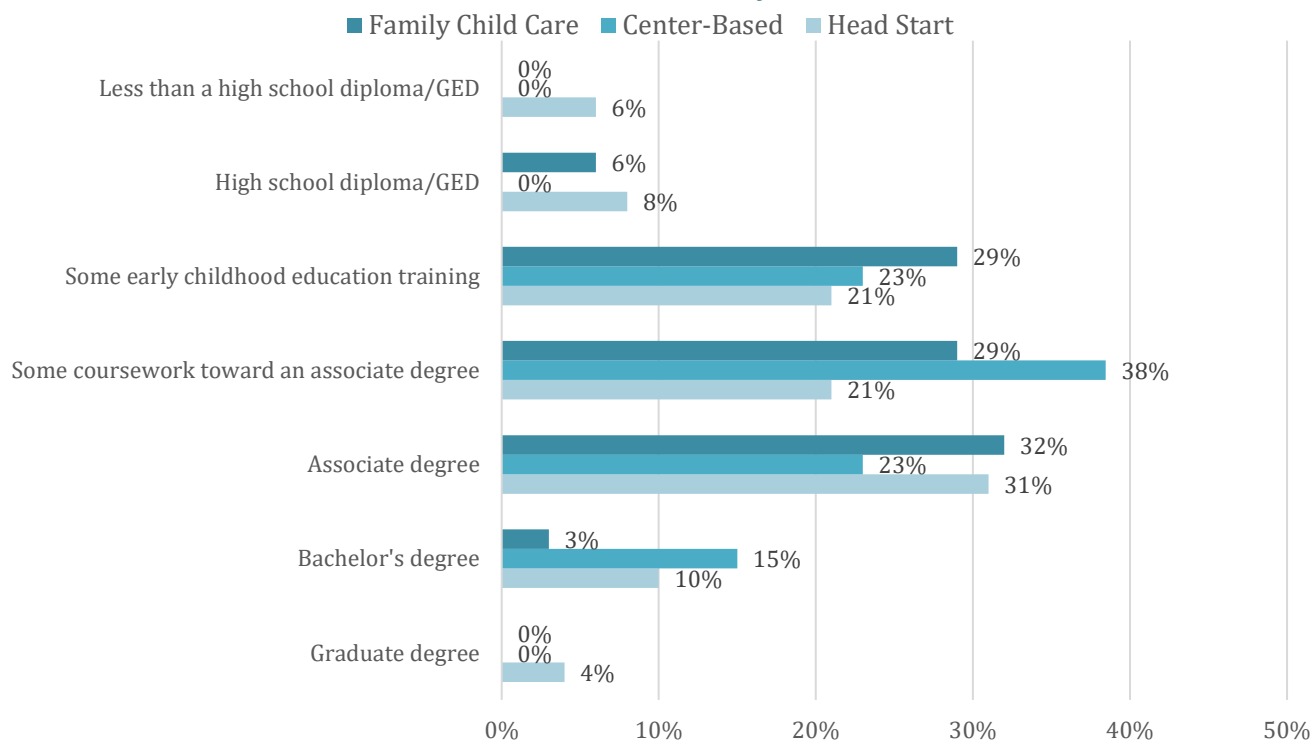### Figure 1. Employment Roles of Apprentices Participating in the Online Survey

- Head Start Lead Teacher
- Head Start Assistant Teacher
- Center-based Lead Teacher
- Center-based Assistant Teacher
- Family Child Care Owner/Provider
- Family Child Care Assistant

Educational Attainment

Apprentices completing the survey varied in terms of their prior educational attainment (see **Figure 2**). About one-third (30 percent) of participants had completed some early childhood education training, another 27 percent had completed coursework toward an associate degree, and slightly less than one-quarter (22 percent) had earned an associate degree. Another 9 percent of participants had earned a bachelor's or graduate degree. Family child care providers reported a wide range of educational attainment, with 14 percent having earned a diploma or less and 14 percent having earned a bachelor's or graduate degree.

Figure 2. Educational Attainment of Apprentices Participating in the Online Survey

Legend: Family Child Care, Center-Based, Head Start

| Category	Family Child Care	Center-Based	Head Start
Less than a high school diploma/GED	0%	0%	6%
High school diploma/GED	6%	0%	8%
Some early childhood education training	29%	23%	21%
Some coursework toward an associate degree	29%	38%	21%
Associate degree	32%	23%	31%
Bachelor's degree	3%	15%	10%
Graduate degree	0%	0%	4%

Income and Economic Security

Apprentices participating in the survey were asked about their hourly wages and their household income, as well as any public assistance programs in which they were enrolled.[7] Sixty percent of Head Start assistant teachers, 75 percent of center-based assistant teachers, and 67 percent of center-based lead teachers reported earning between $12.51 and $15.00 per hour. Seventy percent of Head Start lead teachers reported earning more than $17.50 per hour (see **Figure 3**).[8]

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[7] Survey questions about income often yield a lower response rate than other survey items. In this survey, responses were received from 19 of 24 (79 percent) assistant or associate teachers, 14 of 17 (82 percent) lead or head teachers, and 34 of 49 (69 percent) of family child care providers.

[8] Data for apprentices identifying as owning or working in family child care programs are not included in **Figure 3**. There were fewer than 10 family child care assistants who responded, and determining an accurate hourly wage for owners of family child care program presents a challenge: these providers are self-employed (and as such, determine their tuition rate for private pay families). Further, their income is highly dependent on reimbursement rates, which can vary according to the children in their care.

One-half of apprentices reported an annual household income of less than $33,500. For comparison, the median household income for Los Angeles County in 2017 was slightly more than $61,000, and for Alameda County, it was a little less than $85,750 (U.S. Census Bureau, 2018). Nearly one-half (47 percent) of apprentices also noted that they or their family are enrolled in some type of financial assistance (e.g., MediCal, WIC, CalFresh).

Figure 3. Hourly Wage for Head Start and Center-Based Apprentices Participating in the Online Survey
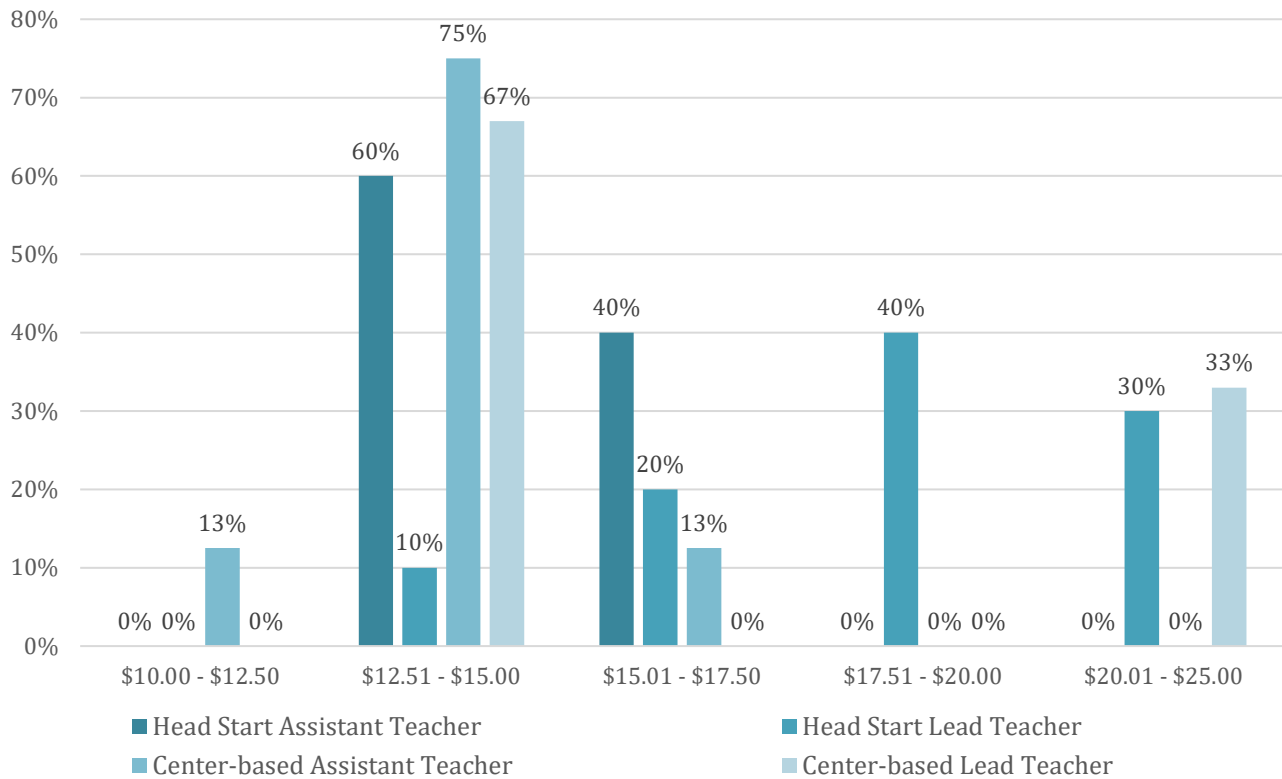
Program Impact

Fifteen themes emerged from the interviews and focus group discussions with apprentices and stakeholders regarding the programs' impacts. The 15 themes can be grouped into four distinct categories: 1) impact on apprentices' practice with children and families; 2) impact on apprentices' professional identity; 3) impact on apprentices' professional mobility; and 4) impact on apprentices' well-being.

Impact on Apprentices' Practice With Children and Families

The vast majority of apprentices completing the online survey indicated that the apprenticeship programs in which they participated were helpful in enhancing their knowledge, skills, and practice related to early

childhood education. On average, between 80 and 95 percent of apprentices noted that the program was helpful in increasing their competence in the topics and areas covered.[9] In particular, apprentices felt the program was most beneficial in increasing their knowledge of general child development and engaging with families to enhance children's learning. They also noted the impact of the program on their teaching skills related to supporting children's physical and social-emotional development and using play as an approach to learning. Finally, apprentices completing the survey identified areas of their classroom practice that the program helped improve, including engaging families in classroom, program, or school activities; integrating curriculum; and observing, assessing, and documenting to inform their teaching and children's learning (see **Appendix B** for complete survey results). The apprentices' responses to these survey questions were mirrored in the discussions that occurred during the focus groups.

> *"And I think, for me, the ability to really get down to their level, to temper your voice, it's those skills that you learn. It's not just about changing how you talk. It's about understanding why you need to talk that way to them. It's about applying it to a theory. It's about really bridging your understanding of child development into action…"*
> – Head Start teacher

Working with children. Nearly every apprentice who responded to the survey (98 percent) reported that the program helped increase their understanding of child development, and 90 percent noted that the program helped to enhance their knowledge of child development theory and its relationship to teaching. Furthermore, apprentices in all five focus groups discussed the program impacting various facets of their knowledge, skills, and practice related to working with children as early childhood educators. In three of the focus group discussions, apprentices specifically identified an enhancement in their child development knowledge. For example, one of the apprentices shared:

> *To understand human development, starting at child development helps you [in] understanding human relations, period. Developmental capacities and brain development and social development and all of those things play into it. And you learn it from the bottom up. And learning it right here helps you in all aspects of the job.*

Some of the apprentices further specified that understanding child development helped them deal with children's difficult behaviors. One of the apprentices provided an example:

> *For example, pulling somebody's hair. There's a reason. Now, I'm there to see what are the needs of the child… And now, I'm able to help them. Before, it was a struggle. I felt stressed… Now, I understand that if there is a cry, there is a need, see how I can help.*

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[9] Apprentices were asked to rate the impact of the program on a scale of 1 to 5, with 1 being "not at all helpful," 3 being "somewhat helpful," and 5 being "very helpful." For the purposes of this report, we combined the ratings of 4 and 5 and refer to these combined ratings as "helpful."

Apprentices in four of the focus groups described changing how they physically interacted with children because of what they learned in the program. All of the comments centered on the importance of maintaining a low voice and physically speaking to children as equals and at their eye level. One participant described this approach for interacting with children:

[T]raditionally we've been raised to talk at *children. And I think, for me, the ability to really get down to their level, to temper your voice, it's those skills that you learn. It's not just about changing how you talk. It's about understanding why you need to talk that way to them. It's about applying it to a theory. It's about really bridging your understanding of child development into action… [T]he patience comes as a result of that.*

Some of the apprentices shared that they learned to be more intentional when interacting with children. In being more intentional, they described being able to turn every interaction into a learning opportunity or becoming an active participant in the children's learning process. One apprentice, for example, said:

[W]e're bringing things from the materials we learned in the classes into the classroom and seeing them more in depth. Not just saying, "Okay, I'm gonna read a book," but reading the book, having the conversation about it, writing it down on the board, so everything is more intentional. Your mind is there, where it's like, "Okay, I want them to learn this, so I'm going to do this, this, and this for them to get it."

Apprentices in four of the focus groups commented that the program had impacted their understanding of children's learning environment. As a result, the apprentices made changes to their classrooms or homes. For example, one apprentice shared:

The program told me that I had to have an area for infants to crawl, and I wondered how I could do that given that I do not have a big house, and I only have one infant. But when I started the classes… I learned that when you let a child crawl in a safe space and you let it explore in a safe space, it opens their mind and allows them to learn. And when they are older, you do not limit them. It develops all of their senses. So, I stopped fighting with the program requirements because I understand the gains of the infant.

Furthermore, apprentices in three of the focus groups discussed noticing that the children under their care were learning more because of their participation in the program. For example, one apprentice, said:

I work with two-year-olds. They can learn a lot. People underestimate how much. No, they can learn. My kids now are…teaching each other things. And we just guide them, and they're just, they're two years old, but you would think they were four.

Enhancing quality of care and instruction. Apprentices in four of the focus groups commented that the program helped them enhance the quality of care and instruction in their classrooms. Many of the statements were made when the apprentices talked about the impact of the program on their curricula and lesson planning, suggesting that they viewed the two as intertwined. Some apprentices centered their statements on their newfound motivation to be better instructors, like one apprentice, who said:

[The program] makes me try more with the kids because I can see [the impact]. I want them to be happy about going to school.

For family child care providers in particular, enhancing their quality of care and instruction was especially important. As one apprentice expressed:

Without this program, I think that we would not have the motivation and desire to say, "I want to be better." You understand? For those of us in this program, it's because we are interested in offering quality work.

Some of the program stakeholders talked about personally witnessing the apprentices using the knowledge they had gained in their courses and putting it into practice in the classroom. Some program stakeholders identified on-site coaches as instrumental in facilitating this knowledge-to-practice process. One coach, for example, shared a story about an apprentice in a family child care setting:

[W]hen I visited on Monday, [the apprentice] did an awesome job where there was a particular child who was struggling with taking turns with the Play-Doh. [That child] wanted the bigger piece than the other child. I stepped back and was watching [the apprentice]. [The apprentice] came down to the child's level, made the eye connection, and did a beautiful job by asking the child, "What do you think you can do next?"

Furthermore, some program stakeholders shared how the program's impact on quality of care and instruction had also spread to the physical environment for children. Program stakeholders talked about employers hiring new staff to better monitor quality, as well as classroom settings being remodeled to enhance quality. For example, one program stakeholder stated:

I've had the opportunity to see that center grow, not only within the staff, but also the environment. The environment has changed tremendously… [I]f I could've taken a before-and-after picture, it's amazing. This place has been remodeled from the floor to the walls and to the furniture…everything down at child's level; having a better understanding of how children really learn.

Curricula and lesson plans. Apprentices in all five focus groups said that the program had an impact on their curricula and lesson plans. Some of the apprentices shared that the program led them to make major changes to their instruction plans. For example, one apprentice said:

I learned in one of the classes how to make [a curriculum]. Before…we were focused more about "learn your colors, learn your numbers, and your letters." And now it's not like that. Now it's more about, "let's work more [on] social-emotional [skills]." It has changed a lot… And literacy, that's another thing I implement because before I didn't have nothing like that.

Other apprentices focused their statements on gaining a deeper understanding of curriculum and the intention behind it. One apprentice, for example, commented:

[C]reative Curriculum is intentional, and there is a plan, and there is an agenda. And [children] are learning. And that was just such a wonderful shift for me… [To have] the fact-based evidence that states and proves that children learn while they play. And this is the way it should be. And it also allows them to apply so many concepts in so many ways that they're learning and being able to grow and have conversations and recognize things through play. And there's so many ways you can creatively incorporate lessons.

Some apprentices also discussed being mindful of their curricula and lesson plans based on the developmental stage of the children under their care. For example, one apprentice shared:

[A]long with those curricula, we did hands-on activities so we could get the concept or the idea of the lesson plan that we could input then to the kids, so when we teach them, we already knew… I had never done a Creative Curriculum lesson plan [before].

Tracking child progress. Nearly 90 percent of apprentices surveyed noted that the program helped improve their classroom practice around observation, assessment, and documentation to improve children's learning. This impact was reflected in the focus groups, as well, with apprentices in three of the focus groups discussing how the program impacted their skills in child observation and their child assessment practices. Many of the comments focused on the importance of conducting observation and assessments for the purposes of communicating children's progress to their parents. For example, one apprentice explained:

With observation, we learned how to be very observant and to take detailed notes so that we keep a paper trail on the children, that we know we can talk to their parents and say, "Well, at this point in time, this is where we are. This is where he is now. Previously, this is a mark where he should be." It's easier to converse with the parents when you have that observation that is detailed over time.

Another apprentice shared that learning to conduct child observation and assessments helped in evaluating the quality of curricula and instruction:

[W]e just did the assessment in the month of February. The amount of the kids that are recognizing letters is big, just by adding something new to them. Before, if I didn't do that assessment, I would have no idea of what's going on… I was talking with my assistant, and I mentioned to her, "Did you see now? Look at the evaluations. It shows that what we are teaching is working." And before that, I didn't care too much about those things because it's just so much work. I didn't put too much effort. But now I put a lot because I know it's important.

Working with parents. Almost all (95 percent) of the apprentices completing the survey noted that the apprenticeship program helped them engage with parents to enhance children's learning, and 90 percent reported that the program was helpful in engaging families in classroom or program activities. Apprentices in all five of the focus groups also shared that the program had impacted how they work with the parents of the children they serve. In all five focus groups, apprentices discussed improvements in how they communicated with parents. They shared that, as a result of the program, they had improved their ability to talk to parents and explain the science behind their classroom activities or why their children's behavior had improved. For example, one apprentice commented:

[N]ow when I'm talking to the parents, I can get more clarity about why we're doing this specific activity, or why your child's experiencing this behavior right now, and it just gives me a door to open, or a door that's open a little bit more for me and the parent. Rather than me in the beginning, I'm just like, "Yeah, your child did this, he had a good day."

Many of the apprentices attributed an enhancement in their professional vocabulary to their ability to better communicate with parents. One apprentice, for example, stated:

These classes have helped me a lot with language. Now I know what each area of development is called. In parent conferences, I use the terms the classes have given me. The parents will ask me what that is, and when I tell them, they tell me that I am learning a lot.

In improving their vocabulary and communication skills, apprentices in two of the focus groups added that parents had developed more confidence in them as early childhood education professionals. For example, one apprentice shared:

I think the parents, they are looking at us as we want to learn more about kids because, when they come to my home, as soon as they get in — I have my dining room table, and my books are there — they say, "You're going to college?" And I say, "Yes. I'm preparing myself." And they say, "That's great." I feel like they feel more confidence in me because I'm learning more.

Apprentices in three of the focus groups further discussed feeling more comfortable helping parents understand their children's behaviors and offering parenting advice. The improvements in the apprentices' communication and in parents' confidence in the apprentices as professionals likely created a safe space for such activities to occur. One apprentice, for example, explained:

[Talking about] how we communicate with the parents, what I've started doing now is…every other Saturday…they come to my daycare with the kids... I have a rule where they can stay, they can see the kids when they go outside and interact each other and play… Parents are watching and are seeing their kids, how they interact… [T]here were some kids that I had at daycare that the parents were telling me that, "At my house, I don't eat this. At my house, I don't do this. At my house they do this. At my house they don't listen and discipline." And I said, "Relax." They've started seeing the difference. They started saying, "They also do that at home."

Some of the apprentices also discussed sharing knowledge with parents that equipped them with productive parenting techniques at home. For example, one apprentice said:

We help a lot with parents. Many parents, they don't know how to take care of the kid… Many people, they don't have time to spend with the kid. At least half an hour. We know we have a lot of tools... We teach them, "You don't have to spend all day with them. We need for the kids quality time, quality time."

Impact on Apprentices' Professional Identity

Confidence and agency. In response to the online survey, 97 percent of apprentices agreed that they were more confident in their role after participating in the program, and 95 percent noted being more satisfied with their role. During focus group discussions, apprentices in all five groups mentioned feeling more confident thanks to their participation in the program. Most of the comments were about feeling more confident in the work setting and as early childhood educators. One apprentice, for example, expressed:

For me, I think, [I am] more comfortable with myself. I feel less stressed. I know exactly what I'm talking about, and I feel that my bonding with the kids has grown way more.

Related to the theme of confidence, program stakeholders in seven of the interviews and focus groups expressed that the program had helped increase the apprentices' agency. Many of the program stakeholders provided examples of times when apprentices had demonstrated agency, including instances when apprentices worked together to petition for more program courses. One program stakeholder shared an anecdote about a group of apprentices who advocated against an instructor's classroom rules that challenged their ability to succeed in the class:

The most important point is that these FCCs felt empowered enough to say, "Hell no." And that's what I'm saying: they have a better perspective… There's seven [apprentices] going, "I'm not taking this... from a college professor, and furthermore, we're going to work together because that's how it works around here."

Sense of being an early childhood education professional. More than 95 percent of apprentices responding to the online survey agreed that participating in the apprenticeship program made them more likely to remain in the ECE field, and more than 90 percent noted that they were more likely to continue working for their current employer (including family child care providers who own their own business).

Furthermore, apprentices in all five focus groups made statements that spoke to having gained a sense of being an ECE professional from the program. In speaking about their heightened sense of professionalism, many of the apprentices rejected the notion that their work could be reduced to the term "babysitter." For example, one apprentice stated:

> [O]ver the years, we were considered glorified babysitters. But I say, "Well, that's your opinion, but I am a professional. I have to go to college just like a doctor or a lawyer in order to do what I have to do."

In rejecting the notion of being babysitters, apprentices spoke about feeling worthy of being in a classroom as early childhood educators. One apprentice mentioned improved practices for tracking child progress as an extension of this professionalism:

> I'm able to show [the parents] that I'm a professional. I'm not just watching TV and taking care of kids; I'm also learning about them and the different developments, and I show them in papers what I have done. Right now, all my kids, they have a binder where we document every new change in their lives.

Apprentices in four of the focus groups also shared viewing themselves or their work differently thanks to the program. Such comments further illustrate that the program impacted the apprentices in intrinsic ways. One apprentice, for example, shared viewing the classroom differently:

> [W]hen you walk into your classroom, you put on a different lens. Yeah, this is your classroom, but put on a different lens and see what you can do to change it…

Program stakeholders in nine of the interviews and focus groups also made statements indicating that the program had impacted the apprentices' sense of professionalization. One program stakeholder provided an example from a discussion they had with apprentices in family child care settings:

> I spoke to some providers where the families were contacted by a local center to invite the child to come in because now they had an opening. And parents have gone to the center and said, "Wait a minute. Why would I bring my kid here? He's getting everything and more with my family child care provider." And there's been parents that… kept their children in the family child care home. So, you can only imagine what that did to that provider. It just elevated and confirmed her value.

Another program stakeholder listed the ways in which the program augmented the apprentices' professional identity, including intrinsic ones:

> [The apprentices] changed personally each time they hit a milestone: how that makes them feel about themselves, their work, their career, their options, their sense of self. I think that's really, that's transformative, right? And a lot of them spoke about a transformation like that.

Professional support network. Program stakeholders in nine of the interviews and focus groups talked about the support network the apprentices had gained from the program. Many of the program stakeholders cited the cohort model as key to creating such strong support networks among the apprentices. One of most important benefits of the support network was accountability for remaining in the program. One program stakeholder shared some examples of how the apprentices had supported each other:

> When somebody was having problems in the class, and they knew she was struggling, they were all on her case: "What can we do to help you? How can we help you? How do we walk you through this? Do you want me to read your paper? What can I do to help you?" When somebody had housing problems it's like, "Okay, let me help you find housing." If somebody needs to get picked up on a Saturday morning at 7:30, they're picking them up from far away and bringing them here.

Another significant benefit of the support network was that the apprentices helped each other, both with classwork and work-related matters, which enhanced their professional identities. One program stakeholder, for example, stated:

> They network together. They do study groups together. They call each other to help with homework… If they need help in the classroom in understanding something, they're comfortable in reaching out to somebody else in their team to be able to help them out.

For apprentices in family child care settings, such a professional support network contributed to their professional identities. Apprentices in family child care settings intentionally discussed belonging for the first time to a network of other professionals. They talked about turning to this network to share curriculum ideas, to improve their businesses, and to support each other. They added that they did not have such a network prior to their participation in the program. One apprentice, for example, commented:

> Once I joined this program, I got to know a lot of the ladies in this program, and they've all been very welcoming, open to sharing ideas, very helpful. I can contact them if I need help on something. So, it has been very beneficial getting to know every person in the program.

Investing in family child care businesses. Program stakeholders in four of the interviews and focus groups mentioned that the program had allowed apprentices in family child care settings to invest more in their businesses, which enhanced their professional identities. Some program stakeholders stated that apprentices invested the stipend they received from the program back into their businesses. One program stakeholder, for example, said:

> [W]ith the investment in the funds, I've seen that many of [the apprentices] have updated their materials, furniture, books, toys, in their centers. That's a tangible improvement. I know that many of them are pursuing other opportunities, like expanding their businesses, now that they have other certificates.

Other program stakeholders touched on apprentices being able to be more competitive in the early childhood education market and better promote their businesses. For example, one program stakeholder shared:

[The] associate teacher permit…is something that they can put out there to say, "Hey, I have this. I have this knowledge." And for parents, that's a big thing. It's like you're selling yourself to parents, and that puts you at a higher level.

Impact on Apprentices' Professional Mobility

Child Development Permits earned. Apprentices participating in the programs were primarily working toward earning professional permits recognized by the state of California for employment in various ECE roles. In addition, some Head Start employees were working toward associate and bachelor's degrees. In all, apprentices participating in the program earned a total of 204 permits during the duration of the apprenticeship programs (see **Figure 4**).

Figure 4. California Child Development Permits Earned by Apprentices During the Program
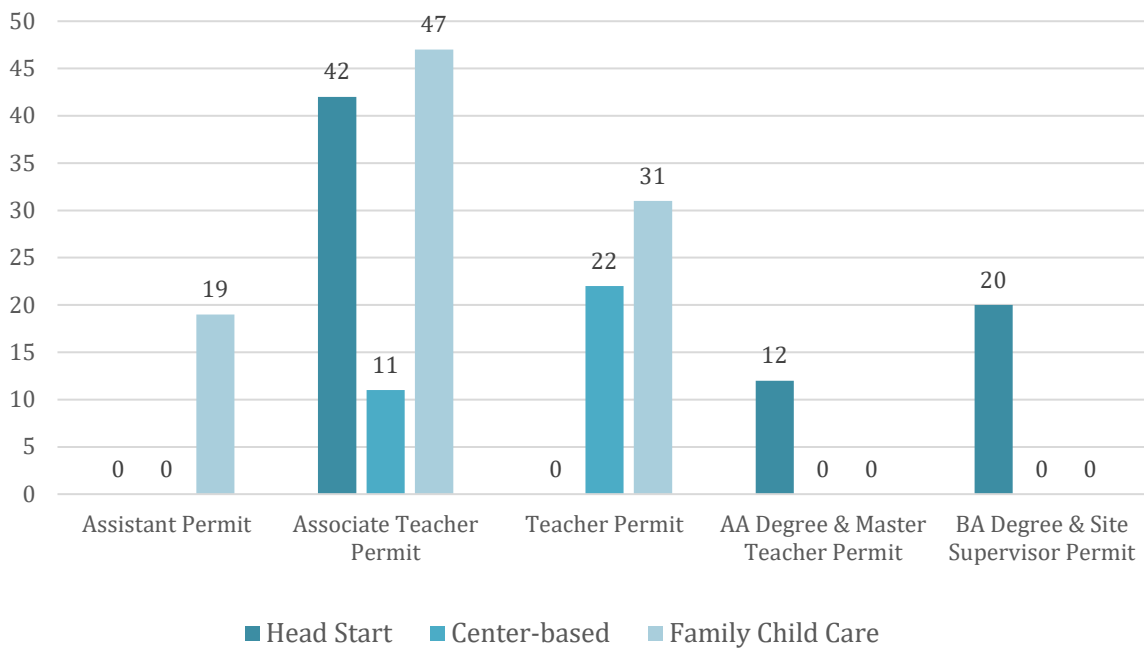
Apprentices in two of the focus groups spoke about the impact the program had on their professional permits. Many of the apprentices implied that they would be professionally stuck or worse off if they had never participated in the program. One apprentice explained in detail how the program had shaped her permit trajectory:

I was working as a teacher assistant for 10 years, and when [a program stakeholder] came over and talked about the program, I took it. In the second year, I got the Associate Permit and the Teacher Permit back-to-back, and I gave myself an opportunity to be a teacher.

Another participant shared that participation in the program helped avoid a job loss:

[O]ur facility was a child care preschool, and that got converted into a Head Start. So, when they came in, the Head Start division took over, they asked all the staff, "Are you currently going to school? Because x amount of hours are needed to have certain credentials, to have certain classes." [B]eing part of the program helped us maintain our employment with the new program.

Program stakeholders in six of the interviews and focus groups also discussed witnessing apprentices increasing their Child Development Permits. Many of the program stakeholders provided examples of apprentices who had increased their permits and moved up the career ladder. Program stakeholders in one focus group provided these examples:

Program Stakeholder 1: [One apprentice], she started as an assistant, then she moved onto associate, and she moved on to teacher… So, you know she went through every step of the program.

Program Stakeholder 2: [Another apprentice] did the same.

Program stakeholders further discussed that the apprentices had also played a role in motivating their colleagues and other staff to join the program and increase their own education and certifications. One program stakeholder shared insight from working directly with apprentices:

[W]atching other teachers or whoever was in the program moving up the scale, it is motivating a lot of them. "Oh, I wanna join. I wanna take more classes. I wanna move on…"

> **"[B]eing part of the program helped us maintain our employment with the new program."**
> – Teacher in ECE program transitioning to Head Start program

Expansion of early childhood education career pathways. More than 86 percent of apprentices completing the online survey noted that they planned to seek a role with more responsibility as a result of participating in the program. Additionally, apprentices in three of the focus groups commented that the program opened up their career pathways. This theme did not emerge in focus groups with apprentices in family child care settings, likely because these apprentices were small business owners or worked for their family's business.

Apprentices discussed being interested in a range of early childhood education career options. These included gaining seniority as teachers, becoming a site supervisor, moving into Head Start, and taking an administrative position that would allow them to gain early childhood education experience outside of the classroom. One apprentice, for example, listed the various career options available with her current employer:

[F]or our company, it's teacher assistant, teacher assistant with a credential, teacher one, then teacher two, and site supervisor and area supervisor. I think all of us are in different positions, we're from [teacher assistants] all the way to teachers two, and we're working our way up there.

Apprentices' interest in Head Start was largely based on the benefits that educators in such settings receive. These included summers and holidays off, greater flexibility to spend time with family, a structured pay scale and promotion potential, and more resources to work with children. For example, one apprentice commented:

> [Head Start is] a little bit more demanding because they demand the staff to have more education. But it becomes a partnership with it because you get more education, you get more pay. Whereas, sitting in child care…once you hit the top scale, that's it. Doesn't matter what education you have, that's where you're at.

Commitment to increasing education. Apprentices in all five focus groups talked about the program giving them the motivation to continue increasing their education. Some of the apprentices shared that prior negative experiences in college settings made them wary of participating in the program. Nonetheless, their experiences in the program had changed this attitude. One apprentice, for example, explained:

> [I've] been more committed to my education. I didn't want to go to school anymore. For me, it was like, "That's it, I'm done. It doesn't matter where I stay." But the apprenticeship class helped me grow and believe in myself.

Many of the apprentices were also passionate about increasing their education beyond the target of their particular apprenticeship program. Apprentices in programs capped at associate degree were passionate about pursuing a bachelor's degree, while those in programs terminating in bachelor's degrees were eager to pursue a master's degree. Some apprentices discussed continuing their education with or without the program. For example, one apprentice commented:

> For me, I'm not just stopping. Whether the program continues or not, I'm still going to continue because I want to further myself in this. I want to get my master's.

The theme of commitment to increasing their education also emerged in five of the interviews and focus groups with program stakeholders. Program stakeholders shared that the program led the apprentices to learn for the first time that they were capable of succeeding academically in a college setting. One program stakeholder, for example, said:

> [The apprentices] are learning so much about themselves. Having that opportunity that they probably had dreamt up but couldn't see themselves. And I know that there is a couple of them saying, "I can't believe I'm doing this." Taking the first class, [one apprentice is] like, "I didn't know what I was going to do in here. I'm taking two [classes] here. I am going to go for the three." They're learning so much about themselves [and] that they are capable.

In experiencing success in college, the apprentices became more committed to increasing their education. Program stakeholders echoed the apprentice's comments regarding their eagerness for increasing their education beyond what the program allowed. For example, one program stakeholder shared:

> [The program has] made a big change in a lot of these family child cares that probably had never thought they could go back to school. And this is just…a beginning. Because many are like, "Oh, this is gonna continue. I want a BA." Now the sky's the limit. It's great to see that enthusiasm.

Community colleges better prepared to serve early childhood educators. Program stakeholders in three of the interviews and the focus groups touched on the impact the program had on the community colleges that provided the course instructors. Their comments centered on the theme that the program had helped the participating community colleges become better prepared to serve early childhood educators. The community colleges had become more engaged and had raised their visibility within the community of early childhood educators, while the instructors had become inspired to continue serving the population of full-time ECE educators. Such an impact suggests that these community colleges are better prepared to encourage and support the professional mobility of apprentices and other ECE providers.

"[There has been an impact in compensation] for our center-based members who have a collective bargaining agreement… Many of them had economic benefits that were tied to a union contract."
– Program Assistant, apprenticeship program host site

One program stakeholder commented that participating in the program had sparked interest within a community college to make systemic changes:

> *[The program] provoked a dialogue at the district level to change some systemic, institutionalized barriers that have been going since the early '70s regarding community-based courses and meeting the needs of our workforce… It's opened up dialogues across [community college] departments…*

Impact on Apprentices' Well-Being

Role models to family. Apprentices in four of the focus groups shared that their participation in the program made them more respected as role models in their own families. Apprentices talked about the impact that going back to college had on motivating their own family members to pursue higher education. For example, one apprentice commented:

> *My son, my youngest, is 18, so he's off to college himself… I think it was a bit of an encouragement for him to strive for that and at a young age.*

Program stakeholders in six of the interviews and focus groups also talked about the program helping the apprentices become greater role models for their children. One program stakeholder, for example, stated:

> *We're changing the dynamic of their entire family with education… So, it's being able to visualize that for the entire family, changing pretty much their stars of where they're going…*

Increase in compensation. Apprentices were financially compensated in various ways, depending on the program in which they participated. Family child care providers received monthly stipends when they met certain criteria for hours worked and coursework completed during a given period. Stipends ranged from $100 to $450 each month and increased as providers continued through the apprenticeship program. A provider who met all the criteria and participated for the full duration of the program (June 2017 to June 2019) received a

total of $6,850 in stipends. The average total stipend received across all family child care providers participating in the program was $3,077, with a range of $200 to $6,850.[10]

Early educators working in Head Start or center-based programs received hourly wage increases upon receiving promotions due to earning a higher Child Development Permit. The amounts of these increases varied across programs and were derived from collective bargaining agreements specific to each organization.

Apprentices responding to the survey noted their expectation that the program would result in greater financial compensation. Eighty-five percent of survey respondents agreed that after participating in this program, they believed their salary would improve, and 84 percent believed that their family would be more financially secure.

Similarly, program stakeholders in five of the interviews and focus groups discussed the impact of the program on the apprentices' compensation. Their comments, however, were limited to apprentices in Head Start and center-based settings. Apprentices in Head Start settings had seen a clear impact on their compensation related to Head Start's tiered pay schedule. As one program stakeholder commented:

Basically, everyone in our program pretty much got a raise because they all got their Associate Teacher Permit. And many of them even went on to get their Teacher Permit.

Many of the program stakeholders clarified that an increase in compensation was tied to changing job roles or having a collective bargaining agreement. Apprentices in center-based settings were particularly reliant on these two conditions in order to see an increase in their compensation. For example, two program stakeholders explained how the compensation increase played out in their center:

Program Stakeholder 1: If [the apprentices] stay [in their positions], [the increase is] like really minimal, like cents. From when I last looked at the…we have a chart… I think it was like 15 cents.

Program Stakeholder 2: But if they take a new job within the agency, then they do get more.

Regarding the reliance on collective bargaining agreements, one program stakeholder stated:

[There has been an impact in compensation] for our center-based members who have a collective bargaining agreement… Many of them had economic benefits that were tied to a union contract.

Program Successes

Apprentices participating in the online survey and in the focus group discussions were asked about the components of the apprenticeship programs that were the most beneficial to their success in the program. **Table 4** displays the apprentices' responses to the survey questions, using a scale of 1 to 5, with 1 meaning "not at all important" and 5 meaning "very important."

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[10] At the conclusion of the apprenticeship programs, FCC providers ceased to receive stipends, as they were funded by the grants supporting the program.

Table 4
Importance of Program Elements to Apprentices' Success in Program

Program Element	% Rating "Very Important"
Support from my supervisor/mentor/coach	90.6%
Financial support for tuition, textbooks, transportation, etc.	89.7%
Support from my course instructors	86.0%
Flexibility of course schedule	85.1%
Support from my classmates	69.8%

Nine out of ten apprentices noted that support from their supervisor, mentor, and/or coach and financial support for tuition and other program expenses were aspects of the program that were very important to their success. In addition, around 85 percent of apprentices rated support from course instructors and flexibility of course schedules as very important. Apprentices discussed all of these supports during focus group discussions, as well.

From the interviews and focus group discussions with apprentices and stakeholders regarding the program's successes, five themes emerged. These five themes can be grouped into three distinct categories: 1) program supports; 2) student support; and 3) financial support.

Program Supports

Course flexibility. Apprentices in all five focus groups identified factors related to the flexibility of the courses as a critical program component. Some of the factors they identified included automatic course registration and weekend courses. The majority of the comments, however, focused on the program being flexible enough to fit with their busy work and personal schedules. One apprentice compared the flexibility of the program to the typical community college experience:

> *[Community colleges are] not gonna understand that you're a full-time employee and you're going to school because you're trying to get through college. It's like, they're not gonna care.*

Program stakeholders in five of the interviews and focus groups also stressed course flexibility as an important program component. They described flexibility as being critical to apprentice attendance. For example, one program stakeholder shared:

> *It's available. It's here. It's convenient… It's a one-stop shop. They come here, and all they have to do, literally, is show up.*

Apprentices in family child care settings centered their comments related to course flexibility on the location of the classes. Many of them talked about not having the time to take classes at a community college because of their work schedules. One apprentice provided insight into what it was like to take classes prior to the program:

Seven years ago, we were a group of seven or eight providers. We would go to [the community college] at night to study because they offered child development courses at night. They would help us a lot. We used to go in groups of 10. After the years, only two or three of us went. Most left because it was too far, about 50 minutes away. We would come back at 11 at night.

Apprentices stated that having tutoring gave them greater confidence in their ability to succeed academically.

Some of the program stakeholders remarked that the location of the classes provided a comfortable learning setting. They explained that taking courses in a known setting rather than at a community college alleviated the intimidation of being in a college setting. For example, one program stakeholder said:

[T]here is this familiarity here on a comfort level, because we have offered ongoing trainings to this population. Therefore, that's one barrier that they don't have to cross because they know the location. They're familiar with the process. Therefore, this was a great transition to now just take the same location and then add college coursework to it.

Wrap-around services. Apprentices in all five focus groups discussed the importance of the program's wrap-around services to their ability to succeed. Such services included academic advice, technology access and training, and on-site child care. One of the more commonly mentioned services was on-site coaching. Apprentices in four of the focus groups stated that the on-site coaching helped them practice what they learned in the classroom. For example, one apprentice explained:

[M]y coach would give me flyers and papers and beneficial websites that I could use to expand my knowledge and the way I interacted with the kids. It was very beneficial because right after reading that, I can immediately implement that work the next day and continue to grow from where I was. And I've seen how I've grown from that.

Apprentices in three of the focus groups spoke about tutoring as another important service the program offered. Apprentices stated that having tutoring gave them greater confidence in their ability to succeed academically. One apprentice explained why tutoring was especially helpful:

You call them, they set up the schedule to meet with you in the evenings, and what you don't understand, they even break it down in simpler forms. They will break it down until you understand it.

Program stakeholders in eight of the interviews and focus groups also identified these services as critical components of the program. Program stakeholders specifically mentioned technology access and training, child care, and tutoring. Again, the most commonly cited service was on-site coaching. Program stakeholders in four of the interviews and focus groups discussed the importance of on-site coaching. Most of the comments also centered on how on-site coaching allowed apprentices to practice what they learned in the classroom. For example, one program stakeholder expressed:

I know that the [apprentices], when I talk to them, they speak quite a bit of their coaches, that they apply what they learn in the classroom... Of course, they learn about theory, but also get the practice… And they work with their coaches even more closely.

Staff roles and relationships. Program stakeholders in seven of the interviews and focus groups described staff roles that were critical to program operations. Program stakeholders in three of the interviews and focus groups stated that it was critical to have a high-level staff member. They explained that the program needed such staff to act as the link between the various program components of the apprenticeship. One program stakeholder, for example, suggested:

[T]here needs to be a person…who is the hub of the wheel and can deal with the program staff, the higher ed[ucation] people, the program staff's boss…and the higher ed[ucation] people's bosses, and district and statewide chancellor's offices.

Program stakeholders in five of the interviews and focus groups talked about the importance of having program staff with dual higher education and early childhood classroom experience. They described staff with such dual experience as important for better supporting the apprentices with their academic trajectories. For example, one program stakeholder said:

[T]he average person would not know how to read transcripts and help with the permit process or whatever. So, the wonderful thing is that [program staff] are able to help and assist.

Additionally, program stakeholders in four of the interviews and focus groups discussed the utility in having program staff with the ability to make decisions and implement changes. Program stakeholders explained that running the program required staff that took action and that worked until tasks were completed. One program stakeholder, for example, observed:

[T]here's a part of me that wonders: if [the program] didn't have the people that we have and the roles that we have, could we do that? [S]ometimes these systems are difficult… I don't know if [a new] person would be able to [make things happen] or feel confident that they can.

Furthermore, program stakeholders in all 10 interviews and focus groups identified the relationships among everyone involved in operating the program as an important component. Many of the comments focused on the relationships among program staff members. Program stakeholders repeatedly talked about having a sense of trust, strong communication, and teamwork with one another. For example, one program stakeholder asserted:

[T]eam work, communication is the key… [T]hose are like the main points. And like [my colleague just] said, if you communicate, we're able to get more things done and help each other because that's what we're here for.

Some program stakeholders acknowledged that having staff in place before the start of the program facilitated their ability to work as a team and to communicate effectively. For example, one program stakeholder commented:

[I]t just so happens that we are already a team, so we didn't have to be built… We manage this program, but it just so happens that we manage all the other professional development… It just so happens that when this came on our table, we already had a system in place. We already have coaches. We already knew the providers.

Student Support

Apprentices in all five focus groups identified the support they received in the program as a key component. They spoke at length about support from their classmates,[11] course instructors, and program staff.

Apprentices across the five focus groups mentioned that their course instructors were patient and took time to explain course material to them, were flexible with those who faced language barriers, and made accommodations that supported their academic success. Some apprentices compared the instructors with their other experiences in community colleges. One apprentice explained what distinguished the apprenticeship course instructors from previous instructors:

I think one of the unique things about the program are the instructors that have been brought in to teach the classes. They become more connected to the program. They understand what we're doing here. And it's very different than doing it at the campus because it's a very different student body. It's very general. Here, it's very specialized. And because of that, we have these conversations with the instructors to really allow them to understand what the cohorts are all about, what our student learners are about.

Apprentices in three of the focus groups also touched on the support they received from program staff as critical to their success. Apprentices credited program staff with keeping them on track to complete their courses and making sure all of their needs were met. Some of the apprentices acknowledged that they would not have remained in the program without support from program staff. Two apprentices, for example, discussed the support they received from program staff:

Apprentice 1: [Program staff] are what kept me in the program.

Apprentice 2: They didn't turn their back on us.

Apprentice 1: Exactly… I would say it was a family. It's like they are the mothers, and everybody else was like...

Apprentice 2: The kids.

Some program stakeholders also highlighted their relationships with the apprentices when speaking about program relationships as an important component. They mentioned that such relationships allowed apprentices to freely ask for needed supports and services. One program stakeholder noted:

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[11] Support from classmates and peers was discussed in the previous section.

[W]e have very good relationships with our apprentices. In many situations, and I'm sure it goes to all of you guys, where they're asking questions besides what we're mentoring around, like guidance for something in the field or for whatever. So, I think that the relationships we've built with them, that's also a key.

Financial Support

Apprentices in four of the focus groups listed the financial support for the courses as critical to the program's success. Apprentices identified financial support when speaking about what motivated them to participate in the program. One apprentice succinctly stated:

[T]he most important thing is that I didn't have to pay for it.

"In 2009, I started doing early childhood development classes. I was spending almost $480 dollars per class. Not per semester, it was per class. For me, with the amount of money that I make, it wasn't good, so I stopped going to school. And one day, [someone] called me and told me about the program, that we were gonna get free education, free books. There is no excuse for you not to enroll."
– Family child care provider

Some of the apprentices shared experiences of having to stop taking courses in the past because of the high cost. High cost was a significant barrier to their ability to continue their education given their wages. For example, one apprentice shared:

In 2009, I started doing early childhood development classes. I was spending almost $480 dollars per class. Not per semester, it was per class. For me, with the amount of money that I make, it wasn't good, so I stopped going to school. And one day, [someone] called me and told me about the program, that we were gonna get free education, free books. There is no excuse for you not to enroll.

Program stakeholders in three of the interviews and focus groups also mentioned financial support as critical to the program's success. Program stakeholders mentioned the importance of ensuring that the apprentices increased their education free of debt. One program stakeholder, for example, said:

The program seeks to allow for teachers who are paid low wages to get their degrees debt-free, allow them to matriculate up the career ladder as well as the education system, again, debt-free.

Program Challenges

Four themes emerged from the interviews and focus group discussions with apprentices and stakeholders regarding the program's challenges. The four themes can be grouped into two distinct categories: 1) challenges for apprentices and 2) challenges for stakeholders.

Challenges for Apprentices

Apprentices were asked about the challenges they faced in participating in the apprenticeship programs in both the online survey and focus group discussions. Although there were many beneficial and supportive elements of the program that helped the apprentices fully participate, several challenges remained.

Academic challenges. Finding time to complete assignments was difficult for a significant number of apprentices, particularly those in Head Start and family child care programs. In response to the statement "It has been difficult for me to find time to complete assignments," 42 percent of Head Start apprentices and 35 percent of family child care apprentices said this was true for them, compared to less than 10 percent of center-based apprentices (see **Figure 5**). This finding is not surprising, given the contexts of these two groups of apprentices. Head Start apprentices typically carried a much larger course load than the other two groups, as they were working toward associate (and eventually bachelor's) degrees, in addition to their full-time work of 35-40 hours per week. Family child care apprentices tend to work long hours (12 hours per day), so finding time to attend class and complete assignments on top of that commitment presents a challenge.

Figure 5. Apprentices Who Noted Difficulty in Finding Time to Complete Assignments, By Program Type
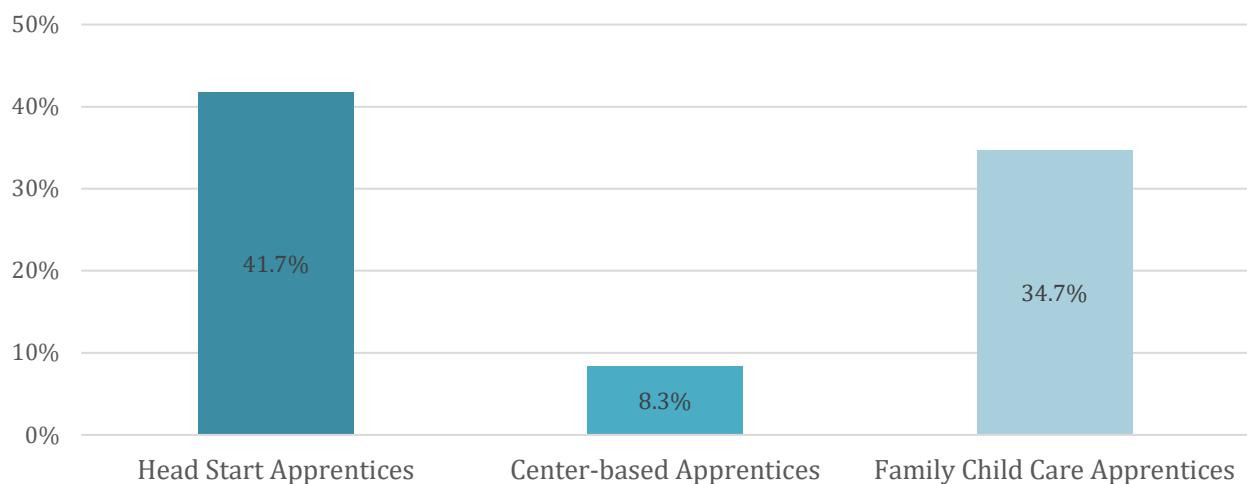
Similarly, in three of the focus groups, apprentices discussed the challenge of juggling the course workload. Most of the comments centered on the size of the course workload and the need to make regular sacrifices to complete it. For example, one apprentice shared:

The load is like having another job, another full-time job. [It] can be challenging… There's a lot of reading required, and you work a full-time job…and we have to pace ourselves… It's like two full-time jobs.

Another apprentice echoed this sentiment:

And then spending my weekends doing homework, studying. That was harder. But you know what? A real sacrifice has to be done if it's something good.

For individuals who have been out of school for some time or have taken some (or no) college coursework, the content, expectations, and logistics of college coursework was sometimes daunting. When responding to the statement, "It has been difficult for me to understand the content of what I'm learning in my courses," 29 percent of Head Start apprentices, 20 percent of family child care apprentices, and 8 percent of center-based apprentices said this was true for them. Similarly, program stakeholders in five of the interviews and focus groups discussed challenges related to the apprentices being underprepared for returning to college. Some of the program stakeholders mentioned that the apprentices lacked academic confidence given their inexperience as students.

Other stakeholders were of the opinion that the academic standards were higher than the apprentices expected, especially for the general education courses and in particular those required for the associate and bachelor's degree programs. One program stakeholder described what this experience was like:

> *[The apprentices] were used to training. They had to shift their mindset to college courses. They're not training. So, even after the first semester, they're like "These are college courses." So, we had to still encourage them that, "Yes, these are college courses…" We had to even take one step back and say, "Okay. Before we even offer those college courses, let's offer a class [each] semester of 'What Is a College Course?'"*

Some of the program stakeholders identified technology as a challenge that leaves apprentices feeling unprepared for returning to college. They mentioned that the use of technology to submit assignments was especially problematic for the apprentices at the beginning of their time in the program. As one program stakeholder described:

> *At the beginning, there was actually the computer, uploading their assignments... I think, I want to say, the first two courses, the first two semesters, it was a big challenge for them. I think now it's just one or two, here and there.*

Furthermore, apprentices and program stakeholders mentioned language barriers as a challenge to apprentices' academic success. Responding to the online survey statement "I have experienced challenges understanding my fellow classmates and/or instructors because of a language barrier," 17 percent of Head Start apprentices and 30 percent of family child care apprentices noted this statement was true for them.

Program stakeholders in five of the interviews and focus groups acknowledged that some apprentices faced problems with courses because of a language barrier, that they remained anxious about the language requirements, and that they limited the courses they took because of issues with English. Instructors and apprentices had to find ways to overcome the language barriers. One course instructor explained how she helped alleviate the issue:

> *I just met with all of them. It's like, "Okay, who has the strongest English?" I made them help each other. I would put them in affinity groups, and then I took all my Latina students. It's like, "Okay, Spanish and English: Who's the strongest?" I just set them in groups like that.*

Another program stakeholder shared a similar story:

> [S]ome instructors were willing for [the apprentices] to write in Spanish, and then they would translate it, and then eventually it was having them being comfortable to be okay in writing.

Scheduling. Apprentices in two of the focus groups talked about the challenge of juggling family-related logistics. All of the apprentices were concerned about the demands of the college-course workload negatively affecting how much time they got to spend with their families. For example, one apprentice explained:

> [For] me, [the challenge has been] a lack of time with my daughter… Definitely that and making it here. I really, really want to be home. My kids, they would be tired, and I would be buying them fast food… I be feeling bad about that, especially when I'm preaching to her to eat healthy.

Program stakeholders echoed the challenge apprentices faced in juggling their course load with their work and family responsibilities. Program stakeholders in six of the interviews and focus groups discussed the challenge of creating the ideal course schedule given the apprentices' busy work and family lives. One program stakeholder, for example, commented:

> You had to become very, very creative and maximize every minute [to schedule courses], realizing also that the students are coming from work. They just finished working, and so, Saturday classes are hard for them, but sometimes, it's needed because [they] worked all day, and [they're] going to school at night.

Many of the program stakeholders also talked about having to modify the course schedule early in the program because of conflicts with the apprentices' work schedules. Others discussed steps employers had to take to make the course schedule work. For example, one program stakeholder said:

> Apprentices are not just thinking about just getting up and leaving [to go to class], "Okay. I'm done for my day." They have to literally plan it out, map it out, and also financially be able to support that piece. Because they're…going to have to hire…an additional person, if needed, for that time frame that they're going to be out.

Challenges for Stakeholders

Need for additional staff. Program stakeholders in six of the interviews and focus groups shared facing challenges related to the program being understaffed. Some of the comments focused on how program staff were often pulled in various directions, had to play various roles, and had to work long hours to complete necessary tasks. One program stakeholder described the workload:

> [T]hings need to get done, and if I have to work a 12-hour shift to get signatures, that's what I'll do… [T]here's really no guided description of what my job is. It's just what needs to get done, get stamped… [T]here's a lot of different parts to this [job].

When discussing the challenge of the apprenticeship program being understaffed, some of the program stakeholders specified that more staff were needed to assist with academic-related matters. This need

included having staff dedicated to working with the community colleges and advising apprentices on course requirements. One program stakeholder, for example, stated:

> *I think one [needed staff role] is having access to an academic counselor…having accessibility of a go-to person [who] can support us with certain specific questions regarding if it's a student portal question, a fee or…[is] this college course equivalent to this other one?*

Collaborating with institutions of higher education. Program stakeholders in eight of the interviews and focus groups discussed challenges in working with community colleges. The challenges centered on two areas: 1) recruiting appropriate instructors and 2) communication.

Recruiting appropriate instructors. Program stakeholders in all 10 interviews and focus groups discussed challenges with recruiting the appropriate instructors to teach the program courses. All of the comments focused on the challenge of recruiting instructors who were willing to teach outside of the community college campus, who were mindful of the apprentice population's special needs, or who were willing to work closely with the apprentices. For example, one program stakeholder asserted:

> *[I]t takes a special instructor to be able to manage a classroom and understand that these are sometimes first-time college students [who] really don't have that academic background. [I]f you have a strong instructor [who] can identify with the students and build that confidence, it's good. But sometimes the instructors have not worked with the population before.*

Some of the program stakeholders added that it was especially challenging to find appropriate general education instructors. Program stakeholders attributed this difficulty to general education instructors' lack of human development knowledge, which limits their ability to tailor their instruction to the apprentice population. One program stakeholder provided insight into interactions with apprentices regarding this issue:

> *When you're taking all these child development courses, they're feeling so successful and "I can do this," but when you have a general ed[ucation] course, it's down to that, "I'm not [being] successful. Why is this? Why am I not able to do this?" We're still having those conversations with them… Definitely, we have that conversation a lot more.*

Communication. Program stakeholders in four of the interviews and focus groups described the challenge of communicating with the community colleges. Some of the program stakeholders explained that community college staff were not accessible, that internal bureaucracy at the community colleges hindered their ability to run the program, and that they often had to wait long periods of time to hear about decisions. One program stakeholder, for example, explained:

> *There's just so many layers to [the communication]. You ask one person, and they can't really do much. They understand what the problem is, but they don't really have the power to solve it. And so then they have to take it to their higher-ups and wait for their answer, and then come back.*

In speaking about the challenge of communicating with the community colleges, many of the program stakeholders commented that the communication and decision-making was often dependent on one person.

One program stakeholder provided insight into the experience of trying to communicate with one community college:

> [F]irst we had a young lady…who didn't have too much power, but she worked under a dean. So, then she would bug the dean to get it done. And then she left. Then we worked with another person, and she was kind of understanding. Sometimes she wouldn't answer my emails, but then I got her number so I would call her and bug her. We finally developed a relationship, but she's out now because she had a baby. Now, I think we have a new person, and it's just like…starting all over with each person.

Proposed Program Changes

Four themes emerged from the interviews and focus group discussions with apprentices and stakeholders regarding the changes they would make to improve the program. The four themes can be grouped into two distinct categories: 1) administrative changes and 2) course-related changes.

Proposed Administrative Changes

Staffing. Program stakeholders in six of the interviews and focus groups suggested a need to more clearly define staff roles. Some solutions were: to hire new staff to absorb the responsibilities of staff members with dual roles, for example, those who mentored apprentices and handled the relationship with the community colleges; to divide program implementation from program development to have a focus on program fundraising efforts; and to make program managers and coaches independent of the apprentices' employers to help ensure that the actions taken are in the interest of the apprentices as program participants and not just as employees.

Furthermore, apprentices in the two Bay Area focus groups suggested that it would be helpful if the program expanded its academic support staff and its academic success resources. Regarding academic support staff, apprentices specifically identified a desire for an academic counselor or advisor, more academic success coordinators, and more tutors. Apprentices asserted that such support staff were integral to their academic success. For example, one apprentice explained:

> [An academic counselor tells] you what you need to get to the next level [of education]. And you don't have too many people out here like that.

Another apprentice spoke about the utility of having more tutors:

> The tutoring keeps you [enrolled in classes]. [I]f they had more tutors, I feel like I'm smart. I'm going through the class.

Partnering with community colleges. Program stakeholders in six of the interviews and focus groups also suggested a need to solidify the program's partnerships with the community colleges that provide the course instructors. The program stakeholders framed their suggestions as important for streamlining the course planning and scheduling process and clarifying expectations. For example, one program stakeholder shared:

We need to formalize the agreements [with the community colleges]…timelines for whether we confirm coursework, and an understanding that the courses are going to be offered at the [apprentices'] community sites… We need that so that a community college will [understand what is required of them].

Program stakeholders also proposed working with community colleges that are local to the apprentices' community sites. One program stakeholder, for example, stated:

I think that we could do a better job of reaching out to community colleges across the spectrum because we had challenges…getting professors…out to [apprentice community sites]. But if we tapped into [local community colleges], and there were professors there that taught these classes, it's in their backyard… I don't think that we worked efficiently around strategizing the institutions of higher learning that we could take advantage of and those partnerships.

Proposed Course-Related Changes

Greater flexibility and responsiveness from instructors and support personnel. Apprentices in two of the focus group discussions expressed a desire for having more instructors who were flexible. The discussions regarding instructors provided ideas for changes that could positively impact the apprentices' experiences with their instructors. For example, one apprentice said:

If we could have all instructors be a little bit more helpful and take that extra step… [I]f they could just take that initiative and just put [themselves] in our shoes and just understand that we are learning and we are trying to finish these classes in some amount of time and succeed in them.

An apprentice in a separate discussion talked about the merits of having instructors that were locally based:

[One instructor] was coming from a far distance… She's been teaching all of the early childhood classes… [W]e've always talked about finding staff in our area or pairing with a school that's in our area. Because the school that we're with right now is like an hour or two hours away.

Apprentices in one of the two focus groups discussed their desire for greater flexibility in the course schedule. Two apprentices expressed being overwhelmed with how quickly they had to jump from one course to the next:

Apprentice 1: Offer these cohorts you know, taking another step. Offer some incentive, like you work maybe one week a 4-10 [four 10-hour days], where you could come in and actually take maybe a half a day or a full day to really study.

Apprentice 2: Yeah, study without it affecting your regular work or your study work.

Other apprentices suggested being able to work extra hours on some days so they could free up time during the week to focus on their school work. One apprentice, for example, talked about needing help to balance school and work schedules:

Our job requires so much paperwork… [I]t's pretty intense… It would be nice…to have some type of focus on, "Okay, they're taking these classes, they got this full-time stuff… Let's try to see how we can help them with some more time to get work done."

Need for general education courses. Apprentices in the three Los Angeles focus groups discussed that it would be beneficial to them if the apprenticeship program offered general education courses. Most of the comments centered on the need for such courses to graduate from college, attain a teaching credential, or complete an associate or bachelor's degree. Almost all of the comments regarding the need for general education courses specifically mentioned math and English courses. Apprentices' desire for the program to offer math and English courses had to do with more than just graduation requirements. The apprentices talked about these courses as especially challenging, and some of them shared experiences of having failed these classes in the past. One apprentice, for example, stated:

I took math three times [in my] early 20s… I went to get tutored and went to my teacher…and I told her, "I need help. I'm not understanding." And she told me, "It's because you are being lazy." She told me that. So then, I didn't want to take another class.

Another apprentice added:

I just wish they offered those [math] classes because here [in the program], it's more private, smaller. We know each other, we have all that help, people tutoring us.

> **This challenge of providing reliable, significant wage increases that support long-term financial security and well-being is ubiquitous in the field and requires public investment strategies that are beyond the capacity of individual programs to solve, particularly those that rely primarily on parent fees.**

Discussion and Recommendations

The evaluation findings presented above add to the growing evidence that apprenticeship programs present a promising approach to improving the knowledge, skills, and professional identity of early educators. It is of particular significance that nearly all of the SEIU participants were women of color, given the historical and systemic barriers that women of color have faced in accessing and successfully participating in higher education.

Over all, the evaluation revealed numerous ways in which the strategies employed by the apprenticeship programs removed barriers and supported success: namely, access supports like paying for the cost of education, holding classes in community-based locations, and offering academic and peer supports. Apprentices who participated in this evaluation clearly benefited from flexible course scheduling to coordinate with their work and family commitments, support from dedicated staff to ease the transition into college coursework and expectations, and a network of other early educators similarly committed to advancing their

credentials and working together to improve their practice with children and families. Furthermore, the apprentices reported gains in their knowledge and enhancements to their practices.

In the case of apprenticeship programs in the ECE field, while mechanisms for covering the educational expense may be fairly straightforward (e.g., philanthropic and/or government grants), the element of increased and sustainable wages is challenging to address, even though it is a common feature of apprentice programs across occupations. The costs associated with these increased wages may be difficult for employers (particularly self-employed family child care owners) or parents to absorb. Among programs participating in this evaluation, wage increases for center-based staff were minimal, with publicly funded programs (e.g., Head Start) better able to provide more significant wage increases as they were built into the wage structure and subject to collective bargaining agreements already in place. On the other hand, family child care providers are small business owners, who earn no wage per se. The stipends they received when reaching certain milestones in the apprenticeship program provided important financial relief, but as these stipends are not ongoing payments, they are not a reliable source of income in the future. This challenge of providing reliable, significant wage increases that support long-term financial security and well-being is ubiquitous in the field and requires public investment strategies that are beyond the capacity of individual programs to solve, particularly those that rely primarily on parent fees.

A limitation of this evaluation is that the work environments of early educators were not assessed. The environments for educators play a central role in whether educators are supported or impeded in their ability to successfully implement their new knowledge. Future studies and evaluations of apprenticeship models would benefit from learning more about the conditions of the workplace in which early educators practice their teaching skills, as well as direct observation of teaching practices.

Future iterations of these apprenticeship programs and other efforts that seek to advance the educational attainment and well-being of early educators would further benefit from the following actions.

Institute a common wage structure associated with levels of achievement in the program.

A clear wage structure associated with levels of achievement in the program is crucial for the long-term success of ECE apprenticeship programs as a compensation initiative. A common, regionally based structure would ensure that increases are equitable for those completing the same levels and activities. Nearly half of apprentices in this evaluation were enrolled in one or more public support or assistance programs. Reliable, significant wage increases are critical for their own financial security and well-being.

Strengthen existing program elements and expand course offerings and supports.

Apprentices and key program informants participating in the evaluation emphasized the importance of program elements such as the cohort model, coaching, mentoring, tutoring, and on-site child care. These elements should be the backbone of any future apprenticeship model. In addition, apprentices noted their desire for expanded course offerings, including general education courses. For apprentices seeking associate and bachelor's degrees, general courses are required for their progress toward a degree, while others noted that it would be beneficial to take subjects like math in the same supportive environment as their child development and early childhood education courses. In particular, math can be a challenging subject for students who have

been out of the classroom for some time, so additional math support and tutoring may be especially important. Finally, apprentices expressed the need for the expansion of supports such as tutoring and on-site child care.

Bolster the apprenticeship orientation to ensure apprentices are better prepared to begin the program.

Many of the apprentices participating in this evaluation were returning to school after some time or were individuals for whom English was not their first language. As such, additional support with coursework in English and assistance with technology necessary to complete and submit assignments were noted as two areas that should be strengthened in future iterations of apprenticeship programs.

Expand staffing to ensure sustainability and scalability of the apprenticeship programs.

Key program informants mentioned the importance of one or two specialized staff members to the success of each of the programs. While the dedication and passion of individual staff can be crucial for launching new programming, long-term sustainability will require additional staffing and an institutional culture that values these programs and is dedicated to committing the resources necessary to ensure their success. Furthermore, scaling the programs in order to meet the growing demand of early educators eager to advance their education will require additional staff for supporting apprentices with on-site coaching, mentoring, tutoring, and other valuable support services.

Formalize and broaden partnerships with local institutions of higher education.

Continuing to build relationships with departments of early childhood education at local community colleges and universities will be key for sustained and expanded programming. Many apprentices noted that they had taken all the courses available to them through the program and were committed to continuing their educational paths, which will necessitate additional coursework offered in partnership between IHEs and the apprenticeship sponsor programs (e.g., YMCA of the East Bay, CCRC). These ongoing partnerships should include an orientation or training for faculty and administrators in preparation for working with the population of early educators that often includes nontraditional students and those who may struggle with certain aspects of coursework related to language abilities.

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Appendices

Appendix A

Average tenure (in years) of apprentices participating in the online survey.

	In ECE Field	With Current Employer	In Current Job Role
Head Start (n= 24-25)	9.2	6.4	5.2
Center-Based (n= 13)	12.1	10.7	10.9
Family Child Care (n= 46-47)	12.3	9.9	9.8
Overall (n= 84-85)	11.3	9	8.6

Appendix B

Apprentices' ratings of the impact of the program on increasing their knowledge, skills, and practice.

	1 (Not at all helpful)	2	3 (Somewhat helpful)	4	5 (Very helpful)
KNOWLEDGE (n= 91-96)					
General child development (e.g., cognitive development, physical/motor development, social-emotional development)	0.0%	0.0%	2.1%	9.0%	88.5%
How children develop math skills	4.3%	1.1%	7.4%	20.2%	67.0%
How children develop reading and writing skills	3.3%	1.1%	12.0%	17.4%	66.3%
How children develop science skills	1.1%	1.1%	17.2%	20.4%	60.2%
The effects of culture, gender, class, and race on child development	0.0%	0.0%	9.6%	14.9%	75.5%
Child development theory and its relationship to teaching	0.0%	0.0%	8.7%	15.2%	76.1%
The effects of disability on child development	1.1%	2.2%	12.1%	16.5%	68.1%
Engaging with families to enhance children's learning	0.0%	0.0%	5.3%	20.2%	74.5%
SKILLS (n= 91-94)					
Teaching children math skills	1.1%	3.2%	14.0%	16.1%	65.6%
Teaching children science skills	2.2%	3.3%	15.4%	18.7%	60.4%
Teaching children reading and writing skills	2.2%	2.2%	14.3%	15.4%	65.9%
Teaching children art and music	0.0%	1.1%	16.1%	12.9%	69.9%
Teaching children social studies	3.3%	3.3%	17.4%	16.3%	59.8%
Using play as an approach to learning	0.0%	1.1%	3.2%	17.2%	78.5%
Supporting children's physical skills	0.0%	1.1%	5.3%	17.0%	76.6%
Supporting children's social-emotional development	0.0%	1.1%	5.3%	12.8%	80.9%

	1 (Not at all helpful)	2	3 (Somewhat helpful)	4	5 (Very helpful)
CLASSROOM PRACTICE (n= 89-93)					
Teaching children who are experiencing poverty	2.2%	1.1%	13.0%	20.7%	63.0%
Teaching children with challenging behaviors	1.1%	5.5%	9.9%	16.5%	67.0%
Engaging with children and families who have experienced trauma	2.2%	3.3%	15.6%	18.9%	60.0%
Supporting the development and learning of children who are dual language learners	1.1%	2.2%	12.1%	18.7%	65.9%
Integrating curriculum (i.e., teaching in a manner that allows students to make connections across their lessons)	1.1%	2.2%	8.7%	16.3%	71.7%
Implementing strategies inclusive of children of all abilities to participate in learning	0.0%	2.2%	9.7%	17.2%	71.0%
Observing, assessing, and documenting to inform teaching and learning	0.0%	1.1%	11.0%	13.2%	74.7%
Managing a classroom	1.1%	2.2%	10.9%	17.4%	68.5%
Using different teaching strategies (e.g., planning, instructing, facilitating)	1.1%	2.2%	8.7%	19.6%	68.5%
Engaging families in classroom, program, and/or school activities	3.4%	1.1%	6.7%	16.9%	71.9%

Appendix C

Program challenges noted by apprentices participating in online survey.

	1 (not at all true for me)	2	3 (somewhat true for me)	4	5 (very true for me)
It has been difficult for me to understand the content of what I'm learning in my courses.					
Head Start	33.3%	20.8%	16.7%	20.8%	8.3%
Center-Based	61.5%	15.4%	15.4%	0.0%	7.7%
Family Child Care	56.0%	8.0%	16.0%	8.0%	12.0%
It has been difficult for me to find time to complete assignments.					
Head Start	33.3%	8.3%	16.7%	25.0%	16.7%
Center-Based	58.3%	8.3%	25.0%	8.3%	0.0%
Family Child Care	36.7%	12.2%	16.3%	18.4%	16.3%
It has been difficult for me to put into practice things I'm learning in the classroom.					
Head Start	62.5%	20.8%	4.2%	4.2%	8.3%
Center-Based	75.0%	0.0%	8.3%	8.3%	8.3%
Family Child Care	62.0%	10.0%	4.0%	10.0%	14.0%
It has been difficult for me to attend group sessions.					
Head Start	41.7%	20.8%	20.8%	16.7%	0.0%
Center-Based	83.3%	0.0%	8.3%	8.3%	0.0%
Family Child Care	42.0%	16.0%	12.0%	8.0%	22.0%
I have experienced challenges understanding my fellow classmates and/or instructors because of a language barrier.					
Head Start	41.7%	20.8%	20.8%	16.7%	0.0%
Center-Based	83.3%	0.0%	8.3%	8.3%	0.0%
Family Child Care	42.0%	16.0%	12.0%	8.0%	22.0%
I have not felt supported by my fellow classmates.					
Head Start	73.9%	4.3%	8.7%	4.3%	8.7%
Center-Based	75.0%	0.0%	8.3%	8.3%	8.3%
Family Child Care	64.0%	12.0%	2.0%	6.0%	16.0%
I have not felt supported by my supervisor/mentor/coach.					
Head Start	78.3%	4.3%	4.3%	0.0%	13.0%
Center-Based	75.0%	0.0%	8.3%	8.3%	8.3%
Family Child Care	74.0%	4.0%	4.0%	4.0%	14.0%