Report | 2025

Empowering Early Educators

An Evaluation of the Alameda County Early Educator Apprentice Program

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This evaluation was funded by First 5 Alameda County and conducted with the generous support of the YMCA of the East Bay.

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Suggested Citation

Pufall Jones, E., Knight, J., Hess, H., & Copeman Petig, A. (2025). *Empowering Early Educators: An Evaluation of the Alameda County Early Educator Apprentice Program.* Center for the Study of Child Care Employment, University of California, Berkeley. URL.

Acknowledgements

This evaluation was supported by First 5 Alameda County. Thank you to all of the First 5 Alameda County funders and staff who provided feedback on this project.

Thank you to the program administrators, mentors, coordinators, faculty members, and apprenticeship partners who gave their time and expertise to inform this report. Thank you also to staff of the YMCA of the East Bay for sharing with us their extensive knowledge of early childhood education and apprenticeship. We especially acknowledge the educators who participated in the study and gave their time, knowledge, wisdom, and voice to inform the understanding of early childhood education programs, supports, and apprenticeships.

Editor: Deborah Meacham

About CSCCE

The Center for the Study of Child Care Employment (CSCCE), founded in 1999, is the national leader in early care and education workforce research and policy. CSCCE provides research and analysis on the preparation, working conditions, and compensation of the early care and education workforce. We develop policy solutions and create spaces for teaching, learning, and educator activism. Our vision is an effective public early care and education system that secures racial, gender, and economic justice for the women whose labor is the linchpin of stable, quality services.

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Alameda County is home to more than 7,000 early educators, nearly all of whom are women (96 percent) and predominantly women of color (79 percent) (Alameda County Early Care and Education Planning Council [Alameda County ECEPC], 2021). California licensing for center-based programs requires associate teachers to have: 1) a minimum of 12 semester units in early childhood education or a related area; 2) a Child Development Associate Teacher Permit; or 3) a valid Child Development Associate® (CDA) Credential and six months of on-the-job training and/or work experience (California Department of Social Services, 2023). Many early educators in Alameda County possess credentials and experience beyond those required by licensing: one half (52 percent) hold either an associate or bachelor's degree (Alameda County ECEPC, 2021). Although data regarding Alameda County educators' average years of experience were unavailable, state-level data reveal that 61 percent of lead teachers in California have 10 years or more in the early care and education (ECE) field (Kim et al., 2022). While these data indicate that many early educators in Alameda County possess credentials beyond those required by licensing, one half of current and most pre-service early educators do not possess these credentials.

Early educators in Bay Area center-based programs earn slightly higher median hourly wages than state median wages for the same job role.[1] Bay Area wages are $19 per hour for assistant teachers and $23 per hour for teachers, while California wages are $16 per hour for assistant teachers and $19 per hour for teachers. However, the cost of living in the greater Bay Area is one of the highest in the state (Montoya et al., 2022). Even with these higher wages, most early educators in Alameda County are not making a living wage.

At the same time, lack of available child care remains a persistent issue in Alameda County. Data from 2019 show large gaps between licensed capacity and the young child population in Alameda County, where only 5,563 slots were available for 55,274 children age birth to two (Alameda County ECEPC, 2021). Availability of care and education for preschool-age children also indicates a potentially large unmet need, with 31,555 slots for the 61,893 three- to five-year-olds living in Alameda County (Alameda County ECEPC, 2021).

[1] Regional data was collected in the 2020 California Workforce Study (McLean, et al., 2021). Alameda County was grouped with Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, and Sonoma Counties. No detailed wage data for Alameda County by job role (assistant, teacher, and director) exist. The 2021 Needs Assessment for Alameda County lists the median wage for all child care workers as $18 per hour (Alameda County ECEPC, 2021).

Contributing to the limited licensed child care capacity is a lack of early educators available to fill positions in ECE programs. Across California, ECE workforce staffing has finally surpassed pre-pandemic levels, yet pre-pandemic staffing capacity was already insufficient to provide access to care for families (Center for the Study of Child Care Employment [CSCCE], 2024).

Funding and Programmatic Opportunities

In the spring of 2024, litigation ended on Measure C, a ballot measure passed in 2020 to add a 0.5 percent sales tax in Alameda County to raise approximately $150 million annually to address children's health and child care needs. Measure C funds will now empower First 5 Alameda County to administer nearly 80 percent of this funding to increase access to affordable child care throughout the county. More specifically, this funding will be used to improve access to child care by "Improv[ing] compensation for participating early care and education providers; [and] enhanc[ing] professional development programs and the eligibility and enrollment system for providers" (Alameda County ECEPC, n.d.).

In anticipation of this funding, First 5 Alameda County began exploring strategies to support the preparation and compensation of the area's ECE workforce. Many communities across the nation seek to increase and improve pathways into and throughout the ECE field for pre-service and incumbent educators as a way to improve recruitment and retention of staff and to expand child care availability. Apprenticeships are rapidly proliferating across the United States as one viable pathway for supporting educators to enter the field and helping them progress professionally.

Apprenticeships can reduce or remove typical barriers to educational attainment for educators by providing on-the-job training along with financial, academic, and social supports, such as scholarships, cohort-based learning, and academic counseling. These scaffolds allow educators to pursue credentials with minimum financial burden to themselves and sometimes their employer (Copeman Petig & McLean, 2019; Early Educator Investment Collaborative, 2020). However, there is little research regarding the impact of apprenticeships on the ECE workforce.

First 5 Alameda County contracted with the Center for the Study of Child Care Employment (CSCCE) to conduct an evaluation of the Early Educator Apprentice Program (EEAP) at the YMCA of the East Bay. The apprenticeship has been in operation since 2015. First 5 Alameda County and the Alameda County Social Services Agency (ACSSA) began a unique partnership with the program in 2019, supporting cohorts of parents to participate in the apprenticeship with funding from CalWORKs, California's Temporary Assistance for Needy

Families (TANF) program. To our knowledge, Alameda is the first county in California—and perhaps the United States—to use TANF funding to support an ECE Registered Apprenticeship (RA). This report incorporates data from apprentices and other key stakeholders to explore the promising practices and impacts of the program, including the EEAP's potential to continue to impact the ECE workforce in Alameda County through increased funding and scaling.

Early Educator Apprentice Program Overview

The Early Educator Apprentice Program comprises three Registered Apprenticeships in Alameda County operated by the YMCA of the East Bay, a large ECE provider with multiple center-based ECE programs. The EEAP is operated by the Workforce Development division within the YMCA of the East Bay.

Beginning in 2015, the YMCA of the East Bay launched an "earn and learn" program with 20 participants, all of whom were Head Start staff or parents interested in working with children in the classroom. The pilot program began with participants completing 12 early childhood education units (equal to four college courses) in one semester, while simultaneously working in ECE classrooms. Apprentices and program coordinators agreed that the sequencing and pace were too intense. In the next iteration of the program, cohorts followed a specific course sequence that spanned more than one semester.

This pilot evolved as the YMCA of the East Bay received a California Apprenticeship Initiative (CAI) grant and worked with Los Angeles Trade–Technical College and Service Employees International Union (SEIU) to create what has become the current slate of apprenticeship offerings. Through a partnership between the YMCA of the East Bay and Early Care & Education Pathways to Success (ECEPTS), which serves as the official sponsor and industry intermediary for the EEAP, the program aligns with state and federal apprenticeship standards, secures additional resources, and receives ongoing technical assistance to support program implementation.

Critical to the definition of a Registered Apprenticeship is the interrelation of training/instruction, coursework, and employment (Department of Labor, 2018). Every RA must include:

- An employer;
- On-the-job training;
- Related instruction;
- Compensation increases for skill gains or milestone achievements; and
- A nationally recognized and portable credential.

In the case of the EEAP, the YMCA of the East Bay is the employer, and the on-the-job training consists of 2,000 hours of supervised work experience with a mentor teacher. Related instruction occurs by way of the college courses that participants complete at local institutes of higher education (IHEs), for example, Berkeley City College. Apprentices receive compensation increases and stipends for reaching milestones as they progress, and those who successfully complete their program or "tier"[2] receive the corresponding credential and/or the California Child Development Permit associated with the education achieved (see **Table 1**). The programs and the financial incentives they offer are made possible through a careful braiding of public funding (e.g., CalWORKs and Prop 10) and philanthropic funding (e.g., Tipping Point).

Table 1. Early Educator Apprenticeship Tiers

	Educational Requirement	Credentials and Degrees Earned
Tier 1	12 early childhood education units, equivalent of 4 early childhood education courses	CA Child Development Associate Teacher Permit
Tier 2	60 units, including both early childhood education and general education courses	CA Child Development Teacher Permit; Associate Degree
Tier 3	120 units, including both early childhood education and general education courses	CA Child Development Site Supervisor Permit; Bachelor's Degree

Source: Center for the Study of Child Care Employment, University of California, Berkeley

The EEAP was developed with an intentional focus on increasing access to education and employment opportunities for under- and unemployed individuals, including parents of young children, as well as racially and ethnically diverse residents of the Bay Area who face systemic barriers to pursuing higher education and training. Program elements were designed and included specifically to reduce or eliminate obstacles related to costs, scheduling and logistics, comfort and confidence in classroom settings, and navigation of higher education systems and structures. Beyond the standard program elements the U.S.

[2] There is an apprentice program for each credential, and each program is called a "tier" due to its stackable nature. The course work in Tier 1 contributes to the course requirements of Tier 2, and the course work in Tier 1 and 2 contributes to the course requirements of Tier 3.

Department of Labor requires for Registered Apprenticeships, the EEAP incorporates additional elements and supports, including:

- A cohort-based learning model;
- Access to technology and support;
- Tutoring;
- Child care during specific program activities; and
- Success Coordinators.

> *"The first thing that happens when people get certifications is they start to get better wages. Everything improves. And that allows them to succeed in these programs [with] the support to see what's possible."*
>
> *—IHE Faculty Member*

About the Evaluation

CSCCE conducted an evaluation of the Early Educator Apprentice Program to explore and assess the benefits and challenges experienced by participants, program staff, IHE personnel, and other key stakeholders and to identify program elements crucial for optimizing the impact of the current program and informing future program models. This evaluation examines how participants assess the impact of the program on their knowledge, skills, and day-to-day practice with children, as well as their economic well-being and progress toward their educational goals and career trajectory. Additionally, this evaluation focuses on the implementation of the program, given the innovative funding structures currently in place and the implications for similar approaches and strategic funding models in other locations.

Objectives

The objectives of this evaluation were multifaceted and included both process (implementation) and outcome (impact) elements. Specifically, CSCCE sought to answer the following set of questions:

Program Participation

- Who has participated in and who is currently participating in the EEAP (including previous education, employment experience, and other demographic characteristics)?
- What is the program retention and completion rate? How long do apprentices work toward each tier milestone?

Program Implementation

- How is the EEAP administered and funded? What are the institutional and individual partnerships involved in the implementation of the program? How do these relationships influence program functioning?
- What elements/aspects of the program were most beneficial to participants? What elements/aspects of the program do program staff, IHE personnel, and partners perceive as the most valuable?
- What challenges did program staff and IHE personnel face in implementing the apprenticeship? What challenges or obstacles did participants face in participating in the apprenticeship?

Program Impact

- What impact(s) do participants perceive as a result of their participation in the program in the following areas:
    - Their knowledge, skills, practice, and attainment of credentials?
    - Their commitment to the ECE field and their current workplace?
    - Their career aspirations and trajectory?
    - Their personal, economic, and family well-being?
- What are the measurable financial benefits of participation in the program?

Methods

We employed a mixed-methods approach to evaluate the Early Educator Apprentice Program. This approach 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 their age, tier completion, and program funding source(s). Finally, the evaluation team conducted a cost and earnings estimation analysis using administrative data, budget data, and salary scales to better understand the tangible financial impact for participants.

Data collection took place between February and May 2024. The online survey was open for approximately three months. Each individual who was previously or currently enrolled in one of the apprenticeships received an invitation to participate in the survey via a unique weblink.

Administrative Data

Administrative data from YMCA of the East Bay indicated a total of 430 past and current participants.[3] Because 15 participants from this total were missing funding information, our analytic sample of administrative data is limited to 415 participants. Among these participants, 198 were currently enrolled in the EEAP, 169 were past participants, and 48 had withdrawn from the program.[4] As the administrative data did not include gender, racial, or ethnic identity information for program participants, we are unable to report on these variables for participants captured in the administrative data.

Apprentice Survey and Focus Group Participation

EEAP staff provided CSCCE with accurate contact information for 356 individuals who were currently or previously enrolled in the program. All these individuals were invited to participate in an online survey about their experiences. **Table 2** reflects the response rates to the initial survey.

Table 2. Survey Response Rate, By Participation Status

	Received a Survey	Completed a Survey	Response Rate
Current Apprentices	209	114	55%
Previous Apprentices	124	46	37%
Withdrawn	23	2	9%
All Apprentices	356	162	46%

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Note: Total is adjusted for apprentices who had missing and/or incorrect/incomplete contact information.

Following survey completion, CSCCE invited all survey respondents to participate in semi-structured group interviews. In total, the team conducted three group interview sessions: 1) a group including five current participants; 2) a group of three past participants who

[3] This is an unduplicated count of apprentices between 2016 and February 2024, including 213 apprentices enrolled in the EEAP at the time of this evaluation, 169 apprentices who completed at least Tier 1 and are no longer enrolled, and 48 apprentices who withdrew from the program, for a total of 430 participants.

[4] Analysis was completed with administrative data provided by the EEAP. Participants categorized as "withdrawn" reflect individuals who initially enrolled in Tier 1 of the apprenticeship but left or became inactive before completing the tier.

completed at least one of the apprenticeships; and 3) a one-on-one interview with a current participant.

In May 2024, our team distributed a second round of surveys to: 1) EEAP participants who completed the initial survey; and 2) those noted as withdrawn from the program without completing a tier. Of the 114 current participants invited to participate, 51 completed the survey. Of the 21 participants who were identified as withdrawn, only two responded.

Key Informant Participation

CSCCE partnered with staff from the YMCA of the East Bay and First 5 Alameda County to develop a list of key personnel who contributed to the development and implementation of the program who might contribute to our understanding of program implementation. The list included directors of ECE programs hosting apprentices, Success Coordinators and administrative staff from the YMCA of the East Bay, and faculty and leadership from IHEs. CSCCE conducted individual interviews with 12 of these key personnel during December 2023 and January 2024.

Findings

I. Program Participation

- Survey data indicate that apprentices are primarily women of color with children under the age of 18, and nearly one half of apprentices were born outside of the United States.
- As of February 2024, three quarters (76 percent) of past participants completed at least the first tier, and more than one half (51 percent) of current apprentices have already completed Tier 1 or 2.
- On average, it took just under three years for apprentices to complete the first two tiers, earning two permits and an associate degree. The time to complete these milestones is similar to, if not better than, students participating in "traditional" higher education programs.

Participant Demographics

The evaluation team utilized survey responses to understand the demographic characteristics of apprenticeship participants given that the administrative data available did not include information on apprentices' gender, racial, or ethnic identity.

All survey respondents were women, and the majority identified as women of color. EEAP participants include a greater proportion of Hispanic and Black individuals compared to the county and the state populations overall. Two thirds of survey respondents were under the age of 40. Past apprentices tended to be slightly older than current apprentices. The age distribution among survey participants was largely consistent with the administrative data. Nearly one half of participants, past and current, were born in another country, and most participants (69 percent) had children under the age of 18. See **Tables 3 and 4** for detailed characteristics of participants who responded to the survey.

Table 3. Apprentices' Race, Ethnicity, and Country of Birth, Compared to County and State Total Populations

	All EEAP Apprentices	Total Population, Alameda County	Total Population, California
Race/Ethnicity	N=141	N=578,311	N=39,538,223
Asian	9%	32%	15%
Black or African descent	29%	10%	5%
Hispanic or Latina	43%	23%	39%
White	6%	31%	35%
Other	13%	4%	2%
Country of Birth	N=151		
United States	56%	50%	73%
Another country	44%	50%	27%

Source: Center for the Study of Child Care Employment, University of California, Berkeley
Note: Alameda County and California data derived from the 2022 American Community Survey (U.S. Census Bureau, n.d.).

Table 4. Age, Marital Status, and Children in Household of Apprentices Who Participated in the Survey, By Program Participation Status

	Current Apprentices	Past Apprentices	All Apprentices
Age	N=108	N=35	N=143
29 and younger	30%	29%	29%
30 to 39	40%	37%	39%
40 to 49	24%	17%	22%
50 to 59	5%	9%	6%
60 and older	2%	9%	4%
Marital Status	N=105	N=34	N=139
Married/Partnered	50%	38%	43%
Single	50%	62%	57%
Children in Household	N=89	N=39	N=128
None	29%	36%	31%
0-5 years only	17%	15%	16%
6-18 years only	28%	33%	30%
0-5 and 6-18 years	26%	15%	23%

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Program Completion

We reviewed the available administrative data to understand how many educators fully complete the program, and how long it takes them to finish each apprenticeship tier. Of the 430 individuals who enrolled in one of the programs between 2015 and 2023, only 48 withdrew before completing a tier, resulting in an **89 percent program retention rate.** Apprentices in the EEAP complete their programs at very high rates, with **three quarters (76 percent) of past participants completing at least the initial tier, and more than**

one half (51 percent) of current apprentices having already completed Tier 1 or 2 (see **Table 5**).

Table 5. Number of Tiers Completed, By Program Participation Status

	Current Apprentices (N=213)	Past Apprentices* (N=217)	All Apprentices* (N=430)
Number of Tiers Complete			
0	49%**	24%	37%
1	32%	24%	28%
2	19%	36%	28%
3	-	15%	8%

Source: Center for the Study of Child Care Employment, University of California, Berkeley
Note: Table created with administrative data
* These Ns include 48 individuals categorized as "withdrawn" from the program who began the program but did not complete any tiers.
** At the time of the data collection, these apprentices were enrolled in Tier 1 and completing coursework toward the Associate Teacher Permit.

Based on our analyses of the administrative data for the 252 apprentices (153 past and 99 current participants) who have so far completed Tier 1 and earned the Associate Teacher Permit, it took an average of 433 days (about 14 months) to complete that tier (see **Table 6**). Apprentices who completed Tier 2, earning a Teacher Permit and an associate degree, did so in about 651 days (just under two years). On average, it took 1,053 days (just under three years) for apprentices to complete the two programs, earning two permits and an associate degree. According to 2019 data from the National Center for Education Statistics, only 34 percent of students who enter associate degree-granting IHEs finish within three years (National Center for Education Statistics [NCES], n.d.).[5]

[5] Due to inconsistencies in the data and the small number of apprentices who completed Tier 3 for whom we had complete data, we did not include Tier 3 time to completion because we did not feel confident that it would be applicable to all apprentices involved in the EEAP.

Table 6. EEAP Tier Completion Times, In Number of Days

	All Apprentices
Tier 1	N=252
Range	217-1461
Mean	433
Median	366
Tier 2	N=142
Range	325-1543
Mean	651
Median	730

Source: Center for the Study of Child Care Employment, University of California, Berkeley
Note: Completion time was calculated as the difference between tier start date and the date the participants completed the tier. Administrative data utilized for calculations.
*Data suppressed as n<10
**This measure was calculated for those who have completed Tiers 1 and 2 as the difference between the program start date and Tier 2 completion date.

II. Program Implementation: Conditions for Success

- A complex web of funding streams and careful coordination by apprenticeship partners allows the EEAP to incorporate holistic support services that eliminate barriers (including program costs) and facilitate the attainment of credentials.
- Three of the top four most important program elements indicated by apprentices related to financial support, stipends, and higher wages upon program completion.
- These financial investments appear to be removing barriers to participation, with approximately one half of survey respondents reporting that they did not experience any challenges while engaged in the program.
- Among apprentices who did note obstacles, the most common concern was balancing the responsibilities of work, school, and personal commitments.

Program Administration and Funding

Each tier operates using a cohort model in which apprentices attend courses and complete the tier requirements together. The EEAP often has multiple cohorts within a tier at one time and typically groups apprentices based on criteria such as location (e.g., their workplace or current residence), proximity to a specific community college, or program funding source. To maintain the cohorts, the EEAP often "buys-out" a section of a course, thus creating a class composed solely of apprentices from the EEAP. Apprentices are also required to attend weekly tutoring sessions, with child care provided at no cost. During these sessions, a tutor from the community college is available to support apprentices with coursework.

The YMCA of the East Bay employs Success Coordinators who support apprentices throughout the apprenticeship. Success Coordinators support apprentices by helping them identify and eliminate barriers to completing the program. Success Coordinators may directly assist apprentices as they navigate the college system or offer technical support with laptops and online programs frequently used by IHEs, such as Canvas. They also act as liaisons between the apprenticeship and IHEs, supporting transcript evaluation if apprentices need to transfer course credits and communicating tutoring needs to the IHEs.

Strong organizational partnerships, extensive experience within ECE and higher education systems, and strategic system-building undergird the apprenticeship and contribute to the process of removing barriers to ensure apprentices are successful in the EEAP. Pamm Shaw and Dr. Joya Chavarin are two examples of the rich experiences and relationships that

facilitate the program. Ms. Shaw, the founder of the Early Educator Apprentice Program, has more than 25 years of experience with community colleges in a variety of roles, many years as director at the YMCA of the East Bay, and a long-standing relationship with First 5 Alameda County, ECEPTS, and a variety of other community resources. Dr. Chavarin, another founder of the program and current faculty member at Berkeley City College, describes her professional journey as a "grow your own" experience—from classroom educator and parent, to R&R workforce coordinator, and now faculty member in an educator preparation program. These (and other) key staff with decades of experience navigating early care and education, workforce development, and higher education systems can negotiate and coordinate with partners in the apprenticeship to meet the needs of apprentices and the individual organizations involved.

> *"We make sure that within the first 12 units, everybody gets three units in infant/toddler development. And it is not typical for the community colleges to do that sequence, so* ***we've negotiated with the colleges to get what we want and need from them.****"*
>
> *—EEAP Administrator*

One key partnership is between the EEAP and local IHEs. Contract Education departments at community colleges create the contracts for EEAP apprentices to take courses as a cohort, and positive long-standing relationships with these departments ensure a swift contracting process so that apprentices can take their classes in cohorts, on time, and in the right sequence.

Relationships with funders allows flexibility and creativity with the funding. For example, Tipping Point invests in various aspects of the program focused on parents of children from birth to age five. If EEAP administrators encounter a problem that makes one of those aspects infeasible, rather than withdrawing funds, Tipping Point will ask how they can further support the EEAP to make it work next time. Funder relationships also allow the EEAP to be flexible and creative in how they use some of their funding, for example, providing stipends to relieve some of the financial burdens and reward the accomplishments of apprentices, mentors, tutors, and employers. All of these relationships enable the EEAP to facilitate and coordinate programming so that barriers to participation are removed.

> *"[Apprentices] just want to make sure that they've got tutoring.... They just need to have a laptop and WiFi in their house that works. They just want it to work [so they do not] have to worry about so many things."*
>
> *—EEAP Administrator*

Every apprenticeship needs base funding to ensure core staffing and effective implementation. All of the services, supports, and personnel noted contribute to the removal of barriers to learning and require funding beyond the typical expenses related to on-the-job training and related instruction (such as tuition, fees, and materials). Identifying and coordinating funding is one of the key responsibilities of an apprenticeship sponsor. Registered Apprenticeships may have access to potential funds, particularly state and federal, but registering with the U.S. Department of Labor does not inherently increase funding (Prepared to Teach, 2022). Once foundational funding is secured for implementation, additional revenue sources are often necessary to allow for program optimization and expansion (Copeman Petig et al., 2019; Jones Lawrence et al., 2021; Parton & Prebil, 2020).

The YMCA of the East Bay program is an excellent example of this process. The YMCA received an initial grant of $1 million to lay the foundation of the EEAP. Subsequently, ECEPTS took on fiduciary responsibility for the program and supported the YMCA of the East Bay's fundraising efforts as the program's sponsor. As director of the program, Pamm Shaw worked tirelessly to secure resources and build relationships with community partners to ensure the fiscal infrastructure necessary for program operation.

Despite an increased focus on apprenticeship as a means of supporting the growth and development of the ECE workforce, public funding streams are typically restricted and often linked to system improvements, program creation, or technical assistance in the form of intermediaries (Center on Great Teachers and Leaders, 2022). For example, Workforce Innovation and Opportunity Act (WIOA) funds can support apprentice training, along with some employer-related costs such as on-boarding apprentices. However, WIOA funds are incredibly restrictive and are offered as a reimbursement for expenses, rather than *a priori*, making them difficult to use towards apprentices' wages. Similarly, Head Start programs have funding specifically for training that can be reallocated to Related Instruction. State scholarships such as T.E.A.C.H. ® cover some programmatic costs for apprentices, and federal financial aid might cover a portion of or all education-related expenses (e.g., tuition, books, fees, supplies).

Most funding initiatives leave gaps that apprentices and employers are responsible for covering (Dowsett et al., 2019). Many of these streams entail bureaucratic barriers for programs and apprentices, especially for smaller programs with little administrative support. To create a sustainable program, apprenticeships rely on blending and braiding numerous funding sources, including private or philanthropic funding that may be utilized with fewer restrictions. The YMCA of the East Bay program is an excellent example of how a program can complete this complicated and complex funding puzzle.

Funding Apprenticeships Through CalWORKs

As a part of examining the EEAP's funding, we reviewed the program's innovative use of **California Work Opportunity and Responsibility to Kids (CalWORKs)** funding to support EEAP apprentices. To date, two EEAP cohorts have been administered using CalWORKs funds: one relied solely on CalWORKs, while the other was funded through a blending of CalWORKs and a philanthropic funder.

CalWORKs is California's Temporary Assistance for Needy Families (TANF) program, a public welfare program operated locally by county officials and serving families in all of California's 58 counties. CalWORKs' mission is to support families in need to achieve economic mobility, including but not limited to providing funds for recipients to participate in training that will support them in obtaining jobs with family-sustaining wages. While the federal government offers guidance and examples for how TANF money can be used to support training and apprenticeships (ACF, 2016), use of these funds for ECE apprenticeship is not common.

According to guidance released by the Administration for Children and Families in 2016, TANF dollars can be used for recipients' education and training, along with the support they need to obtain a family-sustaining career. Additionally, California state policy for TANF is written to expand access to and use of these funds (National Center for Children in Poverty, 2025). This approach enables the EEAP to utilize CalWORKs to support all aspects of an apprentice's program to ensure their success. As an administrator of the EEAP explained, CalWORKs funding is used to support:

> *"…everything that an apprentice needs…. It funds our staff that does case management and coordination. It funds contracts through the colleges because we want to limit the size of the cohort in the classes. It includes administration, stipends for the apprentice, stipends for the mentor teachers, stipends for center directors. It includes computers, their fingerprints, which they have to have twice: once for their permit, once for working in the early childhood center. It includes books, […] any kind of supplies from backpacks, to pencils, to notebooks. Everything. Hotspot if they need a hotspot because they can't do their classes without it."*

Critical to the EEAP's function is a conglomerate of partners who provide support in various ways, including funding, ECE content and field expertise, recruitment, direct apprenticeship support, and overall administration of the program. Current partners include:

- First 5 Alameda County;
- Alameda County Social Services Agency (ACSSA);

- Tipping Point, a local community foundation;
- Local IHEs (e.g., Chabot, Merritt, and Berkeley City Colleges); and
- Early Care & Education Pathways to Success (ECEPTS).

Since 2019, the ACSSA and First 5 Alameda have committed significant funding to the EEAP on an annual basis, supporting program sustainability and impact. Other long-standing funding includes sources both public and private (e.g., federal Head Start funds and Tipping Point). Additional funding sources have since been identified to supplement costs or to fund specific aspects or cohorts of the program. Funding is strategically combined to support specific roles and activities within the program. This layered approach ensures compliance with each funder's guidelines and enables targeted impact reporting. Furthermore, administrative and indirect costs are shared across each source, providing essential infrastructure to manage this complex, multifaceted program. This approach minimizes administrative burdens and ensures alignment with each funder's intentions and limitations for the expenses.

As an example of the strategic braiding of funds, at the time of this evaluation the EEAP had three separate California Apprenticeship Initiative grants with three different colleges in the East Bay. These grants cover most of the costs of the program, but do not cover stipends for apprentices.

> *"It will pay for stipends for mentor teachers, [...] for center directors. It'll pay for staff. It'll pay for case management. It'll pay for mental health. It'll pay for clothing, if they need clothing. It has paid for books and tuition, but* ***it will not pay for stipends for the apprentices****."*
>
> *—EEAP Administrator*

To bridge this gap, the EEAP utilizes other private or public funding to provide stipends[6] for apprentices. Stipends act as critical support for apprentices, given that ECE wages are not commensurate with a living wage in Alameda County.

This strategic approach to funding also means that recruitment of apprentices is primarily driven by criteria attached to each funding source. In other words, funding sources often restrict how and with whom funds can be used as both public and private sources have certain populations they must support. For example, only those who qualify for CalWORKs

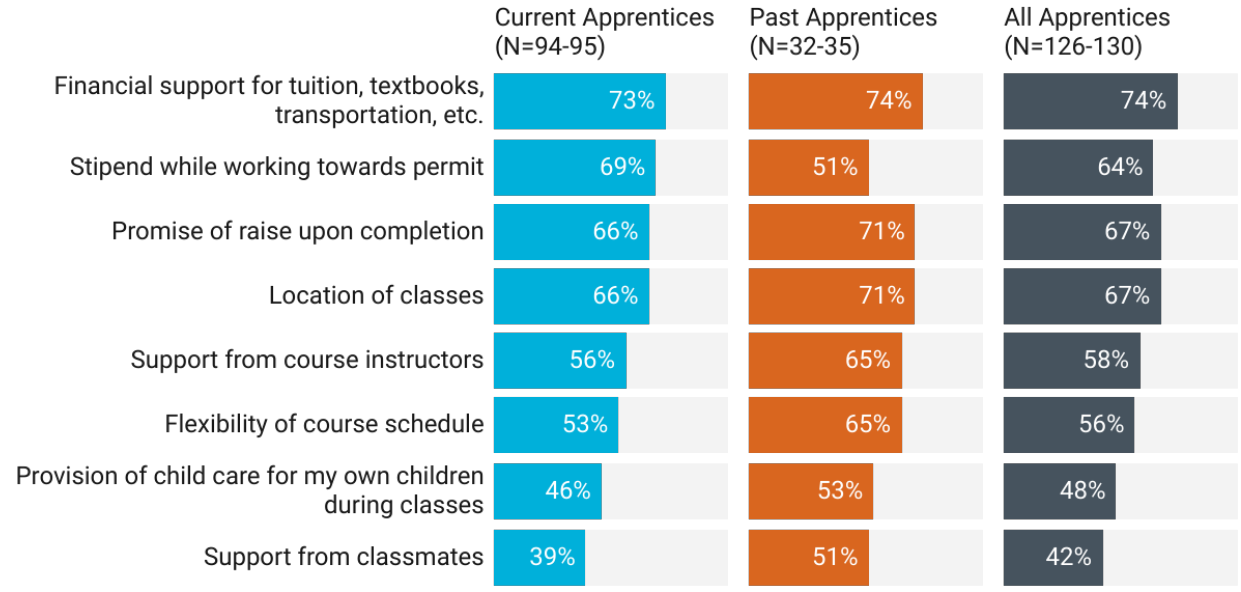
[6] Stipends are provided to apprentices for achieving certain milestones in the program. These stipends are given in addition to the wages they earn working in the ECE programs and are separate from the hourly wage increases they receive upon completion of an apprenticeship. Stipends are also provided for mentors, centers, and directors participating in the EEAP as an incentive for participation.

can utilize those funds to pay for the program, so recruitment often occurs in partnership with ACSSA administrators. The program is not open to just anyone interested in becoming an ECE educator; it is specifically designed to support the needs of Head Start parents, those receiving CalWORKs funding, or those who are otherwise eligible.

Impactful Program Elements

We asked apprentices which program supports they perceived as most critical to their success. **Three quarters of all survey respondents indicated that financial support for tuition, textbooks, and transportation was extremely important in allowing them to participate in and complete the program.** In addition to paying apprentices' tuition, the program also provides paid on-the-job training, stipends upon reaching program milestones, and a raise upon completion of the program. Apprentices noted the importance of these financial supports in addition to the no-cost access to coursework (see **Figure 1**).

Figure 1. Select Program Supports That Apprentices Rated as "Very Important" to Ensuring Success in the EEAP, By Participation Status



Created with Datawrapper

Source: Center for the Study of Child Care Employment, University of California, Berkeley

ALT TEXT: A bar chart of current and past apprentices shows that financial program supports such as tuition, text books, and transportation was the support most frequently rated as very important for both current and past apprentices (73 percent and 74 percent, respectively). About two thirds of current apprentices also rated a stipend while working towards their permit, the promise of a raise upon completion, and the location of classes as very important (69 percent, 66 percent, and 66 percent, respectively). Similarly, 71 percent of past apprentices rated the promise of a raise upon completion and location of classes as very important. Support

from classmates was rated as very important by 51 percent of past apprentices and 39 percent of current apprentices.

Our group interviews also included discussion about the impact of financial resources in allowing apprentices to participate in the program and to pursue additional training and credentials:

> *"Being able to have the opportunity, [...] having that support from the YMCA apprenticeship program, knowing that they're able to fund our education and help us with textbooks, other materials, having laptops, having access to tutoring, I'd say it's helped out a lot."*
>
> *—Current EEAP Apprentice*

> *"[What made me successful] would have to be all the resources that were provided at once. So the child care, the free computer, the free textbooks. Being flexible and helping us through the process of learning new computer things that we didn't know, how to access the website, just things that we didn't know how to do and learned it through that. And also the financial piece, that they paid for the bachelor's degree."*
>
> *—Past EEAP Apprentice*

The financial benefits associated with participation in this program are certainly crucial factors in both the recruitment and retention of apprentices.

The location of classes, flexibility of class schedules, and support from course instructors were marked as "very important" by more than one half of survey respondents. In interviews, current apprentices indicated that the **availability of online and weekend classes made participation in the program more accessible.** Furthermore, the apprentices we interviewed—in particular, the apprentices who are also parents—indicated that virtual classes allowed them to participate in the course without the logistics required to be in-person.

> *"I really enjoyed that it was all online. Working and being a parent, I was able to just come home and have my evening with my kids and then focus on my schoolwork. So I actually appreciate the whole online format."*
>
> *—Past EEAP Apprentice*

Availability of child care for parents in the apprenticeship was another beneficial aspect of the EEAP mentioned by both current and past apprentices. When examining the responses

given by apprentices supported by specific funding streams, we noticed that **slightly more than three quarters of current apprentices (77 percent) supported by CalWORKs funding indicated that the provision of child care for their own children was extremely important**, as did one half of past and current apprentices whose program was not funded by CalWORKs (44 percent and 42 percent, respectively). Having children under the age of 18 is one of the criteria required to receive CalWORKs benefits, which may explain the differential impact noted by apprentices who receive these benefits. Since the program recruits the parents of young children, the provision of child care is a logical consideration.

Although a smaller proportion of apprentices completing the survey marked "support from classmates" as very important compared to other program elements, the apprentices and key informants emphasized in interviews that peers in their cohorts provide social supports that contribute to their success. Respondents described their cohorts as helping create a sense of community and providing space for apprentices to collaborate, especially around the common goal of completing a course and/or the program. Being able to rely on and motivate each other during stressful times, drawing from others' experiences and strengths were often emphasized as benefits of the cohort model by both apprentices themselves and other stakeholders.

> *"I think by us being a cohort group, it made it much easier. And without being in the program, I don't think I would've benefited from being on my own."*
>
> *—Past EEAP Apprentice*

> *"That was an important piece of the program, being able to have that collaboration with your co-students. That was really helpful in just being able to reach out like, 'Hey, I am going through this. I'm struggling with this assignment.... Have you completed it? Or are you working on it? Can we work on it together?' And just having that [...] companionship with others going through the program with you."*
>
> *—Past EEAP Apprentice*

Knowing their peers share the same experiences or struggles may help an apprentice feel less alone and empower them to seek out one another for solutions to and strategies for dealing with these struggles. Key informants also identified the importance of peer groups/cohorts as a driver of apprentices' success. Key informants indicated that cohorts contribute to the creation of a community or network where apprentices can share struggles and support each other.

> *"They [the apprentices] definitely rely on each other or lean on each other…. So throughout the semester or even when classes are in session, they talk with one another, they ask each other questions. So I think that that's been very impactful [for] them, just helping them build a community, helping them network."*
>
> *—Success Coordinator*

All of the stakeholders interviewed emphasized that the EEAP is more than just a cohort experience; some even referred to it as "a family." Stakeholders stressed the relationships that developed among apprentices, mentors, center directors, and faculty members as key to the apprentices' success. These relationships appear important to the flexibility and responsiveness of the program—individual and group strengths and areas in need of additional support are easily identified and addressed through these trusting relationships.

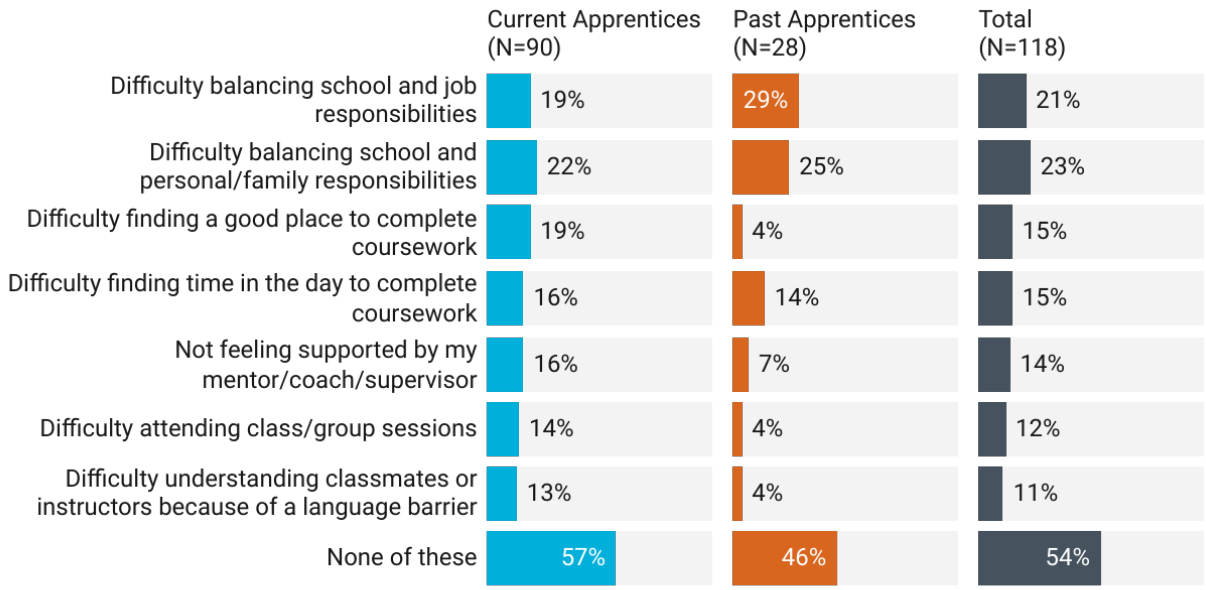
> *"If an individual goes to a center where the center director is gung-ho about education, really wants to see you make time for you to do this and grow, then that apprentice has an amazing experience."*
>
> *—Success Coordinator*

Program Challenges

Among apprentices who completed the online survey, more than one half responded that they did not face any challenges participating in the EEAP. Notably, two of the least frequent challenges experienced by apprentices were "colleges and universities are not very welcoming spaces" and "course content is confusing and difficult to understand." This finding is a testament to the efforts of the EEAP to provide supports and structures that allow apprentices to feel comfortable and confident in academic settings and engage meaningfully and proficiently with course content.

Past and current apprentices who did report encountering challenges indicated they experienced both personal and programmatic challenges. The most frequently mentioned challenges were balancing school, work, and personal responsibilities. See **Figure 2** for select challenges and **Appendix B** for a complete list.

Figure 2. Select Challenges Experienced by Apprentices, By Program Participation Status



Source: Center for the Study of Child Care Employment, University of California, Berkeley.
ALT TEXT: A bar chart of current and past apprentices shows challenges apprentices experienced during their program. The challenge most frequently reported is "difficulty balancing school and personal/family responsibilities" (22 percent of current apprentices and 25 percent of past apprentices). More than one half (57 percent) of current apprentices and slightly less than one half (46 percent) of past apprentices reported experiencing no challenges.

Apprentices must concurrently navigate school, work, and personal responsibilities (including but not limited to caring for their family). Many apprentices are returning to school after time away. They likewise have additional responsibilities as providers for their families and are supporting the development of their own children. Balancing the demands of various areas in their lives while working towards completing the apprenticeship was a challenge mentioned by a number of apprentices. Likewise, 15 percent of apprentices, both current and past, also reported having difficulty both finding time in the day and finding a good location to complete coursework.

> *"The challenge was definitely finding that work–life balance."*
>
> *—Past EEAP Apprentice*

Completing the EEAP is not only a significant commitment of the apprentices' time and effort, but also reflects a commitment from their families. One apprentice we interviewed suggested that those considering joining the apprenticeship, "discuss it with [their] family." During the group interviews, apprentices reported challenges related to attending certain

courses because of scheduling conflicts and struggles completing their on-the-job training hours due to the sequencing and timing of required courses.

Conversations with apprentices also revealed some communication challenges. Apprentices noted that communication with program staff, such as Success Coordinators, was often slow, taking several days for them to receive a reply. Some apprentices indicated that they reached out to program staff and never received a response.

> *"I would try to get in contact with some of the people in charge of the program, and I wouldn't get a response back."*
>
> *—Past EEAP Apprentice*

Overall, **fewer than one half of surveyed apprentices experienced challenges while participating in the EEAP, which suggests that the holistic support offered by the EEAP is important to ensure apprentice success.**

III. Program Impacts

- Apprentices reported growth in their knowledge and teaching practice as a result of participating in the EEAP.
- Apprentices also identified positive effects of the program on their parenting and their personal relationships, which may not be the primary purpose of the apprenticeship, but reflects the potential impact of the EEAP on multiple generations.
- The majority of apprentices noted an intention to remain in the ECE field after completing their apprenticeship.
- EEAP participants also noted improvements in their economic well-being as a result of higher wages and anticipated earning potential.

Development of Educational Skills and Practices

Apprentices indicated that the program helped them understand more about children's development and learning and also aided them in developing and implementing strategies to support children with a variety of learning styles and needs (see **Table 7**).

Table 7. Percentage of Apprentices Rating the EEAP as "Very Helpful" in Developing Their ECE Knowledge and Teaching Skills, By Participation Status

	Current Apprentices	Past Apprentices	All Apprentices
	N=97-100	N=35-36	N=130-135
Children's social-emotional development	74%	54%	69%
General child development	70%	49%	64%
Using play as an approach to learning	62%	54%	60%
Understanding the effects of disability on child development	55%	33%	49%
Teaching children math skills	45%	42%	44%
Teaching children science skills	34%	38%	35%

Source: Center for the Study of Child Care Employment, University of California, Berkeley

In surveys and interviews, participants noted that they learned how to better support children with disabilities and those who are multilingual in their classrooms.

> *"I'm implementing strategies inside the classroom. For example, this semester we're focusing on literacy and language, so it's helping me more with children who are dual language learners. I'm able to see from a different perspective how I can better support them. And also, too, with language, different language strategies, reading literacy strategies, it's helped me."*
>
> *—Current EEAP Apprentice*

> *"What I've found is I gained expertise.... The program pushes you to take all these classes, and you become an expert at what you do, and it just becomes second nature. And it's really awesome when you're able to go in, and somebody asks you to do something like, 'Hey, can you set this up?' Whatever it is, and you know exactly what to do. It's just a really good feeling."*
>
> *—Past EEAP Apprentice*

A greater share of current apprentices compared to past apprentices indicated that the EEAP positively supported the development of their knowledge, teaching skills, and classroom practices related to early care and education. This difference could be a function of the "recency effect." Current apprentices are in the midst of learning and may therefore feel like they are receiving a wealth of information, while past apprentices with distance from the program may not be as likely to attribute their skill growth to the program itself. The difference could also be related to improvements in coursework, teaching, and materials that have occurred over time. More recent apprentices may be experiencing courses that have been revised and refreshed to better fit the needs and strengths of EEAP apprentices.

As courses are reviewed and adjusted to better support apprentice success, EEAP administrators should consider whether and how they are meeting apprentices' needs to develop teaching skills. EDvance is finding success integrating skill-based courses with general education requirements (EDvance, n.d.). It is beneficial to contextualize learning so that apprentices recognize connections between what they are learning and how it pertains to their development of teaching skills and practice.

Parenting and Relationship Skills

Although not the primary goal of the apprenticeship, EEAP participants indicated that information they learned about child development and working with young children also influenced their parenting and personal relationships.

> *"As I continued to take classes, I saw that not only did it help me with my relationship with the children and their families, but it also helped me with my own personal relationships with my son and my family...."*
>
> *—Current EEAP Apprentice*

The Early Educator Apprentice Program recruits a significant number of parents. Head Start programs like that at the YMCA of the East Bay support a two-generation approach to learning and development, supporting children *and* their parents as learners. During our group interviews, we asked current and past apprentices to tell us if and how the program supported them as parents.

Many apprentices told us that the skills they learned for supporting and extending children's learning in the classroom also transferred to their homes. For example, one apprentice explained that learning about patience with children in class contributed to her developing patience with her own children.

Apprentices also explained that the program supported the development of their parenting skills and described how the program is changing their way of "being" with their children. For example, one apprentice we spoke with indicated that now she feels like a role model for her child, that the program is impacting the way she feels about herself, her abilities, and her potential.

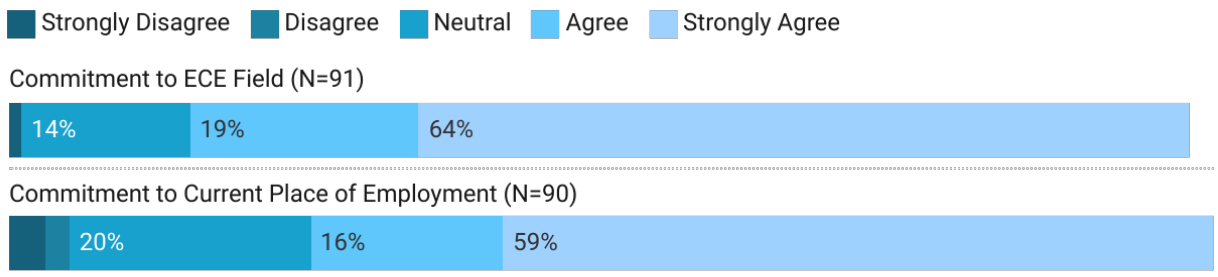
> *"It just didn't change the way I teach, it's changed me as a person, as a mother.... So it made me a better person today, and I'm still learning every day with the kids and the families. Also [now I am] a big support system for colleagues, peers, children, families, and our own family."*
>
> *—Current EEAP Apprentice*

> *"I do feel like this is a great step because [even if you do not] end up being that early childhood teacher, which is what we want, [...] at least you'll be a better parent or person for children. Your language starts to change, your interactions start to change.... You start to understand yourself. You become self-aware."*
>
> *—IHE Faculty Member*

Commitment to Early Care and Education

The vast majority (83 percent) of current apprentices who responded to the survey reported that participating in the EEAP contributed to them being more likely to continue working in the field of early care and education. Furthermore, nearly two thirds (65 percent) of respondents agreed or strongly agreed that they were more committed to their current place of employment because of the EEAP. An overwhelming majority (87 percent) of current apprentices agreed that participating in the EEAP clarified their career goals. See **Figure 3**, and see also **Appendix B** for comprehensive data tables on apprentices' career aspirations and commitment.

Figure 3. Current Apprentices' Responses to the Statements "EEAP Has Contributed to My Commitment to the ECE Field" and "EEAP Has Contributed to My Commitment to My Current Place of Employment"



Source: Center for the Study of Child Care Employment, University of California, Berkeley

ALT TEXT: Two bar charts of current apprentices show that participating in the EEAP makes them more likely to continue working in the field of early care and education (ECE) and more likely to continue working at their current place of employment. About two thirds (64 percent) of current apprentices strongly agree that participating in the EEAP makes them more likely to continue working in the ECE field, and 59 percent strongly agree that participating in the EEAP makes them more likely to stay at their current center or home-based child care provider.

Further accentuating their commitment to the field, several current apprentices we interviewed aspire to continue working in early care and education following their completion of the program.

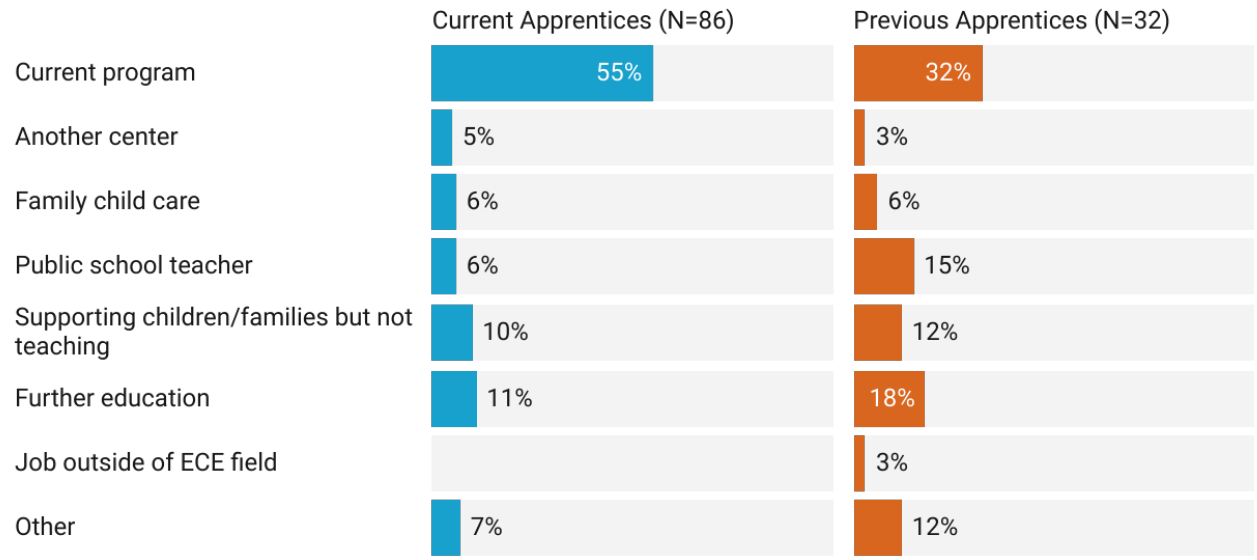
> *"I see myself still working for the [YMCA] and obtaining my bachelor's degree. I love working with kids.... I love helping the families and giving them information.... So I see myself still working with kids."*
>
> *—Current EEAP Apprentice*

Three quarters (77 percent) of current apprentices reported that they plan to seek a role with more responsibility after they finish the EEAP. The early education apprentices we interviewed agreed that participating in the EEAP prepared them to be leaders, with all interviewees advancing into a job role with greater responsibility subsequent to their participation.

Future Plans

Many current and past apprentices responded that they intend to still work at their current center in three years: 55 percent of current apprentices and 32 percent of past apprentices. Additionally, 18 percent of past apprentices indicated that they imagine themselves continuing their education, compared to 11 percent of current apprentices. Furthermore, 19 percent of current apprentices see themselves furthering their education (see **Figure 4**). These findings may indicate that apprentices who participate in the EEAP see it as a starting point for a career in early care and education and are therefore more likely to remain in the ECE field.

Figure 4. Future Plans of Apprentices, By Participation Status



Source: Center for the Study of Child Care Employment, University of California, Berkeley

ALT TEXT: A bar chart of current and past apprentices shows how participating in the EEAP has impacted their future plans: 55 percent of current apprentices intend to continue to work at their current center in three years, and 32 percent of past apprentices share this plan. Past apprentices were the only group to indicate that they intend to explore a job outside of early care and education (3 percent).

In addition to advancing their role in early care and education, the apprentices we interviewed conveyed a desire to continue their education by completing master's or doctoral degree programs.

> *"After I finished, maybe a year later, I applied for center director, so now I'm a center director because of the apprenticeship program."*
>
> *—Past EEAP Apprentice*

Career Pipeline and Workforce Expansion

> *"The goal is to provide both on-the-job training and the experience and the education, the coursework and the support so that people who are able [...] advance their skills and improve their wage and [...] move up in the system."*
>
> *—IHE Administrator*

The EEAP's three Registered Apprenticeship tiers create a career pipeline allowing apprentices affordable opportunities to advance in the ECE field while also providing an expanded and stable workforce for ECE programs. While key informants differed on the metrics used to measure and describe this advancement, they agreed that the primary goal of the EEAP is to provide an opportunity for pre-service and incumbent educators to advance personally and professionally. Many key informants indicated that the apprenticeship is a starting point for a career in early care and education.

> *"With the apprenticeship model, the success rates are amazing, and they're all getting their certifications and getting their bachelor's degrees, and some [are] going on to a master's degree. There's a whole trajectory now for this program of people who are going all the way through. The apprenticeship is a transformational model from the moment that one engages."*
>
> *—IHE Administrator*

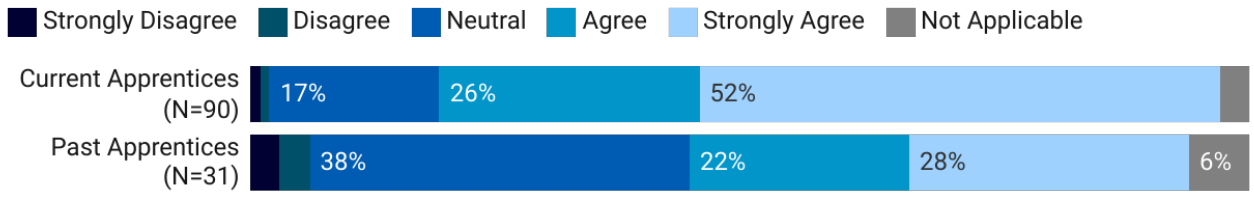
Additionally, the EEAP appears to serve a variety of both stakeholder and community goals. Depending on their role and their organizational affiliation, key informants highlighted different objectives and outcomes that the program could accomplished simultaneously. For instance, **ACSSA staff stress the benefits of the "welfare-to-work" aspect of the program in reducing reliance on public income supports by offering entry-level positions, while ECE program directors highly value the increased access to training that results in highly qualified staff who are committed to the field**.

The variation in goals and markers of success are reflective of the perspectives and priorities of each stakeholder and organization involved in the implementation of the apprenticeship. Rather than being mutually exclusive, these perspectives and priorities are acknowledged and woven together to create a complex program that meets the needs of multiple stakeholders.

Impact on Well-Being

Among the apprentices who responded to the survey, slightly more than one half (52 percent) of current apprentices strongly agreed that their family's well-being would improve after participating in the EEAP. A smaller proportion (28 percent) of past apprentices strongly agreed that their well-being actually did improve upon completing the program (see **Figure 5**). In addition, slightly more than one half (52 percent) of current apprentices strongly agreed that their salary would improve when they completed the program, while more than one half of past apprentices strongly agreed or agreed that their salary actually did improve (59 percent total, 34 percent and 25 percent, respectively, see **Figure 6**).

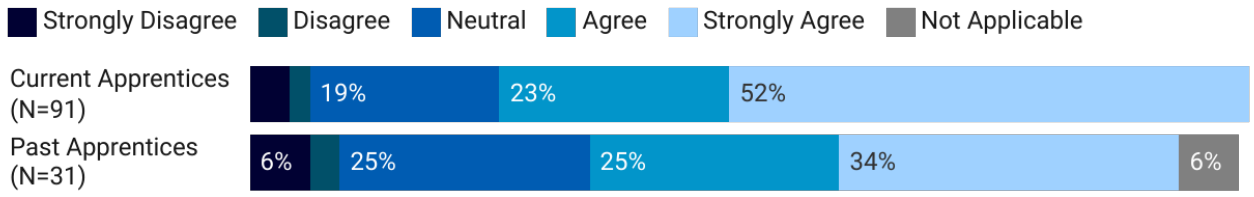
Figure 5. Apprentice Perception of Family Well-Being Improvement, By Participation Status



Source: Center for the Study of Child Care Employment, University of California, Berkeley

ALT TEXT: Stacked bar charts of current and past apprentices show current apprentices are more likely to agree that participating in the EEAP will improve their family's well-being. One half (52 percent) of current apprentices and 28 percent of past apprentices strongly agree with this statement.

Figure 6. Apprentice Perception of Salary Improvement, By Participation Status



Source: Center for the Study of Child Care Employment, University of California, Berkeley

ALT TEXT: Stacked bar charts of current and past apprentices show current apprentices are more likely to agree that participating in the EEAP will improve their salary. One half (52 percent) of current apprentices and 34 percent

of past apprentices strongly agree with this statement. In addition, 6 percent of past apprentices strongly disagreed that their salary improved after participating in the program.

The EEAP strives to support improvement in participants' well-being. As one current apprentice shared, participation in the EEAP contributed to increases in her well-being by improving her self-confidence, happiness, and her ability to support her family. Current and past apprentices emphasized that the EEAP being of "no cost to participants" created an opportunity and subsequent impact that would not have been possible otherwise.

> *"Education is expensive, and things are not getting cheaper, and nothing in America is free. But for me, I can honestly say that [the EEAP] helped out in ways where I honestly didn't think I would go further along with [...] education if it wasn't for the YMCA."*
>
> *—Current EEAP Apprentice*

IV. Financial Analyses of Program Costs and Apprentice Earnings

- Considering the most recent annual budgets after the peak of the COVID-19 pandemic (i.e., 2021-2022, 2022-2023, and 2023-2024), the cost per participant averaged $17,022/year (see **Table 8**).
- The EEAP offers a comprehensive suite of supports and services that apprentices identify as critical to their success but are not available in a typical higher education program. Services include on-site child care, technology training, tutoring, and tailored academic counseling, resulting in a higher cost per participant than the average annual cost of tuition, fees, and supplies at a four-year public IHE in California.
- Participants can expect hourly wage increases between 15 and 70 percent upon the completion of each tier. Participants who complete Tier 3 (earning a bachelor's degree and working as a site supervisor) experience the largest bump in pay both upon completion and over time.

Exploring the Cost of the EEAP

We examined available annual budget and salary scale data for the EEAP to understand how much the program costs per participant and the effects on participant earnings as a result of their participation. Additionally, we examined participant survey data to explore any relationship between program completion and salary increases.

Table 8. Estimated Cost of Apprenticeship

Budget Year (July-June)	Total Budget	Total Number of Apprentices	Cost per Apprentice
2020-2021	$1,256,127	59	$21,290
2021-2022	$1,222,003	65	$18,800
2022-2023	$1,299,175	81	$16,039
2023-2024	$2,959,819	176	$16,817
2021-2022 to 2023-2024*	**$5,480,997**	**322**	**$17,022**
Average Cost of College in California**			
In-state tuition and fees			$8,637
Books and supplies			$1,220
Total cost (excluding room and board)			**$9,857**

Source: Center for the Study of Child Care Employment, University of California, Berkeley

*Overall cost per participant calculation, excluding the peak year of the COVID-19 pandemic (2020-2021).

**Cost is based on attendance at a four-year public institute of higher education (Hanson, 2024), https://educationdata.org/average-cost-of-college-by-state.

For the four budget years for which data are available, the cost per participant was highest in 2020-2021, during the onset and peak of the COVID-19 pandemic. While participation was understandably lower during this time, the high level of investment was made to provide additional support and stabilize and sustain the program through a very difficult period. Considering the post peak-pandemic budgets, the cost per participant was lower, averaging $17,022.

The apprenticeship's added value is its intentional design aimed at removing participation barriers and meeting the specific needs of adult learners, which are often overlooked in traditional higher education programs. In addition to tuition and program materials, costs covered by the apprenticeship include child care, technology training, tutoring (embedded in courses and on weekends), and mental health support. These additional supports aim to reduce barriers and increase access, particularly for working parents and other "non-traditional students." If enrolled in a traditional college program, these costs would be absorbed by the participants, along with the cost of tuition and materials. While examining the cost of the apprenticeship with relation to four-year college tuition may seem like a

false comparison, it is important to consider these factors to understand the true cost of higher education for anyone but particularly for potential "non-traditional" students.

Additionally, data on the cost of college in the United States show that personal investments in education do not yield returns for several years after degree completion (Hanson, 2022). For instance, it takes about five years for those completing an associate degree to see the first returns on their investment and an average of 15 years for individuals with a bachelor's degree, due primarily to the personal expenses (including loans, child care, and living expenses) necessary to pursue these degrees. As the apprenticeship relieves participants of the burden of financial investment, apprentices experience positive returns on their educational attainment more quickly than students in traditional degree programs. Apprentices are able to continue working and earning wages as part of their studies and do not have loans to repay.

Estimating Wage Changes Over Time

To understand the potential impact of the apprenticeship on participants' earnings over time, we estimated their potential hourly wages. To create the hourly wage estimation, we first organized survey participants into groups based on the highest apprenticeship tier they completed: Tier 1, California Associate Teacher Permit; Tier 2, Lead Teacher Permit/Associate Degree; or Tier 3, Supervisor Permit/Bachelor's Degree. Then, utilizing salary scales provided by the YMCA of the East Bay for 2015-2025,[7] we estimated the participant's entry wage based on the year they indicated starting the apprenticeship. We then factored in the completion date and the tier they completed to estimate their wage upon completion. Finally, under the assumption that all participants remained employed in the same position at the YMCA of the East Bay after completing the program, we calculated the salary wage steps apprentices might have achieved. Given that apprentices began and completed their apprenticeships in different years, we averaged apprentices' wages at entry and at each salary step.

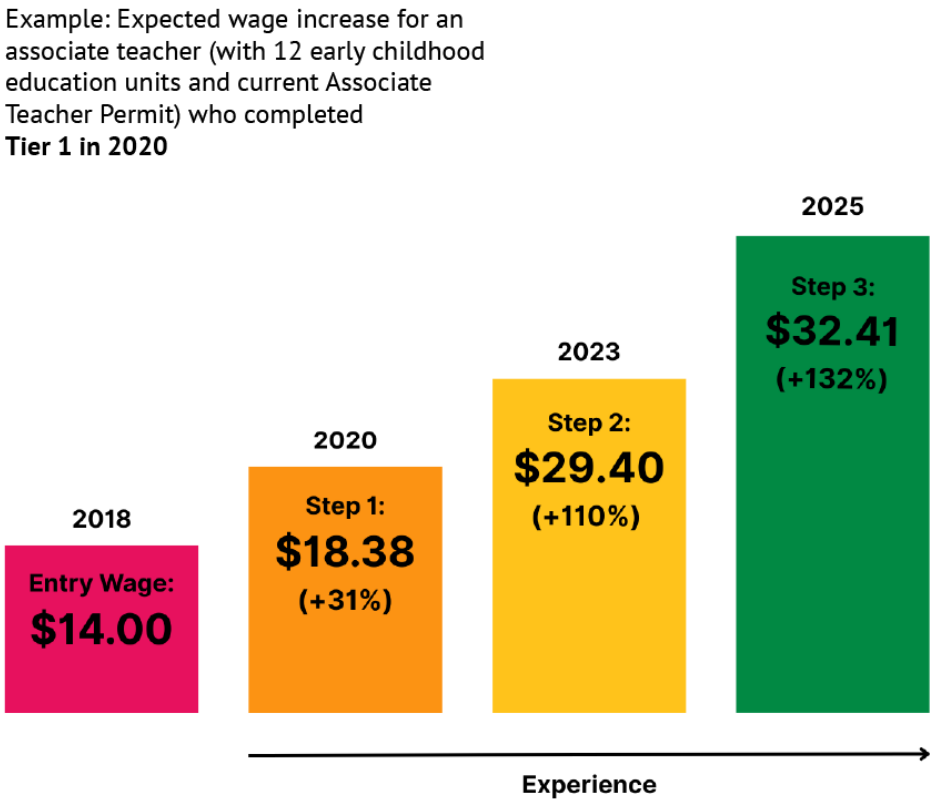
To estimate an apprentice's wages, we utilized salary scales provided by the YMCA of the East Bay. The salary scales offer the hourly wages for educators in any given year based on their qualifications and years of experience. Experience is measured in three steps: Step 1 is the educator's qualification plus zero to two years of experience; Step 2 is their qualification plus three to five years of experience; Step 3 is the educator's qualification plus more than five years of experience.

As an example, an apprentice entered the program in 2018 as an Assistant Teacher at Step 1 with an hourly wage of $14 per hour. This apprentice then completed their Associate Teacher

[7] Because there was no salary scale before 2018, we estimated the entry wage for 2017 and prior years based on 2016 Alameda County Early Care and Education Workforce Study data (Austin, Sakai & Dhamija, 2017) using the lowest average hourly wage for teachers with no degree. For detail see **Appendix C.**

Permit (Tier 1) in 2020 and thus began as an Associate Teacher in Step 1 with an hourly wage of $18.38. In 2023, they received a step wage increase to $29.40. These wage calculations were then averaged with those of the other apprentices who completed only the first tier, resulting in the wage estimates below.

Figure 7. Expected Wage Increases for an Apprentice Who Completed Tier 1 in 2020



Source: Center for the Study of Child Care Employment, University of California, Berkeley

ALT TEXT: Bar chart showing the projected wage increases for an apprentice who completed Tier 1 in 2020. In 2018, when they entered the program, they made $14 per hour. After completing Tier 1 in 2020, they received a 31 percent increase to $18.38 per hour. After three years of experience as an Associate Teacher, they received another salary increase to $29.40 per hour, a 110 percent increase to their entry salary. After two more years of experience as an Associate Teacher, in 2025 they received another raise to $32.41 per hour, a 132 percent increase to their original entry wage.

For these analyses, we only included survey respondents who were at least five years post-completion of their highest apprenticeship (i.e., participants who completed their highest tier in 2018 or 2019) and who reported start and completion dates.

Wages were adjusted for inflation to January 2024. In addition to the process outlined above, wage estimations also incorporated the following assumptions:

- Participants were paid based on Service Employees International Union (SEIU) wage scales provided by the YMCA of the East Bay.
- Participants were assumed to earn SEIU entry-level wage for an Assistant Teacher when they started the apprenticeship. Entry wages for 2015 to 2017, for which we did not have SIEU wage scales, were estimated as shown in **Appendix C.**
- Upon completion, participants were assumed to take on a job role determined by the tier completed:
    - Tier 1 = Associate Teacher (12 early childhood education units with a current Associate Teacher Permit);
    - Tier 2 = Lead Teacher (Associate Degree in Early Childhood Education or a related field); or
    - Tier 3 = Site Supervisor (Bachelor's Degree or higher in Early Childhood Education or a related field).
- A teacher would stay in the same wage scale (i.e., job role), but hourly wage would increase based on the wage step for that wage scale and tenure in the role.

Table 9. Participants' Estimated Hourly Wages and Percentage Wage Increases After Completing Apprenticeship Tiers

	Tier 1 (N=8)	Tier 2 (N=24)	Tier 3 (N=16)
Average hourly entry wage	$17.48	$17.80	$17.69
Step 1: Average hourly wage at completion of tier	$18.66 (+7%)*	$24.91 (+40%)	$28.18 (+59%)
Step 2: Average hourly wage 3 years post-completion**	$23.53 (+35%)	$29.57 (+66%)	$33.40 (+88%)
Step 3: Average hourly wage 5 years post-completion	$31.82 (+82%)	$34.44 (+94%)	$37.04 (+109%)
Living Wages for Alameda County* **			
One adult, no children		$28.55	
One adult, one child		$53.86	
Two adults (one working), one child		$47.02	

Source: Center for the Study of Child Care Employment, University of California, Berkeley
*Percentage wage increases are calculated using entry hourly wage for each tier as the base.
**Our calculation/estimate of hourly wages three years after and five years after completing the highest tier, based on published salary scales.
***Hourly Living Wage based on the MIT Living Wage calculation for Alameda County, data from February 2024. https://livingwage.mit.edu/counties/06001.

These analyses indicate that, on average, participants can expect hourly wage increases upon completion of each tier. **Participants who complete Tier 3 (assumed to be working as a site supervisor) achieve the largest wage increase (59 percent) compared to the base starting wage**. Participants who complete Tier 1 can expect a modest average increase of 35 percent three years after completing their program, while those who complete Tier 2 would see a 66 percent increase in average hourly wages, and those who complete Tier 3 would earn nearly double (an 88 percent increase). **Five years after completion, on average, the hourly wage would nearly double for participants who complete Tier 1 or Tier 2 and more than double for those who complete Tier 3**.

Although early educators in Bay Area center-based programs earn a slightly higher median hourly wage than state median wages for educators,[8] the cost of living in the greater Bay Area is one of the highest in the state (Montoya et al., 2022). Thus, despite wage increases at each tier, participants' earnings overall remain below the living wage for one adult with a child in Alameda County. This deficit underscores the deeply entrenched compensation challenges in early care and education, particularly in this Bay Area county.

Of the apprentices who responded to the survey, slightly more than one half (54 percent) are single, and two thirds (69 percent) have children. The living wage in Alameda County ranges from $28.55 for one adult with no children to $53.86 for one adult with one child. The shaded cells in **Table 9** indicate the points at which an apprentice's hourly wage meets or exceeds the area living wage for one adult with no children. Measure C offers an opportunity to set the wage floor for early educators at a family-sustaining wage.

[8] Regional data was collected in the 2020 California Workforce Study (McLean et al., 2021). Alameda County was grouped with Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Santa Cruz, Solano, and Sonoma Counties. No detailed wage data for Alameda County by job role (assistant, teacher, and director) exist. The 2021 Needs Assessment for Alameda County lists the median wage for all child care workers as $18 per hour (Alameda County ECEPC, 2021).

IV. Recommendations

This evaluation examined how the Early Educator Apprentice Program at the YMCA of the East Bay in Alameda County is rising to meet challenges in the field of early care and education. The apprentices who participated in the evaluation indicated that the program is positively impacting their training and development and improving their personal and professional well-being with relatively little time and financial burden needed to complete the program.

With litigation on Measure C resolved and passage of the Oakland Children's Initiative (First Five Alameda, 2024), Alameda County stands to make significant systemic changes for its ECE community, in particular for the ECE workforce. First 5 Alameda County is working with the ECE field to develop and implement strategies that align with key Measure C priorities:

- Enhancing access to and quality of ECE programming;
- Improving compensation for participating ECE providers;
- Enhancing professional development programs and the eligibility and enrollment system for providers; and
- Improving community spaces for children and families such as parks, libraries, and family resource centers.

A focus on these priorities might support the county in attracting, training, and retaining early educators. The EEAP is a viable investment to achieve these aims. Given the findings presented in this report and the opportunity that Measure C presents, we offer the following recommendations. While we indicate target audiences for each, it remains important for the recommendations to be considered together to ensure that program development and systems-building efforts are coordinated.

Program Development

Design holistic supports for apprentices.

Holistic supports not only help to take the guesswork out of higher education, they also provide students with the scaffolding they need to be able to attend, engage with, and succeed in school. Apprenticeship administrators need to include a wide array of supports in the design of any apprenticeship.

Apprentices reported that all supports provided by the EEAP were instrumental to their success, particularly the financial assistance and child care (69 percent of apprentices indicated they have children). Eliminating barriers to success and promoting equitable access to education were driving forces in designing the EEAP. Bearing in mind the unique

contexts and perspectives of the apprentices and the populations they are recruited from, the EEAP design includes tutoring in-class and on weekends, provision of laptops, technology training, internet access, child care during tutoring sessions, contextualized courses, academic counseling, career counseling, financial aid counseling and support, a cohort model, success coordination, and more.

Early Care & Education Pathways to Success (ECEPTS), an industry intermediary for ECE apprenticeships and the sponsor of the EEAP, encourages the development of apprenticeships that remove barriers to an apprentice's success. In fact, ECEPTS requires certain elements in programs they sponsor. Derived from ECEPTS staff experience and extant literature (see, for example, Dukakis et al., 2007; Kipnis et al., 2012), the ECEPTS apprenticeship models encourage targeted delivery (specifically, a cohort-based learning model), contextualized curriculum, and language supports and coursework in students' home languages. ECEPTS models also offer academic, professional, and personal counseling resources, provide the apprenticeship at no cost to the apprentice, and incorporate supplemental supports such as child care, technology, and transportation. Additionally, ECEPTS models encourage skill-based supports, like in-course tutoring and technology support, along with access-based supports, such as flexible course times and user-friendly platforms.

Guarantee adequate resources for apprentice supports.

Ensure that when program budgets are designed, they are inclusive of holistic supports. To further supplement the support of the program, leverage relationships with community partners.

The importance of investing in a wide array of supports is clearly evident in the completion rates and time to completion demonstrated by EEAP apprentices, along with their accounts of factors contributing to their success. The average annual cost for apprenticeship participation between 2021 and 2024 was $17,022 per apprentice. This sum includes: tuition; supports such as child care, transportation, stipends; and the salaries of the staff providing these supports. While the sum might be higher than that of in-state tuition at an IHE, "traditional" college students don't receive the same amount of support nor do they exhibit the completion rates we observed among EEAP apprentices.

Apprenticeships can often leverage particular funding sources and program innovations that make holistic supports possible. For example, while grants to colleges (like the California Apprenticeship Initiative) might cover tuition, private and philanthropic funding can be braided with it to cover wages and stipends.

In addition to securing funding, apprenticeships can also leverage community-based organizations as a source of support. For example, ACSSA recruits CalWORKs clients to apply for the EEAP. Furthermore, EEAP administrators can contact ACSSA directly regarding an applicant's eligibility for CalWORKs, and therefore the apprenticeship, thus streamlining the recruitment process and reducing an apprentice's bureaucratic burden.

Improve data collection and infrastructure.

Develop and establish the systems and structures to track the progress and outcomes of apprentices. Data plays a critical role in identifying the strengths and needs of the ECE workforce and in developing strategies and interventions to address opportunity gaps. Evaluation studies offer a glimpse of a program at a certain moment in time, but to understand how programs and policies impact stakeholders longitudinally, data infrastructure must be established and maintained (McLean et al., 2024).

The EEAP collects a multitude of data, however the infrastructure supporting the collection, storage, and analyses has gone through several revisions, contributing to inconsistencies and incomplete data. The EEAP recently invested in a data infrastructure "clean-up," which included hiring a data administrator and creating a codebook for their data, among other strategies. In addition to these efforts, we encourage EEAP administrators to collect accurate start and end dates for each of the apprenticeship tiers, along with wage data for the apprentices at each time point in their trajectory.

Data collections efforts should track when apprentices take pauses in their program, the reason for the pause, what the apprentice does during the pause, and what makes it possible for the apprentice to return to the program. The careers of former apprentices should also be followed, tracking whether they remain employed at the YMCA of the East Bay and their affiliated programs, or if they depart, noting whether educators remain in the ECE field or leave the field entirely for other pursuits. These data, along with a collection of demographic data, will allow the EEAP to better track completion rates, time to completion, retention of apprentices in the field, and long-term program impacts on apprentices' personal and economic well-being.

Systems Building

Keep equity at the forefront of the apprenticeship.

Apprenticeship has racist and classist underpinnings (Camardelle, 2023), as does the field of early care and education (Lloyd et.al., 2021). The effects of this history reverberate through the current apprenticeship system (for example, see Camardelle, 2023). These

historical roots must be acknowledged and considered in the design of any apprenticeship, particularly a program addressing the ECE field.

The design of an apprenticeship impacts who participates, how they are able to engage, and the outcomes they experience or perceive. For example, the benefits and services participants receive while enrolled in the program are likely to shape their perspective of the providers of those benefits and services. At the same time, populations that have not historically had equitable access to resources like higher education, the resources necessary to complete coursework (e.g., laptops, textbooks, reliable internet access), and other supports may view the presence of these resources and the program that provides them as *unquestionably positive*. As such, they may have a difficult time scrutinizing those who provide the resources. This reflection is not made to question the validity of the opinions shared by EEAP participants, but rather to further contextualize the discussion about ECE apprenticeship, their design, implementation, and their intended outcomes.

Key informants interviewed emphasized equity as a driver in the development of the EEAP, contributing to the expansion of training opportunities for those supported by CalWORKs and the creation of cohorts so that apprentices—many of whom would be considered "non-traditional" students—can support one another in the often-inequitable context of higher education. While equity drove the creation and implementation of this opportunity, participating partners' definition of equity—and how it continues to infuse the program—was often inferred rather than voiced explicitly.

In order to maintain the central position of equity and to eliminate bias, we recommend that EEAP partners continue to discuss and agree upon a shared definition of equity in early care and education and in educational attainment; how this definition of equity is operationalized in program outcomes; and how each partner can support equity through the apprenticeship they collectively design and implement. Partners can then draw upon these conversations as they design the expansion of the program throughout Alameda County to ensure that equity remains at the forefront.

Blend and braid funding to meet program costs and wages.

Currently there is no single source of funding to cover all programmatic costs. Unlike the private sector with higher profit margins, industry underwriting is not feasible in early care and education. To support ECE apprenticeship implementation, EEAP partners expertly blend and braid a multitude of public, private, and philanthropic funding streams.

Blending and braiding funding requires EEAP administrators to identify and weave together these different funding streams. With braiding, multiple funding sources are combined to

cover the cost of program elements and activities, however the impact of each funding stream must be tracked and reported separately. Multiple sources are also combined when a program blends funds, however funds that are blended do not need to be tracked and reported on separately. EEAP administrators must also collect and compile a multitude of data to satisfy the reporting requirements from funders. When funds are braided, administrators often collect duplicative data, with EEAP administrators reporting the same variable in many ways due to the reporting requirements.

For example, funding from CalWORKs covers all programmatic costs. As one EEAP administrator indicated, this funder pays for:

> *"…everything that an apprentice needs…. It funds our staff that does case management and coordination. It funds contracts through the colleges…. It includes administration, stipends for the apprentice, stipends for the mentor teachers, stipends for center directors. It includes computers, their fingerprints…. It includes books, […] any kind of supplies from backpacks, to pencils, to notebooks. Everything. Hotspot, if they need a hotspot, because they can't do their classes without it."*

While this is not an example of blending, it does illustrate the benefit of a single reporting entity. Blending contracts under one reporting entity would streamline the funding process and alleviate bureaucratic burden.

Champion government, philanthropic, and employer investment to enable ECE apprenticeship expansion.

Investments in the EEAP provide both short- and long-term benefits to ECE employers, families, and the broader community. Providing access to secondary education and training for the ECE workforce benefits ECE employers who need a highly skilled workforce to support the learning and development of children. It may also contribute to a reduction in turnover, given that the majority of EEAP participants (82 percent) reported they intend to stay with their current employer and/or in the ECE field. Having and retaining highly skilled early educators enables parents to go to work, knowing their children are in a safe and nurturing educational environment. Furthermore, development of the ECE workforce is essential to maintaining and growing the broader economy, as it allows parents and educators to participate in the workforce.

Based on their knowledge and experience, ECEPTS and the YMCA of the East Bay can create a detailed budget, identifying the areas where increases in investment are necessary for the apprenticeships at scale. Then sustained investment from government, philanthropy, and employers—such as the ACSSA, workforce development boards, Tipping Point, and

First 5 Alameda County—should be championed so that the benefits detailed in this report might unfold over time.

Leverage the success of this local model to continue progress on ECE working conditions.

The Good Jobs Principles are job standards to ensure security, stability, and prosperity for an employee and their family, which were published by the U.S. Department of Commerce and Department of Labor (n.d.) under the Biden-Harris administration. These principles were the standards for industries supporting apprenticeships, calling upon employers to provide safe and supportive working conditions, professional growth, and a family-sustaining wage. Utilizing the Good Jobs Principles as a lens, the vast majority of current ECE positions would not be considered "good jobs."

Apprentices need to be rewarded for the time, effort, and money they invest in their education so that they and their family might find security, stability, and prosperity. Alameda County is poised to make such an investment. Under Measure C, the monies raised with the tax will be used to improve compensation for ECE providers in the county. In collaboration with the Community Advisory Council and ECE providers in the community, First 5 Alameda County can work to ensure that CalWORKs continues to fully fund the educational experiences of qualifying students in the EEAP and create a new salary scale that raises the base pay for educators completing Tier 1 of the program to be commensurate with at least the median wage in the community or the equivalent of assistants in the public school system, whichever is higher. In this fashion, Measure C will help make jobs in early care and education "good jobs."

V. Areas for Further Research and Consideration

This evaluation is one of only a few studies examining the outcomes for apprentices engaged in ECE Registered Apprenticeships. We encourage researchers in the field to conduct further research on the impact and fidelity of RA models and call on public and private entities to fund this work. The following are areas for further consideration.

Collect and curate detailed program- and apprentice-level data and conduct further analyses of the EEAP's impact, in particular its financial impact. It was outside the scope of this evaluation to perform a forensic analysis of how funds are utilized, calculate the costs of various program components, or conduct a traditional return on investment (ROI). However, understanding the economic infrastructure of an apprenticeship is critical to understanding the program's success. We encourage the EEAP to collect these data and conduct further analyses to better understand the costs and financial impact of the program.

Draw upon and conduct periodic community needs assessments and/or ECE workforce studies to identify areas of strength and challenges in the community that contribute to the design of a successful apprenticeship. For example, administrators at First 5 Alameda County could utilize a community needs assessment to identify the primary languages spoken and design the apprenticeship to offer coursework in those languages.

Support the expansion of learning and professional development opportunities to include other languages, in particular Tier 2 and Tier 3 apprenticeships. Offering apprenticeships in a language other than English will broaden the reach of the program and be further inclusive of the residents of Alameda County.

Finally, **continue the authentic engagement of the ECE workforce and other stakeholders in reflection on and development of all aspects of the program**. By centering the voices of educators and community members in the development of the apprenticeship opportunity and incorporating what they identify as strengths, priorities, values, and needs, the program will reflect the Alameda County ECE community and support it to flourish.

References

Alameda County Early Care and Education Planning Council. (n.d.). *What is the Children's Health and Child Care Initiative for Alameda County (Measure C)?* https://www.aclpc.org/domain/28

Alameda County Early Care and Education Planning Council. (2021). *Alameda County early care and education needs assessment.* Alameda County ECEPC and First 5 Alameda County. https://www.first5alameda.org/wp-content/uploads/2024/11/2021-Alameda-County-ECE-Needs-Assessment_First-5-Alameda-County_2021-1.pdf

Austin, L.J.E., Sakai, L., & Dhamija, D. (2016). *2016 Alameda County Early Care and Education Workforce Study.* Center for the Study of Child Care Employment, University of California, Berkeley. https://cscce.berkeley.edu/wp-content/uploads/publications/Alameda-County-Workforce-Study-2016.pdf

California Department of Public Social Services. (2024). *CalWORKs.* https://dpss.lacounty.gov/en/cash/calworks.html

Camardelle, A. (2023). *Five charts to understand Black registered apprenticeships in the United States.* Joint Center for Political and Economic Studies. https://jointcenter.org/wp-content/uploads/2023/03/Five-Charts-To-Understand-Black-Registered-Apprentices-in-the-United-States.pdf

Center for the Study of Child Care Employment (CSCCE). (2024). *Child care sector jobs: BLS analysis*. Center for the Study of Child Care Employment, University of California, Berkeley. https://cscce.berkeley.edu/publications/brief/child-care-sector-jobs-bls-analysis/

Center on Great Teachers and Leaders (2022). *A funding guide for supporting a registered teacher apprenticeship program with federal and state funds*. American Institute for Research. https://air.org/sites/default/files/2023-10/Registered-Teacher-Apprenticeship-Funding-Guide-CEEDR-GTL.pdf

Copeman Petig, A., Chávez, R., & Austin, L.J.E. (2019). *Strengthening the knowledge, skills, and professional identity of early educators: The impact of the California SEIU early educator apprenticeship program*. Center for the Study of Child Care Employment, University of California, Berkeley. https://cscce.berkeley.edu/publications/report/strengthening-the-knowledge-skills-and-professional-identity-of-early-educators/

Copeman Petig, A., & McLean, C. (2019). *Supporting a diverse, qualified early educator workforce: Aligning policy with research and realities.* Center for the Study of Child Care Employment, University of California, Berkeley.

https://cscce.berkeley.edu/blog/supporting-a-diverse-qualified-early-educator-workforce-aligning-policy-with-research-and-realities/

Creswell, J.W., & Plano-Clark, V.L. (2007). *Designing and conducting mixed methods research.* SAGE Publications.

Dowsett, C., Carlson, J., & Epstein, D. (2019). *Spotlight on Pennsylvania's early childhood education apprenticeship program.* Child Trends. https://www.childtrends.org/publications/spotlight-on-pennsylvanias-early-childhood-education-apprenticeship-program

Dukakis, K., Bellm, D., Seer, N., & Lee, Y. (2007). *Chutes or ladders? Creating support services to help early childhood students succeed in higher education*. Center for the Study of Child Care Employment, University of California at Berkeley.

Early Educator Investment Collaborative. (2020). *Early educator preparation landscape.* https://earlyedcollaborative.org/assets/2020/12/EEIC_Report_EarlyEducatorPreparationLandscape_2020.pdf

Hanson, M. (2024). *Average Cost of College by State.* EducationData.org https://educationdata.org/average-cost-of-college-by-state

EDvance. (n.d.). *The EDvance Model.* https://www.edvance.edu/edvance-model

Equal Justice Initiative. (n.d.). *On this day—April 18, 1846: New Jersey orders Black servitude for life.* A history of racial injustice daily calendar. https://calendar.eji.org/racial-injustice/apr/18

First Five Alameda County. (2024). *First Five Alameda Annual Report: 2023-2024.* https://www.first5alameda.org/annual-report-highlights-successes-and-partnerships/

Hanson, A. (2022). *Success beyond completion: How can we best measure student outcomes?.* Strada. https://www.strada.org/reports/success-beyond-completion-how-can-we-best-measure-student-outcomes

Jones Lawrence, B., Sharrock, E., & Parkerson, C. (2021). *Realizing the promise of early educator apprenticeships.* Bank Street College of Education. https://educate.bankstreet.edu/bsec/5/

Kim, Y., Austin, L.J.E., Montoya, E., & Powell, A. (2022). *Education and experience of the California ECE workforce.* Center for the Study of Child Care Employment, University of California, Berkeley. https://cscce.berkeley.edu/education-and-experience-of-the-california-ece-workforce/

Kipnis, F., Whitebook, M., Almaraz, M., Sakai, L., & Austin, L.J.E. (2012). *Learning together: A study of six B.A. completion cohort programs in early care and education. Year 4.* Center for the Study of Child Care Employment, University of California, Berkeley. https://cscce.berkeley.edu/wp-content/uploads/publications/LearningTogetherYear4Report.pdf

Lloyd, C.M., Carlson, J., Barnett, H., Shaw, S., & Logan, D. (2021). *Mary Pauper: A historical exploration of early care and education compensation, policy, and solutions.* Child Trends.

McLean, C., Austin, L.J.E., Whitebook, M., & Olson, K.L. (2021). *Early Childhood Workforce Index – 2020*. Center for the Study of Child Care Employment, University of California, Berkeley. https://cscce.berkeley.edu/workforce-index-2020/report-pdf/

McLean, C., Austin, L.J.E., Powell, A., Jaggi, S., Kim, Y., Knight, J., Muñoz, S., & Schlieber, M. (2024). Early Childhood Workforce Index – 2024. Center for the Study of Child Care Employment, University of California, Berkeley. https://cscce.berkeley.edu/workforce-index-2024/

MIT (n.d.). *Living wage data sourced from the Living Wage Institute* https://livingwage.mit.edu/counties/06001. Accessed on May 6, 2025.

Montoya, E., Austin, L.J.E., Powell, A., Kim, Y., Copeman Petig, A., & Muruvi, W. (2022). *Early educator compensation: Findings from the 2020 California early care and education workforce study.* Center for the Study of Child Care Employment, University of California, Berkeley. https://cscce.berkeley.edu/wp-content/uploads/2022/12/CSCCE-Early-Educator-Compensation-California.pdf

National Center for Education Statistics (NCES). (n.d.). *U.S. Digest of Education Statistics*. https://nces.ed.gov/programs/digest/d23/tables/dt23_326.25.asp

Parton, B., & Prebil, M. (2020). *The road to 500,000 apprentices: Ideas for expanding apprenticeship in California.* New America. https://newamerica.org/education-policy/reports/road-500000-apprentices/

Prepared to Teach. (2022). *Registered apprenticeship programs and teacher residencies: Building shared understandings between workforce development and education.* Bank Street College of Education. https://educate.bankstreet.edu/pt/37/

U.S. Census Bureau. (n.d.). *California*. https://data.census.gov/profile/California?g=040XX00US06#populations-and-people.

U. S. Department of Commerce & Department of Labor. (n.d.). *Good jobs principles.* https://redfworkshop.org/wp-content/uploads/2024/09/DOL-Good-Jobs-Principles.pdf

U.S. Department of Labor. (n.d.). *Data visualization dashboards* [Online Apprenticeship Data Set and Infographic]. https://www.apprenticeship.gov/data-and-statistics

U.S. Department of Labor. (2018). *A quick-start toolkit: Building registered apprenticeship programs.* https://apprenticeship.workforcegps.org/resources/2015/04/20/10/20/A_Quick_Start_Toolkit_Building_Registered_Apprenticeship_Programs

Appendix A: Study Methodology

This is a mixed-methods study, triangulating qualitative and quantitative data using a Multilevel Model Triangulation design (Creswell & Plano Clark, 2007). This design is well suited to research projects where a range of methods are used to collect data from different levels or components within a system. Findings from each level are then merged or converge in an overall interpretation of the findings with regards to participant experience, program implementation, and program impact.

Thus, we engaged participants from different levels of the EEAP program. At the individual level, we collected data from the apprentices, and at the program level, we collected data from EEAP program staff, employers, and IHE faculty and staff. Finally, at the decision-making/system level, we collected data from administrators at the YMCA of the East Bay, First 5 Alameda County, and Tipping Point, as well as from other key informants who contributed to creating and sustaining the EEAP. Data collected from these different levels were then examined within and across groups in order to answer the questions posed.

Research Question	**Survey**	**Individual and Group Interviews**	**Admin Data**	**Program Documentation/ Lit Review**
What is the current research and policy in the field of ECE Apprenticeships?				X
What are the key elements of apprenticeship models? What contributes to their success?		X		X
How is the EEAP administered and funded?		X	X	X
Who has participated/is participating in these programs (demographic characteristics, previous education, and employment experience)? How do experiences vary by participant group (e.g., apprentices in a CalWORKs-funded program in comparison with other apprentices)?	X		X	

What are the institutional and individual partnerships involved in the implementation of the programs, and how do these relationships influence program functioning?		X		X
What challenges did program staff and personnel face in implementing the apprenticeship programs?		X		X
What elements/aspects of ECE apprenticeship programs were most beneficial to participants?	X	X		X
What elements/aspects of the programs do program staff, personnel, and partners perceive as most valuable?		X		X
What challenges or obstacles did/do participants face in participating in the apprenticeship programs?	X	X		
What do participants perceive as a result of their participation in the programs in the following areas: • Their knowledge, skills, practice, and attainment of credentials? • Their commitment to the field of early care and education? • Their commitment to their current place of work? • Their career goals and aspirations?	X	X		

• Their personal, economic, and family well-being?				
What other markers of growth and development do we see over time among apprentices (e.g., grades, attendance, social supports)?	X		X	
In what areas or elements do program personnel, IHE personnel, and partners envision opportunities for development?	X	X		
What contributes to a successful apprenticeship model?	X	X	X	X

Apprentices Administrative Data

Developing our sample began with a request to the YMCA of the East Bay for administrative data and email contact information for all current and past apprenticeship participants. In addition to their contact information, we also requested background data, including but not limited to basic demographic information, along with performance measures such as course attendance and grades. Due to issues with data quality and quantity, we were only able to utilize variables related to apprenticeship enrollment status, tier completion, dates of tier completion, funding source supporting their apprenticeship program, age, and their contact information.

Administrative data included information of 430 past and current participants. Fifteen cases were missing CalWORKs funding information. We used an analytic sample of 415 cases in this report. Among the 415 cases, 198 were current program participants, 169 past participants, and 48 had withdrawn from the program. We categorized the current, past, and withdrawn participants using the "currentenrollstatus" variable in the administrative data. Those marked as "Active" are categorized as "Current Apprentices." Among the remaining cases, those marked as "Inactive (dropped)" that are without tier completion information are categorized as "Withdrawn." The rest are categorized as "Past Apprentices." This last group includes those who are marked as "Completed Program" or "Inactive (in program)" in the "currentenrollstatus" variable. In addition, those who are marked as "Inactive (dropped)" but have tier completion information are categorized under this category.

Apprentices Survey Data

This list provided us with the contact information for 356 apprentices (147 past, 209 current, and 23 participants who had withdrawn from the program; see **Table A-1**). We reached out to these participants asking them to participate in either the current or past participant survey. CSCCE recruited participants via email to complete the online survey using Qualtrics during March and April of 2024. During that time, we sent weekly reminder emails, with two reminder emails coming in the final week. YMCA of the East Bay staff and Success Coordinators also encouraged current and past apprentices to complete the survey.

A total of 162 apprentices participated in the survey (48 past, 114 current, and two participants who had withdrawn from the program; see **Table A-1**). For completing the survey, participants received a $20 gift card to Amazon. Where possible, administrative data was embedded such that apprentices' responses on the survey were matched with administrative data about the apprentices.

Table A-1. Survey Response Rate, By Participation Status

	Invited to Participate	Participated	Response Rate
Current Apprentices	209	114	55%
Past Apprentices	124	46	37%
Withdrawn	23	2	9%
Total	*356*	*162*	*46%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley
Note: Total is adjusted for apprentices who had missing and/or incorrect/incomplete contact information.

Following survey completion, we reached out to all survey respondents to see if they were interested in participating in a group interview. Based on the interest of participants, we conducted three group interviews: 1) five current participants at any of the three apprenticeship programs; 2) three past participants who completed at least one of the apprenticeship programs; and 3) an interview with one CalWORKs participant who participated both currently and in the past. Semi-structured individual and group interviews began with informed consent. Individual interviews lasted between 45 minutes and 1 hour. Group interviews were approximately 1.5 hours. Current and past apprentices

who participated in the group interviews received a $150 Amazon e-gift card incentive for participation.

We also conducted a second survey data collection in May 2024. For the second survey, we emailed current participants from the first survey, asking them to participate in a short survey eliciting their perspective on the program at the end of the school year. Of the 114 current participants invited to participate, 51 completed the survey. We also sent a short survey to participants who had withdrawn from the program to better understand why they did not complete the program and what might encourage them to complete the program in the future. Of the 21 identified participants who withdrew, only two people responded. Participants received a $10 Amazon e-gift card for their participation.

Key Informants and Program Administrators

The research team solicited a list of key informants from partners at the YMCA of the East Bay and First 5 Alameda. The list included directors of programs hosting apprentices, Success Coordinators, and administrative staff from the YMCA of the East Bay, faculty and leadership from institutes of higher education, as well as other individuals and programs who were key in the development of the EEAP, with particular attention to the funding and relational infrastructure of the program.

From this list, CSCCE conducted 12 interviews with partners who were identified by the YMCA of the East Bay and First 5 Alameda County as key informants of the operations and coordination of the EEAP. Informants represented a variety of programs and agencies that provide different sources of support for the EEAP; informants came from the YMCA of the East Bay, First 5 Alameda County, the Alameda County Social Services Agency, institutes of higher education, and philanthropic organizations. Interviewees were asked questions about their organization, how it is involved in the implementation of the EEAP program, what they considered to be challenges and facilitators to program implementation, and their perceptions of apprentices' experiences in the program. Each interview lasted approximately one hour and was conducted remotely during December 2023 and January 2024.

Plan for Analyses

Survey

Survey data collected included questions exploring elements of program impact, such as:

- Changes in teaching skills and practice;
- Changes in and use of child development knowledge;
- Change in levels of economic worries and concerns about well-being;

- Changes in career goals and aspirations;
- Development of 21st-century skills;
- Development/evolution of vocational identity; and
- Supports engaged in order to face their challenges.

Survey data was cleaned, then descriptive analyses were performed. For most measures, we compared past and current apprentices. Where sample size allowed, we compared current apprentices whose program receives CalWORKs funding with those program does (or did) not receive CalWORKs funding.

Group and Individual Interview Data

Group and individual interview data were transcribed and then uploaded into a qualitative analysis software (Dedoose). We took inductive and deductive approaches to our analysis of the qualitative data. Deductively, we developed a coding scheme based on factors or constructs of interest, as noted in the current literature with regards to apprentice experiences, program implementation, and impact, for example "recruitment and enrollment," "funding sources," or "obstacles to participation." In addition to these deductive codes, we developed inductive codes for emerging ideas and themes critical to the participants' experiences, program implementation, and impact. Inductive codes emerge from the data and the experiences of the apprentices.

Interpretation of the interview data was iterative, going through a cyclical process of coding, discussion, and consolidation. After coding the interviews, analyses were completed examining the frequency of codes, as well as how the codes might co-occur with one another. Researchers then returned to the interviews to re-examine the instances in the interviews based on the frequencies (what is occurring most, moderately, and least) in order to draw out themes from the data.

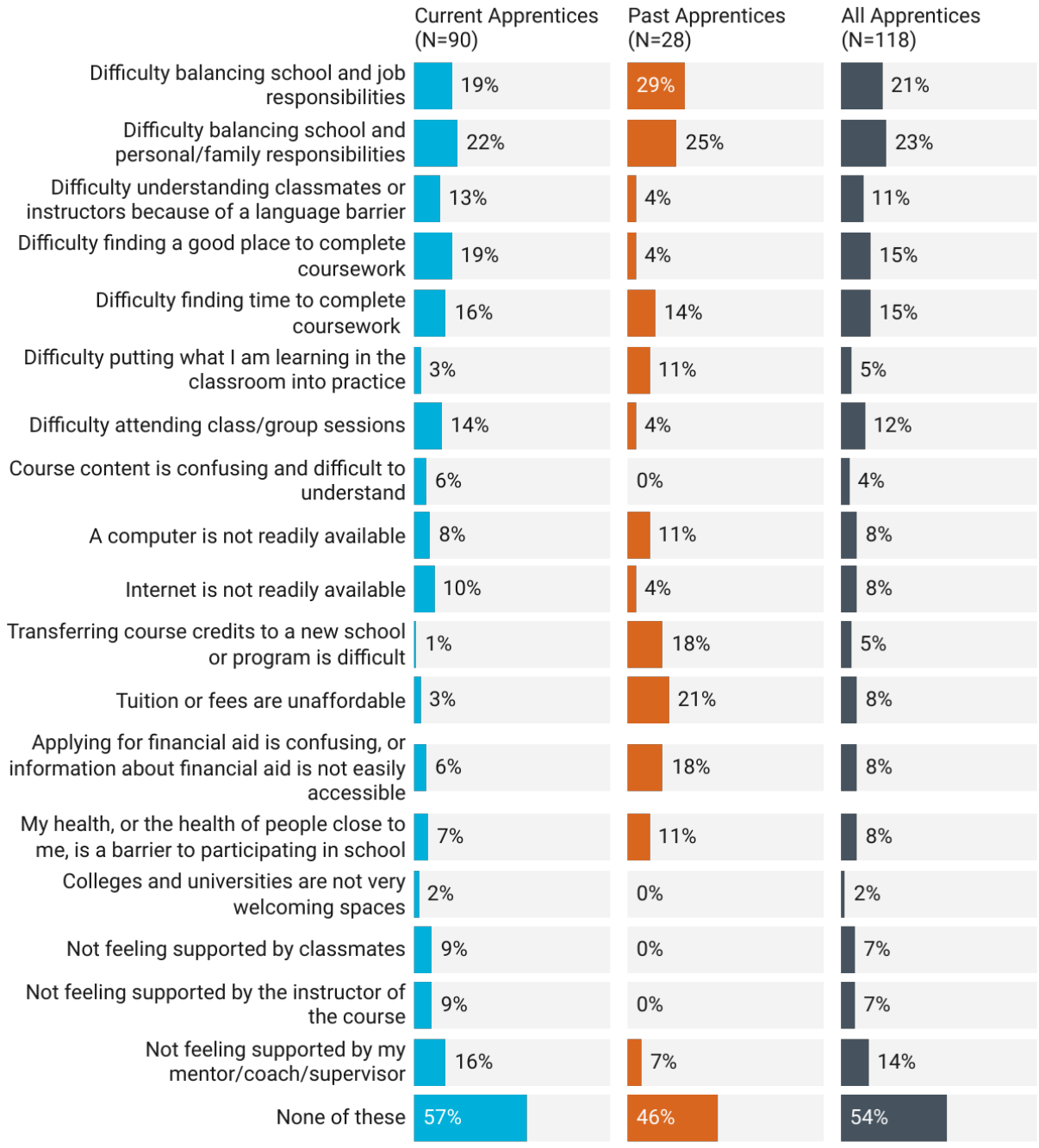
Themes from qualitative analyses were synthesized with the quantitative analyses to develop the findings and recommendations.

Appendix B: Survey Results

Survey participants were asked a series of questions about which challenges, if any, they experienced while participating in the EEAP, including:

- Difficulty balancing school and job responsibilities;
- Difficulty balancing school and personal/family responsibilities;
- Difficulty understanding classmates or instructors because of a language barrier;
- Difficulty finding a good place to complete coursework;
- Difficulty finding time to complete coursework;
- Difficulty putting what I am learning in the classroom into practice;
- Difficulty attending class/group sessions;
- Course content is confusing and difficult to understand;
- A computer is not readily available;
- Internet is not readily available;
- Transferring course credits to a new school or program is difficult;
- Tuition or fees are unaffordable;
- Applying for financial aid is confusing, or information about financial aid is not easily accessible;
- My health (or the health of people close to me) is a barrier to participating in school;
- Colleges and universities are not very welcoming spaces;
- Not feeling supported by classmates;
- Not feeling supported by the instructor of the course;
- Not feeling supported by my mentor/coach/supervisor;
- Other challenges; and
- None of these challenges listed.

Figure B-1. Challenges Experienced, By Apprentice Participation Status



Source: Center for the Study of Child Care Employment, University of California, Berkeley

ALT TEXT: A bar chart showing the challenges experienced by current and past apprentices: 29 percent of past apprentices and 22 percent of current apprentices reported that they experienced difficulty balancing school and personal/family responsibilities; 21 percent of past apprentices reported that tuition or fees were unaffordable; and 54 percent of all apprentices reported they experienced none of the challenges listed.

Teaching Skills

Survey participants were asked a series of questions about how helpful the EEAP has been in increasing their teaching skills related to:

- Teaching children math skills;
- Teaching children science skills;
- Teaching children reading and writing skills;
- Teaching children art and music;
- Teaching children social studies;
- Using play as an approach to learning;
- Supporting and extending children's physical skills; and
- Supporting children's social-emotional development.

Table B-2. Teaching Children Math Skills, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	100	36
Not At All Helpful	3%	11%
	4%	3%
Somewhat Helpful	24%	28%
	15%	17%
Very Helpful	45%	42%
Not Applicable	9%	*
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley
*Data suppressed as n<10

Table B-3. Teaching Children Science Skills, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	96	34
Not At All Helpful	3%	9%
	2%	12%
Somewhat Helpful	32%	21%
	19%	38%
Very Helpful	34%	*
Not Applicable	9%	*
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley
*Data suppressed as n<10

Table B-4. Teaching Children Reading and Writing Skills, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	97	35
Not At All Helpful	*	9%
	4%	11%
Somewhat Helpful	20%	17%
	22%	20%
Very Helpful	46%	43%
Not Applicable	8%	*
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley
*Data suppressed as n<10

Table B-5 Teaching Children Art and Music, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	94	35
Not At All Helpful	1%	6%
	1%	6%
Somewhat Helpful	17%	23%
	20%	20%
Very Helpful	51%	46%
Not Applicable	10%	*
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkely
*Data suppressed as n<10

Table B-6. Teaching Children Social Studies, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	98	35
Not At All Helpful	2%	11%
	3%	3%
Somewhat Helpful	30%	31%
	15%	23%
Very Helpful	40%	31%
Not Applicable	10%	*
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley
*Data suppressed as n<10

Table B-7. Using Play as an Approach to Learning, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	95	35
Not At All Helpful	1%	3%
	-	6%
Somewhat Helpful	20%	26%
	12%	11%
Very Helpful	62%	54%
Not Applicable	5%	-
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley
*Data suppressed as n<10

Table B-8. Supporting and Extending Children's Physical Skills, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	96	35
Not At All Helpful	1%	3%
	1%	6%
Somewhat Helpful	17%	23%
	16%	23%
Very Helpful	58%	46%
Not Applicable	7%	*
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley
*Data suppressed as n<10

Table B-9. Supporting Children's Social-Emotional Development, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	94	35
Not At All Helpful	1%	3%
	*	3%
Somewhat Helpful	20%	29%
	10%	17%
Very Helpful	66%	49%
Not Applicable	3%	*
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley
*Data suppressed as n<10

Classroom Practice Development

Survey participants were asked a series of questions about how helpful the EEAP has been in increasing their classroom practice related to:

- Teaching children who are experiencing poverty;
- Teaching children with challenging behaviors;
- Engaging with children and families who have experienced trauma;
- Supporting the development and learning of children who are dual language learners;
- Integrating curriculum (i.e., teaching in a manner that allows students to make connections across their lessons);
- Implementing strategies inclusive of children of all abilities;
- Observing, assessing, and documenting to inform teaching and learning;
- Managing a classroom;
- Using different teaching strategies (e.g., planning, instructing, facilitating); and
- Engaging families in classroom, program, and/or school activities.

Table B-10. Teaching Children Who Are Experiencing Poverty, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	97	33
Not At All Helpful	2%	6%
	3%	6%
Somewhat Helpful	22%	30%
	19%	24%
Very Helpful	44%	33%
Not Applicable	10%	-
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-11. Teaching Children With Challenging Behaviors, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	94	35
Not At All Helpful	3%	9%
	10%	9%
Somewhat Helpful	15%	34%
	18%	20%
Very Helpful	45%	29%
Not Applicable	10%	-
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-12. Engaging With Children and Families Who Have Experienced Trauma, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	96	35
Not At All Helpful	2%	6%
	2%	6%
Somewhat Helpful	26%	31%
	17%	31%
Very Helpful	43%	26%
Not Applicable	9%	-
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-13. Supporting the Development and Learning of Children Who Are Dual Language Learners, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	93	35
Not At All Helpful	2%	3%
	1%	3%
Somewhat Helpful	23%	34%
	14%	17%
Very Helpful	54%	43%
Not Applicable	7%	-
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-14. Integrating Curriculum, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	94	35
Not At All Helpful	2%	5%
	2%	3%
Somewhat Helpful	21%	29%
	17%	23%
Very Helpful	51%	37%
Not Applicable	6%	3%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-15. Implementing Strategies Inclusive of Children of All Abilities, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	93	35
Not At All Helpful	3%	3%
	1%	3%
Somewhat Helpful	17%	34%
	16%	20%
Very Helpful	56%	37%
Not Applicable	7%	3%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-16. Observing, Assessing, and Documenting to Inform Teaching and Learning, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	96	34
Not At All Helpful	2%	6%
	2%	6%
Somewhat Helpful	15%	24%
	19%	27%
Very Helpful	56%	38%
Not Applicable	7%	-
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-17. Managing a Classroom, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	91	33
Not At All Helpful	1%	6%
	3%	9%
Somewhat Helpful	23%	18%
	15%	27%
Very Helpful	52%	39%
Not Applicable	6%	-
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-18. Using Different Teaching Strategies, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	96	34
Not At All Helpful	1%	6%
	4%	6%
Somewhat Helpful	17%	29%
	22%	15%
Very Helpful	50%	44%
Not Applicable	6%	-
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-19. Engaging Families in Classroom, Program, and/or School Activities, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	96	34
Not At All Helpful	2%	6%
	3%	-
Somewhat Helpful	15%	29%
	25%	27%
Very Helpful	50%	38%
Not Applicable	5%	-
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Career Aspirations

Survey participants were asked a series of questions about how helpful the EEAP has been in clarifying their career aspirations within early care and education. Current apprentices were asked to what extent they agree with the following statements:

- Participating in this program is making me more likely to continue working in the field of early care and education;
- Participating in this program is making me more likely to continue working at my current center (or in my home);
- Participating in this program is clarifying my ECE career goals and aspirations;
- After participating in this program, I plan to seek a role with more responsibility;
- Participating in this program is making me more confident in my role; and
- Participating in this program is making me more satisfied with my role.

Table B-20. Participation in the EEAP Is Making Current Apprentices More Likely to Continue Working in the ECE Field

	Total
N	91
Strongly Disagree	1%
Disagree	-
Neutral	14%
Agree	19%
Strongly Agree	64%
Total	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-21. Participation in the EEAP Is Making Current Apprentices More Likely to Continue at Their Current Place of Employment

	Total
N	90
Strongly Disagree	3%
Disagree	2%
Neutral	20%
Agree	16%
Strongly Agree	59%
Total	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-22. Participation in the EEAP Is Clarifying Current Apprentices' ECE Career Goals and Aspirations

	Total
N	91
Strongly Disagree	1%
Disagree	1%
Neutral	11%
Agree	19%
Strongly Agree	68%
Total	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-23. Current Apprentices Planning to Seek a Role With More Responsibility After Participating in the EEAP

	Total
N	90
Strongly Disagree	1%
Disagree	-
Neutral	21%
Agree	18%
Strongly Agree	59%
Not Applicable	1%
Total	100%

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-24. Participation in the EEAP Is Making Current Apprentices More Confident in Their Role

	Total
N	90
Strongly Disagree	2%
Disagree	-
Neutral	14%
Agree	21%
Strongly Agree	62%
Not Applicable	1%
Total	100%

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-25. Participation in the EEAP Is Making Current Apprentices More Satisfied With Their Role

	Total
N	90
Strongly Disagree	2%
Disagree	1%
Neutral	14%
Agree	23%
Strongly Agree	59%
Total	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Past apprentices were asked what extent they agree with a similar set of questions:

- After participating in this program, I continued working at my current center (or in my home);
- Participating in this program helped clarify my ECE career goals and aspirations;
- After participating in this program, I sought out a role with more responsibility;
- After participating in this program, I am more confident in my role; and
- After participating in this program, I am more satisfied with my role.

Table B-26. Past Apprentices Continued Working at Their Current Place of Employment After Participating in the EEAP

	Total
N	33
Strongly Disagree	15%
Disagree	6%
Neutral	9%
Agree	35%
Strongly Agree	29%
Not Applicable	6%
Total	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-27. Participation in the EEAP Clarified Past Apprentices' ECE Career Goals and Aspirations

	Total
N	31
Strongly Disagree	3%
Disagree	3%
Neutral	19%
Agree	34%
Strongly Agree	38%
Not Applicable	3%
Total	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-28. Past Apprentices Sought a Role With More Responsibility After Participating in the EEAP

	Total
N	31
Strongly Disagree	6%
Disagree	6%
Neutral	16%
Agree	25%
Strongly Agree	44%
Not Applicable	3%
Total	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-29. Participating in the EEAP Made Past Apprentices More Confident in Their ECE Role

	Total
N	31
Strongly Disagree	3%
Disagree	3%
Neutral	21%
Agree	24%
Strongly Agree	47%
Not Applicable	3%
Total	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-30. Participating in the EEAP Made Past Apprentices More Satisfied With Their ECE Role

	Total
N	31
Strongly Disagree	6%
Disagree	9%
Neutral	16%
Agree	38%
Strongly Agree	28%
Not Applicable	3%
Total	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Well-Being

Survey participants were asked a series of questions regarding their personal well-being and the well-being of their family. They were also asked about improvements to their life in general. Specifically, current apprentices were asked to what extent they agree with the following statements:

- After participating in this program, I believe my salary will improve;
- After participating in this program, I believe my family's general well-being will improve;
- After participating in this program, I believe I will have more time to spend with my family; and
- After participating in this program, I believe my family will be more financially secure.

Table B-31. Current Apprentices Believe That Participation in the EEAP Will Improve Their Salary

	Total
N	91
Strongly Disagree	4%
Disagree	2%
Neutral	19%
Agree	23%
Strongly Agree	52%
Total	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-32. Current Apprentices Believe That Participation in the EEAP Will Improve Their Family's Well-Being

	Total
N	90
Strongly Disagree	1%
Disagree	1%
Neutral	17%
Agree	26%
Strongly Agree	52%
Not Applicable	3%
Total	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-33. Current Apprentices Believe That After Participating in the EEAP, They Will Have More Time to Spend With Their Family

	Total
N	91
Strongly Disagree	3%
Disagree	5%
Neutral	24%
Agree	20%
Strongly Agree	44%
Not Applicable	3%
Total	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-34. Current Apprentices Believe That After Participating in the EEAP, Their Family Will be More Financially Secure

	Total
N	90
Strongly Disagree	3%
Disagree	-
Neutral	20%
Agree	22%
Strongly Agree	52%
Not Applicable	2%
Total	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Past apprentices were asked a similar set of well-being questions. Specifically, to what extent they agree with the following statements:

- After participating in this program, I believe my salary improved;
- After participating in this program, I believe my family's general well-being has improved;
- After participating in this program, I have had more time to spend with my family; and
- After participating in this program, I believe my family is more financially secure.

Table B-35. Past Apprentices Believe That Their Salary Improved After Participating in the EEAP

	Total
N	31
Strongly Disagree	6%
Disagree	3%
Neutral	25%
Agree	25%
Strongly Agree	34%
Not Applicable	6%
Total	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-36. Past Apprentices Believe That Their Family's Well-Being Improved After Participating in the EEAP

	Total
N	31
Strongly Disagree	3%
Disagree	3%
Neutral	38%
Agree	22%
Strongly Agree	28%
Not Applicable	6%
Total	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-37. Past Apprentices Believe That They Have Had More Time to Spend With Their Family After Participating in the EEAP

	Total
N	30
Strongly Disagree	10%
Disagree	6%
Neutral	35%
Agree	13%
Strongly Agree	26%
Not Applicable	10%
Total	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-38. Past Apprentices Believe That Their Family Is More Financially Secure After Participating in the EEAP

	Total
N	31
Strongly Disagree	6%
Disagree	-
Neutral	34%
Agree	38%
Strongly Agree	13%
Not Applicable	9%
Total	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Future Plans

Survey participants were asked a series of questions regarding their future plans. Specifically, apprentices were asked where they saw themselves working in three years.

Table B-39. Future Plans of Apprentices, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	86	32
Current program	55%	32%
Another center	5%	3%
Family child care	6%	6%
Public school teacher	6%	15%
Supporting children/ families, but not teaching	10%	12%
Further education	11%	18%
Job outside of ECE field	-	3%
Other	7%	12%
Total	100%	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Employment Status

Table B-40. Employment Status of Apprentices, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	86	32
Employed full-time	63%	71%
Employed part-time	16%	5%
Employed occasionally	2%	5%
Not employed, looking for work	12%	12%
Not employed, not looking for work	2%	2%
Other	5%	5%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-41. Current Job Role of Apprentices, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	86	32
Substitute Teacher	2%	12%
Teacher Aide/Assistant	29%	6%
Associate Teacher	29%	21%
Teacher	8%	12%
Lead Teacher	9%	12%
Family Child Care Assistant	1%	3%
Other	22%	35%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Career Identity

Survey participants were asked a series of questions about career identity. Specifically, they were asked how strongly they agreed with the following statements:

- It is clear to me what I want to do for a living, and I have the right abilities to do it well;
- I have a clear sense of my career interests;
- I have a strong sense of who I am related to the world of work;
- I have no problem deciding what I want to do for a living;
- I have a firm sense of what type of work I would like to do for a living; and
- I have made a firm decision regarding what I want to do for a living.

Table B-42. Apprentice Clarity on What They Want to Do For a Living and Having the Right Abilities to Do It Well, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	90	29
Strongly Disagree	1%	0%
Disagree	0%	0%
Neutral	22%	21%
Agree	32%	31%
Strongly Agree	44%	48%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-43. Apprentice Clarity on Career Interests, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	89	28
Strongly Disagree	0%	0%
Disagree	0%	0%
Neutral	19%	18%
Agree	36%	39%
Strongly Agree	45%	43%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-44. Apprentices Have a Strong Sense of Who They Are Related to the World of Work, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	90	28
Strongly Disagree	0%	0%
Disagree	1%	0%
Neutral	23%	18%
Agree	37%	43%
Strongly Agree	39%	39%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-45. Apprentices Have No Problem Deciding What They Want to Do For a Living, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	89	28
Strongly Disagree	0%	4%
Disagree	4%	11%
Neutral	21%	21%
Agree	36%	29%
Strongly Agree	38%	36%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-46. Apprentices Have a Firm Sense of What Type of Work They Would Like to Do For a Living, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	90	28
Strongly Disagree	0%	0%
Disagree	0%	0%
Neutral	22%	29%
Agree	34%	36%
Strongly Agree	43%	36%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-47. Apprentices Made a Firm Decision Regarding What They Want to Do For a Living, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	89	28
Strongly Disagree	1%	0%
Disagree	2%	0%
Neutral	24%	43%
Agree	31%	32%
Strongly Agree	42%	25%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Self-Efficacy

Survey participants were asked a series of questions related to self-efficacy. Specifically, these questions evaluated their level of confidence through the following statements:

- I can handle whatever comes my way;
- I can manage to solve difficult problems if I try hard enough;
- I can solve most problems if I try hard enough;
- Thanks to my talents and skills, I know how to handle unexpected situations;
- If I am in trouble, I can think of a solution;
- When I have a problem I can find several ways to solve it;
- I am confident that I could deal efficiently with unexpected events; and
- I stay calm when facing difficulties because I can handle them.

Table B-48. Apprentices Can Handle Whatever Comes Their Way, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	91	29
Not at all confident	1%	0%
A little confident	4%	0%
Somewhat confident	22%	17%
Quite confident	36%	62%
Very confident	36%	21%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-49. Apprentices Can Manage to Solve Difficult Problems If They Try Hard Enough, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	90	28
Not at all confident	2%	0%
A little confident	3%	4%
Somewhat confident	14%	14%
Quite confident	38%	43%
Very confident	42%	39%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-50. Apprentices Can Solve Most Problems If They Try Hard Enough, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	91	28
Not at all confident	2%	0%
A little confident	2%	7%
Somewhat confident	19%	18%
Quite confident	36%	32%
Very confident	41%	43%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-51. Apprentices Know How to Handle Unexpected Situations Thanks to Their Talents and Skills, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	90	28
Not at all confident	2%	0%
A little confident	7%	11%
Somewhat confident	16%	11%
Quite confident	39%	46%
Very confident	37%	32%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-52. Apprentices Can Think of a Solution If They Are in Trouble, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	89	28
Not at all confident	1%	4%
A little confident	4%	7%
Somewhat confident	21%	18%
Quite confident	34%	43%
Very confident	39%	29%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-53. Apprentices Can Find Several Ways to Solve a Problem, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	88	28
Not at all confident	2%	0%
A little confident	5%	4%
Somewhat confident	20%	21%
Quite confident	36%	43%
Very confident	36%	32%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-54. Apprentices Could Deal Efficiently With Unexpected Events, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	89	28
Not at all confident	3%	0%
A little confident	4%	7%
Somewhat confident	21%	25%
Quite confident	38%	43%
Very confident	33%	25%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-55. Apprentices Stay Calm When Facing Difficulties Because They Can Handle Them, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	88	28
Not at all confident	2%	0%
A little confident	5%	7%
Somewhat confident	22%	21%
Quite confident	38%	43%
Very confident	34%	29%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Perceived Social Support

Survey participants were asked a series of questions regarding their perceptions of social support. Specifically, they were asked to rate how often the following statements occurred in the past month:

- I feel that there people I can talk to if I am upset;
- I have someone I trust to talk with about my problems;
- I have someone I trust to talk with about my feelings;
- I have someone to talk with when I have a bad day;
- I have someone who will listen to me when I need to talk; and
- I have someone to turn to for suggestions about how to deal with a problem.

Table B-56. Apprentices Feel There Are People They Can Talk to If They Are Upset, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	89	29
Never	2%	7%
Rarely	7%	0%
Sometimes	26%	24%
Usually	19%	21%
Always	46%	48%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-57. Apprentices Have Someone They Trust to Talk With About Their Problems, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	89	29
Never	0%	4%
Rarely	11%	7%
Sometimes	25%	18%
Usually	16%	21%
Always	48%	50%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-58. Apprentices Have Someone They Trust to Talk With About Their Feelings, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	88	28
Never	0%	7%
Rarely	10%	4%
Sometimes	25%	18%
Usually	18%	25%
Always	47%	46%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-59. Apprentices Have Someone to Talk With When They Have a Bad Day, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	89	28
Never	0%	7%
Rarely	12%	4%
Sometimes	24%	18%
Usually	16%	25%
Always	48%	46%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-60. Apprentices Have Someone Who Will Listen to Them When They Need to Talk, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	88	28
Never	0%	4%
Rarely	10%	11%
Sometimes	22%	18%
Usually	18%	21%
Always	50%	46%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-61. Apprentices Have Someone to Turn to For Suggestions About How to Deal With a Problem, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	88	28
Never	3%	7%
Rarely	9%	4%
Sometimes	24%	21%
Usually	15%	25%
Always	49%	43%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Career Control

Survey participants were asked a series of questions related to control over their career path. Specifically, they were ask to what extent they agreed with the following statements:

- I can make clear career plans;
- I know what I want to have achieved in my career a year from now;
- I can create a layout for what I want to achieve in my career; and
- I am able to set goals for myself that I want to achieve in my career.

Table B-62. Apprentices Can Make Clear Career Plans, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	90	29
Strongly disagree	0%	0%
Disagree	1%	0%
Neutral	34%	31%
Agree	32%	34%
Strongly agree	32%	34%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-63. Apprentices Know What They Want to Have Achieved in Their Career a Year From Now, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	89	28
Strongly disagree	1%	0%
Disagree	1%	0%
Neutral	27%	32%
Agree	35%	39%
Strongly agree	36%	29%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-64. Apprentices Can Create a Layout For What They Want to Achieve in Their Career, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	90	28
Strongly disagree	0%	0%
Disagree	4%	0%
Neutral	31%	39%
Agree	29%	29%
Strongly agree	36%	32%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-65. Apprentices Are Able to Set Goals For Themselves That They Want to Achieve In Their Career, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	89	28
Strongly disagree	0%	0%
Disagree	1%	0%
Neutral	19%	36%
Agree	37%	32%
Strongly agree	43%	32%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Public Assistance

Table B-66. Apprentice Utilization of Public Assistance, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	101	36
Medi-Cal	47%	39%
Medi-Cal Access Program	5%	8%
Healthy Families/CHIP	1%	0%
CalFresh	23%	17%
WIC	19%	28%
CalWORKs	8%	6%
Child care assistance	7%	8%
SSI/SSDI	10%	3%
Housing assistance	7%	8%
LIHEAP	6%	14%
Other	2%	0%
None	31%	39%
Don't know	6%	3%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

EEAP Tier Status and Completion

Table B-67. Starting Tier of Apprentice, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	198	169
1	98%	91%
2	2%	8%
3	0%	5%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-68. Current Tier of Apprentice, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	198	167
1	54%	31%
2	40%	49%
3	7%	20%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley
*For past participants, the measure indicates highest tier completed

Table B-69. Tier 1 Completion, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	198	169
No	54%	3%
Yes	40%	97%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-70. Tier 2 Completion, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	198	169
No	80%	34%
Yes	20%	66%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-71. Tier 3 Completion, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	198	169
No	100%	80%
Yes	0%	20%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-72. Number of Tiers Completed, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	198	169
0	45%	3%
1	34%	31%
2	20%	47%
3	0%	20%
Total	*100%*	*100%*

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Table B-73. Time in Days to Complete Tier 1, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	99	153
Median	370	366
Mean	428	437

Source: Center for the Study of Child Care Employment, University of California, Berkeley
Note: The measure was calculated as the difference between the program start date and the Tier 1 completion date.

Table B-74. Time in Days to Complete Tier 2, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	38	104
Median	730	730
Mean	700	633

Source: Center for the Study of Child Care Employment, University of California, Berkeley
Note: The measure was calculated as the difference between the Tier 1 completion date and Tier 2 completion date. Tier 2 start date was not available from the administrative data.

Table B-75. Time in Days to Complete Tier 3

	Past Apprentices
	Total
N	32
Median	326
Mean	454

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Note: The measure was calculated as the difference between the Tier 2 completion date and Tier 3 completion date. Tier 3 start date was not available from the administrative data.

Table B-76. Time in Days to Complete All Tiers, By Participation Status

	Current Apprentices	Past Apprentices
	Total	**Total**
N	104	163
Median	380	1095
Mean	663	917

Source: Center for the Study of Child Care Employment, University of California, Berkeley

Note: The measure was calculated as the difference between program start date and the date of completion of the highest completed by participants.

Appendix C: Financial Analysis

Entry wages for 2018-2024 are based on the SEIU salary scales. There was no salary scale for 2017 and prior. Entry wages for 2015-2017 were estimated based on the 2016 Alameda County Early Care and Education Workforce Study data, using the lowest average hourly wage for teachers with no degree (Austin et al., 2016).

Table C-1. Entry Wages for 2015 to 2024

Year	SEIU Entry Wage
2015*	$13.59
2016*	$13.59
2017*	$13.59
2018	$14.00
2019	$16.30
2020	$16.84
2021	$17.35
2022	$18.12
2023	$19.13
2024	$20.09

Source: Center for the Study of Child Care Employment, University of California, Berkeley

* Entry wage estimates for 2015-2017 are based on 2016 Alameda County ECE Workforce Study data, using the lowest average hourly wage for teachers with no degree (Austin et al., 2016).